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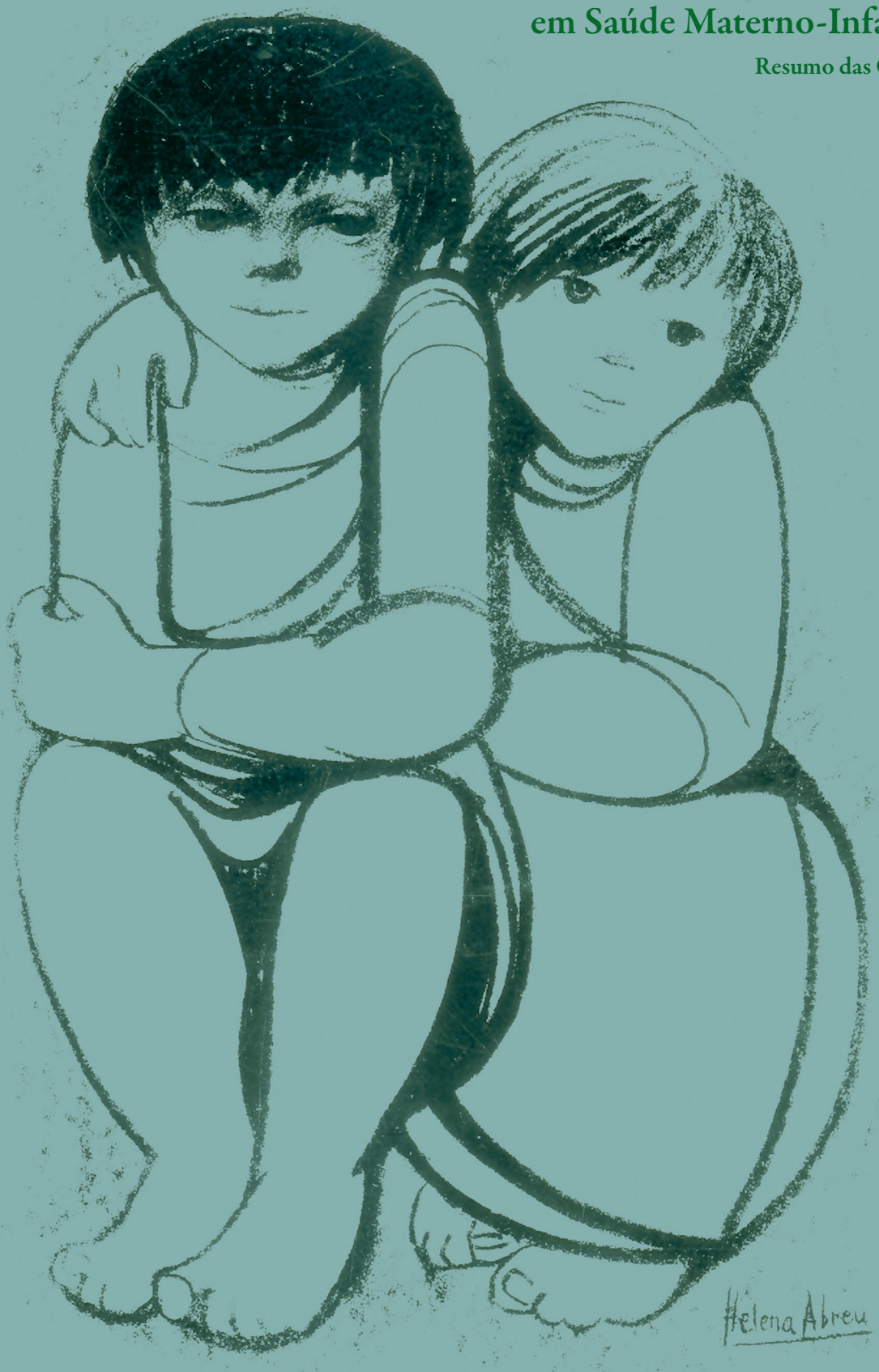

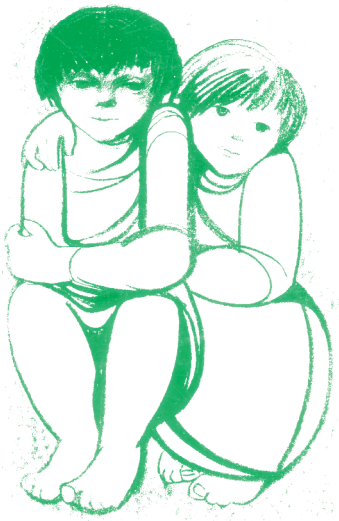

PEDIATRIA

COMUNICAÇÕES ORAIS

(28326)

READING HABITS IN EARLY CHILDHOOD: A COMPARATIVE STUDY BETWEEN CHILDREN WITH AND WITHOUT COMMUNICATION DISORDERS

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Introduction: Reading habits play a crucial role in a child's neurodevelopment, positively influencing language, cognitive abilities, and social skills. Early shared reading fosters vocabulary growth, speech fluency, phonological awareness, and future reading proficiency. This study aims to compare the reading habits of children with language and/or speech sound disorders to those of children with typical neurodevelopment.

Methods: Cross-sectional case-control study including 725 children: 217 diagnosed with a communication disorder (group 1) and 508 with no neurodevelopmental pathology (group 2), followed in hospital and primary healthcare settings, respectively. Data were collected through a caregiver-completed questionnaire.

Results: Group 1 had a higher proportion of male children (65.0% vs. 50.2%, p<0.001) and a later median age of kindergarten start (33 vs. 18 months, p<0.001). A positive family history of communication disorders was more prevalent in this group (25.3% vs. 5.3%, p<0.001). Maternal education level was lower in group 1, with fewer mothers holding a college degree (45.2% vs. 54.5%, p<0.001). Significant differences were observed in caregivers' reading habits: in group 1, 14.7% reported reading books regularly, compared to 47.4% in group 2 (p<0.001). Shared reading was also considerably less frequent in Group 1 (20.3% vs. 63.4%, p<0.001), and when present, it began before 12 months of age in only 38.5% of cases, compared to 75% in Group 2 (p<0.001). Additionally, just 10.1% of caregivers in Group 1 reported having experienced shared reading in their own childhood, compared to 25.6% in Group 2 (p<0.001). A similar trend was found regarding book offers during childhood (6.9% vs. 28.1%, p<0.001).

Discussion: Children with communication disorders seem to grow up in family environments less prone to reading promotion, with lower maternal education levels, less caregiver reading habits, and less early encouragement to reading. In this group, shared reading is markedly less common and tends to begin at a later age. The correlation between maternal education and children's language skills, supported by previous research, was also evident in this study. Overall, these findings highlight the significant influence of the sociocultural environment and family practices on language development. The implementation of strategies concerning family literacy and early shared reading promotion is paramount, both in primary healthcare and educational contexts, to help reduce the disparities that impact child neurodevelopment.

Palavras-chave: perturbação comunicação, leitura partilhada, hábitos de leitura

(28355)

GENDER DYSPHORIA IN ADOLESCENCE: A 6-YEAR EXPERIENCE FROM A PEDIATRIC TERTIARY CENTER

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Introduction: Gender dysphoria(GD) is the psychological distress resulting from incongruence between experienced/ expressed gender and sex assigned at birth. The prevalence in children and adolescents is currently unknown, but reports estimate it is about 0.5-2%. The aim of this study is to describe the pediatric population with GD referred to a pediatric endocrinology unit of a tertiary center.

Methods: Descriptive retrospective study of the pediatric population with GD referred to the pediatric endocrinology unit from June 2019 to May 2025. Demographic data, as well as management, adverse effects, and satisfaction were collected.

Results: A total of 36 adolescents, 19(52.8%) trans boys, median age at first appointment of 16.9 years, were referred to the pediatric endocrinology consult. 21(58.3%) were referred by pediatric psychiatry. Trans boys tended to be referred later(17.2vs16.5 years, p=0.05). 33(91.6%) showed gender incongruence since childhood. All have an alternative name, 21(58.3%) having it legally changed. Most parents were supportive(77.8%). 10(30.3%) were bullied. 18 were heterosexual(50%), 4 homosexual(11.1%), and 3(8.3%) bisexual.

26(72.2%) started hormonal treatment, median age 17.2 years. 21(80.8%) started GnRH-a to inhibit puberty, 10(38.5%) estrogens, and 8(22.2%) testosterone. 11(42.3%) showed side effects, namely decreased libido(5;19.2%), emotional lability(4;15.4%), acne(3;11.5%), breast tenderness(2;7.7%), headaches(1;3.8%), decreased bone mineral density(1;3.8%), and transitory transaminases and total cholesterol elevation(1;3.8%). Two trans boys underwent surgical procedures(18-20 years). 20(55.6%) went to gynecology/urology appointments, 8(22.2%) choosing to preserve fertility. 13(65%) of those who are over 18 years have been to a transition consult into adult care, median age of 18.5 years.

There are no reports of regrets with the transition, 30(83.3%) being happy about it.

Conclusion: Most adolescents showed gender incongruence since childhood and all had an alternative name. There was a slight preponderance of trans boys, who tend to be referred at a later age. Treatment and side effects differed between adolescents, underlining the importance of a personalized and multidisciplinary approach, with frequent monitoring. Most expressed satisfaction with the transition process, showing the quality of the care offered. More studies, with larger samples and follow-up period, are needed to promote health professionals' literacy in this area.

(28305)

SURGICAL EXCISION AND ADJUVANT RADIOTHERAPY FOR KELOIDS SCARS IN PEDIATRIC PATIENTS: LESSONS FROM TWO CASES

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Introduction: Keloids represent a therapeutic challenge due to their expansive nature and high recurrence rate after surgical excision. While various treatment modalities are described, surgical excision alone frequently results in recurrence. In the face of failed less invasive approaches, such as intralesional corticosteroid injection, surgical excision followed by adjuvant radiotherapy (RT) has been considered as an option to improve local control and reduce recurrence risk. We describe 2 clinical cases of our experience regarding keloids scars' treatment through surgical excision followed by adjuvant RT.

Clinical Cases:

Case 1: A 10-year-old male with history of bilateral otoplasty for prominent ears presented with bilateral retroauricular keloids 3 years postoperatively. Following failed intralesional triamcinolone, he underwent surgical excision with otoplasty revision, followed by adjuvant bilateral retroauricular electron beam RT, via computerized dosimetry planning, in 2 fractions at 24 hours and 1-week post-excision. At 3-month follow-up, the scar was smooth and regular without complications. However, at 15 months post-irradiation, a small (1cm) right retroauricular recurrence was noticed, while the other scar remained stable. The recurrence responded to triamcinolone injection, with subsequent clinical stability after one year follow-up.

Case 2: A 14-year-old male with history of bilateral otoplasty for prominent ears developed a right retroauricular keloid, 18 months postoperatively. In the subsequent 6-month period, it tripled in volume, prompting surgical excision followed by adjuvant bilateral retroauricular electron beam RT, in 2 fractions at 24 hours and 1-week post-excision. During the 2-year follow-up, no recurrence was observed nor other complications, and afterwards was discharged.

Discussion: Treating refractory keloids remains challenging, with surgical excision alone often leading to recurrence. This two-case series illustrates the potential benefit of combining excision with adjuvant RT, with good aesthetic outcomes and minimal complications. One patient achieved sustained remission, while the other developed a late recurrence, successfully managed with triamcinolone injection. Adjuvant RT may reduce recurrence risk, but late relapse highlights a need for long-term follow-up and multimodal approach. Further research is needed to optimize treatment protocols and verify its success.

Palavras-chave: Keloid scar, radiotherapy, recurrent, treatment

(28320)

THE BURDEN OF OBESITY IN PEDIATRIC SLEEP MEDICINE

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Background: Pediatric obesity is associated with multiple comorbidities, representing a major clinical and economic burden for healthcare systems. Among these, sleep-disordered breathing (SDB) is particularly relevant given its complexity, cost of diagnosis and treatment. This study aims to assess the obesity burden in a pediatric sleep center.

Methods: Retrospective review of obese pediatric patients who underwent polysomnography (PSG) between 2022 and 2024. Patient demographics, comorbidities, SDB symptoms, PSG results, therapeutic interventions, weight and BMI evolution were analyzed.

Results: A total of 85 pediatric patients with obesity underwent PSG, representing 30.8% of the 276 studies performed during the study period. The median age at the time of the PSG was 13.2 years (IQR 9.3–15.7) and 57.6% were male. The median BMI was 30.6 kg/m² (IQR 26.0-35.7), the median BMI z-score was 3.1 (IQR 2.4-4.0), and severe obesity (BMI z-score > 3) was identified in 50.6%. Most patients presented associated risk factors for SDB including tonsillar hypertrophy (42.4%), rhinitis (40.0%) and dysmorphic features or genetic syndromes (17.6%). Snoring was reported in 71 (83.5%). Among the 82 patients with conclusive PSG results, 93.9% were diagnosed with obstructive sleep apnea syndrome - OSAS (36.6% mild, 18.3% moderate and 39.0% severe) and 39.0% with hypoventilation. Among the 14 patients without reported snoring (6 with severe obesity), 3 were diagnosed with severe, 2 with moderate and 6 with mild OSAS; 2 had hypoventilation. Severe obesity was associated with hypoventilation (p=0.045), which was documented in 21 of the 42 patients severely obese. Non-invasive ventilation (NIV) was initiated in 33 (38.8%) patients, with adherence in 75.0%. Bariatric surgery was performed on 3 patients. Among the 78 patients with follow-up, 41.0% experienced weight loss.

Discussion: This study highlights the high frequency of SDB in obese children and adolescents, with moderate to severe OSAS identified even without snoring. Hypoventilation was common in patients with severe obesity, indicating increased risk in this group. Obesity accounted for approximately one-third of PSG referrals, and more than a third of them required NIV, both advanced diagnostic and treatment techniques, highly specialized and only available in differentiated hospital centers. The results concerning weight loss and VNI adherence were favorable. A multidisciplinary approach is essential for the comprehensive management of these patients.

Palavras-chave: Pediatric obesity; Obstructive sleep apnea syndrome; Hypoventilation; Non-invasive ventilation

(28303)

PAYING FOR PREVENTION: SOCIAL DETERMINANTS OF OPTIONAL CHILDHOOD VACCINATION

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Introduction: The sustainability of maternal and child health systems depends on equitable access to both essential care and optional services such as extra-schedule vaccinations. In Portugal, vaccines like MenACWY, Rotavirus, and Varicella are not part of the National Immunisation Programme (PNV) and are publicly funded only for children meeting specific high-risk criteria. The children in this study did not meet those criteria; access therefore depended entirely on families' willingness and ability to pay. Understanding the sociodemographic determinants of uptake in this context is crucial to addressing structural inequities in preventive care.

Methods: We conducted a cross-sectional study including all children aged 0–3 years followed in 2024 at a model B Family Health Unit (USF) (n = 357). We analyzed uptake (yes/no) of MenACWY, Rotavirus, and Varicella. Variables included age, household size, siblings, daycare/nanny attendance, prematurity, parental education, and private pediatric follow-up. Descriptive analysis, chi-square tests, and logistic regression were used.

Results: Children had a mean age of 15.6 months (SD = 11.7); 8.1% were preterm. Most parents had higher education (60.2%). PNV adherence was 98.3%. A majority were followed by a private pediatrician (69.5%) and attended daycare or had a nanny (70.6%). Uptake of MenACWY and Rotavirus was 87.4% and 85.7%, respectively; Varicella uptake was much lower (5.9%). Parental education did not affect PNV adherence ($p = 0.878$) but was strongly associated with pediatric follow-up ($p < 0.001$). In multivariate models, private pediatric follow-up (OR = 4.29 for Rotavirus; $p < 0.001$) and daycare/nanny attendance (OR = 2.14; $p = 0.025$) were consistent predictors of uptake. Larger households had lower odds of receiving MenACWY (OR = 0.43).

Conclusion: Regular follow-up in primary care, particularly in model B USFs, appears to support vaccine uptake. The association with private pediatric care may reflect family characteristics rather than care model superiority. These findings highlight the key role of Family Physicians and suggest that reinforcing preventive action within routine care may be a sustainable way to improve uptake of non-mandatory vaccines.

Palavras-chave: Fatores sociodemográficos, Vacinação extra-PNV

(28328)

IT RUNS IN THE FAMILY: ADHD AND ITS COMORBIDITIES

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Introduction: Attention-deficit/hyperactive disorder (ADHD) is a common neurodevelopmental disorder where genetics play a major role. ADHD often co-occurs with other disorders, mainly neurodevelopmental or psychiatric. This study aims to evaluate the prevalence of comorbidities in paediatric patients with ADHD, as well as their family history.

Methods: Retrospective revision of clinical records of all patients with ADHD followed in the neurodevelopment unit of a tertiary paediatric centre between January 2017 and December 2019.

Results: A total of 366 patients were diagnosed with ADHD, 63.3% were male. Mean+SD age at diagnosis was 7.9+2.3 years, with 20.1% being diagnosed at preschool age.

Comorbidities were common, with 51% of patients having 3 or more co-occurring neurodevelopmental disorders: language disorder (LD) in 58.9%, motor developmental coordination disorder (MDCD) in 24.3%, global development delay (GDD) in 23.5%, intellectual disability (ID) in 19.9%, tic disorder in 18%, specific learning disabilities in 13.1% (dyslexia in 10.6%), and autism spectrum disorder (ASD) in 1.6%. Psychiatric disorders were also prevalent, with oppositional defiant disorder (ODD) being the most frequent (26.4%). Sleep disorders were present in 15.8%, obesity in 10.4% and epilepsy in 5.2%. Children with GDD ($p<0.001$), ID ($p=0.015$), LD ($p<0.001$), DCD ($p<0.001$), and sleep disorders ($p=0.01$) were more likely to be diagnosed at preschool age.

Over a third (38.5%) of patients had at least one family member with learning difficulties, 16.3% with ADHD (mainly siblings – 10.6%), 15.7% with ID, 2% with ASD, 17% with psychiatric disorders, and 5.9% with autoimmune disorders. Children with a positive family history of ADHD were not diagnosed earlier ($p=0.61$).

Discussion: In our sample co-occurring conditions were common, mainly neurodevelopmental, or psychiatric. These results are in line with what is described in literature.

Children with some other co-occurring neurodevelopmental disorders were more likely to be diagnosed earlier, reflecting the cumulative impact of each disorder in the child's functioning.

Neurodivergence was common in relatives of children with ADHD, as previously described, and underpinning the impact of both genetics and environment in this disorder.

(28334)

PEDIATRIC TUBERCULOSIS IN PORTUGAL: INSIGHTS FROM A TERTIARY HOSPITAL

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Introduction: Although Portugal is a low-incidence country for tuberculosis (TB), it remains a significant public health concern. Pediatric TB diagnosis is complex due to nonspecific symptoms, paucibacillary disease, frequent extrapulmonary involvement and challenges in obtaining microbiological confirmation. This study aims to evaluate the epidemiological, clinical and therapeutic profiles of pediatric TB cases diagnosed in a Portuguese tertiary hospital from 2018 to 2025.

Methods: A retrospective observational study of pediatric TB cases diagnosed between January 2018 and April 2025. Clinical records were reviewed to collect data on demographics, comorbidities, BCG vaccination status, TB presentation, diagnostic approaches (clinical and imagological), treatment and outcomes. Descriptive statistical methods were applied for analysis.

Results: TB was diagnosed in 22 cases, more than a third (9/22) in the last 16 months. The median age at diagnosis was 15.5 years, with 59% of male patients. Nine cases (41%) were diagnosed in immigrants from TB-endemic countries, 5 of them in the last 16 months. Eight cases (36.4%) had chronic condition, mainly respiratory (5/8) and immunosuppression (2/8). BCG vaccination was documented in 23% of cases. The median time between symptom onset and diagnosis was 40 days. Most of the cases were diagnosed during hospitalization (77.3%; n=17), 5 of them needing Intensive Care Unit support. Extrapulmonary TB was the predominant form (59.1%; n=13), 6 of them disseminated TB and 3 tuberculous meningitis. A confirmed diagnosis was established in 14 patients (63.6%), with positive cultures in 11 cases and positive molecular test in 3. All patients received first-line HRZE therapy, though two required treatment with additional drugs (levofloxacin and amikacin). No resistant cases were diagnosed. The median treatment duration for pulmonary TB was 7 months. Most patients achieved favorable outcome, and no deaths occurred.

Discussion: These findings reveal that pediatric tuberculosis remains an important health problem (3 cases/year). The diagnosis made in migrants could justify the potential value of implementing systematic TB screening protocols in this population. The high median time between symptom onset and diagnosis, the number of severe TB diagnosis and admission to pediatric intensive care unit shows the difficulties in TB diagnosis, the importance of clinical suspicion and the potential risk of this infection. It also reinforces the importance of improving our diagnostic efficiency, to reduce transmission and mitigate disease progression.

(28335)

WHEN PEDIATRIC ABDOMINAL SYMPTOMS DEFY EXPECTATIONS

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Introduction: Abdominal pain is a frequent complaint in Pediatrics and often presents as a nonspecific symptom, making clinical evaluation challenging. Given the broad differential diagnosis, it is essential to characterize associated symptoms carefully and adopt a structured, sequential diagnostic approach.

Clinical Case: An 8-year-old male with no relevant past medical history was referred to the Pediatric Gastroenterology outpatient clinic for evaluation of diffuse abdominal pain lasting one year, associated with a single episode of food impaction. He also reported intermittent postprandial vomiting (approximately once daily) and three daily episodes of non-bloody, non-mucoid diarrhea. His mother noted a perceived worsening of symptoms following dairy intake. He denied heartburn, regurgitation, dysphagia, or weight loss. Physical examination revealed a tympanic but non-tender abdomen, with no peripheral edema.

The intensity of the pain, often waking him at night, raised concerns for an organic etiology, excluding functional disorders such as irritable bowel syndrome. Although there were no recurrent episodes of food impaction, eosinophilic esophagitis was included in the differential diagnosis.

Given the chronicity and atypical features, a comprehensive laboratory work-up was performed. It revealed a positive lactose intolerance test, hypoalbuminemia, and dyslipidemia. Urinalysis confirmed nephrotic-range proteinuria, leading to the diagnosis of nephrotic syndrome.

Discussion: Nephrotic syndrome is typically defined by the triad of nephrotic-range proteinuria, hypoalbuminemia, and edema. However, edema may be mild or absent in some patients, potentially delaying diagnosis.

Additionally, nephrotic syndrome may initially manifest with nonspecific symptoms such as abdominal discomfort, asthenia, anorexia, or headache, making clinical identification more difficult. This case highlights the importance of an individualized, sequential approach to clinical evaluation and it underscores the importance of a high index of suspicion in patients with unexplained systemic symptoms, even in the absence of classical signs. Tailoring the diagnostic process to the specific features observed in each patient not only enhances diagnostic accuracy but also optimizes patient outcomes by facilitating timely and targeted interventions.

(28336

INSIGHTS FROM URINARY 1 H-NMR METABOLOMICS IN PAEDIATRIC PRIMARY MITOCHONDRIAL DISORDERS AND CHRONIC KIDNEY DISEASE: SHARED MITOCHONDRIAL DYSFUNCTION, DIVERGING BIOSIGNATURES

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Background: Renal involvement is a frequent manifestation of primary mitochondrial disorders (PMD), either as a presenting feature or during the disease course. Simultaneously, the metabolomic profile of chronic kidney disease (CKD) is often associated with underlying mitochondrial dysfunction. This study aimed to characterize urinary metabolic signatures in genetically confirmed paediatric PMD without chronic kidney disease, comparing them to healthy controls, suspected (unconfirmed) mitochondrial disease (SMD) and CKD.

Methods: We performed untargeted 1 HNMR metabolomic profiling of 76 urine samples from 61 paediatric patients, including genetically confirmed PMD (n = 15), of whom two with significant renal phenotypes were excluded from comparative analyses; final comparisons included PMD without CKD (n = 13), SMD (n = 10), non-mitochondrial CKD (n = 28; 17 at stages G1–G2 and 9 at stages G3–G5), and healthy controls (n = 10). Spectral data were analysed using multivariate (PCA, PLS-DA) and univariate approaches after normalization to urinary creatinine or total spectral area. Outlier samples and patients undergoing acute decompensation were excluded from the main analyses.

Results: Correlations between normalization strategies varied across metabolites (Pearson r ranging from –0.32 to 0.98), underscoring the need for cautious interpretation of normalization-dependent findings. PMD patients exhibited distinct urinary metabolic profiles compared to controls (high predictive value, Q^2 = 0.542), with significantly elevated levels of 3- hydroxyisovalerate and TCA cycle intermediates such as cis-aconitate, fumarate, and succinate. Several metabolites, including 4-aminohippuric acid, homovanillic acid, cis-aconitate, fumarate, and methylmalonic acid, were significantly elevated in PMD patients without renal involvement, and remained discriminative compared to both CKD and control groups.

Conclusion: Urinary metabolomic profiling by ^{1}H-NMR revealed a distinct biosignature in paediatric PMD patients without renal involvement, characterized by elevated levels of 4-aminohippuric acid, homovanillic acid, and TCA cycle intermediates such as fumarate and cis- aconitate. These metabolites remained discriminative from both CKD and control groups, regardless of normalization strategy. The consistent increase in 4-aminohippuric acid and HVA, both reliant on energy-dependent proximal tubular excretion, in PMD patients compared to CKD suggests that mitochondrial dysfunction may modulate active tubular transport even in the absence of known kidney impairment. These findings support the role of urinary metabolomics as a non-invasive tool biomarker discovery in primary mitochondrial disorders, although integrated and multiparametric metabolic fingerprints may be required to improve diagnostic precision.

Palavras-chave: Primary Mitochondrial Disorders, Pediatric CKD, Urinary metabolomics, 1H-NMR, Biomarkers

(28345)

CHALLENGES AND PITFALLS OF THE DIAGNOSTIC ODYSSEY: LESSONS FROM A LONGITUDINAL STUDY OF SUSPECTED MITOCHONDRIAL DISEASE

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Introduction: Mitochondrial diseases (MD) are genetic disorders marked by impaired oxidative phosphorylation, leading to diverse clinical phenotypes that often affect organs with high energy demands. Mitochondria play a central role in numerous biochemical pathways, and mitochondrial disorders wide phenotypic variability and overlap with other genetic/metabolic syndromes – so-called mitochondrial mimics – pose substantial diagnostic challenges.

Methods: A longitudinal retrospective study was conducted by reviewing medical records of all patients referred to the Metabolic Diseases Clinic of the Pediatrics Department from to 2009 to 2024 in whom a diagnosis of MD was considered. Clinical symptoms, disease progression, and all complementary investigations were reviewed - including biochemical analyses, brain imaging, muscle biopsy, and genetic studies.

Results: Among 170 patients (104 males, 66 females), MD was genetically confirmed in 34 (21%): 22 with nuclear DNA variants and 14 with mtDNA mutations (12 point mutations, 2 large-scale deletions). Another 34 patients (20%) were diagnosed with alternative genetic conditions, including neuromuscular disorders (e.g., *DMD*, *PRELP*), chromosomal abnormalities (e.g., 3q29 deletion, 22q11 duplication), channelopathies (e.g., *KCNMA1, CACNA1A*), neurotransmitter disorders (*GRIN2B, ABAT*), vesicular trafficking defects (*TANGO2*), autophagy-related disorders (SNX14), mismatch repair deficiency (PMS2), and others (e.g., *ZC4H2, ITPR1, FLNA, CDKL2*). Five patients harbored variants of uncertain significance likely related to their disease; eight showed spontaneous clinical improvement and five were lost to follow-up halting further investigation. Of the remaining 49% (n=84%), 45 (26%) still have a strong clinical suspicion of MD without genetic confirmation despite best efforts.

Discussion: This 15-year cohort highlights the complexity of diagnosing pediatric MDs and the high prevalence of mitochondrial mimics, reinforcing the limitations of current clinical markers and the need for systematic, multidisciplinary evaluation. This highlights the critical importance of specialized reference centres in performing comprehensive, multidisciplinary evaluations and maintaining a differential diagnosis in the workup of suspected MD.

Palavras-chave: Mitochondrial Disease, Differential diagnosis, Mitochondrial mimics

PEDIATRIA

POSTERS

(28136)

CASE SERIES: RUMINATION SYNDROME IN ADOLESCENTS – CLINICAL FEATURES AND COMORBID MENTAL HEALTH DISORDERS

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Introduction: Rumination Syndrome (RS) is characterized by the repeated, effortless regurgitation of food shortly after eating, followed by rechewing, swallowing, or spitting out the regurgitated material. It is classified as a functional gastrointestinal disorder and a feeding and eating disorder. RS is multifactorial in etiology and often underdiagnosed, leading to significant physical and psychological impact.

Objective: This case series aims to describe the clinical characteristics and comorbid mental health disorders in adolescents with suspected RS assessed in an outpatient setting.

Methods: Eight adolescents, aged 13 to 16, referred to a specialized Pediatric Clinic for Nutritional Disorders between January 2022 and July 2024, were included. Clinical records were reviewed to identify common clinical patterns and psychiatric comorbidities.

Results: All patients were female, with a mean age of 15.4 years. The time from symptom onset to seeking treatment varied from 1 month to 4 years. Weight loss ranged from 2 to 25 kg, with initial BMI varying from 14.5 kg/m2 (z-score -2.25) to 20.5 kg/m2 (z-score -0.23). RS was confirmed in 6 patients. Five patients had comorbid eating disorders. Intervention improved RS symptoms in most cases. In one patient, the assessment for organic causes of regurgitation revealed the existence of an ovaric mass that was compatible with anaplastic lymphoma.

Conclusions: This case series highlights the diverse clinical presentation of RS in adolescents and underscores the importance of individualized assessment and management strategies. Psychiatric comorbidities are prevalent and need to be addressed to manage functional gastrointestinal symptoms effectively. Detailed clinical history and careful differentiation from other gastrointestinal and psychiatric disorders are crucial for accurate diagnosis and treatment.

Palavras-chave: Rumination Syndrome, psychiatric illness, eating disorders, adolescents, regurgitation

(28339)

PETERS ANOMALY IN AN EXTREMELY PREMATURE INFANT: A CASE REPORT

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Introduction: Peters anomaly is a rare congenital ocular disorder within the spectrum of anterior segment dysgenesis (ASD), characterized by central corneal opacity, iridocorneal adhesions, and malformation of the posterior corneal structures. Bilateral involvement is seen in approximately 60% of cases and may be associated with systemic anomalies. Diagnosis and management are particularly challenging in extremely premature infants due to overlapping complications and diagnostic limitations.

Case Presentation: We describe the case of a male neonate born at 27 weeks and 6 days of gestation, weighing 1080 grams, delivered via cesarean section due to preterm premature rupture of membranes. The clinical course was complicated by respiratory distress syndrome, anemia of prematurity, and metabolic instability. At birth, a dense corneal opacity was observed in the left eye. Comprehensive ophthalmologic evaluation revealed clinical features consistent with Peters anomaly, including a central leukoma, iridocorneal adhesions, and poorly demarcated anterior chamber architecture. Magnetic resonance imaging of the orbits confirmed anterior segment dysgenesis and additionally demonstrated retinal detachment, posterior synechiae, absence of the crystalline lens, and microphthalmia of the affected eye. Genetic testing did not identify known pathogenic variants associated with ASD-related syndromes. No systemic anomalies were present beyond those attributable to extreme prematurity. Surgical intervention with corneal transplantation was attempted but deemed unfeasible intraoperatively due to the severity of the ocular abnormalities.

Conclusion: This case underscores the diagnostic and therapeutic complexities of Peters anomaly in the context of extreme prematurity. The absence of identifiable pathogenic variants supports a sporadic etiology, although the potential contribution of undetected or non-penetrant genetic alterations cannot be ruled out. The prognosis for visual function in the affected eye remains poor, highlighting the need for early multidisciplinary assessment and long-term follow-up.

Palavras-chave: Peters anomaly, Extremely Premature Infant, Anterior segment dysgenesis, Congenital ocular disorder, Microphthalmia

(28291)

TAKING CARE OF FAMILIES WITH CHILDREN WITH GANGLIOSIDOSIS

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Introduction: Caring for a child with incurable metabolic disease and neurological impairment confronts caregivers and treating physicians with the difficulty to correctly identify distressing symptoms or needs, to accurately determine its causes and to sufficiently treat them or give support to the needs of the child and caregivers. Palliative care improves the quality of life of these families by relieving the suffering of the child and their family and also the medical professionals involved.

Objective: To describe the needs of 9 families dealing with one or two children diagnosed with gangliosidosis (GM).

Description: The authors describe 9 families: six families with children aged between 2 and 17 years old (one family with two children) and three families whose children have already deceased (ages at time of death between 2 and 6 years old). One child has gangliosidosis type 1 (GM1); one had Sandhoff; six had juvenile gangliosidosis type 2 (GM2), and the other two had infantile GM2. The median age of diagnosis for infantile GM2 was 12 months; for juvenile GM2, it was 5 years old. All the needs of these families were raised and addressed. Concerning physical necessities: four children were fed by a percutaneous/endoscopic gastrostomy; pain was evaluated and managed in all patients , excessive oral and respiratory secretion was a problem in six patients; obstipation control were accomplished for all of them; non-invasive ventilation was performed in two children and chest physiotherapy was used in all infantile forms; neurological control of epilepsy with anti-epileptics was achieved in all cases and physical therapy was carried out in all of them. Social needs were assessed, and both emotional and psychological support was made available to all of the families. Spiritual support were offered. Three children died at the hospital, in the company of any family members that wished to be there; in one specific case the mother did not wish to be present.

Conclusions: When children are diagnose with a neurodegenerative disorder, healthcare providers need to help families make important end-of-life care decisions. The palliative medicine approach is based on the assessment of specific child/family needs and allows for the resolution of its real problems, facilitating communication between health professionals and families. The opportunity for families to participate in advance care planning can improve the discussion of goals-of-care and elaborating choices regarding interventions. Effective end of life care planning may also lead to a greater number of families choosing to have their child die at home rather than in hospitals. Hence, training healthcare professionals in palliative care is essential to improve the quality of life of these families.

Palavras-chave: Palliative care, gangliosidosis

(28294)

A 16-YEAR-OLD GIRL WITH HYPOCHROMIC MICROCYTIC ANEMIA: CAUSE OR CONSEQUENCE?

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Introduction: Anemia is a hematological condition defined by reduced hemoglobin levels, impairing oxygen delivery to tissues. It is highly prevalent, affecting approximately 30% of women of reproductive age worldwide, with iron deficiency being the main cause. Microcytic and hypochromic anemia is most often related to iron deficiency, due to low dietary intake or, in adolescent females, increased menstrual losses. Pallor is common and may go unnoticed until hemoglobin (Hb) drops below 7–8 g/dL. Other symptoms include fatigue, dizziness, and cognitive decline. Pica—the craving for non-nutritive substances such as paper, soil, or ice—may be an early sign of iron deficiency.

Case Report: A 16-year-old female, previously healthy, presented to the Emergency Department after routine blood tests revealed hypochromic microcytic anemia (Hb 6 g/dL). She reported chronic pallor, headaches, and transient nausea over the prior five months, but denied asthenia, blood loss, or gastrointestinal symptoms. Menarche occurred at 13, with regular menses lasting 3–4 days. Physical exam showed marked pallor; vital signs were stable. Laboratory results confirmed anemia (Hb 5.7 g/dL), low serum iron and ferritin, high transferrin saturation, and peripheral smear showing anisopoikilocytosis with microcytosis and polychromasia. After intravenous iron administration, the patient disclosed—initially withholding due to embarrassment—a persistent habit of ingesting charcoal and paper since early childhood, with the last episode occurring that same day. She was discharged with oral iron and folic acid and referred for outpatient immunohematology and pediatric gastrointestinal evaluation. Other anemia causes were excluded. At three-month follow-up, she reported no recurrence of pica and had normalized Hb (14.4 g/dL).

Discussion: Pica is an eating disorder marked by compulsive ingestion of non-nutritive substances, more common in children and pregnant women but also seen in adolescents, often linked to iron deficiency. Although the exact mechanism is unclear, pica may impair iron absorption or result from iron deficiency itself. Due to the predominance of cross-sectional studies, causality remains uncertain. This case highlights the importance of detailed history-taking in anemia of unclear origin. In adolescents, psychosocial factors such as shame or fear of judgment may lead to withheld information, delaying diagnosis.

Palavras-chave: anemia, adolescents, iron deficiency

(28299)

TIC COUGH IN A SCHOOL-AGED CHILD: A CASE REPORT AND THE IMPORTANCE OF A THOROUGH CLINICAL APPROACH

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Introduction: Careful assessment of children with chronic cough is crucial to identify any underlying disease. The psychobehavioral context and triggers of the cough should be part of the evaluation. Tic cough, formerly referred to as "habit cough," is a functional, non-productive vocal tic, primarily affecting school-aged children. It is defined by a repetitive, stereotyped cough without identifiable organic etiology, typically absent during sleep. Early clinical recognition based on core features—suppressibility, distractibility, and absence of nocturnal symptoms—is essential to avoid misdiagnosis, polymedication, and unnecessary diagnostic testing.

Case Presentation: We present the case of a 7-year-old girl with no relevant past medical history, referred to the Pediatric Respiratory Pathology Clinic at CMIN for evaluation of a dry cough persisting for approximately 7 months. The cough occurred during daily activities, having a significant impact on her life, especially on school participation and academic performance, particularly important as the child exhibited excellent academic achievement and a tendency toward perfectionism. There weren't nocturnal symptoms, physical activity correlation, or accompanying symptoms such as fever, dysphonia, wheezing, or upper airway symptoms. Previous investigation included a chest X-ray, laboratory workup revealing only a mildly elevated total IgE. The ENT findings suggesting pharyngolaryngeal reflux, were not consistent with the severity of the cough. Medication trials with azithromycin, inhaled corticosteroids, oral antihistamines, and a proton pump inhibitor were performed—none of which provided symptom relief. Spirometry with bronchodilator testing and fractional exhaled nitric oxide (FeNO), both yield normal results. During clinical observation, notably the patient did not cough when distracted or on command, raising suspicion for a functional etiology such as Tic cough. The case was discussed with Child and Adolescent Psychiatry and Psychology, who recommended initiating risperidone, as well as behavioral measures in managing this symptom. Four months later, on a follow-up evaluation, the patient showed marked clinical improvement with minimal impact on daily activities.

Discussion: This case underscores the diagnostic challenges approaching chronic cough in children. Recognizing tic cough characteristic features enables prompt diagnosis and avoids unnecessary interventions. A multidisciplinary approach, incorporating behavioral and/or pharmacologic strategies when appropriate, can significantly improve outcomes and quality of life in affected patients.

(28301)

ALLERGEN IMMUNOTHERAPY WITH NON-TAXONOMICALLY RELATED ALLERGENS: TWO PATIENTS, TWO OUTCOMES

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Background: The European Academy of Allergy and Clinical Immunology (EAACI) advises against combining non-taxonomically related allergens in a single allergen immunotherapy (AIT) product due to insufficient evidence. However, new formulations with full extract dose are commercially available and this approach may be more economically friendly and polysensitized patients may benefit from it. We present two case reports with two different outcomes; both patients were informed this therapy was not recommended by EAACI, but preferred this approach.

Case 1: A 8 year-old male patient with asthma, rhinitis, conjunctivitis, and atopic dermatitis. Skin prick tests (SPT) were positive to *Dermatophagoides pteronyssinus* (Dp), *Dermatophagoides farinae* (Df), *Lepidoglyphus destructor* (Ld), *Tyrophagus putrescentiae* (Tp), Parietaria spp., and grasses. Blood tests showed a total immunoglobulin E (tIgE) of 2156 IU/L and specific IgE (sIgE) levels for Grass pollen >100 IU/L, Parietaria 30.50 IU/L, Dp >100 IU/L, Df >100 IU/L, Ld (9.85 IU/L), Tp (18.20 IU/L). Spirometry was normal, with positive bronchodilator responsiveness. The patient was initially treated with inhaled fluticasone propionate, montelukast, intranasal fluticasone furoate, and antihistamines as needed, but control was not achieved. Single AIT with 100% Dp + 100% Grass pollen was initiated to control. On the 4th year of AIT, asthma symptoms worsened and the inhaler was altered to fluticasone furoate/vilanterol 184/22 mcg. After completing 5 years of AIT, the patient maintained bronchial symptoms during exercise and only mild improvement in nasal and ocular symptoms was achieved, maintaining severe symptoms during spring time. No adverse effects were reported.

Case 2: A 12 year-old male patient with rhinossinusitis, conjuntivitis and atopic dermatitis and positive SPT to Dp, Df, Ld, and Grass pollen. tIgE 158 IU/L and sIgE for Grass pollen 26,10 IU/L, Dp 21,20 IU/L, Df 11,20 IU/L, Ld 0,28 IU/L. Symptom control was not achieved with intranasal mometasone furoate, montelukast, and rupatadine as needed. AIT was started (100% Dp + 100% Grass pollen). A progressive improvement was noted, with control of ocular and nasal complaints without daily medication after 5 years of AIT. No adverse effects were reported.

Conclusion: Although combining non-taxonomically related allergens in AIT is not recommended by current guidelines, this approach might benefit some patients. More studies are needed to evaluate the efficacy and safety of this procedure.

Palavras-chave: Allergen Immunotherapy

(28302)

SYNCOPE IN AN ADOLESCENT: THE CRITICAL ROLE OF THE ELECTROCARDIOGRAM IN THE EARLY DIAGNOSIS OF WOLFF–PARKINSON–WHITE SYNDROME

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Introduction: Syncope is a sudden, transient loss of consciousness due to transient global cerebral hypoperfusion, characterized by rapid onset, short duration, and spontaneous complete recovery. In the pediatric population, vasovagal syncope is the most common etiology. However, a thorough evaluation is essential, as cardiac syncope—although less frequent—may reflect underlying structural or electrical heart disease and carries a risk of sudden cardiac death.

Case Presentation: A 16-year-old female patient was brought to the emergency department by pre-hospital emergency services following a sudden collapse during a classroom presentation. Her medical history included attention deficit hyperactivity disorder (ADHD) and generalized anxiety disorder, treated with sertraline (100 mg), methylphenidate (36 mg), and mexazolam as needed.

She reported palpitations and dizziness immediately before losing consciousness. The episode lasted about one minute and was witnessed by her teacher and classmates. There was no evidence of convulsive activity, tongue biting, urinary incontinence, or postictal confusion. She denied alcohol or illicit substance use, and there was no family history of sudden cardiac death.

Her clinical examination was unremarkable, and there was no evidence of physical injury from a fall. Her cardiovascular examination was unremarkable, and the Glasgow Coma Scale score was 15. The patient did not exhibit any focal neurological deficits.

ECG showed a short PR interval, wide QRS complexes with delta waves, left axis deviation, and prominent T waves in leads V3–V6 and inferior leads—findings consistent with Wolff–Parkinson–White (WPW) syndrome. She was referred for outpatient pediatric cardiology assessment.

Discussion / Conclusion: While most syncopal episodes in children and adolescents are benign, cardiac etiologies such as WPW must always be considered. WPW affects approximately 2 in 1,000 individuals and may predispose to supraventricular tachycardias, atrial fibrillation, and even ventricular fibrillation, potentially leading to sudden cardiac death. In some cases, sudden death may occur as the first clinical manifestation, particularly in patients with undiagnosed WPW syndrome.

This case underscores the critical role of ECG in the initial assessment of syncope and exemplifies how psychiatric comorbidities can delay or obscure the diagnosis of serious cardiac conditions.

Early identification of pre-excitation patterns enables appropriate risk stratification, referral for electrophysiological study, and definitive treatment with catheter ablation, reducing mortality.

Palavras-chave: Syncope; Wolff–Parkinson–White syndrome (WPW); Pediatric Cardiology; Electrocardiogram (ECG); Sudden cardiac death

(28311)

SILENT UNDER PRESSURE: A RARE CASE OF DOUBLE AORTIC ARCH WITH PROXIMAL LEFT ARCH ATRESIA, FOLLOWED SINCE THE PRENATAL PERIOD

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Introduction: Double aortic arch (DAA) is a congenital anomaly characterized by the formation of a vascular ring, potentially leading to airway or esophageal compression. Clinical presentations vary from severe respiratory compromise to subtle or absent symptoms. Fetal echocardiography and postnatal cardiac computed tomography angiography (CCTA) are the main diagnostic tools. The clinical decision between surgical and conservative management in asymptomatic patients remains controversial.

Case Report: We report a term female newborn with a prenatal detection of aortic arch abnormalities, postnatally confirmed as a DAA by echocardiography and CCTA. CCTA revealed a right-sided aortic arch with distal hypoplasia and proximal left aortic arch atresia, without compression of adjacent structures. The patient had a patent foramen ovale and a small ventricular septal defect (VSD), without hemodynamic impact or other cardiac abnormalities. Karyotype and array comparative genomic hybridization (aCGH) were normal. During follow-up, the patient remained asymptomatic with normal growth and development. Serial echocardiograms revealed progressive flow acceleration across a hypoplastic isthmus of the right aortic arch, accompanied by a steadily increasing peak systolic gradient. Despite these findings, biventricular function and abdominal aortic flow remained normal. At 3 years of age, repeat CCTA revealed a new finding: mild narrowing of the left main bronchus at the point where it lies anterior to the left aortic arch. The course of the esophagus between the two arches could not be clearly visualized. Despite this progression, no clinical signs or symptoms were observed. Following discussion with the cardiac surgery team, a conservative management approach was adopted. Currently, the patient remains under close multidisciplinary follow-up.

Discussion: DAA with left arch atresia poses a type of incomplete DAA, and a rare vascular ring form. The anatomical complexity and risk of functional impact in such cases have been previously described in the literature, highlighting the importance of early imaging, hemodynamic assessment, and multidisciplinary follow-up to guide appropriate timing of intervention and optimize patient outcomes.

Palavras-chave: double aortic arch, congenital, fetal echocardiography, proximal left arch atresia, cardiac CT angiography

(28310)

CRI-DU-CHAT SYNDROME IN A VERY PRETERM INFANT — FROM ATYPICAL CRY TO DIAGNOSIS

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Introduction: Cri du chat syndrome, also known as cat cry syndrome, is a rare genetic disorder caused by a deletion in the short arm of chromosome 5. It's characterised by a distinctive high-pitched cry, intellectual and developmental delays, and specific facial features (e.g.,hypertelorism, epicanthal folds, micrognathia). The syndrome typically occurs in 1 in 20,000 to 50,000 births.

Case Description: A female infant was born at 29+5 weeks of gestation, weighing 955 g (extremely low birth weight - ELBW), following a high-risk pregnancy complicated by gestational diabetes, oligohydramnios, fetal cardiac dysfunction in a multipara mother of 42 years with a notable history of four spontaneous abortions.

Postnatal complications included respiratory distress, anaemia, hypoglycemia, jaundice, and feeding intolerance, findings typically seen in very preterm infants. However, a persistent high-pitched, monotonal cry drew clinical attention. Despite initially subtle dysmorphic features, Cri-du-Chat Syndrome (CdCS) was suspected and confirmed via MLPA analysis, identifying a 5p deletion. As the infant matures, classical features of CdCS became more apparent: microcephaly, generalised hypotonia, poor weight gain, feeding difficulties, hypertrophic cardiomyopathy and the craniofacial anomalies. Respiratory instability, though multifactorial, may have been aggravated by the neuromuscular condition.

Conclusion: This case highlights how a distinctive neonatal cry, along with subtle clinical features, can support early diagnosis of a genetic syndrome (CdCS), even in an ELBW preterm where other phenotypic signs may be masked. Over time, the phenotypic characteristics of prematurity vanished, and the characteristics of the CdCS became more defined. Early recognition of CdCS is essential for initiating supportive care, multidisciplinary follow-up, and providing accurate parental counselling.

Palavras-chave: Cri-du-Chat, Very preterm infant, Neonatal diagnosis, 5p deletion, Genetic disorder

(28338)

CLINICAL SUSPICION IS STILL THE CORE OF MEDICINE: THE IMPORTANCE OF DEEP PHENOTYPING AND REPEATED RE-EVALUATION OF GENETIC STUDIES

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Introduction: Modern medicine faces significant challenges in the diagnosis of complex genetic diseases, particularly due to the dynamic nature of genetic knowledge and the limitations of current testing methodologies. Many cases remain unsolved for years and are only clarified through longitudinal follow-up and re-evaluation, often prompted by new clinical manifestations.

Clinical case: 10-year-old male, with a 5-year history of rapidly progressive sensorineural hearing loss and at 6 years, he presented with corticosteroid-resistant nephrotic syndrome (NS). Initial kidney biopsy was suggestive of focal segmental glomerulosclerosis (FSGS) with C3/C4 glomerular deposits on immunofluorescence. He was hospitalized at 7 years old because of exercise intolerance and myopathic posturer. Metabolic team collaboration was requested, and he started coenzyme Q10 supplementation with slight improvement of renal and muscular involvement. The suspicion of a primary mitochondrial disorder (PMD) was raised, and nuclear and mitochondrial genes and whole exome sequencing (WES) were performed, including targeted analysis for coenzyme Q10 biosynthesis defects, but with inconclusive results. The patient developed progressive myopathic features: exertional fatigue, facial paresis, bilateral ptosis with ophthalmoparesis, Gowers' sign, muscle hypotrophy, mild scoliosis, and multidrug-resistant NS with progressive chronic kidney disease (CKD). In 2024, given the strong suspicion of MD, a reanalysis of the Trio-WES was ordered with a request for thorough coverage of candidate genes, and two biallelic variants of undetermined significance at *RRM2B* were reported. This gene is classically associated with an autosomal recessive encephalomyopathic phenotype with renal disease – tubulopathy or progressive CKD. He had been previously enrolled in a urine 1H-NMR metabolomics research study comparing PMD and CKD, in which his urinary metabolic profile clustered closely with those of genetically confirmed MD patients. Muscle biopsy showed multiple ragged-red fibers, and numerous COX-negative/SDH-positive fibbers, confirming the diagnosis of MD.

Discussion: To our knowledge, this is the first reported case of NS associated with a with a likely association to RRM2B impairment. . This case exemplifies how clinical suspicion, combined with deep phenotyping, longitudinal follow-up and team work, can guide the diagnostic process, as emerging clinical features may impact variant interpretation. A definitive diagnosis enables appropriate genetic counselling, psychological, social and educational support to the family and allows to redirect therapeutic strategies and long-term multidisciplinary management.

Palavras-chave: Mitochondrial disorders, nephrotic syndrome, WES

(28341)

NEW VARIANTS, NEW ANSWERS: INTELLECTUAL DISABILITY DISORDER ASSOCIATED WITH A NEW VARIANT OF THE NCKAP1 GENE – A CASE REPORT

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Introduction: The NCKAP1 gene has recently been associated with neurodevelopmental disorders (NDD). As of 2025, over 25 people with NCKAP1-related syndrome have been identified in medical literature. The identified variants include de novo and inherited variants, typically autosomal dominant, associated with phenotypes characterized by language delay, cognitive deficits, repetitive behaviors, epilepsy, and psychiatric disorders.

Clinical Case: We present the case of an 8-year-old female child, institutionalized since the age of 4 and adopted this year, with a maternal history of severe intellectual disorder. On physical examination she presents with microcephaly and mild facial dysmorphisms. She has a diagnosis of Intellectual Disability (ID) and Attention-Deficit/Hyperactivity Disorder (ADHD), treated with lisdexamfetamine; epilepsy controlled with medication and organic comorbidities including nocturnal snoring and strabismus. Further studies revealed a normal brain MRI and electroencephalogram. The genetic study using an NGS panel for ID was performed, identifying a heterozygous variant c.1332del (p.Glu444Aspfs*24) in the NCKAP1 gene, classified as likely pathogenic. She was posteriorly assessed in a Clinical Genetics consultation, where a phenotype-genotype correlation was performed, allowing for the confirmation of a pathological significance to the identified variant. Although genetic testing of the mother was not possible, there is a high clinical suspicion that she carries the same variant, given her phenotype. The child remains under multidisciplinary follow-up, having initiated speech therapy and is expected to begin occupational therapy. Her clinical condition has stabilized, and she is demonstrating positive progress both academically and functionally.

Discussion: Although very recently described in literature, NCKAP1 gene has been linked to ID cases. The variant described in our case is not reported in population or clinical databases, but it was possible to classify it as likely pathogenic. This multidisciplinary work between different clinicians and laboratory allowed the early confirmation of this child's diagnosis, which can avoid other unnecessary costs in the etiological investigation and contribute to understanding the natural history of disease. Moreover, reporting new cases is crucial to validate the phenotypic association, understand the functional impact of these variants and help with other cases worldwide.

Palavras-chave: Intellectual Disability, NCKAP1 gene, Neurodevelopmental Disorders

(28290)

GONE WITH THE WIND

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Introduction: When children are diagnosed with a neurodegenerative disorder, healthcare providers need to help families making important end-of-life care decisions. The authors present the challenges faced by the metabolic and palliative care team in managing a child with a rapid neuro degenerative disorder. The continuous adaptation to the "new" child, who presented progressively worsening complications, was a significant challenge.

Methods: The authors present a clinical case of a rapid neurodegenerative disease and the end of life care providers challenges who work together to reach to the family wishes.

Cases report: An 18-month-old child presented with developmental regression. Retrospectively, it was noted that she had been experiencing nightly foot pain. She was evaluated but her complains were initially attributed to school adjustment difficulties. After parents and teachers observed language regression, she was taken to the emergency in April. A neurometabolic disorder was suspected and she was referred her to our center. MRI findings suggest a metachromatic leukodystrophy, subsequently confirmed through biochemical and molecular studies in May. Her decline was catastrophic: within two months, a nasogastric tube was required, followed by the need for gastrostomy feeding. Her analgesic regimen had to be increased daily, reaching a total of 300 mg of gabapentin four times a day. She passed away in the hospital, as chosen by her parents, surrounded by close family members, just eight months after her diagnosis. The diligence that all health care professionals made was amazing, trying to alleviate the suffering of this family; from the security person, administrative, auxiliary medical person, nurses, doctors from different specialties.

Conclusion: The term Allow Natural Death permits to create a dialogue between families and doctors, focuses in the quality of life for the last days; reducing suffering and promoting comfort; embodying the hope that dying will occur peacefully and naturally as possible, surrounded by loved ones. In this clinical case, the progression of the disease was significantly faster than the National Health Service could accommodate, leaving gaps in meeting the child's and family's needs. Palliative care professionals face numerous challenges; only through teamwork with all health care professionals can the profound emptiness of losing a child feel slightly less empty.

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Palavras-chave: Palliative care, neurodegeneration

(28304)

GLOVES, SOCKS, AND TWO VIRUSES: A CASE OF PARVOVIRUS B19 AND ECHOVIRUS COINFECTION

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Parvovirus B19 is a common etiological agent responsible for several exanthematous diseases in childhood and adolescence. While it typically presents as erythema infectiosum, characterized by facial erythema ("slapped cheek rash"), it can also manifest with other atypical dermatological features, making its clinical recognition more difficult.

A 10-year-old female, with no significant past medical history, was brought to the emergency department with a 2-day history of fever and rash. She was otherwise asymptomatic. On physical examination, she presented with symmetrical papular-purpuric "gloves and socks" syndrome, involving the palms and soles. Petechial lesions and erythema were also noted on the palate and tongue. She underwent a complete blood count and coagulation panel, both of which were within normal limits. A presumptive diagnosis of Parvovirus B19 infection was made and later confirmed serologically. Coinfection with Echovirus was also identified.

The papular-purpuric "gloves and socks" syndrome is a rare but usually benign and self-limiting infectious dermatosis, with complete resolution occurring within 7 to 14 days. Parvovirus B19 is the predominant etiological agent, however, Echovirus and other viruses have also been reported as potential causes.

Although the majority of the cases described in the literature involve a single viral infection, coinfection with Parvovirus B19 and Echovirus has also been documented. Given that both viruses are independently potential triggers for this syndrome, their interaction in the disease's pathogenesis remains unclear. The broad clinical spectrum of Parvovirus B19 infections can make its diagnosis a challenge. Therefore, it is crucial to consider its variability to ensure an accurate diagnosis and appropriate management, firstly, to avoid unnecessary examinations and treatments and secondly, to prevent exposure to high-risk groups such as pregnant women.

Palavras-chave: Papular-purpuric "gloves and socks" syndrome, Parvovirus B19, Echovirus

(28270)

ADENOMYOMA ARISING IN A MECKEL'S DIVERTICULUM: A RARE CAUSE OF INTUSSUSCEPTION IN A PEDIATRIC PATIENT

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Introduction: Adenomyomas are rare, benign lesions of the gastrointestinal tract, histologically defined by glandular elements embedded in smooth muscle bundles. While most frequently located in the biliary tract or gastric wall, their presence in the small bowel is exceedingly rare—particularly in children. Even rarer is their occurrence within a Meckel's diverticulum (MD), with only a handful of cases reported. Given the rarity and nonspecific clinical presentation, diagnosis is typically made postoperatively and requires histopathological confirmation.

Case Report: A 12-year-old male presented with a 48-hour history of colicky abdominal pain, vomiting, and signs of peritoneal irritation. Ultrasound revealed ileocolic intussusception, small bowel distension, and free peritoneal fluid. Due to signs of bowel compromise, surgical intervention was performed. Laparoscopy revealed an ileo-ileocolic intussusception with a non-reducible necrotic segment. Conversion to mini-laparotomy identified a narrow-based Meckel's diverticulum as the lead point. The patient underwent diverticulectomy, segmental enterectomy, and anastomosis. Recovery was uneventful. Histological analysis of the MD revealed submucosal cystically dilated glands embedded within bundles of smooth muscle - consistent with adenomyoma. Immunohistochemistry showed positivity for CK7, EMA, and MUC6 in the glandular epithelium and smooth muscle actin and desmin in the muscular component.

Discussion: Adenomyoma within a Meckel's diverticulum is an exceptionally rare finding. To date, only four pediatric cases have been described in the literature. The lesion's histopathological features can overlap with other heterotopias or neoplasms, highlighting the importance of immunohistochemical staining for accurate diagnosis. The presence of heterotopic gastric rather than pancreatic epithelium in this case supports a broader spectrum of possible tissue differentiation. Theories regarding pathogenesis include embryologic malformations or heterotopic rests, with some authors classifying these lesions as foregut choristomas or myoepithelial hamartomas. While benign, these lesions can serve as lead points in intussusception, as seen in this case. Surgical excision is curative, with no need for further surveillance.

Palavras-chave: Adenomyoma, Intussusception, Meckel's diverticulum

(28295)

UNUSUAL ETIOLOGY OF BILATERAL VARICOCELES: THE ROLE OF A FECALOMA POST-DUHAMEL PROCEDURE

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Introduction: Varicocele is characterized by an abnormal dilation of testicular veins in the pampiniform plexus. While left-sided varicoceles are the most common due to anatomical factors, representing 90% of cases, right-sided varicoceles are less frequent and may represent a secondary cause warranting further investigation. We present a case of bilateral varicocele resulting from testicular vein compression from a duhamel spur.

Clinica Case: A 14-year-old male with Hirschsprung's disease, status post Duhamel procedure at 21 months, corrected right hydrocele, and chronic constipation, presents with intermittent scrotal pain/discomfort and episodic scrotal enlargement. The patient complained of pain exacerbation at the end of the day. Physical examination revealed a grade III left varicocele. Initial inguinoscrotal ultrasonography demonstrated a Left varicocele (pampiniform plexus prominence of 3mm) and symmetric testicular volumes. Follow- up ultrasonography, one year later, showed progression of the left varicocele and development of hemodynamic changes consistent with a right varicocele. Investigation for bilateral varicocele included abdominopelvic computed tomography, revealing a significant fecaloma in a rectal spur retained from the surgical procedure, causing testicular vein compression and, consequently, the bilateral varicocele. Given this finding, the patient was started on a personalized bowel management regimen, with treatment of his constipation with enemas to address the underlying cause of the varicoceles.

Discussion: This case demonstrates a rare cause of bilateral varicoceles due to testicular vein compression by a fecaloma secondary to a Hirschsprung's surgery complication. Varicocele resolution depends on successful bowel management, emphasizing the need to consider secondary causes in bilateral presentations, especially with pertinent medical history.

Palavras-chave: duhamel spur, Hirschsprung Disease, Secondary varicocele

(28309)

SUSTAINABLE PRACTICES IN GENETICS LABORATORIES: OPPORTUNITIES AND LIMITATIONS OF THE 3RS APPROACH

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Introduction: Laboratory sustainability involves practices that reduce environmental impact. This work explores the application of the 3Rs principles (reduce-reuse-recycle) in a genetics laboratory to promote a more balanced and responsible future. Sustainability is more challenging in these laboratories because many procedures require strict sterility to avoid sample contamination that could compromise results.

Methods: An analysis of the 3Rs policy in a genetic laboratory identified practical measures with environmental benefits, while recognizing the limitations imposed by the need for sterile conditions.

Results: The analysis identified opportunities for improvement across the 3Rs with a direct impact on environmental sustainability. Reduction strategies: protocol optimization; in-house solution preparation; use of less toxic reagents, preferably stored at room temperature; replacement of plastic with glass; purchase of materials with Life Cycle Assessment (LCA) certification; energy-efficient practices (e.g. -70ºC ultra-freezer instead of -80°C) and transition to digital records reducing print, sign and store documents. Reuse practices: autoclaving plastic labware, reusing uncontaminated gloves and reusing packaging such as polystyrene boxes. Recycling examples: identifying plastic types at purchase for proper disposal and printing double-sided on recycled paper, when printing is needed.

Discussion: Sustainable practices aim to optimize resources and reduce impacts. Replacing hazardous reagents increases safety and reduces harm to health and the environment. Life cycle thinking (via LCA, reuse, recycling) reflects a long-term commitment to sustainability. However, laboratory practices are typically associated with high energy consumption, resource depletion and waste generation. Many genetic laboratory workflows involve sensitive assays that require sterile single-use plastics - such as tissue culture flasks, filter tips or PCR tubes - due to strict contamination control, especially when handling media, blood, tissue or other biological agents. Therefore, laboratories must focus on reducing plastic in non-sterile procedures, for example by purchasing refillable tips or eco-friendly racks with less packaging.While sustainability efforts can support a healthier and more responsible future, their application remains limited in genetic laboratories, where maintaining sterility is critical to avoid cross-contamination and ensure the reliability of results.

Palavras-chave: Sustainability Program, Sustainable Science, Genetic Laboratory Practices

(28321)

MICROBIOLOGIA DA DIARREIA AGUDA NO ANO DE 2024

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Introduction: Acute diarrhea is one of the leading causes of morbidity and mortality in children, often prompting visits to the Emergency Department (ED). Viral etiology is the most common, although bacterial causes account for a significant proportion of cases. Microbiological stool analysis is key for etiological diagnosis, clinical management, rational antibiotic use, and epidemiological surveillance.

Objectives: To characterize microbiological findings in pediatric cases of acute diarrhea at a level II hospital.

Methods: Retrospective, descriptive study of stool culture and virological tests requested throughout 2024 in the settings of ED, inpatient care, and outpatient clinic. Sociodemographic data, epidemiological context, and isolated pathogens were analyzed. Statistical analysis was performed using Excel® and SPSS®.

Results: Of the 608 stool samples analyzed, 429 were collected in the context of acute diarrhea. The mean age was 4.5 years. A complete rotavirus vaccination schedule was documented in 60.1% of cases. Most samples (95.3%) were requested from the ED. An epidemiological context was identified in 33.3% of patients. Vomiting occurred in 50.8%, fever in 47.3%, and 35.4% presented with bloody and/or mucous diarrhea. The average duration of symptoms was 8 days. Stool cultures were positive in 25.4% of cases, with *Campylobacter* accounting for 85.3% of isolates and *Salmonella* for 8.3%. Viral studies were positive in 21.2% of cases, with rotavirus as the most frequently identified agent (61.1%), followed by adenovirus (22.1%). Hospitalization was required in 36.5% of children, with short-stay admissions in 22.1%. Antibiotic therapy was prescribed in 9.3% of cases, mostly for associated comorbidities (82.5%). Inflammatory diarrhea was significantly associated with positive microbiological findings ($p<0.01$ for both culture and virology).

Discussion: There was a high rate of microbiological testing in pediatric cases of acute diarrhea. Despite a moderate positivity rate, most cases did not require targeted therapy, reflecting the self-limiting nature of the condition. Antibiotic use was mainly justified by concurrent medical conditions. These findings underscore the need for stricter clinical criteria when requesting stool cultures and virological tests, prioritizing cases with alarm signs such as inflammatory diarrhea, which was significantly associated with microbiological positivity, thereby promoting more efficient use of laboratory resources.

Palavras-chave: Microbiological stool, Acute diarrhea, Pediatrics

GINECOLOGIA - OBSTETRÍCIA

COMUNICAÇÕES ORAIS

(28300)

RECURRENCE IN VULVAR CANCER: INSIGHTS FROM AN EIGHT-YEAR SINGLE CENTRE EXPERIENCE

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Introduction: Vulvar cancer (VC) is a rare malignancy, accounting for about 5% of all gynaecological cancers. Recurrence rates vary significantly over time and are influenced by multiple factors, leading to substantial morbidity and reduced overall survival. However, limited data are available on recurrence patterns and prognosis. This study aimed to evaluate recurrence patterns and their association with survival outcomes.

Methods: A retrospective analysis was conducted at a tertiary centre between January 2015 and June 2023, including all VC cases treated at the institution. Patients who experienced recurrence (Group (G) 1) were characterized and compared with those without recurrence (G2). Statistical analyses were performed using SPSS, with a p-value<0.05 as statistically significant.

Results: Among the 42 women diagnosed with VC during this period, 7 recurrences (16.7%) were recorded, all in squamous cell carcinoma cases: 4 local (57.1%), 2 regional (inguinal lymph nodes (LN)), and 1 distant (pelvic LN). All women with recurrence had undergone surgery as the primary treatment, with 1 case of close sur-gical margins and 71.4% with early-stage disease (ESD). The median time to first recurrence was 10 months (IQR: 17 months). Among local recurrences, 1 occurred at the primary tumour site, and the other 3 occurred at different vulvar sites in women with lichen sclerosus and/or premalignant lesions. A second local recur-rence occurred in 75% (n=3) of cases during follow-up (FU).

Recurrence treatment was surgical in one case, combined surgery and radiotherapy in two cases, radiother-apy alone in one case, and supportive care in two cases. Compared with advanced-stage disease, time to recurrence was longer for ESD (Md 30.0months vs. 1.5months; p=0.053). The median overall survival after recurrence was 12 months (95%CI: 0.00–27.40), with 71.4% of women dying during FU.

When comparing G1 and G2, the duration of FU did not differ significantly between them (G1: 46.0 months, IQR 52.0 vs. G2: 33.0 months, IQR 57.0; p = 0.716). No significant differences were observed in age at diag-nosis (p=0.835), stage (p>0.999), tumour differentiation grade (p>0.999), presence of close surgical margins (p=0.182), use of adjuvant treatment (p=0.999) or mortality rate (p=0.079).

Conclusions: In this cohort, VC recurrences were predominantly observed in ESD patients treated surgically, with a high proportion of local relapses occurring at new vulvar sites. Despite the associated poor prognosis, no signifi-cant predictors of recurrence were identified. These results highlight the need for careful and prolonged FU in all patients, regardless of initial stage, to enable early detection and management of recurrence.

Palavras-chave: vulvar cancer, recurrence, oncology

(28323)

RISK STRATIFICATION OF MALIGNANCY IN B3 BREAST LESIONS: A COMPARATIVE EVALUATION OF EXCISION MODALITIES

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Introduction: Breast lesions of uncertain malignant potential (B3) comprise a heterogeneous group associated with varia-ble risks of malignancy. While overtreatment remains a concern due to the predominance of benign out-comes, the non-negligible rate of malignancy underestimation highlights the need for accurate risk stratifi-cation. This study aimed to assess the positive predictive value for malignancy in excised B3 lesions, identify clinicopathological factors associated with histological upgrading, and compare outcomes across different management approaches.

Methods: A retrospective study reviewed a single-center cohort of patients who were followed after receiving a his-tological diagnosis of a B3 lesion between November 2018 and November 2023. Only patients without a synchronous diagnosis of a higher-grade lesion were included.

Results: A total of 51 patients were included (median age, 51 years [IQR=12.0] years), 54.9% of whom pre-senting with breast-related symptoms. The most frequent histological subtype was papillary lesions (PL), accounting for 66.7% of cases. Management strategies consisted of clinical follow-up in 31.4% of cases, open surgical excision in 43.1%, and vacuum-assisted excision (VAE) in 23.5%. Among excised lesions, the malig-nancy upgrade rate was 8.6%, while a 5.4% upgrade was observed during follow-up over a 2-year period.

Statistically significant associations were found between the selected management modality and factors such as family history of breast cancer (p=0.033), diagnostic method employed (p<0.001), and initial histo-logical diagnosis (p=0.029). Regarding total malignancy risk, significant associations were observed with classical lobular neoplasia (LN) (p=0.017), multifocality (p=0.023), and an initial BIRADS ≥4B (p=0.019).

Conclusion: VAE proved to be a safe and effective management option for B3 lesions, demonstrating a low malignancy upgrade rate and reducing the need for open surgical procedures. Our findings align with existing literature, reinforcing the heterogeneity of malignancy risk among B3 subtypes and highlighting relevant upgrading risk factors. Based on our results, a more conservative approach may be appropriate for PL, while surgical excision appears warranted for LN.

Palavras-chave: B3 lesion, Malignancy risk stratification, Histological upgrading, Vacuum-assisted excision, Lobular neoplasia

(28287)

PRENATAL SURVEILLANCE AND CARE: A MODEL FOR SUSTAINABILITY IN MATERNAL AND OBSTETRIC HEALTH

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Introduction: Pregnancy surveillance programs in Portugal have improved maternal and infant health outcomes. How-ever, despite reducing mortality, they often lead to unnecessary interventions in a physiological process. Evidence suggests that prenatal care quality relies more on health system organization than on financial or technological resources. Models led by Specialist Nurses in Maternal and Obstetric Health (EEESMO) have shown lower intervention rates with comparable outcomes to physician-led models. This study aims to describe the implementation of a midwife-led prenatal care model at a tertiary care center.

Methods: The model followed a predefined protocol, enrolling only low-risk pregnancies without an assigned family physician. All participants were informed and consented. Data were obtained through consultations and an-onymized electronic records. Variables included maternal age, origin, BMI, obstetric history, number of visits, referrals, delivery mode, episiotomy, postpartum hemorrhage, newborn characteristics, and scores from the modified Goodwin and Edinburgh scales. Descriptive statistical analysis was performed.

Results: Considering the preliminary results from April, 13 consultations were scheduled; 11 were completed as initial visits with both an obstetrician and EEESMO. Two women did not attend. Mean maternal age was 28 years and mean BMI 28 kg/m². The sample included women from Brazil (5), Angola, Bangladesh, India, Ukraine (1 each), and Portugal (2). Six were primigravidas; no multipara had more than three previous births. Mean ges-tational age at the first visit was 12 weeks. Two were referred to maternal-fetal medicine. The Goodwin scale indicated moderate risk in one case; all others were low risk. The Edinburgh scale screened positive in three cases; two could not be assessed due to communication barriers.

Discussion: All first-visit objectives were met. Risk assessments supported individualized follow-up plans. The predomi-nance of foreign patients may be linked to the referral criterion of lacking a family physician. In these pre-liminary findings, delivery outcomes were not assessed due to short follow-up. Despite this and the small sample size, the model appears to be a promising, sustainable approach to improving maternal care and optimizing resource allocation.

Palavras-chave: Sustainability; Maternal and Obstetric Health; Prenatal Surveillance

(28346)

COORDINATION BETWEEN PRIMARY AND HOSPITAL CARE IN OBSTETRIC FOLLOW-UP: REFERRALS TO A TERTIARY CENTER UNDER THE VERTICAL PROGRAM IN 2024

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Introduction: The Vertical Program (VP) is a carefully designed care pathway that improves coordination between primary and hospital-based maternity services to enhance perinatal outcomes. It includes collaborative monitoring of low-risk pregnant women who do not present any identified risks, involving both primary care and hospital care. The Family Medicine specialist refers the pregnant woman to Protocols I and II at the obstetrics care unit in the hospital. Proto-col I focuses on first or second-trimester aneuploidy screening, while Proto-col II includes an anomaly scan and an obstetric consultation to assess obstetric risk.

Objective: To characterize the referral patterns of pregnant women to the Centro Materno-Infantil do Norte (CMIN) under the Vertical Program in 2024.

Methods: Observational, cross-sectional, descriptive study. Inclusion criteria: all pregnant women referred to CMIN in 2024 via the VP. Data were collected from Astraia®, BI-CSP®, and analyzed using Excel®.

Results: A total of 2,048 pregnant women were referred to CMIN under the VP in 2024. The majority origi-nated from ACeS Porto Ocidental (n=1,052; 51.4%) and ACeS Gondomar (n=996; 48.6%). The most frequent referring Family Health Units were USF Santa Maria (n=127), USF Cedofeita (n=112), USF Ramalde (n=109), USF Bom Porto (n=99), and USF S. Pedro da Cova (n=95).

The average gestational age at referral (N=2,025) was 7 weeks and 5 days, ranging from 5 days to 22 weeks and 3 days. At the time of the first-trimester ultrasound, the mean gestational age was 13 weeks. The aver-age maternal age at referral was 32 years, with a range from 16 to 54 years.

Of the referred women, 346 (16.9%) did not undergo Protocol I or II: 148 due to non-viable pregnancies, 84 appointments were canceled for various reasons, 34 pregnant women missed their appointments, the exam wasn't scheduled in 33 cases, and 25 women underwent screening at other health facilities.

Among the referrals received by the end of October (N=1703), 1298 patients underwent the first obstetric ultrasound; 1096 (64%) of these patients had the first trimester combined aneuploidy screening, while 94 cases received the quadruple screening instead. When the first ultrasound was performed after 13 weeks and 6 days of gestation (N=221), the combined aneuploidy screening was possible in 43% of the cases (n=95) and quadruple screening was performed in 93 cases.

Conclusion: The Vertical Protocol facilitates timely and coordinated prenatal care by integrating primary and hospital services. It supports early risk stratification and appropriate resource allocation, ensuring compliance with evidence-based timelines for screening and follow-up. Timely referral through this model is a key factor in improving the efficiency and quality of obstetric care delivery.

Palavras-chave: Vertical Program, Primary care, Aneuploidy screening, Low-risk pregnancy

GINECOLOGIA - OBSTETRÍCIA

POSTERS

(28285)

CYTOGENETIC FINDINGS FOLLOWING NIPT-SUGGESTED PARTIAL DUPLICATION OF CHROMOSOME 4: AN UNEXPECTED CHROMOSOMAL TWIST

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Introduction: The non-invasive prenatal test (NIPT), which analyses free fetal DNA in maternal plasma, has been available as a screening option for pregnant women since 2011. It has greatly improved prenatal screening for common chromosomal abnormalities, such as trisomies 13, 18, and 21. The test offers superior accuracy compared to combined first trimester approach and has rapidly expanded to include the detection of sex chromosome aneuploidies. More recently, NIPT can identify microdeletion syndromes, small copy number variations, and other autosomal aneuploidies. Therefore, it is recommended that positive NIPT results be confirmed with invasive prenatal diagnostic tests, such as amniocentesis or chorionic villus sampling (CVS). We present the cytogenetic and molecular findings of a clinical case referred for confirmation of a "positive" NIPT result.

Clinical case: A 33-year-old pregnant woman was referred for amniocentesis at 15 weeks of gestation due to a NIPT finding suggestive of a partial duplication of chromosome 4. The first trimester combined screening indicated a risk of 1:269 for trisomy 21, 1:47 for trisomy 18, and 1:325 for trisomy 13. Conventional karyotyping of cultured amniocytes revealed a 46,XX,der(15)t(4;15)(q31;q26.3) in 20 metaphases examined. Array-CGH analysis identified a 50.2 Mb gain in the terminal region 4q31.1q35.2 and a 2.5 Mb loss in the terminal region 15q26.3. Since both parents' karyotypes presented normal results, this alteration was considered *de novo*.

Discussion: Our findings are consistent with distal trisomy 4q syndrome (www.orpha.net), a rare chromosomal anomaly whose variable phenotype can include, among other things, psychomotor delay, intellectual disability craniofacial dimorphisms, cardiac malformations and hypotonia. In the present case, the cytogenetic approach allowed for the identification and localization of the duplicated segment on chromosome 4, revealing an unexpected contribution from chromosome 15. NIPT is a valuable tool for prenatal screening of chromosomal disorders, offering high sensitivity and specificity. When combined with conventional karyotyping, NIPT significantly enhances diagnostic accuracy, underscoring the indispensable role of cytogenetic analysis in the comprehensive detection of fetal abnormalities.

Palavras-chave: NIPT, Cytogenetic analysis, distal trisomy 4q syndrome

(28306)

BEYOND INITIAL FINDINGS: APPLYING 3R'S (REANALYSIS, REVISION, AND RE-EVALUATION) TO GENETIC DATA IN A FAMILIAL INTERSTITIAL DELETION IN 6Q22.31–>Q23.2

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Introduction: Interstitial deletions encompassing the 6q22.31–>q23.2 region are rare but increasingly recognized for their association with variable neurodevelopmental phenotypes. Emerging evidence from newly reported cases is establishing haploinsufficiency genotype-phenotype correlations, particularly concerning congenital heart defects (CHD) and thoracic aortic aneurysms (TAA). This report details a familial 9.7 Mb deletion within this critical region and underscores its evolving clinical significance through a process of curated revision.

Case Report: We describe a family with three females—the 22-year-old proband, her sister, and their mother—each carrying a heterozygous pathogenic 9.7 Mb interstitial deletion at 6q22.31–>q23.2, confirmed by karyotype and array-CGH. The proband presented with learning difficulties (LD), behavioural challenges, and psychiatric comorbidities. Her sister and mother also have LD. A recent reanalysis of the deleted region, informed by recent literature revision, highlighted *HEY2* as a newly associated gene whose heterozygous haploinsufficiency contributes to CHD and TAA risk. This new understanding has triggered an ongoing clinical re-evaluation of this family.

Discussion: This familial 6q22.31–>q23.2 deletion underscores the dynamic nature of genetic knowledge. Reanalysis and literature revision revealed *HEY2*'s role in vascular phenotypes (CHD/TAA), beyond initial neurodevelopmental focus. This case highlights the crucial impact of continuous data curation in rare genetic disorders for accurate clinical management and family counseling as new genotype-phenotype correlations emerge.

(28332)

COMPLETE ANDROGEN INSENSITIVITY SYNDROME: A CASE REPORT

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Introduction: Androgen Insensitivity Syndrome (AIS) is a rare X-linked recessive disorder characterized by the inability of tissues to respond to androgens. It can be classified into three forms according to the degree of androgen resistance: complete (CAIS), partial (PAIS), or mild (MAIS).

Case Report: We present the case of a 35-year-old woman, referred to the gynecology clinic while under long-term estrogen replacement therapy, which had been initiated at age 14 due to primary amenorrhea. She had no relevant medical history. Surgically, she reported undergoing saphenectomy and bilateral inguinal hernia repair at the age of 12. She denied any regular medication, tobacco, or alcohol use. Family history revealed a sister with the same condition. She had never had sexual intercourse. On physical examination, she presented a normal female phenotype with well-developed secondary sexual characteristics. Gynecological examination revealed atrophy of the labia minora and a blind-ending vagina, with no palpable pelvic masses. Suprapubic ultrasound failed to identify a uterus or ovaries. A review of the patient's medical record showed a 46,XY karyotype and the histopathological report of a childhood surgery, which confirmed bilateral gonadectomy with testicular tissue present in the surgical specimens. A targeted genetic study confirmed the diagnosis of Complete Androgen Insensitivity Syndrome (CAIS). A bone densitometry scan was requested and revealed osteoporosis.The patient continued estrogen replacement therapy on a continuous basis.

Discussion: Complete Androgen Insensitivity Syndrome (CAIS) is caused by mutations in the androgen receptor (AR) gene, which prevent androgen action despite normal or elevated serum levels, resulting in a fully female phenotype in individuals with a 46,XY karyotype. In this case, the clinical suspicion arose from the presence of primary amenorrhea and a history of bilateral inguinal hernia surgery, a common presentation in CAIS due to the ectopic location of the testes. The presence of normal secondary sexual characteristics, such as breast development, results from the peripheral aromatization of testosterone into estrogens, despite complete androgen resistance.The absence of uterus and ovaries on ultrasound, along with a blind-ending vagina, are typical findings. These result from the anti-Müllerian hormone (AMH) secreted by the testes, which causes regression of Müllerian structures during embryonic development.The definitive diagnosis was confirmed by genetic testing and the histological identification of testicular tissue in the surgical specimens.

The finding of osteoporosis in this patient highlights the importance of adequate and continuous hormone replacement therapy (HRT), not only for feminization but also for bone health maintenance. A multidisciplinary approach is indicated, in these cases.

Palavras-chave: Androgen Insensitivity Syndrome

(28343)

RECURRENT INTRAHEPATIC CHOLESTASIS OF PREGNANCY IN A WOMEN CARRIER OF VARIANT IN THE ABCB11 GENE

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Intrahepatic cholestasis of pregnancy (ICP) is a liver disease unique to pregnancy, characterized by elevation in serum bile acid concentration. Its main complications are an increased risk of still-birth, pre-term labor, neonatal respiratory distress syndrome and meconium-stainedamniotic fluid, therefore an early diagnosis it´s important to reduce the neonatal morbidity. The most typical presentation is pruritus, predominantly on the palms and soles, during the second or third trimester of pregnancy. The etiology of ICP is complex and most likely multifactorial, involving several elements including hormonal, environmental and genetics factors. A genetic basis for the disease is supported by a high recurrence rate(60-70%), increase risk in first degree relatives and familial clustering. Genes responsible for the encoding of canalicular transporters or their regulators have been associated to ICP, mainly variants in ABCB4 gene, but also variants in the ABCB11 gene.

38-year-old woman, with a previous pregnancy terminated at 33 weeks by cesarean due to ICP. Genetic study revealed a polymorphism in heterozygosity in the ABCB11 gene. Presented at our center with a new pregnancy, initiating ursodeoxycholic acid (UDCA) 500 mg 12/12 hours, at 25 weeks of gestation. At 31 weeks of gestation, the patient was admitted to the hospital due to aggravation of serum concentration of bile acids and aminotransferases and worsening pruritus, was medicated with UDCA 500 mg 8/8 hours, cholestryamine 4g 12/12 hours and a course of corticosteroids. During the hospital stay, there was an improvement of symptoms and analytical profile and was discharged home at 33 weeks of pregnancy, medicated with UDCA and cholestryamine. At 35 weeks of pregnancy, new worsening pruritus and aggravation of serum aminotransferases. Terminated pregnancy at 35 weeks and 4 days of gestation by cesarean section with resolution of the pruritus and the analytical abnormalities after the labor.

The case reported depicts a diagnosis of ICP in a women known to be a carried to a variant in a gene associated with this disease. The early beginning of treatment and the quick intervention of clinical and analytical worseningallowed the reduction of neonatal morbidity, especially the risks associated with moderate preterm present in the first pregnancy.

Palavras-chave: intrahepatic cholestasis of pregnancy, Genetics

(28314)

X CHROMOSOME DELETION OF THE LONG ARM ASSOCIATED WITH FEMALE INFERTILITY: A CASE REPORT

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Introduction: Infertility is one of the most prevalent genetic conditions, affecting approximately 1/500 live births. Among the genetic causes, structural abnormalities of the X chromosome are particularly significant, including partial deletions of the long arm (Xq), which are associated with premature ovarian failure (POF), primary or secondary amenorrhea, and recurrent spontaneous abortions. These alterations most often result from unequal chromosomal recombination, leading to the loss or duplication of genetic material and the disruption of genes essential for reproductive function. A critical region for ovarian function has been identified between Xq13 and Xq28, with deletions in Xq23–>Xq28 more frequently linked to POF. This region harbours several important genes, including *FMR1*, whose repeat expansions are associated with an increased risk of early menopause.

Case Report: This report describes a 29-year-old female whose clinical indication for cytogenetic evaluation was infertility. No other phenotypic abnormalities were observed. A peripheral blood sample was collected, followed by lymphocyte culture for cytogenetic analysis using GTL-banding. The resulting karyotype was 46,X,del(X)(q21.1).

Discussion: Deletions of the X chromosome can significantly affect ovarian function particularly due to the loss of essential genes located in Xq. Haploinsufficiency of these genes can subtly impair ovarian function without causing noticeable clinical symptoms at onset. In this case, while POF was not clinically evident, the deletion of these critical genes increases the risk of future ovarian dysfunction. The absence of additional phenotypic abnormalities beyond infertility may be attributed to X chromosome lyonization. The *XIST* gene, responsible for X-inactivation, remains unaffected by the deletion, allowing proper inactivation of the altered X chromosome. However, genes located in the Xq region fail to produce sufficient expression to support normal ovarian function, contributing to the observed infertility.

Given the variability in phenotypic expression and the risk of reproductive complications, continuous clinical monitoring, namely by endocrinology, and genetic counseling are essential. Additionally, parental studies are recommended to determine whether chromosomal deletion is “de novo” or inherited, and to assess the potential risk to other family members.

(28315)

NUMERICAL ANOMALIES OF THE X CHROMOSOME IN A COHORT OF 1,103 INFERTILE MEN

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Introduction: According to WHO (2023), infertility affects 17.5% of couples globally, with 20-30% possibly due to male factors alone. Male infertility may have congenital or acquired origins or it may be idiopathic, often involving testicular dysfunction and spermatogenesis disorders. A genetic cause may be identified in about 15% of male infertility cases, with chromosomal anomalies, single-gene mutations, and Y chromosome microdeletions being the most significant contributors. Karyotyping remains a first-line diagnostic tool for identifying chrom RAISING osomal abnormalities, notably Klinefelter syndrome (KS) (47,XXY), the most common genetic cause of male infertility. Among chromosomal anomalies, numerical alterations of sex chromosomes - particularly involving the X chromosome - have a significant impact on male sexual development and fertility. Extra copies of X-linked genes can impair testicular function, resulting in genital abnormalities, spermatogenic failure and infertility. This study aims to perform a statistical analysis of karyotype results to determine the frequency of numerical anomalies of the X chromosome in infertile men, thereby contributing to a better understanding of the association between these chromosomal anomalies and male infertility.

Methodology: The study included data (clinical features and karyotype results) from 1,103 men with reduced fertility who performed karyotypes between October 2014 and December 2021. Appropriate statistic tools were applied.

Results: Among 1,103 men studied, 1,065 (96.6%) presented with a normal karyotype and 38 (3.4%) had karyotype abnormalities. Of these, 23 (60.5%) showed numerical chromosomal abnormalities, while 13 (34.2%) had structural chromosomal abnormalities. Among those with numerical anomalies, 17 (73.9%) exhibited a 47,XXY karyotype, and 6 (26.1%) had mosaic Klinefelter karyotypes.

Discussion: These results highlight the impact of chromosomal abnormalities, particularly numerical anomalies of the X chromosome, in the context of male infertility; the high frequency of 47,XXY karyotypes aligns with existing data, confirming Klinefelter syndrome as its most common genetic cause. Additionally, the detection of rare mosaics suggests that a broader spectrum of chromosomal variation may contribute to impaired spermatogenesis. These findings emphasize the value of routine karyotyping in the diagnostic work-up of infertile men, providing them with accurate diagnosis and wider reproductive choices.

Palavras-chave: Male infertility; Numerical anomalies; X chromosome; Karyotype analysis; Statistical analysis

(28337)

RAISING AWARENESS AMONG MEN IN THE PREVENTION OF CERVICAL CANCER

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Introduction: Infection with the Human Papillomavirus (HPV) is the cause of various diseases in both men and women. More than 120 genotypes have been identified, of which 14 are considered high-risk for cervical cancer. HPV is also the most prevalent sexually transmitted infection in the world. HPV can be found in both female and male genitalia. Although HPV infections are predominantly manifested in women, the primary carrier is the man, and these infections are generally asymptomatic in him. Sexual transmission occurs through direct contact with skin and mucous membranes, with no penetration necessary. Prevention involves health education for boys and their vaccination, as the use of condoms does not fully protect against this virus.

For all these reasons, it is essential to raise awareness among men in the strategies for preventing cervical cancer.

Keywords (DeCS): Communicable Disease Control; Human Papillomavirus Viruses (HPV); Men;

Objective: To understand how the Obstetric Nurse can intervene in raising awareness among males for the prevention of HPV transmission.

Materials and Method: A literature review was conducted using the B-ON search engine, consultations of guidelines from the World Health Organization and the Directorate-General of Health, and also referred to grey literature and bibliographic references from the obtained articles.

Results: HPV is responsible for several types of cancer: 100% of cervical cancer, 84% of anal cancer, 70% of vaginal cancer, 47% of penile cancer, 40% of vulvar cancer, and 99% of condylomas. According to Teixeira et al. (2019), Portugal stands out with a high mortality rate from cervical cancer compared to other European countries. Although cervical cancer screening programs exist, the mortality rate from this disease is 7.4 per 100,000 inhabitants (INE, 2019). Unlike women, men do not have a screening program for the prevention of these diseases. Therefore, the way to individually reduce the risk of the disease, beyond preventing risk behaviors and educational actions, is through vaccination.

The literature also describes methods for diagnosing HPV in men, such as peniscopy, cytological and histological evaluations, serological assays, immunohistochemistry for high-risk genotype 16 (Ferreira and Silva et al., 2021), and molecular tests such as PCR and hybridization (Santos et al., 2011). However, HPV testing is currently not recommended for men, either in screening or diagnosis, due to the lack of benefit in subsequent clinical guidance.

Discussion: It is clear that there are methods for detecting HPV in men similar to those for women. However, the lack of consensus on which methods should be used highlights the need for more future studies to establish a possible screening program for men, as there is already one for women in cervical cancer screening.

Conclusion: The Obstetric Nurse plays a fundamental role in disseminating knowledge and raising awareness about HPV infection and its prevention. The way to individually reduce the risk of the disease, in addition to preventing risk behaviors, and collectively through educational actions, is vaccination.

According to the WHO (2020), which sets goals for 2030 and presents a global strategy for eliminating cervical cancer, there are no future evaluation objectives relating to vaccinating boys as a preventive measure against HPV transmission. Therefore, it would be crucial to implement evaluation objectives in Health Units.

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Palavras-chave: Communicable Disease Control, Human Papillomavirus Viruses (HPV), Men

ENFERMAGEM

COMUNICAÇÕES ORAIS

(28293)

BABYWEARING AS A SUSTAINABLE PRACTICE IN MATERNAL-INFANT CARE:BENEFITS FOR THE MOTHER AND THE BABY

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Introduction: Babywearing (BW) is an ancestral and sustainable practice of carrying and almost all are made from sustainable and recycled materials. This practice promotes a close contact between the baby and the caregivers, which is associated with physical, psychological and social benefits for both. The objective of this research study is to understand the impact of the use of BW in Maternal-Infant care.

Methods: Narrative review of scientific literature by searching in Science Direct, Pubmed and Springer electronic databases. The inclusion criteria were papers published between 2013- 2025 available in full text and English.

Results: Evidence in the literature indicates that BW offers several significant benefits for infants, including decrease in cortisol levels, fewer crying episodes, improved sleep quality, enhanced emotional regulation, lower risk of colic, hip dysplasia, and positional plagiocephaly, as well as stimulation of language acquisition and muscular development.

Furthermore, the main advantages for mothers were the promotion of breastfeeding and mental health, improved sleep patterns, reduced stress levels and strengthened bonding, which in turn enhances parental self-efficacy.

Nevertheless, potential disadvantages of BW have also been found, such as discomfort for the caregiver, difficulties in proper use, and excessive heat during the summer months.

Discussion: Babywearing (BW) promotes physical closeness, enhancing breastfeeding, infant emotional well-being, and caregiver responsiveness— which is crucial in vulnerable contexts such as foster and blended families or among adolescent mothers. It supports maternal mental health and strengthens family bonds, encouraging the active involvement of the triad. It is essential that midwives receive proper education on the use of BW to ensure its correct and effective implementation, enabling them to teach parents how to use it properly. Although there is no direct evidence in the literature explicitly linking babywearing (BW) to sustainability, it can be inferred based on the use of organic materials and the potential for prolonged utilization, including intergenerational reuse within families.

In summary BW emerges as an eco-friendly practice and cost-effective intervention that can be integrated into maternal-infant care to support family empowerment.

Palavras-chave: Babywearing; Maternal-Infant care; Sustainability

(28327)

SUPPORTING PARENTS OF CHILDREN WITH CLEFT LIP AND PALATE: A PATH TO SUSTAINABLE HEALTHCARE

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Introduction: Cleft lip and palate (CLP) are complex congenital conditions requiring long-term multidisciplinary care, from birth to adulthood. The present study aimed to identify and systematize the needs and difficulties experienced by parents of children with CLP, as well as the strategies and resources they used to manage them.

Method: A mixed methodology study was conducted with a sample of 60 parents of children aged 0-15 years, followed at the multidisciplinary CLP consultation at Hospital Lusíadas Porto, comprising participants from mainland Portugal and the autonomous regions. Data were collected through a self-report questionnaire developed by the authors.

Results: About half of the parents (47%) considered the information provided at the time of diagnosis to be unclear or insufficient. Furthermore, 67% sought additional consultations with other healthcare professionals to feel more informed and reassured. The main concerns reported by parents included treatment planning and complexity (83%), child developmental outcomes (80%) and feeding issues (70%); surgical procedures (63%) were identified as the most challenging aspect of care.

Discussion: These findings, align with existing literature, highlighting the critical role of the quality, clarity and timing of the information provided at the time of diagnosis in shaping parental understanding and emotional well-being. Evidence suggests that accurate, timely, and comprehensive information can mitigate parental distress and foster confidence in healthcare professionals. Moreover, multidisciplinary teams, when available and adequately trained, can reduce parents' uncertainty and enhance their ability to engage with care plans. Providing timely, accessible, and comprehensive guidance empowers parents and improves their confidence and emotional resilience. From a sustainability perspective, this empowerment reduces the overuse of healthcare resources by preventing unnecessary consultations, redundant procedures, and emotional crises that could otherwise escalate to emergency care. In conclusion, the study underscores the critical role of specialized, multidisciplinary teams in delivering family-centered care and highlights how investing in the provision of high-quality information and appropriate support at the time of diagnosis contributes to more sustainable, efficient, and humane healthcare systems.

Palavras-chave: Cleft lip and palate; parenting; information quality; healthcare; sustainability

(28330)

MANUTENÇÃO DA NORMOTEMIA EM CONTEXTO PERIOPERATÓRIO – UMA PRÁTICA SUSTENTÁVEL

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Introdução: Uma prática sustentável na prestação de cuidados é um requisito essencial para a garantia da própria eficiência do sistema de saúde e qualidade dos cuidados o que inclui a prevenção de complicações. Ao contexto perioperatório estão associados inúmeros desafios, sendo um deles a manutenção do conforto térmico. A hipotermia perioperatória é uma consequência frequente no doente cirúrgico, que decorre da sua exposição ás variações da temperatura ambiental, bem como das alterações na termorregulação provocadas pelo efeito anestésico. Para além disso existem fatores individuais como os extremos de etários, o sexo feminino, o baixo índice de massa corporal, a classificação ASA superior ou igual a II, o risco cardiovascular e a existência de fatores que alterem a capacidade de termorregulação do corpo que contribuem para o aumento do risco de hipotermia. A manutenção da normotermia (36,5º – 37,5º) é fundamental para evitar complicações e promover uma recuperação mais rápida e promovendo o bem-estar da pessoa no intra e pós-operatório.

Método: Realizada uma revisão narrativa da literatura existente sobre a temática nas bases de dados de referência, utilizando como termos de pesquisa "hipotermia", "termorregulação", "sustentabilidade", "bloco operatório".

Resultados: A prevenção da hipotermia assenta em 3 princípios simples: monitorização da temperatura, minimização da exposição e aquecimento ativo. As medidas preventivas da hipotermia incluem: "pré-aquecimento", aquecimento passivo, aquecimento ativo, aquecimento de fluidos de infusão e aquecimento de fluidos de irrigação.

Discussão: As medidas preventivas devem ser realizadas em complementaridade. O pré- aquecimento deve ocorrer 10 a 30 minutos antes da indução anestésica, independentemente do tipo de anestesia ou procedimento e visa potenciar o aumento do calor corporal total, diminuindo a diferença de temperatura entre os compartimentos central e periférico, e a queda acentuada da temperatura na fase de distribuição que ocorre imediatamente após a indução. O aquecimento passivo promove o isolamento térmico pelo uso de cobertores e campos cirúrgicos, diminuindo a exposição cutânea à baixa temperatura da sala operatória. O aquecimento ativo pode assentar em dois mecanismos, convecção e/ou condução e deve ser aplicado a todas as pessoas sujeitas a uma cirurgia de duração previsivelmente superior a 30 minutos. A maior revisão de estudos acerca dos sistemas ativos de aquecimento para prevenir a hipotermia, realizada em adultos, não conseguiu determinar qual o tipo de dispositivo ou técnica mais eficaz. O aquecimento de fluidos intravenosos a 37ºC está recomendado quando a taxa de infusão é superior a 500ml/h. A prevenção da hipotermia constitui um requisito essencial na garantida da qualidade e sustentabilidade dos cuidados ao doente cirúrgico.

MAINTAINING NORMOTHERMIA IN THE PERIOPERATIVE SETTING - A SUSTAINABLE PRACTICE

Introduction: Sustainable practice in the provision of care is an essential requirement for guaranteeing the efficiency of the health system and the quality of care, which includes the prevention of complications. The perioperative context is associated with numerous challenges, one of which is maintaining thermal comfort. Perioperative hypothermia is a frequent consequence in surgical patients, which results from their exposure to variations in environmental temperature, as well as changes in thermoregulation caused by the anaesthetic effect. In addition, there are individual factors such as age extremes, female gender, low body mass index, ASA classification greater than or equal to II, cardiovascular risk and the existence of factors that alter the body's thermoregulation capacity that contribute to an increased risk of hypothermia. Maintaining normothermia (36.5º - 37.5º) is essential to avoid complications and promote a faster recovery, while also promoting the person's well-being during and after surgery.

Method: A narrative review of existing literature on the subject was carried out in reference databases, using 'hypothermia', 'thermoregulation', 'sustainability', 'operating theatre' as search terms.

Results: Hypothermia prevention is based on 3 simple principles: temperature monitoring, minimizing exposure and active warming. Hypothermia prevention measures include: 'pre-warming', passive warming, active warming, warming of infusion fluids and warming of irrigation fluids.

Discussion: Preventive measures should be carried out in complementarity. Pre-warming should take place 10 to 30 minutes before induction of anesthesia, regardless of the type of anesthesia or procedure, and aims to increase total body heat, reducing the temperature difference between the central and peripheral compartments and the sharp drop in temperature in the distribution phase that occurs immediately after induction. Passive warming promotes thermal insulation through the use of blankets and surgical drapes, reducing skin exposure to the low temperature of the operating theatre. Active heating can be based on two mechanisms, convection and/or conduction, and should be applied to all people undergoing surgery that is expected to last more than 30 minutes. The largest review of studies on active warming systems to prevent hypothermia, carried out on adults, was unable to determine which type of device or technique was most effective. Warming intravenous fluids to 37ºC is recommended when the infusion rate is greater than 500ml/h. Preventing hypothermia is an essential requirement for guaranteeing the quality and sustainability of care for surgical patients.

Palavras-chave: hipotermia, termorregulação, sustentabilidade, bloco operatório.

(28331)

CONSULTA PRÉ-OPERATÓRIA PEDIÁTRICA NA ERA DIGITAL – UM PROJETO DE MELHORIA DE CUIDADOS

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Introdução: Uma cirurgia representa inevitavelmente um evento exigente na vida da pessoa podendo acarretar mudanças significativas no seu dia a dia - uma transição. Em contexto pediátrico isto assume particular relevância atendendo a que estamos perante uma criança e um cuidador que pode ser pai ou outra pessoa significativa.

A consulta pré-operatória de enfermagem desempenha um papel crucial na preparação de crianças/famílias para experiência cirúrgica. O impacto desta consulta, para além de dotar as crianças e os pais de conhecimentos e capacidades acerca do processo cirúrgico contribuem de forma determinante na redução da ansiedade vivenciada pela família. Assim, com este trabalho pretende-se criar uma consulta de enfermagem pré-operatória utilizando uma plataforma digital segura e animada que permita adequar a informação e a linguagem à idade da criança facilitando a aquisição de competências para lidar com o processo cirúrgico.

Metodologia: Revisão narrativa da literatura existente sobre a temática nas bases de dados de referência, utilizando os seguintes termos: “consulta pré-operatória pediátrica”; “inteligência artificial”; “cuidados de enfermagem peri operatórios”.

Resultados: A consulta pré-operatória de enfermagem desempenha um papel fundamental na redução da ansiedade da família, capacitando-os, fornecendo apoio emocional e incluindo-os no processo. O recurso a uma plataforma digital pode contribuir para cuidados de saúde mais eficientes, acessíveis e precisos.

Discussão: A consulta pré-operatória pediátrica desempenha um papel importante na preparação da criança/ adolescente/ família para uma cirurgia. O recurso à inteligência artificial torna o processo mais eficiente e seguro para as crianças. Se o recurso aos registros eletrónicos permite o acesso rápido ao historial clínico, as plataformas digitais podem contribuir como facilitadores da comunicação entre equipa de saúde e a família. É uma evolução que tem como objetivo oferecer um cuidado mais dirigido, confortável e humanizado garantindo a segurança e a privacidade dos dados. A plataforma poderá incluir funcionalidades como agendamento online, questionários para recolha de informação clínica relevante, vídeos educativos acerca da preparação das as crianças para a cirurgia e lembretes automáticos acerca dos cuidados no pré e pós-operatório, e desta forma facilitar o acompanhamento de todo o processo. Trata-se de uma estratégia que pode reduzir o tempo de espera das crianças pelas consultas de preparação para a cirurgia e melhorar a experiência de todos os envolvidos no processo.

PEDIATRIC PREOPERATIVE CONSULTATION IN THE DIGITAL AGE - A PROJECT TO IMPROVE CARE

Introduction: Surgery inevitably represents a demanding event in a person's life and can bring about significant changes in their day-to-day life - a transition. In the pediatric context, this is particularly important given that we are dealing with a child and a carer who may be a parent or other significant person.

The preoperative nursing consultation plays a crucial role in preparing children/families for the surgical experience. The impact of this consultation, in addition to providing children and parents with knowledge and skills about the surgical process, contributes in a decisive way to reducing the anxiety experienced by the family. The aim of this study is therefore to create a preoperative nursing consultation using a safe, animated digital platform that allows information and language to be adapted to the child's age, facilitating the acquisition of skills to deal with the surgical process.

Methodology: Narrative review of existing literature on the subject in reference databases, using the following terms: ‘pediatric preoperative consultation’; “artificial intelligence”; “perioperative nursing care”.

Results: The preoperative nursing consultation plays a key role in reducing family anxiety, empowering them, providing emotional support and including them in the process. The use of a digital platform can contribute to more efficient, accessible and accurate healthcare.

Discussion: The pediatric preoperative consultation plays an important role in preparing the child/adolescent/family for surgery. The use of artificial intelligence makes the process more efficient and safer for children. If the use of electronic records allows quick access to clinical history, digital platforms can help facilitate communication between the healthcare team and the family. It's an evolution that aims to offer more targeted, comfortable and humanized care, guaranteeing data security and privacy. The platform could include features such as online scheduling, questionnaires to collect relevant clinical information, educational videos about preparing children for surgery and automatic reminders about pre- and post-operative care, thus making it easier to monitor the entire process. This is a strategy that can reduce children's waiting time for surgery preparation appointments and improve the experience of everyone involved in the process.

Palavras-chave: consulta pré-operatória pediátrica; inteligência artificial; cuidados de enfermagem peri operatórios.

(28325)

ECONOMICALLY AND ENVIRONMENTALLY SUSTAINABLE NURSING PRACTICES IN THE MANAGEMENT OF NEWBORN UMBILICAL GRANULOMA: A CASE STUDY

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Introduction: Umbilical granuloma is a common benign lesion in newborns, characterized by reddish, moist granulation tissue that persists after the umbilical cord stump detaches, resulting from an ineffective healing process (Martins et al., 2020). Among the therapeutic options available, common table salt has emerged as a safe, effective, low-cost, and easily applicable alternative to the traditional silver nitrate (Aziz & Gupta, 2024).

The use of simulated clinical scenarios allows nurses to apply evidence-based practices, promoting safe, sustainable, and person-centred healthcare delivery.

Case Report: An exploratory-descriptive case study was conducted within a clinical simulation setting, based on the nursing process methodology and the ontology established by the Portuguese Nursing Association (2021). The case involved a 12-day-old newborn presenting with compromised tissue integrity due to the presence of an umbilical granuloma. The following nursing diagnoses were identified: impaired tissue integrity and potential for enhanced parental knowledge regarding the healing process. The care objectives focused on promoting tissue healing and empowering parents to manage the condition. Nursing interventions included monitoring the lesion's progression and providing education on granuloma care. The treatment involved cleaning the lesion with 0.9% saline solution, applying common table salt to cover the entire surface, covering it with gauze for 30 minutes, followed by removal of the salt, re-cleaning with saline, and drying.

The intervention resulted in improved healing and increased parental knowledge.

Discussion: The use of common salt in the treatment of umbilical granuloma proved to be effective, safe, and suitable for home care, enabling active parental involvement and reducing the need for visits to healthcare facilities. Studies report treatment success rates comparable to silver nitrate (88% to 92.9%), without adverse effects and with lower environmental and economic impact (Fawzi, 2021; Khaliq et al., 2024). While silver nitrate costs approximately 5 euros per unit and requires chemical waste disposal, common salt costs less than 1 euro and is biodegradable (Jois & Rao, 2021). This alternative demonstrates tangible health, sustainability, and care quality benefits. Although the findings are not generalisable, they highlight the importance of evidence-based clinical decision-making and the nurse's role in promoting health literacy.

Palavras-chave: Umbilical granuloma, Newborn care, Common salt treatment, Sustainable healthcare

(28296)

TELEWORK-BASED ANTENATAL AND CHILDBIRTH EDUCATION PROGRAM

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Introdution: Online antenatal program is an educacional program developed by Centro Materno Infantil do Norte. In 2021 we presented a telework project to our Institution innovation team. After being approved, we started this telehealth program in March of 2024.

The program covers various topics in 4 sessions, such as physiological changes, physical and emotional well-being during pregnancy, prenatal and postnatal care, information on labour and birth options, newborn care, and breastfeeding. The content was presented synchronously sessions in a closed group.

The pregnant women were informed about the childbirth program during the midwife/ doctor appointment of surveillance of the pregnancy. They did the registration with the secretary and started the program at the adequate gestacional age.

Methods: This a longitudinal study with 235 pregnant women, from March to December of 2024. Data was collected during pregnancy and 2 months after the end of each online antenatal program and the satisfaction inquiries were filled by the pregnant women online, after the end od the program. Primary outcomes include presence in the session, institution were the labour occurred and women satisfaction.

Results: From the total of women registered in the program, 79% were present in the program, 48% of those assisted the whole program.

The women present in the program: 58% of women were primiparous, 4% had twin pregnancies and 89% of the births occurred in CMIN.

The satisfaction inquiry was responded by 232 pregnant women, of those: 99% responded that the course was what they expected, 87% that had enough information from the program, 95% responded that their doubts were responded, 96% that the duration was adequate, 99% would recommend this course and 95% graded the quality of the program the maximum result.

Conclusions: The overall satisfaction with the course had a positive result and the majority of the women had the child were they did the online antenatal program.

Palavras-chave: antenatal education, online courses

(28329) - NUNSING CARE FOR WOMEN AND 30 DAYS HOSPITAL READMISSIONS- AN EXPLORATORY STUDY

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Introduction: Guaranteeing quality in the provision of health care in a context where resources are limited, where innovation in health is growing, in the face of an elderly population with more chronic diseases and more demands in terms of care needs, is a huge challenge for health systems. Maximizing efficiency in resource management is therefore a fundamental requirement in promoting the sustainability of health services. Hospital readmissions within 30 days are one of the indicators used globally to measure the quality of care, since they have a negative impact on patient safety. This study aims to characterize the nursing care needs of women readmitted to women's health services.

Methods: This is an exploratory, retrospective, quantitative and descriptive study using data from nursing records relating to admissions associated with women's health between 1 June 2021 and 1 June 2023.

Results: 64, 30-day readmissions were identified. The maximum number of hospitalizations was 2. Hospital stays ranged from 1 to 39 days. The majority of readmissions came from the emergency department and obstetrics. There was great variability in the nursing needs identified, with blood loss, commitment to breastfeeding, the potential to breastfeed and the potential to improve knowledge about the prevention of surgical wound complications standing out as the most frequently documented nursing diagnoses.

Discussion: Identifying the nursing care needs of people who are readmitted makes it possible to understand what care needs to be improved in the first episode of hospitalization. Of the results obtained, the diagnoses associated with the potential to improve knowledge and ability stand out. These results are in line with the literature and demonstrate the importance of health education and training in preparation for discharge in preventing hospital readmissions. It can therefore be concluded that preventing hospital readmissions is an important strategy that promotes not only the quality of care but also the sustainability of the health system.

Palavras-chave: nursing care, Hospital readmissions, women's health services

(28333) INFORMATION SYSTEMS AND SUSTAINABILITY - A PAPERLESS HOSPITAL

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Introduction: The dematerialisation of paper in healthcare institutions represents a fundamental step towards modernising services, with a direct impact on improving operational and administrative efficiency and promoting environmental sustainability.

Method: This quantitative, descriptive and longitudinal study describes how a Local Health Unit (ULS) in northern Portugal adapted the paper dematerialisation process. This process, which began in 2015, directly involved the Nursing Information Systems Working Group, which contributed to adapting workflows without using physical clinical and administrative documents.

This paper analyses the main stages of dematerialisation, which included mapping the information flows and forms used by the different teams of healthcare professionals, mapping processes and circuits, digitising clinical processes and optimising clinical and administrative information systems, training employees and adapting internal procedures.

Despite the benefits, the transition has faced and continues to face various constraints, such as resistance to change on the part of professionals, initial investment costs in technology, the need to guarantee data security and confidentiality, as well as challenges in interoperability between systems. The results show that, although challenging, the dematerialisation process can be successful when supported by a clear institutional policy, committed leadership and sustained investment in infrastructure and training.

This paper will also share the example of a ULSSA inpatient service which, since February 2025, has dematerialised the paper-based clinical process, presenting the operationalisation of this process and the main constraints, as well as resolution strategies.

The conclusion is that although document dematerialisation brings significant gains, its success depends on a strategic approach, with institutional involvement, ongoing technical support and well-defined information management policies, always with the main objective of a safe and sustainable hospital.

Palavras-chave: gtsie

(28340) - VARIABLES RELATED TO MOTHERS' SENSE OF COMPETENCE IN CARING FOR THEIR NEWBORNS

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Introduction: Becoming a mother is a very complex process, it is a critical event that entails several changes, requiring the reorganization of the individual, family and social structure, redefining roles which can be demanding and involves the development of essential parental skills. It is in this sense that the concept of parental competence arises, which will determine the practices related to the care provided to the newborn (Nunes & Ayala-Nunes, 2016). Mastering parental skills influences how each parent interprets their own behavior as well as their child's behavior. According to Caetano, Mendes & Rebelo (2018), the higher the level of competencies and abilities of parents, the greater the likelihood of being able to create an environment conducive to a healthy development and to be aware of their children's needs.The acquisition of knowledge and skills related to the demands of the newborn will promote the subsequent improvement of confidence, satisfaction and mastery in the performance of this role. Thus, the acquisition of competencies that help this process should be one of the major interventions of nurses who specialize in maternal and obstetric health.

Aim: To analyze the influence of sociodemographic, obstetric and newborn feeding variables on maternal perception of competence in newborn care.

Methods: Descriptive cross-sectional study was conducted in three Portuguese hospital units, with a non-probabilistic sample composed of 352 women recruited at postnatal wards on the day of hospital discharge.A questionnaire including the mother's sociodemographic characteristics, obstetric and newborn feeding data was applied in order to obtain the needed data. For the analysis of maternal perception of competence in newborn care we used the Maternal Self-Perception Scale of Competencies in the Care of Term Newborns (Mendes & Santos, 2009). Descriptive and inferential statistics were used for data analysis.

Results and Discussion: Significant differences on maternal perception of competencies in newborn care were found concerning parity and newborn feeding, with multiparous women, and women who bottle fed presenting higher levels of self-perception of competencies in the care of the newborn.The results suggest that primiparous women and those who breastfeed are the ones who would benefit from differentiated care, leading to the desired increment of the perception of competence in the care they provide to the newborn.

Palavras-chave: Maternal Skills; Postnatal Care; Newborn care; Breastfeeding

(28282) - BREASTFEEDING: THE MOST SUSTAINABLE CHOICE IN THE PERIOPERATIVE CONTEXT

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Introduction: Breastfeeding is a key resource in reducing environmental impact. In addition to its well-known benefits for maternal and infant health and emotional bonding, it avoids waste related to formula production. In disaster scenarios, breastfeeding promotes resilience, is accessible to all social classes, and supports more sustainable consumption patterns (Mohapatra & Samantaray, 2023). Institutional support is essential to establish breastfeeding as the best and most sustainable choice, with clear healthcare benefits (Smith et al., 2024).

Cesarean sections are associated with delayed breastfeeding initiation and shorter exclusive breastfeeding duration. Contributing factors include postoperative pain, type of anesthesia, early formula supplementation, and lack of information about lactation and bonding (Li et al., 2021). In this scenario, the perioperative nurse plays a key role as an educator, promoting skin-to-skin contact, structured counseling, and the creation of "baby-friendly" hospital environments (Li et al., 2021).

Methods: This is a Scoping Review conducted according to Joanna Briggs Institute guidelines. Searches were performed in EBSCO, PubMed, and RCAAP databases, supplemented by documents from the Directorate-General of Health and the World Health Organization regarding the relevance of breastfeeding in the perioperative context of cesarean delivery.

Results: Evidence indicates that breastfeeding is the most sustainable practice (Bai & Alsaidi, 2023), acting as a valuable tool for improving the quality of perioperative nursing care for women undergoing cesarean section. Systematized information in educational processes supports better understanding of perioperative breastfeeding. According to Li et al. (2021), breastfeeding-friendly environments and personalized support can improve social sustainability and breastfeeding continuity.

Discussion: The role of the perioperative nurse is dynamic and involves knowledge and skills related to breastfeeding and bonding within the broader scope of sustainability, which remains a challenge in healthcare. Research findings highlight the need for further evidence to support new strategies linking breastfeeding promotion to environmental management (Bai & Alsaidi, 2023).

Palavras-chave: perioperative, breastfeeding, environmental sustainability, c-section

(28316)

INTEGRATION OF SUSTAINABLE PRACTICES IN NEONATAL CARE: THE DECISIVE ROLE OF ARTIFICIAL INTELLIGENCE

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Introduction: The integration of sustainable practices in neonatal care is essential for promoting a healthy hospital environment and reducing environmental impact. The inclusion of Artificial Intelligence (AI) in this context offers opportunities to optimise resources, improve care quality, minimise waste, and promote practices that enhance sustainability in the healthcare sector. Investment in sustainable technologies, along with continuous education of healthcare professionals and the application of AI, can provide a safer and more efficient environment in neonatal services. This study aims to explore the contribution of Artificial Intelligence (AI) in promoting sustainable practices in neonatal care.

Methods: Integrative review of scientific literature through searches in electronic databases PubMed and CINAHL. Inclusion criteria were studies published between 2017-2025, available in full text, in Portuguese, Spanish, and English.

Results/Discussion: The integration of sustainable practices in neonatal care has gained prominence, with Artificial Intelligence (AI) playing an increasingly relevant role. Proper waste management, energy efficiency, and the use of reusable materials contribute to a greener and healthier hospital environment. Additionally, digital health innovation projects have demonstrated how AI can contribute to more personalised, efficient, and eco-friendly care. The use of predictive algorithms allows for improved monitoring of newborns, reducing unnecessary interventions and optimising resources. However, the adoption of AI raises ethical and regulatory challenges regarding data privacy and the need for clinical oversight, as well as the cost and accessibility of advanced technologies and the need for continuous education/training of the healthcare team. Thus, AI proves to be a promising ally in promoting sustainability in neonatal care, provided it is integrated consciously and based on scientific evidence.

Conclusion: The combination of sustainable practices with advanced technology such as AI can significantly improve neonatal care, promoting sustainable practices, enhancing clinical outcomes, and optimising resources. However, it is crucial to address AI regulatory challenges and training to ensure effective and ethical implementation.

Palavras-chave: Sustainable Development; Neonatology; Artificial Intelligence

(28312)

BETWEEN RECIPES AND RECOVERIES: NURSING INTERVENTIONS IN THE COOLINÁRIA PROJECT FOR ADOLESCENTS WITH EATING DISORDERS

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Introduction: Anorexia nervosa is a severe mental health disorder with significant physical and psychosocial impacts, particularly in adolescents. Innovative, person-centered nursing interventions can facilitate recovery by promoting self-care skills, emotional regulation, and healthy eating behaviors.

Case Report: Inês F., a 17-year-old female student, was referred to child psychiatry after a 9-kg weight loss in 6 months, restrictive eating behaviors, excessive physical activity, and progressive social withdrawal. Diagnosed with restrictive-type anorexia nervosa (DSM-5 criteria), she presented an initial BMI of 16.2 kg/m² and secondary amenorrhea. The nursing assessment identified a disturbed body image, nutritional risk, low situational self-esteem, and a deficit in knowledge about balanced nutrition. Within the Coolinária therapeutic project, nursing interventions included weekly non-invasive weight monitoring, emotional and nutritional assessment, therapeutic contracts, promotion of positive body image, and family-involved nutritional education through practical cooking sessions. After three months, Inês achieved a BMI of 18.4 kg/m², showed reduced compensatory behaviors, improved body acceptance and self-esteem, and reintegrated into social and school activities.

Discussion: The Coolinária Project demonstrated that nursing interventions rooted in practical education, family engagement, and positive reinforcement strategies significantly contribute to the recovery of adolescents with eating disorders. Nursing played a pivotal role in restoring physical health, rebuilding emotional resilience, and re establishing a healthy relationship with food, highlighting the importance of integrated, innovative approaches in mental health care.

Palavras-chave: Anorexia Nervosa; Adolescent Health; Nursing Interventions; Therapeutic Cooking; Self-care Promotion.

(28344)

A UTILIZAÇÃO DA LISTA DE VERIFICAÇÃO DA SEGURANÇA CIRÚRGICA NA COMUNICAÇÃO NO INTRAOPERATÓRIO

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Introdução: A comunicação é uma componente essencial na prestação de cuidados cirúrgicos de qualidade. A Lista de Verificação de Segurança Cirúrgica tem sido amplamente promovida como ferramenta crítica para reduzir eventos adversos e melhorar a comunicação intraoperatória. Esta medida integra o Plano de Ação Global para a Segurança do Doente 2021–2030 (WHO, 2021).

O objetivo deste trabalho é analisar o impacto da utilização da Lista de Verificação de Segurança Cirúrgica da OMS na comunicação intraoperatória, destacando a sua eficácia na redução de eventos adversos e na promoção de uma cultura de segurança, bem como o papel fundamental do enfermeiro especialista em enfermagem perioperatória na sua implementação e dinamização.

Metodologia: Realizada uma revisão narrativa da literatura entre 2019 e 2024, com pesquisa nas bases de dados PubMed, Scopus e Web of Science. Utilizados os descritores: "Surgical Safety Checklist", "Communication in Surgery", "Perioperative Nursing", "Patient Safety" e "Checklist Implementation". Critérios de inclusão: artigos originais e revisões sistemáticas em texto integral, publicados em inglês ou português, que abordassem a eficácia da Lista de Verificação, barreiras à sua implementação e o papel do enfermeiro especialista em enfermagem perioperatória.

Resultados A literatura analisada demonstra que a utilização da lista de verificação melhora significativamente a comunicação entre os membros da equipa cirúrgica, com reduções comprovadas em eventos adversos até 36% (Haynes et al., 2020; Weiser et al., 2023). Promove uma cultura de segurança, fortalece o trabalho em equipa e reforça a responsabilidade partilhada (WHO, 2021). Estudos identificaram barreiras persistentes à sua implementação, tais como hierarquia rígida entre os membros da equipa, resistência à mudança, ausência de formação específica e a perceção de que a lista é uma tarefa burocrática (Abebe et al., 2022). Verificou-se que o sucesso da lista está diretamente relacionado com a perceção de utilidade por parte da equipa e o envolvimento da liderança local (Sousa et al., 2023).

Discussão: A revisão da literatura confirma que a comunicação eficaz promovida pela lista de verificação só é alcançada quando esta é incorporada como parte integrante da cultura de segurança institucional (Haynes et al., 2020; Weiser et al., 2023). O papel do enfermeiro especialista em enfermagem perioperatória destaca-se como essencial, pois é frequentemente este profissional que lidera a aplicação da lista, assegura o cumprimento dos tempos e promove um ambiente colaborativo e de respeito mútuo (Sousa et al., 2023). A lista de verificação, quando utilizada como instrumento de melhoria contínua, é um exemplo de como intervenções simples podem gerar ganhos em saúde, segurança e eficiência dos cuidados.

Conclusão: A Lista de Verificação de Segurança Cirúrgica é uma ferramenta essencial na promoção da comunicação intraoperatória, com impacto comprovado na redução de eventos adversos e melhoria da cultura de segurança. A sua implementação eficaz requer o envolvimento ativo de toda a equipa, com particular destaque para o papel do enfermeiro especialista em enfermagem perioperatória.

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Palavras-chave: Comunicação; enfermagem intra-operatórias; cirurgia segura; segurança

(28313)

LOW-LEVEL LASER THERAPY: A SUSTAINABLE INTERVENTION IN BREASTFEEDING SUPPORT

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Introduction: Breastfeeding, in addition to its numerous health benefits for both mother and baby, also contributes to environmental sustainability. Despite this, many women stop breastfeeding due to the pain caused by nipple fissures. Low-Level Laser Therapy (LLLT) has proven to be an effective alternative for pain relief, inflammation control, and rapid healing of lesions.

Objective: Understand whether Low-Level Laser Therapy (LLLT) could be a sustainable solution for maintaining breastfeeding, as it reduces pain and promotes faster healing of nipple fissures.

Methods: Narrative literature review including publications in Portuguese and English from 2016 to 2025, using the databases PubMed, CINAHL, and Google Scholar.

Results: LLLT demonstrated effective pain relief in cases of nipple fissures; however, a single treatment session was found to be insufficient for achieving significant results. It accelerated the healing process of the fissures and facilitated continued breastfeeding. LLLT supported exclusive breastfeeding, with only a few women temporarily supplementing with formula. When performed by trained professionals who also corrected the baby's latch, significant improvements were observed. In some cases, mild side effects such as 'tingling and burning sensations' were reported, making it a safe procedure when conducted by qualified professionals.

Discussion: LLLT has proven to be an innovative and effective technology for relieving pain and promoting the healing of nipple fissures, as a result, enabling exclusive breastfeeding. Studies indicate that benefits are observed after just a few sessions, making it a safe, non-invasive, and easily administered technique when performed by trained professionals. However, despite the promising results, further clinical trials with larger sample sizes are needed to validate and standardize its use. Treatment effectiveness may also depend on breastfeeding support, particularly in correcting underlying issues such as poor latch. When integrated into nursing care, LLLT can significantly enhance maternal and infant health outcomes and contribute to environmental sustainability by reducing the need for formula and disposable products.

Palavras-chave: nipple pain, low-level laser therapy, breastfeeding

(28278)

SUSTAINABILITY IN THE WOMEN'S AND CHILDREN'S OPERATING ROOM / THE ROLE OF THE PERIOPERATIVE NURSE

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Introduction: The topic of sustainability is currently one of the major global concerns. The main challenge is to control pollution and the scarcity of natural resources. The United Nations General Assembly defined 17 goals, which include a focus on sustainability in health in the 3rd goal, proposing a change of attitudes towards a fairer, more dignified, inclusive, and sustainable world (UN, 2018). In Portugal, the Ministry of Health issued a sustainability program through Dispatch No. 10473/2022, aiming for carbon neutrality by 2050. ULS Santo António, sensitive to this concern and because within health institutions, the operating room is the service that most contributes to the carbon footprint, developed the ROSE-Environment project, Sustainability of the Operating Room.

The Women's and Children's Operating Room is no exception. It represents a highly specialized care unit with great diversity and surgical complexity in Obstetrics/Gynecology and Pediatrics, producing daily high amounts of waste and consuming natural resources. The perioperative nurse plays a key role in identifying main needs, barriers, and implementing sustainable practices without compromising access and quality of care provided to patients today and tomorrow. In short, they are the driving force behind a strategic project, not only at the operating room level but for the entire hospital organization.

Methods: A structured questionnaire will be distributed to the nursing team of the Women's and Children's Operating Room, aiming to identify their knowledge, current practices, main needs, barriers, and suggestions for improvement. Bibliographic research based on reference data will also be conducted.

Results: Results will be based on analyzing the responses from perioperative nurses, identifying current knowledge, practices, barriers, and suggestions for improvement to promote sustainability in the Women's and Children's Operating Room. The final data will be presented in the work's presentation.

Discussion: We hope that this work will provide data to quantify and qualify the team's level of knowledge about sustainability, the good practices already implemented at the institutional level (ROSE), and critical areas for improvement. A plan for improvement will be proposed, promoting measures/behaviors that result in less environmental impact while maintaining the quality and quantity of care provided, with minimal financial impact on the hospital. This plan will always be based on strategic processes advised by authors like Hutchins and White (2009), with the "5 R's" approach: Reduce (using fewer resources), Recycle, Reuse, Rethink, and Research (Research), and more recently, the 8 "R's": Responsible, Repair, and Refuse.

- Reduce energy, water, waste, and volatile anesthetics consumption;
- Recycle through waste optimization;
- Reuse, disposable versus reusable, and life cycle assessment;
- Rethink – Awareness;
- Research (Research), activities for research and improvement of environmental practices;
- Responsible – Involving leadership and all stakeholders;
- Repair instead of buying new; Refuse everything unnecessary.

Palavras-chave: Sustentability and OR and Nurse

(28318)

DIGITAL SYSTEMS AND NEW TECHNOLOGIES IN ASSESSING SATISFACTION – QR CODE A CHALLENGE FOR SUSTAINABILITY AND INNOVATION IN OUTPATIENT SURGERY CARE

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Introduction: Sustainability in healthcare requires the adoption of innovative practices that reduce waste without compromising the quality of care. Pediatric outpatient surgery is an ideal setting to apply digital solutions that promote efficiency and parental involvement. This project aimed to integrate a parental satisfaction assessment system through QR Code, as a sustainable alternative to the traditional paper model. The number of outpatient surgeries has increased over the years. In 2023, 725 children/adolescents were admitted for outpatient surgery, in 2024 777 children/adolescents and until April 30, 2025 265 children/ adolescents.

Objective: To assess the feasibility, acceptance and impact of implementing QR Codes in parental education and collecting feedback in the postoperative period in an outpatient surgery setting.

Methodology: Experimental study conducted over two months in a pediatric surgical outpatient clinic. At discharge, 45 families received a QR Code with access to educational videos on postoperative care and a digital satisfaction form. Adherence rates, ease of use and general satisfaction were analyzed. The questionnaire addressed topics regarding the physical space of the surgical outpatient clinic, care provided by the multidisciplinary team of the surgical outpatient clinic, as well as the information provided in the pre- and postoperative periods. RESULTS: The response rate was 80%. Most caregivers classified the information on completing the QR Code as clear (90%), and access via QR Code as easy (90%). Overall satisfaction with the follow-up was classified as completely satisfied by 90% of participants. A reduction of approximately 150 printed pages is estimated. Positive comments highlighted the usefulness of having information available at home.

Conclusion: The implementation of QR Codes proved to be a simple, effective and sustainable strategy, enhancing parental empowerment. It improves continuity of care and reduces the environmental impact of the service. This model represents a significant step towards the modernization and sustainability of pediatric health systems. However, some difficulties and constraints were encountered: families have more difficulty in dealing with new technologies, the database of responses obtained and the guarantee of confidentiality.

Palavras-chave: Sustainability, digital technologies, nursing, pediatric surgery, outpatient clinic, QR Code, satisfaction assessment

(28286)

NASAL IRRIGATION IN PEDIATRICS: A SUSTAINABLE APPROACH FOR PREVENTING RESPIRATORY INFECTIONS

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Introduction: Nasal irrigation is a well-established method for pediatric respiratory hygiene, helping relieve nasal congestion, remove secretions, and prevent upper respiratory infections. This review assesses the efficacy, safety, and sustainability of nasal irrigation in children. Despite its use, few studies examine its economic, environmental, and social impact in pediatrics. This study addresses that gap by highlighting nasal irrigation as a sustainable healthcare intervention.

Methods: This is a cross-sectional analytical study using economic-environmental modeling. Though it does not include primary data collection, it uses robust quantitative analysis to simulate the impact of nasal irrigation practices—comparing reusable kits with saline solution to disposable sprays for children aged 0–3. A realistic simulation of daily hygiene was performed, covering both regular and illness days. Broader sustainability impacts were assessed, including healthcare savings and reduced medication needs.

Results: Nasal irrigation effectively reduces nasal congestion and respiratory infections in children aged 0–3. Saline use improves airflow and reduces decongestant needs. Incorrect use may lead to issues like middle ear infections. Reusable kits are significantly more cost-effective, costing ~229 € over three years, versus 2,190€ for disposables. Reusables also generate less waste: 7.6 kg vs. 32.9 kg.

Discussion: Nasal irrigation supports sustainable public health by reducing infections, antibiotic use, and healthcare demand. Economically, reusable kits save families and health systems money. Environmentally, they reduce plastic waste compared to disposable sprays. Proper caregiver education ensures safe and effective use, promoting autonomy and sustainable habits.

Conclusion: Nasal irrigation with reusable kits is a cost-effective, eco-friendly, and preventive measure in pediatric care. It aligns with public health sustainability goals and empowers caregivers through education. Further research is needed to standardize use and assess long-term impact.

Palavras-chave: Nasal irrigation, Pediatrics, Respiratory infections, Sustainable healthcare

ENFERMAGEM

POSTERS

(28264)

NOISE IN THE OPERATING ROOM

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Introduction: Noise in the operating room has a negative impact on patient safety and on the well-being of healthcare professionals. Intraoperative noise causes distractions, disrupts task performance, and increases the feeling of physical and mental fatigue. Effective multidisciplinary teamwork is necessary to reduce noise in the surgical environment.

Objectives: To recognize noise as a risk to communication in the workplace, to develop knowledge about this issue, and to adopt strategies for minimizing noise.

Methodology: Literature review using reference databases.

Discussion: The literature shows that noise levels in the operating room can hinder communication between professionals, create distractions during critical moments, affect the performance of complex tasks, cause adverse psychological changes, and negatively impact efficiency — for example, impairing the ability to detect changes in pulse oximeter readings. We are aware that equipment generates noise. The multiplicity of alarms and system alerts may cause healthcare professionals to become desensitized to noise, potentially missing or ignoring notifications that could harm patients. Music is a controversial topic; although it can help some professionals relax, some researchers believe it is an unnecessary distraction that hinders communication, impairs concentration, and increases stress. The number of people present in the operating room also contributes to noise, which is sometimes unnecessary. However, the most common distraction is the entry of people into the operating room. Door movement distracts the circulating nurse, who is responsible for monitoring staff entries and exits, documenting procedures, maintaining the sterile field, and protecting patient privacy. Therefore, perioperative nurses should apply certain measures to minimize the impact of distractions and noise in operating rooms, such as: lowering the volume of devices, minimizing unnecessary conversations, identifying critical phases of care, among others. Furthermore, nurse managers should implement policies, promote education, and introduce practical interventions to effectively manage the challenge of reducing noise, incorporating an interdisciplinary approach and empowering professionals to work in a safer environment.

Conclusion: Noise in the operating room hinders communication. While most OR machines are essential for patient safety, other sounds that regularly occur in the room are not. Therefore, to minimize errors and associated risks, we must implement measures to reduce intraoperative noise

Palavras-chave: noise AND (operating room or operating theatre or surgery) AND nurs*

(28277)

EXPLORING THE CONTRIBUTION OF BREASTFEEDING TO SUSTAINABLE DEVELOPMENT GOALS: A NARRATIVE SYNTHESIS

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Introduction: Breastfeeding is a critical first step on a child's path to a healthy future. It is also a critical element of worldwide development efforts to create a more prosperous and sustainable planet. Therefore, it is a central part of the 2030 Agenda for Sustainable Development.

Methods: Our aim is to analyze each of the Sustainable Development Goals (SDGs) and interpret how breastfeeding can contribute to their implementation. We undertook a narrative review to synthesize information from existing research and policy documents and draw connections between breastfeeding and the SDGs.

Results: SDGs 1 ("No Poverty"), 8 ("Decent Work and Economic Growth") and 10 ("Reduced Inequalities"): Breastfeeding is associated with additional income to the world economy – nearly 0.5 per cent of world gross national industry; Supporting breastfeeding in fragile and humanitarian contexts is essential for children and women who are affected by conflict, disasters and other emergencies.

SDGs 2 ("Zero Hunger") and 3 ("Good Health and Well-being"): Breastmilk is a vital source of nutrition that can save children's lives and contribute to improved health outcomes for children and mothers: reducing under-five mortality, lower rates of infectious disease and obesity; Breastfeeding is associated with a reduction of women's risk of diabetes, breast and ovarian cancer.

SDG 4 ("Quality Education"): The association between breastfeeding and higher IQs and educational attainment can help achieve global learning targets.

SDG 5 ("Gender Equality"): Breastfeeding is linked to critical equality issues including maternity leave and workplace rights; Providing increased support and resources for breastfeeding will allow women to do the best for themselves, their babies and their families while playing an active role in the workforce and fulfilling their potential.

SDG 12 ("Responsible Consumption and Production"): Breastmilk is natural and renewable, does not require industry for production and is created and consumed with a minimal ecological footprint; In contrast, breastmilk substitutes need energy and resources to manufacture, distribute and prepare.

Conclusion: Breastfeeding can help achieve many of the 17 SDGs, including goals on poverty, hunger, health, education, gender equality and sustainable consumption. As national governments throughout the world develop budgets and action plans to achieve the SDGs, breastfeeding should be a priority.

Palavras-chave: Breastfeeding, Sustainable Development

(28279)

SUSTAINABILITY IN THE WOMEN'S AND CHILDREN'S OPERATING ROOM / THE ROLE OF THE PERIOPERATIVE NURSE

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Introduction: The topic of sustainability is currently one of the major global concerns. The main challenge is to control pollution and the scarcity of natural resources. The United Nations General Assembly defined 17 goals, which include a focus on sustainability in health in the 3rd goal, proposing a change of attitudes towards a fairer, more dignified, inclusive, and sustainable world (UN, 2018). In Portugal, the Ministry of Health issued a sustainability program through Dispatch No. 10473/2022, aiming for carbon neutrality by 2050. ULS Santo António, sensitive to this concern and because within health institutions, the operating room is the service that most contributes to the carbon footprint, developed the ROSE-Environment project, Sustainability of the Operating Room.

The Women's and Children's Operating Room is no exception. It represents a highly specialized care unit with great diversity and surgical complexity in Obstetrics/Gynecology and Pediatrics, producing daily high amounts of waste and consuming natural resources. The perioperative nurse plays a key role in identifying main needs, barriers, and implementing sustainable practices without compromising access and quality of care provided to patients today and tomorrow. In short, they are the driving force behind a strategic project, not only at the operating room level but for the entire hospital organization.

Methods: A structured questionnaire will be distributed to the nursing team of the Women's and Children's Operating Room, aiming to identify their knowledge, current practices, main needs, barriers, and suggestions for improvement. Bibliographic research based on reference data will also be conducted.

Results: Results will be based on analyzing the responses from perioperative nurses, identifying current knowledge, practices, barriers, and suggestions for improvement to promote sustainability in the Women's and Children's Operating Room.

The final data will be presented in the work's presentation.

Discussion: We hope that this work will provide data to quantify and qualify the team's level of knowledge about sustainability, the good practices already implemented at the institutional level (ROSE), and critical areas for improvement. A plan for improvement will be proposed, promoting measures/behaviors that result in less environmental impact while maintaining the quality and quantity of care provided, with minimal financial impact on the hospital.

This plan will always be based on strategic processes advised by authors like Hutchins and White (2009), with the "5 R's" approach: Reduce (using fewer resources), Recycle, Reuse, Rethink, and Research (Research), and more recently, the 8 "R's": Responsible, Repair, and Refuse.

- Reduce energy, water, waste, and volatile anesthetics consumption;
- Recycle through waste optimization;
- Reuse, disposable versus reusable, and life cycle assessment;
- Rethink – Awareness;
- Research (Research), activities for research and improvement of environmental practices;
- Responsible – Involving leadership and all stakeholders;
- Repair instead of buying new; Refuse everything unnecessary.

Palavras-chave : Sustentability and OR and Nurse

(28280)

SURGICAL SMOKE IN OPERATING ROOM

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Healthcare professionals, due to the specificity of their roles, are exposed to numerous risks in their workplaces. Continuous exposure to surgical smoke present in operating rooms is considered, by various organizations, a professional risk, highlighting the need to implement awareness programs and procedures to minimize and/or prevent this risk.

Objectives: To recognize surgical smoke as a present risk in the work environment, develop knowledge on the subject, and adopt strategies for managing toxic smoke/gases in the Operating Room..

Methodology: Literature research in reference databases.

Discussion: Surgical smoke results from the application of electrical energy to tissue. Its vaporization produces surgical smoke, which is visible and has an unpleasant odor., We know it contains about 150 chemical products, such as toxic gaseous components, biological risk aerosols, live and dead cellular material, blood, and viruses, which can have respiratory, dermatological, mutagenic, and even carcinogenic consequences, among others. Chronic exposure may also cause symptoms due to irritation of the respiratory tract, such as cough, asthma, bronchitis, and emphysema. The smoke is a theoretical risk associated with the aerosolization of the virus during electrosurgery.

Conclusion: Surgical smoke is a significant occupational risk for operating room professionals. Measures to reduce the risk of aerosol production during procedures should be implemented. Therefore, it is crucial for professionals to be aware of this issue, improve procedures, and adopt more responsible health behaviors.

Palavras-chave: Occupational Risks; Surgical Smoke, Management, Operating Room.

(28281)

ENVIRONMENTAL SUSTAINABILITY IN THE OPERATING ROOM

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Introduction: Sustainability in the operating room involves adopting practices that reduce environmental impact without compromising patient safety.

To achieve this, strategic processes are required to limit waste, known as the Six R's: Reduce, Recycle, Reuse, Rethink, Research, and Responsibility. It is crucial to raise awareness and foster attitudes that promote entrepreneurial solutions for sustainable practices.

Some important aspects include:

- Waste reduction: Implementing recycling programs, reducing improper use of materials, and safely reusing equipment when possible.
- Energy efficiency: Using LED lighting, efficient climate control, and turning off equipment when not in use.
- Responsible resource consumption: Reducing the use of disposable products and choosing sustainable materials.
- Anesthetic gas management: Reducing the use of anesthetic gases by opting for intravenous medications.
- Use of biodegradable products: Preference for materials that have a lower environmental impact when discarded.
- Encouraging the production of medical equipment and hospital materials based on circular economy principles, such as durability, ease of repair, and recyclability at the end of their lifecycle.

Objectives: The objectives for improving environmental performance in healthcare settings, particularly in Operating Rooms, are:

· Identifying critical areas susceptible to improvement actions;
· Proposing an improvement plan in sustainable environmental management;
· Promoting recognition as an environmentally sustainable organization;
· Providing better cost management with a focus on reducing costs.

Methodology: Bibliographic research from reference databases.

Discussion: The topic of environmental sustainability is marked by concerns about the scarcity of natural resources, pollution, climate change, and their respective consequences on ecosystems. The aim is to meet the needs of the current generation without compromising the ability of future generations to meet their own needs. One of the largest contributors to environmental impact among healthcare organizations is hospitals.

The Operating Room, in particular, is characterized by its complexity and is a major consumer of resources, and consequently, a significant producer of hospital waste.

Hospital activities are complex and involve professionals from various specialties and treatments. With technological advancements, there is an increasing demand for modern devices that consume large amounts of water, energy, and fossil fuels, generating substantial quantities of waste.

Additionally, there has been an increase in the use of disposable materials. A key example of this change was the concern with the spread of blood-borne diseases and, more recently, the COVID-19 pandemic. These circumstances led to an intensification in replacing reusable devices with single-use devices, thus contributing to the increase in hospital waste production.

The circular economy applied to the operating room context refers to the practice of rethinking and reconfiguring the flow of materials and resources within this environment, with the goal of reducing waste and promoting the reuse of materials.

Conclusion: The Operating Room (OR), due to its high consumption of material resources and consequently significant production of waste, represents an area where efforts should be made to implement environmental sustainability practices.

To reduce waste in the operating room, some effective strategies include:

1. Efficient material management: Monitoring the use of consumables and optimizing surgical kits to avoid unnecessary opening of disposable materials.
2. Implementing a stock control system to prevent product expiration.
3. Prioritizing reprocessable materials whenever possible and properly sorting recyclable waste.
4. Reducing anesthetic waste by using efficient vaporizers and anesthetic techniques that minimize anesthetic gas consumption.
5. Rational use of energy and water: Using presence sensors for lighting and adjusting room temperatures as needed.

Training professionals on the environmental impact of hospital waste.

Palavras-chave: Environmental management, Environmental sustainability, Operating room, Hospital waste

(28283)

BREASTFEEDING: THE MOST SUSTAINABLE CHOICE IN THE PERIOPERATIVE CONTEXT

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Introduction: Breastfeeding is a key resource in reducing environmental impact. In addition to its well-known benefits for maternal and infant health and emotional bonding, it avoids waste related to formula production. In disaster scenarios, breastfeeding promotes resilience, is accessible to all social classes, and supports more sustainable consumption patterns (Mohapatra & Samantaray, 2023). Institutional support is essential to establish breastfeeding as the best and most sustainable choice, with clear healthcare benefits (Smith et al., 2024).

Cesarean sections are associated with delayed breastfeeding initiation and shorter exclusive breastfeeding duration. Contributing factors include postoperative pain, type of anesthesia, early formula supplementation, and lack of information about lactation and bonding (Li et al., 2021). In this scenario, the perioperative nurse plays a key role as an educator, promoting skin-to-skin contact, structured counseling, and the creation of "baby-friendly" hospital environments (Li et al., 2021).

Methods: This is a Scoping Review conducted according to Joanna Briggs Institute guidelines. Searches were performed in EBSCO, PubMed, and RCAAP databases, supplemented by documents from the Directorate-General of Health and the World Health Organization regarding the relevance of breastfeeding in the perioperative context of cesarean delivery.

Results: Evidence indicates that breastfeeding is the most sustainable practice (Bai & Alsaidi, 2023), acting as a valuable tool for improving the quality of perioperative nursing care for women undergoing cesarean section. Systematized information in educational processes supports better understanding of perioperative breastfeeding. According to Li et al. (2021), breastfeeding-friendly environments and personalized support can improve social sustainability and breastfeeding continuity.

Discussion: The role of the perioperative nurse is dynamic and involves knowledge and skills related to breastfeeding and bonding within the broader scope of sustainability, which remains a challenge in healthcare. Research findings highlight the need for further evidence to support new strategies linking breastfeeding promotion to environmental management (Bai & Alsaidi, 2023).

Palavras-chave: perioperative, breastfeeding, environmental sustainability, c-section

(28288)

SUSTAINABLE HUMAN RESOURCE MANAGEMENT IN HEALTHCARE: CHALLENGES AND STRATEGIES

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Introduction: Sustainability has emerged as a key strategy within contemporary hospital management practices. Healthcare organizations are increasingly pressured to adopt sustainable policies that reduce environmental impacts while maintaining the quality of patient care. A specific need has arisen for enhanced knowledge regarding sustainability, healthcare innovation, and their integration within management processes.

Methods: An exploratory research method was adopted, based on a review of the existing literature on the subject under study. Data collection was carried out through consultation of databases, namely PUBMED, RCAAP, and UptoDate. Grey literature was also consulted to identify and select academic articles, institutional reports, and guidelines issued by health organizations.

Results: The inclusion of sustainable practices in People Management is fundamental for ensuring service efficiency, staff satisfaction, and environmental protection. The literature review highlighted how the integration of sustainability with people management in hospital organizations led to multiple benefits: increased satisfaction among healthcare professionals in institutions committed to sustainable values; enhanced proactivity in problem solving; and a stronger focus on patient safety.Strategies for planning and developing sustainable policies and practices include: setting environmental objectives within strategic plans; promoting more equitable opportunities, safe work environments, and professional development opportunities; implementing regular educational programs; and providing incentives for research and investigation in the field of sustainability.

Discussion: The application of sustainability to people management in hospitals is a critical issue for organizational development. Integrating sustainable policies into people management is no longer optional but has become imperative for the success of healthcare institutions. However well being implementation projetcts still remain reduced within healthcare institutions. Futher research and applied initiatives are needed to support sustainble workforce pratices in the healh sector.

Palavras-chave: human resources, management, health care sustainability

(28289)

NURSING TELECONSULTATION IN PEDIATRICS: A MODEL FOR SUSTAINABILITY IN HEALTHCARE

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Introduction: The growing demand for sustainable practices in healthcare has led to the adoption of innovative and effective strategies aligned with sustainability principles. In line with the Sustainable Development Goals of the 2030 Agenda—particularly environmental sustainability, improved access to healthcare, and the promotion of effective institutions—nursing teleconsultation, especially in pediatrics emerges as a promising alternative focused on the well-being of children and adolescents.

Methods: A descriptive and retrospective study was conducted. A total of 840 autonomous nursing teleconsultations were analyzed at the pediatric outpatient service of CMIN, between January 2024 and April 2025. The distance in kilometers that children and their caregivers would have travelled for in-person consultations was estimated, alongside fuel savings and a projection of greenhouse gas emissions reduction.

Results: Nursing teleconsultation incorporates sustainable practices into healthcare systems, aligning innovation, environmental responsibility, and improved access to care, thus contributing to global sustainability challenges. The results showed significant fuel savings and a marked reduction in travel distances. This decrease translated into a reduction in the carbon footprint, contributing to the mitigation of climate change effects. Teleconsultations also help reduce caregivers' need for work leave, support the continuity of school attendance for children and adolescents, and eliminate the need to travel to hospital facilities, thereby reducing exposure to hospital environments and minimizing infection

Discussion: This flexible model of care delivery promotes energy and environmental sustainability by reducing fossil fuel consumption and encouraging sustainable practices within the healthcare sector. The current literature on this topic remains limited, highlighting its emerging nature and the need to increase scientific output—particularly through quantitative studies that can rigorously assess the associated potential benefits.

Palavras-chave: Nursing, Pediatrics, Teleconsultation, Sustainability, Environmental Health, Healthcare Innovation

(28297)

PREVALENCE OF SMOKING DURING PREGNANCY IMPORTANCE OF BRIEF INTERVENTION IN THE USF NURSING CONSULTATION

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1 USF Nascente

Introduction: The prevalence of smoking during pregnancy varies significantly depending on different countries or regions, with an European average of 8.1% and a national average of 10.9%. It is a public health problem and it is one of the main preventable risk factors for maternal-fetal complications, such as: spontaneous abortion, placental abruption, preterm birth, low birth weight, and sudden infant death syndrome. Studies show that children exposed to intrauterine tobacco are more likely to develop respiratory problems, attention deficit, and difficulties in neurocognitive development.

Brief intervention is a structured and low-cost approach, carried out in prenatal nursing consultations, including the assessment of smoking behavior, guidance on risks, identification of stimuli, emotional support, and cessation planning.

This research work aims to determine the prevalence of this problem in a Family Health Unit (USF) and the effectiveness of brief intervention in the nursing consultation.

Methodology: A cross-sectional descriptive observational study was conducted. The list of pregnant women registered at the USF between January and December 2024 was obtained from MIM@UF, and the clinical records of follow-up consultations were analyzed in SClínico® in relation to the number of cigarettes/day and the performance of brief intervention.

Results: Of the 122 pregnant women, 24 (19.7%) were smokers at the beginning of pregnancy.

Of these, 16 (66.7%) received brief intervention. At the end of pregnancy, 10 (62.5%) stopped smoking, 4 (25%) partially reduced their consumption and 2 (12.5%) maintained the same initial consumption.

The 8 pregnant women without brief intervention maintained their smoking pattern.

Discussion: Brief intervention in Maternal Health nursing consultations has proven to be effective in promoting smoking cessation, with 25% and 62.5% cessation or reduction in consumption, respectively. In contrast, 33.4% of pregnant women not covered by the brief intervention maintained their smoking pattern.

It is concluded that reinforcing the preventive and integrated approach in nursing consultations can be decisive in reducing smoking rates during pregnancy and promoting a healthy pregnancy.

In order to cover pregnant women who continued to smoke, USF nurses refer them to smoking cessation consultations.

Palavras-chave: Intervenção breve

(28324)

MANAGEMENT OF CRYING IN NEWBORNS/INFANTS: FACTORS AND CONSEQUENCES – A RAPID REVIEW

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Introduction: Crying is the primary mode of communication during the first months of life. The way parents interpret and manage their infant's crying plays a crucial role in child development. Parental self-efficacy perception is multifactorial. Inconsolable crying can negatively affect the health of the newborn or infant, as well as the well-being of the family. It can undermine parents' sense of competence, leading them to believe their child may be experiencing a health problem or even a life-threatening condition. Shaken baby syndrome is the leading cause of death related to child abuse in infancy. Given this context, what factors identified in the literature intensify the impact of newborn/infant crying on parenting, and what are the associated consequences?

Objective: To identify the factors that intensify the impact of newborn and infant crying on the parental experience, as well as the associated consequences.

Methodology: This review followed the Rapid Reviews Methods and was conducted using the reference databases Scopus and Web of Science, as well as the scientific content aggregator EBSCOhost Web (CINAHL Complete, MEDLINE Complete). No time restrictions were applied. The search strategy was guided by the PCC framework (Population, Concept, Context) and used MeSH Browser descriptors combined with the Boolean operators OR and AND. The search string used was: (Parent OR Mother OR Father OR Family) AND ("Comfort care" OR "Infant welfare") AND Crying AND (Baby OR Infant OR Neonate OR Newborn).

Pre-defined inclusion and exclusion criteria were applied. Articles were reviewed independently by two reviewers.

Results: A total of 25 articles were identified in EBSCOhost, 58 in Web of Science, and 22 in Scopus. Of the 105 studies retrieved, 21 duplicates and three articles without full-text access were excluded. After screening and applying the inclusion and exclusion criteria, 17 articles were deemed eligible for analysis. Three studies aimed to understand how social and cultural contexts, such as unemployment, living in urban areas, or residing in specific countries, affect the impact of newborn/infant crying on parents and their perception of self-efficacy. Regarding parental characteristics that negatively influence this impact, six studies highlighted factors such as unintended pregnancy, young maternal age, separated parents, and parental perception of excessive crying. As for child-related characteristics, two studies reported that inconsolable crying is more frequent amongst boys, first-borns, and non-breastfed infants. Shaken baby syndrome, the most severe consequence of inadequate management of inconsolable crying, was the focus of analysis in six of the reviewed articles.

Conclusions: Recognizing the factors that predispose parents to greater difficulty in managing infant crying can enhance their parental role and promote the well-being of both parents and children. Nursing interventions with these families can anticipate challenges and foster knowledge about newborn and infant communicative development, while also strengthening parental self efficacy in managing crying. This approach helps minimize parental stress and fear. Accepting crying and learning how to manage it can have a positive impact on bonding, the parent-child relationship, and ultimately, the healthy development of the newborn or infant.

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Palavras-chave: Crying; Infant wellbeing; Paediatric nursing, Parents

(28342)

STERILIZATION AND SUSTAINABILITY IN MATERNAL AND CHILD HEALTH: AN INTEGRATED APPROACH

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Maternal and child health heavily depends on safe infection prevention practices, in which the sterilization of medical devices and surgical materials plays a crucial role. However, the healthcare sector is also responsible for a significant share of the global ecological footprint, posing challenges to the sustainability of care delivery. Integrating sustainable practices into sterilization services, especially in maternal and child health contexts, is essential to ensure clinical safety, resource efficiency, and environmental responsibility.

Sterilization, particularly in obstetric operating rooms and neonatal units, requires high consumption of energy, water, and disposable packaging. Sustainable strategies include reassessing the use of single-use versus reusable medical devices, optimizing sterilizer loads, rational use of consumables, and adopting more efficient technologies. Implementing environmental management systems in sterilization centers helps reduce waste, control consumption, and promote environmental education among healthcare professionals. Furthermore, sustainability should be understood as an integral part of care quality. Promoting maternal and child health requires clean, safe, and sustainable environments, where good sterilization practices contribute to the prevention of puerperal and neonatal infections while minimizing environmental impact.

It is essential to empower healthcare teams with critical and ecological thinking, encouraging institutional policies that support circular economy principles, technological innovation, and responsible resource management. The alignment between patient safety and sustainability thus represents an opportunity to transform clinical practices into more resilient and eco-friendly models, contributing to more sustainable and equitable healthcare systems.

Objectives: explore the integration of sterilization practices with sustainable methods in maternal and child health settings.

Methodology: narrative review of the literature.

Palavras-chave: Sterilization, Sustainability, Maternal and Child Health, Patient Safety, Waste Management

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THE COLLECTIVE COMMITMENT TO SUSTAINABILITY AND ERGONOMICS IN NEONATAL INTENSIVE CARE UNIT

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Introduction: Sustainability in a hospital context is a broad concept that goes beyond environmental concerns, also encompassing the rational management of human and material resources. In neonatal care, the implementation of sustainable and ergonomic practices must simultaneously promote the health of hospitalised newborns, the physical, psychological, and emotional well-being of nurses, and the creation of safer, more functional, and humanised working environments. This study aims to analyse the impact of sustainable and ergonomic practices on nurses' well-being and the quality of care provided.

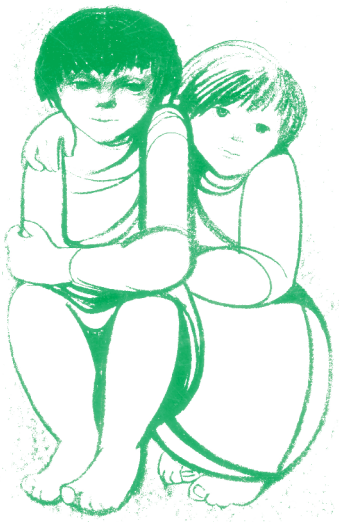
Methodology: This is a descriptive study based on an integrative review of scientific literature, using the PubMed, CINAHL, and B-On databases. Articles published between 2020 and 2025 in Portuguese, English, and Spanish were included.

Results and discussion: Scientific evidence shows that adopting sustainable practices, such as digitising nursing records, using reusable materials, and investing in energy efficiency, contributes to cost reduction, enhances the organisation of nursing work, and improves staff well-being. Ergonomics plays a crucial role in preventing musculoskeletal injuries and physical and mental fatigue, with recommendations including adjustable workspaces, easy access to incubators, and scheduled breaks. Environmental comfort, including temperature, noise, and lighting, directly impacts nurses' performance and the quality of care delivered. Effective measures include adequate air conditioning, acoustic control, adjustable lighting, and visual alarms. Although not widely implemented, the availability of rest areas or green spaces is strongly recommended due to its positive impact on stress reduction, prevention of burnout, and improvement of emotional well-being. The active involvement of nurses in decisions related to sustainability acts as a motivational factor and enhances the quality of nursing care.

Conclusion: Integrating sustainable and ergonomic practices into neonatal services is essential for promoting more humanised and efficient care. Sustainability should be understood as a collective

commitment that values the environment, the newborn, and the nurse, representing an investment in the quality and safety of the care provided.

Palavras-chave: neonatology, Ergonomics, Nurse, Program sustainability



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