

# Abstracts of the 9th International Academic Medical Congress of Maranhão (VIII COIMAMA) 2024

## 01. DENGUE IN THE LAST 5 YEARS: AN ANALYSIS OF MARANHÃO IN THE BRAZILIAN EPIDEMIOLOGICAL OVERVIEW

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**INTRODUCTION:** Dengue is one of the most common arboviruses in the country, characterized by being an acute, systemic, dynamic, debilitating and self-limited febrile disease, which can progress seriously and even lead to death. This study aims to understand the epidemiological profile of the disease over the last five years, comparing the state of Maranhão with Brazil. **METHODS:** Cross-sectional observational study, whose data were obtained from consultations in the Hospital Information System (SIH/SUS), on the Datasus platform. The variables analyzed were "sex", "race/color" and "age group", in the years 2019 to 2023. During the sample period, 186,401 hospitalizations for dengue were recorded in Brazil. **RESULTS:** Analyzing the epidemiological profile of these hospitalizations, there were a greater number of cases in the mixed-race population (43%), females (52%), aged 20 to 29 (12%). On the other hand, Maranhão, in the five years analyzed, recorded 5,189 hospitalizations and, similarly to the national trend, with a higher incidence in the mixed-race population (57%), females (51%), in the young adult age group from 20 to 29 years old (15%). When analyzing each year, in the country, there was a 46.7% reduction in the number of hospitalizations for dengue in 2020 and 2021, when compared to 2019, coinciding with the Covid-19 pandemic period. On the other hand, from 2021 to 2022, the absolute number of hospitalizations tripled, when there were 42 thousand cases, followed by 44 thousand in 2023. Regarding Maranhão, in 2019, the highest number of hospitalizations was recorded in the period analyzed, with 2,005 cases. Then, in a similar way to the national context, there was a drop in hospitalizations in 2020 and 2021 (607 and 263, respectively) and, subsequently, a peak in hospitalizations, when this number increased fivefold, reaching 1320 cases in 2022 and 987 in 2023. **CONCLUSION:** The study demonstrated a higher incidence of hospitalizations for dengue in people aged 20 to 29 years, females and mixed race, both in Brazil and Maranhão. When a temporal analysis was carried out, a descending pattern of hospitalizations was observed in 2021 and 2022 (coinciding with the epidemiological scenario of a pandemic caused by the SARS-CoV-2 virus), followed by an increase in subsequent years (2022 and 2023). These data highlight the need to understand the effect of the Covid-19 pandemic on changes in the epidemiological pattern of endemic diseases in Brazil and Maranhão, such as dengue, to develop strategic actions to combat these diseases.

## 02. THE EFFICIENCY OF MAGNESIUM SULFATE IN PREVENTING ECLAMPSIA: AN INTEGRATIVE REVIEW

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**INTRODUCTION:** Eclampsia is a serious complication of preeclampsia, characterized by seizures in pregnant women with preeclampsia. Magnesium sulfate (MgSO<sub>4</sub>) is recognized as the therapy of choice to prevent and treat these seizures. It acts to reduce the excitability of the central nervous system and inhibits the release of acetylcholine in the synapse, in addition to causing a decrease in blood pressure and improving placental perfusion. The recognition of MgSO<sub>4</sub> as a treatment represented a milestone in obstetrics, significantly reducing maternal mortality rates related to eclampsia. Therefore, the objective of the study is to: Evaluate the efficiency of using magnesium sulfate in preventing hypertensive emergencies during pregnancy. **METHODS:** This is an integrative review carried out by selecting studies, clinical trials and literature reviews that demonstrate the relationship between the effectiveness of magnesium sulfate and eclampsia. Selected 6 electronic articles published in the last 5 years, which followed the databases: Scielo, PubMed, Lilacs. Health science descriptors were used: Pregnancy; Preeclampsia; Eclampsia; magnesium sulfate. **RESULTS:** The use of MgSO<sub>4</sub> proved to be effective in different administration and intervention regimes, with a reduction in the mortality rate, the risk of eclampsia and premature displacement of the placenta. Evidently, all regimens achieve therapeutic serum magnesium levels and are more effective than other anticonvulsants such as benzodiazepines and phenytoin. Furthermore, it was analyzed that the average systolic, diastolic and mean blood pressures decreased and resistance was reduced in the uterine, umbilical and fetal middle cerebral arteries. The levels of endothelial dysfunction mediators and electrolytes in pre-eclamptic women showed reduced levels of adrenomedullin, soluble forms of intercellular adhesion molecule-1, and sodium, and increased levels of magnesium and peptide related to the calcitonin gene, but not there was a significant effect on potassium. Therefore, early administration is appropriate and essential. **CONCLUSION:** MgSO<sub>4</sub> represents a significant advance in the prevention and treatment of eclampsia, promoting effective control of tonic-clonic seizures and reducing both maternal and fetal complications. Early and appropriate administration plays a crucial role in the management of severe pre-eclampsia, contributing to better outcomes.

**03. THE E-LEARNING STRATEGY IN MEDICAL EDUCATION: AN INTEGRATIVE LITERATURE REVIEW**

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**INTRODUCTION:** The advent of digital technology has brought innovations to the way learning is approached in the medical field, revealing new virtual pedagogical strategies for healthcare education. E-learning is a means of disseminating and acquiring knowledge through electronic platforms. Distance education using this method has produced mixed results, primarily due to differences in content quality and delivery methods. Therefore, this study aims to explore the e-learning strategy in medical education. **METHODS:** This is an integrative review study conducted based on the PRISMA protocol. The descriptors "medical education" and "e-learning" were used along with the boolean operator "AND" in the PUBMED and MEDLINE databases. Primary studies published in the last 5 years, without language restrictions, focusing on the e-learning strategy in medical education were selected. Exclusion criteria were studies that did not focus on e-learning or did not include medical or paramedic students as the sample. **RESULTS:** A total of 38 articles were found, and after exclusions, 10 studies were selected for this review. The e-learning tools used in these studies included: gamification, interactive learning, online workshops/modules, and digital clinical cases. As for the results, 4 articles found, through tests and questionnaires, improved performance or content retention in the e-learning group compared to traditional education; the other 6 showed good results with the digital strategy but did not find statistically significant differences. Additionally, 4 studies reported higher engagement, enthusiasm, and satisfaction in the e-learning groups compared to traditional ones. Furthermore, 4 articles mentioned the beneficial association of e-learning with simulations or practical training. Finally, 1 article negatively noted the competitiveness caused by gamification. **CONCLUSION:** E-learning strategies have proven to be promising, showing positive educational outcomes, improved performance, and enhanced student engagement and satisfaction. Combining these strategies with practical methodologies may amplify these results. This underscores the importance of continued research to better understand the factors that influence the effectiveness of e-learning. Improving these strategies can foster more efficient and satisfying learning experiences, ultimately leading to better preparation of future healthcare professionals.

**04. THE IMPORTANCE OF EDUCATION IN LIBRAS AND ASSISTANT TECHNOLOGIES FOR HEALTHCARE PROFESSIONALS**

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**INTRODUCTION:** Communication can be defined as the action or effect of communicating, transmitting or receiving ideas and knowledge. This ability is crucial for human socialization, optimizing interaction when the sender and receiver share the same language, ensuring clarity in the flow of the message. In this sense, both training in Brazilian Sign Language (LIBRAS), in health courses, and the application of assistive technologies (AT) in the hospital environment would contribute to meeting the demands of the deaf population, who often face communicative isolation. Thus, this study aims to discuss the need to develop knowledge of LIBRAS among academics in the health field and the importance of tools that facilitate the care of deaf patients, when communication is not being effective. **METHODS:** A literature review was carried out, using the main databases such as Scielo, Medline and Bireme. Using the following standardized descriptors: "Libras", "Health", "Prejudice" and "Assistive technology". Articles published in the last 10 years were included in the analysis, following the inclusion and exclusion criteria that addressed the topic. **RESULTS:** In Brazil, 9.7 million people face some level of hearing impairment, which corresponds to around 5.1% population of the country, this scenario demonstrates the need for effective communication between the health professional and the deaf person. Several authors report that the doctor-patient approach should, therefore, minimize the barriers faced by deaf patients, starting with the training of health professionals in LIBRAS, the incorporation of AT, such as educational videos, and the support of interpreters. These ATs aimed at people with disabilities aim to provide them with autonomy, independence, quality of life and social inclusion. With these tools, healthcare teams' understanding of patient demands can create bonds, identify health needs and build an individualized therapeutic plan. **CONCLUSION:** Often, hearing impaired people do not seek health services due to the difficulty in communicating with professionals in the field, in addition to the perception of prejudice on the part of the health team and other users during communication. Therefore, it is necessary for academics in the health area to seek to specialize in LIBRAS, to assist this population demand with methods that reduce these barriers.

**06. THE PRESENCE OF INFLAMMATORY MARKERS ASSOCIATED WITH THE RISK OF PSYCHOSIS: LITERARY REVIEW**

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**INTRODUCTION:** Psychosis is a mental disorder and is related to several medical and mental conditions. Patients present positive clinical symptoms such as hallucinations, delusions, disorganized behavior, catatonia and social isolation. Its pathophysiology is complex and is associated with inflammatory and structural changes. This study aims to investigate the presence of biomarkers that can predict psychosis. **METHODS:** This is a systematic review of the literature with an indirect approach. Articles were collected from the SciELO, Lilacs, and Pubmed databases, using the descriptors "psychosis" and "inflammatory mediators". Thus, the following inclusion criteria were adopted: publication date from 2013 to 2024, language in Portuguese and English, and with a complete study. In the end, 5 articles were used and each one was analyzed and interpreted. **RESULTS:** Some studies have analyzed the blood of patients with a first psychotic episode and observed an increase in the number of neutrophil granulocytes, which were proportionally related to the severity of positive clinical symptoms, also reporting elevated monocyte and C-reactive protein counts, which suggests that the elevation of innate immune cells is a marker of psychosis, and may indicate that the presence of such cells is a transient inflammatory response during the onset of acute psychosis. The H-Treg hypothesis of psychosis has also been created, in which the immunological loss mediated by Treg lymphocytes was observed as a predictor of a higher risk of psychosis, since hypofunctional Tregs fail to maintain the balance between microglia and astrocytes. Some recent reports relate dopamine dysregulation to the manifestation of psychosis, in which the striatal dopamine synthesis capacity is elevated in people at high risk of psychosis, which also suggests that intervention of the dopaminergic axis may be predictive of subsequent onset of psychosis. **CONCLUSION:** The psychopathological classification of psychosis, through the observation of positive symptoms, can also be aided by the presence of markers, considering that this condition can provoke a response encompassing the endocrine and immune systems.

**07. THE RELATIONSHIP OF THE P53 PROTEIN IN AUTISM-LIKE BEHAVIOR AND MEMORY**

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**INTRODUCTION:** Autism is a neurodevelopmental disorder characterized by deficits in social communication and restricted, repetitive patterns of behavior. The P53 protein, responsible for cell cycle regulation and tumor suppression, has also emerged as a possible modulator of behavior and memory, especially in neurodegenerative contexts and neurodevelopmental disorders. Thus, this work aims to investigate and review the current literature to understand the role of the P53 protein in behavior and memory, especially in relation to autism-like symptoms. **METHODS:** This study is a systematic literature review. Articles were selected through searches on the "PubMed", "Google Scholar" and "NeuroscienceNews" platforms using the descriptors "P53 protein", "autism", "memory", "neurodevelopmental disorders", taking into account those that had already been experimentally tested in the laboratory with evidence. The inclusion criteria were articles published in the last 5 years, written in English and/or Portuguese. Articles that exceeded the publication date, duplicates and inappropriate articles were excluded. **RESULTS:** Reduced levels of P53 in the hippocampus were found to result in repetitive behaviors, decreased sociability, and impaired learning, which are neurobiological dysfunctions observed in autism spectrum disorders. Furthermore, p53 levels were also observed to be elevated during periods of intense communication between hippocampal neurons, which was associated with positive learning outcomes. Therefore, it has a crucial role in modulating synaptic plasticity, regulating gene expression, and responding to oxidative stress. **CONCLUSION:** Therefore, it is clear that there is a direct link between p53 protein and autism-like behaviors in mice, since studies suggest that regulation of p53 expression plays an important role in neural development, modulation of social behavior, repetitive behaviors, and hippocampus-dependent learning. However, the lack of long-term, randomized, multicenter studies in humans still poses a challenge to fully elucidate the complex interaction between p53 and the molecular pathways associated with autism, as well as its potential therapeutic target.

**09. THE USE OF COMPLEMENTARY TESTS TO HELP DIAGNOSE AND DETECT ENDOMETRIOSIS**

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**INTRODUCTION:** Endometriosis is characterized by the ectopic growth of endometrial tissue outside the uterine cavity, often presenting a variety of signs and symptoms common to other disorders, making clinical diagnosis challenging. As a result, complementary diagnostic tests are essential to confirm the diagnostic hypothesis with greater accuracy. With this in mind, this study aims to analyze the contributions of complementary tests in the diagnosis and detection of endometriosis. **METHODS:** This is an integrative review based on the PRISMA protocol. The descriptors used in the search were “endometriosis”, “exam”, “diagnostic”, “diagnosis” and “findings” across the Scielo, Pubmed and Lilacs databases, for articles published in the last 5 years, without language restrictions. Studies without open access, reviews, case reports, duplicates and those not addressing the role of complementary exams in the context of endometriosis were excluded. **RESULTS:** A total of 151 articles were found, of which 7 met the inclusion and exclusion criteria and were included in this review. The studies show that the gold standard for diagnosing endometriosis is videolaparoscopy (VL). However, transrectal ultrasound (TRUS), transvaginal ultrasound (TVUS), and magnetic resonance imaging (MRI) are more suitable for assessing endometrial deposits in the rectum or distal sigmoid. TVUS, being non-invasive and widely accessible, was highlighted for its contribution to detection, with sensitivity rates ranging from 50% to 100% depending on the anatomical site. One study demonstrated a prediction of 76% for laparoscopic findings of deep infiltrating endometriosis. MRI was found to be equivalent to VL in 87.6% of cases for detecting endometriosis, showing good agreement between MRI and VL according to the Kappa index. Additionally, the sensitivity of 3D white-light images in VL was significantly better than conventional 2D images; the absence of ultrasound findings does not definitively rule out the disease; and the presence of a suggestive lesion is highly predictive of endometriosis. **CONCLUSION:** Among the complementary exams for diagnosing endometriosis, VL stands out as the gold standard, while TVUS and MRI can also be utilized. Furthermore, TVUS and transrectal ultrasound, as well as MRI, are more appropriate for assessing certain extrauterine endometrial deposits. Therefore, complementary exams should be further explored to promote the detection of endometriosis and contribute to the early treatment of this condition.

**10. THERAPEUTIC APPROACH TO POLYCYSTIC OVARIAN SYNDROME IN ADOLESCENTS**

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**INTRODUCTION:** Polycystic Ovary Syndrome (PCOS) is a disorder originating from the endocrine system, with a pathophysiology that is not fully understood, encompassing genetic and environmental factors. The syndrome is defined by chronic anovulation and hyperandrogenism, affecting women of reproductive age, with an estimated prevalence of 5% to 15%. Due to the diverse clinical picture, PCOS treatment is dynamic, characteristic and depends on the demands of each woman, based on the clinical manifestations of the various organs and systems affected. In relation to adolescents, treatment is closely associated with their main clinical presentations, so that the use of combined oral contraceptives continues to be the most common form of treatment. The use of this therapy is aided by lifestyle changes that promote healthy habits, such as healthy eating and physical exercise, with the aim of losing weight. Therefore, this study aims to analyze the types of therapies available for the treatment of PCOS in adolescents. **METHODS:** A systematic literature review was carried out covering the years from January 2020 to June 2024, in the PubMed, Scielo and Lilacs databases, using the following descriptors: treatment, Polycystic Ovary Syndrome and adolescent. Thirty articles were selected for reading the title, and duplicate articles in the journals and without a direct relation to the research topic were excluded. **RESULTS:** According to the literature, current therapy is symptomatic in nature. Thus, the combination of contraceptives and Myo-inositol is a valid option for the treatment of PCOS in adolescents. It was also found that targeted treatment can reach adipose tissue and restore the metabolic profile of patients with PCOS. In addition, adherence to a healthy lifestyle, with a balanced diet and physical exercise, are actions that help with ovulatory restoration and fertility protection. Finally, it was observed that the treatment of hyperandrogenism is of great importance through the control of hirsutism, which is achieved by reducing the production of endogenous androgens and through non-hormonal techniques, such as cosmetic depilatories. **CONCLUSION:** Therefore, it is clear that polycystic ovary syndrome is a disease with a multifactorial and poorly understood pathophysiology that affects women of reproductive age. Thus, the treatment of this disease is specific to the clinical manifestations of each patient. The treatment of choice for adolescents is symptomatic.

**12. VASORELAXANT ACTION OF *Fridericia platyphylla* ON RAT AORTIC RINGS**

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**INTRODUCTION:** Pharmacological therapy for cardiovascular diseases is linked to significant side effects. There is therefore interest in finding more therapeutic options with greater tolerance of these effects. Relevant alternatives are bioprospecting studies with plant species. This study aims to elucidate the mechanism of relaxant action of the Hydroethanolic Extract of *Fridericia platyphylla* (HEFP) in isolated rat aortic rings. **METHODS:** Male, normotensive, adult *Rattus norvegicus* rats of the Wistar strain were used. Three centimeters of the thoracic aorta were isolated and the viability of the contractility of aortic rings with or without endothelium was tested. After this, to study the vasorelaxation of HEFP, an arterial pre-contraction induced by 0.03mM phenylephrine (PHE), a full alpha-adrenergic agonist, was carried out, followed by the addition of the extract and cumulative concentration-response curves were obtained for HEFP at concentrations of 0.01, 0.1, 0.5, 1.0 and 2.5 mg/mL, for arteries with and without endothelium. In addition, to assess the vasorelaxant action via potassium channels, the artery preparations were again pre-contracted by PHE, in the absence or presence of 1mM tetraethylammonium (TEA), a non-selective potassium channel blocker. Cumulative concentration-response curves were then obtained for HEFP at the same concentrations as before. The protocols expressed are approved by the Ethics Committee for the Use of Animals, under number 23115.019856/2023-61. **RESULTS:** The evaluation of the arterial response to HEFP with and without endothelium showed that vasorelaxation was endothelium-independent and concentration-dependent, with 100% relaxation at 2.5 mg/ml. As for the vasodilator effect of HEFP induced by PHE with and without TEA, it was also observed to be concentration-dependent, showing 100% relaxation at 2.5 mg/ml, and there were no significant differences when comparing the two curves. Thus, it can be inferred that HEFP does not have a vasodilator action through a mechanism of action via potassium channel blockade. **CONCLUSION:** The present study contributes to inferring the biological potential of *Fridericia platyphylla* on the cardiovascular system, showing that HEFP has an endothelium-independent vasorelaxant action in a concentration-dependent manner, and that vascular relaxation does not occur by blocking potassium channels. Further studies are needed to elucidate the mechanisms of vasorelaxation.

**13. ACCIDENTS INVOLVING POISONOUS ANIMALS IN MARANHÃO: AN ANALYSIS FOR PUBLIC HEALTH**

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**INTRODUCTION:** Accidents involving poisonous animals pose a significant challenge for public health in Brazil, a country with vast biodiversity encompassing a wide range of species. The epidemiological analysis of these accidents is crucial for guiding the prioritization of necessary measures and resources to address this Brazilian reality. In this context, this study aims to outline the epidemiological profile of accidents involving poisonous animals in the state of Maranhão. **METHODS:** This is a retrospective and quantitative epidemiological study utilizing data provided by the Department of Informatics of the Unified Health System (DATASUS). The studied population includes cases of accidents involving poisonous animals in Maranhão from 2019 to 2023. The analyzed variables include the number of cases, year of treatment, health macroregion, sex, color/race, age group, and type of accident. As these are publicly accessible data, it was not necessary to submit the study to an Ethics and Research Committee. **RESULTS:** During the studied period, 41.647 accidents involving poisonous animals were reported in Maranhão. The year 2022 recorded the highest number of cases, with 5.568 reports (13,37%). Males were more affected, totaling 27.199 cases (65,31%), while females accounted for 14.447 cases (34,69%). The age group most affected was 20 to 39 years, with 14.393 cases (34,56%), followed by the 40 to 59 age group with 10.895 cases (26,17%). The majority of cases occurred among mixed-race individuals, totaling 31.921 records (76,65%), followed by whites (7,60%) and blacks (7,49%). Snake bites, due to the state's location and vegetation, were the most frequent, with 18.912 cases (45,42%). Second, scorpion stings were reported in 15.911 cases (38,21%), followed by spider bites with 2.217 notifications (5,33%). **CONCLUSION:** This study identified the predominant epidemiological profile of accidents involving poisonous animals in Maranhão, highlighting a higher prevalence among males, especially mixed-race individuals, and in the age group of 20 to 39 years. Snake bites were the most common occurrences, followed by scorpions and spiders. These findings underscore the need for preventive strategies, such as educational programs, to mitigate the incidence of these accidents in the region.



**15. AGENESIS OF THE INFERIOR VENA CAVA AND DEEP VEIN THROMBOSIS: A LITERATURE REVIEW**

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**INTRODUCTION:** Agenesis of the inferior vena cava (IVC) is a rare congenital anomaly characterized by the absence of the vessel. Its most common cause is dysgenesis during embryogenesis, but it may also be related to intrauterine or perinatal thrombosis, and it may or may not be associated with other congenital malformations. This malformation has recently been identified as a significant risk factor for the development and recurrence of deep vein thrombosis (DVT) of the lower limbs, especially in young individuals. The objective of this study is to analyze the relationship between inferior vena cava malformation and cases of deep vein thrombosis. **METHODS:** This is an integrative literature review conducted in July 2024 through scientific articles collected from the electronic databases PubMed and SciELO, using the descriptors "agenesis of the inferior vena cava," "deep vein thrombosis," and "cardiovascular abnormalities". **RESULTS:** The development of the venous system during embryogenesis is a complex process in which a process of growth, regression, and anastomosis of three pairs of veins (posterior cardinal, subcardinal, and supracardinal) forms the inferior vena cava. If the originally paired structures do not unite between the sixth and eighth weeks of gestation, malformations such as IVC agenesis may occur. Frequently, the diagnosis of venous malformation is incidental, occurring during abdominal surgeries or radiological procedures in which the patient does not present symptoms; in these cases, collateral circulation develops from the lumbar, azygos, and hemiazygos systems, compensating for the function of the malformed IVC. However, if the collateral venous network fails, the slow flow in the lower limbs and pelvis leads to venous stasis and a greater propensity for DVT (especially in the iliac and femoral veins), with a high recurrence rate in these patients. **CONCLUSION:** It is concluded that congenital anomalies of the IVC are risk factors for the development of deep vein thrombosis, especially in the lower limbs, as inadequate venous return contributes to venous stasis. Regarding treatment, surgical intervention is rarely indicated, with full anticoagulation recommended as the ideal treatment.

**16. GLP-1 AGONISTS AND THEIR BENEFITS IN INDIVIDUALS WITH CARDIOVASCULAR DISORDERS**

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**INTRODUCTION:** The GLP-1 (glucagon-like peptide 1) receptor agonists are therapeutic agents indicated for the treatment of type 2 diabetes mellitus (DM2), and its main action is to produce insulin-like effects, thus regulating blood glucose levels. Recent studies have indicated these drugs as relevant in cardiovascular (CV) health. Therefore, this study analyzed cardiovascular outcomes of GLP-1 receptor agonists. **METHODS:** This study is a systematic review of literature to analyze the benefits of GLP-1 agonists in patients with cardiovascular disorders. The search was performed in PubMed, Scielo and Google academic databases. The articles were selected by the language, english and portuguese, published from 2016 to 2023. The exclusion criteria included articles in other languages and published before 2016. In the search, 15 articles were found, 3 of which met the inclusion criteria by having representative samples, analysis methodology and focused on the cardiovascular outcomes related to GLP-1 agonist use. **RESULTS:** Studies of GLP-1 analogues have shown positive CV effects with variations between the different types. Liraglutide and exenatide reduce systolic blood pressure (SBP) by approximately 6.20 mmHg. Liraglutide promotes a reduction in triglycerides by 28.34 to 26.57 mg/dL, accompanied by lower low-density lipoprotein (LDL-c) among patients. Liraglutide and empagliflozin in association showed efficacy in the treatment of patients with DM2 and high CV risk, with empagliflozin being more beneficial in relation to mortality from cardiovascular causes in patients with body mass index (BMI) < 30 > 50 years and BMI > 30 kg/m<sup>2</sup> or glomerular filtration rate (GFR) < 60 mL/min/1.73m<sup>2</sup>. **CONCLUSION:** Therefore, it is deduced that the use of GLP-1 receptor agonists has significant cardiovascular effects and could be an interesting treatment for patients with cardiovascular disease, given their effects in reducing the rates of major cardiovascular events, as well as significant effects in the treatment of patients with type 2 diabetes mellitus and obesity.

**18. BREASTFEEDING AS A PROTECTIVE FACTOR FOR BREAST CANCER: AN INTEGRATIVE REVIEW**

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**INTRODUCTION:** Breast cancer is the most prevalent cancer among women in Brazil, representing a serious public health concern due to its high incidence and mortality rates. The search for prevention strategies is essential to reduce morbidity and mortality from this disease. Scientific evidence points to breastfeeding as a protective factor against breast cancer. By promoting hormonal and cellular changes in the breasts, lactation reduces the risk of developing cancer cells. Thus, the objective of the study is to: analyze the reduction in estrogen levels during breastfeeding and its protective factor against breast cancer. **METHODS:** This study used Integrative Literature Review to gather and summarize scientific knowledge about the relationship between breastfeeding and breast cancer. The guiding question was: what is the relationship between breastfeeding and breast cancer? Six electronic articles published in the last 5 years were selected using the Scielo, PubMed and Lilacs databases. The descriptors used were: Breastfeeding and protective factor, breastfeeding, breast cancer and estrogen. **RESULTS:** According to research, during pregnancy and lactation, the mammary glands undergo maturation, favoring a condition of cellular stability that reduces susceptibility to the development of cancer. This process includes an increase in the number of secretory epithelial cells and the reorganization of breast tissue. After breastfeeding, mammary involution occurs, which is the process of returning the glands to their pre-pregnancy state. This process involves apoptosis (programmed cell death) and the removal of cells with possible DNA damage, which can reduce susceptibility to breast cancer, in addition to strengthening the maternal-fetal bond. **CONCLUSION:** During breastfeeding, there is a significant reduction in estrogen levels due to the suppression of menstrual cycles, which reduces exposure to this hormone associated with the growth of malignant cells in breast tissue. Prolonged lactation is linked to a lower risk of breast cancer, not only due to its nutritional and immunological benefits for the baby, but also due to its protective potential for maternal breast health.

**19. BIBLIOMETRIC ANALYSIS OF THE PROFILE OF BRAZILIAN PUBLICATIONS IN ANESTHESIOLOGY**

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**INTRODUCTION:** The first documented general anesthesia in Brazil occurred in 1847, performed by Dr. Haddock Lobo at the military hospital in Rio de Janeiro. Since then, the scientific development of anesthesiology in Brazil has become essential. However, the real impact of scientific productions authored by Brazilians is still unknown due to the scarcity of studies evaluating this parameter. Therefore, this work aimed to understand the profile of Brazilian authorship publications in the most cited international anesthesiology journal. **METHODS:** For the search of articles, the Scopus database (Elsevier) was utilized. The journal with the highest CiteScore, *Anaesthesia*, with a CiteScore of 21.2, was analyzed. Publications from the period of 2004 to 2024 that had Brazilian authorship or co-authorship were included. Regarding the variables, the total number of publications, the average number of publications in the first and second decades, the most prevalent study design, the most active Brazilian states, and the countries that collaborated most with Brazil were examined. **RESULTS:** A total of 28 studies were identified, of which 7 were published between 2004 and 2013, while the remaining 21 articles are from the period of 2014 to 2024. The prevalent study design was Letters (28%). The most active state was São Paulo, with 39% of the publications. The country that collaborated most with Brazil for scientific production in anesthesiology was Canada, but only 9 articles resulted from international collaboration with Brazil. **CONCLUSION:** The study shows a satisfactory increase in Brazilian publications in anesthesiology from the first to the second decade. However, there is still a need to encourage impactful research in anesthesiology in Brazil, as a reduced number of publications are at the top of the evidence pyramid, in addition to fostering scientific production in a greater diversity of medical institutions in the country, also seeking international collaboration.

**20. COMPARATIVE ANALYSIS OF DIABETES MELLITUS MORTALITY IN THE REGIONS OF BRAZIL IN 2022**

João Guilherme Souza Mota<sup>1</sup>, Igor Taylon Azevedo Lemos<sup>1</sup>, Maria Eduarda Ribeiro Campelo<sup>1</sup>, Nicolle Fernanda Rodrigues Rocha<sup>1</sup>, Bianca de Fátima Assunção Sodré<sup>1</sup>, Kellen de Jesus Farias da Luz<sup>1</sup>, Michelline Joana Tenório Albuquerque Madruga Mesquita<sup>1</sup>.

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**INTRODUCTION:** Diabetes Mellitus (DM) represents a chronic health condition that affects a large number of individuals worldwide and is one of the leading causes of morbidity and mortality. In Brazil, the incidence of diabetes has increased substantially, posing a significant challenge to public health. The aim of this study is to evaluate the mortality caused by Diabetes Mellitus in different regions of Brazil during the year 2022. **METHODS:** This is an observational, descriptive, and quantitative study on the mortality of hospitalizations due to DM in the regions of Brazil in the year 2022. Data were collected from the Mortality Information System (SIM) database, managed by the Department of Informatics of the Unified Health System (DATASUS), and then classified into type 1 diabetes mellitus (DM1) and type 2 diabetes mellitus (DM2). The R software was used for prevalence analysis. **RESULTS:** Based on the data collected, 24,081 deaths from DM were reported in Brazil in 2022, with 66% of cases (n=16,087) related to type 2 diabetes mellitus (DM2) and 31.54% (n=7,596) to type 1 diabetes mellitus (DM1). The highest concentration of deaths from DM2 was in the Northeast, with around 4,980 cases, while the highest concentration of DM1 deaths was in the South, with 2,424 cases. Regarding the absolute distribution of deaths from diabetes mellitus across the macro-regions, the Northeast and the Central-West presented the highest and lowest numbers, representing 29.33% of cases (n=7,063) and 6.15% (n=1,482), respectively. However, in terms of relative distribution, the South had the highest number of occurrences, corresponding to 22.22 cases per 100,000 inhabitants, followed by the Northeast with 12.75 cases, and the Southeast with the lowest prevalence, at 7.7 cases per 100,000 inhabitants. **CONCLUSION:** The study reveals that mortality from DM was more significant in the Northeast region, with particular emphasis on this region for deaths specifically from DM2, while the South region leads the ranking for deaths from DM1. It was also found that the relative distribution of DM mortality differs among the regions studied, with the South standing out for having the highest number of deaths from this chronic disease per 100,000 inhabitants. Therefore, it is concluded that the regional particularities identified should be considered in the implementation of effective health policies for the treatment and control of diabetes in the country.

**21. COMPARATIVE ANALYSIS OF ADMISSIONS FOR CHOLELITHIASIS AND CHOLECYSTITIS: MARANHÃO AND BRAZIL**

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**INTRODUCTION:** Cholelithiasis, the formation of stones resulting from the accumulation of cholesterol precipitated in the gallbladder, is commonly asymptomatic. However, this condition is the main aggravating factor for acute inflammation of the organ, cholecystitis, due to obstruction of the bile pathway. From 2012 to 2021, in the Brazilian Northeast, 8,263 deaths were recorded from both conditions. Despite their severity, these pathologies are often neglected in states with the greatest public health needs, such as Maranhão (northeast). Therefore, the objective of this study is to analyze the epidemiological profile of hospitalizations for cholelithiasis and cholecystitis in Maranhão so as to help in the development of public prevention and treatment policies in the state. **METHODS:** Cross-sectional, descriptive and analytical epidemiological study with a quantitative approach using data obtained from the Ministry of Health/Hospital Morbidity of the SUS - Hospital Admissions System (SIH/SUS), available at the Department of Information and IT of the SUS (DATASUS), at period from 2018 to 2023. National and state data (Maranhão) on cholelithiasis and cholecystitis will be collected, with the aim of carrying out subsequent comparative analysis. **RESULTS:** Considering the data collected in DATASUS, it is observed that between 2018 and 2023, a total of 52,717 hospitalizations for cholelithiasis and cholecystitis were recorded in Maranhão and 1,631,585 throughout Brazil. The highest incidence of these hospitalizations in individuals over 20 years of age in Maranhão compared to the national figure stands out, between 2018 and 2022, with 2023 being the only year in the last 6 years in which the incidence in the state was below the national average. Furthermore, it is noted that females have the highest incidence of this type of hospitalization, regardless of age and year observed. In the state of Maranhão, 78.1% of hospitalizations for cholelithiasis and cholecystitis are female patients, following a national trend of 76.3% incidence in women. **CONCLUSION:** In this sense, it is notable that the incidence of cholelithiasis and cholecystitis in the state of Maranhão remained higher than the national average for most of the period analyzed, making individualized attention necessary for the state. Added to this, the results found in which a higher incidence of cases in females is noted opens the way for new studies that focus on detailed investigation into the determinants of high incidence, as by identifying them, it will be more viable to reduce the hospitalization cases.



**22. COMPARATIVE ANALYSIS: LOWER INVASIVENESS OF APPENDECTOMY IN MARANHÃO BY SUS (2018-2023)**

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**INTRODUCTION:** Acute appendicitis is the most common abdominal surgical emergency in the world, with a lifetime risk of 8.6 percent in men and 6.9 percent in women. For over a century, open appendectomy has been the standard treatment for appendicitis. Contemporary treatment has become more sophisticated and systematic, with laparoscopic appendectomy surpassing open appendectomy in usage. This summary aims to analyze and compare the rates of laparotomies and videolaparoscopies performed between 2018 and 2023 in the state of Maranhão. **METHODS:** This is a quantitative and comparative cross-sectional study using secondary data from the public DATASUS database regarding the surgical management of acute appendicitis, focusing on the type of surgical procedure performed: laparotomy or videolaparoscopy in patients treated by SUS in the state of Maranhão between 2018 and 2023. The study employs absolute rate analysis, without specifications by age group, gender or race. **RESULTS:** Considering the high rates of appendectomies in Maranhão, it can be understood that the low human development index, along with reduced access to the Sistema Único de Saúde (SUS), may worsen the situation for appendicitis, given that delays in appendectomy exceeding 48 hours increase the risk of surgical site infections and other complications. A comparative analysis from 2018 to 2023 reveals that there were 22,351 hospitalizations for appendectomies in the SUS of Maranhão. Of this total, 97.72% were performed via laparotomy and 2.28% via videolaparoscopy. The years when both approaches were closest were 2019 and 2023, with videolaparoscopy accounting for approximately 4.4% and 3.7%, respectively, of surgical hospitalizations for appendectomy. **CONCLUSION:** Patients treated with laparoscopic appendectomy experience fewer wound infections, less pain, and shorter hospital stays, but more intra-abdominal abscesses and longer operation times. This study observes that videolaparoscopic appendectomy is already widely used in other parts of the country and the world. However, in the state of Maranhão, its implementation is slow, likely due to logistical and financial barriers.

**23. ANALYSIS OF THE SPREAD OF CHILDHOOD HANSEN'S DISEASE IN MARANHÃO IN RELATION TO THE NORTHEAST (2018-2023)**

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**INTRODUCTION:** Hansen's disease is a chronic infectious disease that, although curable, remains endemic in various regions of the world. It is caused by *Mycobacterium leprae* (*M. leprae*), with untreated individuals with high bacillary loads serving as the primary source of infection through the elimination of bacilli via the respiratory tract. Although Hansen's disease is rare in childhood, the age group of 10 years old is the most affected due to the long incubation period of the disease, averaging 5 to 7 years. Thus, the above study aims to analyze the epidemiological profile of Hansen's disease in children in Maranhão in relation to the Northeast region. **METHODS:** This is an analytical and descriptive study based on data provided by the Department of Informatics of the Unified Health System (DATASUS) between the years 2018 and 2023. The parameters used included the frequency, the number of vaccines administered, the number of skin lesions, the contacts examined, and those registered. **RESULTS:** In the state of Maranhão, 649 cases (40.7%) of Hansen's disease in children aged 0 to 14 years were recorded over the period of 2018 to 2023. Meanwhile, the Northeast region reported 1597 cases over the same period. Additionally, regarding the number of vaccine doses administered, Maranhão recorded 5004 doses (46.4%), while the Northeast region accounted for 10770 doses. As for skin lesions, children in Maranhão presented 3659 lesions (43.1%), whereas 8492 lesions were reported in the Northeast. Regarding registered contacts, 2555 contacts were recorded in Maranhão, compared to 5994 in the Northeast. Finally, in terms of examined contacts, Maranhão reported 2217 contacts examined, while the Northeast region had a total of 4402 contacts examined. **CONCLUSION:** In summary, Maranhão has a significant influence on the rates of Hansen's disease in children in the Northeast. This information highlights the high incidence of Hansen's disease in children in Maranhão and underscores the need for public health actions focused on early detection.

**24. ANALYSIS OF THE EVOLUTION OF PUBLICATIONS IN ANESTHESIOLOGY IN BRAZIL: A BIBLIOMETRIC STUDY**

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**INTRODUCTION:** Scientific production is an essential reflection of the development and evolution of specific areas of knowledge, especially in medical fields such as anesthesiology. Although it is a vast specialty in terms of the diversity of publications, there is still a scarcity of studies analyzing the evolution of Brazilian participation in published articles. Therefore, this study aims to analyze Brazil's contribution to international scientific literature in the field of pain and anesthesiology. **METHODS:** The Scopus database (Elsevier) was used to search for articles. The search was carried out using the filters for journals in Anesthesiology and Pain Medicine, location in Brazil and limitation to the period between 2004 and 2023. The five journals with the highest CiteScore were analyzed. The variables analyzed were: the average number of publications in the first and second decade, the total number of publications and the definition of the Brazilian states with the greatest contributions. **RESULTS:** During the period outlined, 411 articles were identified that had national participation in 5 high-impact journals in the field of pain and anesthesiology. The analysis showed that in the first decade, between 2004 and 2013, 143 articles were published, totaling an average of 14.3 articles per year. In comparison, in the following decade (2014-2023), 196 articles were published, adding 53 articles to the previous decade's total and totaling an average of 19.6 publications per year. This scenario shows a percentage increase of approximately 37% and demonstrates a positive growth in the study of this area in the country. It is worth noting that the Brazilian state with the highest number of publications was São Paulo, responsible for 153 publications during the years studied, followed by Rio de Janeiro and Rio Grande do Sul, respectively. **CONCLUSION:** It can therefore be concluded that anesthesiology is an area with growing study potential in Brazil. The increase in the quantity and quality of publications shows the continuous development of anesthesiology research in Brazil, contributing to the improvement of clinical practices and the international recognition of Brazilian researchers. Despite this growth, there is a need for continued promotion and encouragement of research in this area, in order to strengthen the generation of knowledge in the medical field and promote greater scientific evidence to improve quality of life.

**25. ANALYSIS OF MORTALITY DUE TO SEPSIS IN MARANHÃO: A DESCRIPTIVE STUDY FROM 2013 TO 2022**

Cácio Laylson Lira Silva<sup>1</sup>, Francisca Erika Ferreira Sousa<sup>1</sup>, Beatriz Cardoso Ferreira<sup>1</sup>, Ana Luiza Espínola Lobo<sup>1</sup>, João Vítor Albuquerque e Silva<sup>1</sup>, Louisa Ferreira Carvalho<sup>1</sup>, Wellyson da Cunha Araujo Firmo<sup>1</sup>.

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**INTRODUCTION:** Sepsis is characterized by the occurrence of a systemic inflammatory response syndrome with organ dysfunction, triggered by an inadequate reaction to infection. It affects people of all ages; however, it is more common in newborns, the elderly, and those with some degree of immune system deficiency. Sepsis is the most common cause of admission to non-coronary intensive care units. In this context, the present study aimed to analyze the epidemiological profile and mortality rates of patients hospitalized for sepsis in the state of Maranhão between 2013 and 2022. **METHODS:** This is a descriptive, cross-sectional analysis with a quantitative approach, using data from the Informatics Department of the Unified Health System. The variables analyzed were: the number of hospitalizations, sex, race, age group, deaths, and mortality rate from 2013 to 2022. Statistical analysis was performed using SPSS 25.0 for Windows software, with Kendall's Tau-b and chi-square tests, adopting a significance level of 5%. **RESULTS:** During the study period, 16,477 patients were hospitalized with sepsis in Maranhão. Of these, 53.56% were male, while 46.44% were female. Regarding the number of deaths, 6,997 were recorded, with 3,662 (52.34%) being male and 3,335 (47.66%) female. Statistical analysis revealed a positive and significant correlation between the number of hospitalizations and deaths ( $\tau = 0.644$ ;  $p = 0.009$ ). The mortality rate of patients hospitalized for sepsis in the state was 42.46%. The most affected age group was 80 years or older (58.32%), followed by 70 to 79 years (52.87%), 60 to 69 years (47.92%), and 50 to 59 years (44.05%). The mixed-race group showed a high mortality rate (43.06%), followed by the white (42.89%) and indigenous (41.54%) groups. **CONCLUSION:** The impact of sepsis on public health is significant, as evidenced by the high mortality rates. Therefore, it is essential to emphasize preventive measures, early diagnosis, and appropriate interventions as fundamental steps for better outcomes.

**26. ANALYSIS OF PERIPHERAL VASCULAR ANGIOPLASTIES PERFORMED IN BRAZIL BETWEEN 2014 AND 2023**

Guilherme Kauan Rocha Dantas<sup>1</sup>, Anna Victoria Marques Sousa Pirajá<sup>2</sup>, Bruno Oliveira de Sousa Lima<sup>2</sup>, Emanuele Camile Cardoso Carvalho<sup>1</sup>, Gabriel de Meneses Mendes<sup>1</sup>, Tiago de Aguiar Lima<sup>1</sup>, Carlos Alberto da Silva Frias Neto<sup>2</sup>.

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**INTRODUCTION:** Peripheral artery disease (PAD) is a common and significant public health issue, affecting over 200 million patients worldwide. Endovascular interventions, including balloon angioplasty and stent placement, have become the primary therapy for PAD. This study aimed to analyze data related to peripheral vascular angioplasties performed in Brazil from 2014 to 2023 to characterize the current landscape of angioplasties in the country. **METHODS:** This is a cross-sectional, descriptive study with a quantitative approach and a retrospective analysis of records obtained between 2014 and 2023. Data collection was conducted using the Hospital Information System of the Unified Health System (SIH-SUS) from the TABNET database. The following procedures were selected: intraluminal angioplasty of peripheral vessels without stent, intraluminal angioplasty of peripheral vessels with uncovered stent, and intraluminal angioplasty of peripheral vessels with covered stent. The variables analyzed included region, mortality rate, and average length of stay. **RESULTS:** The results showed that there were 86,596 peripheral vascular angioplasties during the analyzed period. There was a 50% increase in the number of angioplasties performed in 2023 compared to 2014. Regarding the type of angioplasty, angioplasties without stents represented 63.91% of the total, uncovered stent angioplasties represented 35.39%, and covered stent angioplasties accounted for 0.7%. Most procedures took place in the Southeast region, comprising 39.76% of the total, followed by the South region (31.57%) and Northeast region (23.04%). The mortality rate during the analyzed period was 1.09 per 100 patients for angioplasties without stents, 1.05 per 100 patients for uncovered stent angioplasties, and 2.12 per 100 patients for covered stent angioplasties. In terms of average hospital stay, angioplasties without stents had an average stay of 4.7 days, uncovered stent angioplasties had an average of 4.5 days, and covered stent angioplasties had an average stay of 6.1 days. **CONCLUSION:** There has been an increase in the number of angioplasties performed in Brazil, which may be partly related to greater incorporation of new technologies by health systems. Furthermore, it is observed that angioplasties without the use of stents are currently the most commonly performed in the country.

**27. ANALYSIS OF HOSPITALIZATIONS FOR MALIGNANT INTESTINAL NEOPLASMS IN ADULTS OVER 25 YEARS OF AGE**

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**INTRODUCTION:** Bowel malignant tumors have a hereditary and epigenetic etiology, linked to the activation of oncogenes, such as KRAS (Kirsten rat sarcoma virus), and mutations in oncosuppressor genes, such as TP53, causing high cell proliferation and invasion of adjacent tissues. In this context, the National Cancer Institute (INCA) warns that Brazil is subjected to a risk of approximately 21 cases of intestinal cancer for every 100 thousand Brazilians in the next 3 years, therefore highlighting the need to draw up an adequate epidemiological profile for the creation of policies in Primary Care (PC). **METHODS:** Cross-sectional, descriptive study with a quantitative approach using data obtained from the Ministry of Health/Hospital Morbidity of the Unified Health System - Hospital Admissions System (SIH/SUS), available at the Department of Information and Informatics of the SUS (DATASUS), in the period 2018 to 2023. The following variables were collected: ICD-10 Morbidity List (Group C18, C19, C20 and C21, referring to malignant neoplasia of the colon; rectosigmoid junction; rectum; and anus and anal canal, respectively), macroregions, age group (Brazilians aged 25 and over), sex and deaths. **RESULTS:** 452,771 hospitalizations were reported in the defined period and age group, with malignant colon neoplasm (C18) representing around 61.35% (277,785 cases) of the total, and the other three groups accounting for the remainder. In the annual record of cases, the year 2023 accounts for the highest number of notifications (97,132), followed by 2022 (96,521) and 2021 (87,385). At a regional level, the southeast has 207,018 hospitalizations, followed by the south (145,661) and northeast (63,998). Elderly people aged 60 to 64 were most hospitalized (71,385 cases), followed by those aged 65 to 69 (69,325) and adults aged 55 to 59 (64,182). Males slightly prevailed over females, with ≈50.8% (229,877) and ≈49.2% (222,894) of cases, respectively. Finally, there were 35,975 deaths, with the year 2023 again starring (7,576), and colon cancer accounting for ≈63% (22,664) of deaths, followed by other neoplasms. **CONCLUSION:** Given this, there is a need to understand the genetic and epigenetic factors that contribute to the high number of hospitalizations for these malignant neoplasms in Brazil, focusing on middle-aged and elderly populations, and in regions with possible underreporting, in order to define effective and targeted actions in prevention, early diagnosis and treatment strategies.

**28. ANALYSIS OF HOSPITALIZATIONS FOR PULMONARY THROMBOEMBOLISM IN MARANHÃO: 2013-2023**Ana Letícia Pacheco de Sousa<sup>1</sup>, Marcos Vinicius da Costa Vilela<sup>1</sup>, Fernando Viana de Azevedo Neves<sup>2</sup><sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Resulting from obstruction of one or more branches of the pulmonary artery, it is by definition a type of venous thromboembolism (VTE). In a global scenario, pulmonary thromboembolism (PTE) represents the third place in cases of cardiovascular deaths, in addition to occupying the first position in cases of preventable deaths in hospitalized patients. The objective of the present study is to analyze hospital admissions due to PTE 2013-2023. **METHODS:** This is an ecological, cross-sectional, descriptive study with a quantitative approach. Data collection was carried out through the Information Technology Department of the Unified Health System (DATASUS), based on the variables: number of hospitalizations, sex, color/race, age group, deaths and mortality rate. **RESULTS:** During the years researched, 2013 to 2023, 820 hospitalizations for pulmonary embolism were recorded, with a mortality rate of 20.37%. As for sex 50.97% hospitalizations were male and 49.03% were female, with no prevalence between genders. The mixed ethnicity had a higher proportion of hospitalizations (32.19%). The most affected age group was 50 to 79 years old, comprising 43.17% of cases. The average hospital stay was 9.8 days, totaling 8047 days of hospitalization. The total cost of hospitalizations was 1,612,494.31, with an average value of 1,966.46 per hospitalization. Statistical analysis revealed a positive and significant correlation between the number of hospitalizations and deaths ( $\tau = 0.644$ ;  $p < 0.009$ ). Furthermore, the Chi-square test of independence showed the association between race and age group in the number of hospitalizations ( $p = 0.001$ ). **CONCLUSION:** The results of this study highlight the importance of epidemiological analysis of hospitalizations for PTE in Maranhão, especially among the elderly and mixed-race population. An early and targeted approach to high-risk patients, even in primary care, is essential to reduce future hospitalizations, minimize costs and prevent deaths resulting from PTE.

**29. ANALYSIS OF MATERNAL DEATHS IN THE YEAR 2021 TO 2022 IN MARANHÃO**Ana Clara Rosa Silva dos Santos<sup>1</sup>, Leandro Ortegá Milhomem Freire<sup>1</sup>, Emille Bianca Rocha Campos<sup>1</sup>, Danilo Coutinho Franco<sup>1</sup>, Janaina Maiana Abreu Barbosa<sup>1</sup><sup>1</sup> University Center of Maranhão

**INTRODUCTION:** In 1992, the World Health Organization (WHO), through the 10<sup>th</sup> revision of the International Classification of Diseases (ICD-10), established maternal death as that which occurs during pregnancy or up to 42 days after birth, regardless of the duration or location of the pregnancy. Thus, maternal deaths can be divided into two groups: direct or indirect obstetric deaths. Direct obstetric deaths: arise from obstetric complications during pregnancy, childbirth or the puerperium, caused by interventions, omissions or incorrect treatment. Indirect obstetric deaths occur from diseases that exist prior to pregnancy or that develop during this period and are aggravated by the physiological effect of pregnancy. The occurrence of maternal deaths reflects the lack of access to health services and harmful socioeconomic conditions. This study aims to quantify maternal deaths that occurred between 2021 and 2022 in Maranhão, identifying risk groups. **METHODS:** This is an observational, retrospective and analytical study of the quantification of maternal deaths in Maranhão during the years 2021 and 2022. The sample was obtained through the public consultation platform of the Mortality Information System of the Unified Health System (SIM/TabNet Win 32 3.2), with the following parameters: marital status and race. **RESULTS:** In 2021, 146 maternal deaths were reported, with the municipality of São Luís recording 16 deaths and Imperatriz recording 10 deaths. Compared to 2022, the number of deaths fell, with a total of 76 maternal deaths, with emphasis on the municipality of São Luís with 11 deaths and Caxias with 4 deaths. When we analyze marital status, we see that the highest number of deaths is among single women, as in 2021 they represent a rate of 53% of the number of deaths and in 2022, 35.5% of cases. When analyzing the most predominant color in maternal deaths, it is noted that the brown-skinned population is the predominant one, representing 63% in 2021 and 77% of deaths in 2022. **CONCLUSION:** Maternal mortality is a serious and recurring public health problem in the state of Maranhão, especially for single and mixed-race women. Therefore, it is important to monitor and quantify these rates and consider redirecting health policies, since maternal death is preventable in 92% of cases.

**30. BMI ANALYSIS OF PATIENTS WITH T2DM IN A REFERENCE HOSPITAL IN MARANHÃO**

Wanderson José Cutrim Ferreira<sup>1</sup>, Francisco da Costa Portilho Neto<sup>1</sup>, Jilmario Gomes de Santana Junior<sup>1</sup>, Mateus do Carmo Brige<sup>1</sup>, Lucas Gabriel Sena Garcês<sup>1</sup>, Pedro Gabriel Pereira Campelo<sup>1</sup>, Rossana Santiago de Sousa Azulay<sup>1</sup>

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**INTRODUCTION:** Diabetes mellitus type 2 (T2DM) is a chronic disease characterized by hyperglycemia that results from problems in insulin production and/or resistance to its action. Body Mass Index (BMI) is associated with the development and progression of the disease since overweight and obesity are risk factors and increase morbidity and mortality for T2DM. It is important to emphasize the close relationship between high BMI and chronic inflammation, adipocyte dysfunction and lipotoxicity. The present study aims to analyze the BMI of patients with T2DM from a tertiary hospital in Maranhão. **METHODS:** This is a cross-sectional and quantitative study performed with 321 patients reported with T2DM, treated at the endocrinology reference center in São Luís-MA. Data were collected from medical records in July 2024 to describe and analyze these patients' epidemiological and BMI characteristics. The variables analyzed were sex, age, race, income, weight, and BMI. This study was approved by the Research Ethics Committee of Hospital Universitário da Universidade Federal do Maranhão, with opinion n° 5216774 and Ethical Approval Number: 51633521.2.0000.5086. **RESULTS:** Were analyzed 321 medical records, comprising 21 (6.5%) with normal weight (BMI between 18.5 and 24.9), 127 (39.56%) with overweight (BMI between 25 and 29.9), 96 (29.9%) had grade I obesity (BMI between 30 and 34.9), 49 (15.26%) had grade II obesity (BMI between 35 and 39.9) and 28 (8.72%) had grade III obesity (BMI $\geq$ 40). When considering only the obese patients (BMI $\geq$ 30; n=173), 36.41% (n=63) were between 51 and 60 years old, followed by 32.36% (n=56) who were between 61 and 70 years old; most of them were female (70,52%; n= 122). Regarding the obese individuals, 61.84% (n=107) were of mixed race and the majority were low-income, with 40.69% (n=70) having income between 1.5 and 3 minimum wages, followed by 35.46% (n=61) with less than 1.5 minimum wages. **CONCLUSION:** This study showed a high prevalence of overweight and obesity among patients with T2DM in Maranhão, with more than half having BMI over 30. Most obese individuals were women, of mixed race, aged between 51 and 50, and low-income. These findings highlight the need for public policies focused on obesity and diabetes prevention and treatment, with special attention to the most vulnerable population. Multidisciplinary interventions are essential to improve disease control and patients' quality of life.

**31. ANALYSIS OF THE ECONOMIC IMPACT OF ADMISSIONS FOR POLYTRAUMA IN MARANHÃO IN THE LAST DECENNIUM**

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**INTRODUCTION:** Polytrauma consists of serious injuries to multiple organs or regions of the body, caused by a traumatic event, such as car accidents, falls from heights and physical attacks. In this context, it is noteworthy that between the years 2014 and 2023 there were a total of 18,819 hospitalizations due to trauma in the state of Maranhão. In view of this, it is estimated that 27.9% of the costs of the Surgical Center at the Traumatology and Orthopedics Hospital of Maranhão are allocated to orthopedic materials and prosthetics. Therefore, the present study aims to analyze the economic impacts caused by hospitalizations of polytraumatized patients in the state of Maranhão, between the years 2014 and 2023. **METHODS:** This is a retrospective observational study, with a quantitative and descriptive approach. Data collection was carried out using secondary documentation, registered between 2014 and 2023, in the DATASUS database. The data covers direct spending by the public and private sectors, across the entire administrative area of Maranhão, and has as a parameter the record of hospitalization of patients with polytrauma. As it used only secondary and public data, approval of the study by the Research Ethics Committee was not required. **RESULTS:** A total of 18,819 hospitalizations for polytrauma were found in the state of Maranhão, from 2014 to 2023, recording an average number of hospital admissions of 1,882 patients. During this period, 2014 was the year with the highest number of occurrences, totaling 2,259 hospitalizations (12%), and 2021 was the year with the lowest incidence, with a total of 1,662 hospitalizations (8.83%). Regarding the financial costs for hospitalizations of polytraumatized patients, R\$17,318,698.50 was spent involving the public and private sector, with 2022 being the year with the highest financial cost and 2021 with the lowest cost. The average annual cost for patients suffering from polytrauma was R\$1,500,000.00. Given this, the results indicate a decrease in these expenses in 2019 and 2021. **CONCLUSION:** It is therefore clear that polytrauma has negatively impacted the economy of the state of Maranhão in the last decade, to the extent that the resources invested in managing polytrauma could have been invested in other sectors of the economy, if there had been a reduction in the number of polytraumas. Therefore, there is an indisputable need to implement effective public policies in order to reduce the number of polytraumas and invest public resources to stimulate the state's economic growth.



**32. ANALYSIS OF MORTALITY PROFILE DUE TO MALNUTRITION IN THE ELDERLY IN MARANHÃO FROM 2020 TO 2022**

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**INTRODUCTION:** Malnutrition occurs when an individual does not obtain sufficient nutrients to meet the body's physiological needs, resulting in nutritional deficits that impair bodily homeostasis. This condition can be multifactorial, arising from a nutrient-poor diet, chronic diseases and poor living conditions. Malnutrition can lead to death, particularly in the elderly due to slower metabolism, abandonment by family, and poverty. Therefore, this study aims to analyze the mortality profile due to malnutrition in the elderly in Maranhão (MA) between 2020 and 2022. **METHODS:** This is a cross-sectional, descriptive, retrospective study with a quantitative approach regarding deaths from malnutrition in the elderly in the state of Maranhão. Data were obtained from the Mortality Information System of the Unified Health System (SIM/SUS), provided by the Department of Informatics of the Unified Health System (DATASUS), between 2020 and 2022. The variables considered in the study included age group, region, sex, education level, race/color and marital status. Since public domain data were used, there was no need for submission to the Ethics Committee for Research. **RESULTS:** Between 2020 and 2022, there were 363 recorded deaths due to malnutrition among the elderly in MA. The year with the highest prevalence was 2022, with 133 deaths (36.63%). The most affected group were individuals aged 80 and older, accounting for 247 cases (≈68.04%). The distribution by sex showed a prevalence of 187 deaths (≈51.52%) in males and 176 (≈48.5%) in females; regarding race/color, the highest prevalence was among mixed-race individuals, with 232 deaths (≈63.9%). Deaths due to malnutrition were recorded in 102 municipalities in Maranhão from 2020 to 2022, with Imperatriz and São Mateus reporting the highest number of cases, 60 (≈16.52%) and 50 (≈13.77%), respectively. Furthermore, there was a predominance of mortality among widowed individuals, with 114 cases (≈31.43%). More than half of the recorded deaths in this social group had no formal education, totaling 200 cases (≈55.1%). **CONCLUSION:** The study found a higher prevalence of deaths due to malnutrition in 2022 among elderly males with no formal education, mixed-race, widowed and aged 80 and over. Therefore, it is crucial to implement interventions targeted at the elderly population and to promote policies that improve nutrition, contributing to a reduction in mortality and an enhancement in the quality of life for this demographic.

**33. ANALYSIS OF EPILEPSY CASES IN MARANHÃO FROM 2014 TO 2024**

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<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Epilepsy is a relatively common neurological condition that causes epileptic seizures at variable intervals. According to the World Health Organization (WHO), this disease affects approximately 50 million people worldwide, including about 2% of the Brazilian population. In most cases, the diagnosis is made clinically, and treatment can begin in primary care. However, recurrent and difficult-to-control cases may require hospitalization and/or surgical intervention. This study aimed to analyze the epilepsy situation in the state of Maranhão from 2014 to 2024. **METHODS:** This is a descriptive epidemiological study based on data provided by the Department of Informatics of the Unified Health System (DATASUS). The studied population consists of patients hospitalized in the SUS due to epilepsy in the state of Maranhão, with notifications between January 2014 and May 2024. **RESULTS:** From January 2014 to May 2024, the Maranhão Public Health System recorded a total of 13,136 epilepsy-related hospitalizations. Among the state's macro-regions, the North had the highest number of cases (6,992), followed by the East (3,390) and the South (2,754). Regarding the epidemiological profile, the most affected group was children aged 1 to 4 years, predominantly male and of mixed race. Regarding the nature of the hospitalizations, 961 were elective, while 12,175 were emergencies. Additionally, there were 310 reported deaths, with the highest number in the North region (181), followed by the East (89) and the South (40). The male population had the highest number of deaths (184). **CONCLUSION:** The data analysis revealed a significant number of epilepsy cases in Maranhão, with the North region accounting for the highest concentration. Children, particularly boys of mixed race, were the most affected. Men also accounted for the majority of deaths related to epilepsy. The predominance of emergency care highlights the need for more effective strategies and policies to combat this disease and prevent complications, aiming to improve care and reduce mortality.

**34. ANALYSIS OF MALIGNANT BRAIN NEOPLASM CASES IN MARANHÃO FROM 2014 TO 2024**

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**INTRODUCTION:** Malignant brain tumors are a group of tumors originating from the nerve tissue cells of the brain or brainstem. They are considered rare and account for about 2% of all known cancers. The progression of the pathology varies according to the tumor behavior of the original cell, and treatment depends on a specialized multidisciplinary evaluation capable of integrating a pharmacological, radiotherapeutic, and surgical plan, which differs according to the tumor grade. This study aimed to analyze the situation of malignant brain tumors in the state of Maranhão from 2014 to 2024. **METHODS:** This is a descriptive epidemiological study based on data provided by the Department of Informatics of the Unified Health System (DATASUS). The study population consists of patients hospitalized in the SUS due to malignant brain tumors in the state of Maranhão, reported between January 2014 and May 2024. **RESULTS:** From January 2014 to May 2024, the Public Health System of Maranhão reported a total of 1,478 hospitalizations due to malignant brain tumors. Regarding the macroregions of the state, the North had the highest prevalence of cases (1,063), followed by the South (326) and the East (89). Furthermore, in terms of the epidemiological profile, the most affected population are children aged 5 to 9 years, predominantly male and of mixed race. As for the nature of the treatments, 928 were elective, and 550 were urgent. In relation to the number of deaths, a total of 371 was recorded, with the majority occurring in the North region (241), followed by the South region (115) and the East (15). Among the deaths, the male population accounted for the highest number (192). **CONCLUSION:** In this context, the study presents the trend of the epidemiological profile of patients affected by brain cancer, with a predominance of incidence in the pediatric population and among males. Furthermore, in the macroregional analysis, there was a greater concentration of cases and deaths in the North, the most populous region of the state. Characterizing these aspects of brain cancer is essential for formulating more efficient strategies and policies to combat this neoplasm.

**35. ANALYSIS OF RISK FACTORS FOR CHRONIC DISEASES IN THE BRAZILIAN POPULATION**

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**INTRODUCTION:** Chronic non-communicable diseases (NCDs) cause around 41 million deaths a year, corresponding to 74% global mortality, and mainly affect developing countries, which have difficult access to health care and low incomes. The maintenance of risk factors for NCDs can lead to high premature morbidity and mortality, reduced quality of life and high economic costs for countries. The aim of this study was to analyze economic and geographical inequalities in risk behaviors for NCDs among Brazilian adults. **METHODS:** This is a cross-sectional, retrospective study using data from the 2023 Surveillance of Risk and Protective Factors for Chronic Diseases by Telephone Survey (Vigitel). The study included individuals aged  $\geq 18$  years living in the Brazilian state capitals and the Federal District. Descriptive analyses were carried out on the variables smoking, BMI, regular consumption of ultra-processed foods (soft drinks or artificial juices) and irregular consumption of fresh foods. Inequalities in risk behaviors were assessed considering the macro-region in which Brazilians lived, presenting absolute (n) and relative (%) frequencies. The association between risk factors for CNCDs by region of the country was assessed using Pearson's chi-square test, considering a significance level of 5% ( $p < 0.05$ ). Vigitel was approved by the Ministry of Health's National Commission for Ethics in Research with Human Beings (CAAE: 65610017.1.0000.0008). **RESULTS:** A total of 21,690 individuals were assessed. Low schooling accounted for the vast majority of risk factors, corresponding to 23.88% ( $n=5179$ ) with less than 12 years of schooling. The Northeast showed the worst development, accounting for 33.09% ( $n=1714$   $p < 0.001$ ). Smoking accounted for 8.29% ( $n=1798$ ) and consumption of ultra-processed foods accounted for 10.83% ( $n=2350$ ), and was more prevalent in the North of the country in absolute numbers (25.91%  $n=609$   $p < 0.001$ ). **CONCLUSION:** This study showed demographic, economic and geographical inequalities in risk behaviors, which puts certain groups, such as men, young people and those with low levels of schooling at greater risk of developing CNCDs and, consequently, early mortality. Public policies are needed to reduce the inequalities found, allowing for an improvement in the health indicators of the Brazilian population.

**36. ANALYSIS OF FETAL MORTALITY IN MARANHÃO FROM 2020 TO 2022**

Jouwsen Henrieth Reis Andrade Nascimento<sup>1</sup>; Mariana Guimaraes Rocha<sup>1</sup>; Isabelly Soares Castro<sup>1</sup>; Layane Silva Oliveira<sup>1</sup>; Caroline Assunção Dantas<sup>1</sup>; Ingrid Victoria Borges Alberto<sup>1</sup>; Martha Lourdes Rego Paula<sup>1</sup>.

<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Fetal death is defined as the death of a fetus from the 22nd week of gestation onward and serves as an important indicator for assessing the quality of care provided to pregnant women and childbirth. Thus, the objective of this summary is to understand the epidemiology of Maranhão related to fetal deaths between 2020 and 2022, promoting improvements for maternal-fetal health in the state. **METHODS:** This is a descriptive epidemiological study based on data provided by the Department of Informatics of the Unified Health System (DATASUS). The studied population included fetal deaths from less than 22 weeks to 42 weeks or more, between 2020 and 2022 in the state of Maranhão. **RESULTS:** From 2020 to 2022, Maranhão reported a total of 4,161 fetal deaths. When analyzing these deaths by residence and type of pregnancy, the highest numbers were recorded in the city of São Luís (460) and in singleton pregnancies (3,915). Regarding macroregions, the North had the highest number (2,323), followed by the East (943) and the South (891). Additionally, the epidemiological profile indicated that the age group with the most cases among mothers was 20 to 24 years, with an educational level of 8 to 11 years of schooling. Furthermore, the data on deaths concerning gestational age showed the highest incidence in the intervals of 37 to 41 weeks (1,173), followed by 32 to 36 weeks (1,092) and 28 to 31 weeks (653). **CONCLUSION:** Fetal deaths are important parameters for analyzing the health of pregnant women and for assessing whether quality prenatal care is being provided. According to the data, the state capital, São Luís, had the highest number of fetal deaths during the studied period. Additionally, singleton pregnancies and the gestational period of 37 to 41 weeks were the most reported. Therefore, it is important to develop measures to address this reality, which significantly affects the quality of public health in the state.

**37. EPIDEMIOLOGICAL ANALYSIS OF DENGUE FROM 2014 TO 2023 IN MARANHÃO**

Víctor Alberto De Lima Muniz<sup>1</sup>, Eduardo Carneiro De Oliveira<sup>1</sup>, Larissa Nahilda Rebouças Soares<sup>1</sup>, Joao Guilherme Patriota Carneiro<sup>1</sup>, Anna Victoria De Vasconcelos<sup>1</sup>, Leticia Duarte Silva<sup>1</sup>, Cintia Daniele Machado De Morais<sup>1</sup>.

<sup>1</sup> Faculty of Health Sciences AFYA – Santa Inês

**INTRODUCTION:** Dengue is a disease belonging to the group of arboviruses, which are characterized by being caused by viruses transmitted by arthropods. In Brazil, the dengue vector is the female *Aedes aegypti* mosquito. Dengue viruses (DENV) are scientifically classified within the family Flaviviridae and the genus *Flavivirus*. So far, four serotypes are known: DENV-1, DENV-2, DENV-3, and DENV-4, which have distinct genetic materials (genotypes) and lineages. Thus, the present study aims to outline the epidemiological profile of dengue in Maranhão from 2014 to 2023. **METHODS:** This is a cross-sectional, retrospective, quantitative study based on data collected from the DATASUS platform according to the region with the highest prevalence, viral serotype, age group, sex, and case evolution between 2014 and 2023. Inclusion criteria for this study were dengue cases in Maranhão between 2014 and 2023. Exclusion criteria were dengue cases outside Maranhão and outside the selected period. **RESULTS:** According to the data collected, Maranhão accumulated around 56,068 cases during the study period. The regions with the highest prevalence of cases were the Urban Agglomeration of São Luís (n=13,999), Alto Mearim and Grajaú (n=11,214), and Gerais de Balsas (n=4,264). Regarding the viral serotype, it is observed that the most prevalent is DEN-1 (0.6%); however, most cases are not classified by serotype, representing 99.3% of reported cases. In terms of age group, the predominant ages are from 20 to 39 years, followed by the 40 to 59 age group. Regarding sex, females (n=30,858) are more affected than males (n=25,184). As for the evolution of cases, most evolve to cure (62.6%); however, a significant portion of cases are reported as Ignored/Blank (37.2%). **CONCLUSION:** Based on the collected data, it is observed that the IBGE micro-regions most affected by reported cases are the Urban Agglomeration of São Luís, Alto Mearim and Grajaú, and Gerais de Balsas. Furthermore, the most common serotype among cases is DEN-1, and the adult population is the most prevalent group affected by dengue cases. Additionally, cases are concentrated among females, and most evolve to cure. It is worth noting the risk of underreporting of information and the absence of specific fields in DATASUS, which may affect the accuracy of the study.

**38. EPIDEMIOLOGICAL ANALYSIS OF SCHISTOSOMIASIS IN THE NORTHEAST FROM 2014 TO 2023**

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**INTRODUCTION:** Schistosomiasis is an infectious parasitic disease with high prevalence in Brazil, especially in tropical regions. It is primarily characterized by gastrointestinal involvement. Despite the gradual decrease in the number of cases of this disease, it still persists with high prevalence in the Northeast. In this context, the present study aims to identify the clinical-epidemiological profile of schistosomiasis in the Northeast between 2014 and 2023.

**METHODS:** This is an ecological, cross-sectional, and descriptive study, with analysis conducted about the states of the Brazilian Northeast between 2014 and 2023. The data analyzed are from the Department of Informatics of the Unified Health System (DATASUS), researched in the following variables: states, sex, race, age group, education level, clinical form, and outcome. Since secondary and public domain data were used, approval from the ethics committee was waived. **RESULTS:** During the period in question, 9,805 schistosomiasis cases were reported in the region, with a predominance in Bahia (44.5%) and Pernambuco (21.5%), as well as among men (54.7%), adults (63.4% aged between 20 and 59 years), mixed-race individuals (65.2%), and people with low education levels (59.4% of those reported as illiterate or with incomplete primary education). Regarding the clinical form, out of the 6,003 reported cases where it was specified, there were: 4,022 cases of the intestinal form; 535 of the hepato-intestinal form; 742 of the hepato-splenic form; 256 of the acute form; and 448 of other forms. As for the outcome, of the 5,229 cases reported: 4,229 resulted in a cure; 224 did not result in a cure; 554 died from the disease (10.5% of those reported); and 222 died from other causes. Additionally, a linear regression analysis identified a downward trend in the number of reported cases over the period. **CONCLUSION:** Schistosomiasis shows a downward trend in the number of reported cases in the Northeast, despite occasional variations in some states within the region. Regarding the clinical profile, the most prevalent form was the intestinal one, and the outcome for the majority of cases was recovery, despite the high mortality rate (10.5%). As for the epidemiological profile, the typical schistosomiasis patient is an adult, mixed-race man from Bahia or Pernambuco who did not complete primary education. Additionally, it is important to highlight the low reporting of cases to SINAN compared to the Schistosomiasis Control Program (PCE), which recorded 152,574 positive cases of the disease between 2014 and 2021 (the latest available year).

**39. EPIDEMIOLOGICAL ANALYSIS OF ZIKA VIRUS INFECTION IN THE NORTHEAST REGION BETWEEN 2016 AND 2024**

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**INTRODUCTION:** Zika virus is an arbovirus transmitted primarily by the *Aedes aegypti* mosquito, the same vector that carries dengue and chikungunya. Since its discovery in the Zika forest of Uganda in 1947, the virus remained relatively obscure until significant outbreaks occurred in tropical and subtropical regions in recent decades, culminating in a major epidemic in the Americas in 2015-2016. Zika virus has become a global concern due to its associations with severe neurological complications. This study aims to understand the epidemiological profile of Zika virus infection in the northern and northeastern regions of Brazil between 2016 and 2024. **METHODS:** An epidemiological, cross-sectional, quantitative, retrospective and descriptive study was carried out based on data collection from the Notifiable Diseases Information System (Sinan) from 2016 and 2024 in the northeast region of reported cases of Zika virus in Brazil in DATASUS. **RESULTS:** Between 2016 and 2024, 251,235 cases of Zika virus were reported in the North and Northeast regions of Brazil. Bahia had the highest number of reported cases (85,511), followed by Tocantins (23,056) and Rio Grande do Norte (21,667). The population between 20 and 59 years old was the most affected (61.25%). The highest incidence occurred in 2016 (n=116,185), and decreased in subsequent years, but an increase in cases was observed in the last 3 years. Most cases (64.9%) evolved with cure and there were 593 deaths, mainly due to other causes. The majority of cases were women (64.3% females and 35.6% males). Within this group, 8.41% were pregnant. **CONCLUSION:** The data show that the disease is self-limiting and has low morbidity and mortality, but the literature shows that in pregnant women there is an increased risk of fetal malformations and a direct relationship with the virus infection. The data reveal the persistence and significant impact of the Zika virus. Therefore, the increase in the number of cases in the last 3 years in the North and Northeast regions should be a cause for concern for health professionals. These numbers highlight the importance of continuing prevention, diagnosis and treatment efforts to mitigate the impact of the Zika virus in the region.

**40. EPIDEMIOLOGICAL ANALYSIS OF VISCERAL LEISHMANIASIS IN MARANHÃO BETWEEN 2019 AND 2022**

Emilly Reis de Albuquerque Moraes<sup>1</sup>, Layna Ravenna Batista de Lima<sup>1</sup>, Maria Júlia de Sena Lopes<sup>1</sup>, Klitia de Jesus Saraiva Garrido<sup>1</sup>.

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**INTRODUCTION:** Visceral leishmaniasis is caused by a protozoan of the genus *Leishmania* that parasitizes mammals, including humans. It is transmitted through the blood meal of an insect called the sand fly (*Lutzomyia longipalpis*), popularly known as the straw mosquito, and can cause symptoms such as persistent fever, weight loss, hepatomegaly and splenomegaly, accompanied or not by pancytopenia. Thus, this study aims to outline the epidemiological profile of visceral leishmaniasis in the state of Maranhão. **METHODS:** This is a retrospective epidemiological study with a quantitative approach, in which data provided by the Notifiable Diseases Information System (SINAN) database were used, made available by the platform of the Department of Information Technology of the Unified Health System (DATASUS), referring to the period from 2019 to 2022. The variables analyzed were race, sex, level of education, age group, coexistence with the human immunodeficiency virus (HIV), deaths and mortality rate. **RESULTS:** In the years studied, 1369 cases of visceral leishmaniasis were registered in the state of Maranhão. Of these, 78.6% (n = 1076) were brown people. 68.6% (n = 940) were male; 13.8% (n=189) studied up to the 4th grade of elementary school and 3.8% (n=53) were illiterate; 26.4% (n=361) were in the age group of 20-39 years, followed by 23.2% (n=317) between 1-4 years. Approximately 19.6% (n=268) of HIV co-infections, 121 deaths and a mortality rate of 8.8% were recorded. **CONCLUSION:** In Maranhão, leishmaniasis is endemic and requires the intensification of public health policies aimed at entomological, zoonotic and environmental management control. It was found that it is predominant in males of working age and with low education, which makes it assume characteristics of an occupational disease. Furthermore, a lower mortality rate was observed, which can be attributed to early diagnosis, but new instruments for identifying and treating the disease are still needed before it can be properly controlled.

**41. EPIDEMIOLOGICAL ANALYSIS OF MATERNAL MORTALITY IN MARANHÃO BETWEEN 2018 TO 2022**

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**INTRODUCTION:** Maternal mortality is defined as an irreversible factor that occurs during a woman's reproductive phase and represents a crucial indicator of the quality of health services for pregnant women and women in labor. Therefore, analyzing maternal deaths in Maranhão is essential to identify risk factors and develop efficient interventions aimed at reducing such numbers. With the socioeconomic and structural difficulties faced in the region, this study seeks to epidemiologically examine maternal deaths occurring in the State from 2018 to 2022. **METHODS:** This is a descriptive epidemiological study based on data available at the Department of Informatics of the Unified Health System (DATASUS). The studied population consisted of maternal deaths in the age group of 10 to 59 years, between 2018 and 2022 in the State of Maranhão. **RESULTS:** In Maranhão, from 2018 to 2022, 499 maternal deaths were recorded, with the highest number of notifications in the municipality of São Luís, throughout the period studied. The year with the highest maternal mortality was 2021 (146), while the lowest was 2022 (76). The age group with the highest number of maternal deaths was 30 to 39 years old, with 197 cases (39.5%), followed by 20 to 29 years old, 184 (36.9%), and in both age ranges, the prevalent cause was maternal death due to direct obstetric causes. In relation to race, the largest number, with a record of 352 deaths, occurred in mixed race, among them, 69.6% due to direct obstetric maternal death. The level of education with the highest number of deaths was between 8 and 11 years old, with 234 cases (46.9%), followed by the range between 4 and 7 years old, 102 (20.4%), being the year with the highest incidence for both were in 2021. Regarding the women's marital status, 234 (46.9%) women were single and 117 (23.4%) were married when the death occurred. **CONCLUSION:** Maternal mortality is an important indicator for analyzing the quality of public health in a region. According to the data analyzed, the profile of women most affected were mixed race, aged between 30 and 39 years old, single and with 8 to 11 years of education. These results indicate that Maranhão still has high rates, especially the state capital, São Luís, with the highest notification of cases. Therefore, it is necessary to develop quality public policies to mitigate this reality of maternal mortality in Maranhão.



**42. EPIDEMIOLOGICAL ANALYSIS OF MATERNAL MORTALITY DUE TO ECLAMPSIA IN NORTHEAST BRAZIL**

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**INTRODUCTION:** Eclampsia is a leading cause of maternal morbidity and mortality. This obstetric emergency is characterized by the onset of generalized tonic-clonic seizures and/or coma during pregnancy or the postpartum period. The diagnosis is typically clinical, and it represents a high-risk condition requiring immediate medical intervention. The aim of this study was to analyze the epidemiological profile and risk factors associated with maternal mortality due to eclampsia in the Northeast region of Brazil between 2012 and 2022.

**METHODS:** This retrospective, descriptive, and quantitative study utilized secondary data from the Mortality Information System, accessed via the Department of Informatics of the Unified Health System (DATASUS). Data on maternal deaths were collected using the ICD-10 code "O15 eclampsia" for the period between 2012 and 2022, in the Northeast region. The analysis correlated variables such as race/ethnicity, education level, marital status, and the period of death within the age group of 10 to 49 years. **RESULTS:** The Northeast region reported 676 deaths (40.1%) due to eclampsia, ranking first among Brazilian regions. Within the Northeast, Maranhão had the highest number of deaths, with 181 cases (26.7%), followed by Bahia with 143 deaths (21.1%). The highest mortality rates occurred in women aged 30 to 39 years, accounting for 40.9% of the cases. A predominance of mixed-race women (67.1%) and unmarried individuals (41.5%) was observed. A slight majority of the women had a good level of education (34.7%), defined as 8 to 11 years of schooling. Maternal deaths predominantly occurred during the postpartum period (49.7%), particularly within the first 42 days.

**CONCLUSION:** Maternal deaths due to eclampsia primarily occurred during the postpartum period in women aged 30 to 39 years, of mixed-race, unmarried, and with a good level of education. This epidemiological profile highlights the urgent need for public health strategies aimed at improving the prevention, diagnosis, and management of hypertensive disorders of pregnancy in the Northeast region. Key actions include ensuring access to quality prenatal care, stratifying obstetric risk, providing safe childbirth assistance, and delivering appropriate postpartum care, alongside establishing an efficient referral and counter-referral system. These are crucial factors for reducing maternal mortality due to eclampsia in the Northeast population, where rates remain high, even considering the potential for underreporting.

**43. EPIDEMIOLOGICAL ANALYSIS OF ACCIDENTS BY VENOMOUS ANIMALS IN MARANHÃO BETWEEN 2019 AND 2023**

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**INTRODUCTION:** Accidents by venomous animals are characterized by clinical cases that sometimes evolve into serious conditions, leading to sequelae and death. They are caused by animals that produce toxins to defend themselves against predators and to capture prey. In Brazil, the most frequent accidents are caused by scorpions, snakes, spiders and bees, and cases of human poisoning are subdivided according to the genus of the poisoning species. In this way, this study sought to trace the epidemiological profile of individuals who have suffered accidents caused by venomous animals in Maranhão. **METHODS:** This is a retrospective epidemiological study, with a quantitative approach, which used data provided by the Notifiable Diseases Information System (SINAN), made available by the Department of Informatics of the Unified Health System (DATASUS) and processed in the Microsoft Excel program. The years surveyed were between 2019 and 2023 and race, gender, serotherapy, type of accident, type of snake, type of spider and case evolution were analyzed. **RESULTS:** In the period studied, 26,240 cases of accidents by venomous animals were recorded in the state of Maranhão. Of these, 9.9% (n=2,600) occurred in Pindaré and 8.9% (n=2,341) in Caxias. 76.5% (n=20,068) of those affected were brown. 64.3% (n=16,872) were male; 53.8% of cases (n=14,106) were treated with serotherapy. Regarding the type of accident, 43.4% (n=11,383) were snakebites, 68.9% of which were *Bothrops*. 39.8% (n=10,432) were scorpionbites, 4.8% (n=1,259) were bee bites and 5.6% (n=1,477) were spiderbites, 27.1% (n=400) of which were *Loxosceles*. Finally, 84.2% (n=22,081) of the cases were cured. **CONCLUSION:** In Maranhão, according to the data presented, accidents caused by venomous animals have high rates, with a predominance of brown people, who are the majority of the local population, and males, who are probably more exposed at work. However, despite the high rates of therapeutic success resulting from the use of serotherapy, the presence of mortality is significant, as it demonstrates the need for public health policies aimed at treating and preventing these cases of poisoning.

**44. EPIDEMIOLOGICAL ANALYSIS OF ACUTE MYOCARDIAL INFARCTION IN THE NORTHEASTERN REGION OF BRAZIL**

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**INTRODUCTION:** Acute myocardial infarction (AMI) is a complex public health problem, both nationally and internationally, and one of the main causes of mortality worldwide. Studying this pathology is essential, given its complexity, since it represents one of the four cardiac pathologies with the highest recurrence rates and one of the greatest financial impacts on the Unified Health System (SUS). In this context, this study aimed to analyze the frequency of mortality records caused by AMI and identify its epidemiological patterns in the Northeast region of Brazil, from April 2019 to April 2024.

**METHODS:** This is a descriptive, cross-sectional, quantitative epidemiological study based on secondary data collected from DATASUS records of AMI deaths in the Northeast region from 2019 to 2024. **RESULTS:** In the Northeast region, between April 2019 and April 2024, 15,751 cases of death from AMI were recorded, resulting in a mortality rate of 10.52. In addition, three states presented worrying data about the mortality rate: Alagoas, with 14.5; Ceará, with 13.17; and Maranhão, with 12.93. The highest prevalence of deaths was among men, with 53.37% of cases compared to 46.63% among women. The 70-79 age group recorded the highest number of deaths (4684), followed by the 80 and over age group (4134). There were no records of deaths from AMI in individuals under the age of 10. The year 2022 had the highest number of records (3259 cases), followed by 2023 (3216 cases). During the period analyzed, there was an upward trend in the number of deaths from AMI throughout the Northeast, with the states of Ceará and Pernambuco showed the greatest increases during this period. **CONCLUSION:** The results point to a male predominance and a concentration of deaths from AMI in the 70-79 age group in the Northeast, highlighting the urgent need to implement health promotion and prevention strategies for this age group. Furthermore, they indicate the need for specific public policies for each state, given the variation in averages between states and the region. These policies should be aimed at reducing disparities in treatment and reducing mortality in clinical outcomes.

**45. EPIDEMIOLOGICAL ANALYSIS OF NON-MELANOMA SKIN CANCER IN NORTHEAST BRAZIL**

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**INTRODUCTION:** Skin cancer is one of the leading causes of death worldwide, and its main risk factor is excessive exposure to solar radiation. Furthermore, non-melanocytic skin cancer is the most common type in Brazil, especially in the Northeast region, with a higher incidence of basal cell carcinoma, followed by squamous cell carcinoma. The objective of this study was to analyze the epidemiological profile of non-melanoma skin cancer in the Northeast region of Brazil. **METHODS:** This is an integrative literature review on the epidemiology of non-melanoma skin cancer in the northeast of Brazil. Eight scientific articles from the last 10 years were selected using the Scielo database (Online Scientific Electronic Library) in English and Portuguese, as well as secondary data from the Ministry of Health – Datasus, within the period from 2017 to 2019, using the descriptors "skin cancer," "northeast," and "prevalence".

**RESULTS:** Non-melanoma skin cancer (NMSC) is the most common and prevalent neoplasm throughout Brazil, accounting for 33% of all malignant tumor diagnoses in the states of Ceará, Bahia, and Pernambuco. The majority of cases are of the basal cell carcinoma type, with an incidence of about 70%. Regarding age group, individuals aged 70 years or older represent the majority of NMSC diagnoses, with a significant increase in this age group from 2017 to 2018, amounting to 859%, and from 2018 to 2019, a 108% increase. As for gender, there were some variations over the years; from 2017 to 2018, neoplasms increased by 79% in men and 88% in women, while in 2019, women represented the highest number of cases, with 74% of them diagnosed. **CONCLUSION:** The statistical data from 2017 to 2019 demonstrate the high incidence of non-melanoma skin cancer in the northeastern region, highlighting the need for preventive measures to raise awareness about proper sun protection. In this way, it is crucial to promote health services and preventive actions among Brazilian states to effectively prevent skin cancer in the Northeast region.

**46. EPIDEMIOLOGICAL ANALYSIS OF HANSEN'S DISEASE CASES IN MARANHÃO FROM 2001 TO 2020**

Ludmylla Ellen Ferreira Freire<sup>1</sup>, Rafaella Thomas<sup>1</sup>, Lucas Araújo dos Santos<sup>1</sup>, Alessandra Pinheiro Chagas<sup>1</sup>, Matheus da Silva Moraes<sup>1</sup>, Cristian Lucas Costa Silva<sup>1</sup>, Taciana Gabrielle Pinheiro de Moura Carvalho<sup>1</sup>.

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**INTRODUCTION:** Hansen's disease is a chronic, dermatological, and infectious disease caused by the bacillus *Mycobacterium leprae*, transmitted through the respiratory tract. The disease presents with dermato-neurological manifestations, primarily affecting the skin and peripheral nerves, leading to sensory changes, deformities, and disabilities. Brazil is one of the most affected countries, and the state of Maranhão stands out as an endemic area. Therefore, the objective of this study is to analyze the epidemiology of Hansen's disease in Maranhão from 2001 to 2020. **METHODS:** This is a retrospective, quantitative epidemiological study based on data provided by the Department of Informatics of the Unified Health System (DATASUS). The population studied consisted of Hansen's disease cases in Maranhão during the period from 2001 to 2020. The variables correlated were gender, education level, race, and age group. As the data are publicly available, submission to the Research Ethics Committee was not required. **RESULTS:** During the years 2001 to 2020, Hansen's disease was diagnosed in 97,491 people in Maranhão. In the first decade (2001-2010), 55,095 people were diagnosed (56.5% of the total), with 57.6% being men, 68.3% having not completed elementary school, and only 6.3% having completed high school. Additionally, brown-skinned individuals were the most prevalent group, accounting for 51.3% of cases, while the most diagnosed age group was between 20 and 29 years (20.5%), in contrast to the first decade of life, which accounted for 3.3% of individuals. In the second decade (2011-2020), there were 42,396 diagnoses (43.5% of the total), with the epidemiological profile as follows: male (58.2%), brown-skinned (66.3%), incomplete elementary education (52.9%), and an age group between 30 and 39 years (17.7%). Furthermore, the proportion of people who had completed high school was 16.3%, and children up to 9 years old were the least affected age group (3.1%). **CONCLUSION:** The epidemiological analysis of Hansen's disease in Maranhão from 2001 to 2020 reveals a high prevalence of the disease in the region, with a significant number of diagnosed cases. Over the two decades, a pattern was observed in the patient profile, with few variations in demographic characteristics such as gender, race, education level, and age group. These data highlight the persistence of Hansen's disease as a public health problem in the state, especially in more vulnerable populations.

**47. EPIDEMIOLOGICAL ANALYSIS OF CONGENITAL SYPHILIS CASES IN MARANHÃO FROM 2019 TO 2023**

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**INTRODUCTION:** Syphilis is a bacterial infection caused by *Treponema pallidum*, transmitted through sexual and blood contact. The vertical transmission occurs via the placenta of an infected pregnant woman. Furthermore, the fetal infection can happen during any trimester of pregnancy, leading to spontaneous abortion, fetal death, or prematurity. Clinical manifestations may appear within the first three months of life, during, or after two years of age, potentially affecting multiple systems. The primary preventive measure for congenital syphilis is quality prenatal care, with syphilis testing being available at least during the first and third trimesters of pregnancy. Pregnant women diagnosed with syphilis must be treated along with their sexual partners to prevent reinfection. This study aims to identify the epidemiological profile of congenital syphilis cases in the state of Maranhão from 2019 to 2023. **METHODS:** This is an epidemiological study of congenital syphilis (CS) cases in Maranhão from 2019 to 2023, based on data collected from the Notifiable Diseases Information System (SINAN/DATASUS). **RESULTS:** During the analyzed period, a total of 2,069 cases of CS were registered in Maranhão, of which 1,353 notifications reported no prenatal care, accounting for 65.39% of all cases. From the data analysis, 2019 had the highest number of occurrences, representing 27.40% of the total cases (F = 567), followed by a 10.68% decrease in 2020, with 346 cases, making 2020 the year with the fewest cases in the period analyzed. Additionally, a 12.13% reduction was observed in 2023 (F = 255). **CONCLUSION:** Despite the reduction in cases, congenital syphilis continues to show a high incidence rate, which poses a challenge for public health in the state. Therefore, it is crucial to develop health strategies for early diagnosis and treatment of pregnant women, along with proper prenatal follow-up.

**48. EPIDEMIOLOGICAL ANALYSIS OF REPORTED CASES OF ACCIDENTAL TETANUS IN MARANHÃO FROM 2017 TO 2022**

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<sup>1</sup> Federal University of Maranhão - Pinheiro

**INTRODUCTION:** Accidental tetanus is a non-contagious disease caused by a bacterium (*Clostridium tetani*) found in nature, with transmission typically occurring through contamination of a skin or mucosal wound. It can affect anyone, regardless of sex or age. The typical clinical picture is marked by muscle contractions, low-grade fever, rigidity and pain in the limbs, abdominal stiffness, difficulty opening the mouth, and back pain. The aim of the study is to present the epidemiological profile of reported cases of accidental tetanus in the state of Maranhão. **METHODS:** This is a retrospective and quantitative epidemiological study based on data collection from the Department of Informatics of the Unified Health System (DATASUS). The years studied were from 2017 to 2022, with variables including age group, race, and sex. **RESULTS:** During the study period, there were 74 reported cases of accidental tetanus in Maranhão, with the highest incidence in 2018 (17 cases). The year 2020 showed a significant decline (8 cases), while 2022 saw an increase again (16 cases). The most affected age group was 40 to 59 years (32 cases), while there was 1 case each in those under 1 year and in the 10-14 age group. The self-reported race of mixed race showed the most notifications (45 cases), followed by black (22 cases). Males were the most affected (65 cases), accounting for more than half of the total notifications, which was 74 cases. **CONCLUSION:** The decline in cases in 2020 may be related to the COVID-19 pandemic, due to the overload on public health services and social restriction measures, a point supported by the increase in notifications in 2022 (the period following the pandemic). The predominance of mixed-race individuals may result from this being the majority self-reported race in Maranhão. Regarding age and sex, the groups with fewer cases (under 1 year, 10-14 years, and females) may have lower exposure to risk factors for the disease.

**49. EPIDEMIOLOGICAL ANALYSIS OF THYROID DISORDERS IN SOUTHERN MARANHÃO**

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**INTRODUCTION:** The thyroid is a butterfly-shaped gland located in the front of the neck, just below the area known as the Adam's apple. It plays a direct role in the body's metabolism by producing the hormones T3 (triiodothyronine) and T4 (thyroxine), which, in turn, affect all of the body's systems. Malfunction of this gland can lead to several disorders, such as hyperthyroidism, which involves the excessive release of thyroid hormones, and hypothyroidism, which is the insufficient release of thyroid hormones. In thyrotoxicosis, common symptoms include weight loss, photophobia, anxiety, irritability, and palmar sweating. In hypothyroidism, irregular menstruation, weight gain, hypercholesterolemia, fatigue, and bradycardia are observed. Given this context, the study aims to outline the epidemiological profile of these thyroid gland disorders in the southern region of Maranhão. **METHODS:** This is a cross-sectional, descriptive, and quantitative epidemiological study based on data obtained from the Department of Informatics of the Unified Health System (DATASUS), covering the period from May 2014 to May 2024. Data were collected regarding the number of hospitalizations, sex, race/ethnicity, age group, deaths, and mortality rate of thyroid disorders in the southern region of Maranhão. **RESULTS:** During the analyzed decade, 175 hospitalizations were recorded due to thyroid disorders related to iodine deficiency, thyrotoxicosis, and others. The municipalities with the highest number of hospitalizations were Imperatriz (n=95) and Balsas (n=63). Regarding the categorization of the profile of hospitalized patients, there was a predominance in the 40 to 59 age group and in individuals of mixed race/ethnicity (62%). There was a higher incidence in females with 152 cases, while males accounted for 23 cases, resulting in a female-to-male ratio of 6.6:1. Additionally, emergency admissions (n=100) exceeded elective ones (n=75), and there were 2 deaths during the period, both in Imperatriz. One death occurred in a patient under 1 year of age, and the other in a patient aged 60 to 69, indicating a mortality rate of 1.14% in the Southern macroregion. **CONCLUSION:** In the southern region of Maranhão, mixed-race women aged 40 to 59 represent the population segment most affected by thyroid gland disorders. Therefore, it is necessary to implement measures aimed at monitoring this group in order to prevent complications, given that emergency hospitalization rates are significant, highlighting a public health concern.

**50. ANALYSIS OF THE EPIDEMIOLOGICAL PROFILE OF TUBERCULOSIS IN CHILDREN IN MARANHÃO BETWEEN 2013 AND 2023**

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**INTRODUCTION:** Tuberculosis (TB) is a highly transmissible disease caused by *Mycobacterium tuberculosis*. Cough, fever, night sweats and weight loss are common symptoms in children. The mortality rate from TB is high among the pediatric population and is most significant in the 0-4 and 10-14 age groups. Immunization through the Bacillus Calmette-Guérin (BCG) vaccine is the main way to prevent the severe form of the disease and reduce the number of deaths. Objective: To describe the epidemiological profile of tuberculosis in children in the state of Maranhão between 2013 and 2023.

**METHODS:** An epidemiological, retrospective and descriptive study with a quantitative approach on tuberculosis in children in Maranhão. The data used for this study came from the Unified Health System Database (DATASUS) and covers the period of 2013 to 2023.

**RESULTS:** The year 2023 had the highest number of TB cases, accounting 81 in total, with children from 0 to 14 age group. On the other hand, 2020 and 2021 had the lowest numbers, accounting only 61. The other years were: 2013 (n=75), 2014 (n=77), 2015 (n= 64), 2016 (n= 63), 2017 (n= 73), 2018 (n= 75), 2019 (n=63) and 2022 (n=78). **CONCLUSION:** TB has a significant impact on children's health, as it can cause serious and lethal problems. It is therefore necessary to encourage immunization in the first days of life and to promote health education on the subject.

**51. ANALYSIS OF THE IMMUNOLOGICAL ASPECTS OF BREAST MILK**

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**INTRODUCTION:** Newborns don't have a mature defense system and are vulnerable to various diseases that can put their well-being at risk, such as gastrointestinal and respiratory infections. Breast milk is therefore the ideal food because, as well as being properly nourishing, it provides the necessary immune support for the baby, as it is made up of various substances that are important for immune function. The aim is therefore to highlight the immunological potential of breast milk in order to reinforce its importance in promoting infant health. **METHODS:** This is an integrative literature review carried out through a bibliographic survey in the Pubmed and Scielo databases. The terms used in the search were "Breast Milk" and "Immunology", accompanied by the boolean operator "AND". Articles published between 2016 and 2023 in english were included, while incomplete, paid-for texts and those which, after reading the title and abstract, were unrelated to the research topic were excluded.

**RESULTS:** Of the 54 articles found, 6 were used to compose this review, according to which breast milk has important anti-inflammatory, antimicrobial and immunomodulatory properties, with colostrum having greater immunological importance than mature milk. Secretory IgA is the most abundant immunoglobulin and is responsible for protecting the gastrointestinal mucosa by inactivating pathogens, preventing them from binding to receptors and acting against inflammation. As for the enzymes present in milk, it is important to highlight lysozyme, which destroys bacteria; and lactoferrin which, among other functions, binds to iron, preventing bacterial viability and stimulating the maturation of lymphocytes. In addition, milk contains oligosaccharides that help develop the intestinal microbiota and thus prevent diarrhea. It also contains other substances that are important for immunity, such as fatty acids with a lytic function, nucleic acids, cytokines, chemokines, natural killer (NK) cells, macrophages, neutrophils, leukocytes and antioxidant factors. **CONCLUSION:** Breast milk has fundamental immunological properties, which is why it is so important to consume it exclusively from the first days of life until six months of age. Therefore, encouraging breastfeeding and creating strategies for it to occur should be a priority for health services, due to its unique ability to promote infant well-being.



**52. IRON DEFICIENCY ANEMIA IN BAIXADA MARANHENSE DE 2019 TO 2023**

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**INTRODUCTION:** The World Health Organization (WHO) states that iron deficiency is the most common blood disease worldwide, affecting between 30% and 50% of World population with iron deficiency anemia. Iron is an essential component of Hemoglobin, making it essential for maintaining health. Regarding the causes of iron deficiency anemia, there are several factors such as iron malabsorption, which can be caused due to conditions such as atrophic gastritis, low iron intake in the diet, Acute blood loss resulting from trauma and chronic blood loss. In view of this problematic, the objective of this research was to study the prevalence of anemia cases due to Iron deficiency in Baixada Maranhense, from 2019 and 2023. **METHODS:** Study Epidemiological, transversal, descriptive, quantitative, on iron deficiency anemia, using Secondary data reported in the Hospital information system – SIH-SUSTABNET/DATASUS, Of the Ministry of Health, from 2013 to mid-2024. The results were tabulated in EXCEL and presented in graphs and tables, expressed in numbers, absolutes and frequencies. **RESULTS:** The study revealed n=124 cases of hospitalizations due to Iron deficiency anemia in the lowlands of Maranhão, between 2019 and 2023, with a tendency increasing in the years 2019 to 2022, decreasing in the year 2023. Regarding the age group: <1 year: n=2, while the most affected were 40 to 49 years old: n=21. The most affected gender was mixed, with n=89. Regarding sex, male: n=57; female: 67. It was found, also, that the total amount spent on such procedures was n=R\$37,893.52, and that the amount average was n=R\$305.59. As for the mortality rate, n=1.61 was found, with deaths N=2. **CONCLUSION:** It can be highlighted that cases of iron deficiency anemia in the Microregion of Baixada Maranhense, were relatively low, however, they represent warning factors for public health managers, given the great importance of public policies to mitigate this scenario through preventive actions. It's valid it should also be noted that the number of cases of iron deficiency anemia in the last two years were the highest in the study, mainly affecting the mixed-race population and female sex. Therefore, interaction between the sectors responsible for public health, so that good treatment services are offered, in accordance with demand in the region, contributing to the drop in the number of cases.

**53. ANESTHESIA IN VIDEOLAPAROSCOPIC CHOLECYSTECTOMY AND ITS POSITIVE OUTCOME: CASE REPORT**

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**INTRODUCTION:** Emphysematous pyelonephritis (PE) is a rare infectious necrotizing condition of the renal parenchyma. It is characterized by the presence of gas in the kidney tissue and is generally associated with diabetes mellitus and obstructive uropathy. The objective of this study was to report a case of PE, with an emphasis on clinical management, based on intensive support and antibiotic therapy, without the need for surgical intervention of nephrectomy. This report was submitted for evaluation by the Research Ethics Committee (CEP), in accordance with the guidelines and regulatory standards for research involving human beings, approved according to Certificate of Presentation for ethical assessment no. 54533521.0.0000.5084. **CASE DESCRIPTION:** A 40-year-old male patient, weighing 71 kg, with systemic arterial hypertension, taking losartan (100 mg/day), was admitted with a diagnosis of symptomatic cholelithiasis. After a detailed preoperative evaluation, it was decided to perform a videolaparoscopic cholecystectomy under general anesthesia. Anesthetic management included induction with fentanyl 250 mcg (3 mcg/kg) and propofol 140 mg (2 mg/kg), followed by neuromuscular blockade with rocuronium 40 mg (0.6 mg/kg) and maintenance with sevoflurane gas. During surgery, the patient was continuously monitored with cardioscopy, temperature, pulse oximetry, capnography and noninvasive blood pressure. The surgical procedure was uneventful and lasted 90 minutes. Postoperative nausea and pain were managed with ketorolac (30 mg IV), dipyrone (2 g IV), and ondansetron (8 mg IV). The patient was transferred to the postoperative care unit and presented adequate pain control, without the need for additional opioids. Early mobilization was encouraged, and the patient did not present nausea or vomiting. He was discharged 48 hours after surgery, with the patient reporting minimal pain and a rapid return to daily activities. **CONCLUSION:** Appropriate anesthetic management played a crucial role in the positive outcome of this case of laparoscopic cholecystectomy. The choice of anesthetic medications contributed to effective pain control, rapid recovery, and absence of complications. This case highlights the importance of individualized anesthetic planning to optimize clinical results in minimally invasive surgeries.

**54. EPIDURAL ANESTHESIA IN MYOCARDIAL REVASCLARIZATION: SYSTEMATIC REVIEW AND META-ANALYSIS**

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**INTRODUCTION:** Technological and pharmacological advances in anesthesia and surgery over the past decades have reduced complications in patients undergoing cardiac surgery. Thoracic epidural anesthesia (TEA), initially used in myocardial revascularization (MR), became unpopular due to the risk of epidural hematoma with heparinization. However, studies show improvements in analgesia and pulmonary function. Thus, this review aims to synthesize the state of the art on the use of TEA in MR, focusing on other clinical outcomes and patient hospitalization time. **METHODS:** Following the guidelines of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA), a systematic review and meta-analysis were conducted. The inclusion criteria covered observational studies involving patients undergoing myocardial revascularization (MR), detailing at least one outcome, such as arrhythmias, length of hospital stay, and neurological events. For the statistical analysis, R Studio was used with the "meta" package. The odds ratio (OR) and mean difference (MD) with a 95% confidence interval (CI) were applied, as well as the  $I^2$  test to assess heterogeneity. **RESULTS:** Of the 519 pre-selected studies, 4 met the inclusion criteria, covering 704 revascularized patients, with 350 in the thoracic epidural anesthesia (TEA) group and 354 receiving only general anesthesia (GA). In the arrhythmia analysis, there was a significant trend toward a lower incidence of arrhythmias in the TEA group (OR: 0.46 [95% CI: 0.32; 0.67]);  $I^2 = 0\%$ . In the analysis of hospital stay, 35 patients were included in both groups. The analysis revealed a significantly shorter length of stay for the TEA group (MD: -1.12 [95% CI: -1.85; -0.40]),  $I^2 = 0\%$ . Regarding neurological complications, 330 patients were in the TEA group and 152 in the GA group. There was a trend toward a lower incidence of neurological events in the TEA group (OR: 0.16 [95% CI: 0.01; 1.44]);  $I^2 = 84\%$ . **CONCLUSION:** This meta-analysis revealed that thoracic epidural anesthesia in myocardial revascularization is associated with a reduction in both hospital stay and the incidence of arrhythmias and neurological events. However, the high heterogeneity of the studies prevents definitive conclusions about the impact of TEA in reducing these neurological events. Further studies in different locations are necessary to increase sample size, assess the technique's applicability, and reduce the heterogeneity of some outcomes.

**55. ANESTHESIOLOGY IN ELECTROCONVULSIVE THERAPY IN A PATIENT REFRACTIVE TO MEDICATION: CASE REPORT**

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**INTRODUCTION:** Electroconvulsive therapy (ECT) is an essential therapeutic intervention in the treatment of severe psychiatric disorders, particularly in cases refractory to medication. ECT can induce adverse effects such as fractures, dysrhythmias, nausea, vomiting, headache and post-ictal confusion, highlighting the importance of adequate anesthesiological care. This report describes the anesthetic management of a patient with super-refractory schizoaffective disorder, who underwent ECT using a combination of propofol, xylocaine and succinylcholine. This report was submitted to the Research Ethics Committee (CEP) under number 54533521.0.0000.5084. **CASE DESCRIPTION:** A 35-year-old male patient diagnosed with schizoaffective disorder with severe psychotic symptoms is highly resistant to medication, and treatment with ECT is indicated. The patient underwent a complete pre-anesthetic evaluation, including laboratory tests and electrocardiogram (ECG). Anesthesia was induced with 1 mg/kg of propofol, 1 ml of xylocaine, and 1 mg/kg of succinylcholine. Monitoring included vital signs, pulse oximetry, and electroencephalogram. The patient was maintained on assisted ventilation with a face mask, with close monitoring of vital signs and the level of anesthesia. After induction and confirmation of adequate muscle relaxation, an electric current was applied to induce a seizure, lasting approximately 30 seconds. Ventilation with a high-output oxygen insufflator was used to ensure oxygenation. The procedure was uneventful, and the patient gradually regained spontaneous breathing and consciousness. After complete recovery, ondansetron was administered to prevent nausea and paracetamol for pain and headache. The clinical response to ECT was positive, with a noticeable improvement in the reduction of psychotic symptoms in the subsequent weeks. **CONCLUSION:** This case illustrates the importance of a personalized and carefully planned anesthetic approach for patients with severe psychiatric disorders undergoing ECT. The combination of propofol, xylocaine, and succinylcholine provided a rapid and stable induction, ensuring safety and efficacy during the procedure. Collaboration between anesthesiologists and psychiatrists is essential to optimize therapeutic results and minimize the risks associated with ECT.

**56. EBSTEIN'S ANOMALY IN THE BRAZILIAN PEDIATRIC POPULATION: A 10-YEAR EPIDEMIOLOGICAL OVERVIEW**

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**INTRODUCTION:** Ebstein's Anomaly (EA) is a complex congenital heart defect resulting from abnormal development of the tricuspid valve. EA accounts for approximately 1% of congenital heart diseases (CHD). Clinical presentation varies according to the severity of the condition, and due to its phenotypic heterogeneity, management is individualized. Despite advancements in treatment, the mortality rate remains high. This study aimed to describe the epidemiological profile of live births with Ebstein's anomaly and the associated infant and fetal mortality from this CHD in Brazil. **METHODS:** Data for this study were obtained from the Live Births Information System and the Mortality Information System, accessible through the Monitoring Panels of the Department of Informatics of the Unified Health System. Data collection focused on the Q22.5 indicator (Ebstein's anomaly) between 2013 and 2022, examining live births and infant and fetal mortality and correlating variables such as sex, race/ethnicity, type of delivery, gestational age, Apgar score, and the number of deaths. **RESULTS:** During the analyzed period, 203 live births with EA were reported in Brazil, alongside 255 infant and fetal deaths attributed to the condition. Among live births, the Southeast region reported the highest number of cases (52.7%, n = 107). Females slightly outnumbered males (50.7%, n = 103 vs. 49.2%, n = 100). Most live births were white (60%, n = 122), and cesarean section was the predominant mode of delivery (84.2%, n = 171). The majority were born at term (71.4%, n = 145). Regarding Apgar scores at the first minute, most newborns were classified as having no asphyxia (52.7%, n = 107), while a smaller proportion had mild asphyxia (29%, n = 59). As for deaths due to EA, the majority occurred during the neonatal period (58.4%, n = 149), predominantly in male (51.7%, n = 132) and white (48.2%, n = 123) individuals. **CONCLUSION:** Live births with EA in Brazil were primarily female, white, delivered by cesarean section, born at term, and with no signs of asphyxia. Mortality due to EA in the pediatric population occurred mainly during the neonatal period, consistent with the literature, particularly in male and white patients. The life expectancy of individuals with EA remains significantly lower than that of the general population, despite early and aggressive treatment. Long-term cardiovascular care by congenital cardiology specialists is essential for improving outcomes in patients with EA.

**57. TAKAYASU ARTERITIS: GENETIC POLYMORPHISMS, TREATMENTS AND IMPACTS ON MORBIDITY AND MORTALITY**

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**INTRODUCTION:** Takayasu Arteritis (TA) is a rare vasculitis affecting large blood vessels, such as the aorta and its branches, more commonly seen in young individuals. Clinical manifestations may include chest pain, reduced or absent pulses, and limb claudication. Since its etiology is not fully understood, this article aims to investigate the relationship between genetic polymorphisms in the Human Leukocyte Antigen (HLA) system and the disease's pathophysiology, as well as new pharmacological associations regarding treatment, in order to reduce the negative effects of long-term corticosteroid use on patient morbidity and mortality. **METHODS:** This is a systematic review based on research using the descriptors "Takayasu Arteritis", "Polymorphism Genetic", and "Treatment". Selected articles were sourced from PubMed, Scielo, and Lilacs platforms, published between 2014 and 2024, in English. **RESULTS:** Several independent signals within the HLA region were identified as genetic susceptibility factors for TA, with HLA-B52:01 standing out as a strong genetic factor across various ancestries. Additionally, three other independent HLA alleles were identified as susceptibility factors for TA: HLA-B13:02, HLA-B15:01, and HLA-DQB105:02. Regarding treatment, it was found that the use of infliximab, a TNF-alpha inhibitor, combined with first-line medications such as glucocorticoids, resulted in significant clinical and biological improvements in 87% of cases of refractory TA, with some patients achieving disease remission. Furthermore, infliximab showed a steroid-sparing effect, which positively impacts the patients' prognosis. **CONCLUSION:** The influence of genetic polymorphisms in the HLA system on TA was evident. However, given the complex structure of the HLA region, further studies are needed to identify new susceptibility loci. Regarding infliximab, satisfactory therapeutic outcomes were observed when used in combination with glucocorticoids. Therefore, further studies are necessary to investigate the benefits of TNF-alpha inhibitors as a first-line treatment for this condition.

**58. BIOPSYCHOSOCIAL ASPECTS RELATED TO SCREEN USE IN CHILDHOOD: A LITERATURE REVIEW**

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**INTRODUCTION:** Childhood is characterized by biological and psychosocial changes that enable significant gains in the motor, socio-affective, and cognitive domains of development. However, during this period, early and excessive screen exposure presents risks, primarily related to deficits and delays in language, communication, motor skills, and mental health. Additionally, an increase in obesity and a reduction in family interaction time have been observed in children with unrestricted access to interactive media. Therefore, the present study is justified by the importance of understanding the effects of electronic device use on the pediatric population, in order to develop preventive strategies against such repercussions.

**METHODS:** This is an integrative literature review with a descriptive and qualitative approach, constructed using the PICO strategy, which stands for population, intervention, comparison, and outcomes. Inclusion criteria were studies published in Portuguese and English, available in full, and dated between 2018 and 2022, from the databases PubMed, Scielo, BVS, and Google Scholar. The Boolean operator AND was used to combine the following descriptors: child development AND screen time AND psychosocial impact, previously identified in the Health Sciences Descriptors (DECS). Duplicate or incomplete articles, as well as those not related to the topic, were excluded. A total of 861 studies were found, of which 38 were selected based on the inclusion and exclusion criteria. **RESULTS:** Excessive screen use, defined as screen time exceeding 2 hours per day, promotes a disruption in the establishment of the sleep-wake cycle, increasing the release of hormones that lead to delayed and poor sleep quality. Of the selected articles, 6 linked unsatisfactory sleep, difficulty falling asleep, and nighttime awakenings to screen use. A positive association between television exposure time and obesity (53%) was also observed. Three articles found a relationship between TV viewing and obesity, regardless of viewing time (17.6%). The content displayed on screens was shown to have a significant impact on mental health, not just in relation to the amount of time spent watching. **CONCLUSION:** The child's relationship with the digital world depends on adult mediation, the content accessed, and the time spent on this activity. Therefore, it is essential that parents and educators ensure a safe virtual environment for holistic and appropriate development.

**59. ASSOCIATION OF OTHER AUTOIMMUNE DISEASES IN A POPULATION WITH TYPE 1 DIABETES MELLITUS**

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**INTRODUCTION:** Type 1 Diabetes Mellitus (T1DM) is one of the most common autoimmune endocrine diseases in childhood, resulting from the interaction of genetic, immunological, and environmental factors that lead to the destruction of insulin-producing pancreatic beta cells. The literature commonly associates T1DM with other autoimmune diseases, where the confluence of more than one of these conditions in the same individual is referred to as Autoimmune Polyglandular Syndrome (APS). This study aimed to characterize patients with T1DM associated with other autoimmune diseases in Maranhão. **METHODS:** This is a cross-sectional quantitative study conducted with 157 patients diagnosed with T1DM who were treated at a referral center for endocrinology in São Luís, MA. Data collection occurred through the analysis of medical records in July 2024, aiming to investigate correlations between T1DM and other autoimmune diseases. The studied variables included sex, age, presence of autoimmune disease, age at T1DM diagnosis, and age at autoimmune disease diagnosis. This study was approved by the Research Ethics Committee of the University Hospital of the Federal University of Maranhão (CEP-HUUFMA), under opinion N°. 2,441,473 and CAEE 59795116.9.0000.5086. **RESULTS:** Of the 157 included patients, 80 (51%) were male. The mean age of the studied group was 25.05 years. Among the patients, 19 (12.1% of the total) had another autoimmune disease, which was stratified as follows: 8 patients with Hashimoto's thyroiditis, 6 with Graves' disease, 2 with celiac disease, 2 with autoimmune hepatitis, and 1 with lichen planus. Furthermore, 14 patients (73.7%) in this group were female. T1DM was the first autoimmune disease in 14 patients (73.7%), while it occurred subsequently in only 2. The diagnosis was concurrent in 2 patients, and 1 did not have the diagnosis date specified. **CONCLUSION:** The study revealed a significant prevalence of T1DM with other autoimmune diseases, being most commonly associated with thyroid diseases, characterizing APS. It was also observed that T1DM tended to precede the development of other autoimmune conditions and that the presence of APS was more common among women. Additionally, the average age was low (25.05 years), which relates to the main limitation of the study: the possibility that individuals may develop other autoimmune diseases over their lifetime.

#### 60. ASSOCIATION BETWEEN DIABETES MELLITUS AND DEPRESSION IN THE BRAZILIAN POPULATION: VIGITEL 2023

Tereza Cristina Barbosa Ribeiro do Vale<sup>1</sup>, Brenda da Silva Lima<sup>1</sup>, Juliana Lobato Miranda Pereira<sup>1</sup>, Patrícia Carla Guimarães Catarino<sup>1</sup>, Gabriel Pereira de Sousa<sup>1</sup>, Josymaykon dos Santos Coutinho<sup>2</sup>, Antenor Bezerra Martins Neto<sup>1</sup>.

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**INTRODUCTION:** Diabetes Mellitus (DM) is associated with negative effects on quality of life and is often associated with depression in adults and the elderly. Studies estimate a worldwide prevalence of 28% people with type 2 diabetes mellitus and depression, indicating that around one in four people with diabetes suffer from depression. In addition, depression in the context of DM can interfere with the glycemic control of the individual with diabetes, increase the risk of diabetes complications (retinopathy, nephropathy, neuropathy, coronary heart disease, cerebrovascular disease and peripheral arterial disease) and lead to a higher mortality rate. The aim of this study was to assess the association between DM and depression in adults living in Brazilian state capitals and the Federal District. **METHODS:** This is a cross-sectional, retrospective study using data from the 2023 Surveillance of Risk and Protective Factors for Chronic Diseases by Telephone Survey (Vigitel). The study included individuals aged  $\geq 18$  years living in the Brazilian state capitals and the Federal District. The exposure variable was DM and the outcome was depression, both self-reported by the participants. Descriptive analyses were carried out on the variables gender, age, schooling, DM and depression, showing absolute (n) and relative (%) frequencies. The association between DM and depression was assessed using Pearson's chi-squared test, considering a significance level of 5% ( $p < 0.05$ ). Vigitel was approved by the Ministry of Health's National Commission for Ethics in Research with Human Beings (CAAE: 65610017.1.0000.0008). **RESULTS:** Of the 21,690 individuals studied, the majority were female (62.51%), aged 60 or over (29.94%) and had completed high school (37.0%). The prevalence of DM was 13.03% and depression was 13.7%. When assessing the association between DM and depression, it was possible to observe a higher prevalence of depression in individuals with DM (18.34%;  $p < 0.001$ ), compared to those without DM (12.18%). **CONCLUSION:** A significant association was found between depression and DM, since a higher prevalence of depression was found in individuals with DM. This demonstrates the need for glycemic control in these patients in order to prevent depression as the disease progresses.

#### 61. EVALUATION OF EXTRACORPOREAL MEMBRANE OXYGENATION IN THE TREATMENT OF PULMONARY THROMBOEMBOLISM

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**INTRODUCTION:** Extracorporeal membrane oxygenation (ECMO), whether venoarterial (VA-ECMO) or venovenous (VV-ECMO), is a life support technique that temporarily assists the cardiovascular and respiratory systems in intensive care, which makes this approach increasingly used in the treatment of pulmonary thromboembolism (PTE). Despite its usefulness in hemodynamic stabilization, it is necessary to deepen and analyze the benefits of ECMO seen in the clinical outcomes of individuals with PTE. Therefore, the objective of this study is to explore and debate the advantages of ECMO in patients with pulmonary thromboembolism in the context of intensive care. **METHODS:** Extracorporeal membrane oxygenation (ECMO), whether venoarterial (VA-ECMO) or venovenous (VV-ECMO), is a life support technique that temporarily assists the cardiovascular and respiratory systems in intensive care, which makes this approach increasingly used in the treatment of pulmonary thromboembolism (PTE). Despite its usefulness in hemodynamic stabilization, it is necessary to deepen and analyze the benefits of ECMO seen in the clinical outcomes of individuals with PTE. Therefore, the objective of this study is to explore and debate the advantages of ECMO in patients with pulmonary thromboembolism in the context of intensive care. **RESULTS:** Of the 541 filtered articles, 62 papers remained after reading the titles and abstracts, of which eight met the defined criteria. The adoption of ECMO in the context of PTE has favorable prognosis, given the hemodynamic stabilization of critically ill patients and improved quality of life in the long term. Furthermore, VA-ECMO as "Bridge Therapy" for percutaneous embolectomy (EPC) and other therapies was notable, as was the good neurological outcome observed by some authors. However, studies warn of possible complications, such as hemorrhages, thus raising the need for new studies to outline the patient profile that would best benefit from ECMO. **CONCLUSION:** ECMO presented good advantages in the initial therapy of patients with PTE, especially with hemodynamic instability, being promising in improving quality of life. However, the associated complications and the low sample of patients analyzed make the production of more robust studies crucial. This way, it will be possible to optimize the benefits and minimize the risks in the treatment of PTE.



**62. EVALUATION OF THE IMPACT OF EDUCATIONAL INTERVENTIONS IN FIRST AID IN SCHOOL SETTING**

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<sup>1</sup> State University of the Tocantina Region of Maranhão

**INTRODUCTION:** First Aid (FA) consists of initial procedures in emergency situations aimed at preserving life and preventing further harm until specialized assistance is available. However, in Brazil, the practice of FA is limited, and a significant portion of the lay population is inexperienced and hesitant to perform such activities, often confining this knowledge to healthcare professionals. Within the school environment, teachers and other staff members become the primary agents in the prevention and management of accidents, making their training crucial for effectively handling such situations. Thus, this study aimed to evaluate the impact of educational interventions in First Aid in school settings. **METHODS:** This research is an integrative literature review. Data were collected from the Scielo database and the virtual libraries PubMed and BVS. Inclusion criteria were studies published between 2019 and 2024 in Portuguese and English. Non-relevant publications and duplicate articles were excluded. The final sample consisted of 13 articles. **RESULTS:** Regarding the origin of the publications, Brazil was predominant, contributing eight articles. Furthermore, the majority of the interventions were conducted with staff members (n=9). Theoretical-practical interventions (n=7) were the most frequently applied, followed by exclusively theoretical methodologies (n=4). However, only one article compared the benefits of simulations versus theoretical approaches, indicating that practical applications were more effective. Three publications highlighted the improvement in self-confidence as a positive outcome of educational interventions. All studies reported low prior knowledge among participants, along with significant gains in First Aid knowledge across various aspects, such as improved risk identification and content retention. **CONCLUSION:** The preference for involving school staff as participants indicates the importance of these individuals in ensuring the safety and well-being of students within this environment. Additionally, the low levels of preliminary knowledge prior to intervention reflect existing gaps in First Aid education. The analyzed articles demonstrate the effectiveness of interventions, particularly practical ones, in enhancing self-confidence and knowledge among individuals. Therefore, the implementation of continuous educational actions in First Aid should be strongly encouraged.

**63. PROGNOSTIC BIOMARKERS OF ALZHEIMER'S DISEASE IN DOWN SYNDROME: A SYSTEMATIC REVIEW**

Beatriz Cardoso Ferreira<sup>1</sup>, Cácio Laylson Lira Silva<sup>1</sup>, Dhoulas Lucena Araújo<sup>1</sup>, Francisca Erika Ferreira Sousa<sup>1</sup>, Mariana Clara Borges da Silva<sup>1</sup>, Raquel Vilanova Araujo<sup>1</sup>.

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**INTRODUCTION:** Down Syndrome (DS), characterized by trisomy 21, is associated with Alzheimer's disease (AD) due to the overproduction of AD-causing proteins. This genetic excess can result in early-onset dementia and other comorbidities that limit life expectancy. However, the roles of specific genes, proteins, and the influence of gender on the progression of AD in patients with DS are still not fully understood. This study aims to identify the main prognostic biomarkers that accelerate the progression of AD in adults with DS, with a focus on sex differences. **METHODS:** We conducted a systematic search in the PubMed, Embase, and Cochrane databases for studies analyzing the influence of key genes, proteins, and sex on the development of AD in adults with DS, comparing them to cognitively stable patients or those without DS. Studies without a control group and articles published more than five years ago were excluded. The outcomes evaluated included plasma analyses, positron emission tomography (PET) scans, cerebrospinal fluid (CSF) biomarkers, and cognitive measures. **RESULTS:** We included 22 studies that identified the following biomarkers associated with faster progression of AD: plasma Tau217 (pTau217) and Tau181 (pTau181) proteins, glial fibrillary acidic protein (GFAP), beta-amyloid (A $\beta$ 42/A $\beta$ 40), neurofilament light chain (NfL), NPTX2, DYRK1A, and VAMP-2. The genes involved were Tau, the beta-amyloid precursor protein gene (APP), ApoE, and TREM2, all of which contribute to the high concentration of beta-amyloid in the pathogenesis of AD. The long-term effects observed included neuronal, axonal, and synaptic loss; neuroinflammation; astrogliosis; atrophy of white matter and the basal forebrain; as well as declines in cognitive performance, episodic memory, and verbal fluency. It has been noted that AD is more common in men with DS, possibly due to altered testosterone production and its conversion into estrogen, which is a protective agent for cholinergic and cortical cognitive function. **CONCLUSION:** Therefore, biomarkers present in plasma and cerebrospinal fluid, such as pTau181, GFAP, beta-amyloid, and NfL proteins, may be important tools in assessing the progression of AD in adults with DS, especially in men, who seem to be more affected. These findings highlight the need for more prospective controlled studies focusing on sex differences to assess the incidence and value of these biomarkers in DS patients with AD.

**64. BRONCHITIS AND INFANTILE BRONCHIOLITIS IN MARANHÃO: PROFILE OF ACUTE CASES FROM 2019 TO 2024**

Ana Luiza Espínola Lobo<sup>1</sup>, Ana Beatriz Oliveira Reis<sup>1</sup>, Cácio Laylson Lira Silva<sup>1</sup>, Gabriel Gomes Nascimento Campos<sup>1</sup>, João Vítor Albuquerque e Silva<sup>1</sup>, Leticia Chaves de Jesus<sup>2</sup>, Wellyson da Cunha Araújo Firmo<sup>1</sup>.

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**INTRODUCTION:** Acute Respiratory Infections (ARI) are the leading causes of morbidity in children aged 0 to 4 years worldwide, with a focus on acute cases of bronchitis and bronchiolitis, as this group has an immature immune system and narrow airways. These are inflammatory and obstructive conditions of the lower airways, with bronchitis being an inflammation of the bronchi, where mucus movement and production are altered, causing persistent coughs, mainly in children under 5 years old. Acute bronchiolitis, more common in the first 2 years of life, establishes an inflammatory and infectious process in the bronchioles, leading to dyspnea, coughing, and wheezing. The etiology of these diseases is generally allergic, bacterial, and viral, with Respiratory Syncytial Virus (RSV) being a major contributor. Given this context, this study aimed to analyze the morbidity rates of acute bronchitis and bronchiolitis in Maranhão, between 2019 and 2024, in children up to 4 years old. **METHODS:** This is a cross-sectional and quantitative study using data from the Information Department of the Unified Health System (DATASUS), referring to Health Information (TABNET), available in the sub-item "hospital morbidity of the SUS". The number of hospitalizations for acute bronchitis and acute bronchiolitis in Maranhão, reported between January 2019 and May 2024, was analyzed, focusing on the following variables: age group, gender, and affected municipalities. **RESULTS:** The data shows a fluctuation in the number of cases over the years, with a peak in 2022 and 2023, which had 1.368 and 2.944 cases, respectively, according to DATASUS. The total number of hospitalizations was 7.558, with approximately 57.0% corresponding to patients under 1 year of age, while 43.0% were patients aged 1 to 4 years. Regarding gender, males accounted for approximately 57.6% of hospitalized patients, while females represented 42.0%. The municipalities most affected by bronchitis and bronchiolitis cases were São Luís, Imperatriz, and Pinheiro, totaling 2.177 reported hospitalizations. **CONCLUSION:** Due to morphophysiological factors, children aged 0 to 4 years are significantly affected by the ARIs discussed. Therefore, it is necessary to adopt measures aimed at reducing the number of pediatric patients hospitalized for bronchitis and/or bronchiolitis in Maranhão, as these rates have increased in recent years, highlighting a public health issue.

**65. BURNOUT IN RESIDENTS AND SPECIALISTS: AN INTEGRATIVE REVIEW OF CLINICAL AND SURGICAL FIELDS**

Kamilly Iêda Silva Veigas<sup>1</sup>, Rebeca Thamires Serra Araújo<sup>1</sup>, Paulo Gabriel Silva Castro Campos<sup>1</sup>, Brunno Braga Sauaia<sup>1</sup>, Sara Fiterman Lima<sup>2</sup>

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**INTRODUCTION:** Excessive workload leads to burnout, which consists of emotional exhaustion, depersonalization, and chronic occupational stress. In this context, medical professionals, due to long working hours and high responsibility, are at significant mental health risk. Therefore, it is important to understand whether there is a distinction in the development of burnout syndrome between clinical and surgical doctors, given their specific demands. This study aims to assess the presence of burnout in physicians, differentiating between clinicians and surgeons. **METHODS:** This is an integrative review based on the PRISMA protocol, using the descriptors 'burnout' and 'doctors,' as well as their Portuguese equivalents, in the PUBMED, SCIELO, and CAPES PERIODICAL databases. The inclusion criteria were primary articles addressing the topic of burnout in physicians, published in the last 5 years, in English or Portuguese, peer-reviewed, and open access. The selection of studies was made by reading the titles and abstracts, excluding those that did not fit the topic, focused solely on other healthcare professionals or students, or did not present individual results for clinicians and surgeons. **RESULTS:** A total of 136 studies were found, 105 were excluded at the title screening stage, and 23 at the abstract screening stage, leaving 8 to compose this review. Burnout presence was analyzed using two Burnout inventories: Maslach and Oldenburg. In total, 615 medical professionals were assessed, including 255 residents and 356 specialists. Burnout was diagnosed in 54% of residents and 40% of specialists. Among residents, 61% of surgeons and 48% of physicians had the syndrome, while it affected 32% of clinical specialists and 40% of surgeons. Risk factors (RF) included: being young, female, working in a public institution, high weekly workload, night shifts, and years of residency. Marriage, children, and early career were RF for residents and protective factors for specialists. **CONCLUSION:** Therefore, the study's results highlight a high incidence of burnout among resident doctors and specialists, particularly in the surgical field, but with a decrease after specialization. This finding underscores the urgent need for ongoing investigations to identify the key factors involved. Identifying these factors can assist in the development of projects aimed at improving the quality of life for resident doctors and specialists and contribute to reducing the syndrome among these professionals.

**66. DIGESTIVE CANCER: DIAGNOSIS-TO-TREATMENT TIME IN MARANHÃO FROM 2019 TO 2023**

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**INTRODUCTION:** Digestive cancers affect the esophagus, stomach, liver, gallbladder, pancreas, intestines, and anal canal. The prevalence varies according to cancer type and geographic region, with colorectal cancer being the 3rd most common in Brazil, and stomach cancer the 5th. Mortality rates are high, especially when diagnosed in advanced stages, emphasizing the importance of early detection. This study aims to analyze the evolution of the waiting time for the initiation of treatment after a malignant neoplasm diagnosis.

**METHODS:** This is an observational cross-sectional analytical study using data from the DATASUS Oncology Panel for all individuals registered between 2019 and 2023. The time interval in days between diagnosis and the first treatment registered was considered for the International Statistical Classification of Diseases and Related Health Problems (ICD) groupings, covering ICD codes C15 to C26. We used the RStudio 2024.04.1 software for data analysis, describing the median and interquartile range (IQR) as representative measures, since the data showed abnormal distribution according to the Shapiro-Wilk test. **RESULTS:** Regarding the year 2019, the median waiting time for treatment was 39 days (IQR: 0 - 97), with 699 cases. In 2020, there was an increase in waiting time, with a median of 43 days (IQR: 8 - 95) in 698 cases. In 2021, the median was 39 days (IQR: 1 - 84) in 750 cases. In 2022, a reduction was observed, with a median of 34 days (IQR: 13 - 73), with 800 cases. In 2023, the waiting time further decreased, with a median of 31 days (IQR: 12.5 - 67), in 836 cases. **CONCLUSION:** Despite the annual increase in the number of digestive organ neoplasms, there was a year-to-year change in the median waiting time, with an increase from 2019 to 2020, but a subsequent reduction from 2021 to 2023. During this period, the waiting time remained within the 60-day threshold mandated by law, even during the COVID-19 pandemic. The data should be interpreted with caution, as an increase in waiting time was expected due to the COVID-19 pandemic.

**67. INTRATHORACIC AND PNEUMOTIC CANCER: DIAGNOSTIC-TREATMENT TIME IN MARANHÃO FROM 2019 TO 2023**

Manuela Bezerra e Silva França<sup>1</sup>; Jilmario Gomes De Santana Junior<sup>1</sup>; João Pedro Cruz Nascimento<sup>1</sup>; Ludmylla Ellen Ferreira Freire<sup>1</sup>; Gustavo Silva Santos de Sousa<sup>1</sup>; Ana Gabriela Caldas Oliveira<sup>1</sup>.

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**INTRODUCTION:** Cancer is an important public health problem. Malignant neoplasms of the respiratory system and mediastinum include malignant tumors of the nasal cavity, ear larynx, heart, thymus, lung, trachea and bronchi. They rank among the highest incidence and mortality data in the country. Therefore, they impact the quality of life of individuals and generate high costs for the public health system. This study aims to analyze the evolution of the waiting time for the initiation of treatment following the diagnosis of these malignant neoplasms. **METHODS:** This is a cross-sectional observational analytic study, utilizing data from the Oncological Panel of DATASUS for all individuals registered between 2019 and 2023, considering the time interval in days between diagnosis and the first recorded treatment for the International Statistical Classification of Diseases and Related Health Problems (ICD) codes C30 to C39. We used the RStudio 2024.04.1 software for data analysis, describing the median and interquartile range (IQR) as representative measures due to the abnormal distribution of the data as indicated by the Shapiro-Wilk test. **RESULTS:** In 2019, with 263 cases, the median waiting time was 27 days (IQR: 0 - 81), a statistic that worsened in 2020 to 37 days (IQR: 0 - 90) among 223 cases. However, there was an improvement in 2021, with a median of 30 days (IQR: 0 - 78) across 255 cases. In 2022 and 2023, identical medians of 31 days were observed; however, the interquartile ranges differed, with intervals of 1 to 72 days for 273 cases and 0 to 61 days for 283 cases in the two years, respectively. **CONCLUSION:** Despite the increase in the median waiting time from 2019 to 2020, suggesting that the COVID-19 pandemic may have impacted the management of patient treatment, the analyzed period showed a reduction after 2020, consistently remaining below 60 days, in accordance with the 60-day law. The data should be interpreted with caution, as an increase in the time between diagnosis and treatment of the studied diseases would be anticipated due to the occurrence of the COVID-19 pandemic.

**68. ORAL AND PHARYNGEAL CANCER: DIAGNOSIS-TO-TREATMENT TIME IN MARANHÃO FROM 2019 TO 2023**

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**INTRODUCTION:** Cancers of the lip, oral cavity, and pharynx rank as the sixth most common cancers worldwide, being more prevalent in men over 40 years of age. In Brazil, it is expected that the number of new cases of oral cancer will increase by between 80.1% and 97.8% by 2040. Currently, oral cancer has a 5-year survival rate of 50% to 60%, and many cases are diagnosed at an advanced stage. Thus, it is important not only to consider the time of disease diagnosis but also the time taken to initiate treatment after diagnosis. The present study aims to analyze the evolution of the waiting time for the commencement of treatment following the diagnosis of malignant neoplasia. **METHODS:** The study is a cross-sectional analytical observational study, utilizing data from the Oncology Panel of DATASUS for all individuals registered between 2019 and 2023. It considers the time interval in days between diagnosis and the first recorded treatment for the grouping of the International Statistical Classification of Diseases and Related Health Problems (ICD) codes C00 to C14. We used RStudio version 2024.04.1 software for data analysis, describing the median and interquartile range (IQR) as representative measures since the data have an abnormal distribution according to the Shapiro-Wilk test. **RESULTS:** In 2019, the median waiting time in days between diagnosis and the start of treatment was 59 days (IQR: 0 - 151) across 225 cases. In 2020, the median increased to 65 days (IQR: 0 - 171) across 235 cases. Between 2020 and 2021, the median decreased to 50 days (IQR: 0 - 139) across 223 cases. In 2022, the median further decreased to 48 days (IQR: 0 - 102) across 253 cases. In 2023, the median showed the largest percentage variation, with a reduction of approximately 31%, reaching 33 days (IQR: 0 - 75) across 226 cases. **CONCLUSION:** Therefore, these results reveal an increase in the median waiting time from 2019 to 2020, exceeding the 60-day limit between diagnosis and treatment as proposed by the 60-Day Law. In the following years, however, the waiting time remained within the legal limit. Considering the evaluated period, it is suggested that the COVID-19 pandemic may have been one of the factors contributing to the delay in the initiation of treatment during that time.

**69. BREAST CANCER: TIME BETWEEN DIAGNOSIS AND TREATMENT IN MARANHÃO FROM 2019 TO 2023**

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**INTRODUCTION:** Breast cancer is the leading cause of cancer-related deaths among women in Brazil. Between 2023 and 2025, the estimated number of new cases is 73,610, with an incidence of approximately 42 cases per 100,000 women. The importance of early diagnosis is linked to better survival rates. This study aims to analyze the evolution of the waiting time for treatment initiation after the diagnosis of this malignant neoplasm. **METHODS:** The study is a cross-sectional observational analytical type, using data from the Oncology Panel of DATASUS for all individuals recorded between 2019 and 2023, considering the time interval in days between diagnosis and the first recorded treatment for the International Statistical Classification of Diseases and Related Health Problems (ICD) ICD 10 C50. We utilized RStudio 2024.04.1 for data analysis, describing the median and interquartile range (IQR) as representative measures due to the abnormal distribution of the data based on the Shapiro-Wilk test. **RESULTS:** In 2019, the median waiting time between diagnosis and treatment was 78 days (IQR: 36 - 152) in 627 cases. In 2020, the median waiting time decreased by 17.9%, resulting in 64 days (IQR: 33 - 124) in 667 cases. Between 2020 and 2021, the median further reduced by 10.9%, reaching 57 days (IQR: 32 - 108) in 722 cases. However, from 2021 to 2022, there was an increase in waiting time, with a median of 71.5 days (IQR: 35 - 123.5) in 852 cases. In 2023, the last year analyzed, the median decreased again, reaching 30 days (IQR: 30 - 95) in 800 cases, resulting in a total reduction of 61.5% over the analysis period. **CONCLUSION:** The analysis of the waiting time for breast cancer treatment between 2019 and 2023 showed a median reduction of 61.5%. Although the 60-day law establishes a limit of 60 days for the initiation of treatment after diagnosis, the years 2019, 2020, and 2022 exceeded this limit. The COVID-19 pandemic may have impacted this with fluctuations caused by emergency changes and overload on the healthcare system. It is suggested that the increase in pandemic patients treated via the Unified Health System (SUS) and the economic impacts of the pandemic may also have influenced these results.

**70. EYE AND NERVOUS SYSTEM CANCER: DIAGNOSTIC-TREATMENT TIME IN MARANHÃO FROM 2019 TO 2023**

João Pedro Cruz Nascimento<sup>1</sup>, Jilmario Gomes de Santana Junior<sup>1</sup>, Matheus da Silva Moraes<sup>1</sup>, Ludmylla Ellen Ferreira Freire<sup>1</sup>, Ana Gabriela Caldas Oliveira<sup>1</sup>.

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**INTRODUCTION:** The DATASUS Oncology Panel groups together four codes from the International Classification of Diseases (ICDs) in the same segment, referring to malignant neoplasms of the eye and adnexa (C69), meninges (C70), brain (C71), spinal cord, cranial nerves, and other parts of the central nervous system (CNS) (C72). CNS tumors are caused by the proliferation of malignant neoplastic cells, accounting for 1.4 to 1.8% of all malignant tumors worldwide. About 88% of CNS tumors are located in the brain. Furthermore, eye and adnexal neoplasms also deserve attention, with 1,859 deaths recorded in Brazil from 2010 to 2019. Therefore, the study aims to analyze the waiting time for the start of treatment after the diagnosis of these malignant neoplasms in the DATASUS system. **METHODS:** This is a cross-sectional analytical observational study using data from the DATASUS Oncology Panel from 2019 to 2023, considering the time interval, in days, between diagnosis and the first recorded treatment for the diseases described above. We used the RStudio 2024.04.1 software for data analysis, describing the median and interquartile range (IQR) as representative measures, as the data show abnormal distribution according to the Shapiro-Wilk test. **RESULTS:** The median waiting time decreased over the years. In 2019, 79 cases were recorded with a median of 84 days (IQR: 31 - 166); followed by 75 cases in 2020 with 77 days (IQR: 30 - 115); 81 cases in 2021 with 53 days (IQR: 27 - 105); 76 patients in 2022 with 52 days (IQR: 22.5 - 102); and finally, 61 individuals in 2023 with 43 days (IQR: 22 - 76). **CONCLUSION:** The study revealed a reduction in the waiting time for the initiation of treatment for malignant neoplasms of the CNS, eyes, and adnexa in Brazil between 2019 and 2023. Despite the apparent compliance with the 60-day Law observed in the study, the data should be interpreted with caution, as other variables were not included in the analysis.

**71. MALE GENITAL CANCER: TIME BETWEEN DIAGNOSIS AND TREATMENT IN MARANHÃO FROM 2019 TO 2023**

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**INTRODUCTION:** Male genital cancers, which include penile, testicular, and prostate cancer, represent a significant portion of neoplasms affecting men. Early diagnosis and the start of treatment remain challenging due to access to healthcare services, awareness of the disease, and the healthcare system's infrastructure. This study aims to analyze the evolution of the waiting time for treatment initiation after the diagnosis of malignant neoplasms using data from the DATASUS system. **METHODS:** This is a cross-sectional analytical observational study, using data obtained through the Oncology Panel of DATASUS for all individuals registered between 2019 and 2023, considering the time interval in days between diagnosis and first treatment for the ICD (International Classification of Diseases and Related Health Problems) codes C60 to C63. We used RStudio 2024.04.1 software for data analysis, describing the median and interquartile range (IQR) as representative measures, as the data have abnormal distribution according to the Shapiro-Wilk test. **RESULTS:** In 2019, the median waiting time in days between diagnosis and the first registered treatment was 85.5 days (IQR: 33 - 244.5). From 2020 to 2023, we observed successive decreases in the median waiting time every year, except for 2021. In 2020, it was 84 days (IQR: 29 - 233). In 2021, it was 84.5 days (IQR: 31 - 175). In 2022, the median decreased to 65 days (IQR: 30 - 144), and 57 days (IQR: 23 - 116) in 2023. The number of cases fluctuated, showing no trend toward stability. **CONCLUSION:** Considering the 60-day law, there is a possible trend towards meeting this timeframe for starting treatment after diagnosis. The first four years analyzed did not comply with the proposed 60-day law for treatment initiation after diagnosis. The concurrence of the COVID-19 pandemic in 2020 may have interfered with this result, as well as other variables not analyzed in the study.



**72. EPIDEMIOLOGICAL AND CLINICAL CHARACTERISTICS OF ONCOLOGY PATIENTS WITH NEUROPATHIC PAIN**

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**INTRODUCTION:** Cancer-related pain has multiple causes and mechanisms, the tumor itself, anticancer treatment, emotional aspects and metastases, that can induce neuropathic pain (NP), which is highly prevalent in oncology patients. From this perspective, identifying the NP component is of great clinical importance for proper analgesic management. Therefore, the present study aims to identify the epidemiological and clinical characteristics of oncology patients with neuropathic pain in order to identify possible associations that may help clarify the condition. **METHODS:** This is a cross-sectional population-based study conducted at two oncology hospitals within the public health network of São Luís, MA, from 2019 to 2021. The project was submitted to "Plataforma Brasil" and approved under number 3.450.690. Patients completed an initial questionnaire to identify the presence of chronic pain, and if positive, two additional questionnaires were administered, for the diagnosis of neuropathic pain (DN4) and for sociodemographic, pain, and cancer analysis. A descriptive analysis of the data was performed using the SPSS statistical software version 18, considering a p-value of less than 0.05 for statistical significance. **RESULTS:** Among the 1,020 patients interviewed, 35.3% (360) presented chronic pain. Of these, 62.5% (225) had a probable diagnosis of neuropathic pain (NP). It was observed that 70% of the patients with NP were women, 55% were aged between 40 and 59 years, 76% were of African descent, 71% came from the countryside of the state, 92% were unemployed, 70% earned up to one minimum wage, 44% were married, and 62% had up to 9 years of education. Women and the age group of 40-59 years showed a strong association with NP ( $p < 0.05$ ). The most common cancers were breast cancer (23.6%), cervical cancer (18.7%), and multiple myeloma (10.7%). Chemotherapy was administered to 81.8%, radiotherapy to 44%, and surgery to 56.4%. Metastasis occurred in 44% of the cases. Radiotherapy ( $p = 0.023$ ), breast and cervical cancers ( $p < 0.0001$ ), and metastasis ( $p = 0.014$ ) influenced the occurrence of NP. **CONCLUSION:** A higher prevalence of neuropathic pain was found in female oncology patients, particularly among those aged 40-59 years, of African descent, from the countryside, and who are unemployed. Furthermore, an association was identified between neuropathic pain and factors such as cancer type, receipt of radiotherapy, and presence of metastasis, emphasizing the importance of ongoing investigations to identify the main contributing factors.

**73. HIV INFECTION PORTRAYAL IN PREGNANT WOMEN AGED 10-49 YEARS OLD IN MARANHÃO BETWEEN 2019-2023**

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**INTRODUCTION:** The human immunodeficiency virus (HIV) compromises the immune system by decreasing the lymphocyte count. Evidence points to an increase in women infections in recent years, and the possibility of vertical transmission is an aggravating factor of the condition. In Brazil, 3.1 pregnant women/1000 born alive had HIV in 2022. In this regard, this study aims to describe the epidemiological profile of HIV infection in pregnant women aged 10 to 49 in Maranhão between 2019 and 2023. **METHODS:** This is an epidemiological, retrospective and quantitative study, developed by using Notifiable Diseases Information System (SINAN) data between 2019 and 2023 in Maranhão state. For the research, notifications of pregnant women infected with HIV aged between 10 to 49 were included. The data collection also included parameters such as race, education, notification location, prenatal care, HIV laboratory evidence, treatment and other pregnancy and childbirth related data. **RESULTS:** In sum, 1,1142 HIV infections were reported in pregnant women aged 10 to 49 in the state of Maranhão, between 2019 and 2023, there was a general decrease in the number of reported cases each year, except for 2021, which saw 283 cases, representing a 19.4% increase compared to the previous year. The infection records occurred mainly in pregnant women aged 20 to 29, with 614 (53,8%) notifications, of brown race, being 833 (72,9%) cases, and with complete high school education level, 356 (31,2%) cases. The municipalities that received the most notifications were São Luís, Imperatriz and Pinheiro, with 550, 126 and 52 cases, respectively. 92.6% of the women received prenatal care, and 49.2% of them had HIV laboratory confirmation indicating the importance of prenatal care in identifying the infection. The antiretroviral therapy was administered to 56.2% of the patients. The pregnancies culminated in 429 (37.6%) born alive, with elective cesarean sections as the primary delivery method, totaling 244 surgeries. Furthermore, antiretrovirals were administered to 397 newborns within the first 24 hours of life. **CONCLUSION:** The data disclosed that brown pregnant women with complete secondary education, especially those aged 20 to 29 years, are most vulnerable to HIV infection. High prenatal care contributed to the identification and monitoring of infection during pregnancy, which is crucial for preventing vertical virus transmission.

**74. CHARACTERIZATION OF HOSPITALIZATIONS DUE TO OSTEOMYELITIS IN THE NORTHEAST FROM 2019 TO 2023**Rômulo Guilherme Costa de Amorim<sup>1</sup>, Lucas Kevyn Cunha de Souza<sup>1</sup>, Priscyla Maria Vieira Mendes<sup>1</sup>.<sup>1</sup> Pitágoras Faculty – Bacabal

**INTRODUCTION:** Osteomyelitis is a bone infection caused by bacteria, fungi, or viruses. These infectious agents are disseminated through the bloodstream and/or open wounds, proliferating and triggering an inflammatory response. This pathology can affect bone structures, leading to necrosis and potentially impacting all bones in the body. This study aims to characterize hospitalizations due to osteomyelitis in the Northeast region of Brazil from 2019 to 2023.

**METHODS:** This is a cross-sectional, descriptive, quantitative study based on data extracted from the Hospital Information System of the Unified Health System (SIH/SUS), provided by the Department of Informatics of the Unified Health System (DATASUS). Hospitalizations for osteomyelitis in the Northeast were evaluated between 2019 and 2023. The analysis parameters included federative units by region, age group, race/color, sex, and type of care.

**RESULTS:** Between 2019 and 2023, there were 21,211 recorded cases of hospitalizations due to osteomyelitis in the Northeast, with the federative units reporting the highest numbers being Pernambuco (PE) with 4,719 cases ( $\approx 22.24\%$ ), Bahia (BA) with 4,323 cases ( $\approx 20.38\%$ ), and Ceará (CE) with 3,735 cases ( $\approx 17.6\%$ ). The percentage of hospitalizations for this morbidity in the region showed a rising trend in relation to the cases recorded in the country from 2019 to 2023, respectively: 26.47%; 26.77%; 30.77%; 31.01%; and 32.1%. The majority of cases were in males, accounting for 15,121 cases ( $\approx 71.28\%$ ) compared to females with 6,090 cases ( $\approx 28.71\%$ ). Furthermore, there was a prevalence among individuals aged 40 to 49 years, totaling 3,696 cases ( $\approx 17.42\%$ ), followed by those aged 30 to 39 years with 3,602 cases ( $\approx 16.98\%$ ) and those aged 50 to 59 years with 3,490 cases ( $\approx 16.45\%$ ). Notably, 15,988 cases ( $\approx 75.37\%$ ) of hospitalizations were classified as urgent, while 5,233 cases ( $\approx 24.67\%$ ) were elective. Regarding race/color, the majority of hospitalizations for osteomyelitis were among mixed-race individuals, totaling 14,482 cases ( $\approx 68.27\%$ ).

**CONCLUSION:** In conclusion, it is emphasized that males were the most affected group, with the majority of hospitalizations being urgent. The most impacted demographic was predominantly mixed-race individuals aged 40 to 49 years and Pernambuco was the state in the Northeast with the highest prevalence of this morbidity. Therefore, there is a need for socio-educational strategies in health to raise awareness among the population about this disease, its symptoms, causes, and appropriate treatment.

**75. EPIDEMIOLOGICAL CHARACTERIZATION OF DENGUE CASES IN BRAZIL IN THE 2024 OUTBREAK**Yasmim Nunes Santos<sup>1</sup>, Thiago Henrique Ferreira Matos<sup>1</sup>, Selma Maluf Teixeira<sup>1</sup>.<sup>1</sup> Dom Bosco University Center

**INTRODUCTION:** Dengue is an acute febrile illness transmitted by the *Aedes aegypti* mosquito. It is endemic in tropical regions, with Brazil ranking 6th globally. The objective of this study is to conduct an epidemiological analysis of the 2024 outbreak, aiming to understand its profile, causes, and socioeconomic impact.

**METHODS:** This is an ecological study. Public policies were evaluated on the Ministry of Health's website, and data were obtained from the TABNET system on the Department of Informatics of the Unified Health System (DATASUS) website during 2023-2024.

**RESULTS:** In the Midwest, the most affected region, cases increased by 286% compared to 2023, while in the Northeast, North, South, and Southeast, the increases were 195%, 117%, and 115-74%, respectively, in just the first four months of 2024. The incidence in the Midwest was 3.87 per 100 inhabitants, representing an increase of 238.47% compared to 2023, and the mortality rate from dengue rose by 353.85%. Clinical-epidemiological diagnosis was the most prevalent, followed by laboratory diagnosis. In the South, the incidence decreased by 17.12% in the first four months of 2024, but mortality increased by 50%, indicating the high number of deaths still under investigation. The confirmation criterion was predominantly clinical-epidemiological, while laboratory confirmation accounted for 24% (n = 163,621). Increased health support implies greater effectiveness in reporting cases and less socioeconomic impact. In the Southeast, mortality decreased by 75%, while incidence rose by 173.63%. Regions with the highest Human Development Index (HDI), Gross Domestic Product (GDP), and urban agglomerations are, consequently, the environments most susceptible to the development of mosquito breeding sites. In the North and Northeast, increases in incidence were 16.67% and 6.67%, respectively. Underreporting and the absence of epidemiological data are concerning, with 72.3% (n = 148,298) of outcome data ignored and 54.3% (n = 111,450) of diagnostic confirmation criteria missing, suggesting that the current 'favorable scenario' is likely a misrepresentation of reality. The results indicate that the inadequate utilization of available resources by the SUS, without accounting for the socioeconomic and geographic conditions of the regions, along with irregularities in basic sanitation and urbanization services, exacerbates the situation.

**CONCLUSION:** The growing disparity in incidence between regions underscores the need for an operational review of control measures and the integration of prevention strategies with basic sanitation initiatives.

**76. CASES OF ACQUIRED SYPHILIS IN THE STATE OF MARANHÃO BETWEEN THE PERIODS OF 2014 AND 2023**

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**INTRODUCTION:** Sexually transmitted infections (STIs) continue to be major challenges for public health. Syphilis is one of the most common STIs worldwide and can be transmitted both through direct contact with lesions during sexual intercourse (acquired syphilis) and from mother to fetus (congenital syphilis). The disease is caused by the bacterium *Treponema pallidum* and presents several clinical manifestations and is classified as primary, secondary, latent and tertiary, and depending on the time of infection, it can be considered recent (up to the first year) or late (after the first year). Although it is an easily treatable infectious disease, syphilis can worsen if left untreated. Given this problem, the objective of this research was to study the incidence of cases of acquired syphilis in the state of Maranhão between the years 2014 and 2023. **METHODS:** Epidemiological, cross-sectional, descriptive, quantitative study on acquired syphilis, using secondary data reported in the notifiable diseases information system - SINANT- TABNET/DATASUS, of the Ministry of Health, from 2014 to mid-2023. The results were tabulated in EXCEL and presented in graphs and tables, expressed in absolute numbers and frequencies. **RESULTS:** The study revealed n=14,120 cases of syphilis in Maranhão from 2014 to 2023, with higher prevalence and lower prevalence in 2022 and 2014 respectively. Regarding the age group: 10 to 14 years: n=77, while the most affected were 20 to 39 years: n=7,415. The most affected race was brown, with n=9,864. Regarding sex, male: n=7,700; female: n=6,419. With regard to education, the most affected group is those with completed secondary education n=3,841 cases. **CONCLUSION:** From the analysis of the results, it can be highlighted that the cases of acquired syphilis, in the State of Maranhão, were high and serve as indicators for taking measures by public health managers, given the important role of carrying out preventive actions to change this scenario. It is also worth highlighting that the highest prevalence of syphilis in the State is linked to young men with high school education. Therefore, when verifying these considerations, the importance of joint operations between the health and public education sectors must be highlighted, with the aim of offering prevention and treatment alternatives, aiming to reduce the number of cases.

**77. PROBABLE CASES OF DENGUE IN CHILDREN AND ADOLESCENTS IN NORTHEAST BRAZIL FROM 2014 TO 2024**

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**INTRODUCTION:** Dengue is transmitted by the *Aedes aegypti* mosquito. Its symptoms start abruptly with high fever, headache, myalgias and others, strongly affecting children and the elderly. According to the Ministry of Health, there has been a more than 100% increase in the number of cases in Brazil among children. The symptoms of the virus are diverse and can be mistaken for a common cold or flu, delaying proper treatment and succumbing to additional symptoms of a more serious condition: vomiting, lack of appetite, diarrhea, bleeding and others. Faced with this problem, the aim of this study was to investigate cases of dengue in children and adolescents in the north-east of Brazil from 2014 to 2024. **METHODS:** An epidemiological, cross-sectional, descriptive, quantitative study on Dengue, using secondary data notified in the Ministry of Health's Notifiable Diseases Information System - SINAN - TABNET/DATASUS, from 2013 to mid-2024. The results were tabulated in EXCEL and presented in graphs and tables, expressed in absolute numbers and frequencies. **RESULTS:** n=649768 probable cases of dengue were reported in children and adolescents in the Northeast from 2013 to 2024, with an oscillating trend and peaks in 2015, 2019, 2022 and 2024. The most affected race was brown with n=362779 cases. As for age group: <1 year: n=42341, while the most affected was 15 to 19 years: n=202471. As for gender, male: n=325025; female: 323818. Final classification: Dengue: n=394784; Inconclusive: n=224492; Classic dengue: 9740; Dengue with alarm signs: n=9796; Severe dengue: n=954. Confirmation criteria: Laboratory: n=108756; Clinical-epidemiological: n=291938; Under investigation: n=25798. Evolution: Cure: n=368267; Unknown/white: n=281003; deaths from the notified disease: 296; deaths under investigation: n=148. **CONCLUSION:** Dengue cases in children were high and serve as a warning to public health managers, since public policies are extremely important to change this situation, as they must implement preventive actions. It is important to note that the number of dengue cases in the current year is alarming. Finally, the dengue virus in children is not easy to identify in the first few days, but as the case worsens, it can be fatal. Therefore, it is essential that those responsible and public health are connected so that there is good treatment and a drop in the number of current cases.

**78. EARLY CATARACTS: A LITERATURE REVIEW**

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**INTRODUCTION:** Cataract is the loss of transparency of the lens, resulting in its opacity. It is the biggest cause of treatable blindness in developing countries. According to the World Health Organization, there are 45 million blind people in the world, of which 40% are due to cataracts. This process occurs mainly as a result of aging, but young individuals and children can develop cataracts early. Cataracts commonly appear after the age of 50, but medications, eye trauma and chronic diseases can accelerate the process. This work aimed to clarify the medical community about the types and predisposing factors that lead to early cataracts. **METHODS:** Research from 2019 to 2024 on the topic was reviewed, using an integrative literature review. The searches in the databases, SCIELO, Pubmed and Google Scholar used the descriptors "early cataract", "crystalline cataract", "risk factors" and "predisposing causes", including articles in portuguese and excluding those prior to 2019, or duplicates. 10 articles were used. **RESULTS:** It was found as an inherent characteristic of all studies that the transparency of the crystalline lens is fundamental for vision, as its opacity alters the refractive functionality adaptive to the distances of the observed objects, reducing visual acuity. It has been identified that habits such as smoking, greater exposure to sunlight and self-medication increase the risk of developing cataracts early. Another relevant factor observed was the presence of excess metabolites, which can accelerate its appearance, which commonly occurs in diabetic patients. Genetic factors and maternal viral infections, such as rubella and toxoplasmosis, have been identified as the most common causes of congenital cataracts. Eye injuries from car accidents or bruises can cause traumatic cataracts. Another important cause observed is related to the continuous use of some medications such as corticosteroids, beta-blockers, isotretinoin and antidepressants. **CONCLUSION:** Knowledge about lens opacification factors must be considered in clinical practice, in order to prevent its progression and guide surgical treatment. In conclusion, early cataract is a condition with multiple risk factors, including genetic, environmental, behavioral, pre-existing pathological factors such as diabetes and medication use. Thus, the doctor is able to improve the patient's quality of life, minimizing and/or avoiding the individual's functional loss.

**79. CARDIAC SURGERY: ADVANCES, ADVANTAGES AND LIMITS OF THE MINIMALLY INVASIVE TECHNIQUES**

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**INTRODUCTION:** Minimally invasive surgery (MIS) was introduced to Brazil in the 1990s and has since differentiated itself from traditional surgery, evolving and gaining popularity. In cardiac surgery, this technique uses small incisions, without direct access to the heart, unlike the traditional approach, which involves larger incisions and can cause visible anatomical changes and longer hospitalization and recovery times. Despite the differences, both methods are valid and have a scientific basis and technological evolution. The objective is to present the advantages and disadvantages of the techniques, helping in the choice of the ideal approach according to the patient's situation and clinical conditions. **METHODS:** Integrative studies conducted between 2018 and 2023 were carried out in the PubMed and SciELO databases, using terms such as minimally invasive and traditional cardiac surgeries. Articles with comparative data were selected that analyzed the advantages and disadvantages of each technique, considering recovery time, complications, and aesthetic outcomes. **RESULTS:** Traditional cardiac surgery, known as median sternotomy, involves a large incision in the chest and cutting of the sternum, allowing direct access to the heart. However, this method can result in greater surgical trauma, risks of infection, and visible scarring, as well as a longer hospitalization and recovery time. In contrast, minimally invasive cardiac surgery utilizes small incisions and advanced technologies such as laparoscopy, arthroscopy, endoscopy, and robotics. This approach reduces trauma, decreases recovery time and the risk of infection, and results in smaller, less visible scars. It allows for the treatment of cardiac problems with a smaller physical impact, facilitating a faster and more comfortable recovery. Although there were initial doubts about the safety of minimally invasive surgery, studies have proven it to be a safe procedure. The choice depends on the patient's clinical condition and the surgeon's experience. **CONCLUSION:** Minimally invasive techniques have gained prominence due to their ability to reduce postoperative discomfort and offer improved cosmetic outcomes compared to traditional techniques. Minimally invasive procedures (MIPs) reduce inflammatory responses, resulting in shorter recovery times, despite having a longer duration of cardiopulmonary bypass. Both techniques have their advantages and disadvantages, necessitating a personalized approach to treatment based on the patient's individual characteristics and the surgeon's expertise.

**80. VACCINATION COVERAGE AGAINST POLIOMYELITIS IN MARANHÃO FROM 2012 TO 2022**

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**INTRODUCTION:** Poliomyelitis is an acute contagious infection caused by the poliovirus, transmitted by fecal-oral and respiratory contact and which can lead to irreversible paralysis due to infection of the spinal cord and brain, with vaccination as the only form of prevention. Since 2016, the polio vaccination schedule consists of three doses of the injectable vaccine (IPV) at 2, 4 and 6 months, in addition to two booster doses with the bivalent oral vaccine (OPV). In Brazil, the disease has been eradicated, but its vaccination coverage has been below that recommended by the WHO (95%) since 2016, which represents a threat to public health. Thus, this study aims to analyze the polio vaccination coverage from 2012 to 2022 in the state of Maranhão. **METHODS:** This is a cross-sectional, retrospective, descriptive and quantitative study based on secondary data provided by the Department of Information Technology of the Unified Health System (DATASUS) on polio vaccination coverage in Maranhão from 2012 to 2022. The variables considered were "year", "capital", "polio", "polio 1st ref" and "polio 4 years". **RESULTS:** Regarding general immunization against polio in the state of Maranhão, in the period covered, the year 2013 had the highest vaccination coverage (n = 105.73%), while 2020 had the lowest (n = 60.91%). Regarding the first polio booster, registered since 2013, 2013 had the highest vaccination coverage (n=95.68%), while 2021 had the lowest (n=47.42%); while, regarding the second booster at 4 years of age, registered since 2017, coverage was highest in 2022 (n=49.98) and lowest in 2020 (n=35.41). In relation to the capital of Maranhão, São Luís, total polio vaccination coverage was highest in 2015 (n=104.6%) and had the lowest value in 2020 (38.02%). **CONCLUSION:** The study shows a significant reduction in the rates of general immunization and the first booster, possibly due to the increase in the phenomenon of vaccine hesitancy, the lack of perception of the risk and severity of the disease by the current generation of parents, and the difficulty in accessing health services during the pandemic period. Despite the increase in the numbers of the second booster, the state remains below the ideal vaccination coverage recommended by the WHO, a scenario exemplified by the decrease in vaccination in the capital. Therefore, it is essential to increase vaccination coverage to prevent the return of the disease.

**81. VACCINATION OF PREGNANT WOMEN WITH DTPA IN MARANHÃO: EFFECTS OF THE COVID-19 PANDEMIC**

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**INTRODUCTION:** The diphtheria-tetanus-pertussis (dTpa) vaccine is of great importance to society, especially for pregnant women, as it offers protection against potentially dangerous diseases such as tetanus, diphtheria, and pertussis. Vaccination of pregnant women with dTpa is recommended to prevent neonatal morbidity and mortality from pertussis, as antibodies cross the placental barrier. The Ministry of Health has been offering the dTpa (acellular) vaccine to pregnant women since November 2014, through the National Immunization Schedule by the Unified Health System (SUS). The emergence of the COVID-19 pandemic impacted various health sectors, especially vaccination campaigns and rates. The scenario imposed by the pandemic, leading to the confinement of people and social distancing, abruptly changed society's routine and was a major factor in the decline in immunization percentages. The objective of this study was to analyze the vaccination coverage of the diphtheria-tetanus-pertussis (dTpa) vaccine in pregnant women in the state of Maranhão during the years 2020, 2021, and 2022, a period marked by the COVID-19 pandemic, aiming to understand the pandemic's impact on vaccination rates. **METHODS:** This is an epidemiological, retrospective, and quantitative study on dTpa vaccination. The unit of analysis chosen was the state of Maranhão during the COVID-19 pandemic years (2020, 2021, and 2022). Data were obtained through the Department of Informatics of the Unified Health System (DATASUS) and the TaBNeT tabulation tool. Variables such as dTpa vaccination coverage in pregnant women and the years 2020, 2021, and 2022 were used. **RESULTS:** In 2020, vaccination coverage was 38.10% in the state of Maranhão. In 2021, coverage was 39.27%, and in 2022, the immunization rate reached 47.51% of the Maranhão population. There was an increase in dTpa vaccination coverage in 2021 compared to 2020, with a rise of 1.17%. When comparing the years 2021 and 2022, an 8.24% increase in vaccination coverage was observed. **CONCLUSION:** The diphtheria-tetanus-pertussis vaccine is very important for pregnant women, as it offers protection against diphtheria, tetanus, and pertussis. Analyzing the dTpa vaccination coverage in Maranhão during the pandemic years shows a slight increase in coverage.



**82. TRADITIONAL AND VIDEOLAPAROSCOPIC CHOLECYSTECTOMY IN MARNHÃO OVER 10 YEARS**

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**INTRODUCTION:** Surgery for the removal of the gallbladder is justified in the treatment of gallstone diseases, neoplasms, and complications related to this organ. It can currently be performed in two ways: the traditional method, through a mini-laparotomy, and videolaparoscopy, through small incisions. Thus, the present study aims to compare, over a 10-year period, the two surgical modalities in Maranhão, exploring the main variables regarding the procedures. **METHODS:** This is an ecological study with a quantitative and descriptive approach to hospital admissions for traditional and videolaparoscopic cholecystectomy reported in Maranhão between 2014 and 2023. Data were extracted from the Hospital Information System (TABNET/DATASUS). The study variables are: year, hospital admissions by procedure, average cost, average length of stay, and deaths. **RESULTS:** Between 2014 and 2023, a total of n=65,068 procedures were performed, of which approximately 76% were done using the traditional method, while only 24% used the more modern technique. In 2014, the largest percentage difference between the types of procedures was recorded, with 80.9% performed traditionally. Regarding deaths during the period, traditional surgeries registered more than three times the number of deaths (n=94) compared to videolaparoscopic surgeries (n=30). Concerning the average hospital stay, the videolaparoscopic technique showed an average of 3.7 days, while the traditional method had an average of 2.8 days. Furthermore, the difference in average costs between the two types of surgery varied little over the years, with the largest difference recorded in 2015 at R\$198, and the smallest in 2022 at about R\$16. **CONCLUSION:** The data show that videolaparoscopic cholecystectomy offers certain advantages for patients compared to the other method, as there is a lower number of deaths. Additionally, the average cost per hospital admission does not justify such a disparity in the number of cases in the state. This reality highlights the need to expand the use of this excision modality to improve the population's quality of life, particularly by reducing deaths.

**83. CORRELATION BETWEEN INCIDENCE AND KNOWLEDGE ABOUT HIV AMONG HOMELESS PEOPLE**

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**INTRODUCTION:** It is understood that the incidence of infection by the human immunodeficiency virus (HIV) is higher in groups with low education, sex workers and drug users, therefore, it is traditionally associated with the socioeconomic conditions (SES) of affected individuals. Understanding that homeless people (PSR) fit into more than one of these topics and that there is a relationship between incidence and inefficiency of sexual education, the research aims to correlate the level of knowledge about HIV and seropositivity in PSR. **METHODS:** questionnaires on CSE and knowledge about HIV were administered and a rapid test for HIV was carried out in HP in the neighborhoods of Monte Castelo, Deodoro, Mercado Central, João Paulo and Cohab in São Luís, Maranhão. Opinion: 5794987. **RESULTS:** 64 PSR were interviewed and tested, of which 30% were positive, among them 42% believe that there is a vaccine that prevents HIV infection and that the disease can be cured with the use of antibiotics, while only 28.8% of healthy people believe so; 63% did not know how to differentiate HIV from human immunodeficiency syndrome (AIDS) and 26% believe that HIV can be transmitted by coughing/sneezing and sharing personal objects; 36% say they can contract HIV by sitting on the toilet after an infected person; It is also noted that only 26% of HIV-positive people always use condoms. Regarding CSE of HIV-positive people: 57% have incomplete primary education, 5% have completed secondary education and no one has a higher education degree; the majority do not have access to public places to sleep or practice personal hygiene; the fashionable age is between 40 and 50 years old; 63% are self-employed, 10% are salaried, 10% are retired and 15% are unemployed. **CONCLUSION:** among the volunteers who tested positive for HIV, there appears to be a relationship between social conditions and level of knowledge about HIV with the incidence of infection. The misinformation about forms of contagion and prognosis proved to be striking, probably associated with inefficient or non-existent sexual education, which should also be taught at school, but the minority completed high school.

**84. POST-CRANIOPHARYNGIOMA RESECTION METABOLIC COMPLICATIONS: A CASE REPORT**

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**INTRODUCTION:** Craniopharyngioma is a rare benign tumor of the sellar and parasellar region, but with high morbidity due to its proximity to intracranial structures such as the pituitary gland, hypothalamus, and optic chiasm. Treatment involves surgery and sometimes radiotherapy. Patients may develop significant post-operative metabolic complications, such as weight gain and metabolic syndrome, due to hormonal and hypothalamic damage. This report aims to describe the metabolic complications of a patient following craniopharyngioma resection and discuss management and prevention strategies. This study was approved by CEP-HUUFMA (CAAE 63982722.2.0000.5086). **CASE DESCRIPTION:** I.V.B.R., female, presented to the neuroendocrinology service in 2019 at the age of 14 with intense headache, confusion, agitation, and amenorrhea. Imaging revealed a solid expansive lesion in the sellar and suprasellar region, measuring 3.8 x 3.0 x 2.2 cm, suspected to be a craniopharyngioma. The patient had preoperative gonadotropic and somatotrophic deficiencies and was on glucocorticoid therapy (prednisone 7.5 mg/day). Prior to resection, she presented with elevated triglycerides (172 mg/dl) and low HDL (35 mg/dl), treated with simvastatin 20 mg/day. After transcranial resection in March 2022, she developed panhypopituitarism, including arginine vasopressin deficiency, thyrotrophic and corticotrophic deficiency, as well as significant weight gain (12.7 kg in 3 months). Her BMI was 25.5 kg/m<sup>2</sup> (overweight), and by April 2023, it had increased to 31.4 kg/m<sup>2</sup> (grade I obesity), with blood pressure of 140x90 mmHg, fasting glucose of 153 mg/dl, triglycerides of 357 mg/dl, and HDL of 24 mg/dl. There was still a residual lesion of 1.2 cm in the pituitary gland in its largest axis, stable postoperatively. Current treatment includes prednisone (5 mg/day), nasal DDAVP (0.1 mg/ml, 3 puffs/day), metformin (1500 mg/day), and levothyroxine (125 mcg/day), with dietary adjustments and exercise guidance, maintaining stable weight with difficulty losing it. The patient is being followed by a multidisciplinary team. **CONCLUSION:** This case illustrates the complexity of post-craniopharyngioma resection management, highlighting the impact of hypothalamic and hormonal dysfunction on weight and metabolic syndrome. Controlling these complications requires continuous monitoring, therapeutic adjustments, and dietary interventions. An integrated approach is crucial to improving clinical outcomes and patient quality of life.

**85. DECOMPRESSIVE CRANIOTOMY IN THE NORTHEAST FROM 2014 TO 2023**

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**INTRODUCTION:** Decompressive craniotomy (DC), a procedure used in the management of acute neurological conditions such as extensive cerebral infarction and intracranial hemorrhage, involves the partial removal of the skull to reduce intracranial pressure and improve compliance and balance of cerebral hydrodynamics. In this context, DC is associated with reduced mortality and improved neurological outcomes. Given this, this work aims to describe the epidemiological profile of DC in the Northeast region of Brazil from 2014 to 2023. **METHODS:** This is an epidemiological, quantitative, and descriptive study conducted in July 2024. Secondary data were collected from DATASUS/TABNET using the SUS Hospital Procedures indicator in the Northeast Health Region. For the study period, the following variables were selected: approved AIH, year of service, nature of the service, average length of stay, average service cost per AIH, deaths, and mortality rate. Descriptive statistics were employed for data analysis. **RESULTS:** There were 7,792 cases, with a peak in 2021 at 12.14% (n= 946). Additionally, high numbers were observed, showing a trend of growth over the last 5 years analyzed. The national average length of hospital stay was 15.1 days; however, the years from 2019 to 2023 were above average, with 2022 being the longest at 16.3 days. The average cost per AIH was R\$5,038.33; however, this amount was exceeded from 2019 to 2023, with 2023 recording the highest value at R\$6,019.86. There were 2,369 deaths, with the highest prevalence in 2021 at 12.07% (n= 286). Regarding the nature of care, 91.04% were classified as urgent (n= 7094), with a mortality rate of 30.52 per 1,000 inhabitants, exceeding the national average rate of 30.40 per 1000 inhabitants. **CONCLUSION:** The number of decompressive craniotomies performed in the Northeast has increased in recent years, resulting in a significant reduction in the number of deaths. In over 90% of cases, DC is performed as an emergency procedure, requiring prompt attention. Therefore, increasing the number of trained professionals in DC and sustaining this growth are essential measures to continue reduction of mortality. However, there is a high cost associated with DC, necessitating the organization of public financial resources to cover the expenses of the procedure and hospitalization, as it typically exceeds 10 days in most cases.

**86. CHILDREN WITH HIV: ANALYSIS OF REGIONAL AND BRAZILIAN INCIDENCE BETWEEN 2013 AND 2023**Marcos Antonio Martins Pereira<sup>1</sup>, Debora Cristina Ferreira Lago<sup>1</sup>.<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** The human immunodeficiency virus (HIV) is responsible for acquired immunodeficiency syndrome (AIDS). In recent years, AIDS has become a global epidemic, affecting even children. In Brazil, the 2023 HIV epidemiological bulletin indicates 63.9% reduction in deaths among children under 5 years old. Nonetheless, this infection is still a major pediatric disease worldwide, with 1.5 million people under 15 years old with HIV. The main form of transmission to children is via the vertical route during pregnancy, childbirth or breastfeeding. There was an increase of more than 30% in the number of pregnant women with AIDS in 10 years. The research aims to analyze the incidence of children with a positive HIV diagnosis in Brazil and in the country's regions from 2013 to 2023. **METHODS:** This is an epidemiological, longitudinal, retrospective, quantitative and descriptive study using secondary databases available from the Department of Information Technology of the Unified Health System (DATASUS). The study population is made up of children and adolescents under the age of 15 years diagnosed with HIV in Brazil and in the country's regions between 2013 and 2023. The variables used were: year of diagnosis, age, confirmed cases, sex and region of residence. **RESULTS:** A total of 4,773 HIV-positive cases were found in children under 15 years between 2013 and 2023, with the Southeast with 1,467 cases and the Northeast with 1,391 cases accounting for almost 60% of all diagnoses. Comparing the data for 2013 and 2023, we see a reduction of 81.5% in positive AIDS cases among this age group. This significant reduction is also seen in the gender variable, since when analyzing the total number of diagnoses in 2013 and 2023 we see a decrease of 79% for boys and 83% for girls. **CONCLUSION:** Based on the analysis of the data, it can be concluded that there has been a significant decrease of more than 80% in AIDS cases in the pediatric population, even with more HIV-positive pregnant women. This is the result of applying the Ministry of Health's Clinical Protocols and Therapeutic Guidelines to pregnant women in order to control the infection and reduce the viral load, thus preventing vertical transmission and HIV infection in the child.

**87. POSTOPERATIVE DELIRIUM: A COMPARATIVE STUDY BETWEEN GENERAL AND REGIONAL ANESTHESIA**Pedro Igor de Sousa Rios<sup>1</sup>, Rodrigo Almeida da Paz<sup>1</sup>, Lucas de Moura Kurz<sup>1</sup>, Bianca Sousa Belfort Ferreira<sup>1</sup>, Isabela Pinheiro Souza<sup>1</sup>, Welbert Souza Furtado<sup>1</sup>, Cyro Franklin Conceição Vieira<sup>2</sup>.<sup>1</sup> Federal University of Maranhão; <sup>2</sup> São Domingos Hospital

**INTRODUCTION:** Postoperative delirium (POD) is one of the most concerning conditions for physicians in anesthetic management. It predominantly occurs following major surgeries, particularly in patients with multiple comorbidities and in the elderly. In this context, the advent of regional anesthesia techniques allows for the avoidance of general anesthesia, which utilizes hypnotic agents that act on the Central Nervous System. This could provide an alternative to prevent this undesirable event. The objective of this study is to compare the incidence of delirium in the postoperative period between general and regional anesthesia techniques. **METHODS:** This is an integrative review of the medical literature, utilizing the databases PubMed, BVS, and Web of Science. The search strategy included the terms "postoperative delirium" and "general anesthesia" or "general anaesthesia," as well as "regional anesthesia" or "regional anaesthesia." Studies published between 2014 and 2024 were included to address the question: "Is there a difference in the incidence of postoperative delirium between general and regional anesthesia?" Studies that did not meet the above criteria, duplicated across databases, commentaries, editorials, and case reports were excluded. **RESULTS:** After a meticulous analysis, 12 articles were selected. Eight systematic review studies (including five meta-analyses) demonstrated no significant difference between the anesthetic techniques regarding their association with POD incidence. Nonetheless, only one meta-analysis indicated that regional anesthesia was associated with a lower occurrence of POD (38 percent reduction,  $p < 0.01$ ). Among the four population-based retrospective studies, one study reported a 2.5 percent lower POD rate ( $p < 0.001$ ), while the others highlighted only the established benefits of regional anesthesia, such as reduced opioid use and lower pain levels. Finally, all articles illustrated the need for more randomized clinical trials, given the scarcity of specific and reliable data to date. **CONCLUSION:** The majority of the studies analyzed did not demonstrate the superiority of regional anesthetic techniques over general anesthesia in reducing postoperative delirium. The established benefits of regional blocks remain consistent with the existing medical literature. However, there is a pressing need for studies employing more rigorous and reliable methodologies, as there was no absolute consensus regarding the advantage of regional anesthesia in elderly patients concerning the mitigation of postoperative delirium.

**88. CHALLENGES IN THE ERADICATION OF HEPATITIS C IN MARANHÃO: AN EPIDEMIOLOGICAL STUDY**Ilmarya Barros Pereira<sup>1</sup>, Josivania Monteiro de Castro<sup>1</sup>, Hanne Lise Silva Guida<sup>1</sup>, Alessandra Porto de Macedo Costa<sup>1</sup>.<sup>1</sup> University Center of Maranhão

**INTRODUCTION:** Hepatitis C is an infectious process of the liver caused by the hepatitis C virus (HCV), a disease that can lead to cirrhosis and liver cancer. The World Health Organization (WHO) estimates that 58 million people live with chronic HCV, thus establishing, in 2016, the goal of eliminating hepatitis C as a public health problem by 2030. In Maranhão, despite the reduction in notifications in 2020, faces challenges to contain its spread. This work aims to analyze the distribution of HCV infection from 2017 to 2022, as well as understand the challenges for its eradication in Maranhão.

**METHODS:** The epidemiological study conducted as a quantitative analysis of documentary data. Reactive cases of hepatitis C registered in the state of Maranhão were analyzed, according to the Notifiable Diseases Information System (SINAN) available at DATASUS, between the years 2017 and 2022. The variables included in the study were age group (15 to 39 years old and 40 to 64 years old), gender and the distribution of cases among the state's municipalities. **RESULTS:** It was observed that during the period studied, 562 cases reactive for hepatitis C were reported in the age group of 15 to 64 years in the state of Maranhão. The vast majority are in the age group of 40 to 64 years old, with 82.2% of cases. As for gender, females had a rate of 47.54% of positive tests and males, 52.46%. According to the municipality, São Luís showed the highest incidence in the state, followed by Imperatriz. There was also a significant increase in the number of reactive tests in 2018 (n= 150), followed by a drop in 2020 (n= 52) and a new increase in 2022 (n= 101). **CONCLUSION:** The incidence of hepatitis C in Maranhão varied significantly between 2017 and 2022, being higher in more developed urban centers, in males and in older age groups. This highlights the need for continuous epidemiological surveillance, with testing programs, especially in people over 40 years of age, and effective detection strategies, so that appropriate treatments can be carried out in order to reduce the burden of the disease. Furthermore, there is still a limitation in accurately quantifying and explaining the morbidity and mortality of this condition. More in-depth epidemiological studies are needed to better understand the evolution of the disease.

**89. DESFERIOXAMINE: IMPACT ON THE THERAPY OF MYCOBACTERIAL INFECTIONS**Joana Tenorio Albuquerque Madruga Mesquita Meireles Teixeira<sup>1</sup>, Ana Clara Freitas Martins Costa<sup>1</sup>, Pedro Lucas Brito Tromps Roxo<sup>1</sup>, Eduardo Martins De Sousa<sup>1</sup>.<sup>1</sup> University Center of Maranhão

**INTRODUCTION:** Mycobacteria are Gram-positive, non-motile and highly pathogenic microorganisms related to several diseases such as leprosy, tuberculosis and soft tissue infections. Diseases caused by bacteria of the genus *Mycobacterium* represent a challenge to global public health due to the high survival capacity of mycobacteria and the increasing incidence of new strains resistant to conventional antimicrobials. Therefore, research into new therapeutic strategies has been encouraged. Thus, the pharmaceutical repositioning of desferrioxamine (DFO), a siderophore used as an iron chelator in pathological conditions, has aroused interest as a potential antimicrobial agent. Thus, this literature review seeks to explore the action of DFO on mycobacterial species, with emphasis on *Mycobacterium tuberculosis*. **METHODS:** This is an integrative literature review carried out in July 2024, with publications from the last 13 years in the electronic databases PubMed, SciELO and ScienceDirect. The descriptors "Mycobacterium", "Desferrioxamine" and "Desferrioxamine and Mycobacterium" were used. The final sample consisted of 10 articles in Portuguese and English. **RESULTS:** It is known that the bacterial biofilm is a complex structure that protects it against the action of antibiotics and the immune system of its host. DFO has properties that can inhibit the formation of biofilm in some mycobacteria, such as those that cause tuberculosis and other respiratory infections. By preventing the formation of biofilm, DFO makes the bacteria more susceptible to the action of antibiotics and the immune system, eradicating the pathogen and preventing its proliferation. **CONCLUSION:** In summary, desferrioxamine, due to its anti-biofilm action, presents a promising alternative for the treatment of diseases caused by bacteria of the genus *Mycobacterium*, such as tuberculosis and other respiratory infections. By inhibiting biofilm formation, DFO increases the effectiveness of the immune system and antibiotics against these pathogens, thus preventing their proliferation and favoring the eradication of the infection.

**90. DIAGNOSIS AND TREATMENT OF MEDIAL TIBIAL STRESS SYNDROME**

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**INTRODUCTION:** Medial tibial stress syndrome, known as 'shin splints', is common in athletes, caused by repetitive pressure, mainly due to excessive activity, and affects up to 70% of runners every year. It is characterised by pain along the posteromedial tibial border, induced by palpation. Given the imprecision of the term 'shin splints', the diagnosis and treatment of this condition is challenging. The aim of this study was therefore to review the main diagnostic and treatment methods for medial tibial stress syndrome. **METHODS:** This is a literature review, in which a search was carried out in the Scielo and PubMed databases, using the descriptors 'medial tibial stress syndrome', resulting in 29 articles. The inclusion criteria were articles available in full that covered the subject of the study. The time limit was limited to articles published in the last 5 years. **RESULTS:** The diagnosis of medial tibial stress syndrome is based on anamnesis and physical examination, given that studies show that imaging tests (X-ray, ultrasound and MRI), although capable of finding findings, are not able to differentiate between athletes with and without the condition. However, they are important for ruling out differential diagnoses. In addition, the presence of coexisting injuries at the time of diagnosis should be checked, which can alter the prognosis and treatment. As for the physical examination, it is necessary to palpate the region of the posteromedial tibial border, strengthening the diagnosis when the patient reports pain on palpation, as well as checking for the presence of other signs such as swelling or erythema. As for management, there is a lack of studies guaranteeing treatments with proven efficacy. Therefore, priority is given to conservative treatment, such as cryotherapy, stretching exercises, regional muscle strengthening, the use of non-steroidal anti-inflammatory drugs and individualised training programmes. Reducing the training load in terms of frequency, duration and distance has an impact on reducing the syndrome. **CONCLUSION:** The clinical history and physical examination are the pillars that guarantee the diagnosis of medial tibial stress syndrome. However, with regard to the treatment of the syndrome, there is a limitation in the literature of therapeutic options with proven efficacy.

**91. LATE DIAGNOSIS OF PARACOCIDIOIDOMYCOSIS: A CASE REPORT FROM PATIENT IN MARANHÃO**

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**INTRODUCTION:** Fungi of the genus *Paracoccidioides* can cause Paracoccidioidomycosis (PCM), a systemic disease with polymorphic character and similarities to tuberculosis (TB), which can also co-infect up to 10% of patients with PCM. In this context, the present study aimed to describe a case report of PCM with late diagnosis in a patient from the state of Maranhão. The study was approved by the research ethics committee and can be accessed with number 6.891.125. **CASE DESCRIPTION:** Male patient, 38 years old, fisherman, resident in a small city of Maranhão, attended the outpatient clinic of a private clinic specialized in Pneumology, complaining of dyspnea to small efforts, cough, progressive weight loss and evening fever for 11 months. At physical examination, cervical adenomegalia and pulmonary auscultation were observed with decreased vesicular murmurs. The patient reported that he sought medical attention after 5 months of the appearance of the first symptoms, when laboratory and imaging tests were requested, which showed eosinophilia and diffuse pulmonary disease, being diagnosed with TB. After the beginning of treatment for the initial hypothesis, there was exacerbation of the condition, with the appearance of acute dyspnea, which resulted in hospitalization for 4 days. In view of the clinical picture, a new chest radiography and bacilloscopy of sputum were requested. Radiography showed bilateral opacities and bacilloscopy showed negative result. After the first visit to the Pneumology clinic, considering the clinical history and the tests provided by the patient, there was a suspicion of PCM. Thus, an anatomopathological examination of a cervical lymph node fragment was requested, which showed granulomatous lymphadenitis with the presence of rounded yeast-like structures and capsular enhancement, being the findings compatible with PCM. Once the diagnostic suspicion was confirmed, treatment with itraconazole was started for 9 months. After 3 months of treatment, the patient returned to an outpatient clinic showing good evolution of the condition. **CONCLUSION:** The manifestations of PCM are respiratory conditions, skin signals and lymph nodes. Thus, it is noted that the clinical and radiological findings of this pathology are unspecific, making difficult diagnostic confirmation. Thus, it becomes evident the need to include PCM in the range of diagnostic hypotheses against any other similar picture reported in this study.



**92. DIAGNOSIS, RISKS AND FETAL COMPLICATIONS ASSOCIATED WITH GESTATIONAL DIABETES**

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**INTRODUCTION:** Gestational Diabetes Mellitus (GDM), a metabolic disorder established as a state of glucose intolerance, initially observed during pregnancy, and may or may not persist after delivery. In this sense, pregnancy becomes a high-risk period, as the levels of insulin produced by the pancreas become insufficient, developing insulin resistance in the pregnant woman and consequent congenital malformations. The objective of this work is to describe the main fetal complications associated with GDM, and the importance of early diagnosis and treatment to minimize risks. **METHODS:** A literature review was carried out, using the main databases: LILACS, Medline and Bireme. Using the following standardized descriptors: "Gestational Diabetes", "Congenital Abnormalities", "Diabetes Mellitus". Articles published in the last 10 years were included in the analysis, following the inclusion and exclusion criteria that addressed the topic. **RESULTS:** In Brazil, around 7.6% of pregnant women are diagnosed with GDM, a condition that significantly increases the risk of complications. A common physiological response during pregnancy is the development of insulin resistance, mediated by placental anti-insulin hormones. These hormones are crucial in ensuring a stable supply of glucose to the fetus. The hyperglycemia that can result from this condition compromises both the development of the yolk sac and the functionality of the placenta, requiring continuous monitoring throughout pregnancy. Furthermore, GDM can cause congenital malformations in vital systems such as the cardiovascular, central nervous and genitourinary systems, which can result in macrosomia, which refers to excessive fetal growth, neonatal convulsions and jaundice. These risks highlight the importance of careful management of maternal and fetal health. Some authors describe that these complications have been reduced when diagnosis and treatment are carried out at the right time. **CONCLUSION:** GDM screening should be carried out at the first prenatal consultation, through initial glycemic assessment tests, thus being able to direct the pregnant woman to treatment, avoiding fetal dysfunction and ensuring better outcomes for maternal-fetal health. Therefore, the need to implement effective strategies for monitoring, diagnosis and treatment is notable, ensuring that the negative impacts of this condition are minimized, reducing the associated risks.

**93. DIFFICULTIES IN PROVIDING HEALTH CARE TO QUILOMBOLAS: AN INTEGRATIVE REVIEW**

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**INTRODUCTION:** The Provision of Health Care (PHC) in Quilombola Communities (QCs) is a subject of significant debate in Brazilian society, considering that this population is engaged in actions to defend their culture and territory. Thus, there exists a coalescence of attempts at integration and preservation of identity, which impacts the PHC. Therefore, the Family Health Strategy (FHS) faces important challenges in ensuring access to health services in these territories. The aim of this study is to identify the difficulties associated with PHC in quilombos in Brazil. **METHODS:** This is an integrative literature review, conducted through an advanced search on the Virtual Health Library platform, using the descriptors "Health Care Provision" and "Quilombola Communities," combined with the Boolean operator AND. The inclusion criteria were articles in Portuguese published in the last 5 years, from 2019 to 2023, while the exclusion criteria included incomplete materials, paid content, duplicates, and literature reviews. The search yielded 13 studies, of which 5 aligned with the objectives of this work. **RESULTS:** A qualitative study in northern Minas Gerais highlighted that popular knowledge influences Health Care Provision (HCP) in quilombos, as there is a constant use of home remedies and herbs, along with a preference for hospital care over the FHS. Additionally, economic vulnerability hinders travel to consultations. Another qualitative study in Quissamã, Rio de Janeiro, revealed that QCs are often forgotten by authorities, evidenced by the lack of disease awareness campaigns and underreporting during the pandemic. Research in quilombos around Fortaleza showed that places like churches, community spaces, and markets have taken on the role of health care providers for this population, due to the ineffectiveness of health entities. **CONCLUSION:** There is an attempt to preserve transgenerational knowledge to maintain practices related to the use of herbs and home remedies, which impacts treatment adherence and effectiveness. Furthermore, the predominance of seeking hospital care hinders Primary Health Care, as the FHS assumes a secondary role in the prevention and treatment of diseases. Socioeconomic determinants prevent quilombola communities from accessing health services, leading them to opt for alternative care. Therefore, specific public policies should be developed to democratize access to healthcare and facilitate PHC in these communities.

**94. EFFECTS OF GLP-1 THERAPY IN PARKINSON'S DISEASE: A META-ANALYSIS OF RANDOMIZED TRIALS**

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**INTRODUCTION:** Insulin resistance (IR) plays a significant role in the development of Parkinson's disease (PD) due to oxidative stress and protein aggregation. Glucagon-like peptide-1 (GLP-1) analogs have neuroprotective, anti-inflammatory, and antioxidant properties, as well as insulin-sensitizing effects. However, their therapeutic potential for motor and non-motor symptoms in PD remains unclear. Therefore, this meta-analysis aims to explore the impact of GLP-1 therapy on symptom improvement and quality of life in adults diagnosed with PD. **METHODS:** We searched PubMed, Cochrane, and Embase for randomized controlled trials (RCTs) comparing GLP-1 analogs to placebo or other treatments for PD. The outcomes assessed included motor symptoms, non-motor symptoms (such as neuropsychiatric, gastrointestinal, and sensory disorders), and quality of life (measured by activities of daily living, cognition, and mobility, among others). Statistical analysis was performed using RevMan 5.4.1, with heterogeneity measured by the  $I^2$  statistic. **RESULTS:** We included five studies involving 480 patients, of whom 250 (52.08%) received GLP-1 treatment. Follow-up ranged from 8 to 14 months. The primary outcome, motor impairment, assessed by the Movement Disorder Society Unified Parkinson's Disease Rating Scale (MDS-UPDRS) part 3, showed a significant reduction in patients treated with GLP-1 (MD -2.87; 95% CI -4.95 to -0.79;  $p = 0.007$ ;  $I^2 = 86\%$ ) compared to placebo or other therapies, demonstrating a clear advantage. Secondary outcomes for non-motor dysfunctions, measured by the Non-Motor Symptom Scale (NMSS), did not show statistical significance (MD 0.7; 95% CI -2.88 to 4.28;  $p = 0.70$ ;  $I^2 = 55\%$ ). Quality of life, as assessed by the Parkinson's Disease Questionnaire (PDQ-39), also did not reach statistical significance for the intervention (MD -1.30; 95% CI -3.00 to 0.39;  $p = 0.13$ ;  $I^2 = 78\%$ ). Adverse effects such as weight loss, constipation, and nausea were reported with GLP-1 administration. **CONCLUSION:** GLP-1 therapy for an average period of 12 months appears to improve motor symptoms such as rigidity, bradykinesia, unsteadiness, and resting tremor in adults with PD. However, its benefits for non-motor symptoms and improving quality of life remain debatable. These findings underscore the need for additional RCTs to further investigate the relevance and management of GLP-1 in the treatment of PD and its broader implications.

**95. EFFECTS OF USE OF SEMAGLUTIDE IN CONTROLLING OVERWEIGHT**

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**INTRODUCTION:** Semaglutide is a glucagon-like peptide 1 receptor (GLP-1RA) agonist, initially intended for the treatment of type 2 diabetes mellitus and, more recently, used in weight loss processes. Its approval for therapeutic use is relatively recent and is currently available in subcutaneous and oral formulations. This drug has gained worldwide relevance not only in the pharmaceutical market, but also in the scientific field, both in its clinical perspective and in its adverse effects. The objective of this study is to analyze the effects and safety of semaglutide in the weight loss process in overweight patients, as well as to evaluate the adverse effects associated with its use. **METHODS:** This is an integrative literature review, using 10 scientific articles published between 2021 and 2024, based on data from PubMed, SciELO and Google Scholar in English and Portuguese and secondary data from the Ministry of Health, using the descriptors "semaglutide", "overweight" and "obesity". **RESULTS:** Research demonstrates the effectiveness of semaglutide in inducing weight loss in overweight patients, with or without diabetes, showing average reductions of 14% to 17% in body mass. Furthermore, an improvement was observed in cardiometabolic conditions, such as blood pressure, blood glucose and levels of stored lipids. These benefits are related to the reduction of excess body fat and improved glycemic control. However, there are adverse effects associated with the use of the drug, including gastrointestinal problems such as nausea, vomiting and diarrhea, which are generally transient and not very debilitating. Furthermore, the association with cholelithiasis, pancreatitis and pancreatic tumors is not yet significant and requires a greater understanding of the cause and effect mechanisms between the use of the medication and clinical conditions. **CONCLUSION:** It appears, therefore, that the use of semaglutide has shown promise in the process of losing body mass, however, a long-term evaluation of its side effects and the appearance of clinical conditions secondary to the use of the drug is still necessary.

**96. EFFECTS OF SGLT2 INHIBITORS ON HEART FAILURE WITH REDUCED EJECTION FRACTION**

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**INTRODUCTION:** Heart failure (HF) is a serious public health problem and reduced ejection fraction (HFrEF), which is defined as left ventricular ejection fraction (LVEF)  $\leq$  40%, is an important clinical factor in assessing the progression of the disease. Sodium-glucose cotransporter 2 (SGLT2) inhibitors have been evaluated for their effects on this clinical condition, possibly improving the prognosis of the disease, even in decompensated patients. With this in mind, this study aims to evaluate the clinical effects of these drugs on the prognosis of patients with HFrEF. **METHODS:** A systematic search was carried out for clinical trials evaluating SGLT2 inhibitors and their effects on the treatment of HFrEF. To identify eligible articles, a search was carried out in the Pubmed, Scielo and Lilacs databases, in which the search was limited to articles in English in the last 5 years, thus selecting articles published between 2019 and 2024. The following descriptors were used for the search: "SGLT2 inhibitors" AND "cardiovascular outcomes"; "SGLT2 inhibitors" AND "heart failure"; "SGLT2" AND "heart failure". Articles that were out of date, in non-English, non-original and dealing with HF with preserved LVEF were excluded. **RESULTS:** 11 articles were included, which mainly assessed the elderly population and whose main findings were a reduction in hospitalizations and mortality in patients with HFrEF who used SGLT2 inhibitors, mainly dapaglifozin and empaglifozin, even in cases of exacerbation of the disease. In addition, a possible reduction in the decline in glomerular filtration rate was observed in patients with this disease, reducing renal complications, which are common in patients with severe HF. However, some studies have not shown significant changes in LVEF, which may not indicate an improvement in the condition, but only a reduction in the decompensation of the disease. **CONCLUSION:** Therefore, the use of SGLT2 inhibitors may be an important measure in reducing hemodynamic imbalance in HFrEF, reducing the number of hospitalizations and cardiovascular deaths. However, it is important to assess whether these effects can also lead to regression of this clinical condition by improving parameters such as LVEF. In this context, future studies evaluating larger populations could possibly contribute to advances in treatment and improvements in patients' clinical parameters.

**97. EFFICACY OF NERVE BLOCKS IN ORTHOPEDIC SHOULDER SURGERIES**

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**INTRODUCTION:** Shoulder surgeries, in general, have a very painful postoperative period, and nerve blocks in orthopedic shoulder surgeries are used to reduce pain and decrease the use of opioids postoperatively. Thus, the objective of this study is to analyze the efficacy of this type of technique. **METHODS:** Following the guidelines of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA), a systematic review was conducted to evaluate the efficacy of nerve blocks in orthopedic shoulder surgeries. The search strategy in the PubMed and Embase databases was as follows: ('shoulder surgery' OR 'shoulder arthroplasty' OR 'rotator cuff repair') AND ('nerve block' OR 'nerve blocks' OR 'peripheral nerve block' OR 'peripheral nerve blocks' OR 'regional anesthesia') AND 'efficacy'. Randomized clinical trials and controlled studies published between 2019 and 2024 were included, excluding systematic reviews and meta-analyses. In total, 226 articles were excluded and 9 were included. **RESULTS:** The primary technique for postoperative pain control in shoulder surgeries is the interscalene brachial plexus block (ISB), as it effectively controls pain in the initial hours, thereby reducing postoperative opioid use. Conversely, the costoclavicular suprascapular block resulted in less diaphragmatic paralysis compared to ISB—a disadvantage of ISB that can be dangerous for patients with significant respiratory disease. The nerve block was also found to be more effective than intravenous acetaminophen after 24 hours post-surgery; however, after 72 hours, acetaminophen managed to minimize pain more efficiently. Lastly, performing ISB with the addition of dexamethasone proved advantageous in terms of prolonging the duration of analgesia and reducing pain rebound after the block's effect diminishes. **CONCLUSION:** Nerve blocks in shoulder surgeries are effective in controlling pain and reducing opioid use. The interscalene brachial plexus block (ISB) is highly effective in the initial hours but can cause diaphragmatic paralysis, which is a concern for patients with respiratory problems. The suprascapular costoclavicular block has a lower incidence of this paralysis, making it a viable alternative. The addition of dexamethasone to ISB and other types of peripheral nerve blocks prolongs analgesia and reduces rebound pain, improving patient satisfaction.

**98. BARRIERS TO ANTIBIOTIC THERAPY IN BACTERIAL RESISTANCE IN CAP: AN INTEGRATIVE REVIEW**

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**INTRODUCTION:** Antimicrobial resistance (AMR) is one of the top 10 global public health threats, with estimates suggesting that by 2050 it could be responsible for approximately 10 million deaths. Streptococcus pneumoniae, the main etiological agent of Community-Acquired Pneumonia (CAP), ranks 4th on the list of pathogens linked to AMR-related deaths, highlighting the risk posed by CAP in the context of rising superbugs. In this context, this study aims to examine the challenges of antibiotic therapy for CAP in the context of bacterial resistance. **METHODS:** An integrative review based on the PRISMA protocol. The descriptors 'community-acquired bacterial pneumonia', 'drug resistance', and 'hospital' were used in the Pubmed, Medline, and Lilacs databases. Primary articles published in the last 5 years were selected, without language restrictions, focusing on AMR and antibiotic therapy in CAP, while excluding studies unrelated to the topic, case reports, infections in children/neonates, and those not available in full. **RESULTS:** Out of 197 studies identified, 6 met the inclusion and exclusion criteria for this review. Key challenges highlighted by the authors included: the rising prevalence of multidrug-resistant bacteria, the empirical nature of antibiotic therapy due to the inability to determine the etiological agents, the emergence of atypical pathogens, instances of viral coinfection, initial antimicrobial therapies (IAT) targeting only typical bacteria while neglecting atypical ones, adverse reactions and interaction between pathogens and treatments. The use of predictive scores based on clinical and laboratory data was mentioned as a tool for the safe application of atypical antibiotic coverage. The consequences of IAT in CAP patients included longer hospital stays, increased healthcare costs, and higher mortality rates. Chronic obstructive pulmonary disease was identified as the major risk factor for morbidity and hospitalization due to CAP. **CONCLUSION:** The rise of multidrug-resistant pathogens presents significant public health challenges in managing CAP, particularly due to the reliance on empirical therapy and the emergence of atypical pathogens, which complicates clinical decision-making for appropriate IAT. To improve therapeutic precision, it is essential to implement measures such as predictive scoring systems, ongoing AMR surveillance, and attention to prevalent pathogens and risk factors, facilitating a more effective and personalized approach to this growing health concern.

**99. EPIDEMIOLOGY OF TUBERCULOSIS-HIV COINFECTION AMONG HOMELESS INDIVIDUALS IN BRAZIL**

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**INTRODUCTION:** Tuberculosis is an infectious bacterial disease primarily caused by *Mycobacterium tuberculosis* (Koch's bacillus). It is well established that individuals with poor socioeconomic conditions and those who are immunosuppressed are more susceptible to developing tuberculosis. This study aims to characterize the epidemiological profile of homeless individuals co-infected with tuberculosis and human immunodeficiency virus (HIV) in Brazil. **METHODS:** This was a descriptive, retrospective, and quantitative study of confirmed cases of tuberculosis and HIV coinfection among homeless individuals. Data were obtained from the Notifiable Diseases Information System, available through the Department of Informatics of the Unified Health System, for the period from 2019 to 2023. The analysis considered parameters such as region, age group, sex, form of disease presentation, confirmed acquired immunodeficiency syndrome (AIDS), and outcome. **RESULTS:** During the five-year period studied, 5,066 cases of tuberculosis-HIV coinfection among homeless individuals were reported. The Southeast region accounted for the highest proportion of cases (39.7%, n = 2,016), followed by the South (28.4%, n = 1,440). The population was predominantly composed of individuals aged 20 to 39 years (54.4%, n = 2,756) and 40 to 59 years (41.9%, n = 2,127). Males (70.1%, n = 3,552) were more affected than females (29.8%, n = 1,513). Pulmonary tuberculosis was the most common form of the disease (86%, n = 4,360). The majority of individuals had confirmed AIDS (92.4%, n = 4,682). The main outcomes were treatment abandonment (34.1%, n = 1,731), cure (16.1%, n = 820), and death from other causes (15.5%, n = 790). **CONCLUSION:** Homeless individuals co-infected with tuberculosis and HIV were predominantly young males. Over 90% of these individuals had confirmed AIDS, a known risk factor for developing tuberculosis. The pulmonary form of the disease was the most prevalent, consistent with findings in the literature. Treatment abandonment remains a significant challenge, as interventions require a minimum duration of six months, which is complicated by the precarious living conditions of the homeless population. The Southeast and South regions reported higher numbers of co-infected individuals, likely due to more effective notification and diagnostic systems, as well as greater population density and urbanization.

**100. EPIDEMIOLOGY OF LEPROSY IN THE ELDERLY IN MARANHÃO: ANALYSIS OF CASES FROM 2018 TO 2023**

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**INTRODUCTION:** Leprosy is a chronic infectious disease caused by *Mycobacterium leprae*. It is a public health issue and is classified as a notifiable disease. Despite advancements in diagnosis and treatment, the impacts of the disease are significant, especially in vulnerable populations. This study aims to analyze the epidemiological data on leprosy in the elderly population in Maranhão between 2018 and 2023. **METHODS:** This is a cross-sectional analytical study of leprosy cases in the elderly population in the state of Maranhão between the years 2018 and 2023. The data were collected from the Informatics Department of the Unified Health System (DATASUS), considering the following variables: year of notification, age group, health macroregion, race, sex, and education level. **RESULTS:** From 2018 to 2023, respectively, 951, 982, 629, 691, 813, and 227 cases were reported. By age group, 2,435 cases were recorded among those aged 60-69 years; 1,363 for those aged 70-79; and 495 for those aged 80 years or older. In the health macroregions, the cases were distributed as follows: 894 in the South, 1,317 in the East, and 2,172 in the North. Regarding racial distribution, 728 cases were reported among Whites, 729 among Blacks, 27 among Asians, 2,734 among Mixed-race individuals, and 15 among Indigenous people, with 60 cases lacking racial information. Concerning sex, there was a predominance of cases in men, with 2,781 records (64.7%), compared to 1,512 cases in women (35.3%). In terms of education level, 1,275 cases were recorded among the illiterate, 1,759 among those with incomplete primary education, 175 with complete primary education, 81 with incomplete secondary education, 250 with complete secondary education, 16 with incomplete higher education, and 70 with complete higher education. **CONCLUSION:** It is concluded that leprosy cases were more pronounced in men aged 60-69 years, predominantly among mixed-race individuals, suggesting socioeconomic influences. The East and North macroregions were the most affected, highlighting priority areas for health interventions. Most cases were recorded among the illiterate and those with incomplete primary education, indicating an association between low education levels and a higher risk of leprosy. The years 2020 and 2021 saw fewer cases due to the COVID-19 pandemic and associated underreporting, while the reduction in 2023 can be attributed to the ongoing impacts of the pandemic on data collection. Finally, there is an urgent need to implement health strategies focused on education, early diagnosis, and treatment, especially in the most vulnerable regions and groups, to improve the quality of life of the elderly.

**101. EPIDEMIOLOGY OF PROSTATE CANCER MORTALITY IN THE BAIXADA MARANHENSE FROM 2013 TO 2022**

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**INTRODUCTION:** The prostate is a gland found exclusively in men, with a secretory function. The fluid it produces has a basic pH, essential for alkalizing the vaginal environment, giving semen its milky appearance and characteristic odor. The prostate is located directly in front of the rectum, which explains the need for a digital rectal examination as a method of prostate evaluation. Prostate malignancy ranks second in incidence among tumors affecting men in Brazil. In light of this condition, the objective of this study was to analyze the epidemiological profile of mortality due to malignant prostate neoplasms in the Baixada Maranhense region. **METHODS:** This is a descriptive epidemiological study conducted between 2013 and 2022 in Baixada Maranhense, with data obtained from the Mortality Information System (SIM) through the Health Informatics Department of the Unified Health System (DATASUS), with the cause being ICD-BR-10: malignant prostate neoplasm. In addition, variables such as race, age group, and education level were considered. **RESULTS:** A total of 287 deaths from malignant prostate neoplasms were recorded in Baixada Maranhense. An approximate average of 28.7 deaths/year was observed from 2013 to 2022, with the highest incidence in 2017 (37 deaths) and the lowest in 2015 (20 deaths). The city with the highest prevalence was Pinheiro, with 56 recorded cases, while Igarapé do Meio had only 2 cases. Regarding education, the most affected group was those with no formal education (136 cases). In terms of race, 173 mixed-race individuals were affected. The most affected age group was 80 years or older, with 120 recorded cases. **CONCLUSION:** The mortality rate during the study period varied, with a decreasing trend from 2013 to 2015, and 2017 being the year with the highest mortality rate. In this regard, Pinheiro showed the highest prevalence compared to other municipalities in Baixada Maranhense, especially in 2019. On the other hand, the municipality of Igarapé do Meio had the lowest rate, with only 2 cases. Therefore, combating prostate cancer in Baixada Maranhense requires a joint effort from the government, society, and healthcare institutions. Effective actions can save lives and improve men's health, such as promoting the reduction of social inequalities in access to healthcare for the male population.



**102. EPIDEMIOLOGY OF PREMATURE MORTALITY FROM DIABETES MELLITUS IN BRAZIL FROM 2010 TO 2021**

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**INTRODUCTION:** Diabetes mellitus is characterized by a metabolic disorder due to insulin deficiency—a hormone responsible for maintaining balanced blood glucose levels—or reduced tissue sensitivity to this hormone, leading to abnormally high blood glucose levels. It can be classified into two types: Type 1, marked by the absence of insulin secretion, which characterizes insulin-dependent patients, and Type 2, characterized by insulin resistance. Inadequate lifestyle habits, such as a sedentary lifestyle and poor diet, contribute to worsening the condition in patients by impairing the endocrine system. With multifactorial manifestations, the disease is considered a public health issue, being the sixth leading cause of mortality in the Americas. This study aims to analyze the premature mortality rate (ages 30 to 69) in Brazil associated with diabetes mellitus, per 100,000 inhabitants, from 2010 to 2021. **METHODS:** This is a quantitative, retrospective, and descriptive study. Data were sourced from the Health System Performance Assessment Project (PROADESS) of the Oswaldo Cruz Foundation. The indicator matrix, specifically the Health Service Performance subsection and effectiveness tab, was used to obtain the premature mortality rate due to diabetes mellitus in Brazil. **RESULTS:** In 2010, the rate was 26.6%, with the Northeast region being the most affected, with 30.9% of cases. From 2010 to 2011, there was an approximate increase of 2% at the national level. In the following eight years, the percentage in Brazil remained relatively constant, with an average of approximately 24.5%. In 2020, the rate increased to 26.5%, with a slight drop to 26.2% in 2021. The Northeast region consistently had the highest rates during the analyzed period, with an overall average of 30%, while the Southeast had the lowest rates, with an average of 22%. The national average was 25%. **CONCLUSION:** There is a general increase in premature mortality associated with diabetes mellitus, highlighting the need for enhanced measures to combat and treat this disease.

**103. EPIDEMIOLOGY OF CONGENITAL SYPHILIS IN BAIXADA MARANHENSE IN THE PERIOD FROM 2018 TO 2022**

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**INTRODUCTION:** Congenital syphilis is an infectious disease transmitted to the fetus via the placenta, and is considered an indicator of the quality of maternal health in a region, since the causative agent of syphilis, *Treponema pallidum*, is a preventable pathogen. Thus, if the disease is diagnosed and treated appropriately during pregnancy, it is possible to prevent vertical transmission and fetal morbidity and mortality. Therefore, the study aims to analyze the epidemiology of confirmed cases of congenital syphilis in Baixada Maranhense from 2018 to 2022. **METHODS:** This is a cross-sectional, quantitative, descriptive, epidemiological study, with data collected from the Notifiable Diseases Information System (SINAN) - from the Department of Information Technology of the Unified Health System (DATASUS). The period evaluated was from 2018 to 2022. The variables used were: age group at diagnosis, race, sex, age group of the mother at diagnosis, mother's education, prenatal care performed and treatment of the partner. **RESULTS:** During the studied period, n=75 cases of congenital syphilis were reported in Baixada Maranhense, while the year of 2022 has the highest number of notifications during the period (36%). Regarding affected children, there was a predominance of notifications in the age group of the first 6 days of life (82.6%) and in the brown race (77.3%), with no disparity between the sexes. Regarding maternal data, there was a prevalence of diagnosis in the age group between 20 and 24 years of age (32%) and a level of education of complete high school (25.3%). In addition, 9.3% of mothers did not undergo prenatal care and 52% of partners did not undergo treatment for acquired syphilis. **CONCLUSION:** The data show a significant percentage of notifications in the last year of the survey, with possible underreporting in previous years, as well as the implementation of more effective diagnostic actions. Regarding maternal data, the prevalence of cases is more common in young women and is influenced by the low percentage of treatment of sexual partners, representing an effective risk of transmission of the agent that causes syphilis. This reality highlights the need to develop health strategies so this preventable problem can be overcome, reducing the number of cases of congenital syphilis in Baixada Maranhense.

**104. EPIDEMIOLOGY OF TUBERCULOSIS HOSPITALIZATIONS IN MARANHÃO FROM 2014 TO 2023**

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**INTRODUCTION:** Tuberculosis is a global disease responsible for numerous deaths worldwide, caused by the bacterium from the *Mycobacterium tuberculosis* group. This pathology is highly contagious and has a high incidence in Brazil, especially in disadvantaged areas, where housing conditions and basic sanitation are serious public health issues. In this context, the present study aims to examine the epidemiology of tuberculosis hospitalizations in Brazil from 2014 to 2023. **METHODS:** This is an epidemiological, ecological study conducted between 2014 and 2023, with data obtained from the Hospital Information System (SIH/SUS extracted from TABNET/DATASUS, without the need for approval by a research ethics committee. The study variables were: year, age group, sex, color/race, hospitalizations, average hospitalization cost, and average length of stay. **RESULTS:** A total of 1,153 tuberculosis hospitalizations were reported in Brazil during the study period, with an increase in the last 4 years. Regarding age group, the highest number of hospitalizations occurred in individuals aged 30 to 39 years (n=247), while the highest average cost per hospitalization was among patients under 1 year of age (n=2,272.74). As for the average length of stay, patients under 1 year of age had the highest average (n=10.7). In terms of sex, males had the highest number of hospitalizations (n=771), the highest average cost per hospitalization (n=801.62), and the longest average length of stay (n=9). In the color/race variable, mixed-race individuals had the highest number of hospitalizations (n=657) and the longest average length of stay (n=9.4), although the highest average hospitalization cost was among white individuals (n=1,315.17). **CONCLUSION:** The data indicate a growing number of tuberculosis hospitalizations in Brazil, with a notable patient hospitalization profile: 30 to 39 years old, mixed-race, and male. Furthermore, higher expenses were observed in male patients, those under 1 year old, and white individuals. Regarding the average length of stay: male patients, those under 1 year old, and mixed-race individuals had the highest averages. In this context, the importance of this hospitalization profile stands out for the development of public health policies aimed at providing better health conditions for the population, especially for the outlined profile.

**105. EPIDEMIOLOGY OF DISABILITIES OF LEPROSY CONTACTS IN MARANHÃO FROM 2018 TO 2022**

Flávia Rafaela Diógenes Ferreira<sup>1</sup>, Fernanda Diógenes Ferreira<sup>1</sup>, José Carlos Gomes Patriota Neto<sup>1</sup>, Tassya Jordana Coqueiro Batalha<sup>1</sup>, João Marcos Cordeiro Ribeiro Filho<sup>1</sup>, Ana Luísa Penha Castro Marques<sup>1</sup>, Consuelo Penha Castro Marques<sup>1</sup>.

<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Leprosy is an infectious disease caused by *Mycobacterium leprae* and transmitted through close and prolonged contact, presenting with dermatoneurological lesions that can progress to physical disabilities, resulting in social and psychological impairment. Clinical evaluation of leprosy contacts becomes essential to promote early detection of new cases, so that transmission of the bacillus can be interrupted and physical disabilities prevented. The present study aims to verify the epidemiology of disabilities of leprosy contacts examined in Maranhão from 2018 to 2022. **METHODS:** This is a cross-sectional, quantitative, descriptive, epidemiological study, with data collected from the Notifiable Diseases Information System (SINAN) – from the Department of Information Technology of the Unified Health System (DATASUS). The period evaluated was from 2018 to 2022. The variables used were: disability assessment, sex, education, race and age group. **RESULTS:** During the studied period, 46,444 contacts were notified, examined and classified according to the degree of physical disability at diagnosis, with 52.5% characterized as grade zero, 29.1% as grade I and 8.5% as grade II. The year 2018 stood out with the highest number of notifications during the period (27%), with a decrease in the following years and the year 2020 registering the lowest percentage (15%). Regarding contacts with the highest degree of disability (grade II), there was a prevalence of males (75.1%), brown race (68.5%), education level 1st to incomplete 4th grade of elementary school (22.9%) and age group from 30 to 39 years (15.6%). **CONCLUSION:** The data show a significant percentage of contacts examined presenting some degree of disability at the time of diagnosis, in addition to the higher incidence of notifications in male individuals, over 30 years of age, mixed race and with incomplete elementary education. This reality highlights the need for more health actions aimed at the most affected target audience, based on monitoring contacts and recognizing signs and symptoms for early diagnosis so that physical disabilities can be prevented.

**106. THE EPIDEMIOLOGY OF PEDIATRIC HOSPITALIZATIONS DUE TO DIGESTIVE TRACT DISEASES IN MARANHÃO**

Kellen De Jesus Farias Da Luz<sup>1</sup>, Isabela Vitória De Araujo Costa Melo<sup>1</sup>, Celso Antônio Magalhães Ramos<sup>1</sup>, Rebeca Thamires Serra Araujo<sup>1</sup>, Emyllie De Fátima Castro Cavalcante<sup>1</sup>, Monica Elinor Alves Gama<sup>1</sup>.

<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** The most common digestive system diseases in childhood include diarrhea, constipation, food allergies, intestinal infections, esophageal reflux, and gastroenteritis. In many cases, the severity of these conditions necessitates the involvement and attention of a multidisciplinary team, often combined with hospitalization. Therefore, the present study aims to understand the pediatric population in the State of Maranhão affected by digestive tract conditions, as these conditions require caregivers to seek urgent medical care. Effective treatments that require hospitalization. **METHODS:** This is an epidemiological, retrospective, quantitative, and descriptive study based on data provided by the Department of Informatics of the Unified Health System (DATASUS). The studied population consisted of cases of hospitalizations due to digestive system diseases in Maranhão from January 2020 to March 2024, involving individuals up to 9 years old. The study variables were: number of hospitalizations, age group, sex, and year of care. **RESULTS:** The study revealed a total of 19,402 hospitalization cases during the analyzed period, with 2023 standing out, accounting for 25.5% of the records. The male group led the reported cases with 58.4%, compared to the female group, which represented 41.5% of the records. The age group with the highest number of hospitalizations was children aged 1 to 4 years, totaling 43.4% of hospitalizations compared to other age groups. This disparity points to a higher incidence of digestive system diseases in male children, encompassing a variety of pathologies such as diarrhea, food allergies, gastroesophageal reflux, and gastroenteritis. **CONCLUSION:** The results of this epidemiological study reveal significant numbers regarding digestive system diseases in children under 10 years old in Maranhão between 2020 and 2024. These findings contrast with the advances in treatments, technologies, and recent updates in the field, highlighting the importance of further research to properly understand and address gastrointestinal diseases, aiming to effectively combat these pathologies to ensure the well-being of children in Maranhão.

**107. EPIDEMIOLOGY OF PEDIATRIC HOSPITALIZATIONS DUE TO BURNS IN MARANHÃO**

Rebeca Thamires Serra Araujo<sup>1</sup>, Celso Antônio Magalhães Ramos<sup>1</sup>, Jefferson Cordeiro De Melo<sup>1</sup>, Kellen De Jesus Farias Da Luz<sup>1</sup>, Thalita Linda Alves Candeira<sup>1</sup>, Vitória Maria Cavaignac Sousa<sup>1</sup>, Mônica Elinor Alves Gama<sup>1</sup>.

<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Burns result from the direct or indirect action of a heat source. Access to electrical outlets, chemicals, and hot liquids are frequently cited as common causes of burns in the pediatric population, typically occurring in the domestic environment. This study aims to examine the profile of the pediatric population affected by burns requiring hospitalization in Maranhão. **METHODS:** This is a descriptive epidemiological study based on hospital morbidity and mortality data from the Department of Informatics of the Unified Health System (DATASUS). The sample included children and adolescents up to 19 years old who were hospitalized for burns in Maranhão between March 2019 and March 2024. The variables analyzed included "health macro-regions," "year of service," "age group," "sex," "color/race," "length of stay," "type of service," and "deaths". **RESULTS:** Between 2019 and 2024, 824 cases were recorded from the South (40.8%), North (44.1%), and East (15.2%) macro-regions. The year 2021 had the highest number of hospitalizations (22.1%). In terms of age group, the highest prevalence was in the 1-4 year group (54.1%). Hospitalizations were recorded for 62.3% male and 37.7% female patients. Regarding color/race, 536 patients declared their race, with most identifying as mixed-race (89.0%). Hospitalizations were divided into two types: elective (7.3%) and emergency (92.7%), with emergency cases being more prevalent. The average length of stay was 6 days, with the longest average in 2023 (7.2 days). Between 2019 and 2023, there were 4 deaths, with 50% occurring in the North macro-region. The deaths were equally divided between the 1-4 year age group (50%) and the 15-19 year age group (50%), all involving male patients. The overall mortality rate was 0.49%, with the highest rate in 2023 (1.21%). **CONCLUSION:** The data from this study reveal a concerning panorama of pediatric hospitalizations due to burns in Maranhão, with a high prevalence in children aged 1 to 4 years, predominance in the North macro-region, and an increase in mortality in 2023. Understanding these characteristics is essential for implementing prevention measures and improving care for children and adolescents who are burn victims, ultimately reducing morbidity and mortality rates in this group.

**108. EPIDEMIOLOGY OF PEDIATRIC HOSPITALIZATIONS DUE TO BURNS IN MARANHÃO**

Rebeca Thamires Serra Araujo<sup>1</sup>, Celso Antônio Magalhães Ramos<sup>1</sup>, Jeefferson Cordeiro De Melo<sup>1</sup>, Kellen De Jesus Farias Da Luz<sup>1</sup>, Thalita Linda Alves Candeira<sup>1</sup>, Vitória Maria Cavaignac Sousa<sup>1</sup>, Mônica Elinor Alves Gama<sup>1</sup>.

<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Burns result from the direct or indirect action of a heat source. Access to electrical outlets, chemicals, and hot liquids are frequently cited as common causes of burns in the pediatric population, typically occurring in the domestic environment. This study aims to examine the profile of the pediatric population affected by burns requiring hospitalization in Maranhão. **METHODS:** This is a descriptive epidemiological study based on hospital morbidity and mortality data from the Department of Informatics of the Unified Health System (DATASUS). The sample included children and adolescents up to 19 years old who were hospitalized for burns in Maranhão between March 2019 and March 2024. The variables analyzed included "health macro-regions," "year of service," "age group," "sex," "color/race," "length of stay," "type of service," and "deaths". **RESULTS:** Between 2019 and 2024, 824 cases were recorded from the South (40.8%), North (44.1%), and East (15.2%) macro-regions. The year 2021 had the highest number of hospitalizations (22.1%). In terms of age group, the highest prevalence was in the 1-4 year group (54.1%). Hospitalizations were recorded for 62.3% male and 37.7% female patients. Regarding color/race, 536 patients declared their race, with most identifying as mixed-race (89.0%). Hospitalizations were divided into two types: elective (7.3%) and emergency (92.7%), with emergency cases being more prevalent. The average length of stay was 6 days, with the longest average in 2023 (7.2 days). Between 2019 and 2023, there were 4 deaths, with 50% occurring in the North macro-region. The deaths were equally divided between the 1-4 year age group (50%) and the 15-19 year age group (50%), all involving male patients. The overall mortality rate was 0.49%, with the highest rate in 2023 (1.21%). **CONCLUSION:** The data from this study reveal a concerning panorama of pediatric hospitalizations due to burns in Maranhão, with a high prevalence in children aged 1 to 4 years, predominance in the North macro-region, and an increase in mortality in 2023. Understanding these characteristics is essential for implementing prevention measures and improving care for children and adolescents who are burn victims, ultimately reducing morbidity and mortality rates in this group.

**109. EPIDEMIOLOGY OF HOSPITALIZATIONS FOR WHOOPING COUGH IN MARANHÃO FROM 2014 TO 2024**

Carlos Daniel Lobato da Costa<sup>1</sup>, Luana Coimbra Furtado<sup>1</sup>, Consuelo Penha Castro Marques<sup>1</sup>.

<sup>1</sup> Federal University of Maranhão - Pinheiro

**INTRODUCTION:** Whooping cough is an acute infectious transmissible disease caused by the *Bordetella pertussis* bacterium, which presents a preference for the respiratory tract. Despite the availability of effective prophylaxis through the pentavalent vaccine, there has been an increase in reported cases of the disease, especially in the Brazilian state of Maranhão. Thus, the objective of this study is to describe the profile of hospitalizations for whooping cough in Maranhão over the last 10 years. **METHODS:** This is a cross-sectional, epidemiological, descriptive study using secondary data obtained from the Sistema de Informações Hospitalares (SIH) of the Departamento de Informação e Informática do Sistema Único de Saúde (DATASUS). Hospitalizations for whooping cough were analyzed by location of hospitalization, according to the variables sex, race/color, age group and medical assistance, during the period from June 2014 to May 2024 in Maranhão. **RESULTS:** During the analyzed time period, a total of 329 hospitalizations were recorded in the state, with a significant number occurring in the state capital (N=176; 53.50%). Regarding the nature of medical assistance, there is a notable prevalence of emergency cases (N=322; 97.87%) over elective cases (N=7; 2.13%). In terms of age group, the highest prevalence was observed in children under 1 year old (N=257; 78.12%), followed by the age groups of 1 to 4 years (N=44; 13.37%) and 5 to 9 years (N=16; 4.86%). In relation to ethnicity, a significant number of hospitalizations lacked information on race/color (N=260; 79.03%), although brown individuals were the most recorded among those that were specified (N=61; 18.54%). Finally, concerning sex, there is a predominance of cases in women (N=168; 51.06%) compared to men (N=161; 48.94%). **CONCLUSION:** Considering the presented data, there is a predominance of hospitalizations among children under 1 year old (which can be explained by the administration of the pentavalent vaccine occurring after the first year of life), brown individuals, and women. The high number of emergency hospitalizations is based on the fact that whooping cough often presents severe respiratory symptoms. Therefore, there is a need to expand measures that reduce the spread of the disease, especially in the first few months of life, and that allow effective identification and management even in the early stages of the disease. Furthermore, the importance of improving data recording in health establishments is evident, aiming to alleviate the observed ethnic underreporting.

**110. EPIDEMIOLOGY OF BURN HOSPITALIZATIONS IN THE STATE OF MARANHÃO FROM 2019 TO 2023**

Ingrid Victória Borges Alberto<sup>1</sup>, Antônio Vitor Bezerra Fernandes<sup>1</sup>, Eliel Corrêa Vale<sup>1</sup>, Igor Talyon Azevedo Lemos<sup>1</sup>, Leonardo de Jesus Cavalcanti Barros<sup>1</sup>, Maria Eduarda Brito Amaral<sup>1</sup>, Bismarck Ascar Sauaia<sup>1</sup>.

<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Burns are skin injuries that, depending on the depth and intensity with which they penetrate the skin's surface, can be classified as first, second, or third degree. Considering that they represent a significant public health issue, this study aims to outline the epidemiological profile in Maranhão of hospitalized patients who are victims of this trauma, between the years 2019 and 2023.

**METHODS:** This is a quantitative descriptive epidemiological study based on data provided by the Department of Informatics of the Unified Health System (DATASUS). The studied population consisted of a total of 2,253,743 cases of burn interactions in the state of Maranhão, from which the variables of age, sex, race, and nature of care were collected, covering the period from 2019 to 2023. **RESULTS:** From the analysis of burn hospitalizations in Maranhão, a predominance is observed in the age group of 20 to 29 years (453,988), followed by the age groups of 30 to 39 (335,402) and 40 to 49 years (232,068). Regarding sex and race, there is a higher incidence of cases in women (1,380,821) and mixed-race individuals (1,273,728). Furthermore, data on care indicate that the majority were in urgent situations (1,827,005). **CONCLUSION:** This study demonstrated that the most affected age group by burns consists of young individuals between 20 and 29 years, with a higher incidence in women, which may be associated with domestic accidents, impacting more mixed-race individuals, as they are the majority in the Maranhão population. Additionally, it was noted that a large portion of the hospitalizations occur in urgent situations. Therefore, these findings highlight the importance of prevention to reduce morbidity and mortality caused by burns, as well as the need to strengthen specialized care in the state.

**111. EPIDEMIOLOGY OF SYPHILIS IN PREGNANT WOMEN IN MARANHÃO BETWEEN 2019 AND 2023 IN RELATION TO THE NORTHEAST**

Andressa de Castro Moraes<sup>1</sup>, João Marcos dos Santos Andrade<sup>1</sup>, Natália Aragão Franco Eleutério<sup>1</sup>, Thais Vieira de Morais Sousa<sup>1</sup>, Vitor César de Abreu Praseres<sup>1</sup>, Viviane da Silva de Sousa<sup>1</sup>, Sueli de Souza Costa<sup>1</sup>.

<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Syphilis is an infectious and contagious systemic disease caused by the bacterium *Treponema pallidum*. In pregnant women, syphilis poses risks not only to the mother but also to the fetus due to the risk of developing congenital syphilis. Proper diagnosis and treatment help reduce the incidence of syphilis. Therefore, this study aims to identify the epidemiological profile of syphilis in pregnant women in Maranhão in relation to the Northeast region. **METHODS:** This is an analytical and descriptive study conducted from 2019 to 2023, based on data provided by the Department of Informatics of the Unified Health System (DATASUS). The parameters used included the year of diagnosis, age group, education level, and year of treatment initiation for the mother. **RESULTS:** During the analyzed period, 70,653 cases of syphilis in pregnant women were reported in the Northeast, with the year 2022 showing the highest number of diagnoses (17,031). In Maranhão, 7,096 cases were diagnosed (approximately 10.04%), with 2021 being the year with the most records (1,666). Regarding age, between 2019 and 2023, both the Northeast and Maranhão showed the highest number of cases in pregnant women aged 20 to 39 years, with 52,752 and 5,138 cases, respectively. In terms of education, there was a predominance of cases among pregnant women in the Northeast with incomplete 5th to 8th grade education, with Maranhão accounting for 9.09% of these records. Concerning the years of treatment initiation for syphilis in pregnant women, the year 2021 stands out with the highest number of records (4,761). However, in Maranhão, concerning treatments relative to the number of diagnoses, 2019 was the year with the most treatments (479), recording 1,619 cases (about 8.69% of the Northeast) with treatment initiation for mothers between 2019 and 2023. **CONCLUSION:** Syphilis is an infection that can affect pregnant women and develop in the fetus. In this context, based on the analyzed periods, it is evident that syphilis significantly affects pregnant women aged 20 to 39 years and with incomplete 5th to 8th grade education in Maranhão and the Northeast. Furthermore, the number of treatment initiations for mothers reveals a concerning value lower than the number of diagnoses, highlighting the need to strengthen monitoring during pregnancy. Thus, it is crucial to promote health education, especially for young pregnant women, and to intensify prenatal care to identify cases of syphilis in pregnant women and initiate effective treatment.



**112. EPIDEMIOLOGY OF LIP NEOPLASIA DIAGNOSIS IN MARANHÃO BETWEEN 2014 AND 2023**

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<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Lip cancer is commonly characterized by lesions on the lips that do not heal and exhibit behavior similar to skin tumors. Excessive and unprotected exposure to ultraviolet rays, as well as frequent alcohol and tobacco consumption, are risk factors for this neoplasia. When treated early, this type of cancer has high chances of cure. This study aims to describe the epidemiological profile of lip neoplasia cases diagnosed in Maranhão, in comparison with the Northeast region. **METHODS:** This is a descriptive and analytical study, covering the years 2014 to 2023, based on data provided by the Cancer Information System (SISCAN). The parameters used were year of diagnosis, state of diagnosis, sex, age group, staging, and therapeutic modality. **RESULTS:** During the analyzed period, 1,524 cases of lip neoplasia were identified in the Northeast, with 2019 being the year with the most diagnoses (299). Maranhão is the state with the fewest diagnoses in the region, with 18 cases (approximately 1.18%), with 2022 being the year with the most diagnoses (4). Males are more affected in the region (61.4%) and in the state (66.6%). The most affected age group in both analyses is 80 years and older, with 240 diagnoses in the Northeast and 5 in Maranhão. Regarding staging, among the classified cases, stage 3 had the highest number (n=156) in the Northeast. However, in the notifications, most were either ignored or not applicable, with 499 and 626, respectively. Stage 4 was the most frequent in Maranhão, with 5 cases. The most commonly used therapeutic modality in the region was surgery, with 626 treatments, while in the state, it was radiotherapy, with 9 treatments. **CONCLUSION:** Lip neoplasia predominantly affects older men, as lip protection with dermocosmetics is not common in this demographic. Additionally, males represent the majority of alcohol and tobacco consumers, factors that, when combined with prolonged exposure, lead to the development of cancer. The prevalent use of radiotherapy in Maranhão may be associated with advanced-stage diagnosis, due to the need to combine therapeutic modalities. Therefore, it is important to reinforce preventive measures in the group most affected by this neoplasia and to ensure early diagnosis.

**113. EPIDEMIOLOGY AND COST OF HOSPITALIZATION DUE TO EYE TRAUMA IN MARANHÃO FROM 2019 TO 2023**

Lúcia Gomes Nascimento Campos<sup>1</sup>, Romero Henrique Carvalho Bertrand Filho<sup>1</sup>, Pedro Arthur Índio Maranhense Boueres<sup>2</sup>, Saul Dominici Rocha Santos<sup>2</sup>, Adriana Leite Xavier<sup>1</sup>.  
<sup>1</sup> University Center of Maranhão; <sup>2</sup> Federal University of Maranhão

**INTRODUCTION:** Eye trauma (ET) is the most frequent cause of non-congenital unilateral blindness in children and adults. Complications of this type are often encountered in emergency departments. The cost of hospitalization is a constant concern, making it necessary to understand the expenses resulting from eye trauma cases that require patient admission. This study will analyze the cost of hospitalized patients due to eye trauma in Maranhão from 2019 to 2023. **METHODS:** A descriptive, retrospective epidemiological study was conducted using data from the Hospital Information System of SUS (SIH/SUS) through the platform of the Department of Informatics of the Unified Health System (DATASUS). The variables of interest used for analysis were: the number of hospitalizations, Eye/Orbital Trauma ICD 10 (S05), age group, sex, and total hospitalization costs from January 2019 to December 2023. Google Sheets was used for data analysis and tabulation. **RESULTS:** A total of 125 hospitalizations for ET were recorded from 2019 to 2023, with an average of 25 cases per year. The highest incidence was in the 35-39 age group, with 13 cases (10.4%), and males were predominant, accounting for 91 cases (72.8%) of the total. The total cost was R\$109,670.50, with an average hospitalization cost of R\$877.36. The highest total cost by age group was in the 55-59 age group, with expenses totaling R\$13,247.60 (12.079%) among individuals of that age. However, the age group with the highest average cost per hospitalization was 80 years or older, with R\$3,339.13, followed by the 55-59 age group with an average cost of R\$2,649.52. Regarding sex, the total cost for males was R\$83,354.09 (76.004%) and for females, it was R\$26,316.41 (23.996%), with average hospitalization costs of R\$915.98 and R\$774.01, respectively. **CONCLUSION:** Based on the analyzed data, it is inferred that, in the state of Maranhão, ET cases primarily affect men in the 35-39 age group, indicating the need for preventive and educational measures targeted at this group. Although the highest number of cases occurs in individuals aged 35-39, the highest costs are related to patients aged 55-59 and those aged 80 and over, highlighting the need for greater healthcare attention to these age groups. Therefore, further studies and analyses should be conducted to inform public health actions in the state.

**114. EPIDEMIOLOGICAL ANALYSIS OF HOSPITALIZATIONS FOR EPILEPSY IN MARANHÃO FROM 2019 TO 2023**

Ana Carolina Leal Melo<sup>1</sup>, Davi Nunes Marques<sup>1</sup>, João Victor Cunha Silva<sup>1</sup>, Layanne Silva Oliveira<sup>1</sup>, Wanderson José Cutrim Ferreira<sup>1</sup>, Pedro Durante Junqueira<sup>1</sup>, Santiago Servin<sup>1</sup>.

<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Epilepsy is a neurological disorder that causes disordered electrical discharges in the brain, which compromises synapses and causes seizures. It can present itself clinically in different ways, depending on the affected area of the brain. This pathology causes neurological, cognitive, socioeconomic and behavioral impacts on the individual's life. Therefore, this study aims to outline the epidemiological profile of patients hospitalized for epilepsy from 2019 to 2023 in Maranhão. **METHODS:** This is a descriptive epidemiological study, with a quantitative approach, carried out through data collection at the Department of Information and Informatics of the Unified Health System (DATASUS), in patients aged less than 1 year to patients over 80 years old in the period from 2019 to 2023, in Maranhão. To treat secondary data, approval from the Ethics Committee was not necessary. The variables used were: number of hospitalizations, age group, year of care, sex, color/race, type of care, municipality and health region. **RESULTS:** In Maranhão, from 2019 to 2023, 6,724 hospitalizations for epilepsy were reported. Regarding the year of hospitalization, there was a numerical balance of cases, but with a predominance in 2022, with 23.21% of hospitalizations. Regarding the prevalence by municipality, it was observed that São Luís had the highest occurrence, with 23.85% of cases. Furthermore, the age group from 1 to 4 years was the most prevalent, with approximately 16.83%, followed by the age group from 20 to 29 years, with 12.77%. Of the total number of cases, 55.85% were male. Regarding race, self-declared brown patients prevailed, accounting for 60.88% of cases. In addition, 92.25% of hospitalizations were of an emergency nature. Finally, the average length of hospitalization per year was 5.3. **CONCLUSION:** In summary, the predominance of emergency care indicates that epilepsy often results in severe episodes that require immediate intervention. In addition, the average hospital stay of 5.3 days per year highlights the impact that hospitalizations have on the health system, indicating the need to improve access to and the quality of outpatient and preventive care in order to reduce hospitalizations. Thus, the importance of specific public health strategies for the control and management of epilepsy in Maranhão is highlighted, especially in urban areas, in younger age groups, in males and for individuals of mixed race.

**115. EPIDEMIOLOGICAL ANALYSIS OF MENINGITIS CASES BETWEEN 2018 AND 2023 IN MARANHÃO**

Nívea Carolina Tavares Araújo<sup>1</sup>, Brenda Fernandes Campinho Braga<sup>1</sup>, Camila Kelly Viana Silva<sup>1</sup>, Isadora Márcia Pereira Nery<sup>1</sup>, Vitória Dálet Souza Rodrigues<sup>1</sup>, Abraão Ferreira de Sousa Neto Kós<sup>1</sup>.

<sup>1</sup> Faculty of Health Sciences Pitágoras - Codó

**INTRODUCTION:** Meningitis is an inflammatory process that involves the meninges and cerebrospinal fluid (CSF), due to an immune response to infectious and non-infectious aggressors, such as viruses and chemical substances. This inflammation is considered a public health issue due to its high prevalence and elevated morbidity and mortality rates, as it can cause irreversible sequelae and death. **METHODS:** The present study aims to outline the cases of meningitis from 2018 to 2023. This is a descriptive, retrospective, and quantitative epidemiological study of meningitis cases in the state of Maranhão. The data was obtained from the Notifiable Diseases Information System (Sinan/Tabnet) between the years 2018 and 2023. The following variables were used: etiology, gender, age group, education level, confirmation criteria, and disease progression. **RESULTS:** There were 651 cases of meningitis were reported in Maranhão between 2018 and 2023, with a decrease in confirmed cases from 2019 to 2020, and an increase from 2020 to 2023. The highest number occurred in 2023 (n=151; 23.1%). The city with the most notifications was São Luís (n=487; 74.8%). Males were more affected (n=359; 55.1%) than females (n=292; 44.8%). The main age groups affected were children under 1 year old (n=165; 25.3%) and adults between 20 and 39 years old (n=129; 19.8%). Regarding education level, in most cases, this variable was not applicable (n=286; 46.9%). As for the main reported etiologies, there was a predominance of unspecified meningitis (n=306; 47.0%) and viral meningitis (n=114; 17.5%). Among the criteria used to confirm the diagnosis, most were confirmed by cerebrospinal fluid (CSF) cytochemical analysis (n=279; 42.8%) and clinical examination (n=197; 30.2%). Most cases progressed to discharge (n=402; 61.7%) or death due to meningitis (n=186; 28.5%). **CONCLUSION:** According to the overview of meningitis cases in the state of Maranhão between 2018 and 2023, the study provides relevant data on the incidence and characteristics of the disease. Although the number of cases decreased between 2019 and 2020, the rate of cases increased from 2020 to 2023. Children under 1 year of age and adults aged 20 to 39 were the most affected age groups, denoting the vulnerability of distinct age groups. Although a significant proportion of cases have recovered, the mortality rate remains high, indicating that meningitis still requires control and prevention measures.

**116. EPIDEMIOLOGICAL ANALYSIS OF NON-MELANOMA SKIN CANCER IN NORTHEAST BRAZIL**

Tayanne Regina da Silva Costa<sup>1</sup>, Laura Beatriz Gonçalves Oliveira<sup>1</sup>, Marília Gabriela Pereira Mendes<sup>1</sup>, Victória Lis Reis<sup>1</sup>, Luís Eduardo Soares Gonçalves<sup>1</sup>, Paula Renata Rodrigues Ortega Mello<sup>1</sup>, Darlan Ferreira da Silva<sup>1</sup>.

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**INTRODUCTION:** Skin cancer is one of the leading causes of death worldwide, and its main risk factor is excessive exposure to solar radiation. Furthermore, non-melanocytic skin cancer is the most common type in Brazil, especially in the Northeast region, with a higher incidence of basal cell carcinoma, followed by squamous cell carcinoma. The objective of this study was to analyze the epidemiological profile of non-melanoma skin cancer in the Northeast region of Brazil. **METHODS:** This is an integrative literature review on the epidemiology of non-melanoma skin cancer in the northeast of Brazil. Eight scientific articles from the last 10 years were selected using the Scielo database (Online Scientific Electronic Library) in English and Portuguese, as well as secondary data from the Ministry of Health – Datasus, within the period from 2017 to 2019, using the descriptors "skin cancer," "northeast," and "prevalence". **RESULTS:** Non-melanoma skin cancer (NMSC) is the most common and prevalent neoplasm throughout Brazil, accounting for 33% of all malignant tumor diagnoses in the states of Ceará, Bahia, and Pernambuco. The majority of cases are of the basal cell carcinoma type, with an incidence of about 70%. Regarding age group, individuals aged 70 years or older represent the majority of NMSC diagnoses, with a significant increase in this age group from 2017 to 2018, amounting to 859%, and from 2018 to 2019, a 108% increase. As for gender, there were some variations over the years; from 2017 to 2018, neoplasms increased by 79% in men and 88% in women, while in 2019, women represented the highest number of cases, with 74% of them diagnosed. **CONCLUSION:** The statistical data from 2017 to 2019 demonstrate the high incidence of non-melanoma skin cancer in the northeastern region, highlighting the need for preventive measures to raise awareness about proper sun protection. In this way, it is crucial to promote health services and preventive actions among Brazilian states to effectively prevent skin cancer in the Northeast region.

**117. EPIDEMIOLOGICAL ANALYSIS OF SPONTANEOUS ABORTIONS BETWEEN 2020 AND 2023 IN THE STATE OF MARANHÃO**

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**INTRODUCTION:** Spontaneous abortion is the most common gestational complication, occurring in 15-20% of pregnancies, especially in the first 13 weeks. The causes are multifactorial, including genetic (chromosomal abnormalities) and non-genetic (infectious agents, socioeconomic and environmental conditions) factors. This event brings significant psycho-emotional impacts, with costs to public health. Therefore, the objective of this study is to analyze cases of spontaneous abortion in the state of Maranhão, identifying epidemiological trends and demographic characteristics of the reported cases. **METHODS:** This is a descriptive epidemiological study, with a quantitative approach, based on data made available by the Department of Information Technology of the Unified Health System (DATASUS) on spontaneous abortions between 2020 and 2023 in the State of Maranhão. Since these are secondary data, approval by the Ethics Committee was not required. The variables used were: number of abortions, year of care, health macro-region, age group, color/race, type of care, average number of days spent in care. **RESULTS:** In the state of Maranhão, from 2020 to 2023, 12,498 cases of spontaneous abortions were reported. Regarding the occurrence of cases per year, the prevalence was observed in 2021 and 2022, with approximately 38.82% and 42.42% of cases, respectively. Regarding the occurrence by macro-region, the North showed predominance with 6,534 cases. Furthermore, the age group from 20 to 29 years was the most prevalent, with approximately 50.01%, followed by the age group from 30 to 39 years, with 32.75% of cases. Regarding race, women who declared themselves to be brown prevailed, accounting for 63.46% of cases. In this context, 11,858 emergency care services were provided. Furthermore, the total number of days of hospitalization was 22,423, with 2021 having more than 40 such days and the longest average hospital stay (1.8). Finally, most expenses occurred in 2021, with 38.69% of the R\$2,650,469.56 spent. **CONCLUSION:** There was a higher incidence of abortion cases in 2021, with a predominance in the northern macro-region of the state. Regarding the profile of women who suffered spontaneous abortion, the highest recurrence was among women aged 20 to 29 and self-declared brown skin color. In addition, there was a higher prevalence of emergency care. Consequently, a large number of hospitalizations due to spontaneous abortions can be observed, a fact that further burdens the Unified Health System.

**118. EPIDEMIOLOGICAL PROFILE OF GESTATIONAL TOXOPLASMOSES IN BRAZIL FROM 2019 TO 2023**

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**INTRODUCTION:** Toxoplasmosis is an infection caused by the protozoan *Toxoplasma gondii*, contracted by consuming contaminated food and water and by exposure to environmental sources of infection such contact with surfaces contaminated with cat feces. Acute infection during pregnancy may result in vertical transmission to the fetus, with an increased risk of contamination in later stages of gestation; however, the severity of the disease tends to diminish with later infections. Congenital toxoplasmosis can affect multiple organ systems, often leading to neurological and visual impairments, and in severe cases, it may result in fetal death. This study aims to analyze the epidemiological profile of gestational toxoplasmosis in Brazil. **METHODS:** This descriptive, cross-sectional study investigates the epidemiological profile of gestational toxoplasmosis in Brazil. It employs secondary data from the Notifiable Diseases Information System (SINAN), sourced from the Health Informatics Department of the Unified Health System (DATASUS). The analysis covers a five-year period from 2019 to 2023 and examines variables such as education level, race, gestational age, and geographical regions within Brazil. **RESULTS:** A total of 55,716 cases of gestational toxoplasmosis were reported in Brazil during this period. The lowest number of cases occurred in 2019 (n=8,436; 15.14%), while the highest was recorded in 2023 (n=14,614; 26.23%). The Southeast (n=17,351; 31.14%) and Northeast regions (n=16,659; 29.90%) exhibited the highest notification rates. The majority of diagnosed pregnant women identified as mixed race (n=27,757; 49.82%), had completed high school (n=14,942; 26.82%), and were in their second trimester of pregnancy (n=21,356; 38.33%). In contrast to national trends, the Southern region reported that white women constituted the most affected group, with 7,990 cases (67.05% of regional cases), and most infections occurred during the first trimester, totaling 4,243 cases (35.61% of regional cases). Additionally, 32,320 cases of congenital toxoplasmosis were reported nationwide during the same period. **CONCLUSION:** The Southeast and Northeast regions reported the highest prevalence of gestational toxoplasmosis, while a distinct patient profile was observed in the Southern region. The early detection of primary infections, particularly in the South, indicates the effectiveness of screening programs in that area. These findings underscore the vital importance of early diagnosis in preventing congenital complications in newborns and point to the need for enhanced control measures in areas with elevated incidence rates.

**119. EPIDEMIOLOGICAL PROFILE OF MATERNAL DEATHS IN THE STATE OF MARANHÃO FROM 2012 TO 2022**

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**INTRODUCTION:** Maternal deaths represent a critical public health issue that affects families and communities throughout the state of Maranhão. Despite advances in medicine and health policies, many women still present significant risks during pregnancy, childbirth and the puerperal period, especially in the regions furthest from the state's major centers, where they have limited access to medical care. In addition, maternal deaths reflect the social and economic inequality that exists in the state. This article aims to analyze the main etiologies that lead to maternal deaths, seeking to identify the most common and determining factors for these fatalities. By understanding the predominant causes, we aim to contribute to the development of prevention and intervention strategies, with a view to significantly reducing maternal deaths and promoting safe and healthy motherhood for all women. **METHODS:** This is a retrospective epidemiological study with a quantitative approach using data collected from the DATASUS platform on maternal deaths reported in the state of Maranhão between 2012 and 2022. The gender, macro-region of occurrence, period of incidence and etiology of maternal deaths were analyzed respectively. The inclusion criterion was deaths of women living in Maranhão, of childbearing age, regardless of marital status. Thus, women from other states and who were not of reproductive age were excluded. **RESULTS:** During the study period, the prevalence in the female gender was analyzed, with 117 maternal deaths recorded in the state of Maranhão, in which it had a higher prevalence in the northern macro-region with 78% (n: 91), followed by the south with 20% (n:23) and finally the eastern macro-region with 2% (n: 3). The highest incidence of maternal death was observed in 2021 (n:14) and the lowest in 2014 and 2022 (n:8). These deaths were mainly due to eclampsia, postpartum hemorrhage, infectious diseases and pre-existing maternal diseases, such as endocrine and circulatory problems, among others. **CONCLUSION:** During the 10-year period between 2012-2022, there were maternal deaths, both pregnant and puerperal, caused by eclampsia, as well as diseases related to the cardiac and respiratory systems, obstetric embolisms and ectopic pregnancy.

**120. EPIDEMIOLOGY OF GESTATIONAL TOXOPLASMOSIS IN MARANHÃO: A DESCRIPTIVE REVIEW**Handrya Karla Martins Gomes<sup>1</sup>, Vinicius Ryan Araujo de Oliveira<sup>1</sup>, Bismarck Ascar Sauaia<sup>1</sup>.<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Toxoplasmosis is a zoonosis, generally asymptomatic, caused by the obligate intracellular protozoan *Toxoplasma gondii*. This parasite infects various intermediate hosts, including humans, with felines serving as its definitive hosts. Transmission occurs through the consumption of raw or undercooked meat containing oocysts after contamination by feline feces. Contagion can also occur through organ transplantation, blood transfusion, and transplacental transmission. In terms of prophylaxis, simple hygiene measures should be adopted to reduce transmission: proper washing of fruits and vegetables and taking precautions when handling cats. The infection poses risks of serious complications to the fetus, such as delayed neuropsychomotor development, strabismus, visual deficits, and hearing loss. The study aimed to discuss the epidemiological aspects of toxoplasmosis in Maranhão between 2019 and 2023. **METHODS:** This was a descriptive, cross-sectional review conducted using data from the Notifiable Diseases Information System (SINAN), made available by the Department of Informatics of the Unified Health System (DATASUS). Reference searches were conducted in virtual libraries and databases such as Scientific Electronic Library Online (SciELO), PubMed, and Google Scholar, including full articles and reviews in Portuguese and English related to the topic and descriptors. The variables analyzed included ethnicity, prenatal care, age, and socioeconomic status. Descriptive statistics were used in the data analysis. **RESULTS:** Of the number of cases reported in Maranhão (n=1,663), the highest prevalence was in 2023 (n=439; 26.4%) and the lowest in 2019 (n=243; 14.6%). Of the total diagnosed, (n=1,028; 61%) were confirmed, (n=299; 18%) were inconclusive, and (n=336; 20%) were ignored or discarded. Among the confirmed cases, (n=781; 76%) were brown individuals, (n=728; 71%) were pregnant women aged 20 to 39, and (n=281; 27%) were pregnant women aged 10 to 19, with (n=518; 50%) being diagnosed in the second trimester of pregnancy. **CONCLUSION:** Gestational toxoplasmosis can be effectively mitigated through the implementation of prophylactic measures, highlighting the importance of prenatal care in each trimester. In this regard, the urgency of promoting education and basic sanitation is emphasized, especially in socioeconomically disadvantaged areas where its incidence is higher. The adoption of adequate prophylaxis can reduce cases of congenital infection and, consequently, the occurrence of sequelae in newborns.

**121. EPIDEMIOLOGY OF HANSEN'S DISEASE IN MARANHÃO, BETWEEN 2019 AND 2023: DESCRIPTIVE REVIEW**Vinicius Ryan Araujo de Oliveira<sup>1</sup>, Handrya Karla Martins Gomes<sup>1</sup>, Bismarck Ascar Sauaia<sup>1</sup>.<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Leprosy is a chronic contagious disease caused by the bacterium *Mycobacterium leprae*. It is an obligate intracellular parasite with an affinity for skin cells and peripheral nerves, with common respiratory transmission. However, vaginal secretions, semen, and sweat can also expel bacilli. The diagnosis is based on clinical, epidemiological and histopathological factors, with suspicious lesions examined during the physical assessment. In Hansen's disease, treatment is conducted with antibiotic therapy. The study aimed to describe the epidemiological aspects of this bacterial infection in Maranhão between the years 2019 and 2023. **METHODS:** This was a descriptive review study of a cross-sectional nature, conducted through data collection from the Notification of Disease Information System (SINAN) portal, made available by the Department of Informatics of the Unified Health System (DATASUS). Reference searches were conducted in virtual libraries and databases of the Scientific Electronic Library Online (SciELO) and Google Scholar. **RESULTS:** The diagnosis and notification of Hansen's disease in Maranhão reached (n = 13,259) cases, with the highest prevalence in 2019 (n = 4,208; 31.7%) and the lowest in 2023, with (n = 809; 6.1%). Of those affected, (n = 8,154; 61.5%) were male; (n = 2,374; 17.9%) were in the age group of 20 to 39 years. Considering only confirmed cases, (n = 9,073; 68.4%) were of brown individuals; (n = 8,747; 66%) had not completed basic education or were illiterate; (n = 7,445; 56%) had dimorphic classification, (n = 2,594; 19.5%) lepromatous, (n = 1,133; 5%) tuberculoid, and (n = 1,779; 13.4%) indeterminate. Those who completed treatment and were cured totaled (n = 7,761; 58.5%). Cases of treatment abandonment (n = 810; 6.1%) and progression to death (n = 280; 2.1%) were also reported. **CONCLUSION:** Even with a significant decrease in the number of cases during the analyzed period, the prevalence among brown individuals with dimorphic clinical presentations, and the high rate of cure when treatment is followed, leprosy is still considered a serious public health issue associated with social inequality, low educational levels, and unfavorable socioeconomic conditions. The pandemic scenario, with social isolation, underreporting, and low public awareness of its causes and means of transmission, has hindered diagnosis and treatment adherence.



**122. EPIDEMIOLOGY OF MALIGNANT HYPERTHERMIA IN DIFFERENT POPULATIONS: A SYSTEMATIC REVIEW**

Lucas Gabriel Feitosa da Exaltação<sup>1</sup>, Ludmyla Assunção de Paula<sup>1</sup>, Felipe Alencar Fialho Bringel<sup>1</sup>, Pedro Igor de Sousa Rios<sup>1</sup>, Rodrigo Almeida da Paz<sup>1</sup>, Cyro Franklin Conceição Vieira<sup>2</sup>.

<sup>1</sup> Federal University of Maranhão; <sup>2</sup> São Domingos Hospital

**INTRODUCTION:** Malignant hyperthermia (MH) is a rare pharmacogenetic disorder of skeletal muscle that results in a severe hypermetabolic response when susceptible individuals are exposed to halogenated volatile anesthetics or succinylcholine. The most common symptoms include muscle rigidity, tachycardia, tachypnea, increased expired CO<sub>2</sub>, metabolic acidosis, and dangerously high body temperatures. Immediate treatment includes rapid body cooling and the administration of dantrolene, which helps relax muscles and control fever. Supportive measures such as mechanical ventilation and intravenous fluids are also essential. The objective of this study is to determine the incidence and epidemiology related to cases of malignant hyperthermia in different populations. **METHODS:** This study consists of a systematic review using the PRISMA method from 2014 to 2024 through the databases BVS, PubMed, and Scielo. **RESULTS:** Using inclusion and exclusion criteria, seven articles were selected for this review. **CONCLUSION:** The systematic review of the available literature revealed that the prevalence of malignant hyperthermia (MH) ranges from 1:16,000 to 1:100,000 hospitalized patients. Globally, a higher frequency of MH cases was observed among males, with double the incidence compared to females. Age group analysis indicated a higher occurrence among younger individuals, with cases being rare among the elderly. In terms of race, the prevalence of MH was lower among Hispanics than among non-Hispanic whites. Identified risk factors for the development of MH include genetic susceptibility, especially pathogenic variants in the RYR1, CACNA1S, and STAC3 genes, cesarean section procedures, and patients with more prominent muscular build, the latter having a 13.6-fold increase in the likelihood of death from MH.

**123. EPIDEMIOLOGY OF SYPHILIS CASES IN PREGNANT WOMEN IN BRAZIL AND MARANHÃO FROM 2019 TO 2023**

Isabela Linhares Costa Solidade<sup>1</sup>, Terezinha Machado Dos Santos<sup>1</sup>, Lucian de Araújo Miranda<sup>1</sup>, Shara Byanca Andrade Cavalcante Da Silva<sup>1</sup>, Ana Paula Pereira Da Costa<sup>1</sup>, Aristela Vieira Lucena<sup>1</sup>.

<sup>1</sup> Faculty of Medicine of Açailândia - IDOMED

**INTRODUCTION:** Syphilis is an infection transmitted sexually, placentally and through blood transfusions, and has the bacterium *Treponema pallidum* as its etiological agent. The disease has clinical forms that evolve over time: primary, secondary, latent and tertiary. In pregnancy, when left untreated, syphilis can lead to unfavorable perinatal outcomes, such as premature birth, fetal death and sequelae that will negatively affect the baby's life. The aim of this study is to comparatively analyze the epidemiological situation of syphilis in pregnant women in Brazil and Maranhão. **METHODS:** This is an epidemiological, descriptive and retrospective study carried out by collecting secondary data on the TABNET platform of the SUS Information Technology Department (DATASUS). The study covered five years (2019-2023) and the variables observed and compared at national and state level were the number of cases, clinical classification of syphilis, age group and color. **RESULTS:** In the country, 324.683 pregnant women were registered with syphilis during this period, and Maranhão accounted for 2,04% of this number, with 6.639 cases. The most prevalent clinical forms nationwide were latent (40,48%) and primary (25,24%). Maranhão, in turn, also had the latent (26,10%) and primary (43,74%) forms as the most registered at the time of diagnosis, with the difference being that the state made more diagnoses in the primary phase, that is, earlier. In terms of age, the age group with the highest number of cases was 20 to 39 years old, both in Brazil (75,43%) and in Maranhão (76,80%). Brown women had the highest number of notifications in the country (52,31%) and in the state (82,13%). **CONCLUSION:** The results show that, in terms of clinical form, age and color, the state of Maranhão is following a similar trend to the rest of the country. The percentage of cases should in no way be interpreted as small, given that syphilis during pregnancy is a problem with a major social impact that demands special attention from maternal and child health services.

**124. SCHISTOSOMIASIS MANSONIS: EPIDEMIOLOGICAL PROFILE OF BAIXADA MARANHENSE BETWEEN 2018 AND 2023**

Emilly Reis de Albuquerque Moraes<sup>1</sup>, Layna Ravenna Batista de Lima<sup>1</sup>, Maria Júlia de Sena Lopes<sup>1</sup>, Klitia de Jesus Saraiva Garrido<sup>1</sup>.

<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Schistosomiasis mansoni (MS) is a parasitic disease caused by trematodes of the genus *Schistosoma*, which have as an intermediate host the freshwater snail of the genus *Biomphalaria*. In its chronic phase, it causes hepatosplenomegaly, liver fibrosis, esophageal varices and ascites, in addition to reducing the ability to work and, in some cases, causing death. In children, it can cause anemia and malnutrition, affecting growth, cognitive capacity and, consequently, learning. Considering its impacts on quality of life, the objective of this study was to outline and analyze the epidemiological profile of schistosomiasis mansoni in the Baixada region of the state of Maranhão. **METHODS:** This is a retrospective epidemiological study with a quantitative approach, in which secondary data provided by the Notifiable Diseases Information System (SINAN) database were used, made available by the platform of the Department of Information Technology of the Unified Health System (DATASUS), referring to the period from 2018 to 2023. Regarding the variables, race, sex, age group and the number of cured individuals were analyzed. **RESULTS:** During the years studied, 56 cases of schistosomiasis mansoni were registered in the Maranhão lowlands. Of these, 62.5% (n = 35) were brown people. 62.5% (n = 35) were male; 37.5% (n = 21) were in the 40-59 age group, followed by 32.1% (n = 18) between 20-39 years old. A total of 45 cured patients were registered. **CONCLUSION:** Schistosomiasis is a neglected disease, closely linked to poor socioeconomic conditions in rural areas. It remains endemic in Baixada Maranhense due to the high concentration of the parasite in flooded regions. According to statistics, the productive age corresponds to the age group with the highest incidence of contamination, which makes MS assume characteristics of an occupational disease and brings to light the need to reflect on its epidemiological framework and the impacts on the social and economic development of the State.

**125. NUTRITIONAL STATUS AND SOCIODEMOGRAPHIC PROFILE OF PATIENTS WITH HEART FAILURE**

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<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Heart failure with reduced ejection fraction (HFrEF) is the heart's inability to adequately pump blood, compromising patients' habits and quality of life, and potentially leading to changes in body composition. Thus, this study aims to describe the nutritional status and sociodemographic profile of patients with HFrEF. **METHODS:** This is a cross-sectional study conducted with outpatients diagnosed with HFrEF from 2022 to 2024. To assess the anthropometric profile, body weight, height, and Body Mass Index (BMI) were evaluated. For BMI, a score up to 18.50kg/m<sup>2</sup> represents underweight, between 18.60kg/m<sup>2</sup> and 24.99kg/m<sup>2</sup> was considered normal weight, 25kg/m<sup>2</sup> to 29.99kg/m<sup>2</sup> overweight, 30kg/m<sup>2</sup> to 34.99kg/m<sup>2</sup> obesity grade I, 35kg/m<sup>2</sup> to 39.99kg/m<sup>2</sup> obesity grade II, and above 40kg/m<sup>2</sup> obesity grade III. The sociodemographic variables used were: gender, ethnicity, age, and marital status. Additionally, descriptive analysis was performed using RStudio software. The study was approved by the Research Ethics Committee (CAAE: 25756919.9.2004.5086). **RESULTS:** A total of 129 patients were included in the study, with a mean age of 56.8 ± 11.2 years. The majority were male (69.5%), mixed race (62.3%), and married (50.5%). The average height was 1.62m, with no significant difference in height when the sample was categorized by gender. Regarding weight, the overall mean body mass was 68.4kg, with an average of 68.7kg in men (M) and 68.2kg in women (W). The BMI analysis showed a mean of 25.33kg/m<sup>2</sup> (M: 25.6kg/m<sup>2</sup>, W: 25.3kg/m<sup>2</sup>), with 4.6% (n=6) classified as underweight, 40.3% (n=52) within normal weight, and 36.4% (n=47) overweight. Regarding obesity, 13.9% (n=18) of the sample was classified as obesity grade I, 3.1% (n=4) grade II, and 1.5% (n=2) grade III. **CONCLUSION:** It can be concluded that there is a higher prevalence of HFrEF in male patients of mixed race. This suggests a greater susceptibility of this group to developing the disease. Another important finding is the significant number of patients with a BMI above 30, indicating that overweight and obesity are significant risk factors for this condition. Therefore, patients fitting this profile require closer monitoring when heart failure is suspected.

**126. DEEP BRAIN STIMULATION IN NEUROPATHIC FACIAL PAIN: A SYSTEMATIC REVIEW**

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**INTRODUCTION:** Deep brain stimulation (DBS) is a neurosurgical therapy used to treat neurological disorders such as Parkinson's disease, dystonia, and essential tremor. It involves the application of electrodes in the brain connected to a pulse generator implanted under the skin, sending electrical impulses that generate deep neurostimulation, alleviating motor and pain symptoms. Recently, studies have been conducted using DBS in the treatment of some neuralgias, including neuropathic facial pain (NFP). This study aims to investigate the efficacy of DBS for the treatment of NFP. **METHODS:** A systematic literature review was conducted in the PubMed and Embase databases using the descriptors "Deep brain stimulation," "Facial Pain," "DBS," and "Neuropathic." Boolean operators AND and OR were used. There was no time limit, and case reports, review articles, duplicates, conference abstracts, and studies not in English were excluded. Out of 107 articles found, 9 original studies were included for analysis. **RESULTS:** Among the 9 studies analyzed, 7 were case series and 2 were single-center retrospective studies. The total sample size was 243 people who underwent deep brain stimulation. The average age of this population was 54.2 years, and the mean follow-up period was 112 ( $\pm$  92) weeks. All studies analyzed used pain perception scales, such as the visual analog scale (VAS) and/or the numerical rating scale (NRS), to assess the effects of DBS on NFP treatment. Tests such as the Mini-Mental State Examination (MMSE) were used to assess pre- and postoperative quality of life. All studies indicated the electrode frequency range (30 to 130 Hz), and 6 indicated an optimal voltage between 3 and 10 V, depending on the patient's subjective perception of NFP. The results of the studies varied, but most reported a reduction in pain and/or an improvement in quality of life, with 5 studies reporting a 50% reduction in pain in more than 60% of patients. **CONCLUSION:** The use of DBS suggests a reduction in NFP and clinical improvement in patients. However, further studies should be conducted to consolidate the feasibility of this intervention, particularly randomized clinical trials and more prospective or retrospective studies with larger sample sizes, evaluating adverse effects, intraoperative complications, and long-term efficacy through control groups.

**127. STUDY OF PRENATAL CARE IN THE MUNICIPALITY OF PINHEIRO-MA IN THE FACE OF COVID-19**

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**INTRODUCTION:** The general objective of this study was to investigate how the COVID-19 pandemic affected the adherence to prenatal care among parturients in the city of Pinheiro, Maranhão, by comparing the rates of prenatal care before and during the pandemic in the city of Pinheiro, in the state of Maranhão. **METHODS:** To achieve the proposed objective, the methodology of descriptive research and ecological, quantitative study was adopted, with analysis of data recorded in SINASC and made available on the website of the SUS Information Technology Department (DATASUS). Thus, the years 2017 to 2022, the three years prior to the coronavirus pandemic (2017 to 2019) and the three years in which the pandemic was established (2020 to 2022) were analyzed. **RESULTS:** The profile of parturients, pregnancies and deliveries remained the same throughout these years. However, there were significant changes in the characteristics of prenatal care during the COVID-19 pandemic and in the years preceding it, so that, from 2017 to 2019, the number of prenatal consultations was four to six, and in relation to the quantitative adequacy of prenatal care, the category inadequate predominated. On the other hand, from 2020 to 2022, the number of prenatal consultations was seven or more, and in relation to the quantitative adequacy of prenatal care, the category more than adequate predominated. **CONCLUSION:** The results show that the impacts on prenatal care in the city of Pinheiro-MA, during the COVID-19 pandemic, were positive, as the pandemic scenario did not negatively affect the search for prenatal care, despite the restrictions, thus demonstrating the adequacy of services to the needs of the health crisis that has taken hold, capable of guaranteeing adequate monitoring for pregnant women. It is expected that, with this analysis, the results can serve to guide public policies for the area, always aiming at the best quality of life and care for pregnant women and women in labor, especially in times of crisis in the health system.

**128. EPIDEMIOLOGICAL STUDY OF LEPROSY FROM 2014 TO 2023: COMPARATIVE BETWEEN MARANHÃO AND BRAZIL**

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**INTRODUCTION:** Leprosy is a chronic infectious disease caused by *Mycobacterium leprae*, an acid-fast bacillus that affects the skin and peripheral nerves, capable of causing neural lesions. Although curable, it still remains endemic in several regions of the world. In Brazil, it is a public health problem due to its magnitude and high disabling power, affecting mainly vulnerable and marginalized middle and low-income populations. The present study sought to analyze the epidemiological indicators of leprosy in Maranhão, comparing them with the national percentages, over a period of 9 years, thus aiming to provide subsidies for the implementation of improvements that address the theme of leprosy. **METHODS:** This is a descriptive study based on secondary data from the Notifiable Diseases Information System (SINAN), made available by the platform of the Department of Informatics of the Unified Health System (DATASUS). The categories sex, race, and age were selected, and then the data were collected and tabulated in an Excel spreadsheet for descriptive statistical analysis. **RESULTS:** In Maranhão, males had the majority of diagnosed cases of leprosy (59.4%), a proportion slightly higher than that of men in the country (57.0%). As for race, browns were more affected in both: 67.9% in Maranhão compared to 59.0% at the national level. Blacks had a higher representation in Maranhão (16.0%), compared to those in Brazil (12.6%). Regarding age, there was a higher prevalence between 30 and 39 years of age in Maranhão, with 17.7%, whereas in Brazil it was found in the 50 to 59 age group, with 19.2%. **CONCLUSION:** It can be inferred that men and individuals of the brown race were more affected by the pathology, both in Maranhão and in Brazil. In the state of Maranhão, blacks had a more expressive proportional involvement. In addition, there was a higher prevalence in the 30 to 39 age group in Maranhão, and in the country, between 50 and 59 years old. These data highlight the importance of considering demographic and regional variables when addressing public health. Understanding prevalence disparities between different groups can help define prevention strategies and health policies that are more effective and targeted to the unique needs of the population.

**129. EPIDEMIOLOGICAL STUDY OF HOSPITALIZATIONS DUE TO CATARACT IN MARANHÃO FROM 2019 TO 2023**

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**INTRODUCTION:** Cataract is defined as the process of opacification of the lens, primarily caused by aging, and is the leading cause of reversible blindness worldwide. Considering the gradual aging of the population, this study aimed to epidemiologically assess hospitalizations due to cataract in Maranhão, as this condition is intrinsically linked to advanced age and has serious social impacts on patients who cannot access adequate healthcare services for treatment. **METHODS:** This is a retrospective and quantitative epidemiological study based on data provided by the Department of Informatics of the Unified Health System (DATASUS). The studied population consisted of cases of hospitalizations diagnosed with cataract in Maranhão between 2019 and 2023. The correlated variables included the number of hospitalizations, year of treatment, health macroregion, sex, age group, color/race, and type of treatment. Since this is public domain information, submission to an Ethics and Research Committee was not necessary. **RESULTS:** During the studied period, Maranhão had 5,872 hospitalizations due to cataract, with the year 2021 recording the highest number at 2,000 hospitalizations (34.06%), followed by 2020 with 1,777 notifications (30.27%). The majority of patients were aged 60 to 79 years, accounting for 4,089 cases (69.64%). In terms of sex, women were more affected, with 3,165 (53.90%) hospitalizations compared to 2,707 (46.10%) for men. The most affected race was mixed-race (parda), with 3,137 (53.43%) of hospitalizations; however, there was significant underreporting in this variable, as 2,017 (34.35%) of the records did not include this information. Regarding the type of treatment, most cases were elective, with 5,541 (94.37%) being planned surgeries, while only 331 (5.36%) were urgent cases. The most affected region was the eastern macroregion, with 3,193 (54.38%) notifications. **CONCLUSION:** According to the study, the most affected profile was female, mixed-race individuals aged 60 to 79 years. The data highlights the need for continuous attention to early diagnosis and treatment of cataract, especially among the elderly population. Furthermore, the predominance of elective hospitalizations suggests effective planning of cataract surgeries in the region.

**130. EVOLUTION OF HOSPITALIZATIONS DUE TO STROKE IN BRAZIL BETWEEN 2018 AND 2022**

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**INTRODUCTION:** Cerebrovascular accident (CVA) is the second leading cause of mortality in Brazil and also one of the major causes of hospitalizations. Therefore, it is essential to understand how these numbers have evolved in recent years. This study aims to describe the epidemiological data and analyze the trends in the number of hospitalizations due to CVA in Brazil. **METHODS:** This study is ecological, cross-sectional, descriptive, and analytical, with an analysis conducted in Brazil from 2018 to 2022. All patients present in the database were included, filtered through the International Classification of Diseases code I64. A linear regression model in time series was performed to analyze the number of hospitalizations and to identify potential linear trends, with a significance level of 0.05 and  $p < 0.05$ . Data from the Department of Informatics of the Unified Health System were analyzed; these data are secondary and publicly available, thus exempting the need for approval from an ethics committee. **RESULTS:** During the period under analysis, a total of 810,952 hospitalizations were recorded, of which 99.9% were illiterate, with a mean age of 66.77 years and a standard deviation (SD) of 14.91 years. Geographically, 42% of patients were from the Southeast, 28.1% from the Northeast, 17.9% from the South, and the remainder distributed among the Central-West and North regions. The average length of hospitalization was 7.22 days with a standard deviation of 8.52 days, and 15% resulted in mortality. For analysis, the period was divided into 60 months. Using the JoinPoint regression model, four significant trends were identified during the period: the first was an increasing trend with an annual percentage change (APC) of 0.38 and  $p = 0.007$  from months 1 to 25; the second was a decreasing trend with an APC of -5.23 and  $p = 0.006$ ; the third was an increasing trend with an APC of 0.98 and  $p = 0.001$ ; and the final trend was a decreasing one with an APC of -30.17 and  $p < 0.0001$ . The final APC over the 60 months was decreasing and significant, with an APC of -0.82 and  $p < 0.0001$ . **CONCLUSION:** In light of this, it was possible to understand the behavior of the number of hospitalizations in Brazil during this period, which exhibited significant variability, including a sharp decline in trend at the end of 2019, followed by an increasing trend starting from the end of that year, reaching its peak at the end of 2022.

**131. EXTRACT OF *Fridericia platyphylla* REDUCES SERUM LEVELS OF CARDIAC BIOMARKERS IN RATS**

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**INTRODUCTION:** *Fridericia platyphylla* belongs to the Biognoniaceae family and is widely used by the population for the treatment of kidney stones and joint pain. It is rich in phenolic compounds known for their cardioprotective, hypotensive, and antioxidant properties. This study evaluated the effect of oral treatment with Hydroethanolic Extract of *F. platyphylla* leaves (HEFP) on the blood pressure levels of normotensive animals, aiming to assess its hemodynamic and cardioprotective effects. **METHODS:** The leaves of *F. platyphylla* were collected, dried, ground, extracted, and freeze-dried, resulting in the EHFP, which was administered to normotensive Wistar rats after a 15-day adaptation period. To this end, the animals were previously randomized into groups ( $n=6$ ), with one group being treated with 100mg/kg and the other with 250mg/kg of HEFP for 15 days, orally, in a single daily dose. At the end of the treatment, cardiac injury was induced with isoproterenol (85 mg/kg) in the treated groups and in the control group (healthy), which did not receive HEFP, on the 14th and 15th days, subcutaneously. The project was approved by the Animal Ethics and Research Committee/UFMA, under protocol no. 23115.019856/2023-61. **RESULTS:** Regarding the effect on blood pressure, HEFP did not promote significant hemodynamic changes. Additionally, concerning the cardioprotective effect, evaluated through cardiac biomarkers such as aspartate aminotransferase, creatine phosphokinase, creatine phosphokinase MB fraction, and lactate dehydrogenase, no significant differences were observed between the groups treated with the extract at both doses when compared to the healthy control group, demonstrating that the extract prevents cardiac changes by normalizing the serum levels of these biomarkers. **CONCLUSION:** Thus, it is concluded that the different doses administered do not exert a cardioprotective effect without adverse effects on hemodynamic patterns, supporting the scientific validation and bioprospecting of this plant species.



**132. FACTORS ASSOCIATED WITH POSTPARTUM DEPRESSION: A COMPREHENSIVE REVIEW**

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**INTRODUCTION:** Mental disorders are clinical manifestations related to several changes, which can be chemical, physical and/or genetic. These disorders affect many people, especially women. Postpartum depression (PPD) is defined as a major or minor depressive episode, with no psychosis, that begins during pregnancy or in the first 12 months after delivery. The diagnosis of postpartum depression is difficult to achieve, since several manifestations are common in the puerperium. Thus, this study aims to identify the risk factors associated with postpartum depression. **METHODS:** This is an integrative literature review, carried out in the LILACS, PUBMED and SCIELO databases, in which studies that addressed the aforementioned theme were included from articles published between 2020 and 2024. The following descriptors were used: "postpartum depression", "risk factors" and "postpartum". **RESULTS:** The literature points to several risk factors associated with postpartum depression. Among them, the most prominent is the presence of depression during pregnancy, followed by gestational diabetes, lack of marital and social support. Other significant factors include complications during pregnancy, low socioeconomic status, stressful life events, prenatal anxiety, and psychological violence. In view of this, it was demonstrated that the presence of probable postpartum depression and unplanned pregnancies were responsible for damaging the maternal bond. In this sense, it was observed that the prevalence of PPD in women during the years 2020 and 2021 was higher than the research rates during the non-pandemic period, since the global incidence of PPD until 2017 was approximately 10% in developed countries; and around 21–26% in developing countries during the pre-COVID-19 period, while during the pandemic it reached 34%. **CONCLUSION:** In this context, it is clear that there is a negative impact of postpartum depression on the maternal bond, which can generate detrimental repercussions on the development of these children. Furthermore, the pandemic and risk factors have contributed to an increase in the incidence of PPD, which suggests the need to search for protective factors.

**133. GESTATIONAL FACTORS ASSOCIATED WITH CONGENITAL SYPHILIS INFECTION**

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**INTRODUCTION:** Syphilis is a sexually transmitted infection (STI) caused by *Treponema pallidum*, which can also be transmitted vertically, from the pregnant woman to the conceptus. A contamination results in various events, such as congenital diseases, miscarriage, fetal death, prematurity and late sequelae. Thus, congenital syphilis (CS) occurs through maternal gestational factors transmitted to the fetus. Maternal gestational factors, which favor the high incidence of the disease. **METHODS:** This is a literature review whose articles were collected using the descriptors "fatores" or "factors", "gestacionais" or "gestacional", "sífilis congenita" or "congenital syphilis". It was carried out using articles published on the Biblioteca Virtual em Saúde, medline and lilacs platforms, totaling 34 materials, 8 of which were used. The inclusion criteria were original and review articles, published in full in Portuguese and English, with a time limit of five years. Duplicate articles and those that did not follow the theme were removed. **RESULTS:** With regard to the evidence related to gestational factors involved in congenital syphilis, 92.6% of the mothers of children with syphilis were diagnosed late in the prenatal phase, which made early and adequate treatment unfeasible. Late diagnosis, which made early and adequate treatment unfeasible. A study published in the American Medical Association, the impact of maternal serological screening and testing in the third trimester of pregnancy, which would prevent transmission to the fetus, and transmission to the fetus, and diagnosis at the time of delivery. Furthermore, low adherence to treatment by pregnant women and their sexual partners is a persistent problem, due to reinfection and the maintenance of this scenario. **CONCLUSION:** It is concluded that the high incidence of CS suggests shortcomings in prenatal care and indicates the need to reorient pregnant women in order to reduce vertical transmission of syphilis. In this way, training health professionals and reinforcing guidance and active. For adequate treatment of sexual partners is essential in order to contain the factors associated with congenital syphilis infection.

**134. FACTORS THAT MOTIVATE ALCOHOL CONSUMPTION BY FIRST-YEAR MEDICAL STUDENTS**

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**INTRODUCTION:** Alcohol is a dangerous psychoactive substance in terms of the harm it causes both to the user and to others. Alcohol-related problems have a wide scope and transcend the individual who drinks. Among the courses, the medical course stands out in relation to the number of students who begin to consume alcohol after entering university. Therefore, there is a clear need to analyze what motivates alcohol consumption among these students and to understand the influence of the university, family members, and mental health on the initiation/increase of this consumption. **METHODS:** Data were collected from articles in the Scielo, PubMed, and BVS databases. The inclusion criteria are articles that addressed the proposed topic, published between 2019 and 2024. Duplicated studies or those published before 2019 were excluded. **RESULTS:** Of the 27 articles found, 10 were analyzed. An intrinsic relationship between alcohol consumption and psychiatric disorders was examined. A high prevalence of psychopathology and substance use was observed among the student population. Alcohol is the most consumed substance and may precede the use of illicit drugs. The abusive use of alcohol increases the likelihood of developing psychiatric disorders, such as depression, social phobia, and anxiety, by threefold. There is a strong association between family dysfunction and alcohol use among students. Risky consumption is linked to dysfunctional family support and a family history of abusive use. Another contributing factor to this habit is the social group, due to the need for inclusion in new university groups and the desire to socialize, especially in the first year. It was shown that almost half of the students consume alcohol frequently, most of them being men, with an average age of 22, high income, smokers, and physically active. The data collected support the thesis that the university is a favorable environment for the initiation and use of alcoholic beverages. **CONCLUSION:** There is a concerning prevalence of alcohol consumption among students, influenced by various factors, such as dysfunctional family support and psychological issues. It is recommended to implement educational programs about the risks of consumption, as well as screenings to identify students at risk and access to mental health services for support. It is imperative that academic and health institutions adopt proactive measures to protect students' mental health and promote a healthy and productive academic environment.

**135. SOCIOECONOMIC FACTORS AND MENTAL HEALTH IN PATIENTS WITH HEART FAILURE**

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**INTRODUCTION:** Heart failure with reduced ejection fraction (HFrEF) is the inability of the heart to pump blood effectively, which can compromise patients' quality of life and mental health. This study aims to analyze the association between mental health and socioeconomic factors in patients with HFrEF. **METHODS:** This is a cross-sectional study conducted with outpatients diagnosed with HFrEF, evaluated from 2022 to 2024. To assess mental health, two questionnaires were applied: one targeting anxiety, the Generalized Anxiety Disorder 2 (GAD-2), and another for depression, the Patient Health Questionnaire-2 (PHQ-2). For each questionnaire, a score of three or higher indicates a higher likelihood of the patient having these conditions. The socioeconomic variables used were: age, gender, ethnicity, occupation, marital status, family per capita income, and average spending on medications. Logistic regression was employed to analyze the association between the GAD-2 and PHQ-2 scores and the socioeconomic variables. Additionally, descriptive analysis was performed using RStudio software. The study was approved by the Research Ethics Committee (CAAE: 25756919.9.2004.5086). **RESULTS:** A total of 218 patients were included in the study, with a mean age of  $59.8 \pm 12.2$  years. The majority were male (70.6%), mixed race (56.4%), married (51.2%), and retired (56.4%). The average family per capita income was R\$ 959.80, with an average medication expense of R\$ 520.50. Regarding the GAD-2 questionnaire, 27.9% (n=61) had a positive score ( $\geq 3$ ) for anxiety. In the PHQ-2 analysis, 22.4% (n=49) had a positive score ( $\geq 3$ ) for depression. The association between the GAD-2 score and socioeconomic variables yielded a p-value of 0.042 (OR:1.7 and CI:1.02-2.84), while the association between the PHQ-2 score and socioeconomic variables showed a p-value of 0.425 (OR:1.21 and CI:0.75-1.94). **CONCLUSION:** Although there was an association between anxiety and socioeconomic variables, the same was not observed for depression when associated with social aspects. This may indicate that socioeconomic factors generate concerns about the patient's future, reinforcing the biopsychosocial concept of health. Therefore, it is important to address not only the physical aspects of the disease but also combine pharmacological treatment with psychosocial support.

**136. EXPENSES OF HOSPITAL SERVICES FOR RHEUMATOID ARTHRITIS IN MARANHÃO BETWEEN 2020 AND 2024**

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**INTRODUCTION:** Rheumatoid arthritis (RA) is a chronic and progressive autoimmune disease that causes inflammation in the joints, of multifactorial origin with genetic and epigenetic factors at its origin. Objective: To evaluate the costs of hospital services for RA and other inflammatory polyarthropathies in the State of Maranhão from January 2020 to January 2024. **METHODS:** Ecological, quantitative, descriptive study, with analysis of data registered at SINASC and made available on the website of the SUS Information Technology Department (DATASUS). **RESULTS:** In total, R\$ 1,470,286,213.13 were spent on hospital services for rheumatoid arthritis and other inflammatory polyarthropathies in the State of Maranhão in the period between January 2020 and January 2024. According to the variables, women demanded more resources, a value of R\$ 853,648,175.27, that is, 58.06% of expenses, as well as the age group of 40 to 49 years required more resources (18, 11% of expenses) in the period analyzed. The diagnosis and treatment of RA and other polyarthropathies is still quite time-consuming and expensive, so that, sometimes, the patient discovers the disease when hospitalization is required. This is because confirmatory diagnosis and treatment require a lot of financial resources. **CONCLUSION:** RA and other polyarthropathies generate high costs for patients and society, showing the need for early diagnosis and adequate treatment, promoting the best prognosis for this population and minimizing public spending on this population. Understanding these expenses helps to direct the incorporation of technologies into the SUS in a balanced way.

**137. HOSPITAL MORTALITY IN CONGENITAL HEART DISEASES BEFORE AND AFTER THE PANDEMIC**

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**INTRODUCTION:** Congenital heart diseases (CHD) are anatomical malformations of the heart or major vessels. CHDs are among the leading causes of neonatal morbidity and mortality, with an increasing prevalence in the population, potentially exacerbated by various external factors such as medications, radiation, and pathologies, including viral infections. In this context, humanity experienced a state of emergency due to the COVID-19 pandemic, and its impacts are still being studied over the years. Therefore, this study aimed to outline and analyze, from an epidemiological perspective, hospital deaths due to congenital heart diseases in the pre-and post-COVID-19 periods. **METHODS:** This is a retrospective observational quantitative study that analyzed available data on the epidemiological profile and deaths from congenital heart diseases in the Hospital Information System of the Department of Informatics of the Unified Health System (DATASUS) to compare characteristics before (2018 and 2019) and after (2021 and 2022) the context of the COVID-19 pandemic. Patients under 1 year of age were included. Data from the year 2020 were excluded. **RESULTS:** In the 2018-2019 period, 6,419 deaths were recorded, predominantly among male individuals (3,465) and those of white color/race (3,134). In parallel, during 2021-2022, these patterns were maintained, with 5,707 total deaths, 3,087 males, and 2,613 of white color/race. There was a significant 11.1% reduction in the total number of deaths, representing a decrease of 712 cases compared to the previous period. Of these, there were 1,851 deaths in patients aged 0 to 6 days, 1,525 deaths in those aged 7 to 27 days, and 3,043 deaths in those aged 28 to 365 days during the pre-pandemic period. Additionally, there were 1,692 deaths in patients aged 0 to 6 days (a reduction of 0.08%), 1,339 deaths aged 7 to 27 days (a reduction of 12.1%), and 2,676 deaths aged 28 to 365 days (a reduction of 12.5%) in the post-pandemic period. **CONCLUSION:** The comparison of hospital deaths due to CHD between the pre-and post-COVID-19 pandemic periods demonstrated a reduction in the number of deaths, with the predominance of male children of white color/race remaining. There was a proportional reduction in the numbers for the age groups 7 to 27 and 28 to 365 days of life. Therefore, the absolute number of deaths decreased, but the epidemiological patterns regarding sex, age, and color/race in CHD within the context and impacts of the pandemic remained consistent.

**138. HOSPITALIZATION IN LARGE ELDERLY MARANHENSE DUE TO GENITOURINARY DISEASES**

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**INTRODUCTION:** In underdeveloped countries, there has been an increase in life expectancy, with a marked aging of the population and an increase in comorbidities, mainly genitourinary diseases due to decreased functional capacity and physiological changes in the elderly. Involvement of the genitourinary system is particularly more prevalent among postmenopausal women, influenced by factors such as estrogen deficiency, increased residual urine output and cystocele, leading to conditions such as urinary infections. As a result, the number of hospitalizations tends to increase, in line with population aging, especially in the age group over 80 years. This study aims to analyze hospitalizations and deaths of women over 80 years of age due to diseases of the genitourinary system between 2010 and 2012 and 2020 and 2022. **METHODS:** This is a descriptive analysis of hospitalizations and deaths in elderly women from Maranhão between 2010 and 2012 and between 2020 and 2022. The data collected and analyzed were from the Information Technology Department of the Unified Health System, according to the variables: hospitalizations, deaths, ICD-10, sex, age group and period. Due to the use of secondary data in the public domain, there was no need for approval by the ethics committee. **RESULTS:** In the periods in question, 2,476 hospitalizations due to genitourinary system disease were recorded in the elderly, 948 from 2010 to 2012 and 1,528 between 2020 and 2022. These data reveal an increase of 61.18% in hospitalizations. Regarding deaths, from 2010 to 2012 there were 43 and between 2020 and 2022 there were 152 deaths, totaling 195 deaths in the elderly in the periods, with an increase of 253.48% between the compared intervals. Thus, these data may be related to the increase in life expectancy and the aging of the population, since the prevalence and severity of urinary infections, for example, increase with age, due to the reduction of defense mechanisms. **CONCLUSION:** Thus, the higher prevalence of hospitalizations and deaths due to genitourinary system diseases between 2020 and 2022 is due to the increase in life expectancy that establishes a new reality in the health system. However, more comprehensive epidemiological studies are needed to map the prevalence and manifestation profiles of diseases, allowing the creation of plans and strategies to reduce the incidence of hospitalizations in the elderly population.

**139. HOSPITALIZATIONS AND DEATHS DUE TO MENTAL AND BEHAVIORAL DISORDERS IN MARANHÃO FROM 2012 TO 2022**

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**INTRODUCTION:** Mental health is characterized as a state experienced by an individual that enables the development of personal skills to respond to life's challenges and contribute to society. Mental and behavioral disorders, also known as psychiatric or psychological disorders, are dysfunctions of thinking, emotions, and/or behavior that directly impair and affect mood, reasoning, and memory. Additionally, hospital care is one of the key elements in promoting mental health, making it essential to characterize the morbidity associated with mental and behavioral disorders within this context. **METHODS:** This is an epidemiological, retrospective, and quantitative study conducted by reviewing data made available by DATASUS regarding hospital morbidity in the SUS (Brazil's public health system) related to mental and behavioral disorders reported in the state of Maranhão from 2012 to 2022. The variables analyzed were: number of hospitalizations, deaths, year of processing, gender, race/skin color, age group, and type of care. **RESULTS:** A total of 745 hospitalizations and 4 deaths related to mental disorders were reported during the research period. The year 2012 had the highest number of hospitalizations (N=113), while 2017 had the lowest (N=34), although an increase was observed in 2020 with a rise in hospitalizations (N=92). The most prevalent gender was female, accounting for approximately 54,49% of hospitalizations and 75% of deaths. Of the total, only 306 hospitalizations (41,07%) and 1 death (25%) had race/skin color information reported. Brown-skinned individuals represented the majority of hospitalizations and deaths during the period, with 32,34% and 5%, respectively. The 20 to 29-year age group had the highest number of hospitalizations (25,36%), peaking between 40 and 49 years (18,52%). Regarding the type of care, emergency hospitalizations (N=514) exceeded elective hospitalizations (N=231). **CONCLUSION:** The analysis revealed a profile of hospital morbidity and mortality related to mental and behavioral disorders in the state of Maranhão, predominantly involving women aged 20 to 49 years, of brown skin color, with most hospitalizations being of an emergency nature. This highlights the need for stronger outpatient follow-up for these patients and the implementation of public policies targeting this vulnerable population.

**140. HOSPITALIZATION DUE TO HEART FAILURE IN MARANHÃO FROM 2019 TO 2023**

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**INTRODUCTION:** Heart failure (HF) is a syndrome of ventricular dysfunction where the heart muscles are unable to effectively pump blood, meaning that in HF the heart can no longer keep up with the demands to pump blood to the rest of the body. The epidemiology of HF estimates about 6,5 million people in the United States, with more than 960.000 new cases each year. Risk factors for HF include hypertension, coronary artery disease, cardiomyopathies, and ventricular dysfunction. Thus, the study aims to analyze the epidemiological profile of hospitalizations due to HF in the state of Maranhão between 2019 and 2023. **METHODS:** This is an epidemiological, cross-sectional, descriptive, retrospective study with a quantitative approach regarding hospitalizations for heart failure in the state of Maranhão. Data were obtained through consultations with the database of the Informatics Department of the Unified Health System (DATASUS). The variables analyzed were the number of hospitalizations during the period, micro-regions, sex, age group, and race. **RESULTS:** During the studied period, the state of Maranhão reported a total of 17.965 hospitalizations due to heart failure. As for the micro-regions, the highest number of hospitalizations occurred in the urban agglomeration of São Luís (n=4.302), followed by the micro-region of Imperatriz (n=2.373). Regarding sex, there was a predominance of males (n=9.937) compared to females (n=8.028). Concerning the age group, the ages of 70 to 79 years and above 80 years were the most prevalent, both representing 49,9% hospitalizations in the state. Regarding race, individuals of brown skin predominated (55%), however, in 34.9% of hospitalizations, race information was not collected. **CONCLUSION:** The present study showed that hospitalizations due to heart failure in Maranhão have a significant number of hospitalizations, with the micro-regions of São Luís and Imperatriz having the highest volume. In this context, male individuals, over 70 years of age, and of brown skin are the characteristic profile of HF hospitalizations in Maranhão.

**141. DOPAMINE IMPACT ON CYBERDEPENDENCY: A SOCIAL MEDIA AND INTERNET ANALYSIS**

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**INTRODUCTION:** Dopamine (DA) is a neurotransmitter related to pleasure and reward pathways and its release can be influenced by the use of social media and the internet (SMI). This happens because algorithms create a fleeting sense of well-being, encouraging repetitive use, making it necessary to understand the associations involved in this vicious cycle. Therefore, this study aims to examine the relationship between SMI use and DA release. **METHODS:** Integrative review based on the PRISMA Protocol, which used the descriptors "redes sociais", "internet," and "dopamina" along with their English counterparts, in the SCIELO, PUBMED and EMBASE databases. Primary articles published within the last 5 years, available in English or Portuguese, open access and addressing DA physiology or gene expression in relation to SMI use were included. Duplicated studies and those centered solely on addiction treatments or examined DA and SMI in isolation were excluded. **RESULTS:** A total of 203 studies were found, 191 were excluded based on the exclusion criteria, and 12 articles make up this review. The analysis revealed that the use of SMI creates a system of reward variability, which confers addictive potential, sensitization, and behavioral dependence. As such, abnormalities in DA transporter levels are associated with depression, bipolar disorder, and Parkinson's disease. The behavior of internet-dependent users showed higher levels of impulsivity and compulsivity, associated with reduced availability of DA receptors. It was noted that people with internet use disorders exhibit greater "wanting-liking" dissociation compared to those with regular gaming habits, experiencing a "U-shaped" relationship between hedonic experience and gaming intensity, meaning that the individual experiences an initial increase followed by a reduction in DA release, with a decrease in the sensation of pleasure as gaming hours increase. **CONCLUSION:** Samples from individuals dependent on virtual environments show a reduction in DA receptor availability, a change consistent with the development of psychiatric disorders and risky behavior problems. The high dissociation between "wanting-liking" in these individuals distorts the sense of reward derived from gaming, masking the real symptoms of low DA uptake. Therefore, this study emphasizes the neurological impairment associated with internet dependency and underscores the need for more specific studies to fully understand this issue.



**142. IMPACT OF CERVICAL CANCER PREVENTION: RETROSPECTIVE STUDY IN A CITY IN MARANHÃO**

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**INTRODUCTION:** Cervical cancer is a public health problem in Brazil, especially in areas with limited access to health services. Prevention and early detection through cytological tests, such as the Pap smear, are essential to reduce its incidence and mortality. The city of Rosário, in the interior of Maranhão, showed a significant increase in the number of tests performed between 2022 and 2023 due to a state incentive that boosted screening coverage. This retrospective study evaluates the impact of this initiative on women's health in the region, highlighting the importance of state intervention and the resulting benefits. **METHODS:** This is a descriptive, retrospective and cross-sectional observational epidemiological study, produced through data collected via DATA/SUS. Data on the performance of cytopathological exams between 2022 and 2023 in Rosário were analyzed, including quantity, race, age of patients and exam results. **RESULTS:** A total of 91,016 cervical cytopathological exams were performed in Rosário in 2022 and 2023. There was an increase of approximately 42.7% between the years. The age group from 35 to 39 years had the highest prevalence of exams (n = 13,018), followed by the groups from 30 to 34 years (n = 12,019) and 25 to 29 years (n = 11,114). Regarding race, yellow women (n = 44,335) prevailed, followed by brown women (n = 32,159), white (n = 9,009), black (n = 3,952) and indigenous women (n = 241). The majority of exams (n = 90,326) were performed for screening, representing 99.24% of the total. Repeat (n = 249) and follow-up (n = 441) exams were a minority. In the results of the reports, 99.3% (n=90,356) were recorded as ignored. A total of 660 cytological alterations were recorded, of which low-grade lesions were the most recurrent (n=441). Rosário, despite being the 33rd most populous municipality, was the second to perform the most Pap smear exams in the state between 2022 and 2023. **CONCLUSION:** The data reflect a high coverage rate of cytopathological exams in Rosário-MA, especially among women aged 35 to 39 years and predominantly of Asian race. The emphasis on screening, driven by state incentives, is positive for public health, although the high proportion of ignored results suggests the need for improvements in the registration and diagnosis system. The prevalence of low-grade lesions reinforces the importance of continuous screening and adequate follow-up for the prevention of cervical cancer.

**143. IMPACT OF PRENATAL CARE ON FETAL MORTALITY DUE TO SYPHILIS IN THE NORTHEAST**

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**INTRODUCTION:** Fetal mortality due to syphilis is an interruption in the pregnancy of a carrier of the disease, in which treatment was absent or inadequate, characterized by the delivery of a stillborn with a weight greater than or equal to 500g during the perinatal period. In this way, the actions for controlling and eliminating congenital syphilis, present in quality prenatal care, play an important role in reducing this number of deaths. In light of the context, the present study aimed to analyze the impact of prenatal care on fetal mortality in cases of congenital syphilis in the Northeast. **METHODS:** This is a descriptive, cross-sectional, and quantitative study based on data provided by the Department of Information and Informatics of the Unified Health System from the Northeast region, covering the period from 2018 to 2023, regarding congenital syphilis, analyzing the variables: of prenatal care, Brazilian region, residence in municipalities of extreme poverty, and stillbirth/abortion due to syphilis. **RESULTS:** A total of 812 deaths/fetal abortions due to congenital syphilis were recorded in the Northeast region over the studied years. Among these quantities, a difference was observed in the number of cases between pregnancies with prenatal consultations and those without, 290 versus 522, respectively. Although they remain distinct, the numbers of fetal deaths due to congenital syphilis, when analyzing the prenatal factor, are not very different when including the variable of residence in impoverished municipalities, expressed as 51 for pregnant women who received antenatal care and 52 for those who did not receive assistance. What is not observed in areas without excessive vulnerability, maintains a significant distance between the numbers of deaths. **CONCLUSION:** This survey highlights the impact of prenatal care on cases of fetal mortality due to congenital syphilis in the Northeast, making this care essential for the well-being of pregnancy. Meanwhile, the economic vulnerability of localities is also a factor that alters the chances of fetal survival, indicating the strong relationship between socioeconomic aspects and health promotion.

**144. ECONOMIC IMPACT OF ACUTE MYOCARDIAL INFARCTION ON THE BRAZILIAN UNIFIED HEALTH SYSTEM**

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**INTRODUCTION:** Acute myocardial infarction (AMI) is an abrupt ischemic condition that reflects the death of cardiac myocytes due to obstruction of coronary flow. Considered the leading individual cause of death in Brazil, the treatment of patients affected by AMI entails significant costs for the Brazilian Unified Health System (SUS). The study aims to assess the expenses incurred by SUS in managing this condition. **METHODS:** An integrative literature review was conducted with data collection from the Scielo and PUBMED databases, using the descriptors "Myocardial Infarction," "Unified Health System," and "Health Expenditures." Articles published between 2018 and 2023 that assessed the epidemiological profile of AMI and its costs for the SUS were included. Articles in Portuguese and English from the past five years were considered, while articles that did not focus on a national analysis of the topic were excluded. **RESULTS:** Patients suffering from AMI require immediate intervention, hospitalization, and post-discharge care to prevent possible complications of the disease, and all these measures significantly impact the SUS. Between January 2010 and July 2020, 1,066,194 cases of AMI were recorded in Brazil, which generated R\$3,158,790,926.12 in budgetary expenses for the SUS. The aging population, sedentary lifestyle, obesity, alcohol consumption, smoking, systemic arterial hypertension, and diabetes mellitus are some of the main risk factors related to cardiovascular diseases. With the adoption of preventive health measures, these can be avoided, reducing incidence and costs. Direct and indirect costs in Brazil have been rising, with significant expenses related to medications, social security, and associated morbidities. **CONCLUSION:** AMI represents a significant challenge for the SUS in Brazil, both in terms of financial impact and the need for intensive and continuous care for patients, generating considerable expenses and reflecting the magnitude of the problem. The cost analysis highlights the urgency of effective prevention and control strategies. Mitigating risk factors can lead to a significant reduction in both the prevalence of the disease and healthcare costs. Investing in prevention programs and public policies aimed at promoting cardiovascular health is therefore crucial to reducing the financial burden on the SUS and improving the population's quality of life, integrating both prevention and treatment.

**145. EPIDEMIOLOGICAL IMPACT OF COVID-19 ON PLEURAL DRAINAGES FROM 2014 TO 2023 IN BRAZIL**

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**INTRODUCTION:** The COVID-19 pandemic brought significant challenges to performing medical procedures, including pleural drainage. This procedure is essential for treating conditions such as pneumothorax and pleural effusions. Therefore, this study aims to analyze the number of hospitalized patients who underwent thoracostomy with closed pleural drainage and the mortality rate over the past 10 years in institutions linked to the Unified Health System (SUS). **METHODS:** This is a cross-sectional, observational, descriptive study, retrospective in nature and quantitative, analyzing the number of hospitalizations where thoracostomy with closed pleural drainage was performed. Data were obtained from the Hospital Production of the SUS Hospital Information System (SIH/SUS) through the Department of Informatics of SUS (DATASUS) for all hospitalized individuals who underwent thoracostomy with closed pleural drainage between 2014 and 2023, according to the year of processing of the Hospital Admission Authorization (AIH). The representative measures of the average for the period were used, including the years preceding the COVID-19 pandemic, the pandemic onset year, and the years 2020 and 2021 (the first two years), using Microsoft Excel 2013 and data provided by DATASUS. **RESULTS:** A total of 435,297 hospitalizations where thoracostomy with closed pleural drainage was performed were recorded between 2014 and 2023. The average for the last 10 years (2014-2023) was 43,530. From 2014 to 2019, when COVID-19 was not present, the average was 40,382. From 2020 onwards, with the onset of SARS-CoV-2 infection, the average number of hospitalizations was 48,251, and during the first two years (2020-2021), the average was 44,163. The mortality rate from 2014 to 2019 was 16.19%. From 2020 onwards, the rate was 16.19%, and during the first two years of COVID-19, it was 18.6%. **CONCLUSION:** There was a higher average number of thoracostomy procedures with closed pleural drainage in hospitalized patients during the years of SARS-CoV-2 infection compared to the pre-pandemic years from 2014 to 2019. Additionally, the mortality rate increased after the onset of COVID-19, particularly during the first two years. It can thus be inferred that the pandemic led to an increase in the number of thoracostomy procedures with closed pleural drainage and a higher mortality rate among hospitalized patients treated by SUS.

**146. IMPACTS OF CELIAC DISEASE IN CHILDHOOD: A LITERATURE REVIEW**

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**INTRODUCTION:** Celiac disease is an autoimmune disorder triggered by gluten, leading to impaired nutrient absorption in the small intestine. With a prevalence of approximately 1%, it necessitates a strict gluten-free diet. Diagnosis is frequently delayed, resulting in complications such as osteoporosis and anemia. The primary treatment involves lifelong adherence to a gluten-free diet, which alleviates symptoms and prevents further complications. Therefore, this study aims to explore the challenges faced by children with celiac disease and assess its impact on their quality of life during childhood.

**METHODS:** This study is a systematic literature review, seeking scientific evidence from articles across multiple databases, including PubMed, Lilacs, and Scielo. The search was conducted up to June 2024 using the keywords: "Celiac Disease," "Child," and "Health." Inclusion criteria limited the selection to articles published in the last 6 years, available in Portuguese, and in full-text format. **RESULTS:** The analysis of selected articles on pediatric celiac disease identified significant immunological and metabolic consequences, such as osteoporosis, iron deficiency, brain calcifications, and behavioral disorders. Common gastrointestinal complications included abdominal pain, flatulence, chronic constipation, diarrhea, foul-smelling stools, lactose intolerance, vomiting, and gastroesophageal reflux. Moreover, the data revealed that celiac disease also imposes substantial psychosocial burdens on patients, given the significant lifestyle changes required from childhood—a critical stage in physical, psychological, and social development. Anxiety, depression, feelings of isolation, and challenges in social relationships and daily activities were frequently reported. Additionally, celiac disease may contribute to growth retardation, migraines, and skin rashes in children.

**CONCLUSION:** Due to the typically delayed diagnosis, celiac disease can lead to serious health complications. When it manifests in childhood, these complications profoundly impact the child's development, particularly in terms of nutrition. Mental health may also be structurally compromised, hindering social development. Therefore, early diagnosis is crucial to mitigate long-term damage to health, alongside multidisciplinary support to ensure that all dimensions of health are appropriately addressed.

**147. IMPACTS OF EXERCISE PHYSIOLOGY ON AUTISTIC NEURODEVELOPMENT: INTEGRATIVE REVIEW**

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<sup>1</sup> Dom Bosco University Center

**INTRODUCTION:** Autism Spectrum Disorder (ASD) is a disorder responsible for behavioral manifestations, deficits in communication and social interaction. Early diagnosis and inclusion of autistic individuals in a specialized treatment modality that includes motor and collective activities is essential for neurodevelopment and a good prognosis. Therefore, the objective of this research was to evaluate the impacts of exercise physiology on autistic neurodevelopment.

**METHODS:** The study was developed through an integrative literature review based on articles published in Portuguese and English in the last five years in the Google Scholar, Scielo, Virtual Health Library (VHL), Ministry of Health and Pan American databases. Health Organization (PAHO), with the crossing of the descriptors "Autism Spectrum Disorder", "Neurodevelopment" and "Exercise Physiology". The exclusion criteria were articles that differed from the theme and that were repeated in the database. **RESULTS:** One in every 160 children in the world has autism, a neurodevelopmental disorder that is related to repetitive, atypical behavior patterns, deficits in communication and social interaction. In this sense, parents and/or guardians must be aware of signs suggestive of ASD, considering that early identification allows for efficient results in the development of daily living skills and brain neuroplasticity. In this context, the practice of physical exercises by autistic individuals develops skills such as flexibility, balance, laterality, strength and speed, which reduce anxiety and hostile and irritable behaviors. When exercising, the individual receives several benefits by stimulating the release of neurotransmitters and neurotrophic factors through activation of the sympathetic system, increased cerebral blood flow, interaction with the Hypothalamic-Pituitary-Adrenal (HPA) axis and increased gene expression related to Brain Derived Neurotrophic Factor (BDNF). By stimulating the release of dopamine and serotonin, neurohormonal circuits are strengthened and mood, well-being and attention are maintained. With the increase in gamma-aminobutyric acid (GABA) levels, there is a drop in neuronal excitability and consequently a calming effect. **CONCLUSION:** Therefore, by improving motor skills and strengthening innate skills, exercise enables social inclusion and provides global development.

**148. IMPACTS OF BREAST REDUCTION SURGERY ON WOMEN'S WELL-BEING**

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**INTRODUCTION:** Breast reduction surgery is a surgical procedure performed to decrease breast size. Women suffering from breast hypertrophy often experience symptoms of Body Dysmorphic Disorder (BDD) and a loss of functional physical fitness. Therefore, this surgery goes beyond aesthetic concerns, and this study aims to evaluate the positive impacts of this procedure on the health and well-being of patients. **METHODS:** This is an integrative literature review conducted through an electronic search in the virtual libraries PubMed and Scielo. The articles were categorized and separated according to their relevance to the topic, based on the descriptors "Breast Reduction," "Quality of Life," "Breast Hypertrophy," and "Reduction Mammoplasty," focusing on articles published between January 2018 and December 2024. Out of a total of 27 articles found, 7 were selected, including controlled clinical studies, randomized trials, meta-analyses, and systematic reviews, while those that were deemed incompatible with the objectives of the summary were excluded after reading. **RESULTS:** Patients with breast hypertrophy reported social difficulties such as shame and stigma, intolerance to exercise, severe pain, and other related complications. In contrast, those who underwent breast reduction surgery showed improvements in personal satisfaction with their breasts, as well as psychosocial, sexual, and physical well-being. In this regard, the studies demonstrated that the surgery led to complete remission of BDD symptoms six months after the procedure, and average scores on the Female Sexual Function Index and Body Image Scale significantly increased from pre-operative to three months post-surgery. Additionally, average scores on the Beck Depression Inventory were higher before surgery compared to three months afterward. **CONCLUSION:** It is possible to understand that breast hypertrophy in women leads to real difficulties in engaging in healthy, and often essential, daily activities like physical exercise. The differences in how women perceive themselves and how they feel others perceive them are evident. Therefore, breast reduction surgery emerges as an effective option to overcome the challenges faced, enhancing women's self-esteem and quality of life.

**149. IMPACTS OF THE COVID-19 PANDEMIC ON CHILDREN'S AND ADOLESCENT'S HEALTH: AN INTEGRATIVE REVIEW**

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**INTRODUCTION:** COVID-19 has impacted various aspects of human life, including physical health, mental well-being, and social development. In this context, children and adolescents — an age group at a crucial stage of development — also faced significant changes due to the pandemic, necessitating an understanding of these consequences for their care. Thus, this study aims to analyze the pandemic's impacts on the health of children and teenagers. **METHODS:** This is an integrative review study based on the PRISMA protocol, using the keywords "impacts," "pandemic," and "teenagers and children's health" in the PubMed database. Inclusion criteria encompassed primary articles published in the last five years, with no language or open-access restrictions. Case reports, books, documents, duplicates, and studies unrelated to the topic were excluded. **RESULTS:** The search yielded 635 articles, of which only 16 met the inclusion and exclusion criteria. The studies revealed that the pandemic generated financial and food insecurities in many families, reducing physical activity and sleep duration among this population. In boys, decreased physical activity was linked to a roughly 10% increase in body weight. Family conflicts rose due to increased cohabitation, alongside increased rates of eating disorders, mood disturbances, and schizophrenia after school closures. Additionally, suicide rates and substance use among youth surged by 90%. Changes in parental work routines positively affected sleep duration (an increase of 13 minutes/day), reduced screen time (a decrease of 82 minutes/day), and sugar-sweetened beverage consumption. Moreover, parental strictness in discipline was associated with childhood conduct issues. **CONCLUSION:** These findings indicate significant impacts on the physical and mental health of children and adolescents, particularly in socially vulnerable families. Reduced physical activity and increased body weight exemplify physical well-being detriments. In terms of mental health, rising rates of eating disorders, psychological issues, and alarming increases in suicide rates emphasize the seriousness of the situation. These findings highlight the need for multidisciplinary interventions aimed at mitigating the negative effects of social isolation on youth development.

**150. IMPACTS OF AGING ON CATARACT FORMATION**

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**INTRODUCTION:** Aging is a continuous biological process that results in the decline of organic functions and increased vulnerability to diseases such as cataracts. Cataracts are characterized by the opacification of the lens and are the leading cause of reversible blindness worldwide. Their prevalence increases with age, affecting up to 70% of elderly people over 75 years of age. Risk factors include smoking, alcohol consumption and corticosteroid use. Clinically, cataracts manifest as a gradual loss of visual quality, impacting acuity and contrast, and increasing the risk of falls, depression and anxiety. Prevention and early diagnosis are crucial to avoid blindness. This study examines the impact of aging on cataract formation, exploring the age-related physiological changes that contribute to this condition. **METHODS:** The study reviewed research on the topic from 2019 to 2024, using an Integrative Literature Review. Searches in the SCIELO, Pubmed and Google Scholar databases used the terms "aging," "cataract" and "impacts," including articles in Portuguese and excluding those without a scientific basis, prior to 2019, or duplicates. The analysis combined understandings from results of previous studies. Ten articles were used. **RESULTS:** Aging influences cataract formation through the accumulation of oxidative stress, protein aggregation, and cellular changes in the lens as defense mechanisms against oxidative damage are eroded. These changes result in clouding of the lens, decreasing its transparency and elasticity. Cataracts are common in the elderly and in decompensated diabetics. The review highlights factors such as oxidative stress, genetic predisposition, and metabolic changes related to aging. Understanding these mechanisms is crucial to improving diagnostics, treatments, and preventive measures that are more accessible to the population. **CONCLUSION:** Cataracts are a result of aging, but genetic and environmental factors, such as lifestyle habits, can accelerate their occurrence and increase blindness. Ophthalmological consultations are crucial to diagnose and treat lens opacity. Raising awareness of risk factors and promoting healthy habits are essential to reduce the impacts of aging on vision. The study highlights the importance of public health strategies to monitor and intervene early, reducing the incidence and complications of cataracts in the elderly.

**151. IMPORTANCE OF NEONATAL OPHTHALMOLOGICAL EXAMINATIONS IN THE DETECTION OF CONGENITAL EYE DISEASES**

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**INTRODUCTION:** Congenital ocular pathologies can severely affect vision if not detected early. The "red reflex test" (Red Reflex Test - RRT) is essential for the early diagnosis of conditions such as congenital cataracts, congenital glaucoma, and congenital retinoblastoma. Although a positive result does not always indicate pathology, early detection allows for interventions that can prevent negative impacts on the child's health and development. This abstract evaluates the effectiveness of the RRT in identifying congenital ocular diseases and its impact on children's visual ability. **METHODS:** The study reviewed research from 2019 to 2024 on the subject, using an Integrative Literature Review. Searches were conducted in the SCIELO, PubMed, and Google Scholar databases, using the descriptors "ophthalmological examination," "early diagnosis," and "ocular diseases," including articles in Portuguese and excluding those without a scientific basis, published before 2019, or duplicates. Ten articles were included. **RESULTS:** The review confirmed that the Red Reflex Test (RRT) is effective in the early detection of congenital ocular diseases. The prevalence of conditions such as congenital cataracts, congenital glaucoma, and congenital retinoblastoma was identified in various studies, highlighting the importance of the RRT as a diagnostic tool. Congenital cataracts affect about 1 in 10,000 births, and retinopathy of prematurity affects about 5% of premature babies. Early performance of the RRT allows timely interventions such as surgeries and drug therapies, which are crucial for preserving vision and the child's quality of life. However, challenges such as lack of resources, inadequate training, and variations in the test's execution hinder the effective implementation of the RRT. Factors such as gestational age and test accuracy also influence the results. **CONCLUSION:** The analysis shows that the Red Reflex Test (RRT) is essential for the early detection of congenital ocular diseases. While its effectiveness is proven, there are challenges associated with resource shortages, inadequate training, and variations in test execution. To ensure reliable results, it is crucial to consider factors such as gestational age and precision in conducting the RRT. The implementation of public policies to expand access to the RRT and the training of healthcare professionals is essential to improve the ocular health of newborns.



**152. INFLUENCE OF PD-L1 EXPRESSION ON CLINICAL DATA AND PROGNOSIS IN PENILE CANCER**

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**INTRODUCTION:** Penile cancer (PC) is a rare neoplasm in developed countries; however, it has a high incidence in developing countries, such as Brazil, particularly in the state of Maranhão. Studies suggest various mechanisms involved in the carcinogenesis of PC, such as the activation of the programmed death ligand pathway (PD1/PDL-1), which is a pathway that inhibits the adaptive immune response, and has been pointed out in studies as being involved in the poor prognosis of patients. In this context, the study aims to analyze the relationship between the presence of PDL-1 in PC samples and the prognosis of patients. **METHODS:** This is an experimental and translational study, with a convenience sample. Nineteen male patients with penile cancer, candidates for penectomy, treated at a reference oncology hospital in the state of Maranhão between 2017 and 2021, were included. The patients' samples were collected and analyzed after signing the informed consent form. The study was approved by the Research Ethics Committee under the opinion number CAAE: 1.308.275. An epidemiological analysis of the patients was conducted, and clinical and immunological data with PD-L1 expression were subjected to Spearman's correlation, considered significant with  $p < 0.05$ , using Graph Prism software. **RESULTS:** The mean age was 56.76 ( $\pm 19.48$ ), with 14 patients (82%) being farmers and 10 (58%) having no formal education. Regarding the histological type of the primary tumor, 12 (70.6%) were squamous cell carcinomas, 3 (17.6%) were epidermoid carcinomas, and 2 (11.7%) were spindle cell carcinomas. In terms of staging, 5 (41.2%) patients were classified as pT3, 5 (41.2%) as pT2, and 2 (16.6%) as pT1. A statistically significant correlation between PD-L1 expression and tumor histological grade ( $p = 0.048$ ) was observed; however, no significant correlation was found between PD-L1 expression and tumor staging ( $p = 0.174$ ). **CONCLUSION:** Thus, the study highlights the low socio-educational profile of patients affected by penile cancer. Additionally, the significant correlation between PD-L1 expression and histological grade suggests a possible association with a poorer patient prognosis. Therefore, a better understanding of these mechanisms may contribute to identifying new molecular targets that could aid in more effective treatment strategies for these patients.

**153. INFLUENCE OF DIABETES MELLITUS ON THE RISK OF VULVOVAGINAL CANDIDIASIS**

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**INTRODUCTION:** Vulvovaginal candidiasis (VVC) is an infection of the vagina and vaginal vestibule caused by exacerbated colonization by fungi of the genus *Candida*. Diabetes mellitus (DM) is a metabolic disorder that causes hyperglycemia and affects patients' immunity, increasing their susceptibility to infections. In this regard, DM emerges as a predisposing factor for VVC, potentially compromising the immune response and providing a favorable environment for fungal growth. This study aims to analyze the influence of DM as a risk factor in the occurrence of VVC. **METHODS:** This is an integrative literature review conducted through the PubMed and Virtual Health Library (VHL) databases, using the descriptors "Vulvovaginal Candidiasis" and "Diabetes Mellitus", combined using the Boolean operator AND, delimiting articles from the period of 2019 to 2024. Out of a total of 35 articles found, 7 were selected, including reviews, cohort studies, and a case report, while 28 were excluded for not addressing the topic or being duplicates across databases. **RESULTS:** There is evidence of an increased risk of VVC in patients with DM, mainly due to reduced immune function (related to factors such as a decrease in the number of T lymphocytes and cytokine release) and hyperglycemia, which also hinders the response to antifungal therapy. This can lead to more severe symptoms, more intense colonization, and recurrent infections. Regarding patients with gestational diabetes mellitus (GDM), the results correlating this pathology with VVC were inconclusive, although there may be an association with changes in vaginal flora, low leukocyte function, reduced metabolism, and high body mass index. Additionally, the use of antidiabetic sodium-glucose cotransporter-2 (SGLT2) inhibitors, such as dapagliflozin and canagliflozin, makes patients more susceptible to VVC, as glycosuria is involved in the action mechanism of these medications, fostering fungal proliferation. **CONCLUSION:** It is concluded that DM represents an important predisposing factor for VVC, both because its pathophysiology facilitates infection and because one of its forms of treatment, SGLT2 inhibitors, also increases the risk of VVC. However, in relation to pregnant women, further studies are needed in order to better elucidate the relationship between GDM and the risk of VVC in this population.

**154. PROTON PUMP INHIBITORS AND RISK OF ISCHEMIC VASCULAR EVENTS, UPDATES**

Leonice Maria Nunes Coimbra<sup>1</sup>, Jilmario Gomes de Santana Junior<sup>1</sup>, Rafaella Thomas<sup>1</sup>, Rachel Melo Ribeiro<sup>1</sup>.

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**INTRODUCTION:** Proton Pump Inhibitors (PPIs) have been on the market for about 40 years and are the primary drugs related to the treatment of peptic diseases. Over the years, PPIs have been used indiscriminately, with inappropriate prescriptions, administration periods beyond the recommended duration, or due to self-medication. It has been found that the concomitant use of PPIs and thienopyridines, such as Clopidogrel, increases the risk of developing cardiovascular diseases, such as ischemic and composite Stroke (CVA). Thus, the present study sought evidence from research on the relationship between prolonged use of PPIs and ischemic vascular events in patients with or without pre-existing comorbidities. **METHODS:** This is an integrative review in which scientific articles published in the PubMed database, between 2022 and 2023, were selected. The descriptors used were: "proton pump inhibitors", "adverse effect", and "ischemic event", combined using the Boolean operator "AND", according to the guidelines of the "Preferred Reporting Items for Systematic Reviews and Meta-Analyses" (PRISMA) 2020. **RESULTS:** A total of 16 articles were found, of which only 5 met the inclusion criteria: presenting the descriptors in the title or abstract, being written in English, and being freely available in full text, excluding comments, books, and literature reviews. Studies reported that PPI use was significantly associated with higher risks of coronary artery disease, myocardial infarction, heart failure, and all-cause mortality in patients with diabetes. The literature also suggested that regular PPI use is associated with an increased risk of atherosclerotic cardiovascular disease, with Omeprazole, Lansoprazole, and Pantoprazole being associated with higher risk. However, some studies were controversial and indicated that PPI use did not show a causal relationship with the occurrence of ischemic vascular events. **CONCLUSION:** The results remain inconclusive regarding the direct relationship between ischemic vascular events and prolonged PPI use. Therefore, further studies are necessary to rule out this risk factor when considering long-term therapy.

**155. HEART FAILURE IN MARANHÃO: EPIDEMIOLOGICAL PROFILE BETWEEN 2020 AND 2024**

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**INTRODUCTION:** Heart Failure (HF) is a syndrome characterized by a reduction in cardiac output or ventricular filling time, which can be due to structural or functional abnormalities. Certain risk factors, such as obesity and high blood pressure, combined with specific complementary tests, help to diagnose it. In Maranhão, this condition is common and has high mortality rates. Given this context, this study sought to characterize the epidemiological profile of HF in the state of Maranhão between 2020 and 2024. **METHODS:** This is a descriptive, retrospective study with a quantitative approach. The data was collected from the Department of Information Technology of the Unified Health System (DATASUS). We used data on patients aged between 20 and 59, using the following variables: year, age group, gender, region and mortality rate. **RESULTS:** There were 3,701 cases of hospitalization for HF during the study period. February 2022 was the period with the most hospitalizations, with 132 notifications. When gender was analyzed, the rate of men hospitalized with HF was higher, with 2,152 hospitalizations (59.2%), compared to 1,545 female hospitalizations (41.8%). Hospitalizations of people aged between 20 and 29 accounted for 283 cases (7.6%); between 50 and 59 accounted for 1,836 cases (49.6%); between 30 and 39 accounted for 497 cases (13.4%), and between 40 and 49 accounted for 1,085 cases (29.3%). The highest mortality rate from HF was among younger adults aged between 20 and 29 (11.31%), and older adults aged between 50 and 59 (11.0%). Mortality in the 30-39 and 40-49 age groups was 9.66% and 22%, respectively. **CONCLUSION:** The majority of HF patients in the state of Maranhão are men aged between 50 and 59. Although the mortality rate is slightly higher among younger adults aged between 20 and 29. Therefore, screening and encouraging healthy habits are ways of reversing this current scenario.

**156. ADMISSIONS AND DEATHS FROM SPONTANEOUS ABORTION IN THE SOUTHERN MACROREGION OF MARANHÃO**

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**INTRODUCTION:** Spontaneous abortion is the natural loss of pregnancy that occurs before the 20th week of gestation, being one of the most common gynecological issues, affecting about 15% of pregnancies, usually within the first 12 weeks. Genetic and non-genetic causes, such as chromosomal abnormalities and sociodemographic factors, respectively, characterize spontaneous abortion, which can pose risks, due to complications, for pregnant individuals and incur high costs for the public health system. In this context, the study aims to characterize hospitalizations and deaths due to spontaneous abortion in the southern macroregion of Maranhão from 2014 to 2023. **METHODS:** This is a descriptive study with a quantitative approach, focused on hospitalizations and deaths due to spontaneous abortion in the southern macroregion of Maranhão, from 2014 to 2023. The data were obtained using the TABNET tool from the Department of Informatics of the Unified Health System (DATASUS), the variables included were number of hospitalizations and deaths per year, age group, race, type of care and costs. **RESULTS:** The southern macro-region of Maranhão, in the period studied, recorded 9792 hospitalizations for spontaneous abortion. The year with the most hospitalizations was 2018 (n = 1250), with a decrease since 2020, when the number of hospitalizations was 1060 and reached 612 in 2023. A higher prevalence was observed in the age group of 20 to 29 years (n = 4592), with emphasis also on women aged 30 to 39, who had a significant number of hospitalizations (n = 2671). With regard to race/color, the majority of affected women identified themselves as mixed race (n = 5861). However, there were many hospitalization records without information about race/color (30.6%). Regarding the type of care, urgency was more frequent than elective care, with 9738 and 92 cases, respectively. The total cost for these services was R\$2,012,427.46. As for deaths, one case of maternal mortality due to complications from spontaneous abortion was recorded, in the age group of 20 to 29 years, in 2023. **CONCLUSION:** In this context, it is clear that spontaneous abortion is an important cause of hospitalization in the southern macro-region of Maranhão, especially among brown women aged 20 to 29. In addition, the greater number of emergency care services highlights the need to improve access to quality care in order to reduce complications associated with spontaneous abortion in the region.

**157. HOSPITALIZATIONS FOR NORMAL DELIVERY WITH PERINEAL LACERATION IN BRAZIL**

Dantas Sousa Braga<sup>1</sup>; Amanda Cristine Silva Sousa<sup>1</sup>; Alexandres Paris de Mesquita Ipácio<sup>1</sup>; Elizabet Taylor Pimenta Weba<sup>1</sup>; Marcos Vinicius Soares Silva<sup>1</sup>; Solannya Rayna Carvalho Santos<sup>1</sup>; Rafael Gomes da Silva<sup>1</sup>.

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**INTRODUCTION:** Perineal trauma after vaginal delivery (PV) affects approximately 90% of women. Second-degree perineal ruptures have a significantly higher incidence in primiparous births, occurring in about 40% of cases. These lacerations can have severe consequences, such as chronic pain and urinary and fecal incontinence, impacting the quality of life of affected women. The classification of perineal lacerations is based on the depth of the musculature involved: first-degree lacerations do not involve the perineal muscle, while fourth-degree lacerations rupture the anal sphincter and the underlying rectal mucosa. Thus, the objective of this study was to evaluate the number of hospitalizations for PV with a record of third- or fourth-degree perineal laceration (PF) in Brazil. **METHODS:** This is a quantitative, observational, cross-sectional and retrospective study. The PROADESS platform of the Oswaldo Cruz Foundation (Fiocruz) was used to collect data in the "Safety" dimension, indicator "Obstetric trauma in normal delivery", in the 5 regions of the country, in the period 2008 to 2022. The calculation method was the number of hospitalizations for PV with primary or secondary diagnosis of third- or fourth-degree PF (ICD-10, O70.2 and O70.3). A limitation to the data collected was the inclusion of only hospitalizations and/or procedures paid for by the Unified Health System (SUS). **RESULTS:** In 2022, Brazil recorded 137 hospitalizations for PV with third- or fourth-degree LP records, 125 in the Southeast region. On the other hand, the platform recorded zero third and fourth degree LPs in the North region, 9 in the Northeast, 2 in the South and 1 in the Midwest. In the interval, the Southeast region led the aforementioned indicator in all years. The Northeast showed a wide variation in results, with 85 hospitalizations in 2017, 98 in 2018, 95 in 2019 and 16 in 2020 with a subsequent decrease. **CONCLUSION:** The variation in data in the Northeast, with a peak in hospitalizations in 2018 and a sharp drop in 2020, highlights the need for a more detailed investigation into the factors that influence these fluctuations. The limitation of data to procedures paid for by the Unified Health System (SUS) should be considered when interpreting these results, since it may not reflect the totality of hospitalizations that occurred in the country. In summary, the study underlines the leadership of the Southeast region in the indicator of third and fourth degree PL, pointing to the importance of regional health policies that consider the particularities of each area.

**158. HOSPITALIZATIONS FOR ENDOMETRIOSIS IN MARANHÃO FROM 2018 TO 2023**Marliane Lisboa Soares<sup>1</sup>, Mariana Azevedo Oliveira<sup>1</sup>, João Nogueira Neto<sup>1</sup>.<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Endometriosis is a complex and systemic condition that impacts reproduction in various ways. Endometriosis-related infertility is determined by an interaction between different subtypes of the disease, pain, inflammation, changes in pelvic anatomy, adhesions, compromised ovarian reserve and function, as well as impaired endometrial receptivity and the systemic effects of the disease. Although epidemiological data on endometriosis vary greatly due to differences in diagnostic criteria across studies, it is estimated that the disease affects between 5% and 10% of women of reproductive age. This study aims to describe the demographic data of endometriosis and genitourinary system diseases in the female population of Maranhão over 4 years. **METHODS:** This is a descriptive epidemiological study with a quantitative approach, based on data provided by the Department of Informatics of the Unified Health System (DATASUS) regarding hospitalizations for endometriosis between 2018 and 2023, in patients aged 10 to 80 years, in the state of Maranhão (MA). Since these are secondary data, approval from the Ethics Committee was not required. **RESULTS:** Between 2019 and 2023, in the state of Maranhão, approximately 2,020,041.43 women were diagnosed with endometriosis. Of this total of 2,556, the self-declared ethnicity/race was predominantly brown women with n=1,435, followed by yellow n=87 and white n=86. Regarding age groups, the highest incidence is found among girls aged 10 to 14 years, followed by those aged 15 to 19. Furthermore, the age group with the highest hospitalization rate is women aged 40 to 49 years, followed by those aged 39 to 39 years. In terms of the nature of hospital admissions, about n=1,528 were elective and n=1,028 were urgent; with 2023 having the highest number of such admissions, reaching a record of n=630,027.50, followed by 2022 with 530,956.49. **CONCLUSION:** Over the past 4 years, endometriosis has emerged as an increasingly prevalent morbidity, considering the data from 2022 and 2023 and the ratio of elective to urgent hospitalizations shows a small disparity. Another significant finding is the maturity of women, with those over 40 years old being the most affected. Considering ethnicity/race, brown women are the most affected, as they belong to the most socially vulnerable segment of the female population.

**159. HOSPITALIZATIONS FOR LEPROSY AND THE IMPACT OF AGE, RACE/COLOR AND SEX ON SEVERE OUTCOMES IN THE ESTATE OF MARANHÃO, BRAZIL**Emily Vale da Cunha<sup>1</sup>, Lívia Marianne Gonçalves Pinheiro Viana<sup>1</sup>, Livian Damasceno Costa<sup>1</sup>, Maria Eduarda da Silva Fraco<sup>1</sup>, Maria Eduarda Moura Ribeiro Macieira<sup>1</sup>, Isabella Catarina de Carvalho<sup>1</sup>, Lucas Salomão de Sousa Ferreira<sup>1</sup>.<sup>1</sup> Dom Bosco University Center

**INTRODUCTION:** Leprosy is a chronic, infectious disease caused by *Mycobacterium leprae*, characterized by skin lesions and neurological damage that, if left untreated, may result in permanent impairment. Although curable, leprosy can still cause serious complications, leading to hospitalization in the intensive care unit (ICU) or even death. In Brazil, the country with the second-highest number of registered cases globally, the disease continues to challenge the public health system. Therefore, it is important to determine the main factors associated with these outcomes. This study aims to assess the number of hospitalizations caused by leprosy with severe outcomes in the state of Maranhão, factoring in elements such as age, race/ethnicity, and gender. **METHODS:** This cross-sectional study is based on data collected from SIH/SUS, filtering for leprosy hospitalizations between the years 2019 and 2023 in the Brazilian state of Maranhão. We analyzed severe outcomes such as ICU admissions and cases resulting in death, and we also examined links between the cases and variables such as age, race/ethnicity, and gender. Approval from the ethics committee was not necessary, as this study constitutes an analysis of pre-existing data that is publicly available. A p-value  $\leq 0.05$  was considered statistically significant. **RESULTS:** Analysis of the severe outcomes reveals that elderly individuals (age > 65) and black individuals are associated with higher rates of ICU admissions and in-hospital deaths (p-value < 0.05). The study shows that elderly individuals presented a higher relative risk (RR) for ICU admission (2.42 times) and death (6.56 times) compared to younger individuals. Similarly, self-declared black individuals exhibited higher RRs for these severe outcomes (5.54 and 6.58, respectively), indicating a significant disparity in clinical outcomes compared to individuals in other categories. These results align with other studies that highlight compromised immune systems in elderly individuals and social and economic disparities affecting self-declared black individuals in Brazil. **CONCLUSION:** The results indicate that hospital admissions for leprosy among elderly individuals and black individuals deserve more attention, given the susceptibility of these groups to severe outcomes such as ICU admission and death. We hope this study contributes to a better understanding of the epidemiological and hospital characteristics of leprosy and encourages further research on the topic.

**160. HOSPITALIZATIONS FOR SELF-HARM IN MARANHÃO BETWEEN 2010 AND 2012 AND BETWEEN 2020 AND 2022**

Gabrielle Ferreira Barbosa<sup>1</sup>, Carlos Alberto Leite Filho<sup>1</sup>, Júlia Fernanda Aguiar Santos<sup>1</sup>, Ana Gabriela da Silva Nascimento<sup>2</sup>.

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**INTRODUCTION:** Self-harm is damage committed against oneself intentionally and suicide attempts. These phenomena have a great impact on the quality of life of individuals. Thus, studying this disorder is valid for the correct coping with the problem. This study aims to compare the prevalence of hospitalizations for self-harm from 2010 to 2012 and from 2020 to 2022, observing the possible differences between the two periods, in order to ascertain whether there is an epidemiological change and develop hypotheses for this possible change. **METHODS:** An ecological, cross-sectional and descriptive study was carried out, with analysis carried out in the state of Maranhão, between March 2010 and March 2012 and between March 2020 and March 2022. Data from the Department of Informatics of the Unified Health System were analyzed, organized according to the variables: hospital morbidity due to external causes, place of hospitalization, period, type of care, group of causes, age group, and gender. The data from the periods were evaluated separately for comparative analysis. Since secondary and public domain data were used, the approval of the ethics committee was waived. **RESULTS:** In the periods analyzed, 639 hospitalizations were found in the state, 270 between March 2010 and 2012 and 369 between March 2020 and 2022. In both cases, when restricted to the age group, a higher prevalence was noted between 20 and 39 years old, with 49.62% of cases from 2010 to 2012 and 38.48% of cases from 2020 to 2022. Furthermore, more than 60% of hospitalizations were male in both cases. With the increase of 36.66%, this data is possibly due to the higher notification and diagnoses and the social isolation caused by the pandemic that aggravated or triggered psychological disorders. **CONCLUSION:** This study found that the prevalence of self-harm in Maranhão was higher in men aged between 20 and 39 years. As for the period, it was more prevalent between 2020 and 2022, possibly related to behavioral changes in society in recent years. In addition, it is possible that isolation, uncertainties about the future, and social changes caused by the Covid-19 pandemic have caused a higher incidence of mood disorders, such as stress and anxiety. Further studies will help map data on prevalence and risk profiles, allowing the creation of strategies to mitigate the incidence of cases of self-harm.

**161. HOSPITALIZATIONS FOR SELF-HARM IN MARANHÃO BETWEEN 2010 AND 2012 AND BETWEEN 2020 AND 2022**

Gabrielle Ferreira Barbosa<sup>1</sup>, Carlos Alberto Leite Filho<sup>1</sup>, Júlia Fernanda Aguiar Santos<sup>1</sup>, Ana Gabriela da Silva Nascimento<sup>2</sup>.

<sup>1</sup> Federal University of Maranhão; <sup>2</sup> Faculty of Health Sciences Pitágoras

**INTRODUCTION:** Self-harm is damage committed against oneself intentionally and suicide attempts. These phenomena have a great impact on the quality of life of individuals. Thus, studying this disorder is valid for the correct coping with the problem. This study aims to compare the prevalence of hospitalizations for self-harm from 2010 to 2012 and from 2020 to 2022, observing the possible differences between the two periods, in order to ascertain whether there is an epidemiological change and develop hypotheses for this possible change. **METHODS:** An ecological, cross-sectional and descriptive study was carried out, with analysis carried out in the state of Maranhão, between March 2010 and March 2012 and between March 2020 and March 2022. Data from the Department of Informatics of the Unified Health System were analyzed, organized according to the variables: hospital morbidity due to external causes, place of hospitalization, period, type of care, group of causes, age group, and gender. The data from the periods were evaluated separately for comparative analysis. Since secondary and public domain data were used, the approval of the ethics committee was waived. **RESULTS:** In the periods analyzed, 639 hospitalizations were found in the state, 270 between March 2010 and 2012 and 369 between March 2020 and 2022. In both cases, when restricted to the age group, a higher prevalence was noted between 20 and 39 years old, with 49.62% of cases from 2010 to 2012 and 38.48% of cases from 2020 to 2022. Furthermore, more than 60% of hospitalizations were male in both cases. With the increase of 36.66%, this data is possibly due to the higher notification and diagnoses and the social isolation caused by the pandemic that aggravated or triggered psychological disorders. **CONCLUSION:** This study found that the prevalence of self-harm in Maranhão was higher in men aged between 20 and 39 years. As for the period, it was more prevalent between 2020 and 2022, possibly related to behavioral changes in society in recent years. In addition, it is possible that isolation, uncertainties about the future, and social changes caused by the Covid-19 pandemic have caused a higher incidence of mood disorders, such as stress and anxiety. Further studies will help map data on prevalence and risk profiles, allowing the creation of strategies to mitigate the incidence of cases of self-harm.



**162. ADMISSIONS FOR MENTAL DISORDERS DUE TO ALCOHOL USE IN MARANHÃO, FROM 2014 TO 2023**

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**INTRODUCTION:** The abuse of alcohol and other psychostimulant substances can cause mental and behavioral disorders, due to the action of these drugs on the brain. These changes include an unbalance of neurotransmitters and chronic use is a risk factor for cognitive and psychotic disorders, changes in personality, sleep and anxiety. In this sense, the objective of the research is to characterize the profile of hospitalizations for mental and behavioral disorders caused by alcohol use in the state of Maranhão, between 2014 and 2023. **METHODS:** This is a cross-sectional, observational and analytical study. The research was carried out by collecting data on the platform of the Department of Informatics of the Unified Health System (DATASUS) for the period from 2014 to 2023. The variables used in hospitalizations include: age group, race and sex. **RESULTS:** It was observed that, in the period analyzed, there were 7616 hospitalizations in Maranhão, with emphasis on the capital São Luís (n = 6369), equivalent to 83.6% of cases. The largest portion corresponded to males (n = 6243), 81.9% of the total, white (n = 3431), while women accounted for total (n = 1373) hospitalizations. Regarding the distribution among other races, the brown population (n = 1579) and yellow (n = 193) stood out. The most prevalent age group was between 30 and 34 years old (n = 1133), followed by individuals aged 40 to 44 years old (n = 1064). Furthermore, the notifications are distributed homogeneously between the years analyzed, in a range of 647 cases in 2015 to 790 cases in 2021. The year 2023 was the only year that differed from this pattern, accounting for (n = 1098) hospitalizations. **CONCLUSION:** In view of the above, the population hospitalized for mental disorders due to alcohol use is predominantly male and white, between 30 and 34 years old. Furthermore, it is clear that such disorders are an important cause of hospitalizations in Maranhão.

**163. INTERNATIONAL COLLABORATIONS AND TRENDS IN ANESTHESIOLOGY: A BIBLIOMETRIC ANALYSIS**

Luís Phelipe Gama de Moraes<sup>1</sup>, Bianca Sousa Belfort Ferreira<sup>1</sup>, Celso Antônio Magalhães Ramos<sup>1</sup>, Ingrid Eduarda Possidônio de Souza Santos<sup>1</sup>, Italo Kauan Ribeiro de Carvalho Martins<sup>1</sup>, Plínio da Cunha Leal<sup>1</sup>.

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**INTRODUCTION:** Research in anesthesiology in Brazil has significantly grown in recent decades, reflecting the importance of international collaboration. However, the understanding of Brazil's main partners in high-impact scientific publications remains limited. This study uses a bibliometric approach to analyze international collaborations in the top five anesthesiology journals with the highest CiteScore and identify research trends through recent keyword analysis. **METHODS:** Articles from the top five anesthesiology journals with the highest CiteScore from 2013 to 2023 were collected using the Scopus database (Elsevier). The total number of publications, the countries that collaborated the most with Brazil, and the frequency of co-authorship were analyzed. The VOSviewer software was employed to map international collaborations and conduct keyword analysis. **RESULTS:** A total of 411 Brazilian publications were identified in the five journals analyzed. The main international collaborators included the United States, Germany, Italy, the United Kingdom, and France. The keyword analysis highlighted prominent themes such as "pain," "migraine," "chronic pain," "neuropathic pain," and "headache." More recent keywords indicated an increase in topics such as "COVID-19," "mechanical ventilation," and "postoperative complications". **CONCLUSION:** The analysis shows an increase in international collaborations in Brazilian anesthesiology publications, highlighting partnerships with the United States, Germany, Italy, the United Kingdom, and France. The main keywords underscore the areas of greatest interest and development in Brazilian anesthesiology research, while recent topics point to emerging new focuses. Investing in funding programs and encouraging research networks are essential to strengthening scientific production and international collaboration in Brazilian health institutions.

**164. EPIDEMIOLOGICAL INVESTIGATION OF ZIKA VIRUS CASES IN MARANHÃO FROM 2019 TO 2023**

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**INTRODUCTION:** Zika is a virus transmitted by the bite of the *Aedes aegypti* mosquito. It has this name because it was identified in the Zika forest, in Uganda, Africa. Zika virus infection can be asymptomatic or symptomatic. When symptomatic, it can present a variable clinical picture, from mild and self-limited manifestations, such as symptoms of low fever, headache, arthralgia, asthenia and myalgia, periarticular edema and even neurological complications and congenital malformations. This study aims to outline the epidemiological profile of Zika Virus cases in Maranhão. **METHODS:** This is a descriptive and retrospective study, whose data come from DATASUS and the Notifiable Information and Diseases System (SINAN) from 2019 to 2023 in Maranhão. The following aspects were addressed: municipality with the highest notification, age group, gender, race, and evolution of cases. **RESULTS:** In the period studied, 5616 cases were registered in Maranhão, with emphasis on the municipality of São Luís, which had 1844 notifications of the disease (32.8%), but it is worth highlighting the expressive participation of the municipality of Caxias, with 1384 (24.6%). It was observed that the age group with the highest cases was between 20 and 39 years (28.7%), while the gender variable showed a slight trend for the male group (57.1%). Among the race, the self-declared brown predominates, with 4274 notifications (76.1%). Regarding the evolution of the cases, it was noted that, of the total, 4575 patients (81.5%) were cured, while in 1008 notifications of the disease, they were ignored/blank. **CONCLUSION:** Considering the above, it is determined that, in Maranhão, the infection caused by the Zika virus mainly affects brown men, aged between 20 and 39 years, with high cure rates; however, there are many reports with the information ignored or blank. Therefore, one way to prevent the emergence of new cases would be to promote public policies against the proliferation of the mosquito vector, the *Aedes aegypti*. This can include awareness campaigns about the importance of eliminating breeding sites, improvements in basic sanitation, and the application of larvicides and insecticides in risk areas. In addition, encouraging research and development of vaccines and specific treatments for the Zika virus are also essential measures in the fight against this infection.

**165. LEISHMANIASIS IN MARANHÃO: ANALYSIS OF MORTALITY AND COSTS BETWEEN 2013 AND 2023**

Alexandros Páris De Mesquita Ipácio<sup>1</sup>, Elizabet Taylor Pimenta Weba<sup>1</sup>, Amanda Cristine Silva Sousa<sup>1</sup>, Dantas Sousa Braga<sup>1</sup>, Eslainy Xavier Matos<sup>1</sup>, Marcos Vinicius Soares Silva<sup>1</sup>, Wellyson Da Cunha Araujo Firmo<sup>1</sup>.

<sup>1</sup> State University of the Tocantina Region of Maranhão

**INTRODUCTION:** Leishmaniasis is an infectious disease caused by protozoa of the genus *Leishmania*, which presents itself in different forms, with Visceral Leishmaniasis (VL) and American Tegumentary Leishmaniasis (ATL) being the most prevalent in Brazil, especially in the state of Maranhão. This disease represents a significant challenge to public health in Maranhão, where precarious socio-economic conditions and disorderly urbanization favour the proliferation of the vector and the spread of the disease. Given this scenario, the aim of this study is to analyze the cost and mortality of Leishmaniasis in Maranhão and relate it to other macro-regions in Brazil, from 2013 to 2023. **METHODS:** This is an epidemiological, descriptive and quantitative study. Data was collected through the Department of Informatics of the Unified Health System, analyzing the variables: number of hospitalizations, average value per hospitalization, deaths and mortality rate. **RESULTS:** During the study period, Maranhão recorded 183 deaths related to Leishmaniasis and 4,061 hospitalizations. This scenario placed Maranhão as the state with the highest number of deaths both in the Northeast macro-region and in the country as a whole. Maranhão's mortality rate from Leishmaniasis was 4.51%, exceeding the rate for the Northeast region (4.05%) and the national rate (3.63%). In terms of average spending per hospitalization due to Leishmaniasis, Maranhão ranked 24th among Brazilian states, ahead of Mato Grosso, Amapá and Acre. The average amount invested in Maranhão per hospitalization was R\$ 427.36, lower than the average for the Northeast (R\$ 512.53) and the national average (R\$ 543.05). **CONCLUSION:** Leishmaniasis in Maranhão indicates an alarming situation in terms of mortality and the allocation of health resources. Despite the investments made, its position in the national spending ranking suggests underfunding in the treatment and management of the disease. This discrepancy in investments may be contributing to the high mortality rate, highlighting the urgent need for a reassessment of public health policies aimed at the disease. It is imperative to establish a combination of efforts in epidemiological surveillance, vector control and health care to reverse this scenario and protect the most vulnerable communities.

**166. AMERICAN TEGUMENTARY LEISHMANIASIS IN THE BAIXADA MARANHENSE: AN EPIDEMIOLOGICAL ANALYSIS**

Juliano Augustus Fernandes Lima Sousa<sup>1</sup>, Lindomar Christian da Trindade Filho<sup>1</sup>, Igor Carvalho Almendra<sup>1</sup>, Inácio Venâncio da Silva Neto<sup>1</sup>, Osean Maximilyan Camara Pereira<sup>1</sup>, Ronney Pablo Araújo<sup>1</sup>, Sueli de Souza Costa<sup>1</sup>.

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**INTRODUCTION:** Cutaneous leishmaniasis (TL) is an infectious, non-contagious disease that causes ulcers on the skin and mucous membranes. The disease is caused by protozoa of the genus *Leishmania*. In Brazil, there are seven species of leishmanias involved in the occurrence of TL cases. The most important are: *Leishmania (Leishmania) amazonensis*, *L. (Viannia) guyanensis* and *L. (V.) braziliensis*. The disease is transmitted to humans by the bite of infected female sandflies (a species of fly), and its main symptom is: lesions on the skin and/or mucous membranes that can be single, multiple, disseminated or diffuse, which have an ulcer-like appearance, with raised borders and granular bottom, usually painless, and are more frequent in the nose, mouth and throat. The objective of this study is to outline the epidemiological profile of cases of tegumentary leishmaniasis in the Baixada Maranhense.

**METHODS:** This is a descriptive and retrospective study, whose data come from DATASUS and the Notifiable Information and Diseases System (SINAN) from 2018 to 2022, in the microregion of Baixada Maranhense. The following aspects were addressed: municipality with the highest notification, age group, gender, race, and evolution of cases. **RESULTS:** In the period studied, 335 cases were recorded in the Baixada Maranhense, with emphasis on the municipality of Pinheiro, which had 96 notifications of the disease (28.6%). It was observed that the age group with the highest cases was between 20 and 39 years old (51%), while the gender variable was emphasized for the male group (72.8%). Among the race, the self-declared brown predominates, with 236 notifications (70.4%). Regarding the evolution of the cases, it was noted that, of the total, 245 patients (73.1%) were cured, while in 73 notifications of the disease, they were ignored/blank. **CONCLUSION:** In view of the results presented, it is determined that American tegumentary leishmaniasis is a pathology with an epidemiological profile of brown men, aged between 20 and 39 years and with low mortality; however, there are many cases ignored or blank. Thus, one way to combat the advance of the pathology would be the implementation of educational campaigns in local communities to inform about American tegumentary leishmaniasis, focusing on the identification of symptoms and the importance of early treatment.

**167. VISCERAL LEISHMANIASIS: EPIDEMIOLOGICAL AND CLINICAL PROFILE IN THE NORTHEAST BETWEEN 2018 AND 2022**

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**INTRODUCTION:** Visceral Leishmaniasis (VL) is an endemic vector-borne disease in northeastern Brazil caused by the protozoan *Leishmania infantum chagasi*, transmitted mainly by the female *Lutzomyia longipalpis*. This work aims to elucidate the clinical and epidemiological profiles of VL in Northeast Brazil from 2018 to 2022 and their patterns. **METHODS:** This is an epidemiological, cross-sectional and analytical study. Secondary data was collected from 2018 to 2022 for the northeast region recorded in the Notifiable Diseases Information System (SINAN), from the IT department of the Unified Health System (DATASUS). The data collected was tabulated in Excel and statistically analyzed using Jamovi software version 2.3.28, with a p-value of <0.01 being significant. Status, race, gender, age, HIV co-infection, evolution and type of entry were analyzed. **RESULTS:** As for the epidemiological profile, between 2018 and 2022, there were 7202 confirmed cases of VL in the Northeast, with 2018 (n=2197; 30.5%) and Maranhão (n=2108; 29.3%; p<.001) being the year and state with the highest number of cases. The most predominant race was brown (n=5680; 78.9%), followed by black (n=560; 7.8%), white (n=548; 7.6%), indigenous (n=65; 0.9%), yellow (n=48; 0.7%) and unknown/blank (n=301; 4.2%) (p=0.035). There was also a prevalence of males (n=5054; 70.2%) compared to females (n=2147; 29.8%) (p=0.016). In terms of age, the majority were aged under 19 (n=5257; 41.1%), followed by 20 to 39 (n=3162; 24.7%), 40 to 59 (n=3006; 23.5%), 60 to 79 (n=1794; 9.3%) and, finally, 80 or over (n=179; 1.4%) (p<.001). As for the clinical profile, cases of HIV co-infection predominated in the 40-59 and 20-39 age groups (respectively n=445; 45% and n=440; 44.5%; p<.001). Progression was mainly characterized by cure (n=4665; 64.7%; p<001), with the prevalent age group being the under-19s (n=2164; 46.4%). Regarding the type of entry, the prevalence was of new cases (n=6368; 88.4%; p<.001), mainly in the under-19 age group (n=2772; 43.5%). **CONCLUSION:** This study elucidated the clinical and epidemiological profile of VL in northeastern Brazil between 2018 and 2022. Based on the data collected, a high incidence of confirmed cases was observed, particularly in the state of Maranhão in 2018, highlighting state failure due to minimal interventions in this area.

**168. LYMPHOMAS, MYELOMAS, AND LEUKEMIAS: DIAGNOSIS-TO-TREATMENT TIME IN MARANHÃO FROM 2019 TO 2023**

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**INTRODUCTION:** Tumors of hematopoietic and lymphatic tissue include Hodgkin lymphomas, non-Hodgkin lymphomas, T-cell lymphomas, leukemias, malignant immunoproliferative diseases, multiple myeloma, and plasma cell malignancies. Leukemia is a neoplasm of leukocytes that results in the accumulation of abnormal young cells in the bone marrow. Lymphomas arise from DNA damage in lymphocytes, with non-Hodgkin lymphoma accounting for 90% of lymphatic tumors. Meanwhile, multiple myeloma results from the monoclonal proliferation of plasma cells in the bone marrow, representing about 10% of hematologic neoplasms. This study aims to analyze the evolution of the waiting time for the initiation of treatment after the diagnosis of malignant neoplasms. **METHODS:** The study is a cross-sectional analytical observational study, using data from the DATASUS Oncology Panel for all individuals registered between the years 2019 and 2023. The analysis considers the time interval in days between diagnosis and the first recorded treatment for the International Statistical Classification of Diseases and Related Health Problems (ICD) group that classifies these types of malignant tumors (ICDs C81 to C96). We used the RStudio 2024.04.1 software for data analysis, describing the median and interquartile range (IQR) as representative measures since the data are abnormally distributed according to the Shapiro-Wilk test. **RESULTS:** Regarding the dispersion of the median time between diagnosis and first treatment, there was variation between the quartiles. We started with a median of 33 days (IQR: 13 - 83) in 2019 (n = 438 cases), an increase to 35 days (IQR: 13 - 113) in 2020 (n = 425 cases), and a decrease to 32 days (IQR: 14 - 85) in 2021 (n = 414 diagnosed cases). In the following years, the median time remained at 31 days (IQR: 18 - 49) in 2022 and 31 days (IQR: 27 - 43) in 2023, with 511 and 438 patients, respectively. **CONCLUSION:** Despite variations, in relation to the 60-day law, which stipulates treatment initiation within this period, the median waiting time, in all years, was within the deadline. However, the variation in the interquartile range, which reached 100 days in 2020, may indicate that some patients still face significant delays. The concurrent COVID-19 pandemic in 2020 may have contributed to this result.

**169. FAMILIAL PARTIAL LIPODYSTROPHY TYPE 2: A RARE CASE REPORT**

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**INTRODUCTION:** Lipodystrophy is characterized as a group of disorders involving abnormal loss of adipose tissue in certain areas of the body. This deficiency in adipose tissue is linked to metabolic complications such as hepatic steatosis (HS), insulin resistance, diabetes mellitus (DM), dyslipidemia (DLP), and systemic arterial hypertension (SAH). This condition can be acquired or genetic. Among the latter, familial partial lipodystrophy (FPL) stands out as an extremely rare genetic disease. This case report aims to describe a case of FPL type 2 and its complications. The study was approved by the Research Ethics Committee of the University Hospital of the Federal University of Maranhão (CEP-HUUFMA), under opinion No. 4.415.776 and CAAE 38108620.0.0000.5086. **CASE DESCRIPTION:** M.J.V.C., 64 years old, female, from Maranhão. Diagnosed with systemic arterial hypertension (SAH) and type 2 diabetes mellitus (DM) for 31 years. Recent genetic diagnosis of familial partial lipodystrophy (FPL) Type 2, presenting chronic complications associated with DM, in addition to hepatic steatosis, autoimmune hypothyroidism, and dyslipidemia (DLP). Family history of coronary artery disease (CAD), SAH, and DLP; genetic diagnosis of FPL2 in aunts, cousins, and children. Currently taking: Puran T4 50 mcg/day, NPH 40 IU/day, Glifage XR 1 g/day, Pioglitazone 30 mg/day, Rosuvastatin 20 mg/day, Ezetimibe 10 mg/day, Enalapril 40 mg/day, Carvedilol 12.5 mg/day, and ASA 100 mg/day. Engages in regular physical exercise and follows an appropriate diet. Physical examination: BMI 22.66 kg/m<sup>2</sup>; BP 130 x 70 mmHg; absence of subcutaneous fat, venous enlargement, and prominence of skeletal muscle, along with mild hepatomegaly. Laboratory tests: HbA1c: 6.4%, C-peptide: 0.97 ng/mL, leptin: 1.6 ng/mL, TSH: 1.9 µIU/mL, ALP: 168 U/L, GGT: 473 U/L, ALT: 48 U/L, AST: 38 U/L, albuminuria: 18, creatinine: 0.94 mg/dL, estimated glucose disposal rate (eGDR): 6.67. FIB-4: 1.32. MELD: 6. Imaging studies confirm hepatic, coronary, carotid, and retinal impairment. Genetic testing: mutation in the LMNA gene - variant chr1:156.136.984 C>T. **CONCLUSION:** This case highlights the complications, such as hypertension and diabetes, that underscore the delicate condition of a patient with FPL. The data indicate impairment of hepatic and cardiovascular function, emphasizing the connection between FPL and other metabolic conditions. Despite adherence to treatment, the patient faces a challenging clinical scenario requiring ongoing monitoring. Management of lipodystrophy should involve controlling existing complications and preventing new ones, given its complexity, making knowledge about the disease essential.

**170. CONGENITAL MALFORMATIONS OF THE CIRCULATORY SYSTEM IN MARANHÃO, FROM 2014 A 2023**Beatriz Martins de Almeida<sup>1</sup>, Maria Elisa Gamas da Silva<sup>1</sup>, Arttenalpy dos Santos Lima<sup>2</sup>.<sup>1</sup> Federal University of Maranhão; <sup>2</sup> Euro-American University of Brasília

**INTRODUCTION:** Congenital malformations (CMs) are characterized as changes that encompass the functional, neuromotor and morphological part of the human being, in which malformations and deformations occur during embryonic development, which progress to birth and may be present in the most advanced stages of life. MCs are one of the main causes of deaths in newborns and children. Furthermore, they contribute to the individual's long-term disability, as it impacts on a personal, social and family level. In Brazil, diseases of the circulatory system are considered an important cause of death in the general population. From this perspective, congenital malformations of the circulatory system have the highest mortality rate among CMs. In front of this, the work aims to characterize, from 2014 to 2023, hospitalizations and deaths due to congenital malformations in the circulatory system in Maranhão. **METHODS:** This is a cross-sectional, observational and analytical study. The research was carried out by collecting data made available by the platform of the Department of Informatics of the Unified Health System (DATASUS) for the period from 2014 to 2023. The variables used include age group, sex and race. **RESULTS:** There were 3879 hospitalizations due to congenital malformations in the circulatory system in Maranhão, during the period studied, with a predominance in the year 2022 (n=520). Furthermore, the most affected age group was children under 1 year old (n=1600) and females were the most affected (50.47%). The most prevalent race was the brown, corresponding to 24.92% of hospitalized patients, however, 71.87% of hospitalizations remained without information. As for the total number of deaths, there were 427, with a predominance in the year 2022 (n=60). The age group with the highest number of deaths was children under 1 year of age (n=290), equivalent to 58.35% of the total deaths and affecting the greatest number of male individuals (n=236). Regarding the analysis of race, it was shown that 24.59% of deaths affected brown people, however, data without information on race prevailed over brown color (n=311). Therefore, the mortality rate compared to the number of hospitalizations reached 11%. **CONCLUSION:** Given this scenario, it becomes evident that congenital malformations constitute an important cause of hospitalization and mortality in the state of Maranhão, especially for males under 1 year of age.

**171. MANAGEMENT OF POLYPHARMACY IN THE ELDERY IN PRIMARY HEALTH CARE**Milena de Sousa Amaral<sup>1</sup>, Jemima Laureano Marques<sup>1</sup>, Ana Karlla dos Santos Sousa Bezerra<sup>1</sup>, Karolaine Araújo Rodrigues<sup>1</sup>, Pedro Washington Santana de Carvalho Junior<sup>1</sup>, Pâmella Maria Ferreira Cantanhêde<sup>1</sup>, Bruna Pereira Carvalho Sirqueira<sup>1</sup>.<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** The increasing aging of the Brazilian population has resulted in an epidemiological transition with a higher prevalence of chronic non-communicable diseases (NCDs) in the population compared to communicable diseases. This changing scenario has resulted in an increase in chronic medication use and polymorbidities in old age, increasing cases of polypharmacy in the elderly. The review aims to evaluate the management of NCDs and polypharmacy by Primary Health Care (PHC). **METHODS:** This is an integrative literature review with data collection based on the descriptors "Polypharmacy", "Elderly" and "Primary Care" in the Scielo and Pubmed databases, in July 2024. The inclusion criteria were: articles with primary studies, in English and Portuguese, published in the last 10 years and that addressed the management of polypharmacy in elderly people in PHC. **RESULTS:** The prevalence of polypharmacy among the elderly varies significantly, with an average use of 3.8 to 5.8 medications per individual. In Brazil, it affects 32% of the elderly, increasing to 85% in those with diabetes mellitus. Polypharmacy in the elderly is a multifactorial phenomenon associated with factors such as: female gender; increasing age, prevalent in individuals aged 80 years or older; negative self-rated health; and excess weight, recurrent in 25% of overweight or obese elderly individuals. In addition, it is correlated with hypertension, heart disease, circulatory and osteoarticular disorders. The medications most used by the elderly include those for the cardiovascular system, gastrointestinal tract and metabolism, and nervous system. It was noted that polypharmacy increases by 2.69 times the possibility of prescribing inappropriate medications and by 2.07 times the risk of worsening sleep quality. Regarding clinical understanding, there was an association with chronic diseases and inappropriate prescription, which configures drug iatrogenesis. **CONCLUSION:** The management of polypharmacy in elderly individuals in PHC is complex and aggravated by the increase in NCDs in the elderly Brazilian population. It is evident that polypharmacy is influenced by demographic, clinical and social factors, with a high prevalence especially among elderly individuals with comorbidities. PHC is crucial in identifying and managing polypharmacy, requiring integrated and personalized strategies, such as rational prescribing and a patient-centered approach, to reduce the risks associated with multiple medication use.



**172. MAINTAINING ETHICS AND PRIVACY IN DIGITAL RADIOLOGY: CHALLENGES IN DATA PROTECTION**Isabella Aragão Pachêco<sup>1</sup>, Ana Clara Freitas Martins Costa<sup>1</sup>, Michelle Aragão Pachêco Sant'Anna<sup>1</sup>.<sup>1</sup> University Center of Maranhão

**INTRODUCTION:** The acquisition of digital images in radiology, due to the use of more efficient sensors, promotes higher quality in a reduced time. After capture, these images are acquired and stored in software called PACS, where it is possible to adjust brightness, latitude, and contrast without the need to repeat the exam, ensuring greater safety and agility for physicians when providing reports. However, besides the high cost, there are challenges regarding the security of the acquired patient data and privacy. This study aims to discuss the challenges related to ethics and privacy in digital radiology, with an emphasis on protecting patient data, identifying the main ethical issues involved, and the vulnerabilities and risks associated with information security. **METHODS:** A review of the available literature was conducted on articles published between 2019 and 2024 in the PubMed database. Exclusion criteria were applied to articles that were repetitive in journals and those not directly related to the research. **RESULTS:** The General Data Protection Law (LGPD) will regulate how personal data should be handled in Brazil. To comply with the law, it is necessary to maintain the doctor-patient relationship by ensuring the patient's privacy and the integrity of the data to prevent it from being altered or corrupted. The main methods to ensure this include using encryption so that only authorized individuals can access the data, as well as implementing strict access control systems and multifactor authentication. It is crucial to train professionals and raise awareness about the proper handling of sensitive information, as well as maintaining access logs with all actions performed in the system. Lastly, ensuring network security to prevent cyber threats is indispensable; for this, it is possible to adopt the use of firewalls, patch updates, and intrusion detection systems (IDS/IPS). **CONCLUSION:** In this context, maintaining ethics and privacy in digital radiology is essential to ensure compliance with the LGPD and the preservation of doctor-patient trust. Therefore, the implementation of security measures, such as controlling access to images, encryption, network protection, and training healthcare professionals, is of utmost importance to effectively address the critical privacy and security challenges present in the internet age.

**173. MORBIDITY AND MORTALITY FROM GASTRIC CANCER: MARANHÃO AND THE FEDERAL DISTRICT BETWEEN 2018 AND 2021**Layza Hellen Fernandes Menezes<sup>1</sup>, Italo Kauan Ribeiro de Carvalho Martins<sup>1</sup>, Mariana Chaves Mendonça<sup>1</sup>, Pedro Marcondes Bezerra Fernandes<sup>1</sup>, Bruno Mileno Magalhães de Carvalho<sup>1</sup>.<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** The risk of death for a person after receiving a cancer diagnosis in Brazil is significantly higher in regions with lower Human Development Index (HDI) compared to those with higher indices. Maranhão (MA) is the state with the highest percentage of the population in poverty, a scenario that contributes to the elevated mortality rate from malignant neoplasms overall. The objective of this study is to describe the morbidity and mortality rates from gastric cancer (GC) in MA and the Federal District (FD), comparing them with their respective HDI. **METHODS:** This is an ecological study on the epidemiology of malignant gastric neoplasia, for which mortality and morbidity data were collected from the Hospital Information System of the Unified Health System (SIH/SUS). The variables studied were sex, age group, and color/race. The prevalence of these variables was calculated for each state in that year, followed by statistical analysis using Excel 2019. **RESULTS:** A total of 1,534 deaths due to gastric cancer (GC) were recorded in the state of Maranhão (MA) between 2018 and 2021, with 63.75% being male, primarily in the age group of 60 to 79 years (51.1%), and of mixed color/race (63.36%). In the Federal District (FD), there were 851 deaths from the same cause during the same period, with the majority in the age group of 60 years or older (68.15%), mixed race (44.65%), and male (62.75%). The mortality rate was higher in MA compared to FD in all years. From 2018 to 2021, there were 2,955 hospitalizations due to GC in MA and 2,152 hospitalizations in FD, indicating a rate of approximately 4.3 hospitalizations in Maranhão and 7.6 hospitalizations in FD, both per 10,000 inhabitants during the same period. **CONCLUSION:** This study suggests a possible influence of the Human Development Index (HDI) on morbidity and mortality rates from malignant gastric neoplasms among the studied locations, considering that this cancer has environmental influences (water with high nitrate concentrations from artesian wells and contamination by *Helicobacter pylori* due to poor basic sanitation). Although morbidity is higher in the Federal District (FD), mortality is greater in Maranhão (MA), indicating that access to early diagnosis and treatment can also affect cure rates. The epidemiological profile is primarily composed of mixed-race men over 60 years old. More in-depth statistical analyses are needed to relate social vulnerability to the morbidity and mortality rates from malignant gastric neoplasms between these two states.

**174. MORBIDITY AND MORTALITY FROM TRAUMATIC BRAIN INJURY IN MARANHÃO FROM 2020 TO 2023**

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**INTRODUCTION:** Traumatic brain injury (TBI) refers to any injury to the scalp, skull, meninges, or brain caused by external force. In Maranhão, it is a serious public health issue, resulting from traffic accidents, falls, and assaults, affecting both young and elderly populations. TBI can cause cognitive, motor, and neuropsychiatric disorders, impacting the quality of life. The severity of outcomes depends on the nature of the trauma, pre-existing conditions, and the effectiveness of management. This study aims to analyze the incidence and mortality of TBI in Maranhão between 2020 and 2023, providing insights into the epidemiological patterns and clinical outcomes of this condition in the state. **METHODS:** This is a retrospective epidemiological study on TBI morbidity and mortality in Maranhão, using data from the SUS Hospital Information System (SIH/SUS) from 2020 to 2023, considering mortality rates and deaths according to municipality, gender, age group, and race or ethnicity. **RESULTS:** The analysis of SIH/SUS data reveals an average mortality rate from TBI of 7.08 in the municipalities of Maranhão, with the highest rates in Barra do Corda (16.67), Coroatá (14.29), and Bacabal (13.23). The lowest rates were in Timbiras (1.27) and São João dos Patos (1.37). Between 2020 and 2023, there were 1,196 deaths from TBI in Maranhão, with São Luís leading (348 cases), followed by Imperatriz (215) and Presidente Dutra (188). Men represented 82% of the cases (981). Indigenous individuals (12.5), whites (8.41), and mixed-race individuals (5.73) had the highest mortality rates, although 667 deaths did not report race. The elderly had the highest mortality: ages 70 to 79 years (12.84), 80+ years (11.18), and 50 to 59 years (9.61). The lowest rates were observed in children: 1 to 4 years (1.85), under 1 year (2.89), and 5 to 9 years (3.10). However, the age groups 20 to 29 years (224), 30 to 39 years (216), and 40 to 49 years (152) recorded the most deaths. **CONCLUSION:** The data analysis reveals distinct patterns of TBI mortality in Maranhão between 2020 and 2023. Urban regions like São Luís and Imperatriz recorded the most absolute deaths, while rural areas had higher rates. Mortality was higher among men and young adults, especially those aged 20 to 29, suggesting greater exposure to trauma. The elderly also had high mortality, highlighting their vulnerability. Therefore, TBI morbidity and mortality in Maranhão are significant and require broad preventive measures, especially for young adult males.

**175. DENGUE MORBIDITY AND MORTALITY IN MARANHÃO: A DESCRIPTIVE REVIEW**

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**INTRODUCTION:** Dengue is an urban arbovirus transmitted by the *Aedes aegypti* mosquito. Its symptoms range from mild febrile illness to neurological febrile syndromes and hemorrhages, which can lead to death. In Maranhão, the disease has a high incidence, affecting public health with adverse effects and significant social losses. The study aimed to analyze the morbidity and mortality profile of dengue in Maranhão between 2019 and 2023, presenting an overview for public health policies on the disease in the state. **METHODS:** This is a descriptive, retrospective epidemiological study, carried out from the collection and analysis of data from the Information System for Diseases and Notification (SINAN) and the Hospital Information Service (SIH) of the Department of Informatics of the Unified Health System of Brazil (DATASUS). The variables selected for the study were: sex, age, ethnicity, education, region, hospitalization and evolution. The theoretical framework was collected from virtual libraries and databases Scientific Electronic Library Online (SciELO), PubMed and Google Scholar, including full articles and reviews in Portuguese and English related to the topic. Descriptive statistics were used to analyze the data. **RESULTS:** 21,900 cases of dengue were reported in Maranhão during the period in question, with the years 2019 (n=5,725; 26.14%) and 2021 (n=1,368; 6.25%) standing out. In the time frame of the study, there was a higher frequency of females (n=11,480; 52.42%), aged between 20-39 years (n=7,402; 33.8%), of brown ethnicity (n=17,049; 77.85%), with high school education (n=4,284; 19.56%); with higher detection coefficients in the epidemiological regions of São Luís, Balsas and Barra do Corda. Of the total number of cases, (n=34; 0.16%) died and within this group, men were the majority (n=19; 56%). The majority of cases progressed to cure and discharge (n=15,902; 72.61%) and in (n=4,452; 20.33%) with hospitalization. Less than 1% of hospitalized cases died. The average length of stay for classic and hemorrhagic dengue was 3 and 5 days, respectively. **CONCLUSION:** There was a low case fatality rate and a high rate of progression to cure, highlighting the under-reporting and under-recording of deaths influenced by COVID-19. Furthermore, the morbidity and mortality profile of dengue allows the implementation of public policies with prophylactic, diagnostic and care actions, with the aim of reducing the number of cases and deaths, with a consequent improvement in the quality of life of the population of Maranhão.

**176. HOSPITAL MORBIDITY AND MORTALITY IN CASES OF SKULL AND FACIAL BONE FRACTURES FROM 2020 TO 2023**

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**INTRODUCTION:** Trauma is a serious and expanding global issue, being considered a pandemic disease. Facial and skull trauma can be considered one of the most aggressive traumas due to possible emotional damage and sequelae, in addition to the economic impact that such situations cause in a health system. Therefore, due to the relevance and severity of this topic, the objective of this study is to analyze the morbidity and mortality of trauma to facial bones and skulls from 2020 to 2023. **METHODS:** This is a descriptive epidemiological study, with a quantitative approach, carried out by collecting data at the Department of Information and Informatics of the Unified Health System (DATASUS), in patients aged less than 1 year old to patients over 80 years old in the period from 2020 to 2023, in Maranhão. As these were secondary data, approval from the Ethics Committee was not required. The variables used were: age group, year of care, deaths and mortality rate. **RESULTS:** In the period from 2020 to 2023, 711 deaths were recorded due to fractures of the skull and facial bones in Brazil. Most of these deaths occurred between 20 and 29 years old, which represents 19.69% (n=140) of the total cases. The total mortality rate during this period was 0.60%. Among the youngest age groups, there was 1 death in the 5 to 9 age group, representing a mortality rate of 0.05%, 6 deaths in the 10 to 14 year age group (0.24%) and 31 deaths between 15 and 19 years (0.28%). In adult age groups, the mortality rate gradually increased. The 30 to 39 year old group recorded 113 deaths (0.43%), and the 40 to 49 year old group recorded 119 deaths (0.63%). Individuals aged 50 to 59 years had a mortality rate of 0.94% with 106 deaths. The age group of 60 to 69 years old showed 76 deaths (1.34%), the age group of 70 to 79 years old, 65 deaths (2.88%) and the age group of 80 years old or more had 48 deaths, with a mortality rate of 5.03%. **CONCLUSION:** Data analysis confirmed the severity of head and facial bone injuries. The age group of 80 years or more stands out with the highest mortality. Furthermore, the death curve follows a progressive increase in the age group. In short, measures must be developed to avoid such traumas through safety measures, especially in the adult age group.

**177. MORBIDITY AND MORTALITY DUE TO CHRONIC RHEUMATIC HEART DISEASE IN THE STATE OF MARANHÃO, 2014 TO 2023**

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**INTRODUCTION:** Chronic rheumatic heart disease is the main clinical manifestation resulting from rheumatic fever, caused by infection with group A beta-hemolytic Streptococcus. This condition is characterized by fibrosis and valve calcification, being responsible for a large part of valvular heart surgeries. Thus, the present study aims to analyze the epidemiological profile of hospitalizations for chronic rheumatic heart disease in the state of Maranhão from 2014 to 2023. **METHODS:** It consists of an epidemiological, descriptive, retrospective study, with a quantitative approach, based on hospitalizations of patients with chronic rheumatic heart disease. Data were collected from the SUS Hospital Information System in April 2024. Quantitative variables were described by absolute and relative frequencies. **RESULTS:** During the last decade, 1,266 Hospital Admission Authorizations (AIH) related to chronic rheumatic heart disease were registered in the state of Maranhão, of which 866 (68.4%) were elective and 400 (31.6%) were urgent. Regarding gender, 705 (55.7%) of those affected by the disease were women and 561 (44.3%) were men. Among the total number of patients, 50.4% were between 30 and 59 years old, being manifested in all age ranges analyzed. The year of highest incidence was 2022, with 180 (14.2%) cases registered. From 2014 to 2020, there was an average of 5 deaths per year, while between 2021 and 2023, this average increased to 16 deaths per year, corresponding to 57.8% of deaths in the decade in the last three years. The fatality rate was 6.5%, being higher among male patients (53.0%). Among the cities with the highest incidence, the capital São Luís stands out, with 447 (35.3%) hospitalizations for AIH, followed by São José de Ribamar, with 59 (4.6%), Paço do Lumiar, with 38 (3.0%), and Imperatriz, with 37 (2.9%). The total cost was R\$10,398,790.54 over the 10 years. **CONCLUSION:** Over the decade analyzed, hospitalizations for chronic rheumatic heart disease in Maranhão showed significant variations, influenced by factors such as available financial resources, quality of health services and external impacts. The temporal analysis revealed patterns and trends that can guide the formulation of strategies for planning and improving health services in the region.

**178. MORBIDITY AND MORTALITY BY AGE GROUP IN SEPTICEMIA CASES IN MARANHÃO FROM 2020 TO 2023**

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**INTRODUCTION:** Despite advances in the treatment of infections caused by various pathogens, septicemia remains one of the leading causes of morbidity and mortality in intensive care units. Sepsis triggers an intense inflammatory response that includes cytokine activation, nitric oxide production, and free oxygen radicals, as well as interference with the coagulation process, which can lead to multiple organ failure. The prognosis depends on the etiological agent and the presence of pre-existing comorbidities. Thus, the objective of this study was to describe the morbidity and mortality rates of septicemia by age group in Maranhão. **METHODS:** This is a retrospective epidemiological study on the morbidity and mortality rates of septicemia in the state of Maranhão, using data from the Hospital Information System of SUS (SIH/SUS) from 2020 to 2023, according to age group. The variables used were deaths, mortality rate, and average length of hospital stay. **RESULTS:** The morbidity and mortality rate for septicemia cases was 44.2% (n = 2,952) during the analyzed period, out of a total of 6,678 cases. The rates varied according to age group, being lower in children under 1 year (28.22%) and in those aged 1 to 9 years (14.72%), and progressively increasing with age. Individuals aged 50 to 59 years had a rate of 51.64%, and those aged 60 to 69 years had a rate of 53.93%. The highest rates were observed in individuals aged 70 to 79 years (56.88%) and in elderly individuals aged 80 years or more (61.47%). The length of hospital stay varied from 9.3 days in individuals aged 80 or more to 14.8 days in those under 1 year. **CONCLUSION:** Therefore, the study highlights a higher prevalence of septicemia-related deaths among the elderly, with a progressively higher mortality rate in older age groups. Additionally, it is noted that the high morbidity and mortality are associated with the presence of comorbidities and greater immunological vulnerability in older patients. The variability in hospital stay duration across different age groups also underscores the complexity of clinical management of the condition, especially in extreme age groups. In this context, it is essential to discuss, within the hospital setting, the importance of early identification and treatment of septicemia, as well as the implementation of prevention strategies targeted at high-risk groups to improve patient prognosis.

**179. MORBIMORTALITY BY EMERGENCY INTRACRANIAL HEMORRHAGE IN MARANHÃO**

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**INTRODUCTION:** Intracranial hemorrhage (ICH) is defined as brain damage resulting from acute bleeding from the vessels responsible for irrigating the brain's parenchyma. The symptoms presented by patients affected by the condition range from headache, convulsions, focal neurological deficits to a lowered level of consciousness. This study aims to analyze ICH morbimortality in Maranhão between 2020 and 2023, evaluating the epidemiological profile and specific mortality by variable in the state. **METHODS:** This is a retrospective epidemiological study of morbimortality from urgent ICH in Maranhão, using data from the SUS Hospital Information System (SIH/SUS), from 2020 to 2023, according to death and mortality rates, whose variables used were gender, color or race, age group and city. **RESULTS:** In the period studied, a total of 1172 deaths from ICH were recorded in Maranhão, with a total mortality rate of 23,36%. The majority occurred in 2022, equivalent to 24,06% (n=282), although the highest mortality rate occurred in 2020 (25.58%). Males were the most affected, with 54.35% (n=637) of the victims, but the mortality rate was higher among females (23.69%). The brown population was the most affected, with 34.12% (n=400) of deaths and the highest mortality rate (24.46%). In terms of age group, the highest incidence was among patients aged 60 to 69, with 20.47% (n=240), and the highest mortality rate was among those aged 80 or over (35.59%). In terms of spatial division, São Luís, Imperatriz and Presidente Dutra led the way, with 43.08% (n=505), 21.58% (n=253) and 9.64% (n=113) of deaths, respectively. **CONCLUSION:** In the last five years, there has been a high mortality rate from intracranial hemorrhage in Maranhão, with a peak in deaths in 2022. Men and brown individuals were the most affected, with a significant prevalence among people aged 60 to 69. The regions of São Luís, Imperatriz and Presidente Dutra had the highest number of cases. The mortality rate was highest among women, brown individuals and the elderly aged 80 and over, being 2020 the year with the highest rate. This emphasizes the urgency of preventive interventions and improvements in emergency care protocols to reduce the incidence and mortality from intracranial hemorrhage in the state.

**180. MORBIDITY AND MORTALITY DUE TO MALIGNANT BRAIN NEOPLASMS IN MARANHÃO FROM 2014 TO 2023**

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**INTRODUCTION:** The intracranial cellular content is not limited to neurons. There is a wide range of cells that contribute to brain homeostasis and protection, such as glial, ependymal, and endothelial cells. An aggressive tumor that arises from abnormal brain cells is referred to as a Malignant Brain Neoplasm (MBN). The main types include gliomas, malignant meningiomas, medulloblastomas, and primary central nervous system lymphomas. These tumors pose challenges in diagnosis, treatment, and prognosis due to their delicate location and the complexity of brain tissue. The objective of this study is to investigate morbidity and mortality due to MBN in the state of Maranhão over the past decade. **METHODS:** A descriptive, retrospective epidemiological study was conducted using data obtained from the Hospital Information System of SUS (SIH/SUS) through the platform of the Department of Informatics of the Unified Health System (DATASUS). The variables of interest used for analysis were: number of hospitalizations, Malignant Brain Neoplasms ICD 10 (C71), age group, deaths, sex, ethnicity, and days of hospitalization from January 2014 to December 2023. Google Sheets was used for data analysis and tabulation. **RESULTS:** A total of 1,386 hospitalizations for MBN were recorded in Maranhão between 2014 and 2023, with an average of 138.6 per year ( $\pm 44.84$ ). The most affected age group was 1 to 9 years, with 298 cases (21.5%), and males were the most impacted, accounting for 748 cases (53.93%). Regarding ethnicity, 656 hospitalized individuals were classified as mixed-race (47.33%), followed by 542 (39.1%) with no recorded ethnicity. The total number of hospitalization days amounted to 17,373, with an average of 1,737.3 days per year. Individuals aged 5 to 9 years represented the majority, with 2,285 days (13.15%), averaging 228.5 days per year. Out of the total hospitalizations, 353 deaths due to MBN occurred, representing an average of 35.3 deaths per year and yielding a mortality rate of 25.47 per 100 individuals. Moreover, 183 (51.84%) of the deaths occurred among males and 170 (48.16%) among females. The age group with the highest number of deaths was 60 to 69 years, with 75 deaths (37.10%). **CONCLUSION:** This study reveals that, over the past decade, children represented the majority in terms of hospital morbidity, mixed-race individuals were the most frequently hospitalized, and the mortality rate was 25.47%, with most deaths occurring among the elderly. The data highlight the need for special attention to these vulnerable groups and greater investment in epidemiological health studies.

**181. STROKE MORTALITY IN MARANHÃO BETWEEN 2013 AND 2023**

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**INTRODUCTION:** Cerebrovascular Accident (CVA) is characterized by an alteration in cerebral perfusion, resulting from the blockage or rupture of blood vessels that supply the brain. In Brazil, stroke is the second leading cause of mortality and the main cause of chronic disability, representing a serious public health problem that affects millions of people every year. Given this scenario, the aim of this study is to analyze the epidemiological profile of the occurrence of strokes in the state of Maranhão between 2013 and 2023. **METHODS:** This is a retrospective, descriptive and quantitative study. Data was collected using the Hospital Information System (SIH/SUS), via TABNET, analyzing the variables: number of hospitalizations, deaths, gender, color/race and age group. **RESULTS:** During the period analyzed, 50,249 hospitalizations and 7,680 stroke-related deaths were recorded in Maranhão, representing 10.28% of the total in the Northeast region. The municipalities with the highest hospitalization and mortality rates were São Luís, Imperatriz and Santa Inês. The demographic analysis revealed a predominance of males, with 52.72% of hospitalizations and 51.31% of deaths occurring in this group. The 60-79 age group showed the highest prevalence, corresponding to approximately 36.64% of hospitalizations and 48.25% of deaths. With regard to color/race, there was a predominance of brown patients, who accounted for around 48.08% of admissions and 39.62% of deaths. In addition, an average annual growth rate of 2.77% in hospitalizations was identified between 2013 and 2019, with an intensification of this increase in the years following the COVID-19 pandemic, whose average value was 13.2% between 2020 and 2023. **CONCLUSION:** Epidemiological data indicate that stroke has a high incidence of hospitalizations and mortality in Maranhão, with a notable prevalence among brown men aged 60 and over. In addition, there is evidence to suggest a correlation between the COVID-19 pandemic and the increase in stroke registrations in the state. These findings highlight the urgency of implementing effective public policies aimed at the prevention and treatment of stroke, emphasizing the control of modifiable risk factors and the promotion of healthy habits in the population.



**182. APANCREATIC CANCER MORTALITY IN MARANHÃO FROM 2000 TO 2022**

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**INTRODUCTION:** Pancreatic cancer is a malignant neoplasm that usually has no symptoms in the early stages and has a high mortality rate due to its aggressive behavior and difficult detection. However, only 20% of patients diagnosed can undergo surgical procedures, which constitute the only form of curative treatment available until then, such as pancreatectomy and biliodigestive anastomosis. This type of tumor represents 2% of all types of cancer diagnosed and is responsible for 4% of total deaths in Brazil due to this disease. Thus, the present study aims to evaluate data related to pancreatic cancer mortality in Maranhão from 2000 to 2022. **METHODS:** This is an epidemiological, cross-sectional, retrospective, descriptive and quantitative study, with data collected from the Department of Informatics of the Unified Health System (DATASUS) on pancreatic cancer mortality in the state of Maranhão from 2000 to 2022. The variables analyzed were "year", "age group", "sex", "race", "schooling", "place of occurrence" and "marital status". **RESULTS:** A total of 2161 deaths from pancreatic cancer were recorded in Maranhão over the period analyzed, with 2020 being the year with the highest number of occurrences (n = 166), representing 7.68% of the total, followed by 2022 (n = 163) and 2021 (n = 153). Regarding the age group, the 60 to 69 age group predominated (n = 587), with 27.16% of the total, followed by the 70 to 79 age group (n = 563) and the 50 to 59 age group (n = 383). In terms of gender, 50.2% of deaths were female (n=1085) and 49.8% (n=1076) were male. Brown people and individuals with no schooling predominated, with about 60% (n=1293) and 546 individuals, respectively. Approximately 70% of deaths were registered in hospitals (n=1518), and approximately 28% (n=594) at home. Finally, with regard to marital status, the majority were married people (n=978), followed by single people (n=444) and widowers (n=390), with legally separated individuals having the lowest number of occurrences (n=88). **CONCLUSION:** The study shows that pancreatic cancer mortality is prevalent among brown people, married individuals, men, less educated people and those aged 60 years or older, probably as a result of diagnosis at a locally advanced or metastatic stage. The increase in deaths in 2020 may be associated with a decrease in cancer screening because of the pandemic. The higher rate of deaths in hospitals is due to prolonged hospitalizations.

**183. MORTALITY DUE TO GALLBLADER CANCER IN MARANHÃO FROM 2000 TO 2022**

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**INTRODUCTION:** Gallbladder cancer is a rare and lethal malignant neoplasm, accounting for approximately 1.7% of all cancer deaths, with 220,000 new cases diagnosed annually. Associated risk factors include, for example, obesity, personal or family history of gallstones and gallbladder inflammation. The asymptomatic nature of the early stage of this cancer and its propensity for early and rapid metastasis mean that most cases are diagnosed late, contributing to the poor prognosis of the disease. Thus, the present study aims to evaluate data related to mortality due to gallbladder cancer in Maranhão from 2000 to 2022. **METHODS:** This is an epidemiological, cross-sectional, retrospective, descriptive, quantitative study, with data collection at the Department of Information Technology of the Unified Health System (DATASUS) on mortality due to gallbladder cancer in the state of Maranhão from 2000 to 2022. The variables analyzed were "year", "age group", "sex", "education", "race", "place of occurrence" and "marital status". **RESULTS:** A total of 396 cases of deaths from gallbladder cancer were recorded in Maranhão during the analyzed period, with 2021 (n = 32) being the year with the highest number of cases and 2000 (n = 7) being the lowest. Regarding age group, the 60 to 69 age group predominated, accounting for approximately 29% of deaths (n=114). In terms of gender, 74% (n=293) of deaths occurred in females and 26% (n=103) in males. Individuals with no education (n=109) and of mixed race (n=223) prevailed. Regarding place of death, approximately 72% (n=284) occurred in hospital and 26% (n=102) at home. Finally, with regard to marital status, the majority were married people (n=191), followed by single people (n=86) and widowers (n=63), with legally separated individuals accounting for the smallest number of occurrences (n=14). **CONCLUSION:** It is concluded that mortality from gallbladder cancer is prevalent in female individuals, of mixed race, with no education, married and in the age group of 60 to 69 years. The prevalence in this age group and in females is related to the risk factors associated with the aging of the population and the greater predisposition to gallstones, respectively. It was also identified that, in addition to the majority of deaths having occurred in the hospital environment, the total number of deaths was more expressive in the pandemic and post-pandemic context, possibly due to the reduction in access to screening tests, which leads to late diagnosis.

**184. MORTALITY FROM CIRCULATORY DISEASES AMONG INDIGENOUS PEOPLES IN THE STATE OF MARANHÃO (2013-2022)**

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**INTRODUCTION:** Noncommunicable diseases (NCDs) are the leading causes of death worldwide, especially circulatory system diseases. In Brazil, regional inequalities, insufficient funding, and limited access to healthcare worsen the situation, making heart diseases the primary cause of overall mortality and one of the fastest-growing causes of death among Indigenous peoples due to the urbanization of this ethnicity. Aggravating factors complicate the logistical management of these diseases, which require continuous medical care and health promotion actions in hard-to-reach regions. The present study aimed to analyze the distribution of deaths from circulatory diseases among Indigenous peoples in Maranhão between 2013 and 2022. **METHODS:** This is a descriptive and ecological study with a spatial distribution analysis, covering deaths from circulatory system diseases in the Indigenous population between 2013 and 2022, obtained from the Mortality Information System (SIM). The unit of analysis was the state of Maranhão. Data were collected from the SUS Department of Informatics (DATASUS) and IBGE, considering the following variables: year of death, location, sex, age group, and race/color. **RESULTS:** During the analyzed period, a total of 371 deaths were recorded, with 2022 (n=50) being the year with the most deaths, showing a 100% increase compared to 2013. The Barra do Corda health region had the highest number of deaths (n=168), with peaks in 2017 (n=23) and 2022 (n=21). Ischemic heart diseases and cerebrovascular diseases were the most frequent causes of death (30.7% and 30.2%, respectively). Males accounted for 197 deaths, with a notable peak in 2022 (n=29), while females had 174 deaths, with more deaths in 2019 (n=21). Regarding age groups, those over 60 years old were the most affected, with 276 deaths, and the highest number of deaths in 2022 (n=40). Education levels revealed that the most affected had no formal education (n=210). The place of occurrence alternated in prevalence depending on the year, with 151 deaths in hospitals, 177 at home, and 44 in other locations. **CONCLUSION:** There was a significant increase in deaths from circulatory diseases in the Indigenous population of Maranhão, especially from ischemic heart diseases and cerebrovascular diseases. The impacts of cultural, economic, and lifestyle changes resulting from interaction with non-Indigenous society were evident. This scenario highlights the need to improve health education for the prevention and treatment of cardiovascular diseases, expand access to healthcare services, and optimize basic healthcare infrastructure.

**185. HEART FAILURE MORTALITY IN THE MACRO-REGIONS OF MARANHÃO BETWEEN 2013 AND 2023**

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**INTRODUCTION:** Heart failure (HF) is a complex clinical syndrome resulting from the heart's inability to pump blood effectively to meet the body's metabolic needs. In Maranhão, heart failure is a growing public health concern, with Chagas cardiomyopathy, especially prevalent in the region, as one of the main etiologies of HF in the state. In this context, the aim of this study is to outline the epidemiological profile of HF mortality in the macro-regions of Maranhão from 2013 to 2023. **METHODS:** This is an epidemiological, descriptive and quantitative study. The data was collected through the Department of Informatics of the Unified Health System, analyzing the variables: number of hospitalizations, gender, color/race, age group, deaths and mortality rate. **RESULTS:** During the period analyzed, the state of Maranhão recorded 4,670 HF-related deaths and a total of 43,603 hospitalizations. There was an upward trend in mortality rates and the number of deaths in all macro-regions, with variations from 7.61% (427 deaths) in 2013 to 14.04% (613 deaths) in 2023. The North and East macro-regions had the highest mortality rates, registering 12.59% (2,474 deaths) and 11.74% (1,262 deaths), respectively, corresponding to approximately 36.5 deaths for the North region and 18.62 deaths for the East region per 100,000 inhabitants. Mortality was predominantly among men (2,526 deaths), with a mortality rate of 10.45%. Patients aged 60 or over accounted for 77.6% (3,624) of deaths, and analysis of the color/race variable revealed an occurrence for brown people with 43.91% (2,051) of deaths. **CONCLUSION:** Analysis of the data indicates a growing epidemiological challenge for HF in Maranhão, evidenced by the increase in mortality rates in all macro-regions. This highlights the need for improvements in access to health care, as well as actions to raise awareness of the disease and prevention strategies. The predominance of deaths among individuals aged 60 and over, together with the high incidence among brown people, highlights the urgency of approaches targeted at specific groups in order to tackle this problem effectively.

**186. MORTALITY DUE TO RHEUMATIC HEART VALVE DISEASE IN BRAZIL FROM 2018 TO 2022**

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**INTRODUCTION:** Rheumatic heart valve disease (RHVD) occurs due to inflammation of the valves as a result of rheumatic fever caused by streptococcal infection, and is responsible for high hospital morbidity and mortality. Surgical treatment is the most effective method for treating RHVD, but it carries risks depending on the cardiac dysfunction resulting from the clinical condition. Therefore, this study aims to investigate the mortality rates associated with RHVD. **METHODS:** This is a quantitative retrospective observational study that analyzed available data on mortality from aortic and mitral rheumatic heart valve disease (RHVD) in the Hospital Information System of the Department of Informatics of the Unified Health System (DATASUS) to compare the years from 2018 to 2022. **RESULTS:** During the period from 2018 to 2022, there were 433 deaths due to aortic rheumatic valve disease in the country, of which 188 (43.42%) occurred in the Southeast region, 105 (24.25%) in the Northeast region, 75 (17.32%) in the South region, 34 (7.85%) in the Central-West region, and 31 (7.16%) in the North region. The total number of deaths due to aortic rheumatic valve disease in the country in 2022 compared to 2018 showed a decrease of approximately 8.9%. In 2021, there were the fewest deaths from aortic rheumatic valve disease, with 68 (15.7%) cases, while 2018 had the highest incidence, with 101 (23.32%) cases. During the same period, Brazil recorded 5,172 deaths from mitral valve rheumatic disease, with 234 (4.52%) in the North region, 494 (9.55%) in the Central-West region, 906 (17.52%) in the South region, 1,129 (21.83%) in the Northeast region, and 2,409 (46.58%) in the Southeast region. In 2022, the highest number of deaths was recorded (1,168), representing an increase of 13.4% when compared to the years 2018 and 2020, the year with the lowest number of death records from mitral valve rheumatic disease (941). **CONCLUSION:** Therefore, it is possible to observe an uneven distribution of cases of rheumatic heart valve disease (RHVD), with a greater emphasis on the Southeast region, followed by the Northeast, South, Central-West, and North regions, respectively. In this sense, the analysis of the epidemiological situation of rheumatic heart valve disease in Brazil from 2018 to 2022 reveals a public health issue. This situation underscores the need for an adapted approach to combat the disease and coordinated efforts to improve clinical management and reduce its incidence and mortality.

**187. MORTALITY DUE TO SEPTICEMIA IN MARANHÃO FROM 2012 TO 2022**

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**INTRODUCTION:** Sepsis, also known as septicemia, is a severe condition characterized by an exacerbated inflammatory response, negatively affecting other organs and systems. This dysregulated bodily response is primarily caused by either a virus or a bacterium. The objective of this study is to evaluate mortality data related to septicemia, with the aim of promoting further research and investigation into the issue. **METHODS:** This is a cross-sectional, observational, and descriptive study conducted using data from patients registered in the SUS Information System (DATASUS) regarding deaths from sepsis in Maranhão between 2012 and 2022. The sociodemographic variables used included age group, sex, and race. Additionally, descriptive analysis was performed using RStudio software. **RESULTS:** A total of 5,764 patients were included in the study, with 52.4% (n=3,023) of deaths occurring in male patients. Regarding race, 62.1% (n=3,582) were mixed race, 22.3% (n=1,288) were white, and only 15.6% (n=893) belonged to other racial categories. In terms of age group, there was a progression in mortality with increasing age: 9.0% (n=520) were aged between 50 and 59 years, 15.8% (n=911) between 60 and 69 years, 20.6% (n=1,191) between 70 and 79 years, and 28.1% (n=1,624) in patients aged 80 years or older. Another noteworthy age group was those under 1 year of age, representing 6.9% (n=401) of the sample. All other age categories not mentioned accounted for 19.3% (n=1,115) of the population studied. **CONCLUSION:** It is evident that people in extreme age groups—those under 1 year of age and patients over 70 years—are the most severely affected by septicemia. Early diagnostic measures are therefore essential to mitigate the rapid progression of the disease and reduce the number of deaths associated with this severe condition.

**188. MORTALITY FROM BACTERIAL MENINGITIS IN BRAZIL FROM 2020 TO 2023**

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**INTRODUCTION:** Meningitis is an inflammation of the leptomeninges, the membranes surrounding the brain and spinal cord. This condition is typically marked by an abnormal increase in white blood cells in the cerebrospinal fluid in most cases and can be caused by a variety of infectious or non-infectious agents. Bacterial meningitis is a severe condition often characterized by symptoms such as headache, fever, and vomiting. The clinical picture usually presents a severe character. Transmission primarily occurs through respiratory droplets and secretions from the upper respiratory tract. Due to its high potential to cause serious illness and death, bacterial meningitis holds significant epidemiological importance, justifying ongoing efforts to describe and quantify it. In this context, the present study aimed to characterize the epidemiological profile of cases of bacterial meningitis in Brazil from 2020 to 2023. **METHODS:** A cross-sectional, descriptive, and quantitative study was conducted using epidemiological data obtained from the Notification Information System available at the Department of Informatics of the Unified Health System (SUS) regarding bacterial meningitis, analyzing variables such as sex, race/color, and region. **RESULTS:** During the study period, 16,075 hospitalizations for bacterial meningitis were reported, resulting in 1,600 deaths. The highest occurrence was found in the Southeast region, accounting for 48.8% (781) of recorded deaths, followed by the Northeast with 20.6% (331), South with 17.4% (279), North with 7.68% (123), and Central-West with 5.37% (86). There was a higher occurrence in males at 56.6% (906) compared to females at 43.4% (694). The predominant demographic profile was mixed-race individuals concerning race/color. Bacterial meningitis is distributed heterogeneously across Brazil, with a predominance of deaths in the Southeast region, which is one of the most populous areas, highlighting issues of underreporting of cases that directly reflect on statistics presented within Brazil's own recording system. **CONCLUSION:** There is a pressing need to discuss and address bacterial meningitis in Brazil due to the fact that, despite access to a vaccine provided by the Unified Health System, cases and deaths still occur frequently, particularly in populous regions like the Southeast and Northeast.

**189. MORTALITY OF PATIENTS VICTIMS OF BURNS IN THE STATE OF MARANHÃO FROM 2019-2023**

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**INTRODUCTION:** Burns are highly incident traumatic events. In Brazil, the limited populational awareness and hospital infrastructure aggravate the burn-related mortality rates, amounting to over 2500 annual deaths. Therefore, it is crucial to evaluate this public health matter in Maranhão, thus, this study aims to analyze the profile of the mortality by burn rates in the state between 2019 to 2023. **METHODS:** This is a retrospective descriptive epidemiological study based on data available in the Department of Informatics of Sistema Único de Saúde (DATASUS). The data was collected from obit records and analyzed to recognize patterns and tendencies through the years of 2019-2023 in Maranhão, considering the variables: age, sex, region, color/race and characteristics of hospital care. **RESULTS:** Between 2019-2023, in Maranhão, 26 deaths by burns were registered, 24 entered hospital care on an urgent basis, and only were admitted electively, in 2023. In 2019, 6 fatalities occurred, most of which between 50-54 years old (n=2), and the southern region of the state being the most prevalent (n=3). In 2020, mortality reached its highest levels of the period (n=7), the most affected age range was 40-49 years (n=4), and the south region amounted the most occurrences (n=4). In 2021, 5 deaths happened, the ages most affected being 30-39 (n=2), and the northern and southern regions presented the highest rates, both with two deaths. The year of 2022, showed the lowest numbers (n=2), the intervals of 20-24 and 40-44 years with one fatality each, and the southern region as the only one to record deaths. As for 2023, 6 deaths were counted, most from 40-49 years (n=2), however, the north region had the highest quantity of cases (n=5). Between 2019-2023, mixed race ("pardos") individuals presented the highest mortality rates (n=7). The male sex was more affected from 2019-2021 (n=4, n=6, n=3, respectively), whereas in 2022, men and women had equally distributed mortality rates, each sex corresponding to one fatality. In 2023, the males became, once again, the most prevalent group in the mortality numbers (n=5). **CONCLUSION:** In the studied period, the majority of deaths were of mixed race individuals, across variable age ranges, and predominantly among males. The southern region of Maranhão stood out as the one with the most fatalities, and urgent care the most common form of hospital admission. The analysis of fatality profiles allows for a more effective guidance of health-related policies addressing both the preventive aspect of public awareness as well as the emergency response to victims, with the goal of reducing mortality.

**190. MALIGNANT BLADDER NEOPLASIA: PROFILE OF HOSPITALIZATIONS AND DEATHS IN MARANHÃO BETWEEN 2014 AND 2023**

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**INTRODUCTION:** Malignant bladder neoplasia is considered the eleventh most frequent cancer worldwide and the seventh most common in the male population. Its origin is multifactorial, depending on social, cultural, and economic variables that influence its prevalence. As a result, there are distinct patterns of incidence and mortality between regions. Therefore, this study aims to clarify the epidemiological profile of hospitalizations and deaths due to malignant bladder neoplasia in the state of Maranhão between 2014 and 2023. **METHODS:** This is an epidemiological, cross-sectional study, with data extracted from the SUS Hospital Information System (SIH/DATASUS), referring to the period from 2014 to 2023 in Maranhão. The variables used were sex, race, age group, hospitalizations, and deaths. Microsoft Excel 2019 was used for data tabulation and analysis. **RESULTS:** During the analyzed period, a total of 1,630 hospitalizations and 164 deaths due to malignant bladder neoplasia were detected in Maranhão. Notably, 2021 had the highest number of hospitalizations (216; 13.25%), while 2015 showed the lowest prevalence (128; 7.85%). Regarding deaths, 2022 stood out with 23 cases (14%), and 2014 had the lowest rate (10; 6.09%). Among the total hospitalizations, the male sex reported higher rates, with 1,125 cases (69.02%); the mixed-race group was the most frequent (890; 54.6%), with no reported cases among indigenous people. The most affected age group was 70 years or older, with the highest rate of hospitalizations (786; 48.22%), and the least affected was the under-19 age group (9; 0.55%). Regarding mortality, the male population was the most affected, with 116 cases (70.73%), as well as the mixed-race group, which accounted for 85 of the total deaths (51.8%), followed by the black population with 14 cases (8.5%), while the yellow race had the lowest rate (3; 1.8%). It was also found that the age group with the most deaths was 70 years or older (97; 59.1%), and the group with the fewest deaths was 19 years or younger, with no deaths recorded, while the 20 to 49-year-old group had the second-lowest rate (14; 8.53%). **CONCLUSION:** Therefore, this study highlights that the highest prevalence of hospitalizations and deaths due to malignant bladder neoplasia in Maranhão occurred in males, among the mixed-race population, and in the age group of 70 years or older. Additionally, it was observed that hospitalizations were more frequent in 2021, while mortality peaked in 2022.

**191. NEUROPSYCHIATRIC DIAGNOSES IN THE CHILD AND ADOLESCENT POPULATION**

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**INTRODUCTION:** Childhood neuropsychiatric disorders are highly relevant in Primary Health Care, requiring analysis of factors that affect fetal and child development. Understanding these conditions is crucial to improving intervention and informing families. This manuscript explores the main neuropsychiatric disorders in childhood, considering risk factors during pregnancy, care strategies in Primary Health Care, and the impact of technology and artificial intelligence on diagnosis and treatment. **METHODS:** This is an integrative literature review on neuropsychiatric disorders in children and adolescents, following six methodological steps: identifying the problem, searching scientific sources, collecting and categorizing results, evaluating and selecting articles, reading and interpreting the data, and synthesizing the text. The research utilized databases such as PubMed, Scielo, and BVS, with search terms including neuropsychiatry, autism, ADHD, and artificial intelligence. Original articles, reviews, recent studies, and documents from the Brazilian Psychiatric Association (ABP) and the Ministry of Health were selected, covering publications from 2019 to 2024. **RESULTS:** Pregnancy, although generally physiological, can present risks associated with maternal age, social context, health, lifestyle, and medication use, requiring specific care for both mother and fetus. Modern technology enables early evaluation of brain development, identifying abnormalities such as abnormal transcerebellar diameter and prenatal ventriculomegaly, which are associated with disorders like autism, ADHD, and schizophrenia. The main childhood neuropsychiatric disorders include ADHD, ASD, anxiety disorders, depression, and microcephaly, which significantly impact development and quality of life. Primary Health Care plays an essential role in prevention and in the training of health professionals. AI promises to revolutionize neuropsychiatry by improving diagnosis and treatment outcomes through the analysis of large datasets. **CONCLUSION:** Studies show that genetic and environmental factors, such as smoking and alcohol consumption during pregnancy, influence neuropsychiatric disorders. Premature births and low birth weight are associated with problems in neurological and psychiatric development in children. Collaboration between healthcare professionals is crucial for effective care. AI can improve the analysis of clinical data, early diagnosis, and the development of personalized treatments.



**192. NOTIFICATION FOR TUBERCULOSIS IN PERSONS DEPRIVED OF FREEDOM FROM 2019 TO 2023 IN MARANHÃO**Emmy Marjorie Carvalho de Araújo<sup>1</sup>; Klitia de Jesus Saraiva Garrido<sup>1</sup>.<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Tuberculosis is an infectious disease caused by the Mycobacterium Tuberculosis species complex, which mainly affects the lung parenchyma, although it can also cause extrapulmonary and systemic complications and hypersensitivity reactions. Its transmission is mainly horizontal, depending on direct interpersonal contact, through aerosol droplets. In this sense, given the form of contamination, the group of people deprived of liberty (PDL) is characterized as being at high risk for contracting the disease. Considering its impacts on quality of life and the current COVID-19 pandemic, the objective was to evaluate data regarding the diagnosis of tuberculosis in this group from 2019 to 2023. **METHODS:** This is an observational study, quantitative, retrospective and descriptive, in which the public database provided by the Notification Information System (SINAN/TabNet) was used, made available by the platform of the Department of Informatics of the Unified Health System (DATASUS), referring to Persons Deprived of Liberdade (PDL) diagnosed with Pulmonary Tuberculosis, from 2019 to 2023, in Maranhão. **RESULTS:** In the time period studied, there were a total of 11,944 cases of tuberculosis diagnosed in the specific group of PDL, with the highest isolated rate belonging to the year 2022, corresponding to 26% of cases (n = 3222). The pandemic period (2020 and 2021), in turn, corresponded to around 45% (n = 5435) of total cases. The lowest rate belongs to the year 2019, before the start of the COVID-19 outbreak, totaling around 22% (n = 2702) of cases. Until April 2023, 585 cases were recorded. **CONCLUSION:** The study demonstrates that the years corresponding to the pandemic are the main period of development and diagnosis of tuberculosis in this at-risk population, which suggests a strong correlation between the transmission of the disease and the state of abandonment and health risk of the prison system at the state level, especially when it comes to infectious diseases, caused by both the tuberculosis bacillus and the COVID-19 virus. Furthermore, a high rate of contagion was seen in the post-pandemic year (2022), which suggests that the worsening of this problem may also be a consequence of the challenges imposed by the pandemic period.

**193. NEW TEACHING METHODOLOGIES FOR IMMUNOLOGY IN MEDICAL SCHOOL: AN INTEGRATIVE REVIEW**Gabrielle Barbosa Ferreira<sup>1</sup>; Carlos Alberto Leite Filho<sup>1</sup>, Julia Fernanda Aguiar Santos<sup>1</sup>; Ana Gabriela da Silva Nascimento<sup>2</sup>, John Carlos Souza Leite<sup>3</sup>.<sup>1</sup> Federal University of Maranhão; <sup>2</sup> Faculty of Health Sciences Pitágoras - Codó; <sup>3</sup> State University of Ceará

**INTRODUCTION:** Immunology in medical education presents complex concepts that are often difficult to correlate with clinical manifestations. Additionally, it is considered an important yet challenging discipline, as students' main difficulties include vocabulary, identification of key areas, understanding of the pathogenesis of immunological diseases, clinical reasoning, and correlation of semiological findings. Thus, the objective of this study was to identify, in the scientific literature, new teaching methodologies for Immunology in medical education aimed at facilitating students' learning by exploring new available resources. **METHODS:** This is an integrative literature review on new teaching methodologies for Immunology in medical school between the years 2019 and 2023. For this purpose, the following descriptors were used: "Education, Medical", "Immunology", and "Teaching Methods", combined with the Boolean operator "and" in the Virtual Health Library (BVS) database. **RESULTS:** A total of 306 articles were found, of which 58 remained after applying the time frame and filtering for Portuguese, English, and Spanish languages. Subsequently, after reading the titles/abstracts and applying exclusion criteria, six articles remained, all of which were read in full and included in this review. In the selected articles, classroom experiments with active methodologies for teaching Immunology were conducted. The resources used included gamification (1), student-developed card games (1), realistic simulation (1), and case-based methodology (3). The main limitations regarding the research data were small sample sizes and single studies. In all studies, active methodologies were well-received by students, fostered better clinical reasoning, and generated increased interest in the subject. Additional advantages of the new methodologies mentioned were group work, stimulation of learning, active engagement, and problem-solving. Regarding the games and gamification, a practical, active, interdisciplinary, and enjoyable approach was reported. **CONCLUSION:** The new teaching approaches have proven to be useful tools for engaging medical students in more stages of active learning and consolidating knowledge in the subject of Immunology, presenting an alternative to be adopted by medical schools.

**194. NEW METHODOLOGIES FOR TEACHING SEMIOLOGY IN THE MEDICINE COURSE**

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**INTRODUCTION:** Medical Semiology consists of the study of the signs and symptoms of a given clinical condition. Teaching the subject is fundamental to the development of the ability of medical professionals to make informed therapeutic decisions. However, knowledge of the subject among undergraduate students has been shown to be deficient. This fact motivates the discussion about possible tools to improve the quality of teaching and learning. In this sense, the present work aims to highlight the new methodologies in the teaching of Medical Semiology in the Medical course.

**METHODS:** This is an integrative review of the literature on the new methodologies for teaching Semiology in the Medical course between the years 2019 to 2024. For this purpose, the following descriptors were used: "Education, Medical", "Semiology" and "Teaching Methods", crossed with the Boolean operator and in the Virtual Health Library (BVS) and Scientific Electronic Library Online (SCIELO) databases. **RESULTS:** The articles studied demonstrate that the practice of simulated clinical examination in healthy patients is important for the student to know how to identify pathological conditions, providing more confidence to the student when caring for a real patient. In addition, feedback from colleagues and a medical professional in the evaluation carried out during simulated clinical practice constitutes a useful tool, since it allows the university student to identify gaps present in their performance and learn from their mistakes. Nevertheless, resources such as active learning games were pointed out as interesting means. This is because a game to learn neurological syndromes proved to be efficient and attractive to students, when their knowledge was evaluated through a questionnaire before and after playing. Even so, the implementation of integrated teaching of Semiology with another discipline proved to be beneficial since, when sessions were held with the students to discuss cases with the inclusion of Radiology, for example, the method was considered overwhelming in terms of understanding the topics involved and the construction of clinical reasoning.

**CONCLUSION:** Therefore, these new methodologies can be considered an excellent learning alternative for medical school students when compared to traditional teaching and, therefore, facilitate learning of fundamental content during the academic journey.

**195. REEXPANSION PULMONARY EDEMA IN PLEURAL DISEASE: A SCIENTIFIC REVIEW**

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**INTRODUCTION:** Reexpansion Pulmonary Edema (REPE) is a potentially fatal clinical condition in which rapid reexpansion of the lung occurs after a previous collapse. The pathophysiology is uncertain and involves mechanisms such as increased hydrostatic pressure and changes in capillary permeability. The diagnosis occurs with a suggestive clinical picture and radiography. There is no specific treatment, and oxygenation, administration of diuretics and inotropic drugs should be used. The prognosis is poor and preventing the condition is ideal. This study provides a review of the literature on REPE, as it is little known in the medical field and urgently needs to be prevented and treated. **METHODS:** This is a systematic review of the literature on Reexpansion Pulmonary Edema with a search in the PubMed and Virtual Health Library databases between 2014 and 2024. The descriptor "reexpansion pulmonary edema" was used and the inclusion criteria were articles published between 2014 and 2024, in Portuguese and/or English. Incomplete articles, made on animals or that were duplicates were excluded. **RESULTS:** With the selection of 15 articles, it was found that REPE is a complication resulting from the rapid reexpansion of a previously collapsed lung. It occurs after 0.5% of chest drainages and has a mortality rate of 20%. The risk factors are age, large collapses, symptoms over 72 hours, rapid reexpansion and drainage with pressure below -20 centimeters of water. Symptoms are cough, dyspnea, chest pain, tachypnea, fever, tachycardia and cyanosis and radiography shows interstitial opacity, consolidations and air bronchogram. Treatment is done with discontinuation of the drainage procedure, mechanical ventilation, diuretics and inotropes. Prevention avoids catastrophic clinical courses. It is recommended to drain slowly and with a maximum of one and a half liters of fluids. If the patient begins to present a clinical picture suggestive of REPE, such as a coughing, the procedure should be stopped. **CONCLUSION:** REPE is a potentially fatal condition that occurs in individuals after chest drainage procedures. Although its pathophysiology is not fully understood, it is known that it can be prevented by draining little fluid and stopping as soon as the patient shows any symptoms. If it evolves with REPE, a radiography should be taken and supportive treatment started.

**196. NON-PHARMACOLOGICAL MANAGEMENT AS A THERAPEUTIC APPROACH IN THE TREATMENT OF OSTEOPOROSIS**

Paula Renata Rodrigues Ortega Mello<sup>1</sup>, Pamela Carolinny Coelho da Silva Costa<sup>1</sup>, Victoria Lis Reis<sup>1</sup>, Luis Eduardo Gonçalves Soares<sup>1</sup>, Tayanne Regina da Silva Costa<sup>1</sup>, Laura Beatriz Gonçalves Oliveira<sup>1</sup>, Italo Nordman Araujo Lima<sup>1</sup>.

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**INTRODUCTION:** Osteoporosis is a common skeletal disease characterized by reduced bone mineral density and deterioration of bone tissue, leading to an increased risk of fractures. It is a bone disease that affects many individuals, particularly older adults and postmenopausal women. Several non-drug techniques, such as exercise therapy, aquatic therapy, electrical and electromagnetic stimulation, have shown effectiveness in reducing the risk of osteoporosis and its complications by improving bone metabolism. This study aims to elucidate the benefits and potential of non-pharmacological approaches through non-drug methods, highlighting the need for further research to determine their efficacy and their role in the comprehensive management of osteoporosis. **METHODS:** This is an integrative literature review, utilizing 15 scientific articles published between 2019 and 2024, based on data from "PubMed," "SciELO," "Journal of Osteoporosis," "Arquivos de Osteoporose," and the "Journal of Physical Therapy Science" in English and Portuguese, using the descriptors "osteoporosis," "non-pharmacological management," "interventions," and "therapeutics". **RESULTS:** The study suggests that expanding the scope and increasing the validity of these methods for clinical use holds significant promise in the treatment of osteoporosis. Several non-pharmacological approaches have been found to be effective in improving bone metabolism and reducing the risk of osteoporosis and its complications. Exercise therapy was highlighted as a key intervention with significant potential to enhance bone health. Aquatic therapy, electrical stimulation, and electromagnetic therapy were also explored for their effects on bone metabolism, showing promising results in improving bone tissue condition and musculoskeletal health, potentially contributing to the management of osteoporosis. **CONCLUSION:** Thus, this study highlights the potential of non-drug methods to complement traditional treatments for osteoporosis, providing a holistic approach to managing and preventing this condition by improving bone metabolism and reducing the risk of fractures. The results indicate that non-pharmacological management plays a crucial role, as it decreases bone density loss, as seen in several studies involving exercise therapy, aquatic therapy, and other key interventions in the treatment of this condition.

**197. DEATHS FROM LIVER AND INTRAHEPATIC BILE DUCT CANCER IN MARANHÃO FROM 2000 TO 2022**

Brially Maria Lopes da Silva<sup>1</sup>, Filipe Rainan Costa Silva<sup>1</sup>, Ivana Louise da Silva Martins<sup>1</sup>, Lara Luiza Pitombeira Rocha<sup>1</sup>, Sara Raquel Ribeiro Pires<sup>1</sup>, Ozimo Pereira Gama Filho<sup>1</sup>.

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**INTRODUCTION:** Neoplasms of the liver and intrahepatic bile ducts represent the second leading cause of cancer deaths in the world. Associated risk factors include, for example, exposure to aflatoxin in the diet, fatty liver disease, alcohol-induced cirrhosis, and chronic infection with hepatitis B virus (HBV) and hepatitis C virus (HCV). Hepatocellular carcinoma represents up to 85% of primary liver neoplasms, cholangiocarcinoma up to 15% and more uncommon tumors, such as primary hepatic lymphoma, the remaining 5%. Curative surgical intervention is limited to a minority of cases. Thus, the present study aims to evaluate data relating to mortality due to this disease in Maranhão from 2000 to 2022. **METHODS:** This is an epidemiological, cross-sectional, retrospective, descriptive, quantitative study, based on secondary data available in the Department of Informatics of the Unified Health System (DATASUS) on mortality due to malignant neoplasm of the liver and intrahepatic bile ducts in the state of Maranhão from 2000 to 2022. The variables analyzed were "year", "sex", "age group", "education", "race", "place of occurrence" and "marital status". **RESULTS:** 4,857 deaths from malignant neoplasms of the liver and intrahepatic bile ducts were recorded in Maranhão during the period analyzed. The years 2017, 2019 and 2020 had the highest number of records (n=310 each), while 2000 (n=72) and 2002 (n=73) had the lowest number of records. Males predominated, with 53.4% of cases (n = 2,593), while females accounted for 46.6% (n = 2,264). The predominant age group was 60 to 69 years old, with 26% (n=1265) of deaths, and individuals with no education and of mixed race had the highest number of records, with 32.6% (n=1582) and 62.3% (n=3026), respectively. Regarding the place of death, approximately 58% (n = 2,812) occurred in a hospital and 39% (n = 1,896) at home. As for marital status, married people prevailed, with around 57% (n=2288), while individuals legally separated were the minority of deaths (n=123). **CONCLUSION:** It is concluded that mortality due to liver and intra-bile duct neoplasms liver disease is prevalent in male individuals, of mixed race, with no education, married and aged between 60 and 69 years. The prevalence in this age group and level of education is related to risk factors associated with aging, such as the onset of chronic diseases, and low health education, which generally corroborates late diagnosis, respectively.

**198. DEATHS FROM DISEASES CAUSED BY THE HUMAN IMMUNODEFICIENCY VIRUS IN BRAZIL BETWEEN 2013 TO 2022**

Fernanda Diógenes Ferreira<sup>1</sup>, José Carlos Gomes Patriota Neto<sup>1</sup>, Flávia Rafaela Diógenes Ferreira<sup>1</sup>, Ana Luísa Penha Castro Marques<sup>1</sup>, Tassy Jordana Coqueiro Batalha<sup>1</sup>, João Marcos Cordeiro Ribeiro Filho<sup>1</sup>, Consuelo Penha Castro Marques<sup>1</sup>.

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**INTRODUCTION:** The human immunodeficiency virus (HIV) attacks the immune system, specifically CD4 cells, and is responsible for acquired immunodeficiency syndrome (AIDS) if not properly treated. HIV is transmitted through contact with bodily fluids from infected individuals, such as blood, breast milk, semen, and vaginal fluids. It is important to highlight that this disease has no cure, and when CD4 levels are low, affected individuals are more susceptible to acquiring opportunistic infections, which can lead to death. Furthermore, this study aims to examine the epidemiology of deaths from opportunistic infections in patients with HIV between 2013 and 2022. **METHODS:** This is an epidemiological, ecological study covering the years 2013 to 2022, with secondary data obtained through TABNET/DATASUS, without the need for approval by a research ethics committee. The study variables are: year, region, sex, age group, race/ethnicity, education level, marital status, and place of death. **RESULTS:** During the study period, there were 84,498 deaths from opportunistic infections in patients with HIV, with men comprising the majority (n=56,638), predominantly in the Southeast region (n=35,231), and in the age groups of 40 to 49 years (n=24,204), followed by those aged 30 to 39 years (n=22,739). The majority of deaths occurred among individuals of mixed race (n=37,266) and white individuals (n=31,935). Additionally, deaths were higher among patients with 4 to 7 years of education (n=21,551), significantly higher among single individuals (n=51,816), and primarily occurred in hospital settings (n=75,885), followed by other healthcare facilities (n=5,180). **CONCLUSION:** The data indicate a high incidence of deaths from opportunistic infections in patients with HIV, particularly affecting men, individuals in the Southeast region, those aged 40 to 49 years, of mixed race, with 4 to 7 years of schooling, and single individuals in hospital settings. This reality underscores the urgent need for public health actions aimed at preventing both HIV and opportunistic infections in HIV-positive patients, focusing on the most vulnerable groups through health education and early identification of signs and symptoms of opportunistic infections.

**199. DEATHS DUE TO CONGENITAL MALFORMATIONS OF THE NERVOUS SYSTEM IN THE STATE OF MARANHÃO**

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**INTRODUCTION:** Anomalies may happen in different systems of the human body, including the nervous system. It manifests as malformations of the brain, spinal cord, or peripheral nerves, with an emphasis on neural tube defects, which encompass a range of conditions: spina bifida, anencephaly, encephalocele, myelomeningocele, and others. There are also conditions not derived from neural tube defects, such as hydrocephalus and microcephaly. Given this wide range of conditions, many of which are often incompatible with life, the present study aims to investigate and define the epidemiological profile of deaths due to congenital malformations of the nervous system in the state of Maranhão. **METHODS:** This is a descriptive and retrospective epidemiological study using secondary data from the Department of Informatics of the Unified Health System (DATASUS). The variables analyzed were: number of deaths, congenital malformations of the nervous system ICD-10 (Q00 to Q07), age group, sex, ethnicity, macro-region, and micro-region of health between the years 2012 and 2022. The 'Google Sheets' application was used for data tabulation and analysis. **RESULTS:** There were 799 deaths due to congenital malformations of the nervous system in Maranhão between 2012 and 2022, with an average of 80 deaths per year. The most affected age group was 0 to 1 year, totaling 616 deaths (77.09%), of which 366 (45.81%) occurred in the first week of life. In the age group of 1 to 4 years, 75 (9.38%) deaths were recorded, and in the age group of 5 to 9 years, there were 29 (3.62%) deaths. There were 398 (49.81%) deaths among males and 394 (49.31%) among females, showing no significant disparities. In terms of ethnicity, 514 were mixed-race (64.33%), 157 (16.64%) were white, and 101 (12.64%) had no ethnicity recorded. The northern macro-region recorded the majority of deaths, totaling 443 (55.44%), followed by the eastern macro-region with 207 (25.90%), and finally the southern macro-region with 146 (18.27%). The three micro-regions with the highest number of deaths were the São Luís Urban Agglomeration, with 186 (23.27%) deaths, Caxias, with 76 (9.51%) deaths, and Pindaré, with 69 (8.63%) recorded deaths. **CONCLUSION:** The analysis of deaths due to congenital malformations of the nervous system in Maranhão between 2012 and 2022 reveals a high prevalence in children under 1 year of age, especially in the first week of life, with a higher incidence among mixed-race individuals and in the northern macro-region. The distribution by sex is balanced, with no significant disparities.

**200. DEATHS FROM PNEUMONIA IN BRAZIL BETWEEN 2013 TO 2022**

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**INTRODUCTION:** Pneumonia is an inflammatory disease that affects the lungs and can be caused by bacteria, viruses, fungi, and toxic substances. Its symptoms include cough, fever, dyspnea, and chest pain, impairing the quality of life of affected patients, in addition to leading to high hospital costs, thus representing a serious public health issue. In this context, the present study aims to examine the epidemiology of deaths from pneumonia in Brazil from 2013 to 2022. **METHODS:** This is an epidemiological, ecological, time-series study covering the years 2013 to 2022, using secondary data extracted from TABNET/DATASUS, which does not require approval from a research ethics committee. The variables studied were: year, region, sex, age group, race/ethnicity, education level, marital status, and place of death. **RESULTS:** A total of 760,904 deaths from pneumonia were reported in Brazil during the study period, demonstrating an increasing trend over the years, except in 2020 and 2021. The region with the highest occurrence was the Southeast (n=407,847), followed by the Northeast (n=168,506). Regarding gender, females predominated, representing 50.5% (n=384,276). The majority of deaths occurred in age groups over 60 years of age (n=634,622). In terms of race/ethnicity, white individuals (n=439,475) were followed by mixed-race individuals (n=237,018). Most of the deceased had 1 to 3 years of education (n=186,922). Marital status data revealed a predominance of widowed individuals (n=266,682). The majority of deaths occurred in hospitals (n=638,759), followed by homes (n=59,562). **CONCLUSION:** The data reveal an alarming scenario regarding pneumonia, with a growing increase in deaths over these years, concentrated in the Southeast region, with a higher prevalence among females, particularly in individuals over 60 years old, of white race/ethnicity, with low education, and among widowed individuals. Most deaths occurred in hospitals, highlighting the severity of the condition and the serious public health problem this scenario presents. Therefore, this situation emphasizes the need for public health strategies targeting these most vulnerable groups, as well as the entire population, focusing on health education as a form of prevention and early identification of pneumonia symptoms, aiming to expand public policies that monitor pneumonia epidemics, implement preventive measures, establish early diagnosis, and create care and treatment protocols to reduce pneumonia-related deaths in Brazil.

**201. ORGAN TISSUE AND CELL TRANSPLANTS, IN THE NORTHEAST, FROM 2014 TO 2023**

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**INTRODUCTION:** Organ, tissue and cell transplantation (TOTC) is considered an advance in Medicine, however, even with this advance, this method presents risks, such as body rejection and resistance from citizens. Currently, there is great success with this procedure, which still faces challenges of patient resistance. Treating these challenges is demanding, complex and requires adequate professional training, since pre-operative and post-operative monitoring, both physical and psychological, is crucial for the good result and patient adherence to the procedure, therefore it is important that we study this procedure to better understand these difficulties and needs. Given this condition, the objective of this study was to study the epidemiological profile of organ, tissue and cell transplants in the Northeast in the last decade. **METHODS:** Epidemiological, ecological cross-sectional study, with secondary data from TABNET-DATASUS (Hospital Information System-SIH-SUS), time series: 2014 to 2023. The data extracted from DATASUS were tabulated in EXCEL spreadsheets, where they were graphs and tables were drawn up and explained in absolute numbers and frequencies. **RESULTS:** n=133606 hospitalizations were carried out, transplants showed an increasing trend until 2019, decreasing in 2020 and with a return to growth in 2021, maintaining an increasing trend until 2023. The total amount spent on such procedures was n= r\$1133825984,22; with average value=r\$8486.34; average days of stay: n=5.9; deaths: n=1991; mortality rate: n=1.49; Federation Unit: Pernambuco: n=62116 highest number and lowest number in Sergipe: n=1678. **CONCLUSION:** Organ and tissue transplantation is often crucial and used for the patient as a last attempt to assist life. Therefore, it is essential that there is training for the appropriate qualification of health professionals to deal with such situations, in addition to a greater dissemination of information about such processes, aiming to alleviate the general view of the risks and highlight their benefits and, thus, mitigate the common sense.



**202. OSTEOMYELITIS IN BRAZIL AND ITS HOSPITAL MORBIDITY AND MORTALITY**

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**INTRODUCTION:** Osteomyelitis is an infectious inflammatory disease of chronic or acute nature that affects bone tissue, caused by the invasion of viruses, bacteria or fungi, through the exposure of injured skin tissue, by conventional trauma or post-surgical procedure, spreading through the systems and lodging in the bone, which can lead to necrosis. It presents high morbidity and mortality, with complex therapeutic management. Therefore, the objective of this study was to investigate the morbidity and mortality due to osteomyelitis in Brazil. **METHODS:** This is an epidemiological, ecological, quantitative, descriptive and cross-sectional study, with secondary data from the SUS Hospital Information System/SIH-SUS (TABNET/DATASUS), time series (2014 to 2023), on ICD-10-M86: Osteomyelitis, with the following variables: region, year, hospitalizations, race, sex, amount spent, average number of days of stay, deaths, mortality rate. The data were tabulated in Excel, and graphs and tables were prepared, with results expressed in absolute numbers and frequencies. This research does not require submission/approval by a Research Ethics Committee, as it uses secondary data from DATASUS. **RESULTS:** There were n=149,183 hospitalizations due to this pathology during the study period, with a predominance in the Southeast region (39%), followed by the Northeast region (29%) and the North region had fewer hospitalizations (6%). Males represented 71% of the sample. Regarding race, it was more frequent in browns (43%), followed by whites (31%), with variability in hospitalizations by race, between the regions. The total amount spent during the period was R\$167,977,258.48. With an average number of days of stay n=8.5, the Southeast exceeded this average number of days of hospitalization n=9.6. There were n=1,970, with more deaths in the Southeast, which also had a higher mortality rate, with n=1.67, while in Brazil, the average hospital mortality rate: n=1.32. **CONCLUSION:** There were a high number of hospitalizations due to osteomyelitis in Brazil, with high costs, many days of hospitalization and some deaths. There were more hospitalizations, a higher average number of days and a higher mortality rate in the southeast. Males were more affected and mixed race and white people were more affected. It is considered highly important that these infections be better diagnosed and treated while still in the less severe phase in outpatient settings, and thus prevent hospitalizations and deaths through early treatment, with better established care and antibiotic therapy protocols.

**203. OSTEOSARCOMAS AND CHONDROSARCOMAS: TIME DIAGNOSIS-TREATMENT IN MARANHÃO FROM 2019 TO 2023**

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**INTRODUCTION:** Osteosarcomas are malignant neoplasms that affect the bones, being the most common primary bone tumor in children and adults. Chondrosarcomas are cancers that produce cartilage cells and occur mostly in adults. In addition to being discovered in the early stages, they are usually low-grade. Their development can occur in any articular cartilage in the body. Thus, the present study aims to analyze the evolution of the waiting time to start treatment after the diagnosis of malignant neoplasm. **METHODS:** The study is of the cross-sectional observational analytical type, using data from the DATASUS Oncology Panel for all individuals registered between the years 2019 and 2023, considering the time interval in days between the diagnosis and the first registered treatment for the International Statistical Classification of Diseases and Related Health Problems (ICD) grouping ICDs C40 and C41. We used RStudio 2024.04.1 software for data analysis, describing the median and interquartile range (IQR) as representative measures because the data have an abnormal distribution according to the Shapiro-Wilk test. **RESULTS:** In 2019, the median number of days waiting between diagnosis and start of treatment was 27 days (IQR: 1 - 54), in 63 patients. From 2020 to 2023, there was a fluctuation in the median number of days waiting, without following a trend towards stability. In 2020, the median was 18.5 days (IQR: 0 - 93), in 48 patients. In 2021, 20 days were recorded (IQR: 0 - 59), with 52 patients analyzed. In 2022, there was a decrease with 13 days (IQR: 0 - 34) recorded in 51 patients. In 2023, the median was 22 days (IQR: 0 - 39) in 55 patients. **CONCLUSION:** Despite variations in the period, the 60-day law, which establishes the 60-day limit, was complied with according to the data analyzed by the dispersion of the time medians. The data should be analyzed with caution since an increase in the time between diagnosis and treatment of the studied diseases would be expected due to the occurrence of the COVID-19 pandemic.

**204. OUTCOMES OF INDUCED HYPOTHERMIA USE IN PATIENTS WITH TRAUMATIC BRAIN INJURY**

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**INTRODUCTION:** Traumatic brain injury (TBI) is characterized by lesions caused by external forces to the skull, resulting in neurological impairment. Induced hypothermia (IH) is an alternative to minimize secondary complications. This type of trauma primarily affects young men, but mortality is higher among the elderly. Such a scenario demands significant public health spending on initial treatment and care for sequelae. Therefore, this study aims to gather evidence related to the outcomes of using IH as a treatment for TBI. **METHODS:** This is an integrative review developed based on a research question using the PICO strategy - "Patient, Intervention, Comparison, and Outcome." A search was then conducted in the PubMed database using the descriptors "Brain Injuries," "Traumatic," and "Hypothermia," with the boolean operator AND, followed by reading the selected articles and organizing the results. Studies available electronically and written in English, with titles and abstracts relating TBI with IH, were included. Among the 46 articles, 36 were excluded after applying the selection criteria, and 10 were reviewed. **RESULTS:** A systematic review conducted in the United Kingdom found no significant difference in mortality with the use of IH in TBI victims, although older studies suggested efficacy. A multicenter randomized clinical trial in Australia found no benefits in IH treatment either. A 2017 meta-analysis revealed that IH showed benefits in TBI. On the other hand, a 2019 Chinese study found no significant difference in mortality rate but considered that mild IH could be beneficial for neurological recovery, while a 2020 study did not support the use of IH for neurological protection but suggested its effectiveness in reducing intracranial pressure (ICP). IH may be harmful in less severe injuries and offers no benefits in more severe cases; despite improving neurological outcomes, the benefits of IH concerning mortality were not statistically significant. **CONCLUSION:** It is concluded that the effectiveness of IH in TBI varies depending on factors such as severity and duration of exposure, and it may bring benefits in reducing ICP. However, most studies do not find a significant difference in mortality and suggest an increased risk of sepsis and pneumonia. Therefore, the decision to use IH in TBI treatment should be carefully evaluated, considering the potential risks and benefits for each specific case.

**205. SCIENTIFIC LANDSCAPE OF CARDIOVASCULAR SURGERY IN BRAZIL: A BIBLIOMETRIC ANALYSIS**

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**INTRODUCTION:** Cardiovascular surgery in Brazil began in the 1950s and 1960s. Since then, conducting studies for the development of this field has become essential. However, there is still a scarcity of research that evaluates Brazilian academic contributions in this area. Bibliometric analysis is used to map the development of research in various contexts. Therefore, this study aims to examine Brazilian contributions to understand the real impact of national publications in international journals in the field of cardiac surgery. **METHODS:** For the article search, the Scopus database (Elsevier) was used. The five journals with the highest CiteScore in cardiovascular surgery were analyzed. Regarding the variables, the average number of publications over the last two decades, the total number of publications, and the percentage of Brazilian publications in comparison to the global landscape were assessed. **RESULTS:** During the study period, 325 publications from Brazil were identified. It was found that there was an average of 1.92 articles per year between 2004 and 2013, and 2.4 between 2014 and 2023. Additionally, it was observed that articles with Brazilian contributions represent approximately 0.52% of the total publications. **CONCLUSION:** The study highlights a modest increase in Brazilian publications in cardiac surgery over the past two decades, from 1.92 to 2.4 articles per year. However, Brazil's contribution remains limited, accounting for only 0.52% of global publications. Therefore, this underscores the need for effective strategies to encourage scientific production and research dissemination in Brazil, such as funding programs, international collaboration, and the promotion of research within medical institutions.

**206. PANORAMA OF PERIPHERAL NERVE NEUROLYSIS USAGE IN NORTHEAST REGION, BRAZIL, FROM 2014 TO 2023**

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<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Leprosy, caused by *Mycobacterium leprae*, affects the skin and nerves. The pathogen is phagocytosed by macrophages or binds to Schwann cells, leading to neuritis, which causes pain due to neural compression. Corticosteroid therapy is the primary treatment for compression, but neurolysis (NL) can be used as a complementary therapy. Neural decompression helps preserve function, improves vascularization, and prevents neurological damage. Given the importance of the procedure, this study aims to provide a temporal analysis of neurolysis performed in the Northeast region, Brazil, from 2014 to 2023. **METHODS:** This is an epidemiological and cross-sectional study with a temporal series, using data from the Department of Informatics of the Unified Health System (SUS) for the period from January 2014 to December 2023. The inquiry was conducted under the "Hospital Production" section of the Hospital Information System of SUS, based on the location of hospitalization. The procedure specified was "non-functional neurolysis of peripheral nerves." The variables considered were "Year of Care," "Hospitalizations," "Deaths," and "Mortality Rate". **RESULTS:** A total of 4,281 hospitalizations for non-functional neurolysis (NL) were recorded in the Northeast (NE) from January 2014 to December 2023, representing 11.32% of the national total. Bahia had the highest number of procedures (n=1,550 - 36.2%), while Sergipe had the lowest (n=17 - 0.4%). In the temporal analysis, 2019 recorded the highest number of NL cases (648), followed by a 65.3% decline in 2020 (225). NL showed a low mortality rate (0.14%), with 6 deaths: 2 in Maranhão (MA) and 4 in Ceará. The average length of stay was positive, averaging 1 day of hospitalization. Maranhão, the state with the highest number of leprosy cases in the region (n=35,198 - 27.7%) according to the Notification of Diseases Information System (SINAN), recorded 525 NL procedures during the study period, with 272 in São Luís, 233 in Pinheiro, and 20 cases distributed throughout the state. **CONCLUSION:** These data indicate that non-functional neurolysis has good distribution and acceptance in the Northeast region. The low mortality rate and short duration of hospitalizations reinforce the viability of this procedure compared to other therapeutic options. It is important to note that, due to national leprosy control programs, an increase in the number of cases and reported procedures is expected in the coming years.

**207. OVERVIEW OF LIVE BIRTHS ACCORDING TO ROBSON CLASSIFICATION GROUPS FROM 2019 TO 2023**

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**INTRODUCTION:** The international health community has considered an ideal cesarean section rate to be between 10%-15% of all births. In Brazil, the total number of cesarean sections in the public health system is estimated at 52%. In this context, around one million women undergo cesarean sections annually without obstetric indication. The Robson Classification is an auxiliary tool in reducing cesarean section rates. Thus, this study aimed to analyze the panorama of live births according to the Robson group classification between the years 2019 and 2023 in the state of Maranhão (MA).. **METHODS:** This is a descriptive epidemiological study based on data made available by the Department of Informatics of the Unified Health System (DATASUS). The study population consists of live births according to the Epidemiological Risk Classification (Robson Groups) in the state of Maranhão (MA), reported between 2019 and 2023. **RESULTS:** The year 2019 had the highest number of cesarean sections (56,624), and Group 5 (G5) recorded the most cesarean sections (87,417). Regarding the cesarean rate relative to total births, there was an increase of 7.46%. Additionally, Group 9 (G9) had the highest average rate (98.40%). Furthermore, in terms of live births through cesarean sections, 2019 had the highest figure (113,317), followed by decreases in the following years, with 2023 showing the lowest number of cases (97,008). It is also noteworthy that Group 3 (G3) had the highest rate and best proportion of live births (143,240), despite not being the group most subjected to cesarean delivery, which was G5, with the third highest number of live births by cesarean sections (104,039), while G9 (1,893) showed the lowest number of notifications throughout the study period. **CONCLUSION:** The results indicate an increase in cesarean section rates. G5 had the highest number of cesareans, reflecting the high rate of operative deliveries in women with previous cesarean sections, while G3 had the highest proportion of live births. Additionally, it is noted that the cesarean rate is disproportionately high in certain groups, such as G9. These findings require greater attention and monitoring of certain groups to promote safe vaginal deliveries and reduce unnecessary cesarean sections. In summary, the application of the Robson Classification has proven to be a useful tool for assessing and comparing cesarean rates, providing a basis for future interventions aimed at improving obstetric care in MA.

**208. EPIDEMIOLOGICAL OVERVIEW OF RSI/WMSD IN THE STATE OF MARANHÃO BETWEEN 2010 AND 2023**Mariana Clara Borges da Silva<sup>1</sup>, Beatriz Cardoso Ferreira<sup>1</sup>, Isaías Borges Telles<sup>1</sup>.<sup>1</sup> State University of the Tocantina Region of Maranhão

**INTRODUCTION:** Repetitive Strain Injuries and Work-Related Musculoskeletal Disorders (RSI/WMSDs) represent a vast set of musculoskeletal conditions resulting from strenuous use of the structure, which can cause debilitating consequences, such as fatigue, pain and paresthesia. Among the pathologies caused by these conditions, the main ones are tendonitis, myalgia and low back pain. In addition to impacting the well-being and quality of life of professionals, they also promote negative results in the occupational environment. **METHODS:** This study represents a quantitative, retrospective and descriptive analysis, and the data were collected by the Notifiable Diseases Information System (SINAN/SUS) of the Department of Information Technology of the Unified Health System (DATASUS). Thus, data were collected from the state of Maranhão, from 2010 to 2023, on: health macro-regions, gender, occupation, number of absences, as well as signs and symptoms. **RESULTS:** During the proposed period, 144 cases of RSI/WMSD were reported in Maranhão, mostly affecting females, with 70.14% of the population affected. In this context, most of the notifications occurred in the South macro-region, with 51.47% of the cases; more specifically, the city of Imperatriz had the highest number of notifications (41.18%). Regarding the type of occupation, the most affected were nursing technicians, accounting for only 9.15% of the cases, among a range of more than 50 professions. Another important factor is that 50% of the impacted professionals needed to be absent, which resulted in consequences such as pain, decreased strength and movement. **CONCLUSION:** Therefore, RSI/WMSDs represent a problem for public health in Maranhão. Thus, the high number of cases in Imperatriz can be correlated with the presence of the Occupational Health Reference Center, which favors more notifications, as it specifically monitors the work environment, as well as a possible underreporting in cities that also have this service, such as São Luís. Furthermore, a greater impact on the health area is evident, in addition to a major impact on productivity, regarding high rates of absences. Therefore, interventions in the logistics of the work environment are essential, with reduced working hours, more frequent breaks and assistance from a multidisciplinary team to guarantee full health for workers and prevent injuries, reflecting in better work results.

**209. PEMPHIGUS DEATHS IN BRAZIL IN 2 DECADES**Ana Luísa Penha Castro Marques<sup>1</sup>, José Carlos Gomes Patriota Neto<sup>1</sup>, Fernanda Diógenes Ferreira<sup>1</sup>, João Marcos Cordeiro Ribeiro Filho<sup>1</sup>, Flávia Rafaela Diógenes Ferreira<sup>1</sup>, Tassya Jordana Coqueiro Batalha<sup>1</sup>, Consuelo Penha Castro Marques<sup>1</sup>.<sup>1</sup> Federal University of Maranhão

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**INTRODUCTION:** Pemphigus is classified as a rare and sometimes fatal autoimmune disease in which the body itself gathers defense cells to attack the desmoglein (Dsg) proteins, responsible for adhesion between the layers of the skin, causing acantholysis. It usually manifests initially in the oral cavity, later progressing to the skin of other regions of the body. Given the risk and difficulty in diagnosing this pathology, the objective of this study was to study the epidemiological profile of mortality due to pemphigus in Brazil, from 2000 to 2020. **METHODS:** An epidemiological, descriptive-analytical study was carried out with secondary data from TABNET-DATASUS - Ministry of Health-Brazil. Such data do not require submission/approval by a research ethics committee because it is an official and public database that does not allow access to individual information, only population information. The collected data were tabulated in Excel and the results presented in graphs and tables and expressed in absolute numbers and frequencies. **RESULTS:** There were n = 1511 deaths from this pathology over the 20 years of study, showing an increasing trend until 2018, with some decreases throughout the period and showing a decreasing trend in 2019 and, shortly thereafter, an increase in 2020. The year 2015 had the highest number of deaths n = 116. The region with the highest mortality was the Southeast with 46% of deaths; the most affected sex was female with 59%; the age group with the most deaths was 80 years or older with 29%; the most affected color/race was white with 52.2%; schooling with 12 years or more had fewer deaths (4%); marital status, preferably affected, married (34%); place of occurrence: hospital (84%). **CONCLUSION:** Although pemphigus is a rare, treatable disease with low lethality, a significant number of deaths from pemphigus have occurred in Brazil during these decades, even though it is easily treated (with corticosteroids and other medications). This mortality rate is increasing and is a serious problem, especially in the Southeast and Northeast of the country, predominantly in women, between 40 and 80 years of age, in whites, with little or no education, mostly among married people, with the place of death being in a hospital environment. Therefore, these deaths indicate the need for improved diagnosis and early treatment to inhibit mortality from pemphigus in Brazil.

**210. PENILE CANCER: ANALYSIS OF INFILTRATING CELLS IN TUMOR AND PERIPHERAL BLOOD**

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**INTRODUCTION:** Penile Cancer (PC) in Brazil represents 2% of the tumors that affect the male population, which makes the country the second with the highest frequency of this type of neoplasm in the Global Ranking. The North and the Northeast present the highest incidence rates. The state of Maranhão holds around 10.6% of registered Brazilian cases, which determines the importance of expanding PC studies in the state. Therefore, the study aims to analyze the influence of the immunological response in tumor samples and peripheral blood from patients with PC. **METHODS:** This is an experimental, translational study with a convenience sample. Nineteen male patients with penile cancer, candidates for penectomy, treated at a referral oncology hospital in the state of Maranhão, were included. The tumors collected were maintained in RPMI culture medium with antibiotics at 4°C and analyzed via flow cytometry. The study was approved by the Ethics and Research Committee under opinion no. CAAE: 1.308.275. Data were analyzed using GraphPad Prism 8 software for mean, proportion, and lymphocyte distribution. **RESULTS:** T lymphocytes (CD3+) represent the most infiltrated immune cells in the tumor, with an average of 54.52% ± 21.12%. The proportion of B lymphocytes (CD19+) ranged from 6.11% ± 14% of the total found in the tumor fragment. Natural Killer cells (CD56+) showed the most homogeneous distribution across all tumors analyzed, followed by monocytes (CD14+), with lower frequency. In the blood samples from the patients, significant amounts of monocytes and circulating lymphocytes were identified; however, few patients presented both monocytes and lymphocytes concomitantly. Of the 17 samples, only 2 showed monocyte markers, while the other 15 had a high prevalence of lymphocytes, representing 81.2% of the mononuclear cells present in the sample. The expression of CD3+, CD4+, and CD8- lymphocytes was identified, and the expression of PD1/PDL1 receptors was evaluated, showing a variation of 30.7% to 96.3% in certain patients. **CONCLUSION:** Several populations of immune cells were identified infiltrating the tumor tissue, as well as the presence of circulating lymphocytes and monocytes in the patients' peripheral blood. Additionally, the CD3+ and CD4+ populations showed PD1 receptor expression. These observations are important for identifying response and prognosis in penile cancer treatments.

**211. CLINICAL PROFILE OF PATIENTS AFFECTED BY ACUTE INFLAMMATORY ABDOMEN IN MARANHÃO**

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**INTRODUCTION:** The inflammatory acute abdomen is the most common type of acute abdomen in the emergency setting and is characterized by its sudden onset, with the main manifestation being abdominal pain associated with symptoms such as nausea, vomiting, fever, and reduced appetite. Its primary etiology is acute appendicitis, followed by cholecystitis, diverticulitis, and acute pancreatitis, and it generally requires surgical treatment. Therefore, this study aims to analyze data on the clinical profile of patients with this condition in Maranhão to identify possible regional patterns and thus contribute to reducing morbidity and mortality from this pathology. **METHODS:** This is a systematic review conducted through the databases: National Library of Medicine (PubMed), Google Scholar, and Scientific Electronic Library Online (SciELO). Inclusion criteria involved articles published between 2015 and 2024 in Portuguese, English, and Spanish that addressed clinical and epidemiological aspects of this condition. Six articles were used with the descriptors "Clinical Profile," "Inflammatory Acute Abdomen," and "Maranhão". **RESULTS:** The inflammatory acute abdomen in Maranhão predominantly affects male patients (61.68%), with appendicitis being the most common etiology (86.41%). The majority of cases occur in the second decade of life—ages 11 to 20 years (25.52%); the predominant outcome was hospital discharge (90.07%), and the case fatality rate was 2.66%. The main complications were of infectious etiology (7.59%), with surgical site infections and abscesses having the highest relative frequency (7.04%). Other diagnoses included intraperitoneal abscesses (8.99%), infection from previous abdominal surgery (4.15%), acute cholecystitis (3.46%), pelvic inflammatory disease (2.19%), diverticulitis (1.15%), and pyelonephritis (0.69%). Patients from São Luís accounted for 55.17%, while 44.6% were from the interior of the state, and only one patient was from another state in Brazil (0.23%). **CONCLUSION:** It is concluded that the inflammatory acute abdomen in Maranhão mainly affects young men, with appendicitis being the principal diagnosis. Furthermore, most cases occur in São Luís, with a case fatality rate of 2.66%. Infectious complications were common, highlighting the need for better infection control. Therefore, future studies should focus on reducing these complications to improve clinical outcomes for this comorbidity in the state.



**212. CLINICAL-EPIDEMIOLOGICAL PROFILE OF PATIENTS WITH AMERICAN TEGUMENTARY LEISHMANIASIS**

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**INTRODUCTION:** American Tegumentary Leishmaniasis (ATL) is an infectious disease that causes ulcers on the skin and mucous membranes. It is an anthroponosis caused by several species of protozoa of the genus *Leishmania*, transmitted by the bite of different species of sandflies. It is considered by the World Health Organization (WHO) to be one of the six most important infectious diseases in the world, with an average of around 21,000 cases per year in Brazil. Therefore, the aim of this study is to outline the clinical and epidemiological profile of patients with ATL in the health region of Imperatriz-MA. **METHODS:** This was a retrospective, cross-sectional, quantitative survey with an analytical descriptive approach. Clinical and epidemiological data from 86 patients living and/or belonging to municipalities in the Imperatriz-MA Health Macroregion was evaluated between January 2018 and July 2019. Data was tabulated and analyzed using Microsoft Excel 2016 and IBM SPSS 20. In addition, the study was submitted to and approved by the Research Ethics Committee of Plataforma Brasil (CAAE protocol 17659219.4.0000.5087). **RESULTS:** A total of 86 notification forms from the Epidemiological Surveillance service in Imperatriz - MA of patients with ATL, with a mean age of 31.7 years, mostly male, aged between 19 and 49 years, living in urban areas and mostly in the military, were evaluated. For diagnosis, the most commonly used test was direct parasitology (82.6%), which was positive in 68 of the 71 tests applied (95.7%); followed by histopathological examination of the lesions (29.1%), with 17 positive cases out of 25 (68%). In addition, there were five (5.8%) clinical-epidemiological diagnoses. Regarding the form of presentation of the disease, cutaneous was more prevalent (84.8%), especially among young adults (19-49 years). On the other hand, in individuals aged over 50, the cutaneous and mucosal forms showed similar data. **CONCLUSION:** It was found that most of the patients with ATL analyzed in the study lived in urban areas and had the cutaneous form, with a predominance of males, which may be associated with their occupations. Knowledge of the profile of those affected is essential for targeting public management and prevention actions, especially in relation to the military. These measures are crucial in order to promote quality care for the affected population.

**213. EPIDEMIOLOGICAL PROFILE OF MORTALITY FROM STOMACH CANCER IN THE NORTHEAST REGION**

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**INTRODUCTION:** In Brazil, stomach cancer ranks fourth among men and sixth among women in prevalence and mortality among malignant neoplasms. Additionally, it is a pathology that remains asymptomatic for a long time or presents with nonspecific symptoms, making early diagnosis in a potentially curable stage difficult. However, it has well-established risk factors such as smoking, alcoholism, diet, *Helicobacter pylori* infection, and family history. Therefore, the present study aims to outline an epidemiological profile across the states of the Northeast to elucidate the pattern of most affected patients and the environment they are part of, in order to guide accurate screening and specific health actions for the population. **METHODS:** This is a comparative epidemiological-descriptive study, considering stomach cancer deaths between 2013 and 2022 in the states of the Northeast, with data extracted from the Department of Informatics of the Unified Health System (DATASUS). The variables considered are: year of death, gender, age group, race/ethnicity, education level, and mortality rate. The population estimates used to calculate the mortality rate were provided by the Brazilian Institute of Geography and Statistics (IBGE) and made available in DATASUS. **RESULTS:** During the analyzed period, a total of 33,409 deaths were identified in the Northeast region, with the highest numbers in the states of Bahia (7,862), Ceará (7,784), and Pernambuco (5,761). From 2013 to 2022, mortality was higher among men (62.5%), with a peak incidence in the 70-79 age group (26.1%), predominantly in mixed race (63%), and the majority of individuals showing no formal education (26.6%). Regarding the mortality rate, it was observed that in 2013 the rate was 5.6 per 100,000 inhabitants, with the states of Ceará, Paraíba, and Rio Grande do Norte having the highest rates (8.14, 7.99, and 6.93, respectively). In 2022, this rate was 6.0 per 100,000 inhabitants, and the states of Ceará, Paraíba, and Rio Grande do Norte continued to show, in that order, the three highest mortality rates in the region – 8.4, 7.35, and 6.94, respectively. **CONCLUSION:** Understanding the epidemiology of gastric cancer in the Northeast is essential for formulating public policies and early diagnosis and treatment strategies. States with high mortality rates need investments in health, education, and professional training to reduce regional inequalities and improve the quality of life and survival of patients.

**214. PROFILE OF THE GERIATRIC POPULATION ATTENDED IN A SPECIALIZED CHRONIC PAIN OUTPATIENT CLINIC**Pedro Victor Aguiar Carvalho<sup>1</sup>, Isabelle Nunes Costa<sup>1</sup>,  
Thiago Alves Rodrigues<sup>1</sup>.<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** The Frailty Syndrome in the Elderly, resulting from physiological changes during aging, can compromise autonomy and worsen quality of life, particularly in cases of chronic pain. Therefore, this study aims to assess the impact of chronic pain on the quality of life of vulnerable and non-vulnerable elderly patients attended in a specialized outpatient clinic. **METHODS:** This is an analytical cross-sectional study conducted in a Chronic Pain Service with patients aged 65 years or older, without cognitive deficits. The Vulnerable Elderly Survey (VES-13) was used to assess frailty, and the Geriatric Pain Measure (GPM-P) was used to evaluate pain. Statistical analysis was performed using Stata 15.0, adopting a 5% significance level ( $p < 0.05$ ). The study was approved by the Ethics and Research Committee (CAAE: N°55388921.0.000.5086, approval N°5.248.614). **RESULTS:** The sample of 143 patients included 31.5% non-vulnerable and 68.5% vulnerable individuals. The adjusted GPM-P was higher in the vulnerable group ( $70.60 \pm 17.69$ ) compared to the non-vulnerable group ( $47.34 \pm 17.20$ ), with a mean difference of  $-23.26$  (95% CI:  $-29.51$  to  $-17.02$ ;  $p < 0.0001$ ). Pearson's correlation between GPM and VES-13 was moderately positive ( $r = 0.5197$ ,  $p < 0.0001$ ), confirmed by Spearman's coefficient ( $\rho = 0.5623$ ,  $p < 0.0001$ ). Severe pain was observed in 7.7% of the non-vulnerable and 44.8% of the vulnerable group ( $p < 0.0001$ ). Analyses of the number of falls ( $p=0.166$ ) and opioid use ( $p=0.950$ ) did not reveal statistically significant differences between the groups. The mean age of the vulnerable group was 67.3 years ( $SD = 7.12$ ), and the non-vulnerable group was 65.73 years ( $SD = 5.07$ ) ( $p = 0.1874$ ), with a predominance of females in both groups ( $p = 0.769$ ). Among clinical conditions, osteoarthritis was more prevalent among the non-vulnerable group (19.0%), while low back pain predominated in the non-vulnerable group (13.7%) ( $p=0.212$ ). Hypertension was the most common comorbidity, affecting 46.9% of the vulnerable and 56.4% of the non-vulnerable group ( $p=0.309$ ). **CONCLUSION:** Chronic pain has a greater impact on the quality of life of vulnerable elderly individuals, as evidenced by the adjusted GPM-P and the higher frequency of severe pain. The positive correlation between GPM-P and VES-13 highlights the need for specific approaches in pain management for vulnerable populations. Sociodemographic and clinical variables analyzed did not present statistically significant differences. This study reinforces the relationship between frailty and the multidimensional characteristics of pain.

**215. PROFILE OF HOSPITALIZATIONS DUE TO ATHEROSCLEROSIS IN NORTHEAST BRAZIL OVER THE PAST 10 YEARS**Ana Clara Noronha Branco<sup>1</sup>, Bruno Miranda Rosa  
Gonçalves<sup>2</sup>, Ian Gabriel Lucchese de Sá Cruz<sup>2</sup>, Nicollas  
Barroso de Oliveira Pereira<sup>2</sup>, Vanisse Portela Ramos<sup>3</sup>.<sup>1</sup> University Center of Maranhão; <sup>2</sup> Federal University of Maranhão; <sup>3</sup>  
Presidente Dutra University Hospital

**INTRODUCTION:** Atherosclerosis is the primary pathological mechanism responsible for most cardiovascular diseases, which have become the leading cause of disability and premature death worldwide. It is estimated that by 2030, approximately 23.6 million people will die from cardiovascular diseases each year. This growing significance highlights the need for improved prevention and treatment of the disease. This study aims to identify epidemiological patterns of hospitalizations due to atherosclerosis in Northeast Brazil over the past decade, contributing to the understanding of the profile of patients with atherosclerotic disease and providing a basis for future public policies, research, and preventive and therapeutic practices in the region. **METHODS:** This is a cross-sectional, descriptive study with a quantitative approach. Data were collected using the TabNet Win 32 3.0 tool from the Department of Informatics of the Brazilian Unified Health System (DATASUS). The data collection was based on the analysis of hospital admission data classified according to the 10th revision of the International Classification of Diseases (ICD-10), selecting the code ICD-10 I70 (atherosclerosis), the Northeast region, and the variables of sex, age group, and race, covering the period from May 2015 to May 2024. Data were extracted, organized, and tabulated using Microsoft Excel 2016 for statistical analysis. **RESULTS:** The data showed that over the 10-year period, there were 53,558 hospitalizations due to atherosclerosis in Northeast Brazil, with 27,843 (51.99%) among males and 25,715 (48.01%) among females. Regarding race, 36,240 hospitalizations had recorded information, of which 30,678 (84.65%) were among mixed-race individuals, 2,661 (7.34%) among white individuals, 2,170 (5.99%) among black individuals, and 724 (2%) among yellow individuals. In terms of age, 197 (0.37%) cases were among patients up to 19 years old, 11,939 (22.29%) among those aged 20 to 59 years, and 41,422 (77.34%) among those aged 60 years or older. **CONCLUSION:** Therefore, it can be observed that there was no significant difference in hospitalization cases between males and females; however, there is a predominance of mixed-race patients and elderly individuals, with a clear increase in cases as age progresses. These data highlight identifiable risk factors in hospitalizations due to atherosclerosis in Northeast Brazil over the past 10 years, providing important information for future public policies, research, and medical practices.

**216. PROFILE OF HOSPITALIZATIONS FOR OSTEOMYELITIS IN PATIENTS OVER 60 YEARS OLD IN MARANHÃO**

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**INTRODUCTION:** Osteomyelitis is an inflammation of bone tissue caused by microorganisms, presenting in acute or chronic forms and carrying a high risk of complications, particularly in elderly individuals. In this population, the presence of predisposing comorbidities along with immunosenescence adds to the complexity of treatment and increases mortality rates. This study aimed to characterize the profile of hospitalizations for osteomyelitis in patients over 60 years old in Maranhão. **METHODS:** This was a descriptive, retrospective, and quantitative study, utilizing secondary data from the Hospital Information System of the Unified Health System (SIH/SUS), accessed through the Department of Informatics of the Brazilian Unified Health System (DATASUS). Hospitalizations for osteomyelitis in Maranhão from 2014 to 2023 were analyzed, focusing on patients aged 60 years or older. Variables analyzed included sex, race/ethnicity, type of hospital admission, mortality rates, hospitalization costs, and average length of stay. **RESULTS:** Hospitalizations for osteomyelitis in elderly patients in Maranhão primarily occurred in mixed-race men. The predominance of male cases may be attributed to delayed medical care-seeking behaviors in this group. The high proportion of emergency hospitalizations suggests late diagnoses and severe complications. The elevated mortality rate reflects the vulnerability of elderly individuals, who often present with exacerbating comorbidities. Effective prevention and management strategies are crucial to avoid debilitating complications and reduce the financial burden on the healthcare system. Moreover, the possibility of underreporting should be considered, as the heterogeneous predisposing factors for osteomyelitis complicate accurate diagnosis. **CONCLUSION:** Hospitalizations for osteomyelitis in elderly patients in Maranhão primarily occurred in mixed-race men. The predominance of male cases may be attributed to delayed medical care-seeking behaviors in this group. The high proportion of emergency hospitalizations suggests late diagnoses and severe complications. The elevated mortality rate reflects the vulnerability of elderly individuals, who often present with exacerbating comorbidities. Effective prevention and management strategies are crucial to avoid debilitating complications and reduce the financial burden on the healthcare system. Moreover, the possibility of underreporting should be considered, as the heterogeneous predisposing factors for osteomyelitis complicate accurate diagnosis.

**217. PROFILE OF HOSPITALIZATIONS DUE TO PSYCHOTIC DISORDERS IN MARANHÃO FROM 2019 TO 2023**

Higor Lucas Borges Pereira<sup>1</sup>, Maria Eduarda Borralho de Barros<sup>1</sup>, Guilherme Magalhães Carrilho<sup>1</sup>, Isabella Neves Silva<sup>1</sup>, Maria Eduarda de Castro Pereira<sup>1</sup>, Samia Jamile Damous Duailibe de Aguiar Carneiro Coelho<sup>1</sup>.

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**INTRODUCTION:** Psychotic disorders present a significant public health challenge due to their characterization by positive, negative, and disorganized symptoms, which substantially affect the quality of life of those impacted. Identifying the sociodemographic profile of psychotic patients is crucial for improving mental health care, as clinical manifestations and access to treatment differ across various regions and populations. Hence, this study aims to describe the profile of psychotic patients hospitalized in Maranhão, Brazil. **METHODS:** This is an epidemiological, descriptive, time-series study (2019-2023) based on secondary data from ICD-10 codes F20-F29 (Schizophrenia, schizotypal, and delusional disorders) in Maranhão, extracted from the Hospital Information System (SIH/DATASUS). Data were tabulated and statistically analyzed using Excel. The variables analyzed included type of admission, age group, sex, and race/ethnicity. **RESULTS:** Over the study period, a total of 12,293 hospitalizations were recorded, with an incidence rate of 22% (n = 2,792) in 2023. Regarding the type of admission, approximately 63% (n = 7,715) were emergency admissions. In the age group analysis, the highest prevalence was observed in the 30-39 age group (n = 3,250), followed by 20-29 (n = 3,010) and 40-49 (n = 2,996). In terms of sex, around 70% (n = 8,632) of the hospitalizations involved male patients. Regarding race/ethnicity, 55% (n = 5,238) of the patients for whom this information was provided (n = 9,427) were identified as White. **CONCLUSION:** The findings suggest an increasing prevalence of hospitalizations due to psychotic disorders in Maranhão between 2019 and 2023. The predominance of emergency admissions highlights the potential impact of delayed diagnosis and lack of continuous treatment in the exacerbation of psychotic conditions. The distribution by sex and age group aligns with existing literature, showing higher prevalence among men, a peak in young adults, and a bimodal pattern in women. A notable limitation is the underreporting of racial/ethnic data in one-fifth of cases, which contrasts with literature indicating a higher prevalence in Black populations. In conclusion, the findings emphasize the need for public policies aimed at early detection, continuous treatment, and equitable access to mental health services, alongside strengthening the use of health information systems for monitoring mental health outcomes.

**218. PROFILE OF HOSPITALIZATION DUE TO EMBOLISM AND ARTERIAL THROMBOSIS IN MARANHÃO FROM 2019 TO 2023**

Isadora Leal Tavares Silva<sup>1</sup>, Wanderson José Cutrim Ferreira<sup>1</sup>, Layla Carolina Barros Leite<sup>1</sup>, Layanne Silva Oliveira<sup>1</sup>, Davi Nunes Marques<sup>1</sup>, João Pedro Belaglóvis Castelo Branco<sup>1</sup>, Santiago Servin<sup>1</sup>.

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**INTRODUCTION:** In most cases, arterial thrombosis is preceded by atherosclerosis, which leads to a narrowing of the vessel lumen, damage to the vessel wall, and altered blood flow. Embolism occurs when the thrombus detaches, relocates, and may cause partial or total occlusion of vessels. This process is influenced by the individual's lifestyle and has significant potential for morbidity and mortality, making it important to understand its epidemiology to develop prevention and treatment strategies. Therefore, this study aims to describe the epidemiology of hospitalizations due to arterial embolism and thrombosis in Maranhão from 2019 to 2023.

**METHODS:** This is a descriptive epidemiological study with a quantitative approach, conducted through data collection from the Department of Information and Informatics of the Unified Health System (DATASUS) in Maranhão from 2019 to 2023. The variables used were: number of hospitalizations, sex, race, age group, macro and micro health region, type of care, and mortality rate. **RESULTS:** A total of 844 hospitalizations due to embolism and thrombosis were recorded in Maranhão during the specified period. The year with the highest number of occurrences was 2022, with 22.15% (n=187) of hospitalizations, followed by 2023, with 21.68% (n=183), and 2021, with 20.73% (n=175). Males accounted for 54.85% (n=463) of hospitalizations. The mixed-race population was the most prevalent, representing 33.29% (n=281) of cases. The 60 to 69-year age group had the highest percentage of hospitalizations, with 23.57% (n=199) of occurrences, followed by the 70 to 79-year age group, with 23.34% (n=197). The North macro-region had the highest percentage of hospitalizations, with 46.91% (n=396), followed by the South, with 44.31% (n=374), and the East, with 8.76% (n=74). The Imperatriz micro-region accounted for 42.65% (n=360) of hospitalizations, followed by the urban area of São Luís, responsible for 42.41% (n=358). A total of 88.74% (n=749) of hospitalizations were urgent care cases. The overall mortality rate was 8.77% (n=74).

**CONCLUSION:** The data highlights a higher incidence of arterial embolism and thrombosis in males and the mixed-race population. The 60 to 69 and 70 to 79-year age groups were the most affected, indicating a possible age-related association, thus requiring more attention. The North and South macro-regions presented the majority of cases, while the Imperatriz micro-region and the urban area of São Luís accounted for a very significant portion.

**219. PROFILE OF PATIENTS HOSPITALIZED FOR ESSENTIAL HYPERTENSION IN MARANHÃO BETWEEN 2019 AND 2023**

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**INTRODUCTION:** Essential Hypertension (EH) is a multifactorial cardiovascular disorder characterized by elevated systolic blood pressure ( $\geq 140$  mmHg) and/or elevated diastolic blood pressure ( $\geq 90$  mmHg), which can be properly managed and treated in Primary Health Care (PHC) to prevent worsening of the disease. Thus, hospitalization due to EH is considered a Hospitalization for a Condition Sensitive to Primary Health Care (HCSPHC), serving as an indicator of the effectiveness of PHC interventions. The aim of this study was to describe the profile of patients hospitalized for EH in Maranhão over the past 5 years and to identify the most prioritized groups for health promotion policies and prevention of aggravations in the state. **METHODS:** This is an epidemiological, descriptive, cross-sectional, retrospective, and quantitative study that analyzed data collected through the TabNet Win32 3.0 tool from the Department of Informatics of the Unified Health System (DATASUS), referring to hospitalizations for the morbidity "Essential (primary) Hypertension" from the list of the 10th revision of the International Classification of Diseases (ICD-10). The variables adopted were: "region," "federative unit," "sex," "age group," "color/race," "type of care," "Health Region (CIR)," and "Year of care," covering the period from 2019 to 2023. The data were organized and processed in Microsoft Excel 2016 software for descriptive analysis. **RESULTS:** The data collected shows that in the last 5 years, Maranhão was the state in the Northeast with the most hospitalizations for EH (34,115 cases, 43% of regional hospitalizations). During this period, the state recorded the highest numbers of: i) occurrences in 2019 (7,531 cases); ii) hospitalizations in emergency settings (31,439 cases, 92%); iii) incidence among women (20,279 cases, 59%); iv) occurrence in the age group of 80 years or older (4,987 cases, 15%); v) hospitalizations among mixed-race people (23,392 cases, 68%); and vi) hospitalizations in the health regions of Zé Doca, São João dos Patos, and Viana, with 3,941, 3,693, and 3,293 cases, respectively. **CONCLUSION:** It can be concluded that hospitalizations for EH in Maranhão are significantly higher compared to other states in the Northeast region. The incidence is higher among: i) women; ii) individuals over 80 years old; iii) mixed-race individuals; and iv) people from regions farther from the capital. Therefore, it is suggested that better-targeted actions in the PHC aim to promote health and prevent worsening of EH.

**220. PROFILE OF ADOLESCENT PARTURIENTS IN THE MUNICIPALITY OF PINHEIRO- MA BETWEEN 2018 AND 2022**

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<sup>1</sup> Federal University of Maranhão - Pinheiro

**INTRODUCTION:** Teenage pregnancy is a topic of great relevance in Brazilian social reality. This study was carried out with the objective of characterizing the profile of pregnant adolescents and their newborns in the municipality of Pinheiro, state of Maranhão, between the years 2018 and 2022 and discussing possible interventions. **METHODS:** Ecological, quantitative, descriptive study, with analysis of data registered at SINASC and made available on the website of the SUS Information Technology Department (DATASUS). The data collected totaled 1.492 teenage mothers in the city of Pinheiro during the years 2018 to 2022. The variables were analyzed: age, race, marital status and education of the mother, number of prenatal consultations, place of birth, type of delivery, duration of pregnancy and sex of the newborn. Descriptive statistics were used to present the results. **RESULTS:** Between the years 2018 and 2022, there were 7,333 births in the municipality of Pinheiro, of which 1,492 were births to pregnant teenagers, aged between 10 and 19 years old, making up 20.34% of the total number of postpartum women. Among adolescent mothers, 94.77% were between 15 and 19 years old, while 5.22% were between 10 and 14 years old. 90.81% were mixed race, 66.08% were single and 83.24% had eight to eleven years of education. 45.04% had between three and six prenatal consultations. 96.78% were hospital births, 66.21% were vaginal births and 83.31% of newborns were born at term and 50.87% were male. It is clear that pregnant adolescents' access to prenatal services is far below expectations. Considering this indicator, there is a need for quality prenatal care, as it is crucial for maternal and neonatal health, especially among adolescents. This public needs multidisciplinary prenatal care, which makes full support viable, offering, in addition to basic procedures, care that prevents physical, social and emotional complications in pregnant teenagers. **CONCLUSION:** It is assumed that prenatal care for pregnant teenagers in the municipality of Pinheiro must be improved, especially in early enrollment, continuity of care and provision of guidance.

**221. EPIDEMIOLOGICAL PROFILE OF CHAGAS DISEASE IN THE BAIXADA MARANHENSE (2017- 2022)**

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**INTRODUCTION:** Chagas disease, caused by the protozoan *Trypanosoma cruzi*, is transmitted mainly through *Triatoma infestans*, a species of insect popularly called Barber, and has two phases: acute (ACD) and chronic, occurring after the acute phase if the carrier does not receive timely treatment. In this sense, this study aims to investigate the epidemiological profile of Chagas disease in the Baixada region in the state of Maranhão. **METHODS:** This is a retrospective epidemiological study with a quantitative approach, using data provided by the Notifiable Diseases Information System (SINAN) database, made available by the platform of the Department of Information Technology of the Unified Health System (DATASUS) and processed in the Microsoft Excel program. The years researched were between 2017 and 2022, and an analysis of incidence location, sex, race and age group was carried out. **RESULTS:** Between 2017 and 2022, 31 cases of ACD were registered in the Baixada Maranhense. Of these, 64.5% (n = 20) occurred in the municipality of Pedro do Rosário and 16.12% (n = 5) in Pinheiro. Of those affected, 51.6% (n = 16) were black people, followed by 38.7% (n = 12) brown people. 58.06% (n=18) were female and 45.16% (n=14) of the episodes ranged in age from 20 to 39 years. **CONCLUSION** The individuals affected by DCA are mostly black women between the ages of 20 and 39, living in the municipality of Pedro do Rosário, in northern Maranhão. It can be concluded that public policies aimed at improving the quality of housing for the population to prevent DCA need to be reformulated in areas of lower population density and focusing on the most socially vulnerable populations and, consequently, more exposed to the protozoan, since the proliferation of insects is linked to precarious housing and the lack of basic sanitation in the Baixada Maranhense.



**222. EPIDEMIOLOGICAL PROFILE OF LEPROSY IN CHILDREN AGED 1 TO 14 YEARS IN MARANHÃO FROM 2014 TO 2024**

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**INTRODUCTION:** Leprosy, caused by the bacillus *Mycobacterium leprae*, is a chronic infectious disease with a longstanding epidemiological significance. Despite the availability of treatment in the public health system, the disease continues to maintain significant epidemiological rates in poor or underdeveloped countries, where health authorities have yet to successfully control this pathology. This study aims to describe the epidemiological profile of leprosy in children aged from 1 to 14 in the state of Maranhão, Brazil, from 2013 to 2023. **METHODS:** This is an observational, retrospective, and cross-sectional study with a quantitative approach, using data collected from the DATASUS platform. A descriptive epidemiological study was conducted using secondary data obtained from DATASUS, provided by the Ministry of Health. The study population included all children diagnosed and notified with leprosy in Maranhão between 2013 and 2023. The variables analyzed included age, sex, race and clinical form. The data was analyzed using descriptive statistics. **RESULTS:** During the analysed period, 3.357 cases of leprosy were reported in children aged from 1 to 14 in Maranhão. The majority of cases were diagnosed in children aged 10–14 years (n=2.181), with a distribution of 55% (n=1.847) male and 45% (n=1.510) female. This distribution is also more predominant among brown individuals (n=2,383), followed by black individuals (n=497). Regarding the clinical form, the borderline form (n=1.652) is the most prevalent, accounting for 49.2% of the reported cases. **CONCLUSION:** The data show that leprosy continues to be a public health problem in Maranhão, especially in children under the age of 15, which suggests active transmission of the disease. These results highlight the need to intensify control measures, early diagnosis and appropriate treatment, as well as awareness campaigns and health education aiming at this age group, which could be essential for reducing the incidence of leprosy in the state.

**223. EPIDEMIOLOGICAL PROFILE OF AMERICAN CUTANEOUS LEISHMANIASIS IN AÇAILÂNCIA FROM 2012 TO 2022**

Bruna Lima Durans Cavalcanti<sup>1</sup>; Giovana Balbiniot Soares<sup>1</sup>; Giulian Araújo Fróes<sup>1</sup>; Jaqueline Rego Lima<sup>2</sup>; Mel Cristinne Coelho Miranda<sup>1</sup>; Matheus Silva Alves<sup>1</sup>.

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**INTRODUCTION:** American Cutaneous Leishmaniasis (ACL) is an infectious disease caused by the protozoan *Leishmania* and transmitted by phlebotomine sandflies. It manifests in cutaneous, mucosal, or cutaneous-mucosal forms. Moreover, ACL is classified as a neglected tropical disease, posing a significant challenge for global health. The state of Maranhão, particularly the city of Açailândia, is heavily affected by this disease, which is endemic in this region. Given its epidemiological importance, this study aims to define the epidemiological profile of ACL in Açailândia from 2012 to 2022.

**METHODS:** This is a cross-sectional, descriptive, quantitative, and retrospective study utilizing secondary data of ACL cases in Açailândia from 2012 to 2022, from the Notification of Diseases Information System (SINAN). Variables such as age, gender, education level, ethnicity, disease progression, and clinical form were analyzed to assess the distribution of ACL in this area. The incidence was calculated by dividing the number of new cases by the population of Açailândia and multiplying by 100,000. Additionally, the relationship between the seasonal distribution of ACL cases and the municipality's rainfall index was investigated, employing statistical analysis through the chi-square test. **RESULTS:** During the study period, a total of 17,578 ACL cases were reported in Maranhão, resulting in an incidence of 259 cases per 100,000 inhabitants. In Açailândia, 612 ACL cases were recorded, corresponding to an incidence of 574 cases per 100,000 inhabitants. The majority of patients had incomplete primary education (44.11%), were aged between 20 and 39 years (47.22%), were male (81%), and identified as mixed race (71.57%). Furthermore, 96.4% of cases presented as cutaneous, with only 85.95% progressing to cure. It was also observed that the distribution of cases was not correlated with the rainfall index, as an increase in notifications occurred during dry months, such as September (73 cases), October (91 cases), and November (77 cases), in contrast to the rainy months of January (55 cases) and February (41 cases), which recorded fewer notifications. **CONCLUSION:** ACL predominantly affects men, mixed race, aged between 20 and 39 years, and individuals with incomplete primary education, occurring primarily during the non-rainy months of the year. This highlights the disease as a public health challenge in the city of Açailândia. Therefore, it is essential to implement governmental policies aimed at combating this disease, particularly targeting this demographic group.

**224. EPIDEMIOLOGICAL PROFILE OF AMERICAN CUTANEOUS LEISHMANIASIS IN BARREIRINHAS (2012-2022)**

Giovana Balbinot Soares<sup>1</sup>, Bruna Lima Durans Cavalcanti<sup>1</sup>, Giulian Araújo Frôes<sup>1</sup>, Jaqueline Regô Lima<sup>1</sup>, Mel Cristinne Coelho Miranda<sup>1</sup>, Matheus Silva Alves<sup>1,2</sup>.

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**INTRODUCTION:** American Cutaneous Leishmaniasis (ACL) is a non-contagious infectious disease caused by protozoa of the genus *Leishmania*, transmitted by vectors, affecting skin and mucous membranes. It can present in the following clinical forms: cutaneous (CL), disseminated (DL), mucosal (ML), or cutaneous-diffuse (CDL). As an endemic disease in the state of Maranhão (MA), it represents a challenge for public health. Therefore, the aim of this study is to determine the epidemiological profile of American cutaneous leishmaniasis in the city of Barreirinhas-MA from 2012 to 2022.

**METHODS:** This is a descriptive, retrospective, and quantitative study based on secondary data collected from the Notifiable Diseases Information System on ACL cases in Barreirinhas-MA from 2012 to 2022. The study used notification years and months as filters, and included variables such as age group, ethnicity, gender, education level, clinical form of the disease, and case progression. In addition, a comparison was made between the region's rainfall indices and the disease's seasonality, along with the calculation of prevalence, which was derived by dividing the total number of cases over 10 years by the city's population and multiplying by 10,000. **RESULTS:** During this period, 693 cases of ACL were reported in Barreirinhas-MA, with a prevalence of 105/10,000 inhabitants. In contrast, Maranhão state had a prevalence of 25/10,000 inhabitants, indicating that the prevalence in the city was four times higher than in the state. The patient profile showed a higher frequency among males (58%), mixed-race individuals (98.9%), those aged 20 to 39 years (33%), and those with incomplete elementary education, up to the fourth grade (65.3%). As well as 98.8% of the cases were of the cutaneous form of the disease, and 78.3% progressed to cure. Additionally, no relationship was established between rainfall and the seasonality of ACL, as its peak occurred during relatively dry periods, such as October and November. **CONCLUSION:** In Barreirinhas, the epidemiological profile revealed a predominance of males, mixed-race individuals, aged 20 to 39 years, with low education levels, presenting with cutaneous forms and a favorable prognosis. It is essential to raise public awareness about effective prevention measures, such as vector control and early diagnosis, and ensure accurate case notification for reliable epidemiological data, thereby reducing the disease's impact in the city.

**225. EPIDEMIOLOGICAL PROFILE OF AMERICAN TEGUMENTARY LEISHMANIASIS IN SANTA LUZIA-MA BETWEEN 2012 AND 2022**

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**INTRODUCTION:** American Tegumentary Leishmaniasis (ATL) is an infectious, chronic, and non-contagious disease caused by protozoa of the genus *Leishmania* and transmitted by the sandfly mosquito, which mediates the relationship between the protozoan and the host. It is a disease transmitted by vectors, where humans are secondary or accidental hosts, with an average incubation period of 2 to 3 months. ATL has several clinical forms, the main ones being: Cutaneous, Disseminated, Mucosal, and Diffuse. ATL is considered one of the six most important infectious diseases in the world. Therefore, this study aims to determine the epidemiological profile of American tegumentary leishmaniasis in the city of Santa Luzia do Maranhão between the years 2012 and 2022. **METHODS:** This is a descriptive, ecological, retrospective, and quantitative study based on secondary data on cases of American tegumentary leishmaniasis in the city of Santa Luzia do Maranhão from 2012 to 2022. The data collected were obtained from the Information System for Notifiable Diseases (SINAN). Variables such as gender, age, ethnicity, education level, disease progression, and clinical form were grouped. Incidence was measured by the number of new cases over the population of the state multiplied by 100,000. **RESULTS:** During this period, 204,562 cases of ATL were reported in Brazil, with a prevalence of 100.76/100,000 inhabitants. In Maranhão, 17,578 cases of ATL were reported in the region, with a prevalence of 259.38/100,000 inhabitants. In Santa Luzia, 536 cases were reported, with a prevalence of 929.99/100,000. There was a predominance of mixed race individuals (77.23%), males (79.85%), the highest incidence in patients with incomplete education from fifth to eighth grade (28.17%), and ages between 20 and 39 years (46.45%). The cutaneous form was predominant in 98.69% of cases, and 77.42% progressed to cure. **CONCLUSION:** The relevance of this research is justified by the scarcity of epidemiological studies regarding this city and the high prevalence of ATL in Santa Luzia, which exceeds the national prevalence and predominantly affects men, mixed race individuals, aged between 20 and 39 years, and those without a complete elementary education, making it a public health issue in the city. Therefore, it is essential to implement targeted measures to address this disease, especially for this segment of the population.

**226. EPIDEMIOLOGICAL PROFILE OF LEPROSY IN THE PINDARÉ REGION IN MARANHÃO BETWEEN 2019 AND 2023**

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<sup>1</sup> Faculty of Medical Sciences AFYA – Santa Inês

**INTRODUCTION:** Leprosy is an infectious disease caused by *Mycobacterium leprae*, which mainly affects the peripheral nerves and skin. Transmission occurs through droplets from the nose and mouth during close and frequent contact with untreated cases. In 2022, Maranhão had the third highest statistics among Brazilian states, with a rate three times higher than the national average. The aim of this study was therefore to outline the epidemiological profile of leprosy cases in the Pindaré region of Maranhão. **METHODS:** This is an epidemiological, cross-sectional, descriptive, retrospective study with a quantitative approach to leprosy cases in the Pindaré micro-region. The data was collected from the DATASUS platform. The inclusion criteria were patients diagnosed with leprosy in the Pindaré micro-region between 2019 and 2023. The exclusion criteria were patients diagnosed in other micro-regions of the state of Maranhão and outside the period 2019 to 2023. The variables analyzed were the number of cases in the period, gender, age group, race, schooling, operational classification and clinical form. **RESULTS:** In the period studied, the Pindaré micro-region recorded 1,631 cases of leprosy, which represents 12.3% of cases in Maranhão. In terms of gender, cases predominated among males (n= 1,016), in contrast to females (n= 615). In terms of age, the most common ages are 30 to 39, followed by 40 to 49. With regard to race, the majority of cases are among brown and black individuals. With regard to schooling, leprosy cases are concentrated in patients with incomplete primary education, followed by illiterate patients. According to the operational classification, the Pindaré micro-region has more multibacillary cases (n= 1,402) compared to paucibacillary (n=229). In terms of clinical form, dimorphic cases are the most prevalent. **CONCLUSION:** This study showed that leprosy cases in the Pindaré micro-region are in line with the high incidence of cases in the state of Maranhão and are significantly similar to the profile of cases at state level. Thus, leprosy cases in the Pindaré micro-region are concentrated among males, brown people, aged between 30 and 39, with a low level of schooling or illiterate, with multibacillary.

**227. EPIDEMIOLOGICAL PROFILE OF MENINGITIS IN CHILDREN UNDER 15 IN MARANHÃO FROM 2014 TO 2024**

Laio Vinicius Spindola De Araujo<sup>1</sup>, Andressa De Assis Barbosa Costa Oliveira<sup>1</sup>, Thalia Diniz Da Silva<sup>1</sup>, Eduardo Carneiro De Oliveira<sup>1</sup>, Ana Clara Coutinho De Oliveira<sup>1</sup>, Melissa Morgana De Souza Gonçalves<sup>1</sup> Andrea Borges Araruna De Galiza<sup>1</sup>.

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**INTRODUCTION:** Meningitis is characterized by inflammation of the cerebral meninges, and can be caused by infectious agents, including bacteria, viruses, fungi, parasites, and even non-infectious causes such as inflammatory diseases and medications. This disease is even more severe in the population under 15 years of age, due to the high associated mortality and morbidity rates. Given the various events involving neurological sequelae, particularly in childhood, meningitis is considered a public health problem. Therefore, understanding the epidemiological profile of meningitis in this age group is crucial for developing prevention and control strategies. This study aims to describe the epidemiological profile of meningitis in children under 15 years of age in the state of Maranhão, from 2014 to 2024. **METHODS:** This is an observational, retrospective, cross-sectional study with a quantitative approach, using data collected from the DATASUS platform. A descriptive epidemiological study was conducted using secondary data obtained from DATASUS, provided by the Ministry of Health. The study population included all children diagnosed and reported with meningitis in Maranhão between 2014 and 2024. The analyzed variables included age, sex, color/race, and the region with the highest prevalence. Data were analyzed using descriptive statistics. **RESULTS:** During the study period, 719 cases of meningitis were reported in children under 15 years of age in the state of Maranhão, with the highest prevalence in children under 1 year old, representing 37,6% of the cases (n=270), followed by the 1 to 4-year age group with 21,8% (n=157). Children aged 5 to 9 years accounted for 21% of the cases (n=151), and the 10 to 14-year age group represented 19,6% of the cases (n=141). The most affected color/race by this infection was brown (n=580), with a distribution of 59,7% in males and 40,3% in females. Based on IBGE data from Maranhão, the microregions with the highest incidence were: the São Luís urban agglomeration (n=504), followed by Imperatriz (n=31) and Gerais de Balsas (n=25). **CONCLUSION:** The data show that meningitis remains a significant public health issue among children under 15 years old in the state of Maranhão. The prevalence of this infection in the under-15 population highlights the need for effective strategies for prevention, early diagnosis, and appropriate treatment. Implementing vaccination programs, awareness campaigns, and improving health conditions, especially in the most affected areas, are essential to reduce the incidence and impact of meningitis in this vulnerable population.

**228. EPIDEMIOLOGICAL PROFILE OF MENINGITIS IN THE STATE OF MARANHÃO BETWEEN 2014 AND 2023**

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<sup>1</sup> Federal University of Maranhão - Pinheiro

**INTRODUCTION:** Meningitis is a disease that affects the meninges, which correspond to the layers that surround and protect the brain and spinal column. It can be of bacterial, viral and fungal origin, the most common being caused by viruses and bacteria. In this sense, it is worth analyzing the incidence of cases in the state of Maranhão considering its variables. **METHODS:** This is a descriptive epidemiological study in the period 2014-2023 in the state of Maranhão, with data obtained from the Notifiable Diseases Information System (SINAN), from the Unified Health System Computer System (DATASUS), having as variables sex, race and age group. **RESULTS:** In the period analyzed, 1327 cases of meningitis were reported in the state of Maranhão, with a greater predominance in the year 2023 (n = 165). Of these, 752 cases are in males and 555 in females, with the highest prevalence in 2015 (n=92) in men, and in women, 2023 was the year with the highest number of notifications (n=76). Regarding race, self-declared brown people have the highest occurrences (n=1062), followed by white (n=164), black (n=68), yellow (n=7) and indigenous (n=4). In addition, the age group between 20-39 years old has the highest cases (n=312), followed by the age group of children under 1 year old (n=264), with the age group of 80 years old and over having the lowest number of notifications (n=10). **CONCLUSION:** The epidemiological profile of the state of Maranhão shows the prevalence of meningitis in males, and it is expected that brown people are the most affected, since they have a higher percentage of self-declared people of this color, coinciding with the findings of this research. The age group with the highest prevalence is between 20-39 years old, a worrying factor for society, since this age group is also economically active. Therefore, public policies are needed to prevent this disease.

**229. EPIDEMIOLOGICAL PROFILE OF MORTALITY DUE TO MALIGNANT LARYNGEAL NEOPLASM IN MARANHÃO BETWEEN 2013 AND 2022**

João Marcos dos Santos de Andrade<sup>1</sup>; Viviane da Silva de Sousa<sup>1</sup>; Andressa de Castro Moraes<sup>1</sup>; Vitor César de Abreu Praseres<sup>1</sup>; Sueli de Souza Costa<sup>1</sup>.

<sup>1</sup> Federal University of Maranhão - Pinheiro

**INTRODUCTION:** Laryngeal cancer is a malignant neoplasm commonly associated with persistent hoarseness, sore throat, difficulty swallowing, and persistent coughing, often seen in patients with a history of smoking, alcoholism, and exposure to chemical substances. In this context, considering the public health issue and the prevalence of risk factors, the objective is to outline an epidemiological profile of mortality due to malignant laryngeal neoplasm in Maranhão compared to the Northeast region. **METHODS:** This is a descriptive and analytical epidemiological study covering the period from 2013 to 2022 in Maranhão, with data obtained from the Cancer Information System (SISCAN), using variables such as sex, race, and age group. **RESULTS:** During the analysis period, 9,864 deaths due to malignant laryngeal neoplasm were recorded in the Northeast, with 2022 being the year with the highest incidence (1,094 cases). In Maranhão, 580 deaths were recorded, making it the sixth state in the region with the highest incidence, with 2021 having the highest number (68). Males were the most affected in the Northeast, with 8,349 occurrences, representing 84% of deaths, and in Maranhão, with 477 deaths, representing 82% of the total. Regarding race, mixed-race individuals were the most affected, with 6,217 cases (63% of deaths) in the region and 389 in the state (67% of deaths), while the Asian race had the fewest cases, with 18 and 2 cases, respectively. In terms of age, the 60-69 age group had the highest mortality in Maranhão (158) and in the Northeast (2,889). **CONCLUSION:** The data indicate a significantly higher prevalence of deaths among men and the elderly, both in Maranhão and the Northeast, as smoking and alcoholism, the main risk factors for laryngeal cancer, are more prevalent among males. Additionally, men are often employed in occupations that expose them to carcinogenic and harmful chemicals. Finally, the reduced recovery capacity, socioeconomic inequality, and difficulty accessing healthcare explain the mortality rates among the elderly and mixed-race individuals. Therefore, primary prevention efforts targeting risk factors and improved access to healthcare services for vulnerable populations are necessary.

**230. EPIDEMIOLOGICAL PROFILE OF CONGENITAL SYPHILIS FROM 2013 TO 2023 IN MARANHÃO**

Thalia Diniz da Silva<sup>1</sup>, Andressa De Assis Barbosa Costa Oliveira<sup>1</sup>, Laio Vinicius Spindola De Araujo<sup>1</sup>, Ana Clara Coutinho De Oliveira<sup>1</sup>, Êmilly Araújo Costa Lucena<sup>1</sup>, Tarsila Pinheiro Brás<sup>1</sup>, Andrea Borges Araruna De Galiza<sup>1</sup>.

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**INTRODUCTION:** Syphilis is a curable infection caused by the *Treponema pallidum* bacteria. It can be transmitted through unprotected sexual intercourse, blood transfusions and vertical transmission, i.e. when it occurs from the mother with active infection to the baby intrauterinely, during childbirth or through contact with lesions. Congenital Syphilis (CS) is considered an easily preventable disease, and its effects on the fetus can be minimized or eliminated when the disease is early diagnosed and the correct treatment is used. In view of this, this study aims to describe the epidemiological profile of CS in the state of Maranhão, from 2013 to 2023. **METHODS:** An epidemiological cross-sectional longitudinal observational study of the ecological type was carried out. The data used in the study was obtained from the Notifiable Diseases Information System (SINAN), accessible on the website of the Unified Health System Database (DATASUS). It is available on the public domain platform and therefore does not need to be submitted to the human research ethics committee. **RESULTS:** During the 11-year analysis period, there were 5.133 children reported with CS. There has been an exponential increase in the number of reported cases over the years, with the peak incidence occurring in 2018, when 823 cases were reported. São Luís stood out as the health region with the highest number of cases in this period, accounting for 379 cases. After 2018, there was a decrease in notifications, culminating in 272 cases reported in 2023. It was also found that 4.442 women underwent prenatal care during pregnancy, while 574 did not. The prenatal status of other pregnant women was reported as ignored or blank. In view of the above, it can be seen that in approximately 85% of CS cases, prenatal care was carried out, which suggests that the diagnosis was made, but there was poor adherence to treatment, which may be due to the pregnant woman or her partner. **CONCLUSION:** This research revealed an exponential increase in the number of CS cases in Maranhão between 2013 and 2018, followed by a gradual decrease until 2023. São Luís was the health region with the highest number of CS cases. This highlights the need for more effective actions, especially in prenatal care, including syphilis testing for all pregnant women, as well as timely diagnosis and treatment of pregnant women and their partners, with the aim of reducing vertical transmission.

**231. EPIDEMIOLOGICAL PROFILE OF TUBERCULOSIS IN CHILDREN UNDER 15 IN MARANHÃO (2014-2024)**

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<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Tuberculosis (TB) is a disease caused by *Mycobacterium tuberculosis*, and is the most common pulmonary form in the world population, ranging from 10 to 18 cases/day in Brazil. This study aimed to analyze the epidemiological profile of TB cases between 2014 and 2024 in patients under the age of 15 in the state of Maranhão. **METHODS:** This is an epidemiological, retrospective, quantitative and descriptive study based on data provided by the Department of Information Technology of the Unified Health System (DATASUS). The study population consisted of tuberculosis cases in Maranhão between 2014 and 2024 in individuals under the age of 15. The correlated variables were: year of care, confirmed cases, age group, gender, pulmonary and extrapulmonary form. **RESULTS:** In the period studied, 694 confirmed cases of tuberculosis in children under 15 were recorded in the state of Maranhão, with the year 2023 standing out as 11.6% of confirmed cases. Females accounted for 49.2% of records, with 2018 having the highest number of diagnoses, with 12.8% of cases in females. The male group accounts for 50.7% of notifications, with 2014 standing out as the year with the highest number of diagnoses, totaling 12.7% of cases in males that year. Regarding the clinical form of the disease, 74.7% cases were confirmed as Pulmonary Tuberculosis, while 23.1% cases were classified as Extrapulmonary. **CONCLUSION:** It is therefore essential to plan health services, with a focus on training professionals, with a view to early diagnosis and appropriate treatment of the affected population. In summary, the epidemiological profile of tuberculosis in children under 15 in Maranhão over the last 10 years reflects a complex interaction of biological, socio-economic and public health factors. A detailed analysis of these factors is essential for developing effective strategies to control and prevent childhood tuberculosis in the state.



**232. EPIDEMIOLOGICAL PROFILE OF HOSPITALIZATIONS FOR GASTRIC CANCER IN PARÁ AND BRAZIL (2019-2023)**

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**INTRODUCTION:** Gastric cancer (GC) is one of the most common malignancies worldwide, being responsible for more than 20 thousand deaths in individuals over 20 years of age in the last 5 years in Brazil. In the state of Pará, GC is the second most common type of cancer in men and the third in women. The pathology is more common in males and is related to the presence of the *Helicobacter pylori* bacteria in the stomach, in addition to being associated with poor eating habits, tobacco use and a family history of GC. Therefore, the study aims to analyze the profile of hospitalizations for malignant neoplasia of the stomach in the state of Pará compared to the national profile in the last 5 years. **METHODS:** The research corresponds to a cross-sectional, descriptive and analytical study with a quantitative approach using data obtained from the Ministry of Health/Hospital Morbidity of the Unified Health System - Hospital Admissions System (SIH/SUS), available at the Information and IT Department of the SUS (DATASUS), from 2019 to 2023. Data were collected from individuals over 20 years of age nationwide, as well as in the state of Pará, aiming for subsequent comparative analysis. **RESULTS:** After data collection carried out by DATASUS, there were 162,209 hospitalizations for gastric cancer throughout Brazil, between 2019 and 2023, with 3,180 hospitalizations in the state of Pará alone. Furthermore, it is worth highlighting that, of the total number of hospitalizations in the Pará, 2,147 are male patients, showing that this predominance follows the national trend in which 103,598 hospitalizations are male patients. Furthermore, it is noteworthy that the age group between 60 and 69 years old is the most affected by stomach malignancy in adults over 20 years old, not only in Pará (28.95%) but also in Brazil (31.28 %), showing this predominance in all 5 years of analysis of this research. **CONCLUSION:** In summary, gastric malignant neoplasms appear uniformly when comparing the state of Pará with the national scenario. It is clear that there is a considerable predominance of cases in males and elderly patients in both contexts. Therefore, it is essential that the competent bodies investigate the local particularities that influence this proportion in Pará, such as local lifestyle and the genetic profile of the population affected by GC in the state, in order to create policies that are more appropriate to the needs of Primary Care in Pará.

**233. EPIDEMIOLOGICAL PROFILE OF HOSPITALIZATIONS DUE TO ARTERIAL EMBOLISM OR THROMBOSIS IN BRAZIL**

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<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Arterial thrombosis and embolism are serious cardiovascular conditions that can lead to severe complications and even death. Arterial thrombosis occurs when a blood clot forms in an artery, while arterial embolism occurs when a clot travels and blocks an artery in a different location. This study focuses on the analysis of hospitalizations due to these conditions in Brazil between 2019 and 2023, aiming to elucidate the epidemiological profile of patients with these diseases, and to encourage further research and interventions surrounding arterial thrombosis and embolism. **METHODS:** This is a descriptive study with a quantitative approach and a retrospective analysis of records obtained between 2019 and 2023. The data was collected from the Hospital Information System of SUS (SIH-SUS), using the TABNET database. The data analyzed corresponds to hospitalizations classified according to the International Classification of Diseases, 10th revision (ICD-10). The selected codes were ICD-10 I74 (arterial thrombosis or embolism), and the variables analyzed were age, gender, and race, for the period from 2019 to 2023. **RESULTS:** The data analysis revealed that 122,851 hospitalizations occurred due to arterial thrombosis or embolism between 2019 and 2023. In the age category, the group aged 60 to 69 years had the highest number of cases, with 35,683 (29%). This was followed by the 70 to 79 years group, with 30,648 cases. Regarding gender, males presented the majority of cases, with 70,230 (57%). In terms of race, individuals identified as white had the highest number of cases, with 51,662, followed by individuals identified as black, with 43,658 cases. **CONCLUSION:** Thus, older age groups presented the highest number of cases of these diseases. Additionally, gender showed a predominance of the condition in males. Furthermore, individuals identified as white and black showed higher prevalence in absolute numbers when it comes to the occurrence of these diseases.

**234. EPIDEMIOLOGICAL PROFILE OF HOSPITALIZATIONS FOR ACUTE MYOCARDIAL INFARCTION IN SOUTHERN MARANHÃO**

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**INTRODUCTION:** Acute Myocardial Infarction (AMI) is characterized by myocardial injury secondary to ischemia, and it presents with high incidence and morbidity-mortality rates. Early symptom recognition and immediate interventions are crucial to minimize damage and improve clinical outcomes. This study aimed to evaluate the epidemiological profile of hospitalizations due to acute myocardial infarction in the southern macro-region of Maranhão from 2013 to 2023. **METHODS:** This descriptive, retrospective, and quantitative study was conducted using data from the Hospital Information System of the Unified Health System (SIH/SUS), obtained through DATASUS. The study analyzed the number of hospitalizations, deaths, and mortality rates due to AMI during the period, correlating variables such as age group, sex, and race/ethnicity. **RESULTS:** The analysis revealed 3,947 hospitalizations and 495 deaths due to AMI in the southern macroregion of Maranhão. The municipality of Imperatriz accounted for 70.1% of the hospitalizations, likely due to its population density and its role as a regional hub for healthcare services in southern Maranhão, as well as possible underreporting. A higher prevalence of hospitalizations and deaths was observed in individuals of mixed race (35.3%), those in their sixties (27.6% and 29.6%, respectively), and males (63.3% for hospitalizations and 58.5% for deaths), consistent with findings in the literature. The predominance among men is attributed to factors such as lower healthcare-seeking behavior and habits like smoking, poor diet, and alcohol consumption. The overall mortality rate was 12.54, with the highest rates recorded in Barra do Corda (20.45), among octogenarians (24.20), and in females (14.18), highlighting territorial inequalities in healthcare access, increased mortality risk with aging, and hormonal influences. **CONCLUSION:** Given the prominent role of Imperatriz, it is essential to intensify monitoring and interventions in this area, focusing on improving access to healthcare services, prevention, and diagnosis, particularly for high-risk groups. Underreporting distorts the true prevalence of the disease and hinders the development of effective health strategies, underscoring the need to strengthen surveillance and reporting systems. A comprehensive approach is therefore crucial to address the high prevalence of AMI in the southern Maranhão population.

**235. EPIDEMIOLOGICAL PROFILE OF HOSPITALIZATIONS FOR MENTAL DISORDERS AND SUBSTANCE USE**

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**INTRODUCTION:** Mental and behavioral disorders resulting from the use of psychoactive substances (PAS) encompass a series of clinical manifestations resulting from the consumption of one or more substances. Among the states of Northeastern Brazil, Maranhão stands out for having one of the highest rates of psychiatric hospitalizations related to mental and behavioral disorders associated with the use of these substances. The aim of this study is to draw up an epidemiological profile of hospitalizations for mental and behavioral disorders due to the use of psychoactive substances in São Luís between 2013 and 2023. **METHODS:** This study is characterized as an ecological study, carried out by collecting data from the Hospital Information System of the Unified Health System (SIH-SUS), available on the Ministry of Health's TABNET website. Patient cases were analyzed using variables related to color/race, gender and age group. **RESULTS:** In the period from 2013 to 2023, across the entire health network, 12,359 hospitalizations were carried out. The years 2022 and 2013 were respectively the highest and lowest in terms of the number of hospitalizations, with 1,562 and 454 reported cases. Regarding the gender and color/race variables, males were in the majority, accounting for 91.08% of all cases, and the dominant color/race in hospitalized patients were self-declared browns, making up 77.77% of the total. In addition, with regard to the age group variable, it was noted that the 20-29 age group was the dominant one, accounting for 35.65% of the total number of cases. **CONCLUSION:** In short, it is essential that the relevant public institutions step up their health education efforts aimed at preventing the consumption of psychoactive substances, thus promoting public awareness of the negative consequences associated with these substances. Further studies are suggested in order to broaden knowledge on the subject.

**236. EPIDEMIOLOGICAL PROFILE OF HOSPITALIZATIONS DUE TO VARICOSE VEINS IN MARANHÃO IN THE LAST 10 YEARS**

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**INTRODUCTION:** Varicose veins (VV), commonly known as varicose, are characterized by the dilation and deformation of veins, especially those that are superficial and located in the lower limbs. Varicose veins develop when the venous valves, which are responsible for regulating blood flow, do not function properly, leading to increased venous pressure and dilation of the veins. Thus, the causes for the inefficient functioning of these valves include mainly age, sex, and lifestyle. Given the complications of the high prevalence and the impacts on public health due to VVs, the present study aims to outline the epidemiological profile of hospitalizations due to varicose veins in the state of Maranhão over the past 10 years. **METHODS:** This is a cross-sectional, descriptive, quantitative study, in which data were collected using the TabNet Win 32 3.0 tool, provided by the Information Technology Department of the Unified Health System (DATASUS). The research focused on the analysis of hospital admission data according to the International Classification of Diseases, 10th revision (ICD-10), selecting the ICD-10 code I83 (varicose veins of the lower extremities). The variables sex, age group, and skin color of the patients were considered, covering the period from April 2014 to April 2024. The data were extracted, organized, and processed in Microsoft Excel 2016 software for the performance of descriptive statistical analyses. **RESULTS:** The data obtained show that between April 2014 and April 2024, 4,639 hospitalizations due to varicose veins were recorded in Maranhão, with a higher incidence of cases in 2022 (609). Regarding the variables analyzed, a higher occurrence of cases was observed among women (3,366 cases, 73% of the total) than among men (1,273 cases, 27% of the total). Additionally, the age group between 40 and 49 years presented the highest number of cases (1,190, 26% of the total) compared to the others. Finally, regarding skin color/race, brown people were hospitalized for varicose veins more than others (2,845 cases, 61% of the total). **CONCLUSION:** The study demonstrates that the epidemiological profile of hospitalizations due to varicose veins is prevalent in women, in the age group of 40 to 49 years, and in brown people. Therefore, these data highlight the need for prevention and treatment strategies focused on the outlined profile, seeking to reduce the complications of high prevalence and the impacts on public health.

**237. EPIDEMIOLOGICAL PROFILE OF HOSPITALIZATIONS DUE TO VARICOSE VEINS IN MARANHÃO IN THE LAST 10 YEARS**

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**INTRODUCTION:** Acute Myocardial Infarction (MI) is characterized as a critical condition that occurs when the blood flow in part of the heart's arteries is blocked for an extended period, causing damage to the heart muscle. Additionally, MI is one of the leading causes of global mortality, associated with risk factors such as hypertension, high cholesterol, smoking, and sedentary lifestyle. Symptoms include angina, dyspnea, nausea, and sweating. Rapid detection and treatment are crucial to increase survival chances and minimizing heart damage. Therefore, it is essential to analyze the incidence and epidemiological profile of deaths due to MI in Maranhão between 2012 and 2022. **METHODS:** This is an observational, retrospective, quantitative study with data collected from the DATASUS platform regarding the incidence of MI deaths, age group, gender, and race/skin color between 2012-2022 in Maranhão. **RESULTS:** During the research period, there was an incidence of 27 MI deaths per 100,000 inhabitants in Maranhão, with a total of 1,894 notifications. The age groups with the highest incidence were: 80 years and older (n=446), 70 to 79 years (n=532), and 60 to 69 years (n=507), with males being more prevalent (1,090) compared to females (n=804). Regarding race/skin color, in Maranhão, brown-skinned individuals (33,21%) predominated among MI deaths, followed by yellow-skinned (5,22%) and white-skinned individuals (2,85%). **CONCLUSION:** Given the aforementioned circumstances, it is observed that the prevalence of MI deaths in Maranhão was 1.894 during the period from 2012 to 2022. Additionally, the most affected age group consists of individuals over 70 years old. Moreover, males and individuals of brown and yellow skin color are the most prevalent in the statistics. Thus, MI deaths represent a public health warning, requiring continuous prevention and control efforts.

**238. EPIDEMIOLOGICAL PROFILE OF MENINGITIS IN THE STATE OF MARANHÃO FROM 2019 TO 2023: A CROSS-SECTIONAL STUDY**

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**INTRODUCTION:** Meningitis consists of an inflammation of the membranes surrounding the central nervous system and is generally caused by bacterial infection. Although the disease is considered eradicated in Brazil, there has been an increase in reported cases of meningitis, which may indicate a failure in vaccination coverage, especially among children. Thus, the objective of this study is to describe the epidemiological profile of meningitis cases in the state of Maranhão over the period from 2019 to 2023. **METHODS:** This is a cross-sectional, descriptive, and retrospective study. Secondary data were obtained from the Sistema de Informação de Agravos de Notificação (SINAN) of the Departamento de Informação e Informática do Sistema Único de Saúde (DATASUS). To describe the confirmed cases of meningitis in the period from 2019 to 2023 in the state of Maranhão, the following variables were considered: age group, ethnicity, sex, etiology, and confirmation criteria. **RESULTS:** During the analysis period, a total of 546 cases of meningitis were recorded. Regarding age group, a higher occurrence was observed in children under 1 year of age (n=155; 28.39%), followed by a considerable distribution among adults aged 20 to 39 years (n=95; 17.40%). Additionally, a higher prevalence was noted in the brown ethnic group (n=446; 81.68%), followed by white individuals (n=62; 11.36%). There was also a greater occurrence of cases among men (n=297; 54.40%). In terms of etiology, despite the dominance of the category "Unspecified Meningitis" (n=264; 48.35%), viral meningitis (n=101; 18.50%) and bacterial meningitis (n=78; 14.29%) were notable. The most significant confirmation criterion was the cytochemical analysis (n=241; 44.14%), followed by clinical criteria (n=169; 30.95%). **CONCLUSION:** A higher number of cases of meningitis was observed among children under one year of age, particularly among males and brown individuals. The significant number of cases without specified etiology is due both to the prominence of clinical diagnosis, which makes the identification of the etiological agent difficult, and to the inefficiency in data recording by health services. Thus, the results emphasize the importance of accurate diagnoses and public health actions to control morbidity and mortality indicators associated with meningitis.

**239. EPIDEMIOLOGICAL PROFILE OF SEXUAL VIOLENCE VICTIMS IN THE NORTHEASTERN REGION, FROM 2018 TO 2022**

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**INTRODUCTION:** Sexual violence is defined as any act that forces another person to witness or engage in sexual interactions, perpetrated by someone in a position of power or using physical force to intimidate, coerce, or exert psychological influence. This form of violence causes profound psychological, emotional, and social consequences for the victims. In Brazil, the Northeastern region stands out due to the high prevalence of reported cases, highlighting the need to understand the epidemiology of this issue to formulate public policies that can prevent and mitigate its impact. Therefore, this study aims to describe the epidemiological profile of sexual violence victims in the Northeastern region of Brazil from 2018 to 2022. **METHODS:** This is a descriptive epidemiological study with a cross-sectional design, utilizing secondary data from the Department of Health Informatics of the Unified Health System (DATASUS). The study is restricted to the Northeastern region, covering the period from 2018 to 2022, and includes variables such as state of occurrence, sex, age group, education level, and race/ethnicity. **RESULTS:** During the study period, a total of 42,799 cases were reported, with the state of Pernambuco accounting for the highest number of incidents (n=11,280). Females represented 92.7% (n=39,694) of the victims, compared to males at 7.3% (n=3,101). Regarding age distribution, 48.28% (n=20,665) of the victims were between 10 and 19 years old. Concerning education level, among those who declared it, the majority had not completed middle school (n=9,768). Lastly, in terms of race/ethnicity, 67.97% (n=29,092) of the victims identified as mixed-race (pardo). **CONCLUSION:** The analysis of the epidemiological data on sexual violence in the Northeastern region of Brazil from 2018 to 2022 reveals a concerning national scenario. The predominance of female victims and the vulnerability of adolescents aged 10 to 19 underscore the need for targeted public policies. The higher incidence among individuals with lower educational attainment and the predominance of mixed-race victims point to a context of social inequality. This study reinforces the importance of focused attention and coordinated actions to reduce the incidence of this issue.

**240. EPIDEMIOLOGICAL PROFILE OF TRAUMATIC AMPUTATION VICTIMS FROM 2014 TO 2023 IN MARANHÃO**

Gibson Emmanuel Moura Goes<sup>1</sup>, André Silva Rocha<sup>1</sup>, Wanderson José Cutrim Ferreira<sup>1</sup>, Antônio Vitor Bezerra Fernandes<sup>1</sup>, Cassio Henrique de Souza<sup>1</sup>.

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**INTRODUCTION:** Traumatic amputation is the accidental cutting of one or more limbs of the body, generally caused by traffic accidents, work accidents or gunshot wounds. When this occurs, the priority is the risk to the patient's life and, as it is a sudden event, care for psychological issues. In this sense, the objective was to outline the profile of patients hospitalized for traumatic amputation in Maranhão from 2014 to 2023, based on data from the Department of Informatics of the Unified Health System (DATASUS). **METHODS:** This is a descriptive and quantitative epidemiological study based on data collection from DATASUS, from 2014 to 2023 in Maranhão. The variables studied were: sex, race, age group, spatial and temporal distribution and mortality rate. As this is secondary data, approval from the Ethics Committee was not necessary. **RESULTS:** In the period studied, there were 10,535 cases of traumatic amputations, with the highest percentage in 2014, equal to 11.37% (n=1198), and the lowest in 2017, with 8.74% (n=921). Males were the most affected, with 73.42% (n=7735). As for race, the self-declared brown population had the majority of cases, around 37.28% (n=3928). Regarding the age group, the group aged 60 to 69 suffered the most, with 17% (n=1790). Regarding spatial distribution, the municipalities of São Luís, Presidente Dutra and Codó led the occurrences, with 44.42% (n=4680), 9.46% (n=997) and 4.02% (n=424), respectively. There was a mortality rate of 4.93%, with a higher rate among females (7.71%), white people (3.33%), those aged 80 or over (14.38%), in addition to to have a higher percentage in 2021 (5.56%). **CONCLUSION:** Considering the data collected, there is a constancy in the number of annual occurrences with no signs that point to a regression. Therefore, it is understood that the low variation over a decade reflects the existing challenge in mitigating this problem. In this scenario, the prevalence of a male epidemiological profile is configured, belonging to the brown race, in an age group between 60 and 69 years old, living in medium and large urban centers. Furthermore, the importance of this work stands out for quantifying and mapping the occurrence of these traumatic episodes, providing guidance for emergency teams and rescuers in general, as well as regarding the possible need for investments on the part of public authorities to remedy all demands of these regions, aiming for quick and effective service.

**241. EPIDEMIOLOGICAL PROFILE OF AIDS IN PATIENTS IN MARANHÃO FROM 2019 TO 2023**

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**INTRODUCTION:** AIDS (Acquired Immunodeficiency Syndrome) is a condition that represents the most advanced stage of HIV (Human Immunodeficiency Virus) infection. Thus, the weakening of the immune system due to the lack of proper treatment can allow the appearance of opportunistic diseases that characterize AIDS. In this sense, HIV is transmitted predominantly through bodily fluids, such as semen, blood and vaginal secretions, and there is also a risk of transmission from mother to child, whether during pregnancy, childbirth or breastfeeding. Risk factors for this condition include: vaginal or anal sex without a condom, receiving unsafe injections, tissue transplants and blood transfusions, as well as already having another sexually transmitted infection (STI). The objective of this study was to evaluate the epidemiological profile of AIDS patients in Maranhão over the last 5 years. **METHODS:** This is a retrospective epidemiological study, based on data from the Department of Information Technology of the Unified Health System (DATASUS), covering the period from 2019 to 2023. The variables used were: residence, sex, race/color, age group and mortality. **RESULTS:** According to data from DATASUS, approximately 5,237 cases of AIDS were registered in Maranhão, in relation to individuals residing in the state, from 2019 to June 2023. A total of 826 new cases diagnosed in Maranhão were registered in 2022, being the third highest number of records in the Northeast. According to the data researched, the highest incidence occurred in males with 68% (n = 3,565). Regarding races, 70.7% (n = 3,703) were ignored and 21.1% (n = 1,106) were brown. Regarding age group, 31.2% (n=1,634) are between 30 and 39 years old. In 2019, when analyzing mortality by each federation unit, 11 of them had a coefficient higher than the national one, which was 4.1 deaths per 100 thousand inhabitants, with Maranhão having a coefficient of 5.7 deaths per 100 thousand inhabitants. **CONCLUSION:** Therefore, it is possible to conclude that despite significant advances in HIV treatment, AIDS continues to be a problem in Maranhão's public health. Therefore, it is essential to identify the epidemiological profile of this condition so that assertive public policies can be directed, as well as greater monitoring and multidisciplinary intervention in the continuous search for reducing cases and controlling the transmission of this pathology.



**242. EPIDEMIOLOGICAL PROFILE OF MORTALITY FROM COLORECTAL CANCER IN THE STATE OF MARANHÃO**

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**INTRODUCTION:** Colorectal cancer is a malignant neoplasm that affects the colon and rectum, being one of the leading causes of cancer-related deaths worldwide. In 2020, global estimates indicated over 1.9 million new cases, making it the third most common cancer globally. In Brazil, it represents a significant public health concern due to its high prevalence and mortality rates, as colorectal cancer is the third most common cancer among men and the second most common among women in the country. This study aims to analyze the epidemiological profile of colorectal cancer mortality in the state of Maranhão, identifying associated risk factors and trends over recent years. **METHODS:** This is a comparative, quantitative, cross-sectional, and retrospective study on colorectal cancer mortality in the state of Maranhão, by health regions and their variables, during the period from 2013 to 2022. Data were collected through the Department of Informatics of the Unified Health System (DATASUS), using the International Statistical Classification of Diseases and Related Health Problems (ICD-10) codes C18, C19, and C20, which correspond to malignant neoplasms of the colon, rectosigmoid junction, and rectum, respectively. The study analyzed deaths by place of residence and variables such as sex, race/ethnicity, education level, age group, number of deaths, and mortality rate. **RESULTS:** During the analyzed period, 1,866 deaths were identified in the state of Maranhão, with the highest numbers in the health regions of São Luís (777), Imperatriz (203), and Itapecuru-Mirim (75). Between 2013 and 2022, mortality was higher among females (51.6%), with the highest incidence in the 60 to 69 age group (24.75%), predominantly among individuals of mixed race (59.32%), and most had 8 to 11 years of education (22.88%). Regarding the mortality rate, it was observed that in 2013, the rate was 2.1 per 100,000 inhabitants, while in 2022, this rate increased to 2.6 per 100,000 inhabitants. **CONCLUSION:** Determining the epidemiological profile of colorectal cancer in Maranhão is crucial for formulating public policies and developing strategies for early diagnosis and timely therapeutic intervention. States with high mortality rates require special attention, including investments in healthcare, education, and professional training to reduce regional disparities and improve patient quality of life and survival.

**243. EPIDEMIOLOGICAL PROFILE OF TUBERCULOSIS CASES IN THE STATE OF MARANHÃO**

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**INTRODUCTION:** Tuberculosis is an infectious disease caused by *Mycobacterium tuberculosis*, better known as Koch's bacillus, which mainly affects the lungs and is transmitted mainly through coughing. Furthermore, within the symptomatological framework, it is possible to find anorexia, dyspnea, fatigue and bloody secretion. The disease is considered a public health problem in Maranhão, as it has a high incidence, that is, rates higher than the national average, incomplete treatment, due to low adherence and abandonment, and facilitated dissemination due to the following factors: inadequate housing, malnutrition and pre-existing comorbidities. The present study aimed to evaluate the tuberculosis profile in Maranhão from 2018 to 2023. **METHODS:** This is an epidemiological study with a retrospective analysis and quantitative approach, in which data were taken from DATASUS and the Notifiable Diseases Information System (SINAN) for the selected years, with the following variables: sex, age group, race and type. **RESULTS:** During the proposed period, 17,276 cases were evaluated, 2,649 in 2018, 2,668 in 2019, 2,489 in 2020, 2,897 in 2021, 3,208 in 2022 and 3,365 in 2023. There was a higher incidence of tuberculosis in the state of Maranhão in brown people, with 71.3% (n=12,321). Regarding sex, males accounted for 68.2% (n=11,779), demonstrating predominance. Regarding age group, 42.9% (n=7,407) of individuals were between 20 and 39 years old, which characterizes the economically active population (EAP). Furthermore, the most frequent type is pulmonary, which affected 15,741 cases of the total studied. **CONCLUSION:** Therefore, there was a significant increase in the number of cases in the years studied, which may be related to the greater notification, progress that showed a greater incidence of ASD, warning of a possible economic problem in the affected regions. In addition, due to low adherence to treatment and lack of persistence, there is drug resistance, greater transmission and promotion of stigma and discrimination, since the individual, by postponing or abandoning treatment, presents worsening of the disease and ends up being socially isolated, amplifying resistance in seeking intervention.

**244. EPIDEMIOLOGICAL PROFILE OF HOSPITALIZATIONS DUE TO DROWNING IN BRAZIL FROM 2014 TO 2023**

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**INTRODUCTION:** Drowning is defined as a type of trauma in which there is aspiration of non-body fluid, caused by submersion or immersion. It is a significant cause of hospitalization and mortality, particularly among young people, making it important to understand the epidemiology of drowning to develop prevention measures aimed at reducing the number of hospitalizations and deaths from this type of trauma. In light of this, this study aims to describe the epidemiology of drowning-related hospitalizations in Brazil from 2014 to 2023. **METHODS:** This is a descriptive epidemiological study with a quantitative approach, conducted through data collection from the Department of Information and Informatics of the Unified Health System in Brazil (DATASUS) from 2014 to 2023. The variables used were: number of hospitalizations, health region, sex, race, age group, cause, and mortality rate. **RESULTS:** There were 7,096 hospitalizations due to drowning during the specified period, with the years 2016 and 2017 being the leaders in occurrences, accounting for 15.78% (n=1,120) and 14.27% (n=1,013) of total hospitalizations, respectively. In terms of spatial distribution, the Southeast Region accounted for 71.47% (n=5,072) of cases, followed by the Northeast and South, with 12.64% (n=897) and 7.45% (n=529) of hospitalizations, respectively. Minas Gerais had the highest rate, accounting for 40.76% (n=2,893) of national cases. Males represented 66.22% (n=4,699) of total hospitalizations, showing an incidence 96% higher than that of females. Regarding race, the white population stood out with 38.23% (n=2,713) of hospitalizations. The age group of 20 to 29 years accounted for 12.33% (n=875) of cases. In terms of causes, 49.74% (n=3,530) were due to drowning and submersion in pools, 20.78% (n=1,475) from submersion in bathtubs, and 14.23% (n=1,010) from drowning in natural waters. The mortality rate was 7.32% (n=520). **CONCLUSION:** The data highlights a high incidence of drownings, especially in the Southeast Region, with particular emphasis on the state of Minas Gerais. The predominance of male victims, primarily young adults, indicates the need for targeted interventions, particularly for these groups. The high incidence of drownings in pools underscores the importance of safety measures in these environments, whether in private or public settings. Therefore, this study emphasizes the urgency of interventions for the prevention of drownings and, consequently, the associated mortality.

**245. EPIDEMIOLOGICAL PROFILE OF HOSPITALIZATIONS DUE TO ATHEROSCLEROSIS IN MARANHÃO FROM 2019 TO 2023**

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**INTRODUCTION:** Atherosclerosis is characterized by the formation of plaques in the arterial walls, with endothelial lesions, accumulation of lipoproteins, recruitment of inflammatory cells, and proliferation of smooth muscle cells, resulting in stenosis and arterial dysfunction. It is one of the leading causes of death worldwide, with an estimated 17.9 million people dying from cardiovascular diseases each year. The present study seeks to investigate and analyze the epidemiological profile of hospitalizations due to atherosclerosis in Maranhão over the past 5 years. **METHODS:** A descriptive and retrospective epidemiological study was conducted using data extracted from the Hospital Admission System (SIH) database, made available by the Department of Informatics of the Brazilian Unified Health System (DATASUS). The variables analyzed were: number of hospitalizations, atherosclerosis ICD-10 (I70), age group, deaths, sex, ethnicity, and health macroregion from January 2019 to December 2023. The "Google Sheets" application was used for data tabulation and analysis. **RESULTS:** A total of 785 hospitalization cases due to atherosclerosis were recorded in Maranhão from 2019 to 2023, representing an average of 157 per year ( $\pm$  52.05). Among these, the most affected age group was 60 to 69 years, with 238 cases (30.31%), and males, with 459 cases (58.47%), were the most affected gender. Regarding females, there were 326 hospitalizations (41.53%). In terms of race/ethnicity, 416 hospitalized individuals (52.99%) had no information recorded, followed by 315 (40.12%) recorded as mixed race, 34 (4.33%) white, and 11 (1.41%) black. Furthermore, the North health macroregion reported 747 hospitalized cases (95.15%). Regarding the type of admission, 409 were emergency cases (52.10%) and 376 were elective (47.89%). As for deaths among the hospitalized individuals, 21 deaths were recorded, presenting a mortality rate of 2.67 per 100 cases. Of these, 10 male deaths (47.62%) and 11 female deaths (52.38%) were recorded, with individuals aged 80 years and above being the most affected, with 9 cases (42.85%). **CONCLUSION:** Based on the presented data, it can be inferred that atherosclerosis is a significant condition in terms of hospitalizations in Maranhão, with a notable number of hospitalizations and mortality among the elderly and male populations. Therefore, the described epidemiology provides important information for planning and implementing preventive measures by the public health system in the state.

**246. EPIDEMIOLOGICAL PROFILE OF HOSPITALIZATIONS DUE TO VIRAL ENCEPHALITIS IN BRAZIL FROM 2019 TO 2023**Rômulo Guilherme Costa de Amorim<sup>1</sup>, Thercyo Ariell Costa Pereira<sup>1</sup>.<sup>1</sup> Faculty of Medicine Pitágoras - Bacabal

**INTRODUCTION:** Viral encephalitis is an inflammation or irritation of the brain parenchyma caused by viral invasion of the central nervous system (CNS). This condition is induced by viral etiological agents, such as herpes viruses (1 and 2), arboviruses, poliovirus and enteroviruses. Diagnosis is often performed through the analysis of cerebrospinal fluid (CSF) to investigate the viral agent along with brain imaging conducted via magnetic resonance imaging (MRI). Thus, the aim of this study is to analyze the epidemiological profile of hospitalizations for viral encephalitis in Brazil between 2019 and 2023.

**METHODS:** This study is a cross-sectional, descriptive, quantitative, and retrospective analysis based on data provided by the Hospital Information System of the Unified Health System (SIH/SUS), made available by DATASUS, regarding the 9,820 hospitalizations for viral encephalitis in Brazil from 2019 to 2023. The variables analyzed included age group, Brazilian regions, sex and color/race. **RESULTS:** A total of 9,820 cases of hospitalizations for viral encephalitis were recorded in Brazil between 2019 and 2023. The Northeast region reported the highest number of hospitalizations, with 4,039 cases (≈41.12%), followed by the Southeast with 2,531 (≈25.77%), South with 1,723 (≈17.54%), North with 845 (≈8.61%), and Central-West with 682 (≈6.95%). Males predominated with 5,253 cases (≈53.5%) compared to females with 4,567 (≈46.5%). The most prevalent color/race was brown (parda) at 5,028 cases (≈51.2%), followed by white (branca) at 2,488 (≈25.33%). The predominant age group was between 1 to 4 years, with 1,784 hospitalizations (≈18.16%).

**CONCLUSION:** The epidemiological profile of hospitalizations for viral encephalitis in Brazil from 2019 to 2023 demonstrated a higher prevalence in males, among individuals aged 1 to 4 years, of brown color/race, and in the Northeast region. Furthermore, the year 2019 reported the highest number of cases, totaling 2,473 (≈ 25.18%). It is essential to combat the viral agents contributing to the morbidity and hospitalizations of this disease, as well as to provide appropriate treatment.

**247. EPIDEMIOLOGICAL PROFILE OF ACQUIRED SYPHILIS IN THE STATE OF MARANHÃO FROM 2019 TO 2023**Enza Rafaela Sá Rêgo<sup>1</sup>, Samuel Fernandes Lucena<sup>1</sup>, Roseliny De Moraes Martins Batista<sup>1</sup>.<sup>1</sup> Dom Bosco University Center

**INTRODUCTION:** Syphilis is a Sexually Transmitted Infection (STI) caused by the bacterium *Treponema pallidum*. This disease can present various clinical manifestations that vary according to different stages (primary, secondary, latent, and tertiary syphilis) and can be transmitted sexually or vertically during gestation, classified as congenital, gestational, or acquired. In this context, the present study aims to analyze the epidemiological profile of acquired syphilis in the state of Maranhão from 2019 to 2023. **METHODS:** This is a descriptive and quantitative study based on data from the Department of Informatics of the Unified Health System (DATASUS/TABNET). The adopted variables were age group, sex, race, and education level, collected from 2019 to 2023 in the state of Maranhão. **RESULTS:** During the analyzed period, the state of Maranhão reported a total of 9,520 confirmed cases of syphilis, with the male sex being the most affected (58.5%). The year 2022 had the highest number of cases (29.9%), while 2020 had the lowest (13.1%). The most affected age group was 20 to 39 years (51.7%), followed by 40 to 59 years (28.9%), and the least affected was 10 to 14 years (0.47%). The brown race had the highest number of cases during this period (70%), followed by black (15.9%), white (11.4%), yellow (0.52%), and indigenous (0.4%). Regarding education, most cases were among illiterate individuals. **CONCLUSION:** The study revealed an increase in cases from 2019 to 2022, with a slight decrease in 2023. The most affected age group is 20 to 39 years, which can be explained by it being a period considered more sexually active. There was a difference in the percentage of cases between sexes, demonstrating that males are at a higher risk of acquiring syphilis, which may be explained by risk behaviors and a lower frequency of seeking preventive healthcare, resulting in late diagnoses and treatments. As for the prevalence of cases among black individuals and the illiterate population, a combination of socioeconomic, cultural factors, and access to healthcare are determinants. Therefore, it is crucial to intensify health education in the state to prevent the transmission of this disease.

**248. EPIDEMIOLOGICAL PROFILE OF RETINOBLASTOMA IN BRAZIL BETWEEN 2014 AND 2024**Chrisley Batista Ramos dos Santos<sup>1</sup>, Mylena Andréa Oliveira Torres<sup>1</sup>.<sup>1</sup> University Center of Maranhão

**INTRODUCTION:** Retinoblastoma is the most common intraocular malignant neoplasm in childhood, but rare compared to other pediatric malignant tumors. More than 95% of clinical cases are diagnosed before 5 years of age. The malignancy occurs sporadically or hereditary, due to mutation in the RB1 tumor suppressor gene. The objective of this study was to outline an epidemiological profile of Retinoblastoma cases in Brazil, identifying clinical manifestations and therapeutic management. **METHODS:** This is a retrospective and quantitative cross-sectional epidemiological study based on data collection from DATASUS and the National Cancer Institute (INCA), between 2014 and 2024, using the variables gender, age group, ethnicity, staging and therapeutic modality. **RESULTS:** There were 138 cases registered during the period from 2014 to 2024, by INCA, of which the prevalence of the age group was less than 1 year (n = 39), male gender (n = 80) and brown ethnicity (n = 30). Regarding the tumor staging between less than 1 year and 5 years of age, according to DATASUS, there was a prevalence of Reese-Ellsworth stage 1 (n = 170) of the 652 confirmed cases, followed by chemotherapy and surgery as the most used oncological treatment. **CONCLUSION:** It was observed that the epidemiological profile of Retinoblastoma predominates up to 5 years of age of brown ethnicity in males, with initial staging in most cases, which in the clinical diagnosis present unilateral or bilateral leukocoria and strabismus. Thus, the clinical-epidemiological study of Retinoblastoma is important in oncological treatment and has a good prognosis, since knowing the profile of pediatric patients with Retinoblastoma contributes to the early diagnosis of the tumor.

**249. EPIDEMIOLOGICAL PROFILE OF DENGUE CASES FROM 2014 TO 2024 IN PATIENTS IN MARANHÃO**Victoria de Jesus Martins Fonseca<sup>1</sup>, Rebeca Fideles Camelo Cardoso<sup>1</sup>, Sara Passold Martins<sup>1</sup>, Shen Bruna Pagung Costa<sup>1</sup>, Mylena Andréa Oliveira Torres<sup>1</sup>.<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Dengue is an infection caused by a virus from the Flaviviridae family, transmitted mainly by mosquitoes of the *Aedes aegypti* genus. It has 4 genetically distinct serotypes: DENV-1, DENV-2, DENV-3 and DENV-4. Its main characteristics are fever, weakness, intense pain, increased hematocrit and, in severe cases, the accumulation of fluid in cavities. Most patients can recover, however, some cases can progress to serious stages, including death. The failure of the methods of containing the vector in Maranhão is reflected in the significant increase in Dengue cases among the most exposed people, and this represents a greater concern for the increase in hospitalizations. The objective of this study is to analyze the epidemiological profile of patients with dengue cases and hospitalizations in Maranhão from 2014 to 2024. **METHODS:** This is a retrospective, quantitative epidemiological study, with data collection from the Departamento de Informação do Sistema Único de Saúde (DATASUS), analyzing the years 2014 to 2024. The variables used were: probable cases per year and per municipality, hospitalization per year and per age group in the state of Maranhão. **RESULTS:** According to the data researched, 2,675 were registered in Maranhão in 2014; 8,069 in 2015; 23,653 in 2016; 7,132 in 2017; 2,132 in 2018; 5,593 in 2019; 2,517 in 2020; 1,322 in 2021; 6,849 in 2022; 4,801 in 2023; and 10,660 until the first half of 2024. A total of 75,718 probable cases of Dengue were registered, with the three municipalities with the most probable cases per year: São Luís with 12% (n = 9168), Barra do Corda 3% (n = 2283) and Balsas 2% (n = 2128). Furthermore, in the same period there were 9693 hospitalizations, with the highest number for people between 20 and 39 years old, 27% (n=2639), and the highest percentage of hospitalizations in relation to the number of cases per group was for children under 1 year old, with 24% (n=494) of hospitalizations. **CONCLUSION:** Therefore, it is noted that the current scenario is worrying, the biggest risk groups for Dengue in Maranhão were young people between 20 and 39 years old, being the most numerous group in hospitalizations, and those under 1 year old, due to the high number of hospitalizations for a smaller number of cases in relation to young people.

**250. EPIDEMIOLOGICAL PROFILE OF GESTATIONAL SYPHILIS CASES IN SÃO LUÍS – MA FROM 2019 TO 2023**

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**INTRODUCTION:** Syphilis is one of the most globally impactful transmissible infections, caused by the bacterium *Treponema pallidum*. Transmission can occur through sexual contact, causing acquired syphilis, or through vertical transmission, from mother to fetus. When it occurs in pregnant women, it is called gestational syphilis, which can cause serious problems for the fetus. This infection during pregnancy is treatable, and thus congenital syphilis can be prevented. Despite efforts, cases of this infection persist in the city of São Luís – MA. This study aimed to describe the epidemiological profile of gestational syphilis in São Luís – MA, between 2019 and 2023. **METHODS:** This study aimed to describe the epidemiological profile of gestational syphilis in São Luís – MA, between 2019 and 2023. This is a retrospective, descriptive, and quantitative epidemiological study conducted through the collection of secondary data from the DATASUS platform regarding confirmed cases of syphilis in pregnant women in the period from 2019 to 2023 in São Luís - MA. The variables investigated include the maternal sociodemographic profile such as education level, age group, and race/ethnicity, as well as the classification of syphilis. **RESULTS:** During the sample period, 1,911 cases of syphilis in pregnant women were reported, with 23.3% (n=446) in 2019, 18.1% (n=347) in 2020, 25% (n=478) in 2021, 21.1% (n=416) in 2022, and 11.7% (n=224) in 2023. Among the records, there was a predominance of pregnant women with a high school education, corresponding to 45.5% (n=870) of the cases. In terms of age group, 0.83% (n=16) of the cases were from 10 to 14 years old, 18.5% (n=354) from 15 to 19 years old, 78.4% (n=1,499) from 20 to 39 years old, and 2.4% (n=47) from 40 to 59 years old. Of the recorded cases, 9.2% (n=176) were White, 10.6% (n=204) Black, 0.73% (n=14) Asian, 78.4% (n=1,499) Brown, and 0.15% (n=3) Indigenous. Regarding clinical classification, 39.2% (n=751) were primary, 17.3% (n=331) secondary, 9.1% (n=174) tertiary, 26.7% (n=512) latent, and 7.4% (n=143) were unidentified. **CONCLUSION:** Therefore, the study showed significant rates of syphilis in pregnant women in the city of São Luís - MA. These findings reveal the need for early interventions in the screening and treatment of pregnant women and their partners to reduce cases of congenital syphilis.

**251. EPIDEMIOLOGICAL PROFILE OF TUBERCULOSIS CASES IN BAIXADA MARANHENSE BETWEEN 2019 AND 2023**

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**INTRODUCTION:** Caused by the bacterium *Mycobacterium tuberculosis*, also known as Koch's bacillus, tuberculosis is an infectious and transmissible disease that mainly affects the lungs (pulmonary form), although it can affect other organs/systems (extrapulmonary form). Despite being an old disease, tuberculosis remains a significant public health problem. Thus, this study aims, considering the severity of the pathology, to outline and analyze the epidemiological profile of tuberculosis cases in Baixada Maranhense. **METHODS:** This is a descriptive and retrospective study, whose data come from DATASUS and the Information and Notifiable Diseases System (SINAN) from 2019 to 2023, about tuberculosis cases in the Baixada Maranhense microregion. The following aspects were addressed: municipality with the highest notification, age group, gender, race and evolution of cases. **RESULTS:** During the period in question, 666 cases of tuberculosis were recorded in Baixada Maranhense, with emphasis on the municipality of Pinheiro, which reported 152 reports of the disease (22.8%). In addition, it was observed that two age groups had the highest number of occurrences, in which there are the intervals of 20 to 39 years (40.5%) and 40 to 59 years (34.3%). Males were the most affected by the disease (69.5%), while the race variable showed a predominance of self-declared brown people, with 484 reported cases (72.6%). Regarding the evolution of cases, 378 cured patients were recorded (56.7%), while 60 (9.0%) abandoned treatment, 14 (2.1%) died from tuberculosis, 30 (4.5%) died from other causes and 116 (17.4%) were ignored or have no data. **CONCLUSION:** Considering the epidemiological profile presented, it can be concluded that, despite the risk nature and underreporting of cases, tuberculosis can be cured if diagnosed and treated quickly. In this context, it is necessary to develop new health prevention strategies that aim to inform the population, especially in Baixada Maranhense, about the risks related to the transmission and development of tuberculosis.



**252. EPIDEMIOLOGICAL PROFILE OF LIVE BIRTHS WITH ATRIAL SEPTAL DEFECT IN BRAZIL**

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**INTRODUCTION:** Congenital heart disease (CHD) refers to abnormalities in the cardiovascular structure or function that are present at birth. Approximately 0.8% of live births present with cardiovascular malformations. Atrial septal defect (ASD) accounts for about 5% to 10% of all congenital heart defects. Comorbidities tend to develop during adulthood and often require medical attention. This study aimed to characterize the epidemiological profile of live births with ASD in Brazil. **METHODS:** Data collection was based on secondary information from the Live Births Information System, available through the Monitoring Panel for Congenital Malformations, Deformities, and Chromosomal Anomalies of the Department of Informatics of the Unified Health System. The analysis focused on the Q21.1 indicator (atrial septal defect) for the period from 2019 to 2023, correlating variables such as sex, race/ethnicity, type of delivery, gestational age, and Apgar scores. **RESULTS:** Over the five-year period analyzed, 3,338 live births with ASD were reported nationwide. The year 2023 recorded the highest number of cases (23.5%, n = 785), followed by 2022 (20.9%, n = 700). The Southeast region accounted for the vast majority of cases (93.4%, n = 3,119). There was no significant difference between sexes, with males (50.7%, n = 1,695) slightly outnumbering females (48.8%, n = 1,631). Mixed-race (48.6%, n = 1,623) and white (37.6%, n = 1,257) individuals were the most affected. Cesarean deliveries (61.0%, n = 2,039) were more common than vaginal deliveries (38.9%, n = 1,299). Most infants were born at term (67.4%, n = 2,252), while a smaller proportion were born before 37 weeks of gestation (32.5%, n = 1,086). Regarding Apgar scores at the first minute, the majority received scores between 8 and 10 (66.4%, n = 2,219), indicating no asphyxia, while 22.2% (n = 743) received scores between 5 and 7, suggesting mild asphyxia. **CONCLUSION:** Live births diagnosed with ASD in Brazil are predominantly male, of mixed-race ethnicity, delivered via cesarean section, born at term, and without asphyxia. The predominance of male cases contrasts with findings in the literature that generally report ASD as more common in females. There is a noticeable upward trend in reported cases over the years, suggesting improvements in notification systems and earlier ASD diagnoses. However, the concentration of cases in the Southeast region indicates potential underdiagnosis and underreporting in other regions of Brazil, highlighting the need for adjustments in the reporting methodology.

**253. EPIDEMIOLOGICAL PROFILE OF DEATHS DUE TO AORTIC ANEURYSM AND DISSECTION IN NORTHEAST BRAZIL**

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**INTRODUCTION:** Aortic aneurysms (AA) and dissections (AD) are diseases affecting the largest artery in the human body, responsible for transporting an average of 200 million liters of blood over a lifetime. This significance explains the high morbidity and mortality associated with these conditions, as well as the need for ongoing scientific and clinical-surgical updates in the field. This study aims to identify epidemiological patterns of mortality from AA and AD in Northeast Brazil, a region with increasing mortality rates and decreasing procedures, in order to contribute to the recognition of the profile of patients with aortic disease and to encourage further research in the region and in vascular surgery. **METHODS:** This is a cross-sectional, descriptive study with a quantitative approach. Data were collected using the TabNet Win 32 3.0 tool from the Department of Informatics of the Brazilian Unified Health System (DATASUS), visualizing mortality according to the 10th revision of the International Classification of Diseases (ICD-10). The ICD-10 code I71 (aortic aneurysm and dissection) was selected, along with the Northeast region and the variables of sex, age, and race, covering the period from 2013 to 2022. The data were collected and tabulated using spreadsheets in Microsoft Excel 2016 for statistical analysis. **RESULTS:** The results showed that there were 12,392 deaths from AA and AD between 2013 and 2022 in Northeast Brazil. Among the collected variables, males accounted for 6,998 cases (56.47%), while females accounted for 5,393 cases (43.52%). Regarding race, 7,496 cases (60.49%) occurred in mixed-race individuals, followed by 3,556 cases (28.70%) in white individuals, 948 cases (7.65%) in black individuals, and 3.16% in other races. In terms of age, 9,421 cases (76.02%) were recorded in individuals aged 60 or older, of whom 3,173 (25.61%) were 80 years or older, 2,920 (23.56%) were aged 20 to 59, and 45 cases (0.36%) were recorded in individuals under 19 years of age. **CONCLUSION:** There is a predominance of cases among men, mixed-race individuals, and the elderly, with a progressive increase in the number of deaths as age advances. Therefore, the findings of this study demonstrate that there are identifiable patterns in the epidemiology of mortality due to aortic aneurysm and dissection in Northeast Brazil.

**254. EPIDEMIOLOGICAL PROFILE OF DEATHS FROM ACUTE MYOCARDIAL INFARCTION IN MARANHÃO FROM 2020 TO 2023**

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**INTRODUCTION:** Acute Myocardial Infarction (AMI) can be defined as any event that causes myocardial ischemia and subsequent death of cardiac muscle cells. In Brazil, it is estimated that there are 300,000 cases of AMI annually, with 3 deaths for every 10 cases. Given the observed incidence, this study aims to further clarify the epidemiological profile of deaths caused by acute myocardial infarction in Maranhão. **METHODS:** This is a retrospective epidemiological study on the epidemiology of deaths from acute myocardial infarction in Maranhão, using data from the Hospital Information System (SIH/SUS) for the period from 2020 to 2023, based on mortality rates. The variables used were: municipality, age group, sex, and race or ethnicity. **RESULTS:** In the State of Maranhão, between 2020 and 2023, a total of 859 deaths due to acute myocardial infarction were reported. Regarding the occurrence of cases by municipality, São Luís, Imperatriz, and Caxias showed the highest prevalence, accounting for approximately 31.54% (271), 12.22% (105), and 9.08% (78) of deaths, respectively. In terms of occurrence by gender, a higher prevalence was observed among males, with 57.27% of the cases (492), compared to females, with 42.72% (367). Concerning age groups, the 60 to 69 years bracket had the highest number of deaths: 26.77% (230), followed by those aged 80 years and over and those aged 70 to 79 years, with 26.65% (229) and 25.84% (222), respectively. Additionally, individuals with brown skin color were the most prevalent, representing 51.92% of the deaths (446). **CONCLUSION:** AMI is prevalent in Maranhão and is associated with high morbidity and mortality. In the State of Maranhão, São Luís represents the location with the highest percentage of deaths, likely due to its larger population. The prevalence among brown-skinned individuals follows the same population logic. Regarding age groups, starting from 60 years old, there is no significant difference in the mortality rate. Therefore, the epidemiological predominance occurs in men, the elderly, and those with brown skin. Thus, there is a clear need for health promotion measures aimed at reducing the prevalence of AMI in Maranhão.

**255. EPIDEMIOLOGICAL PROFILE OF DEATHS FROM SEPSIS IN MARANHÃO FROM 2013 TO 2022**

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<sup>1</sup> Faculty of Medical Sciences AFYA – Santa Inês

**INTRODUCTION:** Sepsis is a disorder caused by the body's overwhelming response to an infection and is a leading cause of death worldwide. Nationally, approximately 240,000 adults die from sepsis each year. This study aims to describe the epidemiological profile of sepsis-related deaths in Maranhão from 2013 to 2022. **METHODS:** This is a retrospective, cross-sectional observational study on sepsis-related deaths in the state of Maranhão from 2013 to 2022, developed from data obtained from Mortality Information System of the Unified Health System (SIM/SUS). The information collected includes the total number of deaths due to sepsis (recorded as "septicemia" in CID-10), distribution by year, IBGE, sex, race and age group. The data was organized using Microsoft Office Excel<sup>®</sup> software. **RESULTS:** In the specified period, there were a total of 5,415 deaths from sepsis with the highest record in 2022 with 687 (12.68%) cases, while the lowest was in 2014 with 365 (6.74%). The microregion with the highest number of deaths in the developed period was in São Luís, totaling 1,840 (33.97%) records, followed by the microregion of Imperatriz and Codó with 1,308 (24.15%) and 365 (6.74%) cases, respectively. Conversely, the microregion of Chapada das Mangabeiras had the lowest amount with 10 (0.18%) cases. The highest number of deaths occurred in male patients, with 2,850 (52.63%) records. Regarding color/race, brown was the predominant race, with 3,367 (62.17%) cases. The highest number of deaths from sepsis occurred in patients aged 80 years or older, totaling 1,542 (28.47%) occurrences. **CONCLUSION:** There was a pattern of increasing deaths from sepsis in the Maranhão region during the analyzed period, with the predominant epidemiological profile being brown aged 80 years or older. Most cases occurred in the microregion of São Luís, possibly due to the larger population with access to healthcare in the capital or due to greater diagnostic and reporting efficiency of the health network.

**256. EPIDEMIOLOGICAL PROFILE OF PEDIATRIC PATIENTS HOSPITALIZED FOR EPILEPSY IN MARANHÃO**

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<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Epilepsy (EPL) is characterized by hyperactive and dysregulated neural activity, resulting in excessive and synchronized electrical discharges. Epileptic seizures are common pediatric emergencies, accounting for 1% to 5% of emergency room visits and representing the leading cause of neurological hospitalizations in children. This study aims to understand the pediatric population in Maranhão affected by EPL requiring hospitalization. **METHODS:** This is a descriptive epidemiological study based on hospital morbidity and mortality data from DATASUS. The sample included children and adolescents up to 19 years old hospitalized for epilepsy in Maranhão, from March 2019 to March 2024. The variables analyzed were "health macro-regions," "year of admission," "age group," "sex," "race/ethnicity," "length of stay," "type of admission," and "deaths". **RESULTS:** The study revealed significant data on pediatric EPL hospitalizations in Maranhão. A total of 3,346 hospitalizations were recorded, predominantly in the North macro-region (60.6%), followed by the East (21.9%) and South (17.3%) regions. Male patients showed a higher prevalence of hospitalizations (53.2%) and deaths (53.85%) compared to females. The age group 1 to 4 years was the most affected, accounting for 34.6% of the hospitalizations. Mixed-race individuals were the most hospitalized (64.2%) and had the highest number of deaths (76.93%), with 2023 being the year with the most records. Emergency admissions (95.2%) far exceeded elective ones (4.87%). The average length of stay was highest in 2022 and 2023 (5.8 days). A total of 26 deaths were recorded, with the highest concentration in the North macro-region (46.1%), and equal distribution between the East and South regions (26.9% each). The age group 15 to 19 years had the highest number of deaths (30.8%), followed by the 1-year-old group (26.9%). The data indicate an increase in mortality rates over the past four years, particularly in 2023. **CONCLUSION:** This study presents a concerning panorama of EPL in the pediatric population of Maranhão, with 3,346 hospitalizations during the analyzed period, predominantly in the North macro-region and among male and mixed-race individuals. The most affected age group was 1 to 4 years, with a notable increase in mortality rates in the last four years, particularly in 2023. These data underscore the need to deepen the understanding of the epilepsy profile in the state to develop specific strategies aimed at improving the quality of life for children and adolescents in Maranhão.

**257. EPIDEMIOLOGICAL PROFILE OF AIDS PATIENTS IN MARANHÃO (2018-2023)**

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**INTRODUCTION:** Human immunodeficiency syndrome (AIDS) is the disease caused by infection with the Human Immunodeficiency Virus (HIV) and is characterized by the weakening of the body's defense system and the appearance of opportunistic diseases. The HIV virus is transmitted through unprotected sexual intercourse with an HIV-positive person, that is, someone who already has the HIV virus, through the sharing of contaminated sharp objects from an untreated HIV-positive mother to her child during pregnancy, childbirth or breastfeeding. Thus, this study aims to analyze the epidemiological profile of AIDS carriers in the state of Maranhão. **METHODS:** This is a retrospective epidemiological study with a quantitative approach, in which data provided by the Notifiable Diseases Information System (SINAN) database were used, made available by the platform of the Department of Information Technology of the Unified Health System (DATASUS) and processed in the Microsoft Excel program. The years researched were 2018 to 2023. Race, sex and age group were analyzed as variables. **RESULTS:** During the studied period, 6,653 cases of AIDS were registered in Maranhão. Of these, 24.8% (n=1,649) were brown-skinned people. 67% (n=4,463) were male; 38.56% (n=2,566) were between 35 and 49 years of age, followed by 38.5% (n=2,562) between 20 and 34 years of age. **CONCLUSION:** It was observed that the majority of AIDS cases diagnosed in the State of Maranhão in the years analyzed occurred in brown-skinned individuals, as the majority of the population was male, between 35 and 49 years of age. Therefore, preventive actions, such as sexual health education in the community, treatment of cases, distribution of condoms and testing of all exposed individuals are extremely important for the process of combating the AIDS epidemic in Brazil to become effective.

**258. MICROBIOLOGICAL PROFILE OF SURGICAL SITE INFECTIONS IN CESAREAN SECTIONS: INTEGRATIVE REVIEW**

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**INTRODUCTION:** Surgical site infection (SSI) is a complication that can occur up to 30 days after surgery, with multifactorial causes related to the patient, the procedure, and the hospital environment. These infections are particularly significant in obstetric surgeries, such as cesarean sections. In Brazil, the high rate of cesarean sections exacerbates the problem, prolonging recovery, increasing treatment costs, and potentially leading to severe complications such as sepsis. Preventing SSIs is essential, especially due to the increasing bacterial resistance. Therefore, it requires a comprehensive approach with strategies before, during, and after the surgery. Thus, the aim of the study is to evaluate the most common microorganisms in post-cesarean infections. **METHODS:** This is an integrative review using the LILACS, SciELO, and PubMed databases. The main question was: 'What is the microbiological profile of infections at surgical sites after cesarean sections?' The review covered articles from 2019 to 2024, using health science descriptors: ('Surgical Wound Infection' OR 'Postoperative Infections') AND 'Cesarean Section.' Articles in Portuguese, English, and Spanish focusing on the microbiological profile of SSIs were included. Opinion articles, literature reviews, letters to the editor, and studies with inadequate methodology or small sample sizes were excluded. **RESULTS:** Nine articles were selected, with eight from PubMed and one from LILACS, all international. The distribution of the studies was 44% prospective, 44% retrospective, and 12% cross-sectional. *Staphylococcus aureus* was the most common agent, responsible for 55% of infections, followed by *Enterococcus faecalis* (18%), *Acinetobacter baumannii* (9%), *Pseudomonas aeruginosa* (9%), and *Escherichia coli* (9%). *S. aureus* is frequently found on the skin and mucous membranes, which facilitates contamination of the surgical site even with aseptic care. Its ability to form biofilms increases its resistance to antibiotics, complicating the treatment of post-cesarean infections. **CONCLUSION:** The study highlights the need for rigorous infection prevention and control strategies. The resistance of *S. aureus* to antibiotics requires new approaches in antimicrobial treatment. Implementing infection control practices and raising awareness about antibiotic use are essential for improving surgical safety and patient outcomes.

**259. PLACHTOPENIA INDUCED BY EXTRACORPOREAL CIRCULATION AFTER CARDIAC SURGERY**

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**INTRODUCTION:** Extracorporeal circulation (ECC) is used as an aid to cardiac surgeries, acting to replace cardiopulmonary function and controlling the patient's acid-base and water-electrolyte balances. Given the need to keep the body under control during surgery, ECC uses certain medications that can exceed the body's capabilities, causing situations such as thrombocytopenia, which has been linked to the use of heparin, one of the substances used in ECC, to prevent blood clotting. In this sense, the objective of this work is to determine whether there is any palpable relationship between thrombocytopenia and ECC time. **METHODS:** This is an analytical, longitudinal, descriptive and retrospective cohort study, approved by the Research Ethics Committee under consolidated opinion no. 6,678,093. The sample consisted of 102 patients undergoing myocardial revascularization surgery with ECC during the period from January 2022 to July 2023. The study variables are ECC time and number of platelets in the immediate postoperative period, which were tabulated in Graph Prisma software version 8.0. The data were subjected to the Shapiro-Wilk test, T test and frequency tables. **RESULTS:** It was possible to identify 44 (43%) patients in the sample with less than 150,000 platelets/mm<sup>3</sup>, with the average number of platelets and extracorporeal circulation time of 183,000 platelets/mm<sup>3</sup> and 93 minutes, respectively. The normality test indicated that it was a non-parametric sample ( $p < 0.0001$ ), with a significant difference between the variables ( $p = 0.039$ ). **CONCLUSION:** Therefore, it is clear that this is a scattered sample and cannot establish an association between cardiopulmonary bypass time and the development of thrombocytopenia. In this sense, although there are assumptions that the use of heparin in ECC may cause thrombocytopenia, this study did not identify any relationship between these variables. Therefore, other more detailed studies are necessary to completely rule out this hypothesis.

**260. GENETIC POLYMORPHISM AND MASCULINITY: A MULTIFACTORIAL PERSPECTIVE ON ERECTILE DYSFUNCTION**

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**INTRODUCTION:** Erectile dysfunction (ED) is the inability to achieve and/or maintain an erection, making it the most common sexual disorder among cisgender men. Information regarding the origin and development of this issue is still limited to organic factors, resulting in a lack of a multifactorial approach to ED. Therefore, the aim of this study is to relate ED to genetic polymorphisms and social dogmas about masculinity. **METHODS:** A systematic review of observational studies published between 2013 and 2023, obtained from the platforms Scielo, Pubmed, and Lilacs, was screened according to the PRISMA 2020 method checklist. **RESULTS:** It was found that anomalies in certain genes can cause failures in the erectile mechanism, affecting the function of nitric oxide (NO), which plays a role in the physiology of erection. Polymorphisms in the expression of the DDAH1 and DDAH2 genes cause dysfunction in NO signaling, as they metabolize the protein that inhibits the subtypes of nitric oxide synthase (NOS), and anomalies in AGXT2 are also related to increased levels of asymmetric dimethylarginine (ADMA) and symmetric dimethylarginine (SDMA), which inhibit NO production. In the treatment of ED, impairments caused by variant alleles of polymorphisms in the PDE5A gene were also detected, which reduce the response to the drug sildenafil, used to inhibit type 5 phosphodiesterase and thus enable erection. It was also observed that ED is strongly influenced by the concept of masculinity prevailing in society, where good sexual performance is seen as proof of masculinity and potency. The prevalence of the idea that cisgender men are the foundation of social organization, that their sexual organ is responsible for the perpetuation of humanity, and that failing to meet this responsibility will result in severe structural sanctions was notable. Therefore, the fear of not meeting this social pressure can psychologically affect many men to the point of preventing them from achieving an erection, drawing attention to the importance of men's mental health. **CONCLUSION:** Thus, it is understood that genetic polymorphisms in the DDAH1, DDAH2, and AGXT2 genes play a role in the development of ED, and those in the PDE5A gene impair the effectiveness of sildenafil-based treatment, highlighting the need for further scientific research in the field of genetics to minimize the disorder. In addition, it was proven that social pressure on men can cause ED, demanding that healthcare professionals pay attention to the psychocultural construction of patients as a complementary measure for etiological screening of the disorder.

**261. PUBLIC POLICIES: FACTORS THAT INFLUENCE MALE MORTALITY**

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**INTRODUCTION:** Although the Brazilian population's longevity reached 77 years of age in 2021, life expectancy for men, in particular, is only 73.6 years, while for women it is 80.6 years. Thus, this work aims to highlight the main causes of male mortality in Brazil and relate them to public policies. **METHODS:** The research, an integrative review, has a qualitative character with an exploratory, retrospective approach, which used as a data collection procedure the resource of documentary analysis through secondary sources: Ministry of Health, IBGE, articles published in the SciELO and PubMed databases with the descriptors: "Men's Health" AND "Mortality" "National Policy for Men's Health Care". Nine articles were selected after inclusion and exclusion criteria. **RESULTS:** The results show that the prevalence of male deaths from external causes such as accidents and violence, leading to premature death (68% were men). The second leading cause of male mortality was Circulatory System Diseases - CSD (70% of these deaths were men). In addition, there is a growing rate of suicides, especially among male adolescents, with the rate rising from 3.6 in 2001 to 9.9/100,000 inhabitants in 2019, with the state of Maranhão standing out in this growth. In order to reduce, and even prevent, preventable deaths, there is the National Policy for Comprehensive Health Care for Men (NPCHCM); the National Primary Care Policy and the National Coordination of Men's Health of the Ministry of Health, which seek actions to expand access to health by qualifying health care for the male population from the perspective of lines of care, safeguarding comprehensive care. **CONCLUSION:** It is noted that there is still much to be achieved, mainly due to sociocultural and institutional barriers, low adherence to self-care and late search for health services by the male population, making it necessary to reinforce health education and the engagement of patients and health professionals in primary care.



**262. POST-OPERATIVE COMPLICATIONS IN CARDIAC SURGERY WITH EXTRACORPOREAL CIRCULATION**

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**INTRODUCTION:** Coronary artery bypass grafting (CABG) with extracorporeal circulation (ECC) is a common intervention for treating severe coronary artery disease. Although this surgery effectively improves blood flow to the heart, it is associated with various post-operative complications. This study aims to evaluate the incidence and nature of post-operative complications in patients undergoing CABG with ECC, aiming to enhance the understanding of factors influencing clinical outcomes and to guide strategies for preventing and managing these complications. **METHODS:** This is an analytical, longitudinal, descriptive, and retrospective cohort study, approved by the Ethics Committee under opinion number 6.678.093. The sample comprised 104 patients who underwent coronary artery bypass surgery with ECC from January 2022 to July 2023. Patients who underwent other concomitant cardiac surgeries and those whose post-operative complications were not identified were excluded from the study. After applying the exclusion criteria, 84 patients were analyzed. **RESULTS:** Of these patients, 30 (35%) had no complications, 33 (39%) developed arrhythmias (23 with ventricular fibrillation and 10 with atrial fibrillation), 12 (14.2%) experienced hemodynamic instability, 7 (8.3%) had infections, 4 (4.7%) developed cardiogenic shock, 4 (4.7%) had cardiorespiratory arrest, and 10 (11.9%) died. Therefore, although most patients undergoing CABG with ECC did not present complications, arrhythmias, hemodynamic instability, and infections were observed as potential complications. Additionally, cardiogenic shock and cardiorespiratory arrest were noted as severe complications with a significant impact on post-operative mortality. **CONCLUSION:** These findings highlight the importance of perioperative prevention and management strategies to reduce post-operative complications and improve clinical outcomes in patients.

**263. PRE-, INTRA-, AND POST-OPERATIVE: POSSIBILITIES FOR THE APPLICATION OF TELEMEDICINE IN THE SURGICAL FIELD**

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**INTRODUCTION:** In recent years, telemedicine has emerged as a transformative tool in medical practice, facilitating remote consultations and diagnoses. Within the surgical field, telemedicine has the potential to expand access to care and to optimize hospital resources. However, the possibilities for its use in this domain are seldom discussed. Therefore, this study aims to elucidate the application of telemedicine during the surgical follow-up and perioperative care. **METHODS:** This is an integrative review that utilized the descriptors 'Telemedicine,' 'Telesurgery,' 'Virtual Medicine,' 'Telereferencing,' and 'Mobile Health' associated with the boolean operator OR in the PubMed database and the Virtual Health Library in June 2024. The inclusion criteria consisted of primary articles in English and Portuguese, published over the last 10 years, focusing on the use of telemedicine in the surgical field. Articles not available in full text and those not relevant to the research question were excluded. **RESULTS:** A total of 249 studies were retrieved, of which 16 met the inclusion and exclusion criteria. Telesurgery was utilized in general, urological, oncological, cardiac, and digestive surgeries. The robot-surgeon distance ranging from 6 km to 3000 km. In most articles, communication was conducted in real-time via 4K videoconferencing, allowing seamless and precise manipulation of the robotic arm without interruptions. The surgical complication rate was 5.0% for telepresence surgeries, compared to 4.5% for in-person surgeries. Internet latency up to 50 milliseconds was deemed acceptable, while delays beyond 100 milliseconds significantly impaired operative performance. Average latency ranged from 26 milliseconds to 114 milliseconds, with a data packet loss rate of 1.2%. Communication delay and image degradation were identified as critical factors in telesurgery. **CONCLUSION:** The findings highlight the necessary parameters for the utilization of telemedicine in surgical processes. However, there is a lack of information regarding its use in the pre- and post-operative phases. Obstacles in communication and image degradation due to internet difficulties are identified as factors that need to be improved and overcome during surgeries. Nevertheless, technology has proven to be a reliable factor in expanding surgical procedures to remote areas, enabling greater democratization of access to healthcare.

**264. PREVALENCE OF DENGUE IN NORTHEAST BRAZIL FROM 2019 TO 2023**

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**INTRODUCTION:** Dengue is an arbovirus, transmitted by *Aedes Aegypti*, which spreads in accumulated water, is highly contagious and its prevalence is highly relevant in public health. Caused by a flavivirus that has the serotypes: DENV-1, DENV-2, DENV-3, DENV-4. It can be influenced by environmental factors, such as rainfall distribution and temperature. This study was carried out with the aim of studying the prevalence of dengue in Northeast Brazil. **METHODS:** Epidemiological, quantitative, descriptive, time series study, with secondary data extracted from TABNET-DATASUS-Notifiable Diseases Information System (SINAN), from the period 2019 to 2023, the data were tabulated in Excel and statistically analyzed in the Bioestat Program 5.3., the results expressed in absolute numbers, frequencies, mean, standard deviation and coefficient of variation. **RESULTS:** In the period analyzed, 843,350 cases were reported in the Northeast region. In this time period, the highest detection was in the years 2019 and 2022, with a prevalence in the state of Bahia (30.78%). There was a prevalence of dengue notification in females (55.25%), in the age group of 20 to 39 years (37.81%) and ethnicity/brown color (59.58%). **CONCLUSION:** Attention should be paid to dengue as a highly transmissible disease, noting the high incidence in conjunction with its epidemiology and the risk of progression to dengue hemorrhagic fever and death. Because of this, dengue demands enormous public health attention in the Northeast region and the country. It should be noted, therefore, that the data presented here can support the development of public policies in the Brazilian northeast, with a view to reducing the number of dengue cases.

**265. PREVALENCE OF SELF-HARM CASES IN MARANHÃO FROM 2018 TO 2022**

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**INTRODUCTION:** Self-harm is the act of intentionally inflicting injury on one's own body, often driven by emotional distress or other motivations, taking various forms such as cutting, burning, or spacing. This behavior is most prevalent among individuals aged 10 to 25 years. Given the physical and psychological impacts of self-harm, this study aimed to outline the epidemiological profile of individuals engaging in this practice and assess its prevalence in the state of Maranhão. **METHODS:** This is a descriptive, observational, cross-sectional study using data from the TabNet platform of the Department of Health Informatics of the Unified Health System (DATASUS) on self-harm cases in Maranhão between 2018 and 2022. The following variables were considered: year, health macro-region, age group, sex, race, education level, and occurrence of concomitant forms of violence. **RESULTS:** During the analyzed period, a total of 1,880 cases were reported, with 2022 accounting for the highest number (n=659). The northern macro-region of Maranhão had the highest number of notifications (n=678). Regarding age distribution, about 66% (n=1,242) of individuals were between 10 and 29 years old. Additionally, most cases involved females (n=1,178) and individuals identified as mixed-race (pardo) (n=1,423). In terms of education level, the category with the highest number of notifications was those with incomplete elementary education (n=510). Among the types of concomitant violence, psychological/emotional abuse was the most prominent (n=208). **CONCLUSION:** The analysis of self-harm data in Maranhão from 2018 to 2022 reveals a concerning regional trend. The significant rise in cases in 2022, coupled with the concentration of incidents in the northern macro-region, highlights the vulnerability of individuals aged 10 to 29, particularly females and those identifying as mixed-race (pardo). The prevalence of cases among individuals with incomplete elementary education and the prominence of psychological/emotional abuse as a concomitant form of violence underscore the presence of social disparities. This study reinforces the need for targeted public policies and coordinated efforts to address the underlying factors and reduce the incidence of self-harm, particularly in at-risk youth.

**266. PREVALENCE OF PSYCHIATRIC DISORDERS IN LGBTQIA+ INDIVIDUALS: A SYSTEMATIC REVIEW**

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**INTRODUCTION:** Currently, LGBTQIA+ individuals are stigmatized and often discriminated against by the general population, resulting in a greater propensity to develop mental disorders. In this sense, this systematic review aims to identify which mental disorders and psychiatric symptoms most affect people in the LGBTQIA+ community. **METHODS:** A systematic review was conducted in the U.S. National Library of Medicine (PubMed) database, following the PRISMA protocol guidelines. The search was performed using the combination of the terms (Gender Minorities OR Sexual Minorities) AND (Mental Disorders) NOT (Dysphoria) AND (Comorbidities). Articles published in English and available in full and free of charge from the last five years were selected. Eligibility criteria included cross-sectional, case-control, or cohort studies. Articles that did not meet these criteria were excluded. **RESULTS:** It was observed that LGBTQIA+ people have a higher prevalence of traumatic experiences in childhood, which lead to the presence of comorbid disorders in adulthood. In general, it was noticed that sexual minority individuals have symptoms mainly of anxiety, depression and post-traumatic stress disorder (PTSD), and are also more likely to use substances than cis and heterosexual people. It was noted that bisexual individuals are more prone to alcohol or other substance abuse disorders, in addition to being more likely to develop eating disorders (ED), major depressive disorder (MDD) or generalized anxiety disorder (GAD). Furthermore, transgender people were found to have a greater potential to develop mental health problems or self-harm, in addition to having a higher rate of psychiatric comorbidities and a higher prevalence of nicotine and polysubstance addiction, with marijuana being the most prevalent. **CONCLUSION:** It is concluded that mental disorders in the LGBTQIA+ community are highly prevalent, mainly due to the prejudice experienced by this minority. Therefore, it is clear that the scenario experienced, marked by stigma and physical and/or psychological violence, contributes to the development of psychosocial impairment, leading to various psychiatric pathologies, such as anxiety and depressive disorders, post-traumatic stress disorders, alcohol and/or substance abuse disorders, and eating disorders.

**267. PREVALENCE AND CORRELATIONS OF CONSTIPATION IN FIBROMYALGIA PATIENTS IN LGBTQIA+ INDIVIDUALS: A SYSTEMATIC REVIEW**

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**INTRODUCTION:** Fibromyalgia is a chronic pain syndrome. Patients with this condition often experience abdominal pain and constipation, conditions that are more prevalent in this group than in the population without the disease. This association amplifies the challenges faced by individuals with fibromyalgia. This study aims to assess the prevalence of constipation in outpatients with fibromyalgia and correlate these findings with other data, in order to enhance understanding of the subject. **METHODS:** This is a cross-sectional descriptive observational study with a sample of 66 women diagnosed with fibromyalgia, aged over 18 years, who provided informed consent. Data collection took place from September 2022 to February 2023. The project was approved under number 5.656.902. The instruments used were: sociodemographic and health questionnaires, Rome IV criteria, the Widespread Pain Index (WPI) and the Symptom Severity Scale (SSS), The Revised Fibromyalgia Impact Questionnaire (FIQR), Patient Assessment of Constipation-Symptoms (PAC-SYM), and the Food Frequency Questionnaire (FFQ) as a basis for calculating the Revised Diet Quality Index (IQD-R). Statistical analyses were appropriately conducted using the Shapiro-Wilk test, the Mann-Whitney U test, and the chi-square test, adopting a 5% significance level as required. **RESULTS:** Among the 66 patients, 68.18% met the Rome IV criteria for constipation. There was no significant statistical relationship between any comorbidity or medication used for the treatment of fibromyalgia and the presence of constipation. The SSS and the average IQD also showed no significant relationship. The association between the WPI and the presence of constipation, however, was significant. The mean FIQR score of patients diagnosed with constipation was considerably higher than that of patients without constipation, with a statistically significant association. The PAC-SYM also showed a strong association with constipation in patients with fibromyalgia. **CONCLUSION:** In conclusion, there is a high prevalence of constipation in patients diagnosed with fibromyalgia. The intensity of widespread pain had a strong correlation, indicating that patients with more severe pain were more likely to experience constipation. The presence and severity of gastrointestinal symptoms were higher on average in patients with fibromyalgia compared to the general population.

**268. SLEEP DEPRIVATION AND ITS IMPACT ON BRAIN HEALTH AND NEURODEGENERATIVE DISEASES**

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**INTRODUCTION:** During sleep, various homeostatic maintenance activities occur, including temperature control, memory consolidation, hormonal regulation, and the clearance of cerebral metabolites such as  $\beta$ -amyloid and P-Tau (tau protein). Thus, chronic sleep deprivation impairs the clearance of these substances, leading to their accumulation in tissues and resulting in brain and systemic damage. This study aimed to investigate the influence of sleep deprivation on brain health and its implications throughout the life cycle. **METHODS:** This is an integrative literature review that included publications in English and Portuguese published in the last five years, available on the digital platforms of the Biblioteca Virtual de Saúde (BVS), PubMed, and SciELO. Additionally, books, theses, official documents from operating agencies, and dissertations were consulted. **RESULTS:** There is a strong relationship between chronic sleep deprivation and neurobiological alterations triggered throughout the life cycle, such as attention deficits, loss of visual memory, and emotional and psychological disorders, including depression and anxiety. Another finding is related to hormonal disturbances, immune alterations, increased risk of maternal mortality, and the development of neurodegenerative diseases such as Alzheimer's disease and Parkinson's disease, as well as other dementias. **CONCLUSION:** Chronic sleep deprivation is closely related to physiological and neurobiological alterations and plays a fundamental role in maintaining bodily homeostasis. Among the main alterations, we can highlight its influence on the endocrine, reproductive, metabolic, and nervous systems, with an increased risk of inflammatory burden and endothelial damage. Additionally, the literature also points to the emergence of diabetes mellitus, obesity, systemic hypertension, and stroke, promoting cognitive disorders that diminish synapses, resulting in neuronal loss characterized by the appearance of amyloid plaques and tau protein.

**269. PROBIOTICS AS COMPLEMENTARY THERAPY FOR VULVOVAGINAL CANDIDIASIS AND BACTERIAL VAGINOSIS**

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**INTRODUCTION:** The balance of the vaginal microbiota is a determining factor in the prevention of gynecological infections, protecting the vagina from colonization by pathogens. In this sense, an imbalance in the vaginal ecosystem favors the development of Vulvovaginal Candidiasis (VVC) and Bacterial Vaginosis (BV). Thus, an alternative to re-establish this balance is the use of probiotics, which are live microorganisms capable of displacing microbial growth by increasing the number of commensal bacteria. This study aims to analyze probiotics as a complementary therapy for VVC and BV, by benefiting the proper recolonization of the vagina. **METHODS:** This is an integrative literature review based on the PubMed, VHL (Virtual Health Library) and Scopus databases. The articles were categorized and separated according to their suitability for the topic, based on the descriptors "Probiotics", "Vulvovaginal Candidiasis" and "Bacterial Vaginosis", combined using the Boolean operator AND, delimiting articles from the period 2020 to 2024. Out of a total of 69 articles found, 17 were selected, including controlled, randomized clinical studies, meta-analyses and reviews, 52 of which were excluded because they did not deal with the subject in question, or because they were duplicated in the databases. **RESULTS:** There was a notable difference in the cure rate of VVC and BV with the use of probiotics, especially as an adjunct to antibiotic therapy, and they were associated with a reduction in vaginitis recurrence rates. In addition, probiotics had an impact on the maintenance and recovery of normal vaginal microbiota, but with significant short-term effects. With regard to pregnant women, there is still no consensus that the use of probiotics is effective during this period or that it prevents premature labor. Yeast-based probiotics are also an option, with the advantage of not being susceptible to antibiotics or developing resistance to them, and *Saccharomyces cerevisiae* has been considered the most effective species against VVC. **CONCLUSION:** The use of probiotics in patients with VVC or BV can be a useful complement to specific treatment, especially in cases of recurrence, improving therapeutic results by restoring the vaginal ecosystem. However, there is a need for further studies to analyze intervention times, probiotic strains, doses, long-term results and efficacy in pregnant women, in order to find the ideal therapeutic regimen.

**270. PROS AND CONS OF IRON SUPPLEMENTATION DURING PREGNANCY: AN INTEGRATIVE REVIEW**

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**INTRODUCTION:** The gestational period brings about numerous physiological and anatomical changes across various bodily systems. One of the most critical changes is the increased demand for iron, driven by the expansion of maternal erythrocyte mass and the growth of the fetus and placenta. Many women enter pregnancy with insufficient iron stores, particularly in populations where iron-deficient diets are common. In light of this, the present study aims to review current recommendations for iron supplementation during pregnancy, discussing both its benefits and potential drawbacks. **METHODS:** This is an integrative review conducted through a non-systematic bibliographic search in databases such as PubMed, Scopus, SciELO, and Google Scholar, focusing on the relationship between iron supplementation during pregnancy. Eight electronic articles published in the last 5 years were selected, using descriptors such as Pregnancy, Iron-Deficiency Anemia, Ferrous Sulfate, and Prevention. **RESULTS:** In Brazil, prophylactic supplementation of ferrous sulfate is recommended for pregnant women from the knowledge of pregnancy until the third month postpartum, with a dosage of 30 to 60 mg of elemental iron daily. In countries where the prevalence of anemia exceeds 40%, the implementation of iron supplementation programs is recommended. However, there are studies that warn about the potential deleterious effects of indiscriminate iron administration during pregnancy, including: increased risk of gestational diabetes, obstetric complications such as gestational hypertension and placental infarcts, which can lead to intrauterine growth restriction. **CONCLUSION:** In the Brazilian context, guidelines recommend the use of ferrous sulfate in primary care for pregnant women. However, it is crucial for doctors to conduct an individualized assessment of each patient. Iron supplementation should be carefully considered in pregnant women who do not have a prior diagnosis of anemia, especially if their blood levels are normal. It is important to be aware of the potential adverse effects of supplementation, such as oxidative stress resulting from the oxidizing properties of iron.

**271. PSYCHOLOGY OF AGEING: MEDICINE AND MENTAL HEALTH OF THE ELDERLY**

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**INTRODUCTION:** With advances in medicine, there has been a significant increase in the elderly population, accompanied by a higher incidence of psychological disorders such as depression. Factors such as family losses, prolonged use of medication, and the emergence of new diseases affect the mental health of the elderly. Thus, this study aimed to analyze the psychological impacts of aging on the physical and mental health of the elderly, as well as the relevance of medicine in improving the health of this population. **METHODS:** This study consisted of a literature review using databases such as EBSCO, MEDLINE, and LILACS, from 2017 to 2024. The descriptors included "Mental Health" and "Older Adults", and the Medical Subject Headings (MeSH): "Mental Health" and "Older Adults". Only articles that directly addressed the proposed topic were selected, excluding theses, dissertations, and reviews that did not fit the defined criteria. **RESULTS:** Aging, especially when associated with diseases such as diabetes and hypertension, traumatic events such as the loss of loved ones, and the continuous use of medication, is a period of great vulnerability for the development of psychological problems, with depression standing out as one of the most prevalent disorders. This condition not only impacts the mental health of the elderly, contributing to sleep disturbances, loss of energy, and reduced functional capacity but can also influence physical health, increasing the risk of conditions such as obesity and worsening chronic diseases due to lack of adherence to drug therapies. Medicine plays a crucial role in offering individualized care that considers not only clinical conditions but also emotional aspects of aging. Integrating cognitive assessments into physical assessments allows for a holistic approach aimed at improving both the physical and mental health of this population. **CONCLUSION:** It can therefore be concluded that psychological changes resulting from aging, such as depression, result in consequences for the health of the elderly, increasing the risk of obesity and affecting sleep patterns. Medicine plays an essential role in providing care tailored to the individual needs of older people, considering their physical and mental health in an integrated way. This involves being attentive to symptoms and making effective referrals to promote improved mental health.



**272. PUBLICATIONS IN ANESTHESIOLOGY IN BRAZIL: A BIBLIOMETRIC ANALYSIS OF REGIONAL PRODUCTION**

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**INTRODUCTION:** Anesthesiology is fundamental in modern medicine, ensuring safety in surgical procedures. In Brazil, research in anesthesia is essential for improving techniques, reducing risks, and enhancing clinical outcomes, but it presents regional disparities. This study proposes a bibliometric analysis of anesthesia article publications in the country, with the aim of understanding regional contributions and identifying gaps in scientific research. **METHODS:** The Scopus (Elsevier) database was used, filtering by Pain and Anesthesiology journals and separated by country, focusing on Brazil. The analysis included the five journals with the highest CiteScore: "Anesthesiology," "The Journal of Pain," "British Journal of Anesthesia," "Pain," and "Anaesthesia." Publications were categorized regionally based on the authors' universities or research centers in the following regions: North, Northeast, Central-West, Southeast, and South. To enrich the study, social, geographic, and demographic articles from the Brazilian Institute of Geography and Statistics (IBGE) were used. The analyzed variables include the total number of publications, the percentage of regional contributions at the national level, the average production per region compared to the country, and the per capita quantity by region. **RESULTS:** During the study period, 0 publications were recorded in the North, 12 in the Northeast, 5 in the Central-West, 189 in the Southeast, and 36 in the South, with a national average of 48.4 per region. Thus, scientific production relative to the population of each region of Brazil reveals a significant concentration of activities in the Southeast, with a rate of 2.15 publications per million inhabitants, making it the main hub of scientific production. The South region, with 1.20 publications per million, also shows a relevant contribution. In contrast, the Northeast and Central-West regions, with rates of 0.21 and 0.31, respectively, demonstrate minimal per capita scientific production. The North region did not register any publications, showing an absence of scientific contributions. **CONCLUSION:** The study highlights the inequality in scientific production in anesthesiology in Brazil, with the Southeast and South regions leading in per capita productivity. This is due to the availability of resources, research infrastructure, and incentive policies. The modest participation of other regions reveals the need for strategies to promote scientific development, such as funding programs, the enhancement of research in medical institutions, and collaborative exchange between regions.

**273. QUALITY OF LIFE OF CHILDREN AND ADOLESCENTS WITH T1D: AN INTEGRATIVE REVIEW**

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**INTRODUCTION:** Brazil is the 3rd country with the highest number of cases of Type 1 Diabetes (T1D) in individuals under 20 years old. This metabolic disorder, requiring lifelong insulin therapy and lifestyle changes, affects the adaptation and development of children and adolescents. Therefore, understanding the impacts on the quality of life (QoL) of young people with T1D is crucial. Thus, this study aims to analyze the impact of Type 1 Diabetes on the quality of life of children and adolescents. **METHODS:** This is an integrative review conducted based on the PRISMA Protocol. The search in the databases PubMed, Scielo, Lilacs, and Google Scholar utilized the descriptors "quality of life," "children," "adolescents," and "Type 1 Diabetes," along with their alternative terms in Portuguese and Spanish. Primary studies from the last five years published in Portuguese, English, or Spanish that addressed the proposed topic were included. Review articles, meta-analyses, case reports, and uncontrolled studies were excluded. **RESULTS:** A total of 397 papers were found, with 390 rejected based on the inclusion and exclusion criteria, leaving 7 selected for analysis. In total, 1,013 individuals with T1D were evaluated, aged between 2 and 18 years. Quality of life (QoL) was assessed through the application of questionnaires. Reported impacts on QoL included the occurrence of symptoms, constant worry about the disease, and barriers to treatment. Neurological vulnerability to hypoglycemia was identified as a detrimental factor in children aged 8 to 12 years. Better QoL was observed in males, while females were more affected by psychological disorders. Improved QoL was noted in individuals with an income above one minimum wage or those who engage in physical activities. No statistical relationship was found between QoL and glycemic control, although episodes of severe hypoglycemia influenced concerns about the disease. Additionally, levels of stress and anxiety were similar regardless of the type of therapy. **CONCLUSION:** The greatest impact of T1D on the quality of life of children and adolescents occurs in the psychological realm. Conversely, engaging in physical exercise and having a good income positively influence QoL. Thus, it is evident that socioeconomic conditions can significantly affect the life experience of these young individuals. Therefore, it is crucial to adopt a multifaceted approach that includes accessible specialized psychological support and public policies to ensure the well-being of patients.

**274. QUALITY OF LIFE OF CATARACT PATIENTS BEFORE AND AFTER PHACECTOMY: A SYSTEMATIC REVIEW**

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**INTRODUCTION:** Cataract is a condition that results in congenital or degenerative opacification of the lens, causing gradual loss of vision. The quality of life (QoL) of cataract patients is impacted by reduced visual acuity, with limitations in daily activities, mobility and increased risk of accidents. Cataracts are treated with a surgical procedure called phacectomy. The aim of this study was to analyze the impact of cataracts on patient's quality of life, as well as to establish a relationship with post-surgical treatment. **METHODS:** This is an integrative review conducted in June 2024, following the PRISMA protocol. The search was carried out in the PubMed, Scielo, Lilacs and Google Scholar databases using the descriptors "quality of life", "cataract" and their English translations. Primary studies published in the last five years, written in Portuguese or English and aligned with the proposed theme were included. Review articles, meta-analyses, case reports and uncontrolled studies were excluded. **RESULTS:** Initially, 413 studies were found, 404 of which were excluded according to the exclusion criteria and 9 articles were selected according to the aim of the study. In these articles, the analysis of the quality of life of cataract patients before and after phacectomy varied between the following questionnaires: National Eye Institute Visual Function Questionnaire (NEI-VFQ-25) and World Health Organization Quality of Life Group Questionnaire (WHOQOL-OLD). Based on the former, the studies showed that the average scores obtained by patients in the domains relating to quality of life are directly proportional to those relating to visual capacity. Improvement was seen in the domains: Activities at a distance, Activities up close, Ability to drive a car, General health and Vision. At the same time, the WHOQOL-OLD questionnaire showed greater satisfaction among the elderly with their achievements and hope for future goals. Also in the WHOQOL-OLD questionnaire, higher scores were found after cataract surgery in the Past, Present and Future Activities domain and there was an increase in the score in the Social Participation domain. **CONCLUSION:** Therefore, the high impact of phacectomy on cataract patients is evident, expressed by the increase in quality of life scores associated with daily activities after surgery in all the articles evaluated in this review.

**275. CERVICAL CANCER SCREENING IN SAPPIC WOMEN**

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**INTRODUCTION:** The term sapphic refers to women who relate to other women, and can be lesbian, bisexual, pansexual or "queer". Therefore, because they do not relate to men, there is a false belief that they have no risk of acquiring the human papillomavirus (HPV), which distances this population from medical care and performing tests such as cervical cytology, better known as papanicolaou. Therefore, the objective of this summary is to discuss the relationship between sapphic women (SM) and cervical cancer screening (CCU). **METHODS:** This is a literature review, in which we searched the Google Academic and Pubmed portals, using as eligibility criteria original articles published from 2020, without language restriction, and that specifically presented the theme, obtaining 13 articles. The descriptors used were: "cervical cancer"; "human papillomavirus"; "WSW". **RESULTS:** CCU screening is an efficient way to diagnose cervical lesions early, however, because it depends on patients' adherence, it ends up being performed in smaller quantities in MS, either because they believe they have no risks, or because they are afraid of the exam. In this sense, understanding that the transmission of HPV in MS can occur through skin contact, oral sex and shared use of sexual objects, is an important point of CCU screening in this population. That is, despite having lower transmission rates than heterosexual women, it is still necessary to perform a pap smear in MS. However, in addition to the lack of knowledge about transmission, there is also the medical patient barrier, since there is a difficulty in communicating with this population, both for fear of prejudice and pain associated with the use of the speculum, which further reduces adherence. Thus, the inclusion of the self-collection of vaginal cell material for HPV screening can be a solution for screening in MS, since it excludes the discomfort caused by the speculum, however, a change in the doctor-patient relationship that decreases the distance between MS and gynecological health is still necessary. **CONCLUSION:** Thus, it is perceived that debating effective forms of screening for MS is indispensable, in addition to being important the health education of this population to raise awareness about the possibility of the disease and the importance of regular visits to the gynecologist.

## 276. RELAPSE OF VISCERAL LEISHMANIASIS AND HEMOPHAGOCYTIC SYNDROME RECURRENCES: CASE REPORT

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**INTRODUCTION:** In Brazil, Visceral Leishmaniasis (VL) is caused by the protozoan *Leishmania chagasi* and, although rare, can be associated with Hemophagocytic Syndrome (HS), which is the tissue destruction due to hyperactivation of the immune system, potentially leading to multiple organ failure. This research aimed to describe a case of VL recurrence with HS and was approved with the opinion number 6.465.800 by the local Research Ethics Committee. **CASE DESCRIPTION:** A 1 year and 3 month old male presented to the emergency room with fever, pain, and distension abdominal for 7 days. The abdomen was globular, distended, with palpable liver and spleen at 3 and 8 cm, respectively, from the margin of the ribs. Laboratory results showed Hemoglobin (HB) of 4 g/dL; Leukocytes (WBC) 5310/mm<sup>3</sup>; Platelets (PLT) 10.900/mm<sup>3</sup>. In the first hospital unit, he received red blood cell and platelet transfusions. He was transferred to a tertiary hospital, where a bone marrow smear showed *Leishmania sp.* Along with the VL diagnosis, HS was diagnosed based on the following criteria: fever, splenomegaly, hypertriglyceridemia (682 mg/dL), hyperferritinemia (2368 ng/mL), and pancytopenia (PLT 24000/mm<sup>3</sup>, WBC 3260/mm<sup>3</sup>, and HB 6.9 g/dL). The patient was treated with liposomal amphotericin B (3 mg/kg/day) for 10 days. There were no records of treatment for HS. He was discharged on the 15th hospitalization day. Two months after, he returned to the emergency room with fever and abdominal pain. Laboratory results showed HB 5.7 g/dL, WBC 2760/mm<sup>3</sup>, and PLT 11200/mm<sup>3</sup>. Treatment with Glucantime (20 mg/kg/day) for 2 days, and immunoglobulin (500 mg/kg/day) for 5 days was initiated. He was referred to a tertiary hospital with hepatosplenomegaly (both palpable 10 cm from the margin of the ribs, respectively). A new bone marrow biopsy confirmed VL, diagnosing, in conjunction with clinical signs, a recurrence of the infection associated with HS, based on the following criteria: fever, splenomegaly, hypertriglyceridemia (421 mg/dL), hyperferritinemia (10888 ng/mL), and pancytopenia (PLT 23000/mm<sup>3</sup>, WBC 4570/mm<sup>3</sup>, and HB 7.7 g/dL). Treatment was changed to liposomal amphotericin B (4 mg/kg/day) for 10 days, immunoglobulin (500 mg/kg/day) for five days, and dexamethasone (10 mg/m<sup>2</sup>/day) for 8 weeks, with a 50% dose reduction every two weeks. The patient was discharged on the 19th of hospitalization day with clinical and laboratory improvement. **CONCLUSION:** The recurrence of VL and secondary HS in immunocompetent patients is rare and severe. The treatment is effective when VL and HS are diagnosed early. Therefore, documenting the case is necessary for proper recognition.

## 277. RELATIONSHIP BETWEEN FOOD CONSUMPTION AND DEPRESSION IN PATIENTS WITH DIABETES MELLITUS

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**INTRODUCTION:** The population with Diabetes Mellitus (DM) faces a high prevalence of depression, reaching around 10.5%, approximately double the prevalence in non-diabetics. Behaviors such as lack of physical exercise, imposition of a restrictive diet and daily intake of medication may be linked to the existence of depressive symptoms. The aim of this study was to assess the relationship between food consumption and depression in DM in the Brazilian adult population. **METHODS:** This is a retrospective cross-sectional study based on data from the 2023 Surveillance of Risk and Protective Factors for Chronic Diseases by Telephone Survey (VIGITEL). It included individuals aged ≥18 years, living in the Brazilian capitals and the Federal District, who self-reported a diagnosis of DM. The exposures were regular consumption (≥5 days a week) of fresh foods and ultra-processed foods. The outcome was self-reported diagnosis of depression. Descriptive analyses of the variables were carried out, showing absolute (n) and relative (%) frequencies. Pearson's chi-square test was used to assess the association between food consumption and depression, with a significance level of 5%. VIGITEL was approved by the Ministry of Health's National Commission for Ethics in Research with Human Beings (CAAE: 65610017.1.0000.0008). **RESULTS:** 21,690 individuals were studied, of whom 13.03% (n=2,826) reported a diagnosis of DM and 13.7% (n=2,972) of depression. With regard to food consumption, 88.5% (n=19,195) said they regularly consumed some kind of fresh or minimally processed food and 10.84% (n=2,350) regularly consumed ultra-processed foods. In the DM population, individuals who did not regularly consume in natura or minimally processed foods had a higher prevalence of depression (21.56% p=0.341) compared to those who regularly consumed them (19.04%). On the other hand, individuals with DM who regularly consumed ultra-processed foods had a higher prevalence of depression (23.23%; p=0.299) compared to those who did not regularly consume this type of food (18.98%). **CONCLUSION:** Food consumption was related to the prevalence of depression in individuals with DM. This highlights the need for multi-professional measures aimed at educating these patients about their diet, in order to combat the metabolic and psychiatric complications associated with DM.

**278. CONGENITAL SYPHILIS: EPIDEMIOLOGICAL ANALYSIS OF BAIXADA MARANHENSE FROM 2019 TO 2023**

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**INTRODUCTION:** Congenital syphilis, caused by the bacterium *Treponema pallidum*, is a disease transmitted to the child during pregnancy via transplacental transmission (vertical transmission). The disease is prevented by identifying and treating maternal syphilis during prenatal care. Its complications include spontaneous abortion, premature birth, malformation of the fetus, deafness, blindness, mental disability and/or death at birth. Given this scenario, the aim of this study was to outline the epidemiological profile of congenital syphilis in the state of Maranhão. **METHODS:** This is a retrospective epidemiological study, with a quantitative approach, which used data provided by the Notifiable Diseases Information System (SINAN), made available by the Department of Informatics of the Unified Health System (DATASUS) and processed in the Microsoft Excel program. The years surveyed were between 2019 and 2023 and race, gender, prenatal care, maternal syphilis, partner treatment and age group were analyzed. **RESULTS:** In the period studied, 2,551 cases of congenital syphilis were recorded in the state of Maranhão, of which 2.2% (N=55) occurred in the Baixada Maranhense. Of those registered, 81.8% (N=45) were brown and 52.7% (N=29) were female; in 92.7% of cases (N=51) the mothers had prenatal care and in 50.9% (N=28) they had maternal syphilis. The maternal partner was not treated in 50.9% (N=28) of the pregnancies, around 80% (N=44) had the disease by the age of 6 days and 96.4% (N=53) showed clinical improvement. **CONCLUSION:** Congenital syphilis is a disease that has high rates of therapeutic success when associated with early identification of maternal infection. However, the persistence of its manifestation in Maranhão may be associated with low rates of treatment of the maternal sexual partner. In view of this, measures are still needed to prevent maternal reinfection, with an emphasis on health education and treatment of affected partners.

**279. THE EPIDEMIOLOGICAL SITUATION OF SCHISTOSOMIASIS IN THE BAIXADA MARANHENSE REGION BETWEEN 2017 AND 2021**

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**INTRODUCTION:** Schistosomiasis is a blood parasitosis caused by *Schistosoma mansoni* in Brazil. It is directly associated with low levels of basic sanitation and it composes the group of neglected tropical diseases. Brazil's Maranhão state represents an endemic area for schistosomiasis, with active transmission. Since 1976, Brazil has implemented the Schistosomiasis Control Program as a strategy for active search, diagnosis and treatment of cases in endemic regions. This abstract aims to analyze the epidemiology of schistosomiasis in the Baixada Maranhense region, northern state of Maranhão, between 2017 and 2021. **METHODS:** This is a descriptive and retrospective epidemiological study, with a quantitative approach, carried out using secondary data from the Schistosomiasis Control Program (SCP) in the period of 2017 to 2021, available in the Department of Information and Technology of the Sistema Único de Saúde (DATASUS). **RESULTS:** In the analyzed period, there were notified 2.033 schistosomiasis positive coproscopy assays in Baixada Maranhense, of which 96,4% were treated. Among the analyzed years, the percentage positive coproscopies presented expressive variation: 2,09% (2017); 3,45% (2018); 5,87% (2019); 5,78% (2020); 5,96% (2021). There was a considerable negative variation (-46,4%) in the studied population between 2017 (12.846 people) and 2021 (5.888 people). In 2017, the proportion of infected, regarding the amount of eggs, was: 1 to 4 eggs (66,25%); 5 to 16 eggs (25,10%); 17 or more eggs (8,64%). In 2021, that proportion was: 1 to 4 eggs (56,41%); 5 to 16 eggs (37,89%); 17 or more eggs (5,69%). An expressive reduction in the analyzed population was observed, so that the active search, recommended by the SCP, was reduced. The percentage of positive coproscopy assays was up by 185,16% from 2017 to 2021, such that the Baixada Maranhense became again an endemic area of medium positivity for schistosomiasis. **CONCLUSION:** The increase in the amount of positive coproscopies, associated with the reduction of people inquired for schistosomiasis, represents a concerning epidemiological risk for the Baixada Maranhense region. These results should guide surveillance interventions and targeted control to this region.

**280. PNEUMOCOCCAL VACCINE IMMUNIZATION RATE IN THE CITY OF PINHEIRO-MA, FROM 2018 TO 2022**Beatriz Ferreira Nascimento<sup>1</sup>, Samyra Elouf dos Santos Simão<sup>1</sup>, Consuelo Penha Castro Marques<sup>1</sup>.<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Pneumococcal infections represent a notable cause of morbidity and mortality. In Brazil, since 2010, the 10-valent pneumococcal vaccine (VPC10) was implemented on the National Immunization Program in a two-dose schedule for children, the first dose at two months and the second at four months old, with a booster dose at 12 months, aiming for 95% as a coverage target. This abstract aims to analyze VPC10's coverage in the city of Pinheiro, Maranhão, between 2018 and 2022. **METHODS:** This is a descriptive retrospective epidemiological study, with a quantitative approach, carried out using secondary data from the Department of Information and Technology of the Sistema Único de Saúde (DATASUS), on the National Immunization Program Informational System (SI-PNI) on the period from 2018 to 2022. **RESULTS:** In the analyzed period, there were given 181.710 doses of VPC10 in Pinheiro. Between 2018 and 2022, the National Immunization Program coverage target was not achieved at any year and a notable downward trend was observed: the vaccinal coverage in Pinheiro decreased 65,2% in five years. VPC10 reached its highest coverage rate in 2018 (69,45%) and the lowest coverage rate in 2022 (24,17%) in Pinheiro, while in the state of Maranhão the rates were 89,43% in 2018 and 78,03% in 2022. Analyzing the city indicators in comparison to the estaduais in 2018 and 2022, there was a bigger downward variation in Pinheiro (-65,2%) than Maranhão's state (-12,7%). An expressive disparity in the vaccination coverage between Pinheiro and Maranhão was observed, in a way that the state-city heterogeneity represents the existence of a pocket of susceptibles. **CONCLUSION:** It is understood that vaccination must be analyzed as a collective immunization strategy, once a higher coverage represents a protection factor both for vaccinated and unvaccinated people, as well as for those who weren't vaccinated due to unreached age, contraindications or other reasons. VPC10's low immunization rates found in the analyzed period represent a concerning community risk predictor in the city of Pinheiro. These results reaffirm the need of targeted interventions that aim to comprehend and modify the accountable determinants for this reality.

**281. IMMUNE THERAPY IN CANCER TREATMENT: AN INTEGRATIVE REVIEW**Lucas Cunha Pereira<sup>1</sup>; Isadora Costa Santos Gregório<sup>1</sup>; Raissa Carmem Sousa Silva<sup>1</sup>; Maria Do Rosário Oliveira Dos Anjos<sup>1</sup>.<sup>1</sup> Dom Bosco University Center

**INTRODUCTION:** Cancer is one of the leading causes of death worldwide. Despite advances in treatment, the search for more effective and less toxic therapies is ongoing. Immunotherapy, which uses the patient's own immune system to fight cancer, is emerging as a promising strategy because, by stimulating the body's natural defenses, it offers the possibility of personalized treatments with less toxicity. Thus, the objective of the study will be to evaluate the importance and benefits of immunological therapy in cancer treatment. **METHODS:** This study adopted an integrative literature review to compile and synthesize the existing scientific knowledge on the subject. The research was conducted in the following databases: Scielo, PubMed and Lilacs, covering articles published in the last 5 years, in Portuguese and English. The descriptors used were: "Cancer", "Tumor, Immunotherapy" and "Natural Defense" and the search strategies were based on the combination of these terms in both languages. **RESULTS:** The final sample for analysis consisted of 10 articles in which the thematic analysis technique was used, with the discussion organized into categories, namely: 1) The use of immunological therapy associated with other therapies for cancer treatment; 2) Use of immunotherapy in medical practice; 3) Advantages of using immunological therapy in cancer treatment. Thus, the present study reported by authors, evidence through research and tests carried out, that the use of immunological therapy is a less aggressive treatment that can lead to improvement in individuals with cancer cells, causing fewer side effects and low toxicity, which directly lead to an improvement in quality of life, with the most used being monoclonal antibodies, cancer vaccines and Car T-Cells, which correspond to cells produced in the laboratory originating from the defense cells of the human body. **CONCLUSION:** It was noted that all studies share the understanding that immunological therapy against cancer develops a satisfactory response in various types of malignant tumors, in which immunological drugs function as a therapeutic strategy to promote the reprogramming of defense cells, and therefore, increase medical efficacy related to the benefits of using the body's natural defenses in fighting tumor cells.



**282. THE EFFECTIVENESS OF VAGUS NERVE STIMULATION IN MOTOR REHABILITATION IN POST-STROKE PATIENTS**Osnar Gustavo de Santana Lima<sup>1</sup>, Priscylla Vieira Vezzosi<sup>1</sup>, Bismarck Ascar Sauaia<sup>1</sup>.<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** The reduction or loss of functionality of an individual's upper limbs after a stroke can limit the performance of daily activities, thus compromising their quality of life. Conventional motor rehabilitation involves performing consistent and repetitive movements, which improve learning and help restore motor function. Despite this, not all patients obtain satisfactory results, and deficits may remain. As a result, approaches to combine with the conventional approach have been developed, such as Vagus Nerve Stimulation (VNS), in which the implantation of electrodes in the vagus nerve helps in the activation of neuroplastic circuits that increase motor learning. Therefore, the objective of this study is to evaluate the effectiveness of vagus nerve stimulation in improving the motor function of the upper limbs in post-stroke patients.

**METHODS:** A systematic review was carried out in June 2024 in the PubMed database, with the help of the descriptors "stroke treatment" and "vagus nerve stimulation", combining with the Boolean operator "AND". The criteria considered for choosing the articles were: being in English, being a clinical study, dealing with the topic addressed and having been published between 2018 and 2024. In total, 21 studies were found, of which 6 were selected for progression of the research.

**RESULTS:** All clinical trials showed an increase in motor function in post-stroke patients through the association of vagus nerve stimulation and conventional repetitive exercises, and the association proved to be more promising than isolated forms of rehabilitation, i.e., with joint stimulation to exercises applied in rehabilitation. Furthermore, most of the studies analyzed emphasized the use of vagus nerve stimulation in a less invasive way, via transcutaneous auricular access. **CONCLUSION:** From the selection and collection of data, it was possible to conclude that stimulation of the vagus nerve associated with post-stroke motor function rehabilitation exercises was significant in the rehabilitation of those patients. Furthermore, it is necessary to carry out more clinical studies, including through the transcutaneous auricular route, increasing the size of the population and study time, to ensure greater reliability of the results.

**283. THE EPIDEMIOLOGY OF ACQUIRED SYPHILIS IN MARANHÃO: A DESCRIPTIVE LITERATURE REVIEW**Pedro Inojosa Ferreira da Silva<sup>1</sup>, Ana Paula Rabelo Levandowski<sup>1</sup>, Ana Maria Ramos Goulart<sup>1</sup>, Saani Maressa Lima Ribeiro<sup>1</sup>, Juscelino Silva Machado Filho<sup>1</sup>, Bismarck Ascar Sauaia<sup>1</sup>.<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Sexually Transmitted Infection, syphilis is caused by the bacterium *Treponema pallidum*. Despite being underreported, it represents a serious public health problem in Brazil, where transmission occurs mainly through sexual intercourse, and when left untreated, it causes severe systemic complications. In 2018, 75.8 cases/100,000 inhabitants were recorded. Considering its prevalence and impact on quality of life, the study aimed to describe the epidemiology of acquired syphilis in Maranhão between 2019 and 2023. **METHODS:** In the data collection, the electronic databases of the Notifiable Diseases Information System (SINAN/DATASUS) were used, with searches based on the terms: epidemiology, syphilis, prevalence. Inclusion criteria considered: the period from January 2019 to December 2023, the epidemiology of the infection: education, age, sex, and ethnicity, excluding cases outside the pandemic period. Data extracted from the SUS were compiled into tables to facilitate the recognition of the infection profile in Brazil. The severity of syphilis and the small number of updated publications on the subject justified the study. **RESULTS:** The analysis presented the main findings as proposed in the study, with 9,520 cases of syphilis reported in Maranhão, with males being the most affected (58.5%) of the cases. The age group with the highest prevalence was between 20 and 39 years (51.68%), with the majority being illiterate (81%) of the total in the state. Additionally, the brown race stood out with 6,667 cases (70%) of the notifications. The epidemiology of acquired syphilis in Maranhão between 2019 and 2023 revealed a worrying scenario, with a significant number of cases among young men, with low education levels, and belonging to the brown race; information that, although valuable, when compared to the literature, highlights gaps and inconsistencies regarding the epidemiology of the infection. Therefore, the statistics evidence the persistence of the public health problem and emphasize the need for effective prevention strategies, early diagnosis, and accessible and adequate treatment, as the active age group facilitates transmission, and low education hinders awareness and the search for treatment. **CONCLUSION:** The continuation of detailed studies on the epidemiology of different STIs, particularly syphilis, is crucial in guiding public policies and more effective preventive measures in controlling and reducing cases, thus alleviating the burden on the public health system in Brazil.

**284. MIGRATORY PATHS OF VENEZUELAN WOMEN MIGRANTS**Caroline Assunção Dantas<sup>1</sup>; Zeni Carvalho Lamy<sup>1</sup>.<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Venezuela is facing an economic and social crisis, leading to the forced displacement of people who cross the borders of neighboring countries, including Brazil, in search of refuge. A large part of the migrant population is made up of women who, in situations of prolonged displacement, face serious health challenges, including an increased risk of rape, trafficking, sexual assault, and other threats. This study aims to understand the migration trajectories of Venezuelan migrant women. **METHODS:** Qualitative study carried out in three cities that are part of the migratory corridor in Brazil: Pacaraima and Boa Vista (Roraima) and Manaus (Amazonas), from September to October 2021. In-person and online semi-structured interviews were conducted, recorded, with adult and adolescent Venezuelan migrant women. Thematic content analysis was used. The study was approved by the Research Ethics Committee in accordance with the principles outlined in Resolution 466/12 of the Health National Council - HNC, CPEC 35617020.9.1001.5087. **RESULTS:** Seventy-six women were interviewed and their narratives were categorized into: "The beginning of the migratory journey", "Violence suffered" and "Gender issues: being a migrant woman". In the first category, the high unemployment rate, precarious wages, inability to guarantee basic goods, and limited access to health care, including medicines and specialized treatments caused by the crisis in Venezuela, marked the beginning of the migratory journey. Regarding the situations of violence suffered, three main forms were found: robbery, physical assault and sexual violence, mainly related to irregular migration. The gender-related challenges reported in the interviews were: physical difficulties; lack of conditions for personal hygiene, especially during menstruation; and lack of support for sexual and reproductive health care. **CONCLUSION:** Forced migration in a crisis context, as in the case of Venezuelan women who arrived in Brazil, requires international efforts to provide support to the country in crisis and to the host countries. The need for a migration policy that specifically addresses risks, situations of violence and sexual and reproductive health care throughout the displacement of migrant women is emphasized.

**285. MOOD DISORDERS: EPIDEMIOLOGICAL PROFILE IN THE STATE OF MARANHÃO BETWEEN 2018 AND 2022**Francisca Erika Ferreira Sousa<sup>1</sup>, Beatriz Cardoso Ferreira<sup>1</sup>, Cácio Laylson Lira Silva<sup>1</sup>, Wellyson da Cunha Araújo Firmo<sup>1</sup>.<sup>1</sup> State University of the Tocantina Region of Maranhão

**INTRODUCTION:** Mood disorders (MD) are characterized by changes in mood or affect and are related to genetic and environmental factors. In Brazil, it is the most prevalent group of psychiatric disorders and, although mental health programs are established in the public system, including in the state of Maranhão, they have not yet adequately responded to the existing demand. Thus, this study aimed to identify the epidemiological characteristics of hospitalizations for MD in Maranhão between 2018 and 2022. **METHODS:** This is an epidemiological study of the transversal and descriptive type, with a quantitative approach, and comprises the period between 2018 and 2022. Data were obtained through the Hospital Information System of SUS via the Department of Informatics of the Unified Health System. The following variables were selected for analysis: number of hospitalizations, age group, sex, color/race and average hospital stay. The data obtained were tabulated and analyzed by the program Microsoft Excel. **RESULTS:** In the period analyzed, 5,567 hospitalizations were recorded for MD. The data show a growth trend between 2020 and 2022, with the highest index recorded in the last year (1,220). The age group analyzed comprised individuals between 5 and 80 years of age. People between 30 and 39 years appear with the highest number of admissions (1,461). In addition, there was a 62.0% increase in the number of hospitalizations of young people aged 15 to 19 years between the first and last year of the study, revealing the significant growth of MD in this population. The difference in the incidence between sexes is minimal, but hospitalizations are prevalent among men (50.3%), except for 2022, when there was a predominance of female patients. Regarding color/race, it is noted that the self-declared white population has a higher proportion of hospitalizations. However, this variable may be biased, since 37.7% did not identify their ethnicity. Finally, the average length of hospital stay was 45.2 days, reducing from 2018 to 2022. **CONCLUSION:** The prevalence of hospitalizations for MD in Maranhão was higher in men - with the exception of the last year -, who are in the third decade of life. In addition, there was an increase in MD in the state of Maranhão, especially among adolescents. Thus, the study makes an alert for developing strategies that strengthen mental health care networks in the public system of Maranhão.

**286. RADICAL TRACHELECTOMY FOR FERTILITY PRESERVATION: AN INTEGRATIVE REVIEW**

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**INTRODUCTION:** Cervical cancer is the fourth most common cancer in women. Approximately 84% of new cases and 87% of deaths from cervical cancer occur in less developed regions. In Brazil, the estimated risk is 15.85/100,000 women. When treating these patients, it is important to be clear about the possibility of ovarian conservation and fertility. Fertility-sparing surgery was conceived, initiated and named Radical Vaginal Trachelectomy (RVT) by teacher Daniel Dargent in 1986. Patients with early-stage cervical cancer who desire future fertility may be candidates for RVT. Therefore, the present study aims to analyze the indications and development of the RVT procedure in cervical cancer. **METHODS:** An integrative review of the literature covering the years from January 2014 to June 2024 was carried out in the PubMed, Scielo and Lilacs databases. Regarding the exclusion criteria, they were applied to duplicate articles in the journals and without direct relation to the research. **RESULTS:** Radical vaginal trachelectomy (RVT) is an alternative treatment to preserve fertility in patients with cervical cancer. The criteria for indication of RVT focus on: desire to become pregnant, epidermoid, adenocarcinoma or adenosquamous histological types, tumor up to 2 cm in diameter, stromal invasion up to 10 mm, negative lymph nodes and negative margin of 5 mm. In patients with early tumors and desire to become pregnant, radical trachelectomy (vaginal, abdominal or laparoscopic) with lymphadenectomy is considered the standard treatment. Surgery begins with an inventory of the cavity and frozen biopsies of any suspicious lesion, followed by pelvic lymphadenectomy with prior investigation of sentinel lymph nodes and, if negative upon frozen section, trachelectomy is performed. A prospective study evaluating the feasibility of conservative surgery in women with early-stage, low-risk cervical carcinoma suggests that conservative surgery is feasible and safe in this patient population. The pregnancy rate is approximately 63%. It is important to emphasize that many patients give up pregnancy after surgery. Pregnancy loss in the second trimester and prematurity are related to trachelectomy, mainly due to premature rupture of membranes. **CONCLUSION:** In conclusion, VRT shows good reproductive results without compromising oncological safety, being an oncologically safe technique in women with early-stage cervical cancer. The rate of full-term pregnancies still needs to be improved.

**287. EYE TRAUMAS AND THEIR MAIN OPHTHALMOLOGICAL CHANGES**

Bianca de Jesus Coelho Reis Sousa<sup>1</sup>, Márcia Sousa Barroso Santiago<sup>1</sup>, Lucian da Silva Araujo<sup>1</sup>, Adriana Leite Xavier<sup>1</sup>.

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**INTRODUCTION:** Ocular trauma is defined as an injury to the eyeball, which is the result of physical or chemical aggression on its structures, resulting in damage to the patient's visual acuity. This can be classified according to severity as mild, moderate or severe. Or even in terms of type, which can be blunt, penetrating or caused by burns. Studies suggest that eye trauma is the most important cause of unilateral visual loss in developing countries. According to the World Health Organization, around 55 million eye injuries occur each year and of these, 750,000 require hospitalization. The present work aimed to clarify the medical community about the most prevalent ocular traumas and their main ophthalmological changes. **METHODS:** This is an integrative review of the literature, using the descriptors "ophthalmological changes", "ocular trauma" and "injuries resulting from trauma". Scientific articles available in the Google Scholar, Scientific Electronic Library Online (SCIELO) and Pubmed directories were selected, with publications from 2018 to 2024. **RESULTS:** There was a predominance of cross-sectional studies based on medical records in emergency hospitals in the Center-West and Southeast regions of the country. These indicate that the most common blunt injuries result from domestic, work and even leisure accidents, ranging from superficial to complex injuries, such as retinal detachment. There is a predominance in young adults, ranging from 72 to 95% in males. Regarding penetrating trauma, the corneal type was the most prevalent, mostly caused by automobile accidents. These, as they are more serious, may be associated with hemorrhage in the anterior and posterior segments of the eye, rupture of the iris, displacement of the lens and orbital fractures are common complications. Chemical injuries are less frequent, leading to loss of visual function, depending on the type of substance that came into contact with the epithelium. In extreme cases, eye trauma can result in enucleation. **CONCLUSION:** Corneal penetrating trauma was the most prevalent, followed by blunt trauma. Thus, it is inferred that the management of patients suffering from ocular trauma can be initiated by the general practitioner and should not be solely the responsibility of the ophthalmologist. A quick and adequate response in primary medical care minimizes complications such as loss of visual acuity.

**288. TUBERCULOSIS IN MARANHÃO: AN EPIDEMIOLOGICAL ANALYSIS**Handrya Karla Martins Gomes <sup>1</sup>, Vinicius Ryan Araujo de Oliveira <sup>1</sup>, Bismarck Ascar Sauaia<sup>1</sup>.<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Tuberculosis is a contagious infection caused by the bacterium *Mycobacterium tuberculosis*, which can be transmitted through airborne particles from coughing, speaking, or sneezing. In laboratory diagnosis, Koch's bacillus can be identified through sputum smear microscopy. Treatment lasts 6 months and is provided free of charge by SUS (Brazilian Unified Health System). However, drug use, smoking, and HIV infection can interfere with the disease's therapy. The review aimed to describe the epidemiology of the infection in Maranhão between 2013 and 2023. **METHODS:** This was a descriptive, cross-sectional review study conducted with data from the Notifiable Diseases Information System (SINAN), made available by the Department of Informatics of the Unified Health System (DATASUS). The referenced research was gathered from virtual libraries and databases: Scientific Electronic Library Online (SciELO) and Google Scholar, including full articles and reviews in Portuguese and English related to the topic and descriptors. The variables analyzed included ethnicity, gender, age, socioeconomic and educational status, as well as HIV testing, smoking habits, and outcomes such as cure and death. Descriptive statistics were used to quantify the results. **RESULTS:** Of the number of diagnosed and reported tuberculosis cases in Maranhão (n=29,299), the highest prevalence occurred in 2023 (n=3,419; 11.6%) and the lowest in 2014 (n=2,186; 7.4%). Among those affected, (n=19,529; 67%) were men; (n=20,961; 71.5%) were brown individuals; (n=19,039; 65%) had incomplete basic education or were illiterate; and (n=12,580; 43%) were aged between 20 and 39 years. HIV testing was positive in (n=2,594; 9%) and (n=4,054; 13.8%) did not undergo testing; (n=19,543; 67%) did not use tobacco. A total of (n=18,787; 64%) achieved cure; (n=3,754; 12.8%) abandoned treatment; and (n=1,247; 4.2%) died from the disease. **CONCLUSION:** The results showed a growing trend in the number of cases over the decade, with tuberculosis being a serious public health problem, more prevalent among the brown population, those in vulnerable situations, and individuals with low educational levels. These socioeconomic and educational factors may be associated with difficulties in accessing health services and the high rate of treatment abandonment, hindered by a lack of understanding of the importance of completing the treatment protocol. Therefore, a continuous education process is necessary to clarify that, despite being curable, if untreated, tuberculosis can lead to death.

**289. ULTRASONOGRAPHY AS A TOOL FOR ASSESSING AIRWAYS IN PREGNANT WOMEN**Carlos Vinícius Vale de Andrade Costa<sup>1</sup>, Celso Antônio Ramos Magalhães<sup>1</sup>, Ana Beatriz Figueiredo Portillo dos santos<sup>1</sup> Isabela Pinheiro Souza<sup>1</sup> Lucas Gabriel Feitosa da Exaltação<sup>1</sup> Welbert Souza Furtado<sup>1</sup>, Plínio Cunha Leal<sup>1</sup>.<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Airway management in pregnant women is a challenging task due to the anatomical and physiological changes that occur during pregnancy, which increase the risk of anesthetic complications. In response to these challenges, ultrasonography emerges as a promising tool for preoperative assessment, aiding in the prediction of difficult airways. Thus, this study aims to evaluate the efficacy of ultrasonography in the assessment of airways in pregnant women. **METHODS:** This is a systematic review of the literature, which used the PubMed and Embase databases. The descriptors used for the research were "ultrasound," "ultrasonography," "pregnancy," "obstetric," and "airway." Inclusion criteria: studies published between 2019 and 2024, in Portuguese, Spanish, or English. Exclusion criteria: studies that did not analyze the descriptors together, deviating from the proposed theme of the present article. **RESULTS:** Seven articles that followed all methodological criteria were analyzed, demonstrating that ultrasound offers a detailed visualization of both supraglottic and subglottic airway structures. Through this visualization, it is possible to accurately measure the width and volume of the tongue, the thickness of the soft tissue of the neck, and critical diameters such as the subglottic, which are essential for predicting intubation difficulties. Additionally, parameters such as the HMDR ratio (hyoid-mandible distance ratio) and the measurement of the pre-epiglottic area were particularly effective in predicting difficult laryngoscopy. **CONCLUSION:** As a result, the studies highlight the high sensitivity and specificity of ultrasound in predicting difficult intubation in pregnant women, especially those with conditions like preeclampsia, where anatomical changes are more pronounced. The comprehensive review of the studies reveals that the use of ultrasonography for airway assessment in pregnant women offers significant advantages over traditional methods. The precise visualization of anatomical differences in pregnant women's airways not only enhances the ability to predict difficult airways but also facilitates precise interventions, such as emergency cricothyroidotomy, where the correct location of structures is crucial. Thus, the use of ultrasound represents a significant advancement in obstetric anesthetic practice, promoting greater safety in airway management.

**290. AN ANALYSIS OF PALLIATIVE CARE IN PATIENTS WITH HEART FAILURE**

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**INTRODUCTION:** Heart failure (HF) is a disease that causes debilitating symptoms due to poor heart function and which gradually worsens, shortening the patient's life, who often has no possibility of recovery. In this sense, it is common that, for the best comfort of the patient and their family, they enter a palliative care regime, that is, an interdisciplinary service with a global approach to care that improves the quality of life of those living with serious illnesses, regardless of the prognosis. Therefore, this work aims to present the latest studies regarding the use of palliative care in patients with heart failure. **METHODS:** The present study consists of a literature review based on the PubMed database. "Palliative care" and "heart failure" were used as descriptors combined with the use of the Boolean operator "AND". 2588 articles were found in the search, of which 12 works remained after applying the inclusion criteria: reviews published in the last 5 years, with free access and with descriptors in the title/abstract. **RESULTS:** The studies included in this work highlight the effectiveness of palliative care interventions in promoting quality of life. Significant improvements were observed in the well-being of patients, evidenced by the reduction in symptom burden and improved results in the functional level related to HF, assessed using the New York Heart Association (NYHA) classification. There was also a significant decrease in hospital readmission and mortality rates. Furthermore, it was also observed that palliative care, when carried out earlier, is associated with a better understanding of the patient's care preferences, with advance planning, greater satisfaction of the patient and the caregiver, in addition to improvements in the quality of life related to health, reduction of symptoms and less burden on health services. **CONCLUSION:** This review corroborates palliative interventions, given the promising results on the patient's quality of life. Furthermore, it is clear that spirituality could be a target for improving clinical and patient-centered outcomes.

**291. UPDATES ON CANNABIS SATIVA IN CONTROLLING THE SYMPTOMS OF PARKINSON'S DISEASE**

Osnar Gustavo de Santana Lima<sup>1</sup>, Cristiane Fiquene Conti<sup>1</sup>.

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**INTRODUCTION:** Parkinson's disease is a neurodegenerative, chronic and progressive pathology, characterized by the manifestation of motor symptoms, such as bradykinesia and resting tremor, and non-motor symptoms, such as anxiety, depression and insomnia. There is no curative treatment, but only drugs that help control symptoms, such as levodopa. Currently, there has also been an increasing use of *Cannabis sativa* compounds for this purpose. That said, the objective of the present work was to gather updates on the use of marijuana compounds to control the symptoms of Parkinson's disease, through the evaluation of different clinical studies with these compounds. **METHODS:** A systematic review was carried out in June 2024 in the PubMed database, using the words "*Cannabis sativa*" and "Parkinson disease" as descriptors, combining with the Boolean operator "AND". The criteria considered for choosing the articles were: dealing with the topic addressed, being in English, being a clinical study and having been published between 2020 and 2024. In total, 120 articles were found, of which 7 were selected for carrying out of the research. **RESULTS:** Almost all studies showed no evidence of reduction in motor symptoms through the use of marijuana compounds, such as bradykinesia and rigidity. Furthermore, no improvement was observed in non-motor symptoms, such as anxiety, depression and insomnia. Regarding adverse effects, the most observed were drowsiness and dizziness. **CONCLUSION:** Therefore, it is concluded that the use of *Cannabis sativa* compounds does not significantly contribute to the control of the symptoms of Parkinson's disease. In the groups subjected to the compounds, the adverse effects were not serious, with more dizziness and drowsiness. In addition, to ensure greater reliability of the results, it is necessary to carry out studies with a larger sample space and a more significant period of time.



**292. URGENT HOSPITALIZATIONS FOR NECK, THORAX, OR PELVIS FRACTURES IN MARANHÃO**

Pedro Victor Aguiar Carvalho<sup>1</sup>, Layanne Silva Oliveira<sup>1</sup>, João Victor Cunha Silva<sup>1</sup>, Davi Nunes Marques<sup>1</sup>, Ana Carolina Leal Melo<sup>1</sup>, Santiago Servin<sup>1</sup>.

<sup>1</sup> Federal University of Maranhão

**INTRODUCTION:** Neck, thorax, and pelvic fractures are severe injuries that often require urgent interventions, leading to significant complications and high hospitalization rates. These fractures can occur as a result of serious accidents, falls from great heights, or direct impacts. This study aims to describe the frequency, sociodemographic characteristics, and economic impact of urgent hospitalizations due to neck, thorax, and pelvis fractures in Maranhão between 2019 and 2023. **METHODS:** This is a descriptive and quantitative epidemiological study based on data from the Information and Informatics Department of the Unified Health System (DATASUS). It includes patients of all ages in Maranhão between 2019 and 2023. The variables described were: number of admissions, total cost, average AIH value, year of care, mortality rate, and municipality. Since it involves secondary data, approval from the Ethics Committee was not required. **RESULTS:** Between 2019 and 2023, 1,541 urgent hospitalizations for neck, thorax, or pelvis fractures were recorded in Maranhão, with a mortality rate of 2.7%. The total cost was R\$2,786,467.11, with an average cost per hospitalization of R\$1,808.22. The year 2022 had the highest number of cases (324), and the average hospital stay was 10.2 days. Hospitalizations were most common in São Luís (36.8%), Imperatriz (19.8%), and Presidente Dutra (9.7%). Regarding sociodemographic characteristics, men accounted for 75.3% of hospitalizations, and the age group most affected was 30 to 39 years (20.2%). **CONCLUSION:** The data reveal a high prevalence of urgent hospitalizations due to neck, thorax, and pelvis fractures in Maranhão between 2019 and 2023, with a higher concentration in São Luís, Imperatriz, and Presidente Dutra. These hospitalizations resulted in significant costs and prolonged hospital stays, with a mortality rate of 2.7%. These findings highlight the need for more effective preventive measures and improvements in health resource management to reduce the financial and clinical impact of these injuries.

**293. USE OF CONDOMS IN QUILOMBOLA COMMUNITIES: AN INTEGRATIVE REVIEW**

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**INTRODUCTION:** The condom is essential for birth control and the prevention of sexually transmitted infections (STIs), enabling a full exercise of reproductive rights, which are not a reality for some women. Women in Quilombola Communities (QCs) assume a secondary role in family planning and are at risk of contracting STIs, as the use of barrier contraceptives (BCs) is low. The aim of this study is to provide an overview of the reality of BC use in QCs and the existing vulnerabilities. **METHODS:** This is an integrative literature review conducted through an advanced search in the Virtual Health Library, using the descriptors "Condoms" and "Quilombolas," with the boolean operator AND. The inclusion criteria were: works in Portuguese published in the last five years. The exclusion criteria included incomplete materials, paid content, and duplicate articles. A total of 7 works were found, and 2 were included. **RESULTS:** A descriptive study in Sergipe noted that, out of 367 individuals, 333 engaged in practices with a fixed partner, but only 9.9% reported consistent condom use. Among those with occasional partners (191), only 15.7% reported correct usage, and regarding both fixed and occasional partners, 90.6% engaged in unprotected sex with both. In this QC, sociodemographic data indicated that the majority were Black, had incomplete elementary education, and earned less than R\$600 per month. Alcohol was consumed by 61.1% of the population, with 17.2% at risk of dependency. The survey revealed a prevalence of syphilis at 3.3%, and a history of STIs at 6.8%, in addition to 82.8% not receiving supplies for use. A survey conducted in QCs in the interior of Bahia highlighted that the use of BCs led to partner avoidance and attempts by women to control usage based on social stigmas. **CONCLUSION:** The use of condoms in QCs remains limited, as the availability does not meet the population's needs, and there are no specific campaigns to encourage adherence to their use. The consumption of alcohol and drugs tends to reduce the perception of risk and complicate usage. Many men refuse to use condoms, thereby putting their partners at risk of both sexually transmitted infections (STIs) and unintended pregnancies due to lack of education. Therefore, educational measures are necessary to change the current perspective and promote condom use in QCs.

**294. COMBINED USE OF VIDEOLARYNGOSCOPE AND FIBEROPTIC BRONCHOSCOPE IN OROTRACHEAL INTUBATION**

Celso Antônio Magalhães Ramos<sup>1</sup>, Carlos Vinícius Vale de Andrade Costa<sup>1</sup>, Italo C. Martins<sup>1</sup>, Ludmyla Assunção de Paula<sup>1</sup>, Luís Phelipe Gama de Moraes<sup>1</sup>, Pedro Igor de Sousa Rios<sup>1</sup>, Cyro Franklin Conceição Vieira<sup>2</sup>.

<sup>1</sup> Federal University of Maranhão; <sup>2</sup> São Domingos Hospital

**INTRODUCTION:** Orotracheal intubation (OTI) is an essential procedure in airway management. However, OTI can be challenging in certain cases, such as in patients with complex laryngeal anatomy, facial trauma, or obesity. In some instances, the isolated use of a videolaryngoscope (VL) or fiberoptic bronchoscope (FB) may not be sufficient to overcome these challenges. In this context, the combined use of VL and FB emerges as a promising alternative to facilitate OTI, leveraging the benefits offered by both tools. This study aims to evaluate the efficacy and safety of this combined approach. **METHODS:** This is a systematic literature review, conducted using the PubMed and Embase databases. The search was performed up to June 2024, utilizing the following keywords: "Videolaryngoscopy", "Fiberoptic", "Bronchoscopes". A total of 9 articles were selected based on the inclusion criteria: articles published in the last 7 years, without language restriction, addressing the combined use of VL and FB in OTI. **RESULTS:** In this review, some studies demonstrated that combined OTI had a higher success rate and shorter procedure time on the first attempt compared to FB alone, which can be attributed to the multifaceted view provided by the VL, ensuring greater safety and awareness during the procedure. Obese patients with goiter also showed better success rates with the hybrid approach, increasing the likelihood of successful intubation when a single device fails, and contributing to a lower number of complications in difficult airways. In patients with trauma or distorted airway anatomy, the FB aided in navigating anatomical distortions, and when used in conjunction with the VL, it created space for visualization and effective tube advancement, reducing the potential for trauma in the region. **CONCLUSION:** The comparative analysis of the reviewed articles indicates that the combined use of VL and FB is an extremely effective and safe technique for various procedures, with higher success rates, shorter procedure times, and a lower risk of complications compared to the isolated use of these devices. It is recommended that the combined use of VL and FB be considered a valid strategy for anticipated difficult airways. Moreover, the monitored combination of both cameras provides a simultaneous "micro-view" of the larynx through the FB and a "macro-view" through the VL, aiding in better decision-making by the medical team and serving educational and professional training purposes.

**295. USE OF ENDOSCOPY IN THE COVID-19 PANDEMIC: ANALYSIS OF IMPACTS ON CLINICAL PRACTICE**

Hayla Thatielle Cardoso de Oliveira Costa<sup>1</sup>, Beatriz Santos Pinheiro<sup>2</sup>, Mariany Helen Rosa Fernandes<sup>3</sup>, Maria Clara Santos Araújo<sup>1</sup>, Pedro Massagli Yamada<sup>1</sup>, Rafael Antônio Freire Carvalho<sup>2</sup>.

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**INTRODUCTION:** COVID-19 transmission occurs through contact with respiratory secretions, making upper gastrointestinal endoscopies (UGI) a high-risk procedure during the pandemic due to their generation of aerosol particles. As a result, UGI was limited to urgent cases during this period. Given its importance in diagnosing and monitoring patients, the use of UGI posed significant challenges in mitigating the spread of the virus. This study aims to analyze the impacts of the COVID-19 pandemic on clinical practices related to digestive endoscopy. **METHODS:** An integrative review was conducted following the PRISMA protocol, utilizing the Scielo, PubMed and LILACS databases. The search strategy involved the following descriptors and Boolean operators: "(endoscopy OR digestive system endoscopy) AND (COVID-19 OR SARS-CoV-2)" in PubMed and "(endoscopy) AND (COVID-19)" in the other databases. After conducting two screening rounds—first by reading titles and abstracts, followed by a full analysis of the articles—the inclusion criteria were applied: primary studies from 2020 to 2024, full-text availability, and no language restrictions. **RESULTS:** Of the 27 articles identified, 5 were selected, excluding those outside the inclusion criteria, focusing on nasal endoscopy, reviews and repeated studies. Among the selected studies, 80% compared the pre- and post-pandemic periods, while 20% focused exclusively on the pandemic. A reduction in UGI procedures of 46% to 52.1% was observed, along with a 37.2% decrease in patients with comorbidities. Females were more prevalent in 2019, but there was no gender prevalence in 2020. The most common indications for UGI, both pre- and post-pandemic, included biliary-origin abdominal pain and gastrointestinal bleeding. The average patient age increased from 64.13 to 65.11 years, with a 200% increase in cancer diagnoses and a 30% increase in time between hospital admission and procedure initiation. Among COVID-19 patients, the incidence ranged from 1.7% to 3.1%. Mortality due to upper gastrointestinal bleeding secondary to hypovolemic shock was 3.92%, while no deaths were attributed directly to SARS-CoV-2. The infection rate among healthcare workers was 38.0%. **CONCLUSION:** The studies demonstrate significant impacts of the COVID-19 pandemic on the use of UGI, including a reduction in the number of procedures and longer wait times. These changes likely reflect efforts to adhere to biosafety protocols aimed at protecting both patients and healthcare teams. Moving forward, it is essential to develop safety protocols and emergency response strategies that allow clinical practice to continue without interruption, even in pandemic situations.

**296. REDUCTION OF HYPERPROLACTINEMIA IN A MALE PATIENT: A CASE REPORT**

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**INTRODUCTION:** Hyperprolactinemia is defined by elevated serum prolactin levels, a hormone secreted by the pituitary gland, which may arise due to physiological or pathological mechanisms, including prolactinomas. Clinically, hyperprolactinemia manifests with hypogonadism, infertility, and galactorrhea, being more prevalent in females. In males, the clinical picture is often dominated by hypogonadotropic hypogonadism, with symptoms such as reduced body hair, erectile dysfunction, and diminished libido. The literature suggests that prolactinomas in males tend to exhibit more aggressive behavior. This case report aims to present a macroprolactinoma with unusual features compared to the commonly reported findings. The study was approved by the Research Ethics Committee of the University Hospital of the Federal University of Maranhão (CEP-HUUFMA), under approval number 5.100.838 and CAAE 52877721.4.0000.5086. **CASE DESCRIPTION:** A male patient, V.C.L.H., presented to the neuroendocrinology clinic in 2017 following an incidental finding of a pituitary mass on cranial computed tomography after a motorcycle accident. Initial laboratory investigations revealed markedly elevated serum prolactin levels (9,533 ng/mL, diluted 1:100) and significantly low testosterone levels (37.48 ng/dL). Magnetic resonance imaging (MRI) of the sellar region identified a 4 cm macroadenoma with compression of the optic chiasm, and extension into the cavernous sinuses and internal carotid arteries. Visual field testing demonstrated right-sided temporal hemianopia. Additionally, the patient developed central hypothyroidism, which required levothyroxine replacement therapy. Despite these findings, the patient denied experiencing symptoms typically associated with hyperprolactinemia or hypogonadism. Pharmacological management with cabergoline up to 2.5 mg weekly was initiated, resulting in a substantial reduction in prolactin levels to 10.73 ng/mL and a decrease in tumor size to 2.3 cm within 8 months. The patient continues to be followed biannually, demonstrating excellent clinical outcomes. His most recent prolactin level was 4.73 ng/mL, and MRI showed a partially empty sella turcica with no residual tumor, while on a reduced cabergoline dose of 1 mg per week. **CONCLUSION:** This case highlights the potential variability in the clinical course of prolactinomas in male patients, particularly regarding tumor aggressiveness and response to treatment. Although prolactinomas in men are traditionally described as more aggressive, this case suggests that timely diagnosis and appropriate therapeutic intervention with dopamine agonists, such as cabergoline, may lead to favorable outcomes. The significant tumor shrinkage and normalization of prolactin levels observed in this patient support the hypothesis that delays in diagnosis may contribute to the severity of the disease more than inherent tumor aggressiveness. These findings underscore the importance of early detection and intervention to optimize clinical outcomes in male patients with prolactinomas.

**297. INTERPERSONAL AND SELF-INFLICTED VIOLENCE IN THE MUNICIPALITY OF CODÓ BETWEEN 2012 AND 2022**

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**INTRODUCTION:** Violence is a public health problem that can be defined as the intentional use of physical force or power against oneself or another person, with a high probability of resulting in injuries, death, psychological harm, among other effects. This study aims to analyze the profile of interpersonal and/or self-inflicted violence recorded through notifications in the municipality of Codó between 2012 and 2022. **METHODS:** This is a descriptive, retrospective study with a quantitative approach, using data collected from the Disease Information System, available in the public domain database (DATASUS). The variables include sex, age group, race, education level, and place of occurrence. **RESULTS:** A total of 1,316 cases of interpersonal/self-inflicted violence were reported. The highest number of cases was recorded in 2012 (n=545; 41.41%), with the largest age group being individuals aged 20-29 years (n=342; 25.99%), and males had the highest incidence (n=662; 50.30%). Additionally, race (n=611; 46.43%) and education level (n=801; 60.87%) were predominantly reported as white/unknown, indicating inadequate form completion. Furthermore, public streets were the most common location for interpersonal/self-inflicted violence (n=678; 51.52%). **CONCLUSION:** Based on the data regarding interpersonal/self-inflicted violence in Codó, Maranhão, between 2012 and 2022, it is evident that there is an urgent need for preventive and intervention measures to reduce these incidents. The high incidence of cases, especially in 2012, highlights the importance of strategies targeting the most affected age groups, such as young adults aged 20 to 29, and the locations with the highest occurrence, such as public streets. Moreover, the lack of information on race and education level indicates the need for improvements in data collection for a more comprehensive understanding of the phenomenon.

**298. LECTON CRITERIA FOR CORNEAL TRANSPLANT RECIPIENTS**

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**INTRODUCTION:** The cornea functions as a protective barrier for the eye, acting like a lens over the iris, modulating the entry of light into the eyeball. Damage affecting corneal transparency and/or irregularities may lead to visual acuity deficits, potentially progressing to blindness. In this context, corneal transplantation is considered the gold-standard therapy to prevent visual impairment. In 2021, it was estimated that approximately 180,000 corneal transplants were performed annually worldwide. However, for effective outcomes, this procedure must be carefully evaluated. This study aims to present to the medical community the essential criteria for selecting corneal transplant recipients. **METHODS:** This is an integrative literature review, analyzing publications from the Scielo and PubMed databases from 2019 to 2024. The search descriptors used were "Criteria," "Recipient," and "Corneal Transplant". **RESULTS:** Data analysis showed that selection criteria for corneal transplant recipients vary according to medical guidelines and the individual needs of each patient. The most prominent criteria were corneal condition, ocular disease stability, and the patients general health condition. The most frequently cited selection criterion was the corneal condition, requiring the presence of a disease or injury significantly impairing vision and not treatable by other means. Selection of these corneas is based on three principles: harmlessness, transparency, and vitality. Ocular disease stability was another important criterion, as it ensures a more effective and lasting transplant. General health status also proved fundamental in determining transplant feasibility. Medical conditions such as diabetes, autoimmune diseases, or severe infections may affect healing and post-transplant recovery. **CONCLUSION:** Selecting suitable candidates for corneal transplantation is essential to ensure that the procedure benefits those most in need and with the highest likelihood of success. It is crucial to implement evaluation criteria for the recipient's cornea, ocular disease stability, and general health to prioritize patients with severe injuries and potential for visual recovery. The unification of these criteria across Brazil is ensured by the National Transplant System (SNT).

**299. EPIDEMIOLOGICAL ANALYSIS OF KIDNEY FAILURE IN THE ELDERLY IN MARANHÃO FROM 2014 TO 2023**

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**INTRODUCTION:** Renal failure is a pathological condition that occurs due to the failure of the renal structures that filter metabolic waste from the blood. This pathology commonly affects the elderly and can be caused by aging and the diseases that are common in this social group, such as hypertension, diabetes, obesity and other glomerular pathologies. Thus, the objective of this study was to characterize the epidemiological profile of kidney failure in the elderly in the state of Maranhão between 2014 and 2023. **METHODS:** This is a retrospective and quantitative epidemiological study, based on the collection of information from the Department of Informatics of the Unified Health System (DATASUS), in relation to hospitalization rates, mortality rate, sex, color and race. The period studied was from January 2014 to December 2023. **RESULTS:** During this period, there were 24,865 hospital admissions for kidney failure in Maranhão, of which 10,770 were among the elderly, around 43.3%. This group had a mortality rate of 19.55%, while among the non-elderly it was 7.22%. When looking at gender, it was noted that the majority were men, with 6491 of the cases (60.2%) while females accounted for 4279 (39.7%) of the hospitalizations. However, the mortality rate was higher in women (20.94%) compared to men (18.63%). With regard to race and color, the brown group stood out, with 4,333 hospitalizations and a mortality rate of 18.86%. When analyzing the period of hospitalizations, there was a greater number in 2022 and 2023 (1582 and 1468, respectively) and also an increase in numbers over the 10 years. In relation to the municipalities of Maranhão, there was a prevalence of hospitalization cases in Caxias, Imperatriz and São Luís (862, 1612, 3411) with around 54.6% of the total, as well as the mortality rate (34.11%, 19.85%, 17.56%). **CONCLUSION:** Kidney failure in the elderly is a significant health problem in the state of Maranhão, as they are the most affected by the disease, which has increased the last 10 years, with high hospitalization and mortality rates. The information obtained is relevant for implementing preventive measures and improving access to the basic care needed, especially among the brown population of both sexes in the cities of Caxias, Imperatriz and São Luís.

**300. ANALYSIS OF SEPSIS MORTALITY IN MARANHÃO: DESCRIPTIVE STUDY FROM 2013 TO 2022**

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**INTRODUCTION:** Sepsis is characterized by the occurrence of a systemic inflammatory response syndrome with organ dysfunction, triggered by an inadequate reaction to infection. It affects people of all ages, but is most common in newborns, the elderly and those with a certain degree of immune system deficiency. It is the most common cause of admission to non-coronary intensive care units. With this in mind, this study aimed to analyze the epidemiological profile and mortality rates of patients hospitalized for sepsis in the state of Maranhão between 2013 and 2022. **METHODS:** This is a descriptive, cross-sectional analysis with a quantitative approach, using data from the Department of Informatics of the Unified Health System. The variables analyzed were: the number of hospitalizations, gender, race, age group, deaths and mortality rate from 2013 to 2022. Statistical analysis was carried out using SPSS 25.0 for Windows software, with Kendall's tau-b and chi-squared tests, adopting a significance level of 5%. **RESULTS:** During the study period, 16,477 patients were hospitalized with sepsis in Maranhão. Of these, 53.56% were male, while 46.44% were female. As for the number of deaths, 6,997 were recorded, of which 3,662 (52.34%) were male and 3,335 (47.66%) female. Statistical analysis revealed a positive and significant correlation between the number of hospitalizations and deaths ( $\tau = 0.644$ ;  $p = 0.009$ ). The mortality rate for patients hospitalized for sepsis in the state was 42.46%. The most affected age group was 80 years or older (58.32%), followed by 70 to 79 years (52.87%), 60 to 69 years (47.92%) and 50 to 59 years (44.05%). The brown race had a high mortality rate (43.06%), followed by the white race (42.89%) and the indigenous race (41.54%). **CONCLUSION:** The impact of sepsis on public health is significant, as can be seen from the high mortality rates. It is therefore necessary to emphasize preventive measures, early diagnosis and appropriate intervention as fundamental measures for better outcomes.

**301. THE APPLICATION OF MOHS SURGERY AS A THERAPY FOR BASAL CELL CARCINOMA**

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**INTRODUCTION:** The Mohs micrographic surgery (MMS) is a technique created by Dr. Frederic Mohs, indicated for the excision of cutaneous neoplasms, such as basal cell carcinomas (BCC), which represent 80% of skin cancers. In MMS, the tumor is removed, mapped and processed into fragments for intraoperative histopathological evaluation, enabling the total removal of cancer cells and greater tissue conservation. The objective of the study is to understand MMS and its benefits compared to other therapeutic modalities. **METHODS:** This is an integrative literature review, carried out from the PubMed, Virtual Health Library and Google Scholar databases, using the descriptors: "Mohs Surgery", "Basal Cell Carcinoma", "Conventional Surgical Excision". The study presented as research question: "What are the benefits of Mohs surgery as a treatment for basal cell carcinoma?". The inclusion criteria adopted were publications from the last 15 years, referring to MMS techniques and their application in the treatment of BCC. Thus, 16 studies were used in the study. **RESULTS:** The Mohs surgery is considered an effective treatment for the resection of skin tumors, especially BCC, in which there was a discrepancy in the recurrence rate between MMS (1.1%) and conventional surgery (6.3%), less aesthetic and functional impact, and greater patient satisfaction. Studies have demonstrated the effects of MMS, especially in lesions in the facial risk area, in order to allow a complete intraoperative analysis of the margins, in addition to offering tissue preservation of 56.6%, revealing minimal aesthetic and functional damage during the treatment of BCCs. In addition, studies analyzed 83 MMS, of which 89.1% were BCC, presenting only one recurrence and two metastases during treatment, evidencing the benefits of MMS. However, the technique still needs improvements to spread its access. **CONCLUSION:** Therefore, Mohs micrographic surgery is consolidated as a preferred therapeutic option for basal cell carcinoma, since it minimizes the risk of recurrence and improves functional and aesthetic results. Furthermore, this field still lacks studies to promote advances and increase access to MMS.



**302. IMPACT OF EARLY PEDIATRIC CARDIOPULMONARY RESUSCITATION ON SURVIVAL AND PROGNOSIS**

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**INTRODUCTION:** Early cardiopulmonary resuscitation (CPR) plays a critical role in the survival of children experiencing cardiac arrest, being determinant for clinical outcome and quality of life of survivors. Cardiac arrests in pediatric patients represent a significant challenge in emergency medicine, as they involve high mortality rates and risk of severe neurological sequelae. Unlike adults, whose cardiac arrests are usually associated with cardiovascular diseases, in children they can result from factors such as asphyxia, drowning, trauma, and infections, which makes immediate response even more crucial. Recent studies indicate that the response time between the event and the initiation of CPR is one of the main determinants of survival and long-term neurological prognosis. **METHODS:** We conducted a systematic review and meta-analysis of studies published between 2010 and 2023 focusing on children who experienced cardiac arrest and received CPR. Studies were included if they were indexed in databases such as PubMed, Scopus, and Web of Science. Inclusion criteria required the analysis of time to CPR initiation, survival rates, and post-intervention neurological status. Data were extracted and analyzed using statistical software to calculate odds ratios (OR) and 95% confidence intervals (CI). **RESULTS:** The analysis included 15 studies, totaling 1,200 cases of pediatric cardiac arrest. Children who received early CPR (within 3 minutes of cardiac arrest) had a survival rate of 78%, compared to 45% for those who received late CPR. Additionally, 65% of patients who received early CPR had favorable neurological outcomes after six months, compared to 30% in the late CPR group. The meta-analysis revealed that early CPR is associated with a significant improvement in survival (OR: 2.5; 95% CI: 1.8-3.4) and neurological prognosis (OR: 2.1; 95% CI: 1.5-3.0). **CONCLUSION:** Early pediatric cardiopulmonary resuscitation (CPR) significantly improves survival and neurological outcomes in children experiencing cardiac arrest. These findings underscore the importance of rapid interventions and ongoing CPR training for healthcare professionals. Public health policies should prioritize the promotion of early CPR training to enhance the response to pediatric emergencies.

**303. MELANOMA SPOTLIGHT: NEW PERSPECTIVES THROUGH BIOPHYSICAL MARKERS**

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**INTRODUCTION:** Melanoma is a skin neoplasm resulting from the malignancy and proliferation of melanocytes, being the least prevalent form among skin tumors. The worst prognosis associated with melanoma stems from the difficulty in establishing effective therapy and early diagnosis. These limitations highlight a critical gap in understanding the molecular and structural behavior of the tumor. Thus, this study integrates Atomic Force Microscopy (AFM) and Raman Spectroscopy (RS) as tools for ultrastructural and molecular analysis of human melanoma. **METHODS:** The AFM analysis was performed on a Multimode 8 in PeakForce mode. qp-HBC model probes with a spring constant of 0.5 N/m and a tip radius of 2 nm were used for scans in 15×15 μm<sup>2</sup> areas of three sample groups. Statistical analyses and graphs were obtained using OriginLab software. The study also employed a Raman spectrometer (Model T64000, Horiba), operating in single mode. The analyzed cell lines were the SK-MEL-19 and SK-MEL-103 melanomas, and the MCR-5 control. **RESULTS:** The AFM analysis comparing the sample groups showed ultrastructural changes in the topographic maps and in the data for surface area, volume, and roughness. These changes are due to morphological alterations associated with malignant transformation, which impact the structural conformation of the cell, altering the biophysical properties of the nucleus, cell membrane, and cytoskeleton. The Young's modulus data indicated that the more aggressive metastatic cell, SK-MEL-103, exhibits greater malleability, demonstrating the invasive potential of aggressive cancer. Furthermore, melanomas present lower adhesive forces due to the negative nature of the tumor cell membrane. Raman spectroscopy analysis identified biochemical components of the cellular structures, such as lipids, proteins, and nucleic acids, revealing the different biochemical expressions in melanoma, such as in Amide I, Proline, Tyrosine, Hydroxyproline, Tryptophan, Nitrogenous Bases, Phospholipids, and Lipids. **CONCLUSION:** The AFM maps revealed ultrastructural and nanomechanical modifications in tumor cells, indicating conformational changes at the cell membrane and cytoskeleton levels. Raman spectroscopy detected vibrational modes in melanoma cells, revealing spectral differences between control and cancerous samples. These findings promote potential biophysical approaches for early detection and targeted cancer treatments, expanding advancements in the field of oncology.

**304. EPIDEMIOLOGICAL PROFILE OF KIDNEY FAILURE IN NORTHEASTERN BRAZIL BETWEEN 2013 AND 2023**

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**INTRODUCTION:** Chronic Kidney Disease (CKD) consists of damage to the renal parenchyma with a progressive and irreversible loss of kidney function, affecting all components—glomerular, tubular, and endocrine. This disease impacts the entire life experience of the patient, necessitating lifestyle adjustments, continuous treatment, and structured living to avoid exacerbations. CKD is a significant cause of hospitalizations and mortality in Brazil, home to the world's third-largest dialysis program, underscoring the need to understand how this condition affects the Northeast region. This study aims to determine the epidemiological profile of kidney failure in the Northeast of Brazil from 2013 to 2023. **METHODS:** This research is an epidemiological, descriptive, and quantitative study based on publicly available data from the Department of Informatics of the Unified Health System (DATASUS) between August 2013 and August 2023. The variables analyzed include the number of hospitalizations, deaths, age range, race/color, and sex, compared across the states of Northeast Brazil. **RESULTS:** The Northeast region reported a total of 253,393 hospitalizations due to kidney failure. The state of Bahia accounted for the highest number of cases (27.3% of the total), while Sergipe had the lowest (2.5%). The predominant age group was 60-64 years, comprising 10.6% of the total cases. Males were more affected (57%), and the most prevalent race was mixed-race (51.6%). Regarding deaths, the Northeast registered 34,544, which represents 23.7% of all deaths due to kidney failure in Brazil. Bahia recorded the highest number of deaths (29%), and Rio Grande do Norte the lowest (4.6%). Among these deaths, the age group most affected was those over 80 (22.4%), with males accounting for 57.3% of all deaths, and mixed-race individuals making up 50.8% of fatal cases. **CONCLUSION:** The epidemiological profile of reported cases reveals that chronic kidney disease (CKD) is a significant cause of hospitalizations and deaths in Northeast Brazil, with 253,393 hospitalizations and 34,544 deaths between 2013 and 2023. Bahia had the highest number of cases and deaths. The most affected age group was 60-64 years, predominantly males and mixed-race individuals. These data highlight the need for effective public health policies and a strengthened nephrology care system in the region.

**305. PROFILE OF DEATHS AND HOSPITALIZATIONS DUE TO MENINGOCOCCAL INFECTION IN MARANHÃO FROM 2019 TO 2023**

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**INTRODUCTION:** Meningococcal infections are caused by the bacterium *Neisseria meningitidis* and are mainly transmitted through close and prolonged contact with respiratory secretions from an infected person. Meningococcal infection can progress rapidly and has a significant mortality rate, especially in cases of sepsis. Thus, understanding the epidemiology of this infection is essential for developing prevention and treatment strategies. This study aims to describe the epidemiology of hospitalizations due to meningococcal infection in Maranhão from 2019 to 2023. **METHODS:** This is a retrospective epidemiological study on hospitalizations due to meningococcal infection in Maranhão, using data from the Hospital Information System of SUS (SIH/SUS) from 2019 to 2023. The study analyzed mortality rates, average length of stay, and number of hospitalizations, using variables such as health macroregion, age group, sex, race or ethnicity, and type of care provided. **RESULTS:** A total of 88 hospitalizations due to meningococcal infection were reported in Maranhão during the analyzed period, with a peak in 2019, representing 34.09% (30) of cases. In total, there were 17 deaths, with a mortality rate of 19.31%, and the highest prevalence in 2019, with 9 reported deaths (52.94%). Additionally, males were more prevalent in both hospitalizations (56.81%) and deaths (64.70%). Regarding race, the highest prevalence of hospitalizations occurred among individuals of mixed race (56.81%). Analyzing hospitalizations by age group, children had the highest rate (44.3%), followed by adults (37.5%) and the elderly (18.2%). In terms of deaths, adults showed the highest prevalence (52.9%), followed by the elderly (29.4%) and children (17.7%). The northern macroregion stood out with the highest number of hospitalizations (59%) and highest mortality rate (70.5%). **CONCLUSION:** The findings reveal a high incidence and mortality rate, particularly in 2019. Males were predominant in both hospitalizations and deaths. While children had the highest hospitalization rates, adults had the highest death rates. Lastly, the northern macroregion had the highest number of hospitalizations and deaths. This underscores the need for more effective efforts, such as expanding vaccination coverage in Maranhão.

**306. ANALYSIS OF THERAPEUTIC ADHERENCE IN ELDERLY WITH DIABETES IN PRIMARY CARE IN PINHEIRO**Maressa Chagas Oliveira<sup>1</sup>; Carlos Alberto Leite Filho<sup>1</sup>; Amanda Namíbia Pereira Pasklan<sup>1</sup>.<sup>1</sup> Federal University of Maranhão

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**INTRODUCTION:** Type 2 diabetes mellitus (T2DM) is highly prevalent among the elderly. In 2019, approximately 463 million adults (aged 20-79) had diabetes mellitus (DM), with one in five of these individuals being elderly. A critical aspect of T2DM management is therapeutic adherence, which requires a complex treatment regimen and behavioral changes, so non-adherence is a common issue. The older age group experiences the highest rates of complications due to poor T2DM management. Considering that the measure of adherence to treatment (MAT) is a validated tool for assessing prescription use, this study aims to evaluate therapeutic adherence among elderly patients with T2DM. **METHODS:** This cross-sectional, quantitative study assessed therapeutic adherence using the MAT, which was administered on a Linkert scale, from October 2023 to June 2024. Elderly individuals aged  $\geq 60$  years who were followed in primary healthcare (PHC) were eligible. Exclusion criteria included self-reported prediabetes or lack of PHC follow-up in the past two years. The study was approved under opinion number 6.082.387. **RESULTS:** The sample of 41 patients, with an average age of 68.4 years, responded with "never", "rarely", "sometimes", "often", "almost always" and "always" to the seven items on the MAT. When asked "have you ever forgotten to take your medication for your illness?" 36.5% of participants answered that they "sometimes" forget. In response to, "have you ever been careless with the timing of your medication for your illness?" 31.7% denied carelessness, while 4.8% agreed they are "always" careless with timing. Regarding questions about stopping medication due to a perceived improvement or worsening of symptoms or for reasons other than medical advice, most respondents reported this "never" occurs. For the item "Have you ever stopped taking medication because you ran out?" approximately half answered "never", while nearly 25% admitted they "sometimes" stop due to running out of medication. Lastly, 82.9% of participants indicated they had "never" stopped taking their DM medication unless advised by a physician. **CONCLUSION:** Most elderly patients with T2DM demonstrated high adherence to medication therapy; however, it is noticeable that a portion of them exhibits lapses in use. This highlights the need for improved health policies for the elderly to enhance therapeutic adherence within this group.

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