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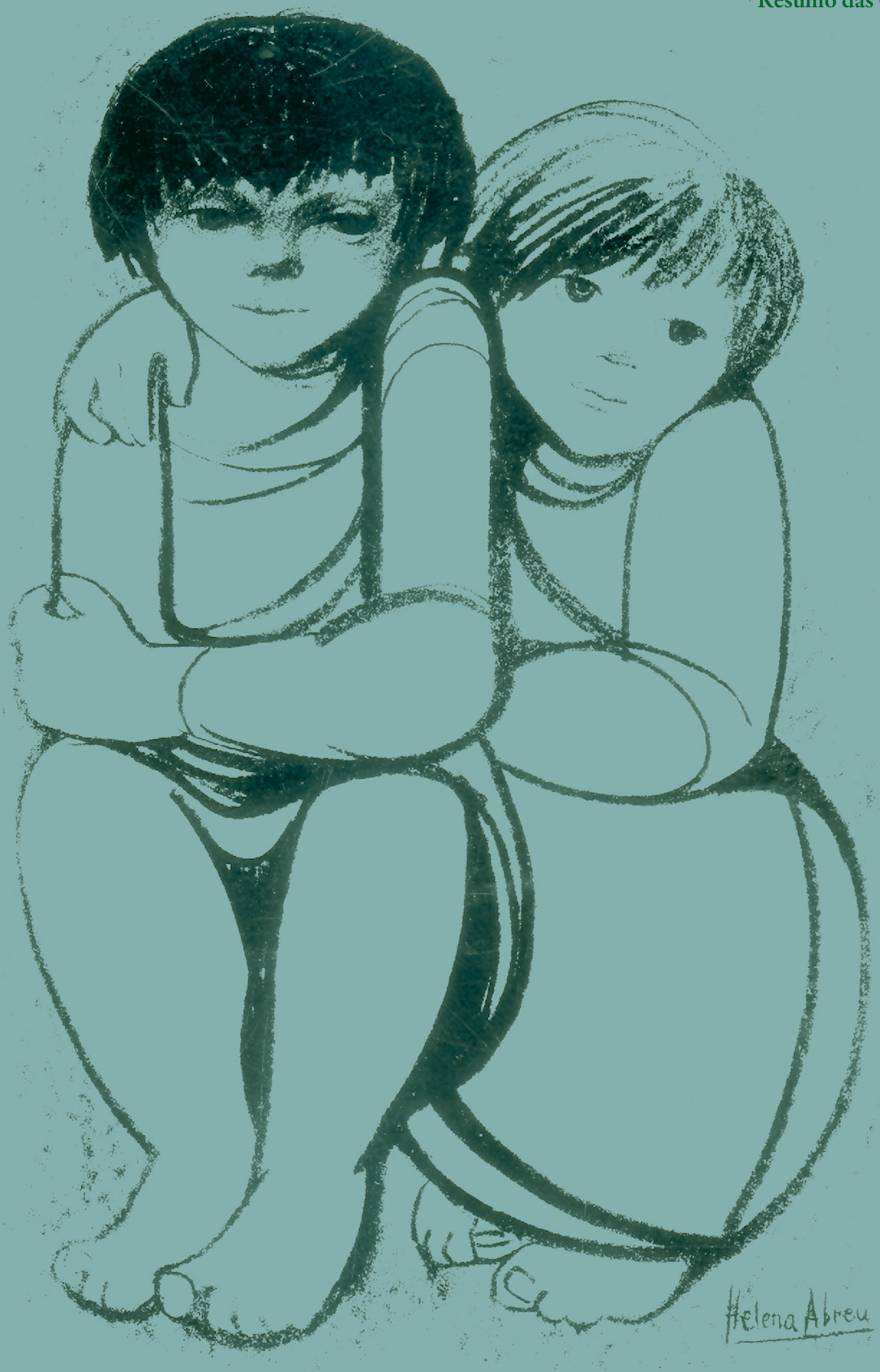
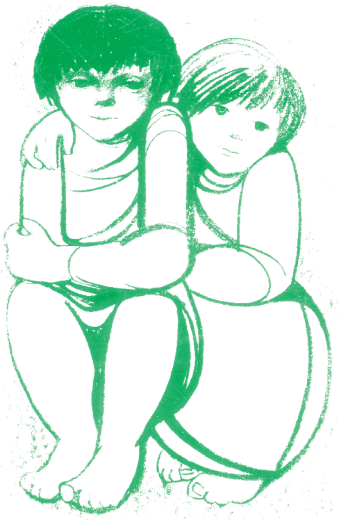
# CMIN SUMMIT'21

## Nascer e Crescer Saudável no Séc. XXI

Resumo das Comunicações





# PEDIATRIA

## COMUNICAÇÕES ORAIS

### PED_0121
### JUVENILE LOCALIZED SCLERODERMA: TWENTY-YEAR EXPERIENCE OF A PORTUGUESE REFERRAL CENTER

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**Introduction:** Juvenile localized scleroderma (JLS) is a rare pediatric disease characterized by excessive subcutaneous collagen deposits leading to skin thickening, scarring, and fibrosis. This study aimed to characterize JLS patients of a referral Pediatric Rheumatology center.

**Methods:** Retrospective analysis of data from clinical records of pediatric patients diagnosed with JLS at Hospital Pediátrico de Coimbra from January 2000 to December 2020.

**Results:** Fourteen patients were included, with a gender distribution of 2.5 females: 1 male. The mean age at disease onset was 7.5 years (range 2-12). The mean disease duration at diagnosis was 14 months (range 2-36). Subtype distribution included linear scleroderma (7; 50%), 3 (43%) of which corresponded to trunk or limbs and 4 (57%) to the head [2 en coup de sabre (ECDS), 2 Parry-Romberg syndrome (PRS)]; circumscribed (5; 36%); generalized (1; 7%); and mixed morphea (1; 7%). Extracutaneous manifestations occurred in all but two cases. Musculoskeletal involvement was the most frequent, with high prevalence in patients with linear scleroderma of the trunk/limbs, all presenting growth defects. Neurologic manifestations were most significant in a 5-year-old boy with PRS presenting with seizures. Spinal fluid analysis showed positive oligoclonal bands and intrathecal immunoglobulin synthesis of IgG, and gadolinium-enhanced brain magnetic resonance imaging (MRI) revealed no abnormalities. Routine laboratory study, including complete blood count, blood chemistry, and urinalysis, was normal. Acute phase markers were almost within the normal range, with a maximum sedimentation rate of 25 mm/h in a patient with ECDS and arthralgia of the left wrist. Concerning autoimmunity, positive antinuclear antibodies (ANA) were present in 5 (36%) cases, 4 (80%) with linear scleroderma. Most patients received systemic therapy with methotrexate plus systemic corticosteroids (50%) or methotrexate alone (14%), which was maintained for a mean of 3 years. Four cases (29%) with circumscribed morphea were only submitted to topical therapy, one of which also received phototherapy.

**Conclusion:** JLS is a rare polymorphic disease. The high amount of extra-cutaneous manifestations suggests that JLS is not a skin-limited disease and carries the risk of disabling and disfiguring morbidity. Identifying active disease is very important to establish an appropriate treatment regimen and minimize complications.

### PED_0221
### SYSTEMIC JUVENILE IDIOPATHIC ARTHRITIS – CASE SERIES FROM A PORTUGUESE CENTER

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**Introduction:** Systemic juvenile idiopathic arthritis (sJIA) is a severe form of chronic childhood arthritis, accounting for 10–20% of JIA cases. This study aimed to evaluate the clinical and laboratory findings, treatment, and outcomes of sJIA patients.

**Methods:** Retrospective study of patients with sJIA diagnosed between 2012 and 2021 at a tertiary Pediatric Rheumatology center according to the International League of Associations for Rheumatology criteria. Demographic, clinical, and laboratory features, treatment, relapses, timing of disease inactivity (defined as per modified Wallace criteria), and outcomes were evaluated.

**Results:** A total of 13 patients were included, 69.2% of whom male, with a median age at diagnosis of 5 years. At the time of diagnosis, the mean duration of fever was 16.9 ± 7.6 days. Throughout the course of the disease, patients presented rash (100%), adenopathy and splenomegaly (23.1% each), serositis (15.4%), hepatomegaly, and pericarditis and pharyngitis (7.7% each). Two patients (15.4%) had macrophage activation syndrome.

Most patients (92.3%) were treated with non-steroid anti-inflammatory drugs (NSAIDs) and corticosteroids (CTC) at disease onset. Regarding the use of disease-modifying anti-rheumatic drugs (DMARDs), ten patients (76.9%) were treated with methotrexate and 4 (30.8%) with cyclosporine. Anti-IL6 was the most common biologic treatment (38.5%), followed by anti-IL1 (15.4%). No patient underwent biologic treatment as initial therapy.The median time from diagnosis to introduction of CTC was 5 ± 21 days and the mean time to introduction of a biologic treatment was 7.3 ± 5.4 months.

Eight children (61.5%) experienced disease relapse within a median of 15 months after diagnosis, most (87.5%) with arthritis and half with fever. Five patients were receiving treatment with CTC and non-biologic DMARDs, and three patients were treatment-free.Most patients (92.3%) reached disease inactivity, with a median follow-up time of 42.3 ± 33.5 months: one with NSAIDs monotherapy, four with CTC and DMARDs, and seven only after introducing a biologic treatment. No sequelae or mortality were recorded.

**Conclusion:** A high rate of relapse (61.5%) was observed in this study group within a median of 15 months after diagnosis. Five of these patients were treated with CTC and non-biologic DMARDs, and none was on biologic therapy. Most patients reached disease inactivity. However, biologic treatment was required in 53.8% of children.

## PED_0321
## SCHOOL IMPACT IN CHILD OBESITY

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**Introduction:** Schools closed in Portugal from 16 March to 17 September 2020 as a way of controlling SARS-CoV-2 spread, forcing children to remain at home for six months. Home staying offered an opportunity to assess the effect of school attendance in children's body mass index (BMI), as well as factors potentially contributing to its variation.

**Methodology:** A survey was randomly distributed to parents of children above 3 years old attending a Pediatric Department consultation at a secondary hospital in the North of Portugal at the beginning of September 2020. The survey allowed data collection about children's diet, physical activity, screen time, and sleep habits before and after school closure due to SARS-CoV-2. Anthropometric data were also collected. Children's BMI before and after closure was compared.

**Results:** A total of 81 surveys were valid for analysis. BMI variation was observed in 77 (97.1%) children, with an increase in 44 (54.3%) (Group A) and a decrease in 33 (40.7%) (Group B). Group A had more male children compared to group B (n=26, 59.1% vs n=17, 51.5%), more obese children at baseline (n=19, 43.2% vs n=8, 24.2%), and less children attending obesity consultation (n=27, 61.4% vs n=14, 42.4%). While at school, the majority of children had 5 meals per day. With home staying, the number of children with 6 meals per day raised in group A (n=7, 15.9% to n=13, 29.5%) and decreased in group B (n=9, 27.3% to n=6, 18.2%). An increase in the frequency of snacks eaten was more relevant in group A, with children who consumed ≥3 snacks a day increasing from 6.8% to 27.3%. Before school closure, most children had 1-3 hours of physical activity (n=29, 65.9% in group A and n=16, 48.4% in group B) and 1-3 hours of screen time (n=32, 72.7% in group A and n=23, 69.7% in group B) per day. Both groups had a more sedentary behavior with home staying, particularly those in group A, where screen time raised to 6-12 hours a day in 45.4% of children. When in school, almost half of children slept 8-10 hours per night, but this number raised to 10-12 hours with home staying in most children.

**Conclusion:** With home staying, all children showed a more sedentary behavior than during the school attendance period, although this variation was higher in group A. The increase in food intake was also higher in group A children. As this group had more obese children at baseline and fewer children attending obesity consultation, school seems to plays a positive role in BMI control in this population.

## PED_0421
## PEDIATRIC MULTIPLE SCLEROSIS: EXPERIENCE OF A CENTER

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**Introduction:** Multiple sclerosis (MS), a chronic inflammatory auto-immune disease of the central nervous system, is rare in pediatric age. Few populational studies are available, but between 1.7% and 5.6% of the MS population is assumed to be younger than 18 years. The diagnosis, treatment, and course of pediatric MS has particularities. This study aimed to review clinical cases of MS in patients younger than 18 years followed at MS Neurology consultation.

**Methods:** Retrospective, observational study of socio-demographic and clinical characteristics of patients with less than 18 years at the time of MS diagnosis (according to accepted diagnostic criteria at the time) observed at MS consultation between January 2010 and July 2021.

**Results:** Eight cases of pediatric MS diagnosed in the considered time period were identified, representing 9.8% of all MS patients identified at this center during this period. The male/female ratio in this group was 1:3, and the mean age at diagnosis was 15 years and 3 months (range 13-17). Comorbidities were present in three patients, namely allergic conditions. Regarding neurologic manifestations, half of cases presented with optic neuritis, followed by brainstem symptoms in three cases and sensitive impairment in one. Physical examination was abnormal in all cases, with relative afferent pupillary defect, nystagmus, ophthalmoparesis and ataxia in 37.5% of patients, followed by osteotendinous hyperreflexia in 25%, and Babinski sign in 12.5%. Initial brain MRI showed alterations compatible with demyelination in seven cases, all of them with periventricular lesions, four with juxtacortical lesions, and three with infratentorial/medullar lesions. Analysis of cerebral spinal fluid was performed in all eight patients and showed an average of four cells with evidence of intrathecal IgG synthesis in six patients. Complementary studies excluded other alternative conditions, and MS diagnosis was established at presentation in six patients (75%). Disease-modifying therapy was initiated on average 50 days after diagnosis, and the choice was interferon beta-1 in 5 patients (62.5%). Follow-up evidenced disease relapse in 50% of cases, with five patients undergoing treatment modification.

**Conclusion:** Pediatric MS is more than MS in children. It has distinctive features and disease progression, including more premature relapses, as well as treatment specificities. More studies are needed to understand this entity and empower clinicians in its management.

## PED_0521
## LUMBAR PAIN – IDENTIFYING RED FLAGS

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**Introduction:** Lumbar pain is a frequent cause of Emergency Room admission, mostly related to trauma, musculoskeletal pain, or paraspinal muscle strain. It is crucial to know and identify the red flags that may be associated with lumbar pain.

**Clinical case:** A 15-year-old male teenager presented to the Emergency Room with a 2-month history of left lumbar pain irradiating to the left limb, without history of trauma. He was evaluated by Orthopedics 15 days before admission, submitted to a lumbar spine x-ray, and discharged with diagnosis of L5-S1 spondylolisthesis. The patient reported initial improvement with rest and analgesic treatment but worsening pain after a physical education class, requiring analgesia every four hours and waking up at night due to the pain. Constitutional symptoms, such as fatigue, anorexia, or weight loss, were not identified. During examination, the boy complained of pain on left iliac crest palpation and no pain on paravertebral processes or muscles. No neurologic deficits were observed. Blood tests showed elevation of inflammatory markers (ESR 46 mm/hr, C-RP 5,6 mg/dL). Although pain improved after intravenous analgesia, the patient was admitted for further evaluation. Magnetic resonance imaging revealed a large expansive process measuring 1.7 cm x 8 cm involving the left iliac crest, apparently originating from soft tissues/buttock muscle. He was transferred to the Oncology reference center, where a biopsy confirmed the diagnosis of Ewing sarcoma. Abdominal-pelvic computed tomography scan and positron emission tomography showed bone and regional lymph node metastases. The patient started chemotherapy 20 days after the diagnosis, maintaining an overlapping physical examination after three chemotherapy cycles.

**Discussion:** Most patients who present with lumbar pain have nonspecific back pain. Such patients typically improve over a few to several weeks with conservative treatment. Features that may suggest underlying systemic disease include unexplained weight loss, pain lasting for more than one month, night-time pain, and unresponsiveness to previous therapies. Most of these red flags were present in this patient, and only a high index of suspicion of malignancy made Ewing Sarcoma diagnosis possible following patient admission for further evaluation.

## PED_0621
## LEVAMISOLE IN THE TREATMENT OF CHILDREN WITH FREQUENTLY RELAPSING AND STEROID-DEPENDENT NEPHROTIC SYNDROME

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**Introduction:** Levamisole is an anthelmintic drug with immune-modulating effects that can effectively reduce the relapse rate in frequently relapsing and steroid-dependent nephrotic syndrome (FRNS/SDNS). Unlike other drugs used in these patients, levamisole has no immunosuppressive effects, and adverse effects are mostly mild and disappear after discontinuation. This study aimed to share a single-center experience in the treatment of FRNS and SDNS with levamisole.

**Material and methods**: A retrospective descriptive study was conducted. All patients with FRNS and SDNS followed at the Pediatric Nephrology Unit of our hospital and treated with levamisole between January 2009 and December 2020 were included. Demographic, anthropometric, clinical, and analytical data prior to treatment and at 6, 12, and 24 months of follow-up were retrieved.

**Results**: The sample included eight patients (63% male), with a median age at the inaugural episode of 3.5 (P25-P75 2.0-4.0) years and a median age at the beginning of levamisole therapy of 7.5 (5.25-9.75) years. The median prednisolone dose before treatment was 0.55 (0.35-0.93) mg/kg/24h and it significantly decreased at 6, 12, and 24 months of treatment (0.1 [0.0-0.3] mg/kg/24h, p=0.01; 0.03 [0.0-0.2] mg/kg/24h, p=0.025; and 0.03 [0.0-0.3] mg/kg/24h, p=0.027, respectively). Six patients completed two years of treatment, one patient discontinued treatment due to lack of therapeutic response, and one patient remains in treatment. During follow-up, the median of disease relapses significantly decreased from 3.0 (3.0-6.0) at 12 months before treatment to 2.0 (1.0-3.0) at 12 months of treatment (p=0.04). Body mass index z-score (zBMI) also significantly decreased (1.1 [0.8-2.2] before treatment vs 0.6 [0.5-1.5] at 6 months [p=0.036] vs 0.4 [-0.1-1.0] at 12 months after treatment [p=0.01]). No significant difference w found in glomerular filtration rate before and during treatment. No side effects were reported.

**Conclusion**: A significant decrease in prednisolone dose and number of relapses was observed in this study in children with FRNS and SDNS, with no side effects reported. A significant decrease in zBMI values was also observed, contributing to a decrease in these patients' morbidity. These results suggest that levamisole therapy is an effective option to treat children with FRNS and SDNS and seems a good choice as a first steroid-sparing agent before considering more potent immunosuppressors.

## PED_0721

## HENOCH-SCHONLEIN PURPURA IN A THIRD-LEVEL PEDIATRIC EMERGENCY DEPARTMENT: MANAGEMENT AND CLINICAL COURSE

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**Introduction:** Henoch-Schonlein purpura (HSP) is the most common small-vessel vasculitis in children, with a clinical diagnosis that includes palpable purpura, arthralgia/arthritis, abdominal pain, and kidney disease. Therapy is primarily supportive. Corticoid therapy should be used in severe disease, but it does not seem to impact the clinical course.

**Objective:** To evaluate the management and clinical course of HSP in a Pediatric Emergency Department.

**Methodology:** Retrospective analysis of all admissions in a pediatric third-level Emergency Department with a diagnosis of HSP between January 1, 2014, and June 30, 2021. Statistical analysis was performed considering a significance level of 5%.

**Results:** One hundred and eleven patients were included, 52.3% of whom were male. The mean age at diagnosis was six years, and 45% of patients were diagnosed in autumn. Median days at presentation were two. Previous viral infections were reported in 36.9% of patients. On admission, 87.4% of children reported purpura, 35.1% arthralgia, 24.3% abdominal pain, and 17.1% fever. On examination, purpura was present in 97.3% in the lower limbs, 17.1% in the upper limbs, 2.7% in the face, and 4.5% in the genital region, with associated edema in 54.1%. At presentation, 14.4% of patients had kidney involvement, 8.1% hematuria, 7.2% proteinuria, and one patient had nephrotic proteinuria. There were no cases of arterial hypertension or acute renal lesion. Overall, 22.5% of the study population received corticosteroids, and 28.8% were hospitalized, with a mean hospital stay of three days. A total of 23.4% of patients experienced relapses: 11.7% had one episode, 9% two, and 1.8% three. Corticoid therapy and abdominal pain were positively associated with hospitalization ($p < 0.05$). Relapses were related to the use of corticosteroid therapy (odds ratio 3.36) and the need for hospitalization (odds ratio 2.86). There was no correlation between kidney involvement and hospitalization or relapses. Twenty-seven percent of patients were referred to Nephrology and 50.5% to pediatric consultation.

**Conclusion:** Demographic and epidemiologic spectrum and hospitalization and relapse rates in this study were similar to those reported in the literature. On the other hand, an association was found between corticoid therapy and hospitalization and relapse rates, likely attributed to severe cases.

## PED_0821

## HNF1B-RELATED DISEASE: PHENOTYPIC VARIABILITY IN CHILDHOOD

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**Introduction:** HNF1B-related disease (also known as MODY5 diabetes, HNF1B-MODY, or renal cysts and diabetes) is a rare hereditary condition with uncertain prevalence, making it the second most common genetic kidney disease with autosomal dominant transmission, behind polycystic kidney disease. Hepatocyte nuclear factor-1beta, encoded by the HNF1B/TCF2 gene, is a transcription factor that regulates tissue-specific gene expression in various organs. Pathogenic variants in HNF1B gene are associated with a wide spectrum of congenital anomalies of the kidney and urinary tract, of which renal cortical cysts are the most common manifestation. Abnormal liver and pancreatic function and hyperuricemia are also frequent. The severity of kidney disease can vary from asymptomatic to prenatal kidney failure. The disease is related to pathogenic variants in the HNF1B gene, whether consisting of complete gene deletions as part of 17q12 recurrent deletion or point pathogenic variants.

**Case description:** Case 1 refers to a 14-year-old boy followed at the Nephrology Unit since the age of 2 due to bilateral kidney cystic disease, with negative family history. At 11 years old, he presented with ataxia and was observed in the Neurology Unit. The genetic study revealed a 17q12 deletion including the HNF1B gene. The boy remains asymptomatic, with normal glycemic profile, normal kidney function, and no proteinuria. The last kidney ultrasound showed normal-sized kidneys with bilateral cysts (≤1cm).

Case 2 refers to a 16-year-old boy with type 1 diabetes (onset at 7 years of age), followed at the Nephrology Unit due to suspected autosomal recessive polycystic kidney disease. Kidney ultrasound showed both kidneys with poor corticomedullary differentiation, increased parenchymal echogenicity, and multiple cortical cysts (<1cm). Ultrasonography of both parents showed absence of renal cysts. Genetic study revealed a heterozygous de novo pathogenic variant mutation on HNF1B gene, and the diagnosis of MODY5 was established. The boy currently presents stage 3 chronic kidney disease (estimated GFR of 37 mL/min by Larsson Formula), hypertension, hypercholesterolemia, and hyperuricemia.

**Discussion:** The authors present two cases of MODY5 with different mechanisms and clinical presentation, highlighting the importance of genetic testing in patients with polycystic kidneys. HNF1B-related disease should be suspected in patients with kidney cysts and personal and/or family history of early diabetes.

## PED_0921
## SHOULD BRUGADA SYNDROME SCREENING BE OFFERED TO CHILDREN?

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**Introduction:** Brugada syndrome (BrS) is an autosomal dominant inherited channelopathy with variable expression associated with increased risk of cardiac arrhythmias and sudden death. It is characterized by a typical ECG pattern, namely a pseudo-right bundle branch block and ST segment elevation in leads V1 to V2. Brugada pattern may be intermittently present, revealed during episodes of fever or unmasked by some medications. It can be exposed by a provocation drug challenge testing with sodium channel blockers to identify at-risk patients. SCN5A is the most common gene associated with BrS, but only 30–35% of diagnosed cases are attributable to pathogenic variants in known genes. Family screening of BrS is strongly recommended in first-degree relatives.

**Aim:** To determine the clinical utility of cardiac evaluation in pediatric relatives of patients with BrS.

**Methods:** A retrospective review of pediatric patients with a family history of BrS in a tertiary hospital was undertaken. Clinical history, cardiac evaluation, genetic study, and provocation test with ajmaline or flecainide were assessed in patients over 12 years of age.

**Results:** A total of 34 patients (52.9% female) of different families (n=24) were evaluated, with a median age of 10 years. SCN5A mutations were found in four families that agreed with genetic testing. Two patients presented the familial mutation, one with confirmed BrS and the other without phenotype (age: 4 years). Sudden death occurred in 5 families. Only one patient developed symptoms during follow-up. Ajmaline/flecainide provocation test was performed in ten patients older than 12 years, and two were positive, both with type I pattern. One patient placed an implantable cardioverter-defibrillator at the age of 16 years. The median duration of follow-up was 3 years.

**Conclusions:** All first-degree relatives of patients with confirmed BrS are recommended to undergo screening through clinical history and 12-lead ECG. Children follow-up remains controversial, and further studies are needed to determine the prognostic value of ajmaline or flecainide testing in children and the value of genetic screening. Provocation test should be performed in symptomatic children with positive family history, but there is no consensus in asymptomatic children. Each case and family should be individually evaluated, with considerations regarding the benefits and disadvantages of this screening.

## PED_1021
## SCREEN USE BY ADOLESCENTS DURING COVID-19 LOCKDOWN

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**Introduction:** Technology has improved people's lives in many ways. However, adolescents tend to spend excessive amounts of time watching screens. This can have an impact on their lives, namely on sleep. The COVID-19 pandemic exacerbated these problems.

This study intended to characterize the habits of adolescents regarding screen use during the COVID-19 lockdown, as they relate to sleep quality and quantity.

**Methods**: Multicentric cross-sectional descriptive study. A survey with questions about screen use and sleep and the Portuguese version of the Pediatric Daytime Sleepiness Scale were completed by adolescents attending consultation between January, 25 and March, 25, 2021. Associations between variables were assessed using the Chi-square and Mann-Whitney tests, considering significance if $p<0.05$.

**Results**: This sample included 131 adolescents (66.4% female), with a median age of 15.0 years. Most did not have chronic (70.2%) or sleep (85.3%) disorders. The majority (74.0%) had a daily screen time use over 6 hours, 45.0% over 10 hours, and 16.8% over 12 hours. Most of this time was used to attend classes (87.0% <10h/day; 45.0% <6h/day), followed by talking to friends (39.0% ≥6h/day), watching videos, and gaming. When it came to having screens available in their rooms, 83.2% had a smartphone, 61.1% television, 57.3% computer, and 16.0% a gaming console at night. Fifty-five percent claimed to use screens every day in the hour prior to sleeping. A total of 39.7% of adolescents were identified with onset insomnia and 13.7% with excessive daytime sleepiness (EDS). During the week, 26% slept less than the recommended time.Having a computer or a smartphone in the bedroom at night was associated with shorter sleep duration during the week ($p=0.01$ and $p <0.01$, respectively). An association was found between screen time above 6 hours and the following variables: onset insomnia ($p=0.03$), shorter sleep duration on weekdays ($p=0.04$), and EDS ($p=0.04$). An association was also found between using screens in the hour before sleeping more than 4 times a week and onset insomnia ($p=0.01$), shorter sleep duration on weekdays ($p=0.04$), and EDS ($p=0.01$).

**Conclusion:** The high percentage of adolescents using devices over 6 hours/day can be explained by online classes during the lockdown. However, almost half used them over 10 hours/day, beyond academics, for leisure time and socialization. A very high percentage of adolescents had devices in the bedroom that used at bedtime, with a clear negative impact on sleep. It is urgent to implement strategies and change these habits, particularly during the COVID-19 pandemic.

## PED_1121

## NEONATAL ENCEPHALOPATHY BEYOND HYPOXIC-ISCHEMIC ETIOLOGY: EXPERIENCE OF A LEVEL III NEONATAL INTENSIVE CARE UNIT OVER THE LAST DECADE

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Neonatal encephalopathy (NE) is a condition of neurologic dysfunction with heterogeneous symptoms and severity, including respiratory impairment, seizures, and altered consciousness level. The term hypoxic-ischemic encephalopathy (HIE) and NE are often used interchangeably, but the former should not be used unless there is evidence of perinatal asphyxia. The differential diagnosis includes infectious and metabolic, thromboembolic, and genetic causes, but many cases remain idiopathic. This study aimed to evaluate the prevalence of the different NE etiologies in a sample of newborns (NB) treated with therapeutic hypothermia (TH) and perform a comparative analysis between the group with hypoxic-ischemic (HI) versus non-HI NE.

A retrospective analysis of NB treated with TH for a presumed diagnosis of HIE between January 2012 and July 2020 was performed. HIE was defined as the presence of anoxic lesions on MRI or a suggestive clinical course without evidence of an alternative diagnosis. Demographic data, information regarding pre- and perinatal factors, systemic dysfunction parameters, and neurologic/neuroimaging sequelae were collected. Pearson's chi-square test and logistic regression models were performed for statistical analysis.

Fifty NB underwent TH, four of whom were excluded for diagnosis of sudden unexpected postnatal collapse. HIE was confirmed in 29 (63.0%) patients (group 1). No evidence of perinatal asphyxia was found in 17 (37.0%) patients (group 2), with intracranial hemorrhage being the most frequent alteration (41.2%), followed by infection (29.4%) and other causes (29.4%), including metabolic disease, ischemic stroke, and idiopathic origin. Group 1 had a higher prevalence of sentinel events (p=0.044), emergency c-section delivery (p=0.013), and clinical seizures (p=0.048), higher Thompson score on admission (OR=1.2; p=0.019), and major neurologic sequelae at 12 (p=0.006) and 24 (p=0.004) months and lower frequency of amplitude-integrated electroencephalogram improvement at 48 hours (p=0.027). No significant differences were found between both groups regarding maternal conditions, multiorgan dysfunction, and mortality.

As expected, HIE was the main cause of NE. Despite the clinical overlap, clinicians should be aware of other possible NE etiologies. This study results showed that sentinel events, seizures, and a higher Thompson score on admission are associated with a higher probability of HIE, which may be helpful when deciding to pursue additional evaluations and specific management.

## PED_1221

## ANOREXIA NERVOSA IN ADOLESCENCE: EXPERIENCE OF A LEVEL III PORTUGUESE HOSPITAL

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**Introduction:** Anorexia nervosa (AN) can result in serious malnutrition-related morbidity, such as osteopenia, life-threatening arrhythmias, and pericardial effusion. The authors aimed to investigate epidemiologic factors associated with the severity of AN, its most frequent complications, and the need for hospitalization in the pediatric population.

**Methods:** A retrospective cross-sectional study of adolescents with AN followed by the Multidisciplinary Group of Eating Disorders was developed in a tertiary hospital from January 2017 to July 2021. Epidemiologic factors (parental education, age at presentation, and gender) and perinatal factors (birth weight and breastfeeding) were compared regarding the severity of malnutrition (minimal body mass index [BMI] z-score). Complications related to AN (amenorrhea, osteopenia, pericardial effusion) and the need for hospital admission were assessed. Statistical analysis was performed using SPSS version 25 through Mann-Whitney and linear regression models, with a p-value <0.05 considered statistically significant.

**Results:** A total of 171 patients with AN were identified, primarily female (n=156; 91.2%), with a median age of 16.7 years (P25-75: 15.2; -17.9) and a median follow-up of 10.9 months (5.8-22.8). The median fat-free body mass evaluated by bioimpedance was 35% (31.4-39.6), and the median BMI z-score was -2.1(-2.9; -1.2). Parental education, gender, age at diagnosis, birth weight, and breastfeeding did not correlate with malnutrition severity. Most female adolescents had amenorrhea 114 (77.6%), which showed a positive correlation with severity of malnutrition and occurrence of pericardial effusion (p=0.037, odds ratio [OR] 17.33). Although echocardiography was performed in 36 patients, almost 83.3% showed pericardial effusion. Most of these cases resolved with refeeding, and one required pericardiocentesis. DEXA analysis was performed in 53 patients, with osteopenia identified in 20.8% and no cases of fractures. About 1/3 of patients were admitted to the hospital, with a median duration of hospitalization of 48.5 days (25-82). No mortality was reported in this population.

**Conclusion:** AN is associated with high morbimortality; hence early recognition, appropriate management, and long-term monitoring are crucial. Although the reported incidence of medical complications is variable, depending on individual predisposition and malnutrition severity, results showed a significant proportion of hospital admissions. Clinical signs should be frequently assessed to promptly recognize factors that can be associated with AN severity.

## PED_1321

## SURGICAL LIGATION OF PATENT DUCTUS ARTERIOSUS: EXPERIENCE OF A LEVEL III NEONATAL INTENSIVE CARE UNIT

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**Introduction:** Patent ductus arteriosus (PDA) is a common condition in preterm infants (PT), with often challenging management. Surgical ligation performed in the Neonatal Intensive Care Unit (NICU) is an option for infants who do not respond or present contraindications to pharmacological treatment. This study aimed to analyze cases subjected to surgical ligation of PDA in NICU of a level III hospital over the last decade.

**Methods:** A descriptive analysis of PT who underwent PDA ligation between January 2010 and June 2021 was conducted. Data regarding demographic, pre- and perinatal data, clinical manifestations, evolution, treatment timing, and complications were retrieved.

**Results:** A total of 267 PT with PDA were identified, most with hemodynamically significant PDA (HS-PDA; n=177, 66%). Among HS-PDA patients, 11 (6.2%) were submitted to surgical ligation. Most were female (63.6%), extremely preterm (90.9%), with extremely low birth weight (ELBW; 81.8%; median birth weight of 740 g [540-780]) and a median gestational age of 25 (25-26) weeks. Seven (63.36%) patients had C-section delivery, and 36.4% presented with risk factors (pre-eclampsia, intrauterine growth restriction, perinatal asphyxia). Eight (72.7%) underwent prenatal corticotherapy, ten (90.9%) required neonatal resuscitation, two (18.2%) had congenital sepsis, and all required surfactant. All PDA cases were identified by echocardiographic screening. Fluid restriction was the first-line intervention in 88.9% of patients, followed by ibuprofen (81.8%), paracetamol (18.2%), and indomethacin (9.1%). At surgery, the median age was 38 days (P25-P75: 22-49), median weight was 1149 g (P25-75: 916- 1533), and 5 patients (45.5%) were dependent on invasive ventilation. The median post-procedure ventilatory support weaning time was 8 days (4-9), and inotropic support was required in 45% of cases, but for less than 24 hours. There were no reports of peri- or post-procedure-related complications. Regarding additional morbidity, all PT had bronchopulmonary dysplasia, 90.9% had prematurity retinopathy, and 63.6% intraventricular hemorrhage. The median hospital stay was 112 days (103-127).

**Conclusion:** PDA surgical ligation in NICU was an effective and safe procedure. In recent years, transcatheter (TC) PDA closure has been described as a viable option in this population. Prospective studies comparing the results of pharmacological treatment, surgical ligation, and TC-PDA are needed to assess the optimal PDA management approach in PT, especially in ELBW infants.

## PED_1421

## SLEEPING HABITS IN TODDLERS AND PRESCHOOLERS: WHAT CHANGED DURING THE COVID-19 PANDEMIC?

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**Introduction:** The World Health Organization recommends that children between 12 and 24 months have 11 to 14 hours of daily sleep, and those between 3 and 4 years have 10 to 13 hours, including naps. Many parents report difficulties in maintaining adequate sleep hygiene in their children, need of help from a caregiver to make them fall asleep, and occurrence of multiple night awakenings. Shorter sleep time (ST) is associated with obesity, growth disruption, poorer emotional regulation, and greater risk of accidents.

COVID-19 pandemic lockdowns inevitably changed families' routines, and it is relevant to know whether these changes influenced the sleeping habits of children.

**Methods**: Cross-sectional study of toddlers and preschoolers enrolled in Agrupamento Centros de Saúde Porto Ocidental, based on the application of a telephone questionnaire to parents/caregivers. Sociodemographic and sleep hygiene-related variables were collected in the pre-pandemic period and during the first lockdown (March vs. May 2020). Statistical analysis was performed using SPSS 25.

**Results**: A total of 520 children were included, 52.9% male, with a mean age of 39.4 ± 13.9 months. The majority, 425 (81.7%), attended daycare/nursery/preschool in March 2020, with the pandemic leading to caregiver substitution in 420 (80.8%) of cases. Fifteen percent of children had inappropriate ST.

ST increased during lockdown (median of 10.0 hours [10.0-11.0] vs. 10.5 hours [10.0-11.5], p <0.01).No differences were found in demographic characteristics (caregivers' age, education level, household size and structure, and monthly income) between groups with adequate and inappropriate ST.

During lockdown, an increase was observed in resistance going to bed (27.7 vs. 42.1%, p <0.01), need for caregiver's presence (68.8 vs. 71.2%, p=0.02), time >30 minutes to fall asleep (26.2 vs. 36.7%, p <0.01), more than one awakening per night (12.7 vs. 17.7%, p <0.01), and difficulty falling back to sleep (9.4 vs. 11.2%, p <0.01). Conversely, there was a decrease in naps (61.0 vs. 49.2%, p <0.01) and in children sleeping in their own bed (85.0 vs. 82.7%, p=0.07).

**Discussion**: Children in this sample had a daily ST lower than recommended from the start.The pandemic and lockdown resulted in worse sleep hygiene, despite the increase in ST.These results are concerning, not only because of the short- and medium-term health outcomes for children but also for their potential negative impact in adult life.

Sleep evaluation should always be part of routine child health consultation.

# PEDIATRIA

## POSTERS

### PED_1521
### "IT CAN ALL BE SEEN THROUGH THE EYES" — THE IMPORTANCE OF AN EARLY DIAGNOSIS

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**Introduction**: Glaucoma is a major cause of blindness. It consists of a heterogeneous group of eye diseases characterized by progressive optic neuropathy, manifested by cupping of the optic disc and usually, but not always, associated with increased intraocular pressure (IOP).

Primary infantile glaucoma occurs in 1:10.000 live births. It is bilateral in more than two-thirds of cases and approximately 10% are inherited.

**Clinical case:** A term infant with 3 months of age, history of maternal gestational diabetes, and adequate somatometry and Apgar index at birth, but with transitory tachypnea of the newborn (TTNB) and neonatal jaundice requiring exsanguineous blood transfusion, without other relevant obstetric, neonatal, or familiar history and with normal weight status and neurodevelopment presented to the Emergency Department with somnolence, bilateral difficult eye opening, and photophobia for two days. No fever, crying, or excessive tearing were noticed.

During physical examination, conjunctival hyperemia with photophobia were noted. No ocular secretions were present. Laboratory results were normal and ophthalmological assessment was warranted. Corneal enlargement and edema, Habb striae, and increased IOP were present. Viscocanalostomy with plasty of both eyes were performed, along with iTrack and temporal trabeculotomy, with no complications.

**Discussion and conclusion:** The visual prognosis for children treated for primary infantile glaucoma is good: 52-79% have visual acuity of 20/60 or better. However, children diagnosed at <3 months of age tend to have worse visual outcomes. In a long-term follow-up study of 70 patients, 32% had significant refractive errors requiring glasses or contact lens.

Surgery is successful in controlling IOP (<20 mmHg) in 80-90% of children presenting between 1-24 months of age. Some studies have reported lower success rates (55-60%) in patients presenting at <2 months of age. A second procedure is necessary in 20-30% of cases. When further glaucoma surgery is required, approximately 2 and 5 years seem to be critical ages.

Timely diagnosis and proper treatment are crucial, as glaucoma can lead to blindness. A shiny areola in the iris can be a clue during physical examination of the newborn. It is particularly important to raise attention from family physician doctors to this disease, whose recognition is tricky but extremely important to the condition's natural course and prognosis.

### PED_1621
### DELAYED ANTIBIOTIC PRESCRIPTION IN OTITIS: EVIDENCE-BASED REVIEW

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**Introduction:** The treatment of pediatric otitis is based on antibiotic therapy and analgesia. However, antibiotic therapy can be avoided in most patients. An expectant attitude and reassessment at 48 hours are recommended, with delayed antibiotic prescription (DAP) being an alternative. DAP consists of providing parents a prescription with antibiotics and recommendations, which should only be used if necessary, after 48 hours or in the event of clinical worsening.

**Objectives:** To assess the therapeutic efficacy, costs, and physician satisfaction with DAP. Systematic reviews (SR), meta-analyses, randomized controlled trials (RCT), observational studies (OS), cohort studies, case series, and clinical guidelines (CG) prior to June 2021, in Portuguese, Spanish, and English, were included.

**Results:** A total of 54 articles and four CG were identified, among which four articles and two CG were selected.

**Conclusion:** There is not enough evidence to establish delayed antibiotic prescription as the best strategy in medium-low severity otitis. All studies included recognized this strategy as effective from the treatment, cost, and satisfaction point of view of both physicians and patients. However, the level of evidence of studies is low, hence the strength of recommendation for the use of delayed antibiotic prescription is grade B.

**Keywords:** antibiotic therapy, otitis, prescription

## PED_1721
## IMAGING FINDINGS OF AUTOIMMUNE THYROIDITIS IN CHILDREN

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**Background:** A wide range of diffuse thyroid diseases can affect the thyroid gland in the pediatric population. One of the most common causes of diffuse thyroid disease is autoimmune thyroiditis, including Graves' disease and Hashimoto thyroiditis.

**Objective:** To review the ultrasound findings most frequently found in pediatric patients with autoimmune thyroiditis.

**Methods:** Retrospective analysis of neck and/or thyroid ultrasound scans of children diagnosed with autoimmune thyroiditis at our hospital.

**Results:** Ultrasonography is one of the primary imaging modalities used for thyroid screening, providing information about the thyroid gland size and echotexture, gland vascularity pattern on Color Doppler study, and lymphadenopathy. Imaging features suggestive of diffuse thyroid disease include a diffusely enlarged gland, decreased or increased diffuse heterogeneous parenchymal echogenicity, irregular echotexture, and presence of hypoechoic micronodules.

**Conclusion:** Ultrasonography plays a fundamental role in the evaluation of various thyroid diseases affecting pediatric patients.

## PED_1821
## IMAGING FEATURES OF CYSTIC FIBROSIS - PULMONARY MANIFESTATIONS

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**Background:** Cystic fibrosis is an autosomal recessive genetic disease caused by mutations of the cystic fibrosis transmembrane regulator gene. Pulmonary manifestations of cystic fibrosis range from bronchiolitis in younger children to recurrent bacterial infections, chronic cough, and chronic pulmonary disease in older children.

**Objective:** To describe the main imaging findings of pulmonary manifestations in cystic fibrosis, as well as and the main complications identified by computed tomography (CT) and conventional radiography.

**Methods:** Pictorial review of typical lung parenchyma alterations secondary to cystic fibrosis in the pediatric population through a retrospective analysis of CT scans performed in our institution.

**Results:** Radiography may be normal at young ages, but eventually demonstrates bronchiectasis, hyperinflation, lobar collapse, and pulmonary arterial enlargement. CT study has been used to monitor disease status and progression of diffuse lung abnormalities, such as cystic fibrosis. CT scan shows bronchial wall thickening and bronchiectasis earlier than radiography. CT findings include bronchiectasis, predominant in the upper lobe, that progresses from cylindrical to varicose to cystic, bronchial wall thickening, centrilobular nodular and tree-in-bud opacities, mucus plugging with air trapping, and lymphadenopathy. Cystic fibrosis complications include pneumothorax, lobar atelectasis, pulmonary hypertension, and bronchial artery hemorrhage.

**Conclusion:** CT is more effective in the diagnosis and follow-up of pulmonary findings in cystic fibrosis than pulmonary function tests or chest radiography.

Chest radiography can play an important role in management of acute complications.

## PED_1921
## PANNICULITIS IN PEDIATRIC RHEUMATOLOGY PRACTICE

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**Introduction:** Panniculitis (Pn) is a group of rare disorders characterized by inflammation of the subcutaneous (sc) tissue, clinically presenting with nodules or plaques. The purpose of this study was to describe the clinical manifestations and treatment of patients (pts) with panniculitis in a Pediatric Rheumatology Unit.

**Methods:** Descriptive and retrospective study of pts assisted with Pn from January 2004 to December 2020. Demographic and clinical characteristics, laboratory exams, lesion biopsy, and treatment were investigated. EN cases were diagnosed through clinical characteristics and all non-EN Pn cases were confirmed by biopsy. Exclusion criteria comprised EN with atypical presentation without biopsy.

**Results:** Of 25 pts, 17 had EN, 3 lipoatrophic Pn, 2 lupic Pn, 1 cytophagic histiocytic Pn (CHP), 1 subcutaneous panniculitis-like T-cell lymphoma (SPTL), and 1 cutaneous polyarteritis nodosa (cPAN). The main EN etiologies were undetermined (41%), streptococcal infection (29%), and Crohn's disease (CD; 12%). The median age of onset was 11 years (0.5-17), median duration of follow-up was 24.9 months (0-120), and 72% of pts (n=18) were girls. Inflammatory sc nodules were the form of presentation in 19 pts, including SPTL and CHP cases, and the remaining pts presented with plaques. Fever was present in 32% of pts and pain in 89%. Three EN patients were biopsied, showing septal Pn. All EN were initially treated with NSAIDs and for the etiological cause, when it was identified. All non-EN Pn were initially treated with corticosteroids (some prior to the definite diagnosis). Pts with CHP and SPTL achieved remission after treatment and the remaining non-EN Pn are under maintenance therapy. All plaque-presenting Pn cases suffered discoloration and a variable degree of sc cases suffered atrophy. The patient with cPAN is under maintenance therapy, but has frequent relapses.

**Conclusion:** Tender, indurated, and discolored nodules or plaques should evoke Pn. Recognizing Pn initial presentation can lead to early diagnosis. Histopathology is of paramount importance in non-EN Pn, as it can guide to a specific diagnosis and adequate treatment.

## PED_2021
## CROHN'S DISEASE – NOT ALWAYS OBVIOUS

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**Introduction:** Crohn's disease (CD) typically presents with abdominal pain associated with diarrhea and weight lost. Herein is presented a clinical case of non-gastrointestinal symptoms as first CD manifestation.

**Clinical case:** A 15-year-old female adolescent, with anxiety disorder and fragile socioeconomic context, presented to the Emergency Department with a 3-month history of desquamating rash in the scalp with progression to both hands and legs and to the left ear. In the same period, skin pallor, progressive asthenia, and unspecific arthralgia (elbows and knees) were also noted. During examination, an 8-kg weight loss was noticed. Some painful nodules were palpable in both legs, compatible with erythema nodosum. Blood tests revealed iron deficiency anemia, increased inflammatory parameters (ESR 34 mmHr, C-RP 5.6 mg/dL), normal albumin, and negative ANCA. Two weeks later, the girl started with bloody liquid stools and maintained the remaining symptoms. Total colonoscopy showed several serpiginous ulcers in the terminal ileum and inflammatory disease in the cecum and ascendant, transverse, and descendent colon, endoscopy revealed chronic gastritis, and entero-MRI showed thickening of the ileum. These findings along with histologic ones were compatible with ileum-colic CD. Fecal calprotectin was 2178 mg/g and the Pediatric Crohn's Disease Activity Index (PCDAI) was 70 (severe disease). The girl began treatment with prednisolone, omeprazole, and metronidazole, with improvement. Three weeks later, her condition worsened due to treatment non-compliance and she was admitted to the Pediatric Department for 5 days with EV corticoid, azathioprine, ciprofloxacin, and metronidazole. On admission, PCDAI was 52.5 (severe disease), and at discharge 22.5 (mild disease). The patient remained well for several months, allowing to wean the prednisolone dose and increase the azathioprine dose until a maximum of 2mg/kg/day. Nine months later, she presented with persistent abdominal pain and bloody stools and increased inflammatory parameters and calprotectin (> 6000 mg/g) and colonoscopy showed active disease. The patient started treatment with infliximab, with clinical and analytical improvement.

**Discussion:** With this work, the authors intended to emphasize the importance of less common CD presentations. In addition, financial vulnerability and difficult social context of some patients can lead to poor treatment adherence, with worse outcomes.

## PED_2121
## OPIOID AND BENZODIAZEPINE WITHDRAWAL SYNDROME – UNDERVALUED OR MISDIAGNOSED?

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Personalized and adequate analgesia is a priority for all patients admitted to Pediatric Intensive Care Units, reducing morbidity, time on invasive mechanical ventilation, and length of stay. However, the increasingly prolonged use of opioids and benzodiazepines and/or high doses of these drugs have led to an increase in the incidence of opioid and benzodiazepine withdrawal syndrome (OBWS). Signs and symptoms of OBWS are nonspecific, potentially contributing to an underdiagnosis of the condition. Although there are several scales for assessing and diagnosing OBWS, few are scientifically translated and validated in Portuguese language, which represents a limitation in the clinical practice. The Withdrawal Assessment Tool-1 (WAT-1) is a scale validated for use in children aged between 2 weeks and 18 years used in the United States and United Kingdom, but little known in our country. It includes the assessment of 11 signs and has a maximum score of 12, with a score ≥3 being diagnostic of OBWS.

**Objective:** This study aims to assess the incidence of OBWS and validate the WAT-1 scale to be routinely used in the future in the assessment of signs and symptoms of OBWS in patients admitted to the Pediatric Intensive Care Unit of Centro Materno-Infantil do Norte (PICU-CMIN).

**Methodology:** Prospective observational study with descriptive analysis, with the aim of evaluating the incidence and clinical characteristics of patients diagnosed with OBWS. All patients admitted to PICU-CMIN under sedation and analgesia with opioids and benzodiazepines in perfusion for a period longer than 24 hours will be included, regardless of the diagnosis, and WAT-1 will be applied to these patients. The study will be carried out in the period required to include a minimum number of 100 participants. The detailed scheme of study implementation and the full scale are outlined in the work.

**Conclusion:** This project has a high relevance, due to the scarcity of studies of OBWS in Pediatric Intensive Care published, and may contribute to the inclusion of WAT-1 assessment scale in the clinical routine, overcoming a currently existing limitation.

## PED_2221
## UTILITY OF THE CKD-EPI EQUATION WITH AGE-ADJUSTED CREATININE VALUES IN PEDIATRIC PATIENTS

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**Introduction:** Several estimated glomerular filtration rates (eGFR) equations have been developed based on serum creatinine (Cr) and/or cystatin C (CysC) in children. Serum CysC levels are independent of muscle mass and gender and not influenced by age after 12 months. Its determination has been available in our hospital for over 10 years and about 750 tests are performed in pediatric patients yearly. The calculation of CysC-based eGFR is automated and laboratory results are provided to clinicians within one or two days. GFR can be grossly overestimated in children when using the adult Cr-based CKD-EPI equation. Despite the availability of alternative equations, such as "Bedside Schwartz", these rely on information not usually available to laboratories, namely height. An alternative was recently proposed using age-adjusted Cr values. This retrospective study aimed to compare eGFR results based on CysC and on the CKD-EPI formula, with and without age-adjusted Cr.

**Methods:** Data on serum CysC and Cr were retrospectively and anonymously collected in 1,711 children (801 female) aged 2 to 17 years. GFR was estimated by an equation improved for children using CysC, the CKD-EPI equation, and CKD-EPI40. The latter has 40 as assigned age, requires adjustment of Cr levels in umol/L, and is based on sex-specific Cr growth curves. Results were analysed by one-way ANOVA with pairwise comparisons in SPSS software.

**Results:** Serum CysC levels were generally stable across the age spectrum, whereas Cr increased gradually with growth. The non-adjusted CKD-EPI equation resulted in considerably higher eGFR: 151 ± 35 mL/min/1.73m2 vs. 92 ± 20 and 94 ± 22 mL/min/1.73m2 for CysC and CKD-EPI40, respectively ($p<0.0005$). Despite statistical significance (p 0.001), results with CKD-EPI40 were on average only 1.7 ml/min/1.73m2 (IC 95% 0-6-2.8) above those calculated using the CysC equation, and differences ≤30% between these determinations were found in 85% of cases.

**Conclusion:** Testing for Cr is a considerably less costly option than CysC, and CKD-EPI40 represents a useful alternative when CysC tests are unavailable. The Cr and age-adjusted CKD-EPI40 equation provided eGFR results virtually comparable to those obtained with CysC in most pediatric patients from the age of two. Since eGFR calculations based on gender, age, and Cr can be easily performed by laboratory information systems, its use could allow improvements in the evaluation of GFR in children.

## PED_2321
## HAIR DYE AND TEMPORARY TATTOOS - A THREAT NOT TO BE FORGOTTEN

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Paraphenylenediamine (PPD), a well-known skin sensitizer, is widely used as an oxidizable hair dye and is also found in black henna tattoo. This component can cause local and systemic toxic effects when topically applied or ingested. Subsequently, local exposure to PPD may lead to delayed type IV hypersensitivity reaction presenting as allergic contact dermatitis (ACD). The reaction typically occurs one or more days after the exposure. Since the reaction with hair dye seems to be more prevalent and severe after a first exposure with black henna tattoos with mild skin reactions, patients need to be particularly aware of the risks of repeating these tattoos, as well as dying their hair with any color containing PPD.

A 17-year-old girl was admitted to the Emergency Room with scalp and facial swelling starting three hours after applying hair dye. Physical examination revealed a severe edema beginning in the neck and involving the eyelids, forehead, and scalp, and eczematous reaction on the entire scalp. The patient referred ACD after using temporary black henna tattoo ink when she was 8 years old and after first dying her hair, 3 months ago. Due to the gravity of clinical presentation, she was admitted for surveillance. Corticotherapy and second-generation H1 antihistaminic treatment was started, with clinical improvement in the next days. She was discharged 4 days later, with referral to the Immunoallergology consultation.

The literature refers that the increasing use of hair dye and temporary henna tattoos by children and adolescents has increased the number of cases of ACD to PPD-containing materials. Physicians must perform a patch test after the first allergic reaction, to identify allergens and prevent further severe reactions. In addition, there is also the need to raise awareness of the public to PPD allergenic potential and of manufacturers to the necessity of modifying hair dye composition by using less allergenic components.

## PED_2421
## INBORN ERRORS OF METABOLISM AS AN ETIOLOGY OF NONIMMUNE HYDROPS FETALIS

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**Introduction:** Non-immune hydrops fetalis (NIHF) is a nonspecific symptom linked to a variety of disorders. Inborn errors of metabolism (IEM) account for up to 15% of all cases. Herein are described three cases of IEM presenting as NIHF that show the evolution of the diagnostic approach.

Case 1: Female patient, first child of healthy non-consanguineous parents. The ultrasound (US) revealed hydrops fetalis (subcutaneous edema, pleural effusion, and ascites) at 34 weeks of gestation. After delivery by cesarean section at 34 weeks, endotracheal intubation, bilateral thoracocentesis, and paracentesis were performed. At birth, the child had generalized edema, severe hypotonia, and arthrogryposis of the lower limbs. Laboratory metabolic and karyotype studies were normal. The newborn died on day 4. Pathological findings on muscle samples suggested glycogen storage disorder type IV, which was confirmed by enzymatic studies in cultured fibroblasts.

Case 2: Male patient, second child of healthy non-consanguineous parents. Prenatal US showed the presence of hydrops fetalis. The child was born at 36 weeks of gestation by cesarean section. At birth, he had coarse features, ascites, and hepatosplenomegaly. Laboratory study revealed elevated levels of liver enzymes and urinary glycosaminoglycans. Molecular studies at the age of 18 months confirmed the diagnosis of mucopolysaccharidosis type VII.

Case 3: Female patient, first child of a healthy non-consanguineous couple. Hydrops fetalis (ascites and subcutaneous edema) was detected at 24 weeks of gestation. Prenatal laboratory and karyotype studies were normal. Delivery occurred at 30 weeks by cesarean section and required endotracheal intubation. Physical exam after birth showed coarse features, short long bones, subcutaneous edema of the neck, abdominal distension, and overlap of the fourth toe of the right foot. Prenatal next-generation sequencing (NGS) panel for hydrops fetalis revealed a homozygous mutation in CTSA gene, suggestive of galactosialidosis. Enzyme studies of cultured amniocytes are in progress.

**Conclusions:** IEM as NIHF etiology is very likely underdiagnosed. Over the last years, NGS has emerged as first-line study, improving the rate of NIHF diagnostic evaluation. Therefore, NGS studies combined with an established laboratory workup is a useful tool for identifying IEM as cause of NIFH.

## PED_2521
## WHEN RITUALS BECOME OBSESSIONS

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**Abstract:** Obsessive-compulsive disorder (OCD) is one of the most disabling and potentially chronic anxiety disorders in several medical settings. However, it is often under-recognized and under-treated. The condition is now known to be prevalent among children and adolescents. OCS is evidenced by a pattern of unwanted and intrusive thoughts, fears, or sensations that lead to feelings of distress (including anxiety, disgust, "not quite right" sensations) and repetitive behaviors aimed at cancelling out that distress. The frequency of these unwanted thoughts can make it very challenging for teens to focus on school. Being able to identify potential signs of OCD is of upmost importance, as early intervention at the onset of mental health challenges enhances the possibility of successful outcomes. If the condition goes unaddressed, it can lead to serious quality of life impairment, not only for the child but also for family relatives.

**Case report:** A 15-year-old girl studying in 9th grade was brought to consultation with complaints of headache and "some general symptoms". In the medical history, the patient reported symptoms with two years of evolution characterized by intrusive, unpleasant, and repetitive behaviors/acts, like checking the wardrobe door multiple times to make sure that it was locked or repeatedly turning off the light following a specific pattern [3 times, then 2 times]. The patient also mentioned usually avoiding crowded places and making excuses not to attend family dinners or friend gatherings, which she acknowledged as irrational behaviors but claimed to be powerless to avoid them. The girl was developmentally normal. Physical examination was unremarkable. Screening for organicity was negative. The diagnosis of OCD was established, psychoeducation was provided to both parents and child to alleviate distress and reduce critical/hostile comments by the family, and the girl was referred to Child and Adolescent Psychiatry.

**Discussion:** The present case aims to highlight issues involved in the diagnosis and management of pediatric OCD cases. OCD is a common disabling psychiatric condition occurring across the life span. The diagnosis and management of pediatric OCD offer unique challenges. Clinicians must be alert to the possibility of obsessive-compulsive symptoms when evaluating children with emotional and behavioral disorders, and to actively investigate the condition in routine consultations.

## PED_2621
## DANDY-WALKER SYNDROME: CASE REPORT OF A RARE MALFORMATION

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**Introduction:** Dandy-Walker syndrome (DWS) is a rare anomaly of cerebellar development, defined by agenesis/hypoplasia of the cerebellar vermis, cystic dilatation of the 4th ventricle, and enlargement of the posterior fossa. In this case report, the authors aimed to alert to this rare syndrome as a differential diagnosis in a child presenting with hydrocephalus.

**Case report**: A female infant, aged 1 month and 14 days and with irrelevant medical history, was admitted due to unfixed strabismus in the last 6 days, projected vomiting, and interchange between sleepiness and irritability, with progressive worsening. On physical examination, she presented inconsolable crying, setting sun sign, anterior fontanelle bulging, and head circumference above P97 (P50 at 1 month). She was hemodynamically stable, with no other targeted changes. Head CT scan was performed, revealing a large cyst occupying mostly the posterior fossa, partial absence of the vermis and cerebellar hemispheres, and active obstructive hydrocephalus (Fig. 1). The patient was referred to Neurosurgery to control the hydrocephalus. CT findings were confirmed with head MRI, which also described a thin corpus callosum. Endoscopic third ventriculostomy (ETV) was performed, with resolution of obstructive hydrocephalus. Factor IX deficiency (50%) was also found. Currently, at 4 months old, she presents macrocrania, conjugate eye deviation (CED), and spasms. Despite that, she has good clinical evolution and psychomotor development. She is awaiting genetic study and Hematology evaluation and maintains follow-up in Neurosurgery and Pediatrics for surveillance of future development delays or cerebellar dysfunction signs.

**Discussion**: Hydrocephalus may be a form of DWS presentation, as in this case, depending on the severity of malformation and secondary obstruction. It is important to consider this diagnosis when approaching a child with signs of intracranial hypertension or cerebellar disfunction, since DWS may be associated with other congenital malformations and development delay, excluding other rare diagnoses, like Blake's pouch cyst. In this case, the infant had a thin corpus callosum, macrocrania, CED, spasms, and factor IX deficiency, findings that have been reported in other DWS cases. The prognosis depends on the presence of concomitant malformations and developmental anomalies, so the authors stress the importance of the diagnosis for early referral, study, and follow-up.

## PED_2721
## ADMISSIONS FOR ACUTE GASTROENTERITIS IN A LEVEL II HOSPITAL

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Acute gastroenteritis (AGE) is a common cause of morbidity in children and one of the most frequent reasons for hospital admission. Understanding the clinical presentation, etiology, and epidemiological context can help improve the condition's diagnosis and management.

This work aimed to analyze admissions due to AGE in pediatric age at a level II hospital.

A retrospective and descriptive study of admissions to the pediatric ward of a level II hospital due to AGE between January 2015 and December 2020 was conducted. Clinical, epidemiological, and etiological factors were analysed.

A total of 209 patients were admitted during this period, with a median of 41.8 (16-60) admissions per year. The highest number of admissions (n=60) occurred in 2017. Most patients were male (n=121; 58%) and the number peaked during summer (n=62; 30%). The median age at hospitalization was 1.9 years (P25-P75: 0.5-6.0).

The main reasons for admission were mild dehydration and food refusal. Intravenous fluid replacement therapy was required in 93% of cases for a median duration of 2.1 days (P25-75: 1-3), and the median length of hospitalization was 3 days (P25-75: 2-4).

A causative agent was identified in 111 stool samples (53%), with bacterial infection being the most prevalent (n=76, 68%), specifically with Campylobacter (n=44; 40%). No significant difference was found between rural and urban areas of residence. Identification of rotavirus decreased from 15.8% in 2015 to 6.2% in 2020, while vaccination against this agent increased from 21% to 37%. Some modes of transmission could be determined, such as ingestion of homemade eggs (5.3%), contact with animals (25.8%), and ingestion of well water (10%).

Regarding clinical presentation, fever, vomiting, and diarrhea with blood and/or mucus were more frequently found in bacterial infections.

The most frequent diagnosis was bacterial AGE, mainly caused by Campylobacter. The authors highlight the connection between the decreasing number of hospitalizations associated with rotavirus and the increasing use of the vaccine against this agent over the years. Similar results are reported by European studies.

## PED_2821
## WHEN ALLERGIES ARE NOT STRAIGHTFORWARD

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**Introduction:** Food allergies have a significant impact in the quality of life of children and are the most common cause of anaphylaxis. These reactions can vary from mild to life threatening and even according to different situations in the same child. Herein is reported the case of a suspected anaphylaxis to walnut and ibuprofen.

**Case report:** Herein is presented the case of a 12-year-old adolescent with a mitochondrial DNA

depletion syndrome, vesicoureteral reflux, atopic dermatitis, and allergic rhinoconjunctivitis, as well as failure to thrive with the need of percutaneous endoscopic gastrostomy (PEG) for enteral feeding.

After being fed (by PEG) a muffin containing walnut, the girl developed angioedema of the tongue and eyelids complicated with airway obstruction and hypoxia, which reverted with the administration of antihistaminic and corticosteroid. After further inquiry, the mother reported the same occurrence in the past and that sometimes the girl had similar symptoms for 30 minutes after ibuprofen administration, and was instructed to avoid giving the girl walnut and ibuprofen.

After pediatric allergologist evaluation, total and specific IgE were measured, showing increased levels of total and walnut-specific IgEs. To understand the symptoms following ibuprofen administration, ImmunoCAP™ ISAC assay and oral provocation test (OPT) with ibuprofen were performed. OPT was negative and the assay revealed allergy to lipid-transfer proteins (LTPs). It was then noted that ibuprofen was usually mixed with fruit for PEG administration.

LTPs are allergens found in many plant-derived foods. They are widely described in adult patients, but have become emerging allergens in the pediatric population. Manifestation and severity of LTP hypersensitivity are variable, and the reaction might only

occur in presence of cofactors, such as NSAIDs or physical exercise.

In the present case, LTP allergy explains the allergic reaction to walnut and fruit, which required ibuprofen as cofactor. The fact that symptoms only appeared when ibuprofen was mixed with fruit led to believe that the reaction was to ibuprofen.

**Conclusion:** Food allergies are complex and determining the real cause may require several pieces of information. LTPs should be suspected in cases of a food allergy involving plant-based foods. Cofactor-dependent reactions are not yet fully understood, but may help to understand the variability of certain allergies.

## PED_2921
## ANOTHER EPSTEIN-BARR VIRUS SURPRISE

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**Introduction:** Gianotti-Crosti syndrome, also known as papular acrodermatitis, is a self-limiting condition that usually affects children under the age of five. It typically presents as monomorphic erythematous-papular skin lesions, with symmetrical distribution over the face, buttocks, and limbs. Systemic symptoms are usually absent. Viruses are common precipitants, the most frequent being Epstein-Barr (EBV) and hepatitis B. Occasionally, it can be associated with vaccination and bacterial infections.

**Clinical case**: A male adolescent with 12 years old and personal history of atopic eczema was admitted to the Emergency Department due to the sudden appearance of a papular and itchy rash on hands, feet, face, and legs on the admission day. No history of fever or recent infections were reported, as well as no other associated symptoms. On physical examination, the boy presented pink punctiform papular lesions located at the malar region, knees, back of the hands, and feet. The remaining exam had no significant changes.

Analytical study was requested and the patient was discharged home medicated with antihistaminic and with a reevaluation appointment scheduled. Analytical study showed blood count within normal range and C-reactive protein of 1.7mg/dL. Serological study revealed positive Epstein-Barr VCA IgM, as well as positive EBNA and VCA IgG.

Diagnosis of EBV-precipitated Gianotti-Crosti syndrome was confirmed, with the adolescent presenting good clinical evolution, with complete resolution of skin lesions within four weeks.

**Discussion:** Gianotti-Crosti syndrome is often underdiagnosed. Proper anamnesis and objective examination are essential for its recognition, allowing exclusion of other differential diagnoses and reassuring caregivers. This syndrome typical presents a benign course, but can persist for several months. In this case, the authors intend to highlight the unusual age of presentation, which should not be considered in advance as an exclusion factor for the diagnosis.

## PED_3021
## CHOLELITHIASIS IN AN OBESE TEENAGE GIRL WITH THERAPEUTIC-INDUCED RAPID WEIGTH LOSS

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**Introduction:** Childhood obesity has emerged as a huge public health problem around the world. Lifestyle modifications are the cornerstone of weight management in children, but have modest results. Liraglutide, a glucagon-like peptide 1 analogue previously used in the management of diabetes mellitus, is currently approved by the FDA and EMA to treat pediatric obesity in children over 12 years of age, although it is not free of adverse events. At least one large population study and a randomized clinical trial have associated liraglutide with an increased risk of cholelithiasis and cholecystitis in patients with type 2 diabetes mellitus. Similar evidence was not shown in obese patients.

**Case report:** Herein is described the case of a 17-year-old girl with past medical history of obesity progressing since the age of 5 years. She had insulin resistance (HOMA-IR >3) and fatty liver disease detected in previous ultrasound examinations, but no gallbladder stones. Weight loss had been previously attempted through lifestyle interventions, as well as treatment with metformin, both unsuccessfully. The girl started liraglutide, with a 12-kg reduction in the first 3 months, when she started complaining of severe abdominal pain in the right upper quadrant, jaundice, and dark urine. Abdominal ultrasound showed distended gallbladder, with multiple gallstones and dilated common bile duct. Liraglutide treatment was stopped and the girl was submitted to cholecystectomy, with complete abdominal pain resolution.

**Discussion:** Obese patients have a greater risk of gallstones, especially when rapid weight loss occurred. Additionally, under physiological conditions teenage females have a more lithogenic bile acid profile compared with boys. The present patient had a previous and recent abdominal US without gallstones. Although rapid gallstone formation may be explained by the rapid weight loss experienced by the patient, evidence collected from clinical studies in patients with diabetes mellitus and temporal coincidence with liraglutide treatment should deserve attention. Although some in vitro and in vivo studies in animal models suggest that liraglutide induces proliferation and functional activity of cholangiocytes, leading to changes in bile acid production, decreased gallbladder emptying, and prolonged gallbladder refilling, more recent basic research suggests that liraglutide may protect against cholesterol gallstone formation. As far the authors are aware, no liraglutide-related cholelithiasis cases have been reported in pediatric age.

## PED_3121
## EMERGENCY DEPARTMENT ADMISSIONS DURING THE NEONATAL PERIOD - CONSEQUENCES OF THE COVID-19 PANDEMIC

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**Introduction**: The neonatal period presents multiple challenges, contributing to newborn admissions to the pediatric Emergency Department (ED). The first case of SARS-CoV-2 infection had a significant impact on pediatric ED use worldwide. The aim of this work was to characterize newborn admissions to ED, comparing the pre-pandemic and pandemic periods.

**Methodology**: Retrospective study of newborn admissions to the ED of a level II hospital between March 2019 and February 2021. The pre-pandemic period was defined as 'year one' (March 2019 to February 2020), and the pandemic period as 'year two' (March 2020 to February 2021). Statistical analysis was perform using R Studio software, and significance level was set at $p<0.05$.

**Results**: During the study period, 609 newborns were admitted to ED (14.0% of whom corresponded to readmissions), representing 1.4% of all pediatric visits. A total of 11.3% of cases were referred by other health care professionals, and 38.9% had a consultation before admission. The median age was 14 days.

The main reasons for resorting to ED were gastrointestinal symptoms (21.7%), jaundice (19.4%), other mucocutaneous issues (14.3%), and respiratory symptoms (14.1%). Overall, 49.1% of newborns required diagnostic tests, and most (75.8%) were discharged. A total of 369 and 240 admissions were reported in years 1 and 2, respectively (1.1% and 2.2% of all pediatric visits), representing an increase in admissions ($p<0.05$). March, April, and May of 2020 registered the lowest number of occurrences (8, 4, and 8, respectively). The recurrence of respiratory symptoms decreased by 53.0% compared to the pre-pandemic period. There was a non-statistically significant increase in hospitalization rates during the pandemic period.

**Conclusion**: Most ED admissions during the neonatal period corresponded to benign situations, with no need of hospitalization. The COVID-19 pandemic had an impact on pediatric ED visits. ED attendance significantly increased in newborns, which may be explained by the unspecific symptoms of this age group. A correlation could be established between months of lower affluence and confinement periods. The decrease in visits due to respiratory symptoms can be explained by the hygiene measures implemented and circulation restrictions imposed.

## PED_3221
## INTENTIONAL DRUG INTAKE IN A PEDIATRIC EMERGENCY DEPARTMENT: HAS ANYTHING CHANGED IN 2020?

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**Introduction:** Drug intake (DI) is a common reason of presentation at the Pediatric Emergency Department (ED). The purpose of this study was to characterize patients attending the ED with intentional DI (IDI) and whether it changed in 2020.

**Methods:** Descriptive and restrospective study of admissions for IDI at Centro Hospitalar do Baixo Vouga between January 2018 and December 2020. Data regarding demographics, episode circumstances, type of medication, past medical history, and management were retrieved from clinical files.

**Results:** During the study period, 44 adolescents were admitted for IDI (16 in 2018, 11 in 2019, and 17 in 2020), 38 (86%) of whom were girls. The median age in 2018 was 16 years, and in 2019 and 2020 was 15. A higher number of cases were identified in July (5; 29%) and October (4; 24%) of 2020, with less frequency variability throughout the years of 2018 and 2019. Most cases in each year were motivated by family conflict. The most consumed drug type in 2018 was anxiolytics (benzodiazepines), and in 2019 and 2020 were analgesics and antipyretics. Four patients had a history of previous IDI in both years of 2018 and 2019 compared to only one patient in 2020. Only 7 of the 44 adolescents included were not observed in Child and Adolescent Psychiatry for that episode.

**Conclusions**: In 2020, the number of IDI cases remained comparable to previous years. The peak of cases observed in the months of July and October 2020 agreed with common stressors at those months, like school exams and the beginning of a new school year, respectively.

## PED_3321

## JUVENILE DERMATOMYOSITIS SINE DERMATITIS AFTER EBV INFECTION

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**Introduction:** Juvenile dermatomyositis (JDM) is the most common pediatric inflammatory myopathy. It is characterized by symmetric proximal muscle weakness and classic skin rashes, although both amyopathic and sine dermatitis forms can occur.

**Case report:** A 3-year-old healthy male, with a previous episode of a 2-month history of lower limb pain and weakness, presented with limb weakness with one month of evolution. In the previous episode, bloodwork showed elevated CK levels (554U/L), weak positive anti-PM-Scl-75 titer, and Epstein-Barr virus (EBV) viral load of 4072 copies/mL. Thigh magnetic resonance imaging (MRI) suggested diffuse muscle inflammation. Myositis caused by systemic EBV infection was assumed, and the boy achieved full clinical and analytical remission (including MRI normalization) without any treatment.

Two years after initial symptom onset, the boy experienced symmetrical proximal limb weakness, more noticeable in the morning, with frequent falls, difficulty climbing stairs, and progressive inability to get out of bed. He had no associated muscle tenderness, joint swelling, fever, skin manifestations, or other symptoms. Physical exam was remarkable for symmetrical proximal limb weakness with difficulty in lifting from a squatting position (Gower's sign). Laboratory evaluation revealed elevated CK (527U/L), aldolase (15.4U/L), and AST (66U/L), and normal inflammatory markers. Myositis-specific antibodies were negative. Thigh MRI revealed extensive hyperintensity in all muscle groups, suggesting myositis. Muscle biopsy showed predominant perifascicular atrophy, associated with scattered fiber necrosis and regeneration, perivascular mononuclear infiltrates in perimysium, and MHC-1 upregulation. These findings were consistent with JDM. Treatment with oral prednisolone (1 mg/Kg/day) and subcutaneous methotrexate (15mg/m2/wk) was started, leading to clinical and analytical improvement.

**Discussion:** This represents a challenging case of JDM, where absence of cutaneous features and negative antibody tests hampered the diagnosis. In addition, the patient's previous episode of EBV myositis with complete remission between episodes was highly singular. Although it can be argued that the first episode could be a first JDM presentation, no cases of JDM spontaneous remission have been described. Moreover, EBV has been described as a potential trigger for some systemic autoimmune diseases. The authors speculate that EBV previous infection could have triggered JDM sine dermatitis in a susceptible child.

## PED_3421

## TANGO2-MECRN: MORE TO 22Q11.2 THAN DIGEORGE SYNDROME

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**Introduction:** TANGO2 is located within the critical region of 22q11.2 deletion syndrome. Biallelic pathogenic variants are autosomal recessive (AR) entities associated with TANGO2-related metabolic encephalopathy and arrhythmias (MECRN - MIM #616878). Presentation can be in the form of acute encephalomyopathic crisis with rhabdomyolysis or as a developmental delay phenotype hard to distinguish from non-metabolic causes. Metabolic testing is classically unremarkable outside of crisis episodes. Acute events may be life-threatening and cause irreversible neurological impairment.

**Clinical case:** Herein is reported the case of a 12-year-old boy with moderate intellectual disability, tetrapyramidal syndrome, orobuccal apraxia, and paroxystic metabolic crisis associated with fever, with a first episode with possible onset 10 months after frenulectomy. Parents reported post-event regression. They were healthy and non-consanguineous. There were no diagnosis-specific dysmorphic features, and anthropometry was normal. Previous studies included MRI with spectroscopy, extensive biochemical and metabolic workup, several single-gene molecular studies, and CGH-array. Serum pyruvate was increased during crisis, with a maximum reported value of 174 µmol/L at 3 years of age.

NGS-based study of a multigene panel for intellectual disability identified an intragenic deletion [c.(56+1_57-1) (c.*1_?)del] and a pathogenic splice-site variant (c.605+1G>A) in compound heterozygosity in TANGO2, establishing the diagnosis of MECRCN.

Management was adjusted, and measures to avoid triggers were initiated. Subsequent Cardiology evaluation was normal. Genetic counselling was provided for several relatives. The younger brother underwent molecular testing and was unaffected.

**Discussion:** TANGO2-MECRN should be suspected in children with trigger-induced crisis with ataxia, particularly when parents are consanguineous. In this case, the authors learned a posteriori that CGH array had identified TANGO2 deletion, which was left unreported to avoid carrier status disclosure. Heterozygous AR variants should be reported in minors when phenotype is compatible. Additionally, WES-based gene panels have a good diagnostic yield and should be prioritized over invasive procedures.

Establishing a specific diagnosis was paramount in this case, to improve prognosis through crisis-avoidance and kidney-protecting attitudes. Family members benefited from genetic counselling for reproductive options.

## PED_3521
## CRASY – CRANIOSYNOSTOSIS DATABASE – A DESCRIPTIVE ANALYSIS

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Craniosynostosis constitutes a major cranial malformation, occurring in 1 per 2,000-2,500 live births, with significant medical and social implications. From January 2011 to March 2021, our hospital center managed 36 cases of craniosynostosis, with a remarkable referral increase over the last 4 years, adding up to ~64% of all cases. Considering this and the fact that craniosynostosis epidemiology is still unknown in Portugal, the CRASY (CRAnioSYnostosis) database was developed to characterize our population and identify possible risk factors for the condition. The database also aimed to systemize and update the multidisciplinary approach to craniosynostosis patients, including those referred to clinical genetics for etiological study and genetic counselling.

Data collection started on May 2020 with case file consultation and delivery of questionnaires to recent cases, complemented with registry review and telephone consultations for past cases. Retrieved information included age at diagnosis and birth, gynecological-related issues, and potential environmental and genetic risk factors. Half of patients were referred to clinical genetics for the first time after initiating the CRASY registry, and most have ongoing genetic testing. Seven patients were diagnosed with specific syndromic entities.

Some populational characteristics from our database matched those described in the literature, such as age at diagnosis, male-to-female ratio, and sagittal-to-other-craniosynostosis ratio. History of environmental exposure to antibiotics, antidepressants, and parent-thyroid disease was not observed. Major differences in cases diagnosed before and after 2018 were also not observed, arguing against an environmental risk factor hypothesis to explain the observed increase in referrals.

Nevertheless, singular associations were found, such as gestational age and type of craniosynostosis. In particular, sagittal craniosynostosis cases tended to have higher gestational age, while this was not observed in metopic craniosynostosis.

Study findings signal a relevant physiopathological mechanism for sagittal craniosynostosis, which may be further investigated in a case-control study based on CRASY registries.

## PED_3621
## CORALLIFORM CALCULI – A PEDIATRIC CASE SERIES

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**Background:** Staghorn/coralliform calculi are branched kidney stones that usually fill the renal pelvis and branch into the calyces. If untreated, there is the risk of kidney injury related to obstruction and infection. Data on pediatric prevalence is scarce. The authors present three cases of staghorn calculi with distinct etiology, presentation, and prognosis.

**Case report:**

Case 1:

Nine-month-old infant, transferred for acute pyelonephritis (Proteus mirabillis) and suspicion of staghorn calculus. CT scan confirmed a 30-mm stone filling the area from the medulla to the calyx on the right kidney, with pelvis dilation (10 mm). The boy underwent percutaneous nephrolithotomy and chemical analysis of the stone identified a struvite composition. The infant was discharged clinically well, under prophylactic cotrimoxazole. Subsequent ultrasound revealed residual microlithiasis foci, with no reflux identified on cystourethrography. DMSA scintigraphy showed right kidney scarring and hypofunction.

Case 2:

Nine-month-old infant girl admitted for acute pyelonephritis (E. Coli). Renal ultrasound and CT scan showed a 16-mm staghorn stone on the left kidney. She underwent an uneventful pyelotomy. In additional study, urinary amino acid profile led to the diagnosis of cystinuria (genetic confirmation of homozygotic type A). During follow-up, on prophylactic antibiotherapy, stone recurrence on the left kidney required several invasive interventions, namely percutaneous nephrolithotomy, lithotripsy, and intrarenal surgery. Since the last procedure, renal ultrasound follow-up continued to show small microlithiasis foci. Additional therapy with urine alkalinizing agents and penicillamine was prescribed.

Case 3:

Ten-year-old girl observed in the Emergency Department for recurrent abdominal pain and vomiting. Abdominal ultrasound and CT scan revealed a voluminous staghorn calculus on the lower half of the left kidney (42 mm) with caliectasis, and another on the upper part (17 mm). Surgical intervention is planned.

**Discussion:** The main risk factors for staghorn calculi in children are anatomical defects and metabolic and genetic diseases. In addition to eradication of the causative microorganisms and obstruction relief, prompt diagnosis of any underlying metabolic or genetic defect is crucial to prevent recurrence and preserve kidney function.

## PED_3721
## CONGENITAL CYTOMEGALOVIRUS IN A TERTIARY PEDIATRIC HOSPITAL - AN 11-YEAR ANALYSIS

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**Introduction:** Cytomegalovirus (CMV) is one of the most common congenital infection agents. Most infants with congenital CMV are asymptomatic, although a notable subset can have sequelae, including sensorineural hearing loss (SHL) and neurodevelopmental (ND) disability. The criteria for grading disease severity, testing CMV, or deciding for treatment vary among centers, and questions remain on the best approach.

**Methods**: A retrospective analysis of newborns (NB) with congenital CMV infection (positive urine PCR within the first 3 weeks of life or positive dried blood spot PCR) diagnosed from May 2010 to May 2021 at the Department of Neonatology of our pediatric tertiary center was conducted. Data regarding obstetric and delivery parameters, clinical presentation, initial evaluation, treatment, and follow-up were collected.

**Results**: A total of 28 NB with congenital CMV were identified. CMV infection was suspected due to maternal seroconversion during pregnancy (n=18, 64%), intrauterine growth restriction (IUGR; n=4; 14%), or suggestive clinical manifestations after birth (n=6; 21%).

Most NB had no changes in prenatal ultrasounds (n=22, 79%), while 6 (21%) evidenced IUGR and/or ventriculomegaly. Amniocentesis was performed in 6 cases (21%), with 3 revealing positive PCR for CMV.

Most NB were asymptomatic (n=16, 57%). Clinical presentation included low weight for gestational age at birth (n=7), petechiae (n=5), and/or jaundice (n=5).

Transfontanellar ultrasound identified abnormal findings in 14 NB (50%), namely germinolysis, vasculopathy, and calcifications. All NB underwent an audiology assessment: 2 cases (7%) failed in otoacoustic emissions, while 3 (11%) had deficits in auditory evoked potentials. No ophthalmological changes were found beyond a case (4%) of unilateral cataract.

Treatment was prescribed in 11 cases (39%), with valganciclovir chosen in all (6 started with ganciclovir and later transitioned to valganciclovir). 4 NB (36%) had adverse drug effects consisting of leucopenia and/or neutropenia.

In the group of 20 children (71%) with a minimum follow-up of three years, 4 (20%) presented ND impairment and 1 (5%) bilateral SHL.

**Conclusion**: Congenital CMV remains a diagnostic and treatment challenge. Although few patients presented clinical manifestations during the neonatal period, prospective studies with longer follow-up are required to investigate further consequences of this common congenital infection.

## PED_3821
## LONG-TIME PAINFUL AND SLEEPLESS FEET – A DIAGNOSTIC CHALLENGE

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**Introduction:** Restless leg syndrome (RLS) is a common but underdiagnosed sensorimotor disorder characterized by a strong urge to move the limbs, often accompanied by uncomfortable sensations, as pain. The diagnosis is clinical: the aforementioned symptoms (unexplained by no other medical or behavioral condition) worsen at rest, improve with movement, and predominantly occur in the evening/night, causing sleep disturbance and/or daytime dysfunction.

**Case report**: A 5-year-old black male with no relevant past medical history or usual medication was referred for lower limb pain since 1.5 years of age. Pain was initially located on the dorsum of the right foot, progressing to the contralateral foot, knees, and sometimes affecting the hands. Pain occurred 1-2 times/week, predominantly during the night, causing awakening, and occasionally in the evening and morning. It worsened in bed and was relieved through massage and acetaminophen/ibuprofen. The mother reported increased feet movement during such episodes. No inflammatory signs or complaints to the diaphysis were referred, as well as no physical activity limitation, fatigue, muscle weakness, or sensory anomalies. The patient also had parasomnia episodes (confusional arousals, sleep terrors, and sleep enuresis). The mother had similar complaints as a teenager.

Laboratory testing showed ferritin below 50ng/mL and increased creatine kinase (CK) (431 U/L). Sickle cell disease, osteoid osteoma, and Pompe and Fabry diseases were excluded after laboratory tests, bone scintigraphy, and magnetic resonance imaging. Polysomnography revealed no periodic limb movements (PLMs). The boy begun 6-month iron supplementation, with unsatisfactory response. Gabapentin was started, and successfully controlled the symptoms. The patient is currently asymptomatic, without insomnia or parasomnias, and with normalized CK.

**Discussion**: This case illustrates the complexity of RLS diagnosis, particularly in pediatric age. In this patient, it was hindered by superior limb involvement (reported in almost 50% of cases), daytime symptoms, and raised CK levels. Mild elevated CK is frequent in black individuals and also described in RLS. Family history of RLS and response to treatment reinforced the diagnosis. Importantly, the absence of PLM does not exclude it.

## PED_3921
## SEVERE KIDNEY INJURY IN HEMOLYTIC UREMIC SYNDROME – A CASE REPORT

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**Introduction:** Hemolytic uremic syndrome (HUS) is defined by a triad of microangiopathic hemolytic anemia, thrombocytopenia, and acute kidney injury (AKI). It is an important cause of community-acquired acute kidney injury in infants and young children. The disease is mostly associated with diarrhea prodrome induced by Shiga-like-producing Escherichia coli. Herein is reported the case of a boy with suspected HUS presenting with anuric kidney injury.

**Case report:** A 1-year-old Caucasian boy, with history of severe vesicoureteral reflux associated with left renal hypoplasia, was transferred to specialized care at our center with suspected HUS, presenting anuric acute kidney injury, anemia, and thrombocytopenia. Five days prior to admission, fever, diarrhea with blood and mucus, vomiting, and parental perception of increased sleepiness/inactivity were reported. Blood analysis on admission revealed anemia (Hb 10.8 g/dL), with schistocytes, thrombocytopenia (platelet count 56000/uL), and increased serum urea (79mg/dL) and creatinine (2.84mg/dL). Peritoneal dialysis was initiated, but hemodialysis was required due to difficulties in managing fluid overload. Twelve days after admission, the boy remained oligoanuric, and 5 daily sessions of plasmapheresis were performed, with exchange of 1.5 plasma volume. Stool culture was negative. Further study revealed elevated D-dimers, negative direct Coombs test, and normal ADAMST13. Viral serology was negative, and the immunological study was normal, except for slightly decreased IgG. Factor H and genetic complement study were negative. The patient progressively regained diuresis and improved renal function, presenting a creatinine of 0.59 mg/dL and a creatinine clearance (24h) of 63.73 mL/min/1,73m2 at hospital discharge, 30 days after disease onset.

**Discussion:** Acute kidney injury in HUS can be managed with appropriate fluid and electrolyte support. There is no evidence that early dialysis affects the clinical outcome of HUS patients, although the choice of dialysis modality varies among centers. In this case, anuria and severe fluid overload, refractory to conservative management with diuretics, were the indications for initiating renal replacement therapy. Plasmapheresis was performed due to the delay in renal function recovery, which may have also been influenced by the patient's renal functional reserve, with reflux and left renal hypoplasia.

## PED_4021
## LANGERHANS CELL HISTIOCYTOSIS – CASE REPORT

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**Introdução:** Langerhans cell histiocytosis (HCL) is a neoplastic disorder with clonal origin in Langerhans dendritic cells, usually found in the epidermis. It is a rare and heterogeneous condition that can affect any organ or system, with bone involvement being the most common form of presentation. It mostly affects individuals in pediatric age.

**Case report:** An 8-year-old buy was brought to the Family Doctor (FD) with complaints of pain and sensation of left parietal tumefaction with around one month of evolution, with no history of trauma. An ultrasound was performed, showing "(...) notorious irregularity in the bone wall, with dysmorphia and apparently with some sinking, even admitting the persistence of several isolated bone squirrels, suggesting an osteolytic lesion (...)", and the boy was immediately referenced by the FD to the Emergency Service (ES). CT scan performed in ES confirmed an "(…) heterogeneous lytic area in the bone element and smooth underlying dural densification (…)", with normal blood tests. The boy was hospitalized to complete the study, which showed no further lesions.

The case was discussed with IPO-Porto, to where the child was sent for a PET scan, which showed discrete and diffuse metabolic activity in the skull, particularly in the left parietal region, with no other capture foci. AT this point, surgical excision was considered and the histological analysis confirmed bone involvement with LCH. An MRI was performed 2 months after the excision, with no evidence of relapse or complications. Clinical and imagiological surveillance was decided in multidisciplinary consultation, with no additional treatment so far.

**Discussion:** LCH represents a challenge in the daily clinical practice. It is an unusual disease that can fall in the spectrum of a wide variety of conditions, may have unifocal or multisystemic involvement (central nervous system, skin, lungs, etc.), and may be indolent or aggressive. This clinical case aims to raise awareness of health professionals to this clinical diagnosis, as well as underline the importance of the FD as an integral element of patient care, often acting as the "gateway" and key element in patients' rapid referral and follow-up.

## PED_4121
## SCREENING FOR DEVELOPMENTAL DYSPLASIA OF THE HIP: EVIDENCE-BASED REVIEW

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**Background:** Developmental dysplasia of the hip (DDH) is a leading cause of disability in children and young adults that ranges from clinically detectable dislocation of the hip to radiologically diagnosed hip abnormalities. However, the question of which screening modality is more suitable to prevent the consequences of this condition remains.

**Objective:** To assess the impact of universal ultrasonography screening versus clinical screening for the diagnosis of DDH.

**Methods:** An evidence-based review using the keywords 'Infant', 'Newborn', 'Hip Dislocation, Congenital', 'Developmental Dysplasia of the Hip', 'Mass Screening', and Ultrasonography' was performed in major international databases. Articles published in the last 10 years were considered. The level of evidence and strength of recommendation were determined using the Strength of Recommendation Taxonomy – SORT scale.

**Results:** One Cochrane review, two expert consensus, and three cohort studies were included. All indicated that universal ultrasound screening leads to higher treatment rates compared to clinical screening, although without a significant increase in associated complications, such as avascular necrosis of the femoral head.

**Conclusion:** This review highlights that universal ultrasound screening does not decrease the number of late diagnoses or surgeries. However, it should be noted that clinical screening performed in all studies was carried out by pediatricians or orthopedists with extensive experience. Therefore, further research including primary care physicians is required to obtain a more robust recommendation.

## PED_4221
## FOOD ALLERGY - IMPORTANCE OF MOLECULAR ALLERGENS

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**Introduction**: Food allergy is currently a public health problem. It is a very common entity in children and its prevalence has increased over the last decades. Cross-reactivity between allergens is frequent and may lead to unnecessary restrictive diets. Herein is presented a case report illustrating this situation.

**Case report**: A 10-year-old boy was referred to the Dermatology consultation due to suspicion of food allergy. He was followed for a cutaneous mastocytoma in regression and had a history of atopic dermatitis in early childhood, allergic rhinitis since the age of 6, and allergic asthma diagnosed at the age of 9. Allergology study was carried out, showing total IgE of 2003 KU/L and polysensitization to multiple foods and aeroallergens. The patient was advised to avoid nuts and peanuts. In Pediatric consultation (allergic diseases), ImmunoCAP ISAC study was carried out, which allowed to clarify the clinical picture. Oral challenge tests for peanut and hazelnut were negative. The boy currently maintains an unrestricted diet.

**Discussion**: The study of specific molecular allergens (ISAC) has revolutionized the diagnosis of food allergy. Due to its greater specificity compared to specific IgE testing, it has allowed to increase the diagnostic acuity for these conditions. Its greatest utility is to enable distinguishing between primary sensitization and cross-reactivity, thus avoiding unnecessary food avoidance, as in the present case. Knowing the molecular sensitization profile allows more precise and individualized diagnosis.

## PED_4321

## KBG SYNDROME NEURODEVELOPMENTAL PHENOTYPE – FOUR PORTUGUESE CLINICAL CASES

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**Introduction**: A wide range of genetic syndromes can be identified within neurodevelopmental conditions. As most are uncommon and may present a diversified phenotype, the specific diagnosis is challenging. Recent advances in genetic techniques are very helpful in the etiologic diagnosis.

KBG syndrome is a rare genetic disorder of autosomal dominant transmission caused by mutations in the ANKRD11 gene at 16q24.3 locus. It phenotypically presents with specific craniofacial, dental, and skeletal alterations and short stature. Additionally, global development delay is an important characteristic of this syndrome, affecting around 99% of all cases. Herein are presented four cases of this very rare syndrome.

**Case report**: Patients included in this series are all male and aged between 3 and 13 years. One was born prematurely at 33 gestational weeks and the others were born from uneventful pregnancies. No dysmorphic features were apparent at birth, and the neonatal period was uneventful for all patients. Two had cryptorchidism and epilepsy, and one presented anorectal and intestinal malformations, with Meckel's diverticulum disease and concomitant Fabry disease. All patients had facial dysmorphism, with only one presenting macrodontia, and two had brachydactyly. Global developmental delay (GDD) was present in the four boys since their first months of life. Attention deficit and hyperactivity disorder (ADHD) was diagnosed in two.

**Discussion**: KBG syndrome is a rare genetic disorder, with only 150 cases described worldwide. It seems to be underdiagnosed, a fact explained by the great phenotypic variability. These four KBG syndrome cases followed at our unit support the hypothesis that it is an underdiagnosed condition. As expected, all patients had GDD. Although autism spectrum disorder is expected to occur in 20% of patients, none of these boys had this diagnosis. Meanwhile, ADHD, described in 10% of these children, affected two patients.

Early diagnosis and intervention, according to the patient's neurodevelopmental and behavioral profile, are of paramount importance for improving the quality of life of both patients and families.

## PED_4421

## KLEEFSTRA SYNDROME — A CASE SERIES

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**Introduction**: Kleefstra Syndrome (KS) is a rare autosomal dominant disorder of neurodevelopment with a core clinical phenotype that includes moderate-to-severe intellectual disability (ID), hypotonia, and characteristic facial dysmorphisms (synophrys, midface hypoplasia, anteverted nares, tented upper lip, and thick lower lip). Additional features include congenital heart, urogenital, and CNS defects, psychiatric disorders, and overweight.

KS arises from EHMT1 haploinsufficiency caused by either a microdeletion at 9q34.3 or intragenic mutations. Approximately 100 patients have been identified.

Herein are present four cases currently followed at our Neurodevelopmental Unit.

**Case report:** Herein are reported the cases of four patients, one female, with ages between 3 and 15 years. Due to positive screening, amniocentesis was performed in two pregnancies, revealing normal karyotype. Fetal cardiac arrythmia was also reported in three patients.

All patients were born at term and exhibited hypotonia and dysmorphic facial features at birth. The female patient required admission to the Neonatal Intensive Care Unit (NICU) due to cyanosis and feeding difficulties. Motor delay was also apparent in all cases at an early age, and all but one had severe expressive language impairment. Psychometric evaluations with Griffiths Mental Development Scale revealed general quotients (GQ) between 41 and 54. Metabolic panel and EEG were normal in all four cases, despite one case of febrile seizure at 4 years and one case of non-febrile seizure at 13 years. All but one case (which has a nonsense variant in the EHMT1 gene identified in exome technique) have 9q34 microdeletions detected by array.

**Discussion**: Despite all four patients in this series present the typical core phenotype, one lacks significant expressive language impairment, reported in most cases. A genotype-phenotype correlation, as reported in the literature, could not be established in this sample.

Early diagnosis and an individually designed intervention, according to the child's neurodevelopmental and behavioral profile, are paramount for improving the quality of life of caregivers and patients.

## PED_4521

## SEVERE PRESENTATION OF LEIGH SYNDROME

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Leigh syndrome (LS) is a rare genetic mitochondrial cytopathy associated with central nervous system neurodegeneration. Symptoms are related with psychomotor regression, often accompanied by basal ganglia and brainstem dysfunction. Ten percent of cases can present with central hypoventilation leading to apnea. The prognosis is poor, and death often occurs due to respiratory failure.

The present case refers to a 7-year-old boy, with development delay without regression, mild cognitive impairment, and recent cerebellar ataxia. Cerebral magnetic resonance image (MRI) showed high T2 signal in pons, medulla, cerebellum, and left thalamus. During the MRI, under sedation, the boy had an episode of respiratory acidosis with hypercapnia, with rapid recovery after waking up. He was hospitalized for study and corticotherapy, experiencing another similar episode requiring transitory non-invasive ventilation (NIV). Another episode occurred upon hospital arrival, when the boy did not wake up after car travel. He was hypertensive, tachycardic, with 36 respirations/minute, irregular breathing, and peripheric oxygen saturation of 98% (FiO2 0.24). The boy was awake, drowsy, and lethargic, had a whispered voice, and referred headache since that morning. Neurological exam showed inexhaustible nystagmus in all eye movement directions and left finger-to-nose test dysmetria. Arterial blood gas showed respiratory acidosis with hypercapnia, prompting initiation of bilevel positive airway pressure NIV (spontaneous/timed mode), with clinical and analytical improvement. Extensive diagnostic workup was performed, showing raised lactate and mitochondrial disfunction in urinary organic acids. MRI was repeated, showing new pathological involvement of the substantia nigra, clastic mesencephalic lesions, and alterations compatible with pathological process in progression, favoring LS diagnosis. Nuclear gene panel for mitochondrial diseases was normal, and mitochondrial DNA is still in course. The boy still requires NIV due to central apnea, as well as feeding by nasogastric tube due to chocking episodes. Multidisciplinary teamwork was required to discharge this child with nutritional, ventilatory, and physical support.

With this case, the authors wish to raise awareness to a severe presentation of a rare and rapidly progressive disease, in which a multidisciplinary approach is crucial. Paying attention to hypoventilation-related symptoms is important to assure appropriate supportive therapy in patients with LS.

## PED_4621

## DUPLICATION OF THE SMALL INTESTINE – CASE REPORT AND SURGICAL MANAGEMENT

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**Introduction**: Alimentary tract duplication (ATD) is a rare congenital malformation that can develop anywhere along the gastrointestinal (GI) track, being the ileum the most frequent location. ATD can present as tubular or spherical cystic lesions of the abdomen arising from the mesenteric side to share a common blood supply with the native intestine. They are usually attached to the GI tract, have smooth muscle in the wall, and are lined with the GI epithelium. Its precise embryologic mechanism remains to be clarified.

**Clinical case**: Herein is reported the case of a twelve-month-old boy with an abdominal mass prenatally diagnosed through antenatal ultrasonography (US). The patient was asymptomatic, and no abdominal mass was palpable. Post-natal US and magnetic resonance imaging (MRI) revealed features of a cystic lesion with 35 x 27 x 24 mm located on the right abdomen. However, pre-operative imaging was unable to accurately establish a diagnosis.

The boy was submitted to exploratory laparoscopy and the distal ileum was exteriorized through the umbilical incision. Macroscopic examination suggested the diagnosis of duplication of the small intestine arising from the mesenteric border of the distal ileum, ten centimetres proximally to the ileocecal valve. No communication with the ileal lumen was present. Small bowel enterectomy including the ATD with primary anastomosis was performed.

The patient had an uneventful recovery, restarting enteral feeding on the third post-operative day and being discharged on the sixth day. The patient currently has a two-month follow-up in pediatric surgery consultation, with optimal clinical condition.

**Discussion**: Finding of a fetal intra-abdominal cyst may represent a diagnostic and management dilemma due to the wide variety of potential different diagnoses. Pre-operative imaging is key, and a double layered wall, the “gut signature,” is typically seen in US.

Patients with duplications diagnosed on prenatal US are not required to undergo surgery in the neonatal period if asymptomatic. Due to risk of bleeding, peptic ulceration or perforation, obstructive symptoms or volvulus, removal represents the optimal treatment. Treatment depends on location, size, and surgeon’s experience, but laparoscopy is increasingly used for both diagnosis and treatment.

## PED_4721
## COFFIN SIRIS SYNDROME: A RARE DISORDER WITH NEURODEVELOPMENTAL IMPACT

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**Introduction:** The continuous evolution of genetic techniques improves the diagnosis of global developmental delay (GDD) and intellectual disability (ID), as well as the identification and better characterization of new syndromes. Coffin-siris syndrome (CSS) is a rare multisystemic disease with neurodevelopmental impact. Herein are presented five cases followed at our Neurodevelopment Unit.

**Cases:** Herein are described 3 males and 2 females aged between 3 and 16 years old. ARID1B gene mutations were identified in 4 cases, while DPF2 was the affected gene in one.

All children had feeding difficulties in the first months of life, three with recurrent infections in the first years of life (two of whom with a history of several hospitalizations).

All patients had facial dysmorphisms, and two had anomalies of the fifth toe. Hirsutism was identified in one boy. GDD/ID was diagnosed in all patients, and ADHD in three.

**Discussion:** CSS is a very rare genetic disorder, slightly more frequent in females, caused by mutations in multiple genes (at least 12), most commonly in ARID1B gene, as in this sample.

Diagnostic suspicion is raised during the first years of life, when children manifest feeding difficulties and recurrent infections and evidence typical facies, growth deficit, and hypotonia. This set of characteristics is not fully present in the present patients, but they all had feeding difficulties and suggestive facies. Other clinical manifestations include developmental delay and ID, which was present in all patients in this series, as well as fifth-finger abnormalities, also identified in patients. Hirsutism is also associated with this syndrome, and was found in one patients.

As there is no specific treatment in place, medical follow-up and constant stimulation through multidisciplinary therapy is required to improve outcomes.

## PED_4821
## VENOUS THROMBOSIS AFTER COVID-19 VACCINE: CAUSE OR COINCIDENCE?

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**Introduction:** SARS-CoV-19 pandemic represents a leading global health emergency and vaccines to prevent this infection are considered the most promising approach for curbing the pandemic. COVID-19 vaccine development is occurring at an unprecedented pace. The two approved mRNA-based vaccines have shown to be effective against COVID-19 and the benefits of vaccination appear to greatly outweigh the rare risk of adverse events in both healthy patients and those with inflammatory bowel disease (IBD). COVID-19 infection in IBD patients is associated with a significantly increased risk of venous thromboembolism (VTE), but there are few reports about a possible association between VTE and mRNA-based SARS-CoV-2 vaccines.

**Case report:** Herein is reported the case of an 18-year-old male with a personal history of Crohn's disease, medicated with adalimumab fortnightly, in remission, non-smoker, with body mass index of 24 Kg/m2. He had been vaccinated with two doses of mRNA-1273 COVID-19 vaccine (Moderna) at the anterior face of the left upper limb. Twenty days after administration of the second dose of vaccine, he presented to the Emergency Department with pain and swelling of the left upper limb with two days of evolution. There was not history of trauma, surgery, infection, immobilization, long air travel in the preceding three months, history of COVID-19 infection, or family history of thrombophilia. Physical examination was normal, except for swelling, redness, and tenderness of the anterior face of the left upper limb. Blood tests revealed high D-dimer (3.81 µg/mL) and CK (1029 U/L) levels and normal platelet count (234.000µL). Doppler ultrasound scan diagnosed basilic vein thrombosis. The patient started hypocoagulation for at least three months. One week later, he was asymptomatic.

**Discussion:** Thrombosis associated with COVID-19 vaccines is rare, and the most frequent causes should be investigated. However, in a setting of extensive vaccination with new vaccines, it is vital that both patients and doctors are vigilant and report possible adverse effects. Further studies are needed to estimate the real incidence of VTE after m-RNA based vaccines for SARS-CoV-2, especially in patients with IBD.

## PED_4921
## "ADOLESCE" - AN INTERVENTION PROJECT FOR ADOLESCENTS

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**Introduction:** Adolescence is characterized by biological alterations of puberty and biopsychosocial development. It is the last period in which the investment in reducing risk factors and promoting protective factors translates into effective health gains. About 10-20% of adolescents suffer from mental illness. The main objectives of this project were to create assistance tripod to approach risky situations and assess biopsychosocial development through the Home, Education, Eating, Activities, Drugs, Sexuality, Suicide, and Safety (HEADSSS) approach.

**Methodology:** Multidisciplinary team with 1 nurse, 2 doctors, and 1 psychologist. The target population was the list of patients of one doctor from USF Mare. Inclusion criteria (people between 12 and 14 years old) and exclusion criteria (people followed in a specialty consultation or without motivation to join) were applied. An Adolescent File (AF) was developed. After authorization from legal guardians, the adolescent went through a circuit divided into 3 phases: evaluation by the Family Nurse and AF filling; evaluation by the Family Doctor according to the National Child and Youth Health Program (PNSIJ) and FA; evaluation by the Psychologist, through the Brief Symptom Inventory. Weekly team meetings were undertaken to decide on adolescent guidance: surveillance (PNSIJ), subsequent consultation, referral to Psychology follow-up in CSPs, referral to secondary care.

**Results:** From an initial population of 56 adolescents, 2 were excluded, 10 had no updated contact, 6 refused to participate, 9 did not attend, and 3 refused psychological assessment. Twenty-seven adolescents completed the intervention, of whom 6 were born in 2004, 7 in 2005, and 12 in 2006. Seven had BMI >25, or BMI <16, or BD >P95. A total of 22% admitted additive consumption behaviors; 26% are not satisfied with their body; 15% did not follow a healthy diet; 26% reported sleep disturbance; 22% referred with negative emotions. Seven adolescents were referred to secondary care , 1 had new medical surveillance, and 5 continued to be followed in Psychology.

**CONCLUSION:** Adolescence is a pivotal stage for the development of the individual and their autonomy and responsibility, so clinical interview represents a great opportunity in this scope. Development of adolescent-friendly health spaces will allow maintenance of a 90% surveillance coverage rate. A holistic approach at this life stage will translate into health gains and "healthy" adults.

# GINECOLOGIA - OBSTETRÍCIA

## COMUNICAÇÕES ORAIS

### GO_0121
### EFFECT OF SJÖGREN'S SYNDROME ON PREGNANCY AND FETAL OUTCOMES: CASE-CONTROL STUDY

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**Introduction:** Sjögren's syndrome (SS) is a systemic autoimmune disorder that predominantly occurs in women in the 40th decade of life. A higher frequency of SS has been observed in pregnancy in recent years, probably due to advanced maternal age at first pregnancy.

Like in other autoimmune diseases, SS patients have a higher risk of pregnancy and fetal complications compared with healthy mothers. The most severe SS fetal complication is congenital heart block (CHB), which occurs in approximately 1-2% of offspring of mothers with anti-Ro/SSA antibodies. The present study aimed to evaluate the impact of SS in pregnancy and neonatal outcomes.

**Methods:** This was a retrospective case-control study comparing 26 pregnancies in women with SS with a healthy control group (CG).

**Results**: A total of 26 pregnancies with SS were analyzed. At the time of diagnosis, the mean maternal age was 31.46 ± 6.77 years. All pregnancies occurred after SS diagnosis, with a mean exposure time to SS of 4.92 ± 2.78 years.

In the SS group, the incidence of ANA, anti-Ro/SSA, and anti-La/SSB antibodies positivity was 80.8%, 61.5%, and 46.2%, respectively. These antibodies were not presented in the CG.

In the SS group, the prevalence of spontaneous abortion (SA) (19.2% vs. 1.8%; p=0.003) and intrauterine growth restriction (11.5% vs 0.9%; p=0.011) was significantly higher compared with the CG. The mean gestational age at delivery was not significantly different between both groups (p=0.171). Preterm delivery (7.7% vs 5.5%; p=0.346) and mean neonatal birth weight (2998.16 gr vs 3155.79 gr, p=0.178) were also not significantly different between groups.

Admission to the neonatal ICU was more frequent in the SS group (19.2% vs 0%; p<0.001). In women with SS, three pregnancies were complicated by CHB (11.5% vs 0%; p=0.003), two of which with an intrauterine fetal AV block II and one with a complete AV block. In all cases, the diagnosis was established during the 2nd pregnancy trimester, and betamethasone was administered.

**Conclusions:** In general, pregnancy outcomes did not differ between SS and healthy women, except regarding SA, which had significantly higher rates in the SS group. It is very important to closely monitor the fetuses of pregnant women with positive autoantibodies, to diagnose and prevent progression to CHB. Successful pregnancy in women with SS is possible with a multidisciplinary approach.

### GO_0221
### ENDOMETRIAL CARCINOMA – CLINICAL CHARACTERIZATION AND ACCURACY OF MRI AND EXTEMPORANEOUS EXAMINATION FOR MYOMETRIAL INVASION EVALUATION

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**Introduction:** Endometrial cancer (EC) is the most common gynecologic malignancy. Risk factors include obesity, hypertension, and diabetes mellitus. The most common presentation is postmenopausal bleeding. Most guidelines recommend ultrasound and endometrial biopsy as initial study, with MRI potentially useful for identifying disease extent and myometrial invasion.

This study aimed to evaluate the clinical and histopathological features and short-term evolution of a series of EC patients treated at our center. The agreement between the degree of invasion documented in MRI, extemporaneous examination, and definitive histological examination was also assessed.

**Methods:** A review of medical records of patients undergoing surgical treatment for EC from January to December 2020 was conducted.

**Results:** A total of 25 women were submitted to surgical treatment of EC. All but one were postmenopausal, with a mean age of 67 years and mean BMI of 30.8 kg/m2 at presentation. Overall, 60% of women had hypertension and 20% diabetes, and 32% were nulliparous. Abnormal uterine bleeding was present in 88% of patients. All were initially evaluated by ultrasound, with a mean endometrial thickness of 19.5 mm. The histologic analysis revealed 20 endometrioid carcinomas, three serous carcinomas, one clear-cell carcinoma, and one carcinoma with endometrioid and micropapillary serous components. Nineteen cases were diagnosed in stage I.

Over a mean follow-up of 14 months, two deaths were reported, the first in a patient with serous carcinoma who refused adjuvant therapy and the second in a patient with clear-cell carcinoma diagnosed with gastric adenocarcinoma shortly after the first diagnosis.

Fourteen patients were proposed for adjuvant therapy (brachytherapy, chemotherapy, and/or radiotherapy). Treatment complications included one retroperitoneal hematoma, two incisional hernias, three operative wound infections, and one infected lymphocele.

Preoperative MRI was conducted in 21 patients; in 16 cases (76.19%), concordance was observed between the degree of invasion documented in MRI and in definitive histologic examination. Extemporaneous examination was performed in 20 patients, with 19 cases (95%) reporting concordance in the degree of invasion documented in this and definitive histologic examination.

**Conclusion:** Risk factors identified in the present sample agreed with those described in the literature. MRI is an accurate method to evaluate the grade of myometrial invasion, but it does not replace the extemporaneous examination.

## GO_0321
## POSTPARTUM CONSULTATION IN PRIMARY HEALTH CARE – CONTINUOUS QUALITY IMPROVEMENT

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**Introduction:** The puerperium is a time for physical and psychological recovery of the mother from childbirth until 42 days after parturition. However, puerperium consultations are frequently neglected, motivating the present work.

The main aim of this study was to evaluate the medical records of on-site puerperium consultations and hence the quality of care provided during this period. Its specific objectives were to investigate the availability of on-site puerperium consultations at Programa Nacional para a Vigilância da Gravidez de Baixo Risco.

**Methodology:** This was an observational retrospective study of quality assurance and improvement of puerperium women attending an on-site puerperium consultation and doctors from the Family Health Unit (USF) Terras de Santa Maria conducted at the time of the first evaluation between June 2020 and May 2021. All women with codes W78, W79, and W84 active in the considered time period were identified, and those who had an on-site puerperium consultation were included. The following features were assessed: breastfeeding, mental health, family dynamics and social support, pelvic floor/cesarean scar and blood loss, eating habits, use of harmful substances, sexuality, and contraception. The following corrective measures were applied: training sessions, workplace reminders, and development of a checklist with items to be discussed in consultation.

**Results:** Of 131 women initially identified, 58 had an on-site postpartum consultation and were included, corresponding to a "very good" quality standard. Among features evaluated, only assessment of breastfeeding, approach to contraception, and assessment of pelvic floor/cesarean scar achieved "sufficient" quality standards. The remaining features had "insufficient" quality standards.

**Conclusion:** This study confirms the authors' empiric notion that postpartum consultations are suboptimally used to discuss postpartum issues. As this study used medical records, it can be argued that the topics in question are addressed in consultation but not registered. However, these cases are probably the exception and not the rule. The potential for improvement is huge and the application of corrective measures will predictably foster it.

## GO_0421
## SLEEP QUALITY IN THE THIRD PREGNANCY TRIMESTER - OBSERVATIONAL STUDY

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**Introduction:** Important changes occur in physiological functions during pregnancy, including in sleep. Recent studies suggest an association between sleep quality in pregnancy and obstetric complications, namely hypertensive disorders of pregnancy.

Simultaneously, the anatomic and physiological adaptations that women go through during

pregnancy may enhance sleep disturbances, the most common being obstructive sleep apnea (OSA).

This study aimed to assess sleep quality during the third pregnancy trimester and investigate the association between maternal characteristics and risk of OSA.

**Material and methods:** An observational cross-sectional study was conducted, including a sample of 103 women in the third pregnancy trimester who completed the Pittsburgh Sleep Quality Index, Berlin Questionnaire, and Epworth Sleepiness Scale.

**Results:** Overall, 69% (n=71) of women showed daytime sleepiness according to the Epworth Scale, and this result increased with increasing maternal age and number of children. Sleep quality results showed that over half of women suffered from poor sleep and increased sleep onset latency. Concerning OSA, 42% of women displayed a high risk of developing the condition, particularly those with coexisting pregnancy and advanced maternal age.

**Conclusions:** This investigation corroborates preexisting data on the subject and reinforces the association between poor sleep quality and pregnancy. Study results stress the need to raise awareness of sleep disturbances in pregnant patients, enabling timely diagnosis of the condition and providing adjusted monitoring of fetal and maternal wellbeing to improve obstetric outcomes.

## GO_0521
## PATHOGENIC VARIANTS OF RAD51 GENE AND OVARIAN CANCER: EXPERIENCE OF AN ONCOLOGY CENTER

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**Introduction**: Ovarian cancer is the third most common cause of gynecologic malignancy in developed countries. In Portugal, the condition has an incidence of 9.5/100.000 women but is one of the most lethal, with a five-year survival rate of 50%. Twenty-five percent of ovarian carcinomas are associated with genetic mutations, most commonly in BRCA1/2 genes. However, other pathogenic variants were also found to increase the risk of ovarian cancer, as mutations in RAD51D and RAD51C genes. Recent studies estimate that 5% of patients diagnosed with hereditary ovarian cancer present a mutation in the RAD51D gene and 3% in the RAD51C gene, with a cumulative risk of developing ovarian cancer until 80 years of age of 13% and 11%, respectively.

**Methods**: Data from all female patients registered in the genetic database of our Oncology center diagnosed with a pathogenic variant of the RAD51D and RAD51C genes were collected. The presence of other pathogenic variants was an exclusion criterion. Retrieved data included patients' age, personal and family history, histopathological exam, adjuvant treatment, follow-up, and recurrence. Statistical analysis was performed with IBM SPSS Statistics 26.

**Results**: A total of 34 women were diagnosed with a pathogenic mutation in RAD51 genes – 19 in RAD51D and 15 in RAD51C. Of those, 47.1% had a diagnosis of malignancy, and 29.4% had a diagnosis of ovarian carcinoma. In the group with pathogenic mutations in RAD51 genes and ovarian carcinoma diagnosis, seven had RAD51D and three RAD51C pathogenic variants, and the median age at diagnosis was 55.5 years. Seventy percent were diagnosed with peritoneal carcinomatosis. Histopathological exam demonstrated high-grade serous carcinoma in 90% of cases. Fifty-five percent were treated with neoadjuvant chemotherapy followed by cytoreduction and the remaining with primary surgery followed by adjuvant chemotherapy. All patients achieved complete response after first-line treatment. In the global cohort, one patient died during the study, and three presented disease recurrence, on average approximately 28 months after treatment.

**Conclusion**: Pathogenic variants in RAD51 genes are associated with an increased risk of ovarian cancer. PARP inhibitors, used in BRCA-mutated ovarian cancers, may have similar efficacy in the treatment of cancers related to RAD51 mutations. Therefore, these mutations should be included in genetic panel testing for ovarian cancer patients.

## GO_0621
## LAPAROSCOPIC RADICAL HYSTERECTOMY IN CERVICAL CANCER – EXPERIENCE OF AN ONCOLOGY CLINIC

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**Introduction**: Radical hysterectomy (RH) is the treatment of choice in cervical cancer (CC) stages IA2 and IB1. It involves a meticulous dissection of parametria, with limits differing according to the radicality desired to obtain free margins. Minimally invasive radical hysterectomy (MIRH) became an alternative to open surgery in CC after previous experience from endometrium cancer indicated comparable survival. However, a multicenter randomized trial in 2018 suggested lower survival rates for CC patients treated with MIRH.
The present study aimed to review all CC cases treated with MIRH in an Oncology clinic, regardless of outcomes.

**Methods**: Data from all patients with CC treated with laparoscopic RH (LRH) were collected from surgical and clinical archives between January 2017 and December 2020. Retrieved data included patients' age, preoperative diagnosis and staging, type of surgery, anatomopathological exam, lymph node data, adjuvant treatment, follow-up, and recurrence. Statistical analysis was performed with IBM SPSS Statistics 26 software.

**Results**: Between 2017 and 2020, 24 women with CC were treated with laparoscopic RH. The median age at diagnosis was 50 years, and for most patients (n=18), the diagnosis was established in a conization procedure. Preoperative staging comprised four IA2 and 20 IB1 stages. Postoperative staging comprised four IA2, 17 IB1, two IB2, and one IIB stage. Regarding histologic subtype, 12 tumors were epidermoid, and 12 were adenocarcinomas.
In 13 cases, the anatomopathological exam did not identify a tumor in the surgical specimen. In the remaining 11 cases, the tumors identified had a mean size of 16.6 mm (range 2–47 mm) and a mean depth of stromal invasion of 8.3 mm (range 1–27 mm). Lymphovascular invasion was present in four cases and parametric involvement in one. No case had positive margins. The shortest margin was more frequently the radial (n=8), with 0.3–11 mm. Positive lymph nodes were registered in one case.
Three patients required adjuvant treatment. All patients maintained follow-up, with one recurrence identified so far. Detailed revision of that case revealed that the preoperative staging and surgical approach were debatable, since the diagnostic specimen included, not only a conization with a tumor lesion of 16 x 9 mm, but also a previously removed cervical lesion with more than 3 cm.

**Conclusion:** LRH may be a safe and adequate option for some patients, with results comparable to the open surgery approach. Further research is needed to understand the role of MIRH in CC treatment.

## GO_0721
## CROWN-RUMP LENGTH DISCORDANCE IN THE FIRST TRIMESTER: WHAT MEANING IN A DICHORIONIC PREGNANCY?

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**Introduction**: In dichorionic pregnancies, crown-rump length (CRL) discordance is mainly associated with genetic, uteroplacental, or umbilical cord (UC)-related factors. However, the first-trimester scan plays a controversial role in prediction of adverse outcomes.

**Case report**: A 26-year-old Afro-descendant pregnant woman, G4P1 (one successful pregnancy, one spontaneous abortion, one pregnancy termination), was referred to our center by the general practitioner to perform the first-trimester scan following spontaneous conception. At 13 weeks, the scan revealed a dichorionic twin pregnancy with a CRL discordance of 27.7%. Combined screening test showed an increased risk of trisomy 21 in twin B (largest CRL) compared to maternal age-based risk (1/910–1/851), motivating a request of amniocentesis by the mother. Normal karyotype was obtained for both twins, and microarray detected a mosaic trisomy 2 in twin B (confirmed as pseudomosaicism in the placenta postnatal genetic evaluation). Zygosity determination by polymorphic markers suggested monozygotic twins. Posterior morphological and echocardiographic evaluations were normal for both. No abnormal findings were detected in the laboratory study of fetal growth restriction (FGR) etiology. At 25 weeks, hospitalization was proposed in the context of severe FGR of both fetuses associated with abnormal Doppler indices in twin A and normal amniotic fluid volume in both. The gestation was terminated at 32 weeks by cesarean section (breech presentation of twin A) due to absent end-diastolic flow velocity of the umbilical artery in twin A, after rescue corticosteroid course. Two female neonates were delivered, with weights of 965 g and 1404 g (discordance of 31.3%) and Apgar scores of 7/8 and 9/10. Placental analysis revealed a marginal UC insertion and the histopathologic exam reported distal villous hypoplasia in twin A. Both neonates were admitted to NICU: twin A had a favorable course and twin B died at D14 of life due to sepsis with encephalitis.

**Conclusions**: In this case report, CRL discordance was attributed to placental and UC-related etiology. However, CRL discordance-based counseling must be cautious, as most studies do not define this finding as a strong predictor of adverse outcomes.

Larger growth discordance is associated with increased morbimortality, but there is no consensus regarding the cut-off for increased complications.

## GO_0821
## EARLY-ONSET FETAL GROWTH RESTRICTION AND EARLY PRETERM BIRTH – WHICH NEONATES HAVE POORER OUTCOMES?

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**Introduction**

Deciding to deliver a fetus with growth restriction (GR) at an early gestational age (GA) may be challenging and requires a benefit-risk analysis, considering both the potentially severe neonatal morbidity and fetal status worsening, possibly leading to intrauterine demise.

This study aimed to evaluate maternal and fetal/neonatal characteristics of gestations diagnosed with early-onset fetal growth restriction (EO-FGR) and posterior early preterm birth (PTB) by comparing two groups according to the presence of severe neonatal morbidity and mortality.

**Methods**

A retrospective observational study was conducted at a single tertiary center in Northern Portugal between 2019 and 2020, including GR fetuses born alive from 24+0 to 32+6 weeks of gestation. Infants were evaluated according to the composite outcome (CO) of neonatal death (ND) and severe morbidity (SM) manifestations before home discharge from the NICU. Statistical analysis was performed using SPSS 23.0, considering a p-value <0.05 as statistically significant.

**Results**

Among a total of 130 early PTB, 49 fetuses were classified as having GR prior to delivery, 26 (53.1%) of whom displayed the CO (four died and 22 suffered SM), and 23 (46.9%) presented none of the considered adverse outcomes. Mean maternal age (years) was increased in the first group (33.2 ± 5.6 vs 29.5 ± 5.7; p=0.025) and median GA (weeks) at both FGR diagnosis and delivery was decreased (28.5, IQR 4.0 vs 30.0, IQR 3.0 [p=0.006] and 30.0, IQR 4.0 vs 32.0, IQ R1.0 [p=0.002], respectively).

FGR was the cause of birth in 20 cases (76.9%) of the CO group and 11 cases (47.8%) of the healthy group (p=0.043). Death and severe morbidity were more common among lighter infants (950.0 g ± 529.0 vs 1239.4 g ± 220.0; p<0.001).

Differences related to the presence of preeclampsia, twin pregnancy, abnormal Doppler indices mode of delivery, neonatal gender, and Apgar scores at 1' and 5' were nonsignificant.

**Conclusion**

More than half of infants in the considered high-risk group presented poor short-term neonatal outcomes. These adverse outcomes are related to maternal age, GA at FGR diagnosis and delivery, birth weight, and FGR as the primary cause of delivery. Early delivery still carries significant morbimortality, urging continuous improvement of antenatal monitoring and neonatal care. Assessment of long-term sequelae is lacking and may influence perinatal management.

## GO_0921
## EVALUATION OF SFLT-1/PLGF RATIO AS A PREDICTIVE MARKER IN WOMEN WITH SUSPECTED PREECLAMPSIA AND MATERNAL AND PERINATAL ADVERSE OUTCOMES

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**Introduction:** An imbalance between two maternal serum parameters – sFLT-1 (soluble fms-like tyrosine kinase 1) and PlGF (placental growth factor) – is associated with placental pathogenesis, and high sFLT-1/PlGF values have been shown to improve prediction of preeclampsia (PE) in pregnant women at risk of this complication, allowing referral to specialized perinatal care services and expeditious intervention. In this study, sFLT-1/PIGF ratio was investigated in a restricted population of hospitalized high-risk pregnant women (including with multifetal pregnancies) as a tool to rule out suspected PE, and sFlt-1/PIGF correlations in predicting adverse maternal or fetal pregnancy outcomes in pregnancies with PE were assessed.

**Methods:** This retrospective observational study included 44 pregnant women (23–36 gestational weeks) with suspected or confirmed PE (diagnosed when both hypertension and proteinuria or presence of other characteristic PE signs/symptoms were demonstrated, according to the American College of Obstetricians and Gynecologists guidelines) hospitalized from January to December 2020. Serum sFLT-1/PIGF ratio was evaluated to compare the main obstetric outcomes.

**Results:** A total of 27 patients (61.4%) were diagnosed with PE. For a sFLT-1/PLGF ratio threshold of 85, 14 patients (58.3%) exhibited elevated sFLT-1/PLGF ratio at admission and 11 developed subsequent PE (positive predictive value of 78.6%). Twenty patients had a sFLT-1/PLGF ratio below 38, and 9 developed PE (negative predictive value of 55.0%). Women with PE and sFLT-1/PLGF ratio >85 had lower gestational age (GA; 28.09 vs 33.22 weeks; p <0.01) and mean latency time until delivery (2.91 vs 3.41 weeks) compared to those with PE and sFLT-1/PLGF ratio <38. Still, this resulted in lower GA at delivery (31.91 vs 36–78 weeks; p <0.01) and lower birth weight (1577 vs 2898 g; p <0.01) in the first group. One case of neonatal death, one case of pregnancy termination for fetal abnormality, and one case of maternal postpartum severe hypertension were observed in this group.

**Conclusion:** Most confirmed PE cases displayed the highest sFLT1/PIGF ratios. Additionally, elevated sFLT1/PIGF ratios in PE patients were associated with worse maternal and perinatal outcomes.

# GINECOLOGIA - OBSTETRÍCIA

## POSTERS

### GO_1021
### CONSERVATIVE MANAGEMENT OF POSTOPERATIVE URINARY RETENTION – A CASE REPORT

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**Introduction**: Urinary incontinence (UI), is a common and undertreated condition, with a described incidence of 3% for women under 35 years old. Described risk factors include parity and operative vaginal labor. On the other hand, the treatment is associated with possible risk and complications. Urinary retention and voiding symptoms are described complications related with Tension-Free Vaginal Tape (TVT).

In this case report we describe a case of conservative approach after postoperative TVT urinary retention in a young woman.

**Case report:** 34 years old woman sent to urogynecology consultation due to stress incontinence with first manifestation after dystocic forceps delivery.

On physical examination presented with a positive stress test, without pelvic organ prolapse. Remaining physical examination was normal. She underwent TVT and tubal ligation at the same operative time.

Postoperatively, she presented pain upon mobilization of the right limb, like an electric shock that runs through the entire lower limb from the lateral face to the foot, and urinary retention - voiding imperiousness without the ability to start micturition and increasing suprapubic pain. On imagological evaluation, there were no signs suggestive of vascular injury or abnormal collections. Urinary infection was excluded. Cystoscopy excluded the presence of prosthetic material in the urethra or bladder.

Neurology evaluation led to initiation of gabapentin treatment and significant limb pain relief. Regarding urinary retention, the tape was dilated and lowered with Hegar's number 4, and a voiding diary registration was initiated. Tansulozine was also performed to relax the ureteral sphinx.

Progressive improvement of the symptoms was achieved and associated progressive reduction on post voiding residual urine. Nowadays presents residual difficulty in micturition initiation, without other symptoms, and improvement of the quality of life.

**Conclusion:** This clinical case presents a conservative approach to an infrequent postoperative complication. Surgical approach by trained professionals, as well as multidisciplinary follow-up in cases of postoperative complications, are crucial in improving medical care in case of complications associated with the use of slin

### GO_1121
### FETAL MACROSOMIA - A RISK FACTOR FOR SHOULDER DYSTOCIA

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**Introduction:** Fetal macrosomia, defined as a fetus with estimated fetal weight at birth to or greater than 4000g, is a risk factor for shoulder dystocia (OD), whose incidence is higher the greater the estimated weight of the newborn at birth. Given the high and increasing incidence of fetal macrosomia, the incidence of OD will also tend to increase. Given the maternal-fetal morbidity and mortality of OD, to decrease it, the correct and timely diagnosis as well as effective approach is essential. The objective of this study is to identify the best approach to OD for its successful resolution, with the lowest possible complication rate.

**Methodology:** Search in the Pubmed database and the search engine Google with the following keywords: "shoulder dystocia; obstetric maneuvers".

**Results:** OD occurs in up to 9% of newborns with birth weight between 4 and 4.5kg, and up to 15% if the mother is diabetic; and occurs in 10% of newborns over 4.5kg, and up to 42% if the mother is diabetic. Early diagnosis is essential for a successful approach. As a situation is considered unpredictable, the identification of risk factors and measures to prevent or control them is crucial. When diagnosed, initial general measurements should be performed initially. If unsuccessful, invasive measures that are divided into 1st, 2nd and 3rd lines, should be performed consecutively.

**Conclusion:** Given the unpredictability of OD, in addition to trying to control its risk factors before delivery, training of health professionals in this situation is essential, as well as the existence of an acting protocol for OD cases in the obstetrics services.

## GO_1221
## IRON SUPPLEMENTATION IN PREGNANCY: AN ADEQUATE AND EFFECTIVE PRACTICE TO PREVENT ANEMIA?

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**Introduction**: The Portuguese National Program for the Surveillance of Low-Risk Pregnancy recommends supplementation with 30-60 mg/day of elemental iron to prevent maternal anemia and low birth weight. The present study includes pregnant women from two primary care patient lists. The goal is to evaluate iron supplementation practices and adequacy of the diagnostic investigation and therapeutic in iron deficiency anemia.

**Methodology**: A cross-sectional, descriptive and retrospective observational study was carried out, which included pregnant women being monitored in the primary care setting between January 2016 and December 2020, data was obtained through the MIM@UF® platform. Sociodemographic and clinical data of patients were harvested using SClinico® and PEM® and registered in Microsoft Excel® program. Data was analised using descriptive statistic.

**Results:** 155 pregnancies were identified, of which ten were excluded due to abortion in the 1st trimester, unit transfer and migration. 145 pregnancies of 143 women aged between 19 and 44 years were analyzed, mostly primiparous (n=70). There was a frequency of

73.8% (n=107) of iron supplementation during pregnancy, which took place during the three trimesters in 72.9%, in two trimesters in 20.5% and only in the third trimester in 6.5% of the supplemented pregnancies. Of these, 59.8% received a daily dose of 28 mg; 9.3% of 100mg; 7.5% of 90mg and 80mg; 5.6% of 17mg and 7mg; and 4.6% of 30mg of elemental iron. Among pregnant women supplemented with iron, thirteen (12.1%) had iron deficiency anemia, of which eleven were taking a daily dose of 28mg and two of 80mg. Thirty-eight of the pregnancies (26.2%) were not supplemented and, among these, six pregnant women developed iron deficiency anemia (15.8%). Among the 19 pregnancies with anemia (13.1%), ferritin was requested in only six (31.6%) and six did not see an increase in the daily dose of elemental iron for values of 100-200mg as recommended.

**Conclusion**: Iron supplementation and consequent lower incidence of iron deficiency anemia were observed in the studied population, although in a less significant way when compared to the group without supplementation. This can be partially explained by the non-compliance with the minimum dose of elemental iron present in most multivitamins available on the market. Determination of ferritin and adjustment of the dose of iron in anemia is likewise not a uniform practice.

## GO_1321
## HEREDITARY ANGIOEDEMA TYPE 1: HOW DANGEROUS CAN BE THE LABOR FOR THE PARTURIENT?

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**Introduction:** Hereditary Angioedema (HA) type 1 is a rare, potentially life-threatening disease, caused by functional C1 inhibitor protein deficiency. It is characterized by recurrent episodes of oedema that result from transient increases in vascular permeability mediated by bradykinin. Bradykinin is generated by plasma contact system, that is inactivated by C1 inhibitor. Cutaneous angioedema attacks and abdominal pain are the most frequent symptoms, but genital swelling may also occur. Laryngeal episodes account for 0,9% of all, however more than half of the patients have a laryngeal attack in their life. The precipitant factors include stress, surgery, medical procedures, trauma, infections and fatigue. The effect of pregnancy on the disease varies and delivery is typically uncomplicated. In this resume, we present the case of a pregnant woman with HA type I.

**Clinical case:** A 34-year-old woman with 40 weeks of gestation was admitted in the Obstetrician Urgency Department in labor. She was diagnosed at the age of 18. Before deciding to get pregnant, she was treated with danazol 200 mg/day, 1-2 per week. From that time until 11 weeks of gestation, it was replaced with tranexamic acid 1500 mg/day. After that she had minor extremities oedema episodes. Her Immunoallergologist recommended prophylactic treatment during labor with 1000 units of plasma-derived C1 inhibitor (Berinert®). At admission, she complained of regular contractions. She had cervix effacement, dilated at 4 cm, and fetus in cephalic presentation. C1 inhibitor infusion was initiated. She did not receive epidural analgesia because at that time the baby´s head was already crowning. She had a vaginal delivery of a male new-born with 3880 g and an Apgar Score of 9/9/10. The delivery was complicated with shoulder dystocia resolved with McRoberts Manoeuvre and suprapubic pressure. No angioedema episode occurred after delivery neither during hospitalization.

**Discussion:** It is important to consider when the patient with HA needs prophylactic therapy. In the particular case of pregnancy, short-term prophylaxis must be done before chorionic villus sampling, amniocentesis, abortion, caesarean or instrumented delivery, vaginal delivery in case of clinical exacerbation on third trimester or history of trauma-induced vaginal oedema, and epidural or general anaesthesia. This case reflects the importance of an appropriate disease management in pregnancy to ensure the best results for the mother and fetus.

## GO_1421
## WOUND INFECTION AND SUBHEPATIC ABSCESS AFTER CAESAREAN SECTION: A CASE REPORT

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Caesarean delivery is associated with a greater number of obstetric complications such as surgical site infection, haemorrhage, injury to pelvic organs and thromboembolic disorders.

Wound complications developed in 1-2% of caesarean births and generally occur after 4-7 days. Risk factors include obesity, chorioamnionitis, blood transfusion, anticoagulation therapy, alcohol/drug abuse, unscheduled caesarean birth and subcutaneous hematoma.

This report describes the case of an obese woman with chorioamnionitis, who underwent a caesarean that complicated with wound infection and subhepatic abscess.

A 28-year-old woman, primigravida, at 39 weeks of gestation, obese, with otherwise uneventful pregnancy, presented with a 9 hours rupture of membranes (ROM).

ROM was confirmed and labour induction with dinoprostone was decided. After 32 hours of induction, she presented fever (38.1 ºC), fetal tachycardia and leucocitosis. Ampicillin (2g) and gentamicin (5mg/kg) were initiated due to suspicion of intraamniotic infection. After 5 hours, a caesarean delivery was performed due to non-reassuring fetal state, resulting in the birth of a male newborn, 3150g, Apgar score 10/10. Antibiotherapy was maintained for 48h post-delivery, in that same day due to shivering and abdominal discomfort, clindamycin and gentamicin were started.

Due to the absence of clinical improvement after 48h of resuming antibiotic, therapy was changed to piperacillin/tazobactam and exploratory laparotomy was preformed, revealing an abscess in the hysterorraphy with dehiscence. 6 days after laparotomy, (although antibiotic therapy) she presented fever and abdominal pain located in the right flank. CT scan showed a perihepatic abscess with 13x4 cm. The case was discussed in a multidisciplinary team and an ultrasound-guided percutaneous drainage was performed.

The microbiological culture of the surgical wound and abscess revealed an E.Coli resistant to piperacillin/tazobactam and antibiotic was changed to ciprofloxacin acording to antibiogram.

On 14th day post laparotomy she was discharged home clinically well. Surgical site infection is one of the most common complications of caesarean. With the global increase in caesarean rate and with the increasing incidence of risk factors such as obesity, it's expected that this complications will also increase. Developing strategies to early diagnose, prevent, and treat the complications are essential for reducing postcesarean morbidity and mortality.

## GO_1521
## ANTI-D WITH ANTI-G ISOIMMUNIZATION: A CASE REPORT IN A PREGNANT WOMAN

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**Introduction:** Antibodies against Rh antigens are known to cause hemolytic disease of the fetus and newborn (HDFN). Anti C and anti D can cause HDFN however the severity is less in cases with anti-C antibodies. G antigen of Rh blood group system is present either along with D and/or C positive red cells. Alloimmunized pregnant women showing reactivity pattern of anti D+C should be studied for underlying anti G as it may mimic anti D. Anti G has no risk of HDFN and administration of anti D immunoglobulin (IG) is indicated.

**Clinical case:** A 31-year-old woman, gravida 2 para 1, A Rh negative, referred to the hospital at 9weeks +5days gestation, with an anti-D title of 1:128 and anti-C of 1:2. The patient underwent a cesarean delivery in her first pregnancy due to fetal breech presentation and IG was administered as protocol. No history of potential sensitizing events during pregnancy or delivery were reported.

Fetal DNA was performed and confirmed RhD positive.

The presence of anti-D+C antibodies was later demonstrated to be an anti-D+G. Serial titrations of anti-D values were performed, with a maximum of 1:1024 at 34weeks + 3days.

Evaluation of peak velocity of systolic blood flow in the middle cerebral artery was performed weekly, since week 17.

At 36weeks +2days the patient was hospitalized for administration of polyspecific IG. At 37weeks +3days the patient underwent a cesarean delivery due to a short interpregnancy interval (12 months). The puerperium was uneventful. The newborn weighed 2750g and had an APGAR score of 9/10/10, the hemoglobin level at birth was of 16.5g/dL and a positive direct Coombs test with a grade 11/12. At 6 hours of life, intensive phototherapy was initiated followed by conventional phototherapy. Repeated intensive phototherapy was necessary due to ascending values of total bilirubin (BT). Clinical discharge was given on the fifth day with normalization of BT, hemoglobin and reticulocytosis values stable.

**Discussion:** Although prophylaxis protocol with anti-D IG, alloimmunization was not prevented in this case. The prevalence described of D-negative alloimmunized women, even after prophylaxis, is 0.1-0.3%. The determination of anti-G is essential in patients presenting with an anti-D+C, affecting the clinical management and prognosis. This patient presented anti D+G, maintaining the risk for HDFN and was no candidate for anti-D prophylaxis.

Polyspecific IG was administered in order to reduce the risk of neonatal anemia.

## GO_1621
## DID COVID PREVENT PRETERM BIRTHS?

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**Introduction:** Bed rest is regularly prescribed for the prevention of preterm birth. Even though a study associated working more than 40 hours a week and heavy lifting with higher preterm birth rate, studies have consistently shown that there is no evidence that bed rest at home or at the hospital is beneficial, particularly in the face of impending preterm birth. On the other hand, it's frequently linked to complications, such as thromboembolism.

Due to the COVID global pandemic pregnant women have suffered restriction of physical activity due to numerous lockdowns and isolation at home. Therefore, this study aims to evaluate if the lack of physical activity due to the pandemic decreased the number of preterm births.

**Methodology:** Consultation of the patients' records that were admitted to our unit (HESE) during the periods of March 11th of 2018 until August 31th of 2019 (pre-pandemic) and March 11th of 2020 until August 31th of 2021 (during the pandemic) due to short cervix, preterm premature rupture of membranes, preterm contractions or preterm labor, and the number of preterm births due to such causes (excluding multiple gestations).

**Results:** Between March 11th of 2018 until August 31th of 2019, there was a total of 1606 births. There were 99 hospital admissions due to short cervix, preterm premature rupture of membranes, preterm contractions and preterm labor and we registered 86 preterm birth related to such causes (5,4% of all births).

After the hit of the global pandemic, between March 11th of 2020 until August 31th of 2021, we had a total of 1534 births. There were 62 hospital admissions due to the causes previously stated and we registered 60 preterm birth also related to such causes (3,9% of all births).

**Conclusion:** In this study we noticed a decrease in preterm births (5,4% pre-pandemic vs 3,9% during pandemic). Even though there was a decrease of physical activity during the periods of national lockdown, there were different restrictions in place during the period that we studied and some patients might not have complied with the restrictions imposed upon them. It's also important to consider that due to the downsizing of our unit due to the pandemic, we might have been more selective of our hospital admissions and might have had to transfer patients to other units.

Therefore, even though there was a decrease of preterm birth we can't conclude that it was related to rest at home.

## GO_1721
## PREGNANCY IN A WOMAN WITH CIRRHOSIS AND PORTAL HYPERTENSION: A SUCCESSFUL CASE

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**Introduction:** pregnancy is uncommon in women with advanced cirrhosis due to hypothalamic–pituitary dysfunction. Pregnancy effect in this womens is variable and worsening jaundice with progressive liver failure, ascites, variceal bleeding and hepatic encephalopathy can occur, but some women can sustain pregnancy with minimal worsening of hepatic function. Also, the incidence of still births and premature deliveries may be increased.

We report a case of a woman with alcoholic cirrhosis with portal hypertension complicated by thrombocytopenia and cholestasis of pregnancy.

**Clinical case:** A 39-year-old primigravida woman, was referred in the first trimester of pregnancy due to a history of a Child-Pugh A alcoholic cirrhosis complicated with portal hypertension, splenomegaly and subsequent thrombocytopenia. Previously followed by Gastroenterology, was submitted prophylactic ligation of oesophageal varices. Moreover, had history of obesity and psychiatry pathology.

After first prenatal routine screens, was diagnosed with gestational diabetes and started aspirin due to increased risk of pre-eclampsia. Prenatal ultrasounds were normal.

During pregnancy, the platelets decreased from 72,000u/L to 34,000, associated with minimal haemorrhagic clinic. At the late second trimester an upper digestive endoscopy was performed to assess the necessity of additional treatment of oesophageal varices associated with haemodynamic changes of pregnancy.

Given the presence of abdominal collateral circulation and the presence of low-risk varicose veins, gastroenterology agreed that delivery should respect obstetric indications.

At 36 weeks was diagnosed with intrahepatic cholestasis of pregnancy and medicated with ursoderoxycolic acid. Labour induction was subsequently initiated due to unremitting maternal pruritus. After 48 hours, a caesarean delivery was performed due to a negative induction of labour.

Postpartum course occurred without incidents.

**Discussion:** Women with cirrhosis who desire pregnancy should perform an upper endoscopy to screen and treat oesophageal varices.

Possible coagulopathy as a result of liver dysfunction and thrombocytopenia due to hypersplenism associated with portal hypertension or cirrhosis should be closely monitor.

Despite challenging, multidisciplinary approach can achieve successful outcomes in pregnant women with liver cirrhosis and portal hypertension.

## GO_1821
## A CASE OF HYDROPS FETALIS CAUSED BY GALACTOSIALIDOSIS: THE RELEVANCE OF A ROUTINE CYTOLOGICAL EXAMINATION OF ASCITIC FLUID

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**Introduction:** Nonimmune hydrops fetalis (NIHF) is responsible for almost 90% of hydrops cases and its prevalence ranges from 1 in 1500-4000 births. Multiple etiologies may underlie NIHF and establishing a cause can be challenging or even inconclusive. Inborn errors of metabolism, including lysosomal storage diseases (LSDs), comprise only 1,1% of NIHF. LSDs are a heterogeneous group characterised by impaired lysosomal catabolic pathways leading to the accumulation of upstream products and eventually overwhelming normal cellular function. The birth prevalence of LSDs in Northern Portugal is 25:100000 from which galactosialidosis accounts for 0,77%, only.

**Clinical case:** A sample of ascitic fluid (AF) was received for cytological study following evacuation paracentesis after birth. According to clinical information, she had been delivered by elective caesarean at 30 weeks gestation after identification of hydrops fetalis at 24 weeks; at birth she showed ascites, subcutaneous nuchal edema, and pericardial effusion. On day one the AF cellular composition presented 150 RBC and 81 nucleated cells/µL, clear predominance of macrophages (65%) and a small number of vacuolated lymphocytes (VL; 9/µL). Another AF cytology performed on day five after birth revealed: 700 RBC and 669 nucleated cells/µL. However, the predominance of lymphocytes was notable (86%), the majority of which presented marked cytoplasmic vacuolation. This finding was considered highly suggestive of LSD and reported to clinicians. Accordingly, clinical records referred that genetic testing detected a variant of uncertain clinical significance in apparent homozygosity in the CTSA gene, which is associated with galactosialidosis. Also, an enzymatic study later confirmed the pathogenicity of the variant.

**Discussion:** In galactosialidosis only symptomatic and supportive therapy are offered. Diagnosis is required to evaluate the risk of recurrence, for future prenatal diagnosis and genetic counselling. This case highlights the importance of AF cytological examination. VL detection can be useful in guiding and prioritising diagnostic testing. Their presence has been reported in fetal effusions with a 100% positive predictive value for LSDs. Cytological examination is easy, fast and does not require special equipment or staining. Biochemical and molecular testing for LSDs is not systematically performed due to high costs and the low prevalence of these conditions.

## GO_1921
## GESTATIONAL TROPHOBLASTIC NEOPLASIA – INVASIVE HYDATIDIFORM MOLE AFTER UTERINE EVACUATION FOR MOLAR PREGNANCY

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**Introduction:** Invasive hydatidiform mole is the most frequent form of gestational trophoblastic neoplasia, and occurs in approximately 15% of patients after complete hydatidiform mole. It is histologically defined by the presence of edematous chorionic villi with trophoblastic proliferation invading the myometrium – in the absence of a definitive histologic diagnosis, a clinical diagnosis should be assumed in cases of persistent elevation of hCG after evacuation of a molar pregnancy, allowing for a prompt treatment. Our aim is to describe a case of invasive hydatidiform mole clinically diagnosed in our center.

**Case Description:** A 37 year-old female patient was admitted to our institution at 10 weeks of gestation due to vaginal bleeding. It was her 6th pregnancy with history of 4 uncomplicated pregnancies and 1 miscarriage. Physical examination showed a scarce metrorrhagia and an enlarged for gestational age 16th week uterus. Transvaginal ultrasoung revealed an intrauterine heterogeneous mass with multiple cystic areas, and serum hCG value was high (≥10^5) – uterine evacuation was performed, with the histologic result of complete hydatidiform mole. Complementary study was negative and serial serum hCG measurements showed a progressive decreased. Three weeks after the procedure, subsequent evaluations showed a progressive elevation of hCG value: at ultrasound there was a new image of an intrauterine mass, with a vesicular and infiltrative aspect, that protrude through the myometrium, at a distance of 3mm from the fundal serosa, suggesting the clinical diagnosis of invasive mole. Clinical and imagiologic staging confirmed that the disease was confined to the uterus (FIGO I) and prognosis score revealed a low risk for aggressive disease. Patient was referred to an oncologic specialized center and treatment with total hysterectomy and bilateral salpingectomy was offered (with post-op histologic confirmation of invasive hydatidiform mole), with a progressive decreased in hCG value, which was negative 6 months after surgery. Patient remains under surveillance, with no signs of recurrence.

**Discussion:** A close follow-up and a high clinical suspicion index should be kept after a molar pregnancy, since the histologic diagnosis of invasive mole can be easily missed after uterine evacuation (no representation of myometrium in the specimen). Prompt clinical diagnosis and orientation to an oncological specialized center are crucial to ensure the success of the treatment.

## GO_2021
## CONTRACEPTIVE IMPLANT & PREGNANCY - AN UNEXPECTED NOVELTY

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**Introduction:** Family Planning (FP) aims to provide information and support to patients so that they can reflect on their desire to have children and when they want it to happen. In these consultations, the use of contraceptive methods (CM) is often suggested, with the goal of preventing an unwanted pregnancy. The subcutaneous implant is a long-term progestin CM with greater than 99% efficacy. A pregnancy during its use is a rare event that requires an evaluation of the entire process, in order to determine what has failed and where there can be improvement in the care provided. Therefore, and in order to raise awareness of the need for a clear and effective doctor-patient communication and for possible failures in the use of this CM, we will report the case of a patient who became pregnant while using a subcutaneous implant.

**Case Report:** A 30-year-old woman with a 3-0-0-3 obstetric index and a personal history of Gestational Diabetes in the last 2 pregnancies went for a PF consultation on 03/2021 for implant placement. She had a negative beta human chorionogonadotrophin (ß-hCG) and did not know the date of her last menstruation. The implant was placed uneventfully and she was informed of the need to use a barrier method (BM) during the first 7 days after placement. On 07/2021 she returned for a new appointment with a positive pregnancy immunological diagnostic test. Upon questioning the patient, it was determined that the BM was not used after implant placement and that she had been in amenorrhea since the placement of the CM. A blood ß-hCG was requested and 2 days later she returned with a value of 18970 mIU/ml. On that day, the implant was removed, the 1st trimester screening analyses, the pregnancy dating ultrasound and oral supplementation with folic acid were prescribed. The ultrasound was performed on 13/08/2021 and showed a 24 week pregnancy.

**Discussion:** The failure of a CM can be multifactorial. In this case and according to the pregnancy dating, the most likely causes will have been: the existence of unprotected sexual intercourse between the performance of the ß-hCG and the placement of the implant or the lack of use of BM within 7 days after placement of the implant. In both, the way in which information is transmitted to the patients can determine their understanding and consequent adherence, which is why this case is an opportunity to review the way we communicate in consultation.

## GO_2121
## IDIOPATHIC CONSTRICTION OF THE FETAL DUCTUS ARTERIOSUS

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**Introduction:** Premature constriction of the fetal ductus arteriosus (DA) is a rare phenomenon. It is thought to be caused by one of three things: abnormal levels of produced and circulating prostaglandin, maternal ingestion of prostaglandin synthase inhibitors, or idiopathic. Idiopathic premature closure of the DA is an uncommon event. If not diagnosed and left untreated, it can result in fetal death.

**Case report:** A 33-year-old primigravida, previously monitored in a private context, was referred at a gestational age of 37 weeks 3 days to our hospital. The pregnancy was uneventful until the 3rd trimester ultrasound, at 32 weeks and 1 day, in which an accidental dysrhythmia was found, and a fetal echocardiogram was recommended. The first echocardiographic examination was performed at 33 weeks, reporting the presence of a slight stenosis of the DA, suggesting an early closure. A follow-up echocardiography was performed at 34 weeks, which corroborated the findings described previously, adding the presence of a slightly accelerated flow in the DA. A personal or familiar history of congenital heart disease (CHD) was not reported. The woman did not take indomethacin or other prostaglandin inhibitors. It was scheduled induction of labor in the early term, according to a shared decision of the obstetricians, pediatric cardiologist, and considering the pregnant woman's opinion. A 3230-g feminine neonate was born by vaginal delivery at 37 weeks 5 days. The APGAR scores were 9, 10 and 10 at 1, 5, and 10 minutes, respectively. Echocardiography performed on the second day of life revealed normal cardiac anatomy with normal-sized left and right atria.

**Discussion:** Intrauterine constriction of DA in the absence of triggering factors is a rare phenomenon. Diagnosis of this condition in the third trimester is difficult and several times undiagnosed. Careful examination of the DA using pulsed wave Doppler flow, including complete fetal echocardiography, is important to rule out structural CHD. Close monitoring is mandatory to exclude right heart failure and determine intervention time. Thus, it is crucial that we are aware of this problem, which, although rare, exists, in order to know how to recognize it and, above all, guide it in our clinical practice.

## GO_2221
## HIGH-RISK PREGNANCY - A CHALLENGE IN FAMILY MEDICINE PRACTICE

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**INTRODUCTION:** Obesity represents an important risk factor in a pregnancy, both for the pregnant woman and the fetus, so, as clinicians, we must be particularly attentive to women in these circumstances. In addition to that, the family practitioner (FP) monitors patients and families in a longitudinal and integrated manner, at different stages of life cycle and at different levels of care.

**DESCRIPTION:** MP, 34 years old, Caucasian, married, housekeeper. Medical antecedents: grade 2 obesity, hypertension, dyslipidaemia, major depression and hemithyroidectomy. As for Gynaecological/ Obstetric antecedents: under oral combined contraception; last CVC up to date, with NILM description; IIIG IIP (2 CST, with 21 and 25 years old); Gestational Diabetes (GD) in both pregnancies.

MP took a positive pregnancy test. It was an unplanned pregnancy, detected at 5w+5d. She started folic acid, adjusted her usual medication, and was sent to reference hospital for a high-risk pregnancy and DPN consultation. In the 1st trimester analyses, GD was diagnosed, having begun metformin, blood glucose surveys and dietary care.

At 15w+6D, she went to the Emergency Department (ED) due to pain in the lower abdomen. Observation was clinically and analytically compatible with acute appendicitis - she underwent laparoscopic appendectomy without complications.

At 31s+6d in a surveillance appointment with the family practitioner, she reported palpitations and asthenia with exertion – tachyarrhythmia was found and referred to the ED. Auricular fibrillation with rapid ventricular response was confirmed. Patient was submitted to chemical cardioversion, underwent a cycle of CCT for pulmonary maturation and hypocoagulation with LMWH.

In term consultation at 38w+4d, she presented high BP, edema of the lower limbs and reactive urine analysis, so she was referred to the ED for Preeclampsia. MP was admitted to internment for surveillance and performed an elective caesarean . A female healthy baby was born, with APGAR index of 10/10/10. Simultaneous lacquering was performed.

**DISCUSSION:** The case of the MP is an example of the role of FP as care integrator and patient advocate in the health system. Despite the hospital follow-up, the FP's in-depth knowledge of the contexts and medical history is an asset in making early diagnoses and optimizing the follow-up of a highly complex pregnancy.

## GO_2321
## PREGNANCY OUTCOMES IN SYSTEMIC LUPUS ERYTHEMATOSUS: CASE-CONTROL STUDY

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**INTRODUCTION:** Pregnancy in systemic lupus erythematosus (SLE) patients is associated with an increased risk of adverse outcomes. The aim of our study was to evaluate the maternal and fetal outcomes in a cohort of Portuguese SLE patients and to compare it with a group of healthy pregnant women.

**MATERIAL AND METHODS**: Retrospective case-control study including all pregnant women with SLE managed at a Portuguese tertiary center, between 2010-2019. Pregnancy outcomes were compared with a group of matched healthy pregnant women. Baseline maternal information was collected, and maternal-fetal and neonatal outcomes were evaluated.

**RESULTS**: One hundred and twenty four SLE pregnancies were included. 95.2% of the patients were in remission at conception. In 13.7% of cases, a lupus flare was diagnosed during gestation and in 17.9% postpartum. The live birth rate was 84.6%, and the incidence of adverse pregnancy outcomes was 40.3% (OR 2.64, 95% CI 1.67-4.18). Considering only patients in remission at conception, the presence of adverse outcomes remains significantly higher (36.8 % Vs. 20.3%, P<0.01). Miscarriage rate was 15.3% (OR 5.85, 95% CI 2.57-13.34) and preterm delivery occurred in 12.4% of the patients (OR 1.72, 95% CI 0.83-3.57). Preeclampsia prevalence was higher in SLE patients (OR 3.92, 95% CI 1.32-11.57). In the SLE group, the newborn admission to an intensive care unit rate was increased (OR 4.99, 95% CI 1.47-16.90). No neonatal or maternal deaths were reported.

**CONCLUSIONS**: Pregnancy with SLE is associated with an increased incidence of adverse obstetric outcomes, even in a population of SLE patients with well-controlled disease at conception. The planning of pregnancy in SLE patients with a multidisciplinary team, preconception counseling, and optimization of therapy is crucial to achieving the best obstetric results.

## GO_2421
## THE CHALLENGE OF MANAGING A CESAREAN SCAR PREGNANCY

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**Introduction:** Cesarean scar pregnancy (CSP) is a type of ectopic pregnancy where there's implantation of a gestation within the scar of a previous cesarean surgery. Despite being uncommon, with an increase in the number of cesarean deliveries lately, the number of CSP has increased as well. Like other ectopic pregnancies, it poses a life-threatening situation with risk of uterine rupture and maternal hemorrhage, highlighting the importance of an early diagnosis. Nonetheless, diagnosis and management of a CSP are often a challenge.

**Case report:** A 36-year-old multiparous, with a previous cesarean birth, presented to our emergency room with vaginal bleeding, without abdominal pain. Transvaginal ultrasound (TU) revealed a gestational sac located anteriorly in the lower uterine segment, at the level of the prior cesarean scar (CS), without anterior measurable myometrium and hypervascularization of the same area. Patient was stable and β-hCG was 34409 IU/L. Suspicion of CSP was raised, yet, due to the vaginal bleeding and possibility of spontaneous abortion, we proposed reevaluation within 48h. Reevaluation with high-resolution TU showed similar findings and also a fetal pole was noted dating 5+6 weeks with positive cardiac activity, so hospitalization was proposed. She was submitted to hysteroscopic removal of gestational tissue under ultrasound guidance (UG). During surgery, an exploratory laparotomy was performed due to suspected iatrogenic bladder injury, which was not confirmed. She had a good post-operatory evolution and was discharged stable with a β-hCG of 24542 IU/L. At reevaluation, β-hCG remained high and TU revealed a hyper vascularized area in the scar niche localization, suggesting remaining gestational tissue. Thus, she was submitted to aspiration curettage under UG, which went uneventfully, and after a prophylactic Folley catheter was inserted for tamponade. She was discharged stable and with a β-hCG of 12374 IU/L. β-hCG gradually decreased reaching a negative value after 4 weeks of surveillance.

**Discussion:** We emphasize the role of TU in the early diagnosis of CSP, highlighting that we should remain with high clinical suspicion for a CSP in a patient with a CS presenting with 1st trimester bleeding. It also shows what a challenge it can be to choose an effective treatment that allows fertility preservation. In this case, fertility preservation was possible after successful management of a CSP that was treated combining 2 different approaches.

## GO_2521
## VULVAR CONDYLOMATOUS LESION: WHAT IS THE DIAGNOSIS?

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**Introduction:** Despite the efforts to educate the population about prevention of sexual transmitted infections, they are still frequent. We aim to share a case of early secondary syphilis whose initial manifestation was an isolated condyloma lata.

**Case Report:** A twenty-year-old healthy woman, nulliparous, menarche at 9 years, initiated her sexual activity at 18 years having multiple sexual partners since then. She came to urgency department complaining about vulvar and perianal painful lesions with 2 weeks of evolution.

In physical examination, two painful exophitic lesions with 2,5 cm and 1 cm, respectively, showing hyperkeratosis, with irregular superficial appearance. A vulvar biopsy was performed and anatomopathological evaluation showed epithelial hyperplasia. Because of her sexual behaviour, blood analysis for B and C hepatitis, HIV and syphilis were requested, showing positive anti-treponema pallidum antibodies and positive VDRL (16 dilutions). The patient was treated with penicillin, according to recommended treatment for early secondary syphilis, with total remission of the perianal lesion. Serologic revaluation showed decrease in VDRL titles.

**Discussion:** Early secondary syphilis may have different clinical manifestations such as flu-like syndrome, pharyngitis, hepatitis, rash and other cutaneous alterations like condyloma lata, a rare manifestation. In this clinical case, the finding of isolated vulvar and perianal lesions motivated a vulvar biopsy, whose anatomopathological evaluation was not useful for diagnosis. The cutaneous lesion described in this clinical case does not reveal the pathognomonic aspect of syphilic condyloma lata: papular, big, pale and plane lesions. For this reason, diagnosis was challenging due to similarities with HPV associated acuminate condyloma, which is more common. We highlight the importance of clinical history and, in this particular case, of serologic tests for the diagnose. Early treatment of early secondary syphilic demands attempt recognition of condyloma lata.

## GO_2621
## LOW-BIRTH WEIGHT: DID WE HIT THE GOAL?

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**Introduction**: Low-birth weight increases the cardiometabolic risk factors in infancy and adolescence, and can contribute to chronic diseases in adulthood and premature death. Some modifiable risk factors that can contribute to low birth weight include cigarette smoking, alcohol intake, nutritional intake of the pregnant woman, and quality of prenatal care. One goal of the National Health Plan is a decrease in the number of low-birth-weight newborns.

The objective of this work is to evaluate if there was a decrease in the number of low-birth-weight newborns during a set period of time.

**Methods**: Retrospective analysis of all the singleton full term births with low birth weight (<2500g) that occurred in the maternity of Hospital Espírito Santo de Évora, between January 2007 and December 2020.

**Results**: There's been a consistent decrease in the number of births in our unit between 2007 and 2020, with a total of 1394 births in 2007 and 1078 births in 2020.

The mean age of the pregnant women between 2007 and 2020 was 30,12 years old, and the mean gestational age at birth was 38 weeks. The mean newborn weight at birth was 2333g.

In 2007, there was a total of 44 (3% of all births) singleton full term births with low birth weight, and 11% (5 in 44) of them needed neonatal care.

In 2020, there was a total of 32 (3% of all births) singleton full term births with low birth weight, and 3% (1 in 32) of them needed neonatal care.

Between 2007 and 2020, the percentage of singleton full term births with low birth weight increased in 2011 (5%) and in 2017 (4%). In all the other years, the percentage remained the same, at 3%.

Even though there was a lower percentage of newborns in need of neonatal care in 2020 compared to 2007, there was no consistent decrease during the years revised.

**Conclusion**: Despite the decrease in the total number of low-birth weight newborns (44 in 2007 vs 32 in 2020), there was no statistical difference in the amount of singleton, at term, low-birth weight newborns.

To improve this study, assessing modifiable risk factors of the pregnant women and evaluating preterm births should be considered.

## GO_2721
## FALLOPIAN TUBE TUMOUR PRESENTING AS SUPRACLAVICULAR LYMPH NODE METASTASIS

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**INTRODUCTION:** Fallopian tube (FT) tumours are rare among gynaecological malignancies, but recent evidence suggests that some ovarian cancers may have arisen in the fimbrial end of the FT and were misclassified. They may cause few or even no symptoms until widespread disease and diagnosis tends to occur at late stages. Presenting symptoms include abdominal pain, menstrual irregularities, or mild digestive disturbances.

Here, we present a case report of a FT tumour whose first symptom was the appearance of an enlarged supraclavicular lymph node (LN).

**CASE REPORT:** A 72-year-old female patient noticed a swollen left supraclavicular LN. She referred a minor odynophagia, but there were no alterations on physical exam besides left supraclavicular tenderness. A cervical computed tomography (TC) confirmed the clinical suspicion, and a thoracic-abdominal-pelvic TC revealed more LNs in the retroperitoneum. Cervical biopsy was performed and was compatible with carcinoma. Following diagnostic workup included: breast exam, cervical cytology, upper endoscopy, and colonoscopy – all normal; positron emission tomography revealed fixation in the LNs described and in two small areas in the pelvis. Blood tests showed elevated CA125 and CA72.4. Another biopsy, considering a para-aortic LN, was performed and the result pointed to metastasis of a high-grade serous carcinoma (HGSC).

Gynaecological evaluation was requested: gynaecological exam and pelvic magnetic resonance were normal. A diagnostic laparoscopy was performed. Intraoperatively, left FT was found to be slightly bigger and hysterectomy and bilateral adnexectomy was decided. Peritoneal fluid cytology was negative; anatomopathological exam confirmed the existence of HGSC in the FT in a tiny focus of 1.5mm (which was compatible with the first cervical biopsy performed). After surgery, the patient recovered well, and adjuvant chemotherapy was proposed. The patient continues in follow-up.

**DISCUSSION:** It is known that FT carcinoma spreads early through hematogenous, lymphatic, and peritoneal routes, besides direct extension in the pelvic cavity, namely to the homolateral ovary. The early spreading is notorious as staging with complete lymphadenectomy often reveals positive pelvic/para-aortic LNs even with no pelvic visible disease. Nevertheless, extra-pelvic metastasis – supraclavicular LNs – are very rare in this kind of carcinoma, especially when considering it was the first symptom of a millimetric tumour.

## GO_2821
## CHRONIC HYPERTENSION IN PREGNANCY AND MODE OF DELIVERY

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**Introduction:** Current evidence states that labor induction in women with controlled hypertension can reduce serious hypertensive complications as well as improve maternal-fetal outcomes, without necessarily increasing cesarean section rates. Labor induction can be beneficial up until 39 weeks and 6 days, depending on the need for anti-hypertensive drugs during pregnancy.

**Methods:** This is a retrospective observational study. We analyzed the clinical records of hypertensive women followed in the high-risk obstetrics department of a tertiary hospital whose deliveries occurred between January 1st 2019 and 31st July 2021. Need for induction of labor, the reason for induction, classification of cesarean section for timing and motive were considered. Data were analyzed with SPSS v.27.

**Results:** This study included 140 pregnant women with chronic hypertension. This population had a mean age of 35,15 years, mean BMI of 29,30 kg/m2 e mean duration of hypertension of 5,05 years. Regarding hypertensive complications during pregnancy: 23,7% had superimposed pre-eclampsia and 39,3% chronic hypertension exacerbation. 47,5% required admission to the obstetrics department for hospitalization. 81,6% of deliveries were induced, the most frequent reason being the term of pregnancy (37-40 weeks) in 38,5% of cases, followed by preeclampsia in 23,7% and hypertension exacerbation in 18,3%. 51,5% of deliveries were cesarean sections, 33,8% vaginal delivery, 14,7% operative vaginal delivery. 65,9% of cesarean sections were classified as urgent or emergent. 31% were performed by non-reassuring fetal status, 23,8% by arrest of labor or failed induction, 21,4% by previous uterine surgery, 16,7% by pelvic presentation and 7,1% by placental abnormalities.

**Conclusion:** High cesarean rates are a known and reported complication in women with chronic hypertension. It might be explained with the need to interrupt pregnancy to improve fetal outcome, maternal or fetal aspects that advise against vaginal birth, or failed induction of labor.

## GO_2921
## TIMING OF ANTI-HYPERTENSIVE USE IN CHRONIC HYPERTENSIVE PREGNANT WOMEN AND OBSTETRICAL OUTCOMES

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**Introduction:** There is no consensus on whether to stop chronic anti-hypertensive medication in women with controlled hypertension during pregnancy. The purpose of this study is to analyze outcomes of chronic hypertensive women who initially stop their medication, as well as the timing of initiation of anti-hypertensives in pregnancy.

**Methods:** This is a retrospective observational study. We analyzed the clinical records of hypertensive women followed in the high-risk obstetrics department of a tertiary hospital whose deliveries occurred between January 1st, 2019 and July 31st, 2021. The obstetric outcomes analyzed were: superimposed preeclampsia, chronic hypertension exacerbation, severe hypertension, defined as over 160/110 mmHg, need for maternal or neonatal hospitalization, fetal growth restriction, and preterm delivery. Data were analyzed with SPSS V.27.

**Results:** This study included 140 pregnant women with chronic hypertension. The mean duration of hypertension in this group was of 5,05 years. 61,9% of women used anti-hypertensive medication during pregnancy. Of these women, 53% started medication before pregnancy and 47% during pregnancy. 49% of women stopped their chronic anti-hypertensive in early pregnancy. Early suspension of the anti-hypertensive drug was not related to any of the negative outcomes defined. Women who started medication for the first time in pregnancy had higher rates of preeclampsia (p=0,003), severe hypertension (p=0,006), fetal growth restriction (p=0,006) and preterm delivery (p=0,008) when compared to the group that was already under anti-hypertensive medication before pregnancy.

**Conclusions:** The diagnosis and control of chronic hypertension in fertile-age women is important for a better maternal-fetal outcome during pregnancy. Women with controlled hypertension who suspend medication do not appear to have worse obstetrical outcomes. Women who begin for the first time anti-hypertensives appear to have a worse outcome when compared to the ones who started before getting pregnant, in this group. There is a need for more investigation in this area to better counsel these women.

## GO_3021
## MEDICAL VS. SURGICAL TREATMENT OF ECTOPIC PREGNANCY – WHAT ARE THE DIFFERENCES?

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**Introduction**: Ectopic pregnancy (EP) is a major health problem in women of childbearing age. The aim of this study was to compare risks and benefits between different modalities of EP treatment.

**Methods**: A retrospective study was carried out using data from Centro Materno-Infantil do Norte (CMIN) between January 2016 and December 2019. All cases of EP admitted were included in the present work. Exclusion criteria included cases with loss to follow-up and caesarean scar or interstitial pregnancy. Cases were stratified into three groups according to the first treatment instituted: expectant attitude, treatment with methotrexate (MTX) or surgical approach. Statistical analysis was performed using SPSS v27®.

**Results:** 94 cases of EP were included: surgical treatment was performed as the primary treatment in 66.0% of cases, MTX was the first option in 24.5% and in 9.5% of cases an expectant attitude was initially adopted. The failure rate of MTX was 34.7% and 89% with expectant treatment. The number of inpatient days with surgical treatment was 2.87 days [1-5 days] and 4.52 days [0-10 days] for treatment with MTX ($p<0.001$). The readmission rate was 1.6% in the group treated primarily with surgical approach and 21.7% in the group treated with MTX ($p<0.001$). Excluding situations of EP rupture, the rate of major complications was 6.5% in the surgically treated group (anemia requiring transfusion; hemorrhagic shock; need for a second surgical intervention) and 4.3% in women with initial treatment with MTX (EP rupture) ($p=0.789$). When comparing the mean time from EP diagnosis to a subsequent pregnancy, it was 11.2 months in the case of surgical treatment and 11.5 months in the case of primary treatment with MTX ($p=0.391$). The median time to a pregnancy resulting in a live birth was 20.4 months [3-60 months] in the surgical treatment group and 23 months [2-48 months] in the medical treatment group ($p=0.670$).

**Conclusion:** Primary surgical treatment of EP was associated with a shorter length of stay and less need for readmission compared to primary treatment with MTX. There were no statistically significant differences regarding mean time to pregnancy after EP for the study groups. The rate of major complications was similar between groups when cases with initial presentation of ruptured ectopic pregnancy were excluded.

## GO_3121
## WHEN CONGENITAL HEART DEFECTS MEET FETAL GROWTH RESTRICTION

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**Background and Objectives:** Congenital heart defects (CHD) are associated with higher risk of fetal growth restriction (FGR). However, the influence of FGR in developing CHD is not well established yet. The aim of our study was to evaluate the prevalence of CHD in newborns diagnosed with FGR as well as neonatal outcome for both FGR populations with and without CHD.

**Methods:** In a retrospective cohort study, outcome data was collected from singleton pregnancies complicated with FGR (i.e. <10th percentile) at a tertiary center, between 2019 and 2020. Subjects with prenatal diagnosis of growth restriction were divided into two groups: with (group 1) and without (group 2) diagnosis of CHD, either in prenatal or postnatal periods. We exclude all subjects whose delivery occurred outside our center. The primary outcomes were the prevalence and types of CHD, as well as neonatal outcome.

**Results:** From 378 FGR diagnosed in our center, 345 met the inclusion criteria, corresponding to 5% of all deliveries. There were 25 newborns with CHD (single or multiple defects), 13 of them with postnatal diagnosis. The prevalence of CHD in our FGR population was 7,2%. Cases of severe FGR were identified in 36% and 23,7% on both groups 1 and 2, respectively (p=0,255). Evaluating severe FGR, 11 cardiac abnormalities were reported comparing to 21 abnormalities when estimated fetal weight (EFW) ≥ 3rd percentile (P). Atrioventricular septal defects were present in both subgroups as well as valvular insufficiencies. Cases of aortic arch hypoplasia were reported in severe FGR while cases of left superior vena cava persistence were only present if EFW≥P3. Patent foramen ovale (2 and 9 cases in both severe and FGR with EFW≥P3) needs a follow-up postnatally as it closes in most of cases.

Group 1 was related to decreased gestational age at birth (36w+2d vs 36w+6d, p=0,240), lighter newborns (2032 vs 2249 gr, p=0,06) and increased time of hospitalization (14 vs 8 days, p=0,180). NICU admissions showed statistical significance, with greater rates on group 1 (54% vs 23,7%, p=0,001). Only 3 cases of perinatal death were found, all in the absence of CHD.

**Conclusion:** A diagnosis of CHD in a pregnancy complicated with FGR may be related to increased neonatal morbidity, and severe FGR could influence CHD's frequency and severity. Although the absence of statistical significance, a cardiac assessment ante- and postnatally may be a reasonable approach for all pregnancies with a diagnosis of FGR.

## GO_3221
## BORDERLINE OVARIAN TUMOR DURING PREGNANCY: A CASE REPORT

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**Introduction**: Borderline ovarian tumours (BOTs) are defined by an histology intermediate between benign and malignant tumours, and account for 15–20 % of all ovarian epithelial tumours. The overall incidence of these masses remains difficult to estimate, but affects 2–10 % of pregnancies. Only 2–3 % of adnexal masses resected during pregnancy are malignant, and the majority of these malignant masses are, in fact, BOTs.

**Case Report**: A 19 year-old Gravid 1 Para 0 presented to the emergency unit at 16weeks of pregnancy with a onset of severe left abdominal pain non-responding to analgesia. Pain was isolated in the left iliac fossa, non-radiating and not relieved by any position.

In the gynecologic examination there was no discharge or vaginal bleeding. Transvaginalsonography and Transabdominal ultrasound scan reported a foetus in utero with normal development for the gestational age and a 13 cm unilocular-solid cyst with 2 papilar projections, with no visible arterial or venous flow in the left ovary, suggestive of a ovarian torsion.

A exploratory laparoscopy was performed, demonstrating an enlarged left ovary, with aprpoximately 15 cm, with multiple twists of the pedicle. Due to the difficulty of detorsion of the ovary, the surgery was converted to laparotomy. A left salpingo-oophorectomy was then performed. The postoperative course was uneventful, and an intact intrauterine pregnancy was confirmed the next postoperative day. Histology revealed a borderline mucinous ovarian tumor. The remaining pregnancy was uneventful.

**Discussion:** Adnexal mass is one of the most frequent reasons for surgical intervention during pregnancy.

Approximately one-third of BOTs are diagnosed in women of childbearing age (<40 years); however little is known about the epidemiology and management of BOTs diagnosed during pregnancy. These tumors can be treated conservatively by adnexectomy and peritoneal cytology and exploration with biopsies, never lead to the end of the pregnancy and should be performed without rupture. If borderline tumor is revealed by the histology of a surgical specimen, it seems reasonable to defer surgical treatment until after delivery and the surgical staging should be completed 3-6 weeks after delivery.

The psychological impact of waiting for relapse is considerable and there is still a risk for development of invasive ovarian tumors, for this reason its recommend definitive surgery after family planning is completed.

## GO_3321
## PARATUBAL CYST PRESENTING AS ADNEXAL TORSION IN PREGNANT WOMEN: A CASE REPORT

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**Introduction:** Isolated fallopian tube torsion during pregnancy is an extremely rare condition. It is frequently misdiagnosed as acute appendicitis or ovarian torsion owing to the lack of specific symptoms or signs. Paraovarian/paratubal cysts constitute about 10% of adnexal masses. A voluminous paratubal cyst complicated by adnexal torsion is a rare cause of acute low abdominal pain. Laboratory and imaging findings, including ultrasound with Doppler analysis can assist in making the diagnosis but should not surpass clinical judgment.

**Clinical Case:** 3G2P, 41years old, was admitted to the general emergency service at 35weeks and 4days of gestation with abdominal pain since 3days ago with increased intensity and intense vomiting. She was taking enoxaparin for thrombophlebitis and had 2previous caesareans.

During physical exam, her vital signs were normal and abdominal examination revealed tenderness in left quadrants, without guarding or rebound and an adnexal mass of 7cm was palpable. Blood tests performed reveal a high white blood cell count (15’670/mm3, 85% neutrophils), normal renal function, and a positive C-reactive protein (9.02mg/dL).

As her pain worsened, despite the administration of analgesic drugs, the patient underwent a pelvic ultrasound, which revealed a left multifolicular adnexal cyst with 70*56*49mm.

She was released home after 5days of pain management and maternofetal monitorization. The team decided to treat her during the elective cesarean at 38weeks gestation. The patient underwent resection of a paratubal cyst, diagnosed during cesarean. The adnexa was conserved.

All fragments had congestion, edema and haemorrhage consistent with obstruction of the fallopian tube. The histological report revealed a papillary serous cystadenoma with torsion of all structures.

**Conclusion**: Torsion of a paratubal cystadenoma is a rare condition during pregnancy and its management is challenging. The clinical presentation is the same as that with an ovarian torsion, which makes diagnosis difficult. The large volume of the cyst did not allow recognition with certainty by ultrasound. Generally, they are asymptomatic due to their size. However, when they reach larger sizes, they can lead to symptoms such as pelvic pain due to torsion. If there are clinical and imaging signs of torsion, it should be approached like any other adnexal mass and surgery should be offered. In this case, we chose expectant management, till the caesarean, due to her gestational age.

## GO_3421
## TURNER SYNDROME – TWO UNLIKELY SPONTANEOUS PREGNANCIES

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**Introduction:** Turner syndrome (TS), which is caused by loss of part or all of an X chromosome, is one of the most common chromosome anomalies in humans. It is associated with increased risk of several comorbidities and almost always early ovarian failure and infertility. Nevertheless, pregnancy is possible, usually through fertility treatments, albeit spontaneous pregnancies (SP) have been described in up to 13.5% of cases. Pregnancies in women with TS have increased risk of adverse maternal and fetal outcomes.

**Clinical case:** We describe the case of a 31-year-old woman, with Turner syndrome mosaicism (45,X/46,XX – 40/60%), autoimmune hypothyroidism and a left duplicated ureter (normal kidney function). She had no known cardiac disease (echocardiogram revealed only mild dilation of the right cavities and an Aortic Size Index (ASI) < 20 cm/m2). She had a spontaneous menarche, with irregular menstrual cycles and two spontaneous pregnancies. Both were complicated by gestational hypertension, which progressed to pre-eclampsia in the post-partum period of the latter. During the first pregnancy, the patient opted not to do any invasive pre-natal diagnostic testing, as the ultrasound identified a male fetus. However, in the second pregnancy, of a female fetus, after an inconclusive NIPT, she opted for amniocentesis, which revealed a normal karyotype (46,XX). Both pregnancies were terminated by cesarean section at 37 weeks, due to gestational hypertension with blood pressure (BP) difficult control. About 8 weeks post-partum, the patient had normal BP values without medication.

**Discussion:** Although the risks seem to be higher in pregnancies resulting from fertility treatments, the existing literature suggests that women with TS, even with SP, still have higher rates of poor obstetric outcomes, when compared to the general population. Our case is consistent with the available evidence.

Though SP are rare in women with TS, mosaicism and a spontaneous menarche seem to enhance its probability. Pregnant women with complete/mosaic TS have a higher risk of cardiovascular complications, including hypertensive disorders and should be closely monitored and treated. Our case enhances the value of multidisciplinary approach in these women and the importance of counselling and management that should be started in the preconception.

## GO_3521
## PREGNANCY SURVEILLANCE AND OUTCOMES IN FOREIGN WOMEN IN OUR CENTER: A DESCRIPTIVE ANALYSIS

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**Introduction:** Our health system is committed to providing foreigners equity in the access to health care. This includes delivering the best obstetric care possible, in accordance to national guidelines. Nevertheless, worldwide differences in pregnancy surveillance and the linguistic barriers might hamper the task.

**Methods:** This is a retrospective study based on pregnant women without health care identification number (n=68) that gave birth in our institution between 2020 and 2021. We reviewed medical charts and retrieved data. A case control review with healthy Portuguese pregnant women was also performed.

**Results:** The mean age of women at birth was 28±5 years. The most common nationalities were Brazilian (30.9%) and Angolan (10.3%), followed by Venezuelan, Chinese and Indian in the same proportion (4.4%). The majority of the pregnancies (30.9%) were followed in Portugal ad initio, but 19% of the women began surveillance in our country between the 20th and 30th weeks and 13.3% from the 30th week onwards. From the two latter, around 55% of the pregnant women were unaccompanied until their first consultation in Portugal.

Sixty-five percent of the women were nulliparous; from the ones with previous childbirths, 16% had a previous caesarean section. Obstetric complications (gestational hypertension and diabetes, preeclampsia, intra-uterine growth restriction, preterm labour) arose in 27% of the women. The mean gestational age at labour was 38±2 weeks. 61% of the pregnant women had a vaginal delivery, with a 15% rate of instrumental labour, the most common indication for it being shortening of the labour period/maternal help (54%). The rate of episiotomy was 32%, spontaneous lacerations occurred in 18% of the women. The most common indication for a C-section was failure to progress and non-reassuring fetal state. Six women developed anemia in the post-partum period, one of them requiring blood transfusion. Neonatal complications (anemia, icterus, infection), arose in 10% of the newborns. No significant differences were found in comparison with controls regarding parity, gestational age at birth, obstetric intervention, degree of perineal laceration and neonatal outcomes.

**Conclusion**: A significant proportion of foreign women enrol in adequate pregnancy surveillance later than recommended. Despite the low rate of adverse obstetric and neonatal outcomes, an effort should be made to develop new strategies that allow sooner and better accompaniment of these women.

## GO_3621
## CHALLENGES IN THE MANAGEMENT OF HEREDITARY ANGIOEDEMA IN PREGNANCY – A CASE REPORT

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**INTRODUCTION:** Hereditary angioedema (HAE) is a rare autosomal dominant condition most frequently caused by low concentration or function of C1-esterase inhibitor (C1INH) (type I and type II, respectively). It is characterized by recurrent bouts of swelling which may occur in any part of the body. Edema of the upper airway can be life-threatening. In the obstetric population, its management poses an even greater challenge: as a result of hormonal changes, pregnant women can experience more frequent angioedema attacks during pregnancy; the abdomen is the most frequently reported site for attacks and may often be confused with other obstetrical or abdominal complications and finally, treatment options are limited as safety studies are still lacking, with the only available treatment being C1INH concentrate.

**CLINICAL CASE:** We report the case of a 27-year-old pregnant woman, nulliparous, with type II HAE. She had no HAE attacks up until 20 weeks of gestation, at which time she developed bilateral hand edema which resolved spontaneously. A similar episode was seen at 23 weeks. At 25 weeks she had an attack with severe abdominal pain requiring acute treatment with intravenous C1INH concentrate. A decision to start long-term prophylaxis with weekly infusions of C1-INH concentrate was made in conjunction with our immunoallergologist. A dramatic improvement was noted, as the patient did not experience further attacks until term. After 37 weeks, additional attacks occurred, including vulvar edema triggered by a digital cervical examination, requiring C1-INH concentrate. At 39 weeks she was admitted to the labor ward because of premature rupture of the membranes. Cesarean section was decided due to failed labor induction and pre-procedure C1INH infusion was given. There were no complications, a baby with 3990g and an Apgar score of 9/10 was delivered. In the postpartum period, additional attacks are frequent, which led to our patient being under observation for 72 hours during which time she developed vulvar angioedema requiring another infusion of C1INH.

**CONCLUSION:** This case highlights the challenges seen in the management of HAE during pregnancy. The highly variable course of the disease often requires adjusting the treatment plan and these decisions should be made by a multidisciplinary team (including maternal-fetal specialists, immunoallergologist, and anesthesiologists), in a hospital with immediate access to C1INH.

## GO_3721
## PRENATAL THERAPY IN NEONATAL ALLOIMMUNE THROMBOCYTOPENIA: FOUR CASES

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**INTRODUCTION:** Fetal/neonatal alloimmune thrombocytopenia (FNAIT) is caused by platelet-antigen incompatibility between the mother and fetus. The choice of prenatal prevention strategy is based upon the risk of intracranial hemorrhage (IGH). Treatment (immunoglobulin (IG) with or without prednisone), significantly reduces but does not eliminate the risk of ICH.

**CASE REPORT:**

Case 1: New-born thrombocytopenia was detected after a caesarean section in a primigravida (nonreassuring fetal status). The workup study identified FNAIT. The 2nd pregnancy was surveilled in hospital setting due to previous fetal growth restriction. The medical team was informed of FNAIT at 35 weeks (W). IG and prednisone were started. Cesarean was performed at 37 W. A male newborn (3590g) with normal platelet count was delivered.

Case 2: A 12 GW pregnant woman was referred to our hospital after FNAIT. It was suspected after mild ventriculomegaly was detected in 3rd trimester with a newborn with thrombocytopenia. IG and prednisone were administrated. At 37+3 W, a cesarean delivery of a female newborn (2660g) was performed. Platelet count was normal.

Case 3: A 2G0P woman was admitted due to fetal hydrocephalus at 35 W with subsequent medical interruption. The pathological examination revealed fetal multiple and extensive hemorrhage including ICH. Her second pregnancy occurred prior to FNAIT work up study was completed. At 25 GW, after the diagnosis of FNAIT was reported, IG was initiated. Prednisone was added later. A caesarean section was performed at 37 W (female 3050g newborn). Neonatal thrombocytopenia was not detected.

Case 4: A pregnant woman in her third pregnancy was admitted for pregnancy surveillance. Obstetric history was consistent with FNAIT and although FNAIT diagnosis has already been performed, she was referred to hospital at 34 W. She started IG and prednisone. A 3000g female new-born was delivered at 37 W. Platelet count was normal.

**CONCLUSION:** Despite few data about long-term follow-up of surviving offspring after antenatal treatment of FNAIT with IG and its costs, IG therapy has been proven to be effective in preventing FNAIT. In 3 out of the 4 cases reported above, IG was started after the recommended period and even so, thrombocytopenia or bleeding events were not detected. This suggests that even when the IG is started after the optimal timing it can be advantageous and should be offered.

## GO_3821
## EVALUATION OF PREGNANCY RATE AFTER HYSTEROSCOPIC POLYPECTOMY IN INFERTILE WOMEN

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**Introduction:** Endometrial polyps (EP) are localized hyperplastic overgrowths of endometrial glands and stroma around a vascular core that form a projection from the surface of the endometrium. There is some evidence suggesting these lesions are related to an detrimental effect on fertility. Physical interference with sperm transport, embryo implantation or through uterine inflammation or interference with normal patterns of endocrine function are potential mechanisms. Then, it is plausible that removal of EP might improve fertility. Hysteroscopic (HSC) polypectomy reverses anatomical distortions within the uterine cavity and this may potentially improve the chances of embryo implantation and successful pregnancy.

**Methods:** Retrospective study that included infertile women who underwent HSC polypectomy in our Department from 2018 to 2020. EP were diagnosed by transvaginal ultrasound and later confirmed in histological examination. All HSC were performed by the same operator. After the procedure we analyzed the pregnancy rate of these women and compared the fertility rates between patients having EP ≤1 cm and those with larger or multiple polyps. Statistical analysis were performed using SPSS 25.

**Results:** Of the 284 hysteroscopies performed in infertile women, 14.4% (n=41) had findings suggestive of EP, later confirmed by histological examination. The mean size of EP was 1,35± 0,6 cm. In 27 patients we observe EP ≤1 cm and 14 patients had larger or multiple EP. Polypectomies were performed by office HSC in 93% of patients (n=38). Three women did not tolerate the procedure because of pain, having subsequently undergone HSC under general anesthesia. After polypectomy, 75.6% (n=31) of our patients became pregnant within a period of 2 years: 22% spontaneously and 53.6% by assisted reproduction techniques. Although the fertility rate after polypectomy was higher in patients having EP > 1cm or multiple polyps than women having EP ≤ 1cm (85,7 vs 70,4%), there was no statistical difference (p=0,278).

**Conclusion:** After polypectomy in infertile women we achieve a fertility rate higher than 70%, which is similar to the results of other studies in the literature. However, there was no statistical significance between pregnancy rate after polypectomy and polyp diameter. This suggests that EP contribute to infertility and should be removed regardless of their size. Office HSC is a well-tolerated procedure and should be considered for polypectomy in infertile women.

## GO_3921
## BELL'S PALSY IN PREGNANCY – IS THERE AN ASSOCIATION WITH PRE ECLAMPSIA?

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**Introduction:** Bell's palsy (idiopathic facial nerve palsy) is the most common cause of acute spontaneous peripheral facial paralysis. The incidence and severity of Bell's palsy are increased in pregnancy, especially in the third trimester or postpartum period, affecting 2 to 4 times more often than the nonpregnant population. It has even been suggested that Bell's palsy could have an association with pre-eclampsia (PE).

**Case Report:** A 28-year-old woman, primigesta, was referred to hospital due to Gestational Diabetes (GD) in 1st trimester. 1st trimester ultrasound (US) and combined screening were normal. GD was controlled with metformin from 26th week and pregnancy proceed without other complications.

At 35th week (W), blood pressure (BP) values were 142/93 mmHg. Analytical study was performed and it was diagnosed pre-eclampsia without severity criteria, and she was admitted to inpatient care. Two days later, she developed hemiface edema and deviation of the labial commissure on the right side and BP values around 160-170/89-99 mmHg, responsive to therapeutic. Analytical study had no alterations. Due to new symptoms, neurology consultation was performed and a Bell's Palsy was diagnosed based on clinical presentation. Serological study excluded active viral or bacteriological infections.

Four days later, at 36th W, BP kept with high values, which was a marker of servery of pre-eclampsia and labor induction was initiated. During labor, because of a non-reassuring fetal state, a cesarean section was performed. A male newborn was delivered, weighing 3080g, Apgar score 8/10/10.

BP values kept under control during the puerperium period but as she kept the facil symptoms, oral corticosteroids were prescribed and she was accompanied by physical medicine and rehabilitation. Two months after birth, she fully recovered from Bell's Palsy.

**Conclusion:** This case report demonstrates the development of Bell's Palsy after the diagnosis of PE without severity criteria. To date, there is limited literature in the diagnosis of Bell's palsy during pregnancy and its association with PE. More prospective studies are needed to define the relation between Bell's Plasy with PE in pregnancy, as well as the impact on maternal-fetal outcomes.

## GO_4021
## FEASIBILITY OF THE SAPPORO CRITERIA IN ANTIPHOSPHOLID SYNDROME: A CASE-CONTROL STUDY

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**Introduction**: Antiphospholipid syndrome (APS) is an autoimmune disease with relevant pregnancy morbidity. Classification criteria for APS were last reviewed in 2006. Whereas their specificity isn't arguable, their potential lack of sensitivity questions their suitability in clinical practice. The enforcement of clinical and laboratorial extra-criteria manifestations with impact on morbidity has been recently suggested.

**Methodology:** We performed a case-control study comparing two groups of pregnant women followed in our institution between 2010 and 2020. Group A (13 pregnancies) consisted of women with APS diagnosis accordingly to the Sapporo criteria. Group B (67 pregnancies), consisted of women with probable APS ("APS-like"): seronegative APS; or women with pregnancy morbidity and antibodies, but not in the required titles. Data were retrieved from hospital charts.

**Results**: Mean age at birth was similar between groups. Regarding pro-thrombotic factors, group A showed significantly higher rates of hypertension than group B ($p<0.053$). In 28% of the pregnancies from group B, positive clinical (migraine, livedo reticularis) and laboratorial (thrombocytopenia, proteinuria, antiprothrombin antibodies) extra-criteria were present.

No significant differences were found between groups regarding previous adverse obstetric outcomes - early miscarriages, intra-uterine growth restriction (IUGR) or demise, preeclampsia - with exception for significantly higher rates of early miscarriages and preterm labour ($p<0.05$) in group B.

More than 75% of the women in each group were under combined treatment with low-dose aspirin and heparin. However, treatment with hydroxychloroquine was more frequent in the APS group. Obstetric complications (miscarriage, gestational hypertension, preeclampsia, IUGR and preterm labour) were similar between groups. Mean gestational age at birth wasn't significantly different between groups. Regarding neonatal outcomes (anemia, jaundice, sepsis and stillbirth), no significant differences were found between groups. However, birth weight was significantly lower in group A ($p= 0.009$).

**Conclusion**: APS and APS-like groups show similar clinical profiles and pregnancy outcomes. While that might be attributed to a similar therapeutic regimen regardless of the fulfilment of the classification criteria, it also elicits the need for practical diagnostic criteria that might help improve these women's rate of successful obstetric outcomes.

## GO_4121
## ANTIPHOSPHOLIPID SYNDROME: A RETROSPECTIVE REVIEW OF PREGNANT WOMEN IN OUR CENTER

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**Introduction:** Antiphospholipid syndrome (APS) is one of the most treatable disorders with impact on pregnancy morbidity. Although its diagnostic criteria are often stringent, identifying women at risk of recurrence of clinical manifestations and treating them accordingly might contribute to better obstetric outcomes.

**Methodology:** This is a retrospective review of pregnant women labelled as having APS (n=80), followed in our institution between January 2010 and January 2021. Data were collected regarding personal and obstetric history, drug prescription, antibody titles and obstetric outcomes.

**Results:** Eighteen percent of the women filled the criteria for APS. The remaining presented with clinical criteria and lack of laboratory confirmation; or with both pregnancy morbidity and antibodies, but not in the required titles. Most women (86%) suffered from other autoimmune disease, Systemic Lupus Erythematosus (SLE) being the most frequent one (48%).

Eleven women (14%) had history of arterial thrombosis, 7 of venous thromboembolism. Thromboembolic arterial events were more frequent in SLE patients. 54% of the women had at least one previous early miscarriage (<10 weeks), 11% had history of late miscarriages and 21% of intra-uterine fetal demise. 51% of the women presented positive anti-cardiolipin antibodies, but lupic anticoagulant was only present in 25%. Thrombocytopenia was present in 11% of the women - no correlation was found between the latter and thromboembolic events. 80% of the women were under combined treatment with low-dose aspirin and heparin, but only 30% of the women were taking hydroxychloroquine.

Four of these gestations ended up in miscarriage. A correlation analysis concluded that being under combined treatment was protective regarding miscarriage ($\Phi= -0,326$, $p=0.004$). The most frequent obstetric complication was intra-uterine growth restriction (22%), followed by preeclampsia (6.7%). Combined treatment seemed to play a role in reducing adverse obstetric outcomes such as gestational hypertension, preeclampsia, intra-uterine growth restriction and hospitalization ($\Phi= -0,346$, $p=0.003$).

**Conclusion**: Combined treatment with low-dose aspirin and heparin is beneficial in pregnant women with confirmed or unconfirmed APS.

## GO_4221
## DIFFERENTIAL DIAGNOSIS OF SEIZURE DISORDERS IN PREGNANCY: CASE REPORT

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**Introduction:** Seizures are among the most serious neurologic complications in pregnancy. The majority occur in women who already have epilepsy. However, structural and metabolic changes may precipitate new-onset seizures. Pharmaceutical agents used to treat epilepsy increase the risk of congenital malformations, nevertheless the risk of obstetric complications is higher in non-treated epilepsy

**Report:** We present a rare case of an inflammatory brain tumor inaugurated as a generalized seizure at 15weeks' pregnancy in a 31years old, healthy woman. No history of seizures or other disorders were known. After a second episode at 17weeks, a brain MRI was performed which revealed two expansive lesions, one on the right frontal lobe measuring 65x33x48mm and other, smaller, on the left occipital lobe, suggestive of primary central nervous system neoplasia. With 18 weeks the mother was submitted to craniotomy and subtotal removal of frontal lobe lesion. Histological study excluded the neoplasia and suggested an inflammatory/demyelinating lesion. Hospitalization for study was required from week 20th-25thwith no final diagnosis found. AVD doses and corticosteroid treatment were administered. Nevertheless, two more epileptic crises were described around 22 weeks with increase medication doses needed. After discharge, week/biweekly appointments were scheduled to monitor mother and fetus wellbeing. The 2ndtrimester US and fetal echocardiogram showed no alterations. With 34weeks a left pelvic dilation (17mm) and a fetal growth on 12thcentile was detected. Hospitalization was required at 36th week for fetal pulmonary maturation because of fetal growth restriction (2,5thcentile with no Doppler alteration). At 36 weeks and 6days, a neonate with 2380g was born by C-section, due to mother disease that contraindicates vaginal delivery, after premature membranes rupturing. Until today, no definitive etiology for the mother's brain lesions was found and more exams are being performed. The 4years old boy is healthy

**Discussion:** This case shows that it is important to be aware of differential causes of seizures during pregnancy, since the management and treatment is different depending on the etiology and because the type of pregnancy surveillance required is also very individualized. The keystone is to understand the cause and to achieve optimal treatment as soon as possible during pregnancy so that mother and child can be less injured, even when the definite diagnosis is not known yet

## GO_4321
## VULVAR LESIONS IN THE CONTEXT OF THE EMERGENCY DEPARTMENT – WHEN HISTORY ALONE MAKES THE DIAGNOSIS

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**Introduction:** A wide spectrum of lesions may occur on the vulva. The challenge is to differentiate between benign findings and potentially serious diseases. The goal is to underline the importance of the clinical history in the management of vulvar lesions.

**Clinical Case:** In the first case, a 37-year-old multiparous woman presented to the emergency room complaining of a pruritic lesion in the mons pubis region. Several weeks prior, she had been pregnant and a diagnosis of non-viable pregnancy (GNE) was made, followed by initiation of a treatment regimen for uterine evacuation. In the preceding weeks, the patient reports that the family's cat was diagnosed with a cutaneous fungal infection, which was followed by her partner presenting the same lesions, mostly on the hands and dorsal region. He was treated with a topical antifungal agent. During the uterine evacuation process, the partner collaborated in placing the misoprostol pills vaginally. A few days later, the patient noticed the appearance of the above mentioned genital lesion. On physical examination, she displayed a pruritic, circular, erythematous, scaling patch that spread centrifugally (Image 1). A diagnosis of tinea corporis was made and the patient initiated treatment with a topical antifungal agent, with complete resolution of the condition.

In the second case, a 25-year-old nulliparous woman was referred to the emergency department due to the recent onset of painful vulvar ulcers. The patient used the male condom and an oral contraceptive pill. She denied any previous history of sexually transmitted infections (STIs). Her partner was asymptomatic. A few days before, she reported having an upper respiratory infection. On examination, we noted two painful ulcers, with a red border and a necrotic base covered with a white-grayish exudate (Image 2). Inguinal lymphadenopathy was also noted. Speculum examination was normal. The diagnosis of probable Lipschutz ulcer was established and symptomatic treatment was initiated with topical lidocaine gel. At the follow-up visit one month after, bacteriological culture of the ulcer and serological screening for STIs were found to be negative. The patient presented complete healing of the lesions.

**Discussion:** Although infrequent in the setting of the emergency department, vulvar lesions present a wide range of differential diagnoses. In some cases, a thorough clinical history may provide the clues towards a diagnosis, prompting rapid initiation of treatment

## GO_4421
## A CASE OF PARASITIC LEIOMYOMA

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**Introduction**: Uterine leiomyomas, also referred to as fibroids or myomas, are the most common pelvic tumor in females. They can be classified as submucosal, intramural, subserosal or others. Occasionally, subserosal myomas become adherent to surrounding structures, developing an auxiliary blood supply, and losing their original attachment to the uterus. They are then called parasitic leiomyomas. This case report demonstrates the pathophysiology of parasitic leiomyomas and the challenge of their diagnosis.

**Case-report**: We present the case of a 27 year-old woman sent to gynaecological consultation after a gynaecological ultrasound and a pelvic computerized tomography (TC) that suggested a 39x34mm pedunculated leiomyoma. The woman had no surgical antecedents and presented with a two-weeks evolving mild abdominal pain. Physical examination was normal. Due to pain worsening, a new ultrasound was performed after 7 months, revealing a 51x43x41mm nodular lesion, with acoustic shadows, suggesting a left isthmic pedunculated myoma. Laparotomy myomectomy was proposed and performed 5 months later. Intraoperatively, a 5cm fibro-elastic mass, with smooth surface, was found adherent to the left ovary. Normal ovarian parenchyma was individualized but not detachable from the mass. The mass was resected from the macroscopically normal ovarian parenchyma. Histology revealed a leiomyoma adherent to ovarian tissue with follicular cysts. Focal myometrial tissue was also present. No malignancy signs were identified. The histological conclusion was of a uterine subserosal leiomyoma with adherence to ovarian tissue.

**Conclusion**: In conclusion, parasitic leiomyomas are a rare subtype of uterine leiomyomas and they are mostly found incidentally.

## GO_4321
## A SURPRISINGLY GOOD OUTCOME IN A PLACENTAL ABRUPTION CASE REPORT

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**Introduction:** Placental abruption is one of the most important causes of antepartum haemorrhage. It is a relatively rare but serious complication of pregnancy as it is associated with unfavourable outcomes for mother and fetus. It occurs when maternal vessels tear away from placenta and start bleeding resulting in a retroplacental hematoma and consequent detachment of the placenta from the maternal vessels network. The diagnosis is made clinically, although imaging and pathologic postpartum findings could support it. It can be an obstetric emergency being associated with serious maternal and fetal consequences such as excessive blood loss, disseminated intravascular coagulation for the mother and increased perinatal morbidity and mortality related to hypoxia, asphyxia and pre term delivery. So this case intends to report a surprisingly favourable obstetric and neonatal outcome of a placental abruption.

**Case report:** This case report is about a healthy 36-years-old pregnant woman at 32 weeks of gestation which presented to our obstetric unit with heavy vaginal bleeding. On admission, it was immediately diagnosed with a placental abruption and an emergency cesarean delivery was performed. Intraoperatively, it was observed an extensive detachment of the lower border of the placenta and extracted a male preterm newborn with 1740g, with Apgar indices of 8/9/10. The subsequent postoperative and puerperium of the patient occurred without major complications. The newborn was initially admitted in a special neonatal care unit due to prematurity and respiratory distress syndrome but had a favourable evolution.

**Discussion:** Taking into account low gestational age (32 weeks), no previous pulmonary maturation and the heavy vaginal bleeding on presentation, this case could easily had a bad outcome for the mother or the fetus. However, the rapid transport of the patient to the hospital and quick performance of obstetric team may be the reason for this favourable outcome. So this case illustrates a favourable obstetric and neonatal outcome of a placental abruption and highlight the importance of a trained obstetric team in emergency cases.

## GO_4421
## UMBILICAL CORD ACCIDENT - A CASE REPORT

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**Introduction:** Umbilical cord accidents include pathologies such as abnormal cord insertion, vasa previa, hyperspiraled cords, true knots, circulars, and stenosis. Many of the intrapartum complications and adverse perinatal outcomes have been associated with such umbilical cord abnormalities, including stillbirths, intrauterine growth restriction, non-reassuring fetal heart tracing, low Apgar score, and meconium staining.

**Case report:** 26-year-old pregnant woman, 3G1P. Prior obstetric history of gestational hypertension and IUGR. Whilst accompanied in CHBV the following intercurrences where encountered: excessive weight gain (>20kg), single umbilical artery, and polyhydramnios detected on 3rd trimester ultrasound.

At 38w+0d the patient presented to the Emergency Room with rupture of membranes without pain. Fetal movements perception was normal. Clear Amniotic fluid was objectified and the CTG was reassuring. Ten hours later induction of labor was performed with a propess®.

On the following day, the emergency team was called to the ward due to difficulties in hearing the fetal heart focus; on the ultrasound absence of heartbeat was diagnosed.

Forceps assisted delivery at 38s+2d, a stillbirth, male with 2940g was born. Two loops of the umbilical cord around the fetal abdomen were objectified constricting abdominal organs and compromising fetal circulation.

**Conclusion:** The pathologies associated with the umbilical cord can have significant consequences for the perinatal morbi-mortality, as in this case reports. Even with a reassuring CTG and fetal wellbeing detected in the ultrasound at the first contact, the presence of polyhydramnios might have facilitated an umbilical cord accident and its poor obstetric outcome. Therefore, the formulation of clear concepts and the understanding of the pathophysiology underlying the various umbilical cord diseases become essential for its detection and diagnosis.

# ENFERMAGEM

## COMUNICAÇÕES ORAIS

### 0121
### PREVALÊNCIA DO DIAGNÓSTICO ENCEFALITE NUM SERVIÇO DE CUIDADOS INTENSIVOS PEDIÁTRICOS

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**Introduction:** Encephalitis is a complex neurological syndrome that translates into inflammation of brain tissue and occurs with high incidence in the pediatric population. It is a clinical challenge both in diagnosis as well as in treatment due to the variety of etiologies and the non-specificity of the clinical presentation. However, depending on the etiological people involved, the neurological condition may be relatively benign or otherwise associated with high morbidity and mortality.

**Objective:** to know the prevalence of the diagnosis of Encephalitis in the Pediatric Intensive Care Service, CHUP.

**Methodology:** A retrospective study was carried out through a case-by-case review, with the population of all patients admitted to the service from January 1, 2006 to December 31, 2016, using a non-random sample of all patients with ICD9 coding: 323 Encephalitis, Myelitis, and Encephalomyelitis by the International Classification of Diseases.

**Results:** We identified 68 cases of diagnosis of Encephalitis during the study period, 42 male and 26 female, and the predominant age group was 5-10 years old in both genders. The average length of stay was 16 days. There was a frequency of hospitalizations for Encephalitis of 4.72% in relation to the total of hospitalizations. Regarding the etiology of the diagnosis of encephalitis, it was found that the diagnosis of encephalitis of other causes was the most common in 36%, followed by 29% of nonspecific encephalitis, and the less common etiology was infectious encephalitis of 2%.. The most documented signs and symptoms at the time of intermanence were fever, altered consciousness, seizures and headache. The most frequently performed diagnostic exams were cerebral and spinal magnetic resonance imaging in 35 patients, followed by lumbar puncture in 27 patients and electroencephalogram in 21 patients. Regarding the treatment instituted, 12 patients needed assisted ventilation, 48 patients required antibiotic therapy and corticotherapy alone or in combination, 12 patients received immunoglobulin and only 1 patient underwent plasmapheresis. The most frequent morbidity associated with this diagnosis was motor changes, and the mortality rate in all cases was 7.4%. Conclusion: Despite the evident progress in this area regarding the diagnosis of Encephalitis, research is still needed in the area to develop strategies for the prevention of infection, for the early identification of the diagnosis and therapeutics.

### ENF_0221
### VAGINAL AGENESIS – A CHALLENGE FOR PERIOPERATIVE NURSING CARE

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Vaginal agenesis is a congenital anomaly known in clinical practice as Mayer–Rokitansky–Kuster–Hauser syndrome or Mullerian agenesis, characterized by the absence of the uterus, cervix and all or part of the vagina.

During female fetal development, Muller's ducts mature to become the fallopian tubes, uterus, cervix and upper third of the vagina. The lower third of the vagina has its genesis in the urogenital sinus, as well as the bladder and urethra. The ovaries are present which gives the normal secondary sex characters.

Vaginal agenesis is a serious physiological problem not only because of the sterile condition it gives the woman, but also because of the incapacity for vaginal intercourse. This physical disability carries with it a series of psychosocial disorders, including depression, loss of self-esteem and personality disorders.

At CMIN, Laparoscopic Vaginoplasty is performed by external traction, in which the tissues themselves are used to create a neovagina. With this device the neovagina can reach a variable depth, depending on woman to woman.

It is the duty of the circulating nurse/instrumentalist to draw up a care plan aimed at the needs of the user, the team and the surgical procedure. It is your responsibility to prepare the entire surgical arsenal necessary for the surgical fluidity required.

**Objective:** to disseminate the surgical technique and enunciate the importance of the role of the circulating nurse/instrumentalist performed in this procedure.

**Methodology:** exploratory-descriptive based on documental, bibliographical and field research.

**Results/Conclusion:** The guarantee of quality in nursing care is based on the sharing of knowledge that comes from differentiated procedures, leading to more rigorous and qualified professional performance. The sharing of this technique is intended to be a reference in this type of procedure.

**Keywords:** Vaginal agenesis, surgical technique, nurse role"

## ENF_0321
## INVASIVE MECHANICAL VENTILATION: CARING FOR THE CHILD/ADOLESCENT and their family in intensive care

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**Introduction:** Invasive Mechanical Ventilation (IMV) is the cornerstone of pediatric intensive care, and it is essential that nurses master the care of children/adolescents and their families in this situation of special complexity.

The objective of this work was to gather and analyze critically and reflectively the literature on Nursing care for children/adolescents with IMV and their family, in Pediatric Intensive Care, developing a support manual for nurses on the subject.

**Methodology:** Narrative literature review.

**Results:** To understand IMV in pediatrics, it is first necessary to know the history of this technique, as well as review basic concepts of ventilatory mechanics. Subsequently, it is important for the Nurse to know the existing ventilatory modalities, the meaning of the most relevant parameters, the associated complications and how the weaning from this ventilatory support is processed.

As for the provision of nursing care, this starts with assistance in the technique of insertion of the endotracheal tube (ETT) and assembly of the equipment circuit. Once the child/adolescent is already ventilated, the Nurse is responsible for a series of procedures such as aspiration of secretions, administration of drugs by inhalation and surveillance/skin care in order to prevent ETT-associated ulcers. The interpretation and correct action when the main ventilator alarms are activated, as well as the monitoring of the child/adolescent's adaptation to it, allow this professional to be a key agent in the optimization of IMV.

With regard to the family, it is up to the Nurse to provide the necessary support, assuming communication as an extremely important tool. For the family to feel supported, it is crucial that the Nurse guides them in a simple way about the context, devices and techniques used, thus reducing the stress and anxiety experienced.

**Conclusion:** When interpreted in close articulation with clinical practice, the bibliographic systematization performed on the IMV contributes to the development of knowledge and skills that translate into more significant nursing care in line with current scientific evidence. The manual developed proves to be a support tool for all nurses in the service, acquiring a particular facilitating role in the process of integrating new elements into the team.

## ENF_0421
## THE IMPACT OF THE CORONAVIRUS (COVID-19) PANDEMIC ON THE PROFESSIONAL EXPERIENCES OF NURSES AT A POST-PARTUM WARD

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By march 2020, COVID-19 reached pandemic levels and within weeks the work of healthcare professionals changed dramatically. In our particular setting, whereas it remained essential to provide family-centered care, the environment in which nurses had to provide this progressively changed in order to prevent the spread of the virus. Thus, our main goal is to describe the professional challenges faced by nurses in the post-partum ward of Centro Materno-Infantil do Norte during the pandemic.

In an attempt to describe and validate these experiences, a descriptive metholodogy was chosen.

Hospitals have enacted many cross-infection preventive measures which changed the delivery of obstetric care. At CMIN, like many other healthcare institutions, the number of visitors allowed was restricted, isolating women from their families during an important life event. This perceived lack of emotional and social support can impact the birth experience for all women. In particular, during the first months into the pandemic, even contact with their life partners was limited to a few hours per day. In addition to the lack of support for the woman, one of the major consequences of this policy was the delay in father-newborn bonding and the aquisition of the parent role. Moreover, the frequency of prenatal visits and in-person group prenatal sessions decreased. As nurses, we felt the impact of these measures on our day-to-day practices, reflected in the insecurities verbalised by first-time mothers in taking care of their newborns, as well as feelings of sadness and vulnerability.

In caring for women whose positive diagnosis for sars-cov-2 was discovered or confirmed at admission to hospital the challenges were even greater. Besides dealing with new cross-infection preventive measures and the potential health risk, nurses continued to help promote the aquisition of the maternal role and breastfeeding efficacy.

Also, it is important to aknowledge the increased burden of care for all nurses on the ward, since one would be dedicated to sars-cov-2 positive women, while the others would share the workload amongst themselves, effictively reducing staff-patient ratios.

In conclusion, this pandemic has bore many challenges for nurses in our post-partum ward. As safeguards for the well-being of the mother and baby dyad, nurses are an essential part of the midwifery provision of care and it is important to recognise their struggles and the challenges they overcame during this pandemic.

## ENF_0521
## NURSES ROLE IN THE TREATMENT OF MALIGNANT WOUNDS

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**Introduction:** Wounds are considered a hidden epidemic by WHO (2008), nowadays cancer is not a death sentence, more and more people have it and live long and fulfill lives. Patient quality of life can decrease with lesions of breast cancer, however due to psychological factor some hide them. We see in this case the importance of treatment and nurses in order to promote quality of life.

**Case Report:** Woman of 52 years came to the hospital with a thorax ulcer involving the destruction of the right breast. Evolution of 1 year, during that time she hided the breast wound from her whole family, by shame and fear. She went to the doctor because of edema of the right arm.

After biopsy diagnosis of invasive or micropapillary carcinoma on the right breast, stage 4 (bone and local invasion), HER2positive, RH positive. After evaluation she start chemotherapy, and wound treatment in the Breast Unit.

During almost 1 year: She does chemotherapy since 26/10. After 8 sessions did a mastectomy and cleaning of tissues surrounded the breast and left oophorectomy due to cist in 25/5. At 7/09 the breast wound is almost healed and still does chemotherapy, and is under evaluation a new skin nod detected on the chest and also a neurogenic tumor of iliopsoas muscle.

**Discussion:** This care illustrate the need to freely speak about breast cancer and to have a holistic approach to each patient.

During the nursing treatment is provided physical care, but also information and psychological support to patient and family. And if necessary forwarded to other professionals.

This type of wound has a devastating effect in the daily family routines and nurses are a pillar in their treatment.

## ENF_0621
## SLEEP, THE KEY TO DEVELOPMENT

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**Introduction:** Sleep plays a fundamental role in the growth and development of preterm newborns (PTNB) and its deprivation has numerous negative effects.

In the neonatal period, sleep is the main activity of the brain and the ability to fall asleep depends on neuronal connections and the ability of the PTNB to self-regulate.

The sleep of PTNBs admitted to an intensive care unit is particularly impaired, not only because of their immaturity, but also because of the adverse environment and frequent manipulations.

Excessive manipulation can worsen the prognosis and delay hospital discharge, increasing the risk of comorbidities.

**Methodology:** We did a literature review using the scientific database PubMed and EBSCO, where publications in Portuguese, published in the last five years.

**Results:** From the studies consulted, we verified that the sleep-promoting strategies refer to the management of the environment, concentration and planning of care (respecting the NB's sleep-wake cycle), adequate positioning and pain management.

The concentration and planning of care is an extremely important factor for optimizing sleep.

The entire multidisciplinary team must implement individualized care according to the NB's needs.

Excessive manipulations are a disturbing factor in sleep.

Proper positioning and restraint contribute to the self-regulation of the PTNB, prevent motor disorganization, and have beneficial effects in promoting sleep in the PTNB.

These strategies are intended to mimic intrauterine flexion.

**Conclusion:** The set of all these interventions can improve the sleep cycle of the PTNB and have as advantages the fact that its applicability is autonomous for nurses, safe, non-invasive, immediately available, without risks, secondary effects or associated high costs.

As protective and sleep-promoting strategies for newborns, they should be used by all nurses, given their fundamental role in protecting this vulnerable population, in order to mitigate the negative influences of sleep interruption, promoting their comfort and stability.

## ENF_0721
## HEATH CARE TRANSFER: A CLINICAL CASE COMPLEXITY

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**INTRODUCTION:** The health care transfer is fundamental for patient safety, being associated with decreased adversities such as morbidity and mortality.

Transfer of health care situations are associated with great vulnerability and high risk. Communication failures are the main cause of adverse health events. Evidence indicates that up to 70% of these events occur due to communication failures among professionals in the transitioning moments of care, being the most common related to information omissions, information errors, lack of accuracy and lack of prioritization of activities.

The relevance of this case study stems from the need to analyze the transfer of care process between several providers (hospital, outpatient visit, school, and primary health care) in a complex chronic disease patient. Analyzing the different contexts, the objective is to identify aspects to be improved in the health care transfer.

**CLINICAL CASE:** It analyzes the transfer of health care in a child with multiple disorders that constitute a complex chronic disease; integrated into a family with high social support needs. Articulation between the different health care providers, maintaining continuity and care safety is an especially complex process, due to a very high dependence on health care needs, number of health care providers, and special social needs.

**DISCUSSION:** For of this case analysis, the Mnemonic ISBAR (Identification; Current situation; Background; Evaluation; Recommendations) was the instrument that granted the analysis and reflection on the process of care transfer, allowing the identification of relevant aspects for continuous improvement. Difficulties in articulation and communication remains high in clinical settings. The main difficulties encountered in managing the care transition were focused on logistics; human resources management; communication between different health care professionals; as well as the articulation with high school faculty staff, for continuity in the provision of health care. These difficulties were gradually overcome by providing connecting elements, face-to-face approaches in multi-professional team meetings and through weekly home visits.

## ENF_0821
## BENEFIT OF A THERAPEUTIC GARDEN IN ADOLESCENTS WITH PSYCHIATRIC DISORDERS

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**Introduction:** Adolescence is a phase that entails physical and emotional changes that are of great importance for the construction of identity. It is at this stage that strategies for managing stressful situations are consolidated and conditioned. When this management is not effective, it can trigger mental health problems. Some of these problems can cause hospitalization, which can lead to the emergence of stress and anxiety. It is important that nurses have a therapeutic role in managing this stress.

The objective of the study is to evaluate if a therapeutic garden can influence adolescents hospitalized in a pedopsychiatry service.

**Methodology:** Integrative literature review. Research for the development of this topic was conducted using the EBSCO and RCAAP electronic databases, searching for the following descriptors: therapeutic garden, pediatric care, child's mental health. Literature research had as inclusion criteria: studies after 2010, available in full text, in Portuguese or English. Scientific articles and master's dissertations whose content was found to be significant for the study were analyzed.

**Results:** The authors concluded that adolescents with mental illness benefit from a therapeutic garden, presenting significantly lower levels of anxiety and stress. This activity promotes social interaction, maximizes social, cognitive, physical, psychological functions, improving the quality of life of patients and increases self-fulfillment, self-esteem and self-confidence.

**Conclusion:** Horticulture is important for mental health, encouraging sociability, promoting opportunities for relaxation, providing its participants with a space where they experience a sense of well-being.

## ENF_0921
## ISBAR AS AN IMPROVEMENT IN THE TRANSITION OF CARE FROM THE OPERATING ROOM TO INPATIENT SERVICES

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ISBAR as an improvement in the transition of care from the operating room to inpatient services.

The effectiveness of communication in the transfer of information between care providers, in the transition of care, for better patient safety is very important and is increasingly in everyone's eyes. The quality of the healthcare transition is a fundamental element in patient safety, being associated with an improvement in the quality of care and a decrease in adverse events and, consequently, a decrease in mortality. Effective communication between health professionals is characterized by being timely, accurate, complete, unambiguous and always understood by the recipient. The ISBAR Technique is a communication and health standardization tool that is recognized for promoting patient safety in transitional care situations. The ISBAR mnemonic is a memory aid that simply helps to memorize complex constructions to be transmitted verbally: where the I is Identification; S is Clinical Situation; B is the background; A is evaluation and R is recommendations.

**Objective**: To publicize the ISBAR Technique as a communication tool in the transfer of information as an improvement in the transition of care from the operating room to inpatient services, in favor of patient safety.

**Methodology:** A literature review based on reference data was used.

**Results/Conclusion:** The ISBAR methodology is recommended by several healthcare organizations because it is easy to memorize by healthcare professionals and because it is easy to use in different care contexts. It is a strategy that conveys the message in a way that is understood, using a simple, flexible, concise and clear methodology. At the same time, it is a tool for standardizing communication between health professionals. This methodology contributes to quick decision-making, thus promoting critical thinking, thus reducing information transfer time. With its use there is an efficiency and better effectiveness in the transmission of information in the transition of care, and as a consequence, better patient safety, a reduction in failures and adverse events, promoting an improvement in the continuity of care.

**Keywords:** Communication; ISBAR; Care transition; Continuity of Care

## ENF_1021
## MENAGEMENT OF THE THERAPEUTIC REGÍMEN IN ADOLESCENTES WITH A FIRST PSYCHOTIC EPISODE

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**Introduction:** The diagnosis of the first psychotic episode is accompanied by great anguish by patients and families, either because of the awareness of the change it entails in the present and future, or because of the social stigma that it transposes. When we are dealing with an adolescent, the help expected from health services is even greater. It is our objective to share the challenges and specificities of the management of the therapeutic regimen in adolescents with a first psychotic episode, to share the strategies used to prevent therapeutic non-compliance and evaluate the health gains provided by the proper management of the therapeutic regimen.

**Methodology:** Retrospective study of a group of adolescents, diagnosed with their first psychotic episode, admitted to the adolescent psychiatry service of CHPorto and who had benefited from a fallow-up program. The impact that the focus on "therapeutic adherence" brought in terms of health gains is evaluated.

**Results:** This study revealed that the follow-up program allowed for efficient monitoring of the management of the therapeutic regimen, frankly reduced readmissions, facilitated the adolescent's return to their routines (family, academics, friends), and allowed for close work with families helping them dealing with their children's illness.

**Conclusion:** The follow-up program after hospital discharge allows to optimize the management of the therapeutic regimen with evident health gains for adolescents and their families, in which only 5% of patients were readmitted within a period of 9 years.

## ENF_1121
## CYBERBULLYING IN CHILDREN AND YOUTH

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**Introduction**: Today we live in a global world and the internet and information and communication technologies (ICT) undoubtedly bring advantages, but they have also come to instigate the emergence of phenomena such as cyberbullying.

This phenomenon is more prevalent in adolescence, which is due to the greater autonomy and ability of adolescents to use ICT, but also due to the potential for socialization (Serrão, 2019). In Portugal, according to the Portuguese Association for Victim Support, in 2019 there were 827 cases in the Safe Internet Line, with more male victims (68%) and the age group most affected by cyberbullying was among the 11 and 17 years old (APAV, 2019). Rodrigues (2013), in a study carried out with 5th to 9th grade students, also found that 10.1% had been a victim of cyberbullying and Matos et al. (2014) recorded a rate of 7.6%.

**Methodology**: In order to carry out this work, bibliographical research was used. That is, starting from the "survey of theoretical references already analyzed, and published by written and electronic means, such as books, scientific articles, website pages" (Fonseca, 2002 cited by Sousa, Oliveira, & Alves, 2021, p. 66) . Therefore, works that have already been published and that are relevant to know and analyze the problem of the research to be carried out were sought (Sousa, Oliveira, & Alves, 2021), establishing the last 10 years as the research period.

**Cyberbullying**: Cyberbullying emerges as a typology of bullying, understanding that bullying refers to a "persistent threatening and aggressive behavior directed at people, especially those who are smaller or weaker (Vandebos, 2007 cited by Gonçalves, & Vaz, 2021, p. 193). In turn, cyberbullying, a recent and ambiguous concept, which lacks a rigorous and unanimous theoretical conceptualization, is perpetuated through the internet, social networks, in cyberspace and includes different types of behavior (Pessoa et al., 2019).

According to Pessoa and Amado (2014), the phenomenon of cyberbullying must be understood in the light of ICT and it must be taken into account that its domain and the creativity of the aggressors is great and that they use four major categories. Based on authors such as Smith et al. (2006, 2008), the authors state that cyberbullying is achieved through:

- SMS: send or receive abusive text messages via mobile phone;
- MMS: taking, sending or receiving unpleasant photos and/or videos using mobile phones (eg happy).

## ENF_1221
## MOANS AND LEMON METHODS TO HELP PREDICT A DIFFICULT AIRWAY

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**Theoretical framework:** MOANS and LEMON are methods used to predict and identify a difficult airway. In the daily routine of the operating room, airway emergencies can occur at any time, which is why it is extremely important that the perioperative nurse is equipped with knowledge and techniques that allow them to assess and identify the presence of a difficult airway. The use of mnemonics facilitates the internalization of knowledge.
In this context, the MOANS helps to predict the difficulty of ventilation with a face mask, being the M for sealing the face mask, the O for Obstruction, the A for age (Age), the N for missing teeth (No teeth) and the S of stiffness (Stiff). The LEMON method serves as a quick aid to predict the presence of difficulty in laryngoscopy and consequent difficulty in intubation. The L is for "Look externally", the E for Evaluate (Evaluate 3-3-2 rule), the M for Mallampati evaluation, the O for Obstruction/Obesity and the N for Neck mobility.

**Objective:** To deepen the knowledge of perioperative nurses in approaching the airway.

**Methodology:** Bibliographic research was carried out.

**Results/Conclusion:** The use of mnemonics facilitates learning and aims to help memorize knowledge. The MOANS and LEMON methods have facilitated the internalization of vital knowledge in the approach to the airway. The perioperative nurse, as an intervening professional with an active role in the approach to the airway, must be endowed with this knowledge, so that they can act quickly, safely and effectively. Identifying a difficult airway before approaching the airway is essential to minimize complications.

Key words: Perioperative Nurse, Airway, MOANS, LEMON

## ENF_1321
## THE ENTROPY GENERATED BY THE COVID-19 PANDEMIC IN THE OUTPATIENT CLINIC

Paula Neutel

The presentation summarizes the activity developed in the outpatient production line - Gynecology and Obstetrics Outpatient Consultation, of the Department of Women and Reproductive Medicine, in the biennium 2019/2020. The management tools used and their impact on the entropy generated by the covid-19 pandemic are exposed. The nursing team identifies the positioning of the service in the organization, strategy development, and priority setting. Three strategic axes have been defined: Development and improvement of competencies; Quality and client safety; Inclusion and citizenship in health. These represent the priority course of action for each of the areas developed by the service and the pursuit of the defined objectives. The consolidation and redefinition of internal processes allowed for the development and improvement of professional skills, the standardization of the nursing process, and an increase in the quality level of the care provided.

# ENFERMAGEM

## POSTERS

### ENF_1421
### PRESENCE OF THE FATHER IN PREGNANCY VIGILANCE: SCOPING REVIEW

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**Introduction:** Pregnancy is a holistic experience increasingly lived by the couple and not only by the pregnant woman. In this new stage of the couple life, sets of expectations, emotions, and decisions emerge that, when shared, bring countless benefits to the transition from parenthood. The father is asked to emotionally support his partner during pregnancy and postpartum and the beneficial effects of this affective support for the mother and baby are now recognized. In this sense, the father must be present in pre and postnatal consultations. The midwife has an important role in integrating the couple in this new phase of their lives, making the process of parenting easier. The midwife must base nursing education on the individual needs and concerns of each couple. The objective of this study was to review the scientific evidence regarding the importance of the presence of the father in pregnancy vigilance.

**Methodology:** A scoping review was carried out according to the Joanna Briggs Institute's protocol, using the PRISMA Extension for Scoping Reviews for study writing. The search was carried out in two databases, resulting in 161 studies, seven of which made up the sample. A narrative data analysis was carried out using the Critical Appraisal Tools and Data Extraction Form of the studies.

**Results:** The seven studies commonly comprised a description of the advantages and disadvantages of the presence of the father throughout pregnancy. Advantages included family support and protection, maternal and paternal psychological benefits, a more positive birth experience, adoption of healthy behaviors, improvement of couple relationship, and a positive effect on breastfeeding. The only disadvantage was the feeling of exclusion, particularly in preparing for childbirth.

**Conclusion:** Advantages of the presence of the father during pregnancy stood out over disadvantages. It is acknowledged and valued by couples for its beneficial effects on the transition from parenthood. The midwife has an important role in integrating the couple in this new phase of their lives, making the process of parenting easier through individualized couple teaching.

### ENF_1521
### CUIDADOS DE ENFERMAGEM AO RECÉM-NASCIDO COM ENCEFALOPATIA HIPOXICO-ISQUÉMICA SUBMETIDO A HIPOTERMIA INDUZIDA

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One of the most serious consequences of perinatal asphyxia and major cause of perinatal morbidity and mortality is hypoxic-ischemic encephalopathy. Induced hypothermia is a technique used to minimize or even prevent damage caused by perinatal asphyxia and consists of subjecting the newborn to a temperature of 33.5°C, starting up to 6 hours of life and kept until 72 hours, at which time slow reheating takes place. The technique requires a prepared multidisciplinary team, in which nursing care provided to the newborn has a primordial and highly complex role. It is crucial for treatment maintenance and prevention of therapeutic hypothermia complications and adverse effects, and for all the care intrinsic to a child's hospitalization in a Neonatal Intensive Care Unit. If correctly performed by trained professionals, therapeutic hypothermia is certainly capable of significantly improving the prognosis of newborns submitted to the technique.

## ENF_1621
## SEX LIFE IN SENIORITY

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Aging is a natural process common to all living organisms. This process varies, not only across individuals, but also across different systems within the same person. With the increase in average life expectancy and progressive aging of the population, the approach to sexual life is essential. Sexuality is an integral part of human beings, influencing their thoughts, feelings, actions, and interactions. It is thus decisive for a person's physical and mental health, regardless of age and gender.

In old age, people love and need to live their lives and sexuality freely and with dignity. Sexuality includes love, affection, contact and intimacy between people, in addition to the identification of a sexual role. This theme is marked by taboos, myths, and barriers to the expression and/or experience of sexuality, such as sexual problems and psychological factors. Sex education for seniors is a proposal and a necessity.

At our external Gynecology consultation, we believe that it is relevant to share ideas on this topic. Using the descriptive method and bibliographic search, the problems and difficulties in supporting senior persons in the experience of their sexuality were reviewed. Approaches to be applied in consultation were proposed and discussed.

In this setting, it is particularly relevant to:

- Inform the health team about the problems and myths that affect sexuality in the elderly;
- raise awareness among health professionals for openness in the discussion of sexuality and related problems;
- provide strategies to improve sex life at this age.
- Sexual life and satisfaction are recognized as beneficial to the physical and psychological well-being of individuals. It is therefore crucial to address this issue and its problems without fear and with greater freedom, contributing to a better quality of life of the elderly population.

## ENF_1721
## BENEFITS OF DANCE THERAPY IN CHILDREN WITH CONGENITAL HEART DISEASE: LITERATURE REVIEW

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**Introduction:** Dance movement therapy (DMT) is defined as the psychotherapeutic of movement that can promote emotional, social, cognitive, and physical integration of the individual for the purpose of improving health and well-being (2). Children freely express themselves through spontaneous dancing (3).

Congenital heart disease (CHD) is one of the most common birth defects. Children with CHD are at increased risk of psychiatric conditions and neurodevelopmental disorders (1).

The main purpose of this study was to review the influence of DMT on neurodevelopment and mental health of children with CHD.

**Methods:** Data was collected in MEDLINE and CINAHL databases in July 2021 using the following key terms: ("heart disease OR "cardiac disease") AND ("pediatric" OR "child") AND ("Dance therapy") AND ("Neurodevelopmental disorders" OR "Mental disorders"). Inclusion criteria comprised qualitative, quantitative, and systematic literature reviews published between 2005−2021.

**Results:** DMT allows children to express their thoughts and conduct emotional changes (3). Psychosocial DMT goals include helping pediatric patients adjust to functional changes in their body image, decreasing anxiety related to the hospital experience, and supporting children's expression of their illness, rather than focusing on their dysfunctions (3).

**Conclusions:** DMT can help coping with traumatic aspects of the medical experience and also affect executive functions in early childhood (3). DMT can help children and adolescents who suffer from chronic, acute, or life-threatening medical conditions, like those with CHD. DMT promotes mental health and can contribute to improving neurodevelopment and quality of life of pediatric patients with CHD (4). It should therefore be introduced in hospitals, as a way of minimizing the consequences of hospitalization and preventing emotional and behavior disorders. Nurses have a pivotal role in promoting that.

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## ENF_1821
## INTEGRATION OF HOME VISITS AFTER PRETERM NEWBORN DISCHARGE

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Hospitalization of a premature newborn in a Neonatal Intensive Care Unit (NICU) is a time of family crisis that can generate feelings of anguish, suffer, and stress in parents, not only due to the anticipated mourning of the imaginary baby versus the real baby, but also because of the uncertain hospitalization prognosis and clinical condition.

Scientific and technological developments in recent years have increased the survival rate of extremely premature and/or very sick babies. However, these qualified hospitalizations are a challenge for Neonatology nurses, highly differentiated health professionals from a technological and technical, but also relational point of view, dealing with parents experiencing a moment of transition into parenthood.

Through reception, monitoring, and implementation of a teaching plan aimed at preparing parents for their baby's hospital discharge, nurse's intervention is essential from the moment of admission for parents to be able to carry out their parental role and ensure that the transition to home is accomplished in the best possible way and with the least possible risk.

The Mobile Home Support Unit (MHSU in english, UMAD in portuguese) is a project of GIL Foundation in partnership with the University Hospital Center of Porto - Northern Maternal and Child Center since 2017, based on the premise of improving the quality of life of children and expanding the spectrum of action. MHSU is composed of vans that permanently support chronically ill children at home. MHSU represents an essential monitoring platform for children with chronic illness, thus promoting pediatric health in Portugal and social reintegration of sick children.

Discharge of a premature baby from the Neonatology Department is a moment of great anxiety for parents, generating doubts, fears, and apprehension. The implementation of home visits by the MHSU team of the Neonatology Department is not only a moment of validation of lessons acquired during the child's hospitalization, but also a reinforcement of those provided in the past. Furthermore, the visit provides the possibility of clarifying doubts and/or questions.

## ENF_1921
## PLAY THERAPY IN PEDIATRIC CARE

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**Introduction:** Pediatric hospitalization is adverse for both children and parents. It excludes children from their family and social environment and exposes them to invasive and/or painful procedures. Play therapy is essential to reduce negative emotions and contributes to supporting the child's development. This work aimed to investigate the benefits and barriers of introducing play therapy in health professionals' practice.

**Methodology:** Exploratory literature review guided by the principles of an integrative review, according to PIO strategy using CINALH (EBSCOHost). Studies published between 2015 and 2021 were considered. From an initial pool of 259 articles, 12 were selected according to the predefined inclusion and exclusion criteria.

**Results:** Play therapy is essential to provide humane and integrated care and the present review shows that it has several benefits for both health professionals and children and their families. Benefits pointed out for the child and family include stimulating playing as a basic need, allowing adaptation of the child and family to the hospital environment, facilitating the communication process, influencing adherence to therapies and cooperation, decreasing depression, stress, anxiety, and fear, allowing for better treatment response and continuity of the child's development, facilitating the expression of unpleasant feelings and situations, improving child distraction and relaxation, improving family involvement, and minimizing suffering and fear. The benefits pointed out for health professionals include providing a better knowledge of the child/family, facilitating the procedure, providing less traumatic care, improving care, increasing trust, allowing for a more humane care, and providing a feeling of fulfilment and gratification. The difficulties in the implementation of play therapy into professional practice referred include lack of institutional support, resistance from professionals, lack of training, knowledge, and sensitivity about its benefits, lack of material resources, feelings of fear from children towards health professionals, lack of time, presence of family members, introversion of some children, lack of physical structure, reduced number of professionals, and high workload.

**Conclusion:** Although play therapy is still not widespread implemented in pediatric healthcare, once barriers holding it back are acknowledged, possible solutions will be envisaged.

## ENF_2021
## ANTI-NMDAR ENCEPHALITIS: NURSING CARE IN A CLINICAL CASE

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1CMIN – SCIPed

**Introduction:** Autoimmune encephalitis comprises a group of potentially treatable diseases that should be included in the differential diagnosis of any type of encephalitis. Anti-NMDAr encephalitis predominates in young women and children. The differential diagnosis usually includes primary psychiatric disorders, drug abuse, neuroleptic malignant syndrome, and infectious encephalitis. The diagnosis is confirmed by the presence of antibodies in the cerebrospinal fluid (CSF). Brain MRI is normal in about 60% of cases. Diagnosis is confirmed by the presence of antibodies in CSF.

**Clinical case report:** The authors present the case of a fifteen-year-old adolescent boy with no relevant clinical history, who presented with right hemiparesis and hyperreflexia, generalized tonic-clonic seizure with loss of sphincter control, and eye deviation that resolved after diazepam administration. During hospitalization, he maintained convulsive episodes with worsening of the consciousness state, psychomotor agitation with hyperreflexia to the right, increasingly dysartic delusional and hallucinatory speech, emotional lability, and progressive insomnia. Empirical therapy with corticoid and immunoglobulin was initiated after ruling out possible paraneoplastic etiologies. The diagnosis was established based on the presence of positive antibodies in CSF. The patient subsequently initiated plasmapheresis and rituximab therapy. When he was transferred to the Pediatric ward, the boy was able to interact and smile with intent, without hallucinations but with no verbal communication. He maintained reduced strength, especially in the upper limbs, and axial hypotonia, but no dyskinesia. With physical rehabilitation, he was able to remain seated in the chair and in an upright position with support. Care is implicit in Nursing practice, aiming to promote, maintain, and restore patient health. As a working tool, Nursing diagnosis is the expression of the identified care needs, as it provides the basis for interventions aimed at obtaining the results for which the nurse is responsible. In the elaboration of the Nursing Process, the following Focus of Attention were identified: “Self-Care”; “Seizure”; “Pain”; “Spasticity”; “Nutritional Intake”; “Parental Role”; “Paresis”; “Pressure Ulcer” and “Fall”, defining the respective diagnoses with associated Nursing interventions and respective objectives.

**Conclusion:** The pediatric nurse is responsible for the child and family.

## ENF_2121
## SURGICAL SMOKING: INCREASED OCCUPATIONAL RISK IN PANDEMIC TIMES

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Health professionals, due to the specificity of their functions, are subject to numerous risks in their workplaces. Continuous exposure to surgical smoke in operating rooms is considered by several organizations as a professional risk, altering to the need of implementing awareness programs and procedures to minimize and/or prevent it.

**Objectives:** Perceiving surgical smoking as a risk in working setting, building knowledge on the subject and adopting strategies to manage toxic smokes/gases, especially in times of COVID-19 pandemic.

**Methodology:** Bibliographic search in reference databases.

**Discussion:** Surgical smoking results from the application of electrical energy to tissue. Its vaporization produces surgical smoke, which is visible and has an unpleasant odor. Although there is currently no evidence of the presence of SARS-CoV-2 in surgical smoke, it is known to contain approximately 150 chemicals, such as gaseous toxic components, biohazard aerosols, living and dead cell material, blood and viruses, and may have respiratory, dermatologic, mutagenic, and even carcinogenic consequences, among others. Through chronic exposure, it can also cause symptoms associated with respiratory tract irritation, such as cough, asthma, bronchitis, and pulmonary emphysema. Transmission of COVID-19 through smoke is a theoretical risk associated with aerosolization of the virus during electrosurgery.

**Results/Conclusion:** Surgical smoking is an occupational risk of high importance for professionals in the operating room. Measures to reduce the risk of aerosol production must be implemented during procedures. It is professionals’ responsibility to be aware of this issue, improving procedures and adopting more responsible health behaviors.

**Keywords:** management; occupational hazard; operating room; surgical smoking

## ENF_2221
## CHILDBIRTH ANXIETY DURING THE COVID-19 PANDEMIC

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**Introduction:** The COVID-19 pandemic brought several global challenges, particularly for mental health. The perinatal period has been identified as a moment of mental health risk for pregnant women. The aim of this study was to investigate the impact of the SARS-CoV-2 pandemic in the anxiety levels of pregnant women and how it affected childbirth assistance.

**Methods:** Reflective analysis of anxiety levels expressed by pregnant women in childbirth during the COVID-19 pandemic and childbirth assistance, supported by recommendations on the subject and latest scientific evidence.

**Results:** Childbirth is a very important and life-changing experience in the life of a woman/family. Although childbirth should be an important and unique moment in life, besides increased anxiety levels the SARS-CoV-2 pandemic also resulted in more negative expectations and experiences during this period.

**Conclusions:** This pandemic required health institutions to implement measures and rules to prevent/contain viral transmission. Such highly restrictive emergency measures increased anxiety levels and negatively affected the birth experience. Midwives are crucial to decrease anxiety levels by promoting women's empowerment and a positive childbirth experience, even in extreme and hard times as those lived during the COVID-19 pandemic.

## ENF_2321
## MULTICULTURALITY IN CHILD AND FAMILY NURSING CARE

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**Introduction:** The increased cultural diversity of the Portuguese population leads to a greater challenge in the provision of care in pediatric hospitals. Regardless of socioeconomic and cultural conditions, health is a universal right. Child and Pediatric Health specialist nurses have the duty of providing culturally competent care to children and families, respecting their beliefs, cultural values, and practices, having as basic premise their well-being and health optimization. Although different cultures have similar features, they all differ and thus Nursing care should be provided based on different perspectives. The aim of this study was to demonstrate the importance of multiculturality in pediatric hospitalization and its impact on the provision of Nursing care to children/families.

**Methodology:** An integrative literature review was performed on EBSCO and RCAAP electronic databases using the following descriptors: cultural, diversity; transcultural; cross cultural; pediatric care. Inclusion criteria comprised studies published after 2010, available in full text, in Portuguese or English language. Sixteen scientific articles and Master dissertations with relevant content for the present study were analyzed.

**Results:** More than a sick body, each individual is a person with a life journey and cultural identity, whose particularities interfere with recovery. Therefore, nurses must be equipped with communication tools, respect for others, clinical knowledge, sensitivity to cultural differences, and cultural knowledge, and adapt their interventions and care not only to each patient's culture but also individuality, using interpreters or other health professional whenever necessary to ensure the provision of quality cross-cultural care.

**Conclusion:** The transition between health and disease changes the daily lives of children and families by itself, requiring a readaptation from all. The fact that this transition takes place outside one's culture brings increased challenges. It is the nurse's responsibility to simplify this transition, facilitating the subjects' integration into their society to obtain health gains. Nurses must pay attention to each child/family's individuality according to the experienced transition and be equipped with knowledge and different approaches for a culturally competent care.

## ENF_2421
## SPACE HUMANIZATION IN PEDIATRIC HOSPITALIZATION

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**Introduction:** Pediatric hospitals emerged in the 1980s, being a recent reality in Portugal. As the effects of hospitalization on children became evident, the concept of space humanization in Pediatrics began to be addressed. Hospitals have recently invested in space and routine humanization in pediatric hospitalization, promoting a welcoming environment that mitigates the negative experiences of children and families. The aim of the study was to highlight the importance of space humanization in pediatric inpatient services and its impact in reducing child anxiety and promoting child and family adaptation to hospitalization.

**Methodology:** Integrative literature review carried out in EBSCO, B-on, and SciELO databases using the descriptors: humanization of assistance; pediatric nursing; child, hospitalized; hospital design. Inclusion criteria comprised studies published after 2010, available in full text, in Portuguese or English language. Ten scientific articles with relevant content to the present study were fully analyzed.

**Results:** The authors consider that humanization in Pediatrics plays an important role in reducing the negative effects caused by hospitalization, which can have an impact on child well-being, recovery, and growth. Interventions promoting space humanization in Pediatrics include the implementation of playful rooms (with child-friendly decor and furniture), allowing children to occupy their free time with distraction and stimulating their growth; use of colored uniforms by health professionals, as the white color may be related to previous memories of pain and suffering; use of games/toys to promote children's previous habits and collaboration in technical procedures; allowing children to personalize their room with their own drawings and bring objects, toys, or technological devices from home.

**Conclusion:** Space humanization is mentioned in the Hospitalized Children's Letter, and Nursing interventions promoting humanized care are specific competences of pediatric nurses. Space humanization is not a form of entertainment or an esthetic question, but rather a strategy to improve communication, relationship, and adaptation of the child and family to hospitalization, contributing to the child's well-being. Pediatric nurses should emphasize its value, so that it is considered during construction of pediatric hospitals and resource management of inpatient services.

## ENF_2521
## PERCEIVED PARENTAL SELF-EFFICACY AND EMOTIONAL STATE OF MOTHERS OF PREMATURE NEWBORNS IN THE FIRST MONTH POST-NICU DISCHARGE

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**Background:** Hospitalization of premature newborns (NB) may be linked to difficulties and negative maternal emotions. However, little is known about mothers' experiences after discharge regarding the demands of their new role, specifically their level of perceived parental self-efficacy (PMS) and emotional state (ES), particularly depression. These subjective experiences may limit the ability to effectively care for their child. The aims of this study were to analyze PMS of premature NB mothers, ES of mothers, and the association between both, and investigate the association between PMS or ES and obstetric and neonatal, sociodemographic, and situational variables in the first month post-discharge.

**Methods:** This was a quantitative, descriptive-correlational, cross-sectional study of 33 mothers. Data was collected through written self-reports, with a questionnaire incorporating the Perceived Maternal Parenting Self-Efficacy tool and the Edinburgh Postnatal Depression Scale. Data analysis was performed using IBM SPSS Statistics 24.

**Results:** Study results showed that mothers have, on average, a high PMS. Only 18.18% indicated a reasonable PMS. Lower PMS was found regarding reading behavior and evoking behavior factors. ES analysis revealed that most mothers are not at risk of depression. However, 15.15% are at risk and 24.24% probably suffer from depression. A negative and statistically significant relation with was found between care-taking procedures (a PMS factor) and ES, specifically between satisfaction with child interaction and ES and with family support and ES.

**Conclusion:** PMS assessment allowed the identification of difficulties experienced by mothers regarding reading behavior and evoking behavior, suggesting that Nursing care should be adjusted accordingly. The identification of mothers in "risk of" or "when suffering with" postnatal depression and respective interventions are crucial to promote the safety and health of both mothers and premature NB. The engagement of family (parents and grandparents) in care is desirable, so that they can interact more with the NB and provide family support. Although this study contributes to the understanding of PMS and ES in mothers of premature NB in the first month post- NICU discharge, future studies should be conducted in other units and with bigger samples.

## ENF_2621
## NON-PHARMACOLOGICAL MEASURES FOR PAIN RELIEF IN LABOR AND DELIVERY

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**Introduction:** An increasing number of couples currently seek non-pharmacological methods of pain relief throughout the process of labor and delivery. Measures and resources for pain control during labor have been the object of studies and debates. Thus, it is important to provide specialist nurses in maternal and obstetric health knowledge about the various methods and their benefits, allowing them to apply those methods safely and counsel couples regarding alternatives for pain relief, towards greater childbirth humanization.

**Methodology:** This was an exploratory and descriptive study. Data collection was carried out through a retrospective bibliographic search.

**Results:** Pain is a sensory and subjective experience. Despite being a physiological process, when intense and persistent labor and childbirth pain provokes neuroendocrine, metabolic, and inflammatory responses that can be detrimental to maternal and fetal well-being. Pain relief during labor contributes to the physical and emotional well-being of the mother and should be a priority in the care provided by specialist nurses in maternal and obstetric health. The use of non-pharmacological methods of pain relief during work includes a wide variety of techniques aimed at improving physical sensations and preventing the psycho-emotional perception of pain. These include breathing exercises, freedom of movement (walking and use of Pilates ball), hydrotherapy, massage, music therapy, aromatherapy, reflexology, acupuncture, and acupressure, among others. The Cochrane review further demonstrated that hydrotherapy reduces the use of epidural analgesia and rate of cesarean section and promotes neonatal well-being. Application of these methods seems to decrease labor duration, increase the probability of vaginal birth, decrease the use of pharmacological methods, and provide greater couple satisfaction during the childbirth experience.

**Conclusion:** Pain experienced by women during labor and delivery is variable and subject to several factors, including sensory, affective and cognitive, and social and behavioral. Besides knowing the effects of non-pharmacological measures, the individuality of each parturient should also be taken into account. Research should be carried out to know their presence in relation to the method used.

## ENF_2721
## VALUING THE COMPETENCES OF SPECIALIST NURSES IN THE TRANSITION TO PARENTHOOD

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**Introduction:** The transition to parenthood is a developmental stage in which parental adaptation can influence the well-being of the entire family. This transition is an important focus of attention for specialist nurses who, through their interventions, have a privileged role in promoting and maintaining parenthood. The focus of this work was to investigate midwifery skills in the transition to parenthood. Nursing practices were based on the philosophy of family- centered care and Meleis Transitions Theory.

**Methodology:** This was an exploratory and descriptive study. Data was collected through a retrospective bibliographic search.

**Results:** Transition to parenthood requires internalization and learning of new knowledge, forcing changes and readjustments. Nurses have a privileged role and the intervention ability to facilitate this transition, through implementation of strategies that promote and maintain the parental role exercise. During this period, couples are very motivated and receptive to information that help them prepare for the birth of their child, seeking support and guidance on pregnancy and childbirth to feel more secure and confident. This transition to parenthood causes profound changes in each person's life, which affect all family members. It is part of the specialist nurse's competences to support the couple during the process of transition and adaptation to parenthood. Knowledge regarding human transitions has been increasingly acknowledged as one of Nursing intervention focuses. Parenting skills have implications for the child's health, well-being, and development and should therefore be valued and a focus of attention as a caregiver and guardian of the couple/family's well-being. These specialist nurses work with couples before, during, and after the transition process.

**Conclusion:** Midwives have a fundamental role in promoting parenting skills. By establishing a relationship of empathy and trust with parents, they contribute to improve the practice and quality of care provided. This promotion of parenting skills represents a vast field of intervention assumed by specialist nurses. These nurses promote health education during prenatal consultations and during birth and parenting preparation courses. To enhance the satisfaction of future parents during knowledge acquisition and increase their self-esteem, prior assessment of their learning needs is relevant.

## ENF_2821
## WHAT "CONCERNED PARENTS" IN USING PEDIATRIC EMERGENCY DEPARTMENTS IN A PANDEMIC YEAR?

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**Introduction:** The World Health Organization declared the COVID-19 disease outbreak an international pandemic. This pandemic had a high impact on the national health system. The use of Pediatric Emergency Departments is sometimes done based on false emergencies, which implies increased economic and human resource costs for treating simple conditions. This study aimed to identify health problems that concerned parents with children aged 0 to 1 year and motivated them to attend a Pediatric Emergency Department in a pandemic year.

**Methodology:** This was a quantitative paradigm experience report. Data collection was carried out through analysis of observations described in the "Concerned Parents" flowchart in the Manchester Screening Program in a Pediatric Emergency Department. A total of 20,249 children were screened during 2020, 1,264 of whom were aged 0 to 1 year old, representing 6.24% of admitted cases.

**Results:** Most admissions to the Emergency Department concerned 1-year-old children (toddlers; 61.39%). Fever was the health condition that worried parents the most (47.78%), followed by respiratory problems (20.49%), intense crying (6.57%), gastrointestinal problems (4.59%), and regurgitation (3.09%). Regarding priority, most admissions were "not very urgent" (60.28%), followed by "urgent" (36.71%) and "very urgent" (2.37%). On admission, 27.84% of children had fever, 0.71% of whom with a temperature equal to or greater than 40°C. Toddlers accounted for a higher number of admissions (40.66%). Cough, followed by nasal obstruction, were the most frequent symptoms associated with respiratory problems, with toddlers being the age group with the highest recurrence rates. Infant crying was also one of the reasons for attending the Emergency Department, either for being a recent problem or due to the presence of pain. Gastrointestinal problems, evidenced mainly through vomiting or changes in the intestinal elimination pattern, also concerned parents, especially of infants. Regurgitate was also a parental concern, either for being a recent problem or for making the children not eat and be prostrated. Another cause for concern was direct contact with COVID-19-positive individuals (0.47%).

**Conclusion:** The high demand for emergency services by "concerned parents" shows that there is a need to proactively act on these health conditions, to minimize the number of admissions and associated costs, and foster health education. Parental training is an essential focus in Nursing.

## ENF_2921
## PLAY IN THE THERAPEUTIC RELATIONSHIP

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**Introduction:** Hospitalization implies the phenomenon of separation from the previously known physical and affective context. The importance attributed to stress factors intrinsic to hospitalization varies according to the child's stage of development, as this influences their understanding and reaction, and hence the mechanism adopted to deal with the situation. Playing as a therapeutic relationship aims to reduce the negative impact of hospitalization. However, the way of playing must be equally suited to the child's developmental stage. The aim of this study was to explore ways of using playing as a therapeutic relationship, which pediatric nurses and educators/teachers can implement in practice.

**Methodology:** Integrative literature review conducted through a search in EBSCO and RCAAP electronic databases using the descriptors 'play', 'therapy', 'pediatric care', and 'therapeutic toy'. Inclusion criteria comprised studies published after 2010, available in full text, in Portuguese or English language. Scientific articles and Master dissertations with relevant content to the scope of this study were analyzed.

**Results:** Study results showed that children who are given playful and distracting activities have significantly lower anxiety and stress levels. Therefore, nurses and educators/teachers should be endowed with knowledge that allows them to implement the game that best suits children's stage of development, as a way of reducing stress caused by hospitalization.

**Conclusion:** Changes in health status, even if transitory, cause a significant impact on the child-family binomial. It is up to nurses and educators/teachers to seek to minimize this impact. As pediatric professionals, the authors subscribe the relevance of the act of playing as a ludic-therapeutic intervention.

## ENF_3021
## NEONATAL ABSTINENCE SYNDROME

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The purpose of this work was to understand the manifestations and symptoms of the newborn (NB) with neonatal abstinence syndrome (NAS) as a vehicle to provide personalized and humanized Nursing care. NAS is the term used to describe the set of behaviors exhibited by NBs exposed to chemical substances. It can result from passive exposure to opioids in utero as a consequence of maternal dependence or from iatrogenic administration of opioids to the NB for analgesia/sedation. The vast majority of withdrawal symptoms start within the first 24-72 hours postpartum, but in about 10% of children they may appear 10 to 36 days after birth. They may have a mild, transient onset or begin acutely and last for 8 to 16 weeks or longer. The onset of symptoms varies according to the drug in question, quantity, frequency and duration of exposure, time elapsed between the last dose and delivery, NB's maturation, and concomitant use of other drugs. NAS comprises a set of neurological and gastrointestinal symptoms, alterations in the autonomic nervous system, and respiratory signs. The Finnegan Index (IF) is the most used rating scale and allows monitoring the onset and evolution of symptoms and treatment response. IF must be evaluated from birth in a systematic, objective, and regular way (every 4-6 hours). The scale should be applied 1 hour after feeding and maintained until the NB is discharged. Pharmacological treatment should be started if mean IF ≥8 in three consecutive assessments or ≥12 in two consecutive assessments. The treatment option depends on the drug used by the mother. Morphine is the drug of choice in cases of NAS to opiates. Symptom monitoring through IF should be continued for up to 72 hours without therapy. Non-pharmacological treatment should be preferred. It consists of using support measures to satisfy the NB needs, which should be implemented soon after birth aiming to reduce the NB's physical and sensory stimulation. In conclusion, the nurse must carry out a continuous assessment using the IF and put into practice pharmacological and non-pharmacological treatment measures.

## ENF_3121
## IMPORTANCE OF RELAXATION TECHNIQUE IN THE INPATIENT ADOLESCENCE PSYCHIATRY DEPARTMENT

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**Abstract**: In adolescent psychiatry hospitalization, patients are frequently admitted with the following conditions: anorexia, first psychotic episode, anxiety disorder, depressive disorder, conversion disorder, manic-depressive disorder, obsessive-compulsive disorder, and behavioral changes.

Adolescence is a phase with physical and emotional changes of great importance for identity construction, in which strategies for managing stressful situations are consolidated and conditional. When this management is ineffective, it can trigger mental health problems.

Muscle relaxation technique is an intervention used by Mental Health and Psychiatry specialist nurses to facilitate and enable relaxation, reducing undesirable signs and symptoms, such as pain, muscle tension, and anxiety.

**The objectives of this work were to:**

- investigate the most frequent pathologies in the Inpatient Adolescence Psychiatry Department;
- demonstrate the importance and effectiveness of the relaxation technique in Inpatient Adolescence Psychiatry Department users;
- demonstrate the criteria used in this technique;
- demonstrate some of the Mental Health and Psychiatry specialist nurse skills.

**Methodology**: Qualitative and quantitative assessment of the effects of relaxation.

Quantitative assessment was accomplished through the analysis of vital signs before and after relaxation. Qualitative assessment was accomplished through the analysis of patients' reports about their emotions and feelings before and after relaxation.

**Results**: Study results demonstrate that, through relaxation, the disease has a more favorable evolution and patients are less anxious and have less difficulty in accepting hospitalization and greater availability for psychotherapeutic activities.

**Conclusion:** The benefit of using relaxation techniques in Adolescence Psychiatry through Mental Health and Psychiatry nurses is evident. This is confirmed by the decrease in the administration of rescue medications, more favorable disease evolution, and greater hospitalization acceptance.

**Keywords:** adolescent; relaxation, stressful situation

## ENF_3221
## TECHNIQUES USED TO DISTRACT CHILDREN AND TEENAGERS DURING BLOOD WITHDRAWAL

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**Introduction:** In the daily practice, nurses frequently deal with pain and suffering of children undergoing peripheral venipuncture (PVP). Its minimization represents a real challenge, due to the need of procedure standardization. The use of different pain prevention techniques in pediatric praxis, especially when performing painful procedures, should be advocated as fundamental in child care, ensuring a significant improvement in the care provided.

Nurses who act in pediatric care are aware that the implementation of good practices in preparing the child/adolescent/family for painful procedures contributes to the quality of Nursing care.

The hospital environment is, by itself, frightful. When accompanied by a painful procedure, it can cause a set of feelings of fear, threat, danger, and stress to children/adolescents/families.

With these principles in mind, it is relevant to address the pharmacological and non-pharmacological techniques used in the pediatric consultation at CMIN.

**The main objectives of this free communication were to:**

- Disseminate effective distraction interventions for pain relief and control in children/adolescents undergoing PVP;
- demonstrate the importance of using non-pharmacological and pharmacological techniques to relieve pain and anxiety in PVP.

**Methodology:** This study used an expository method based on the analysis of scientific literature and professional experience.

**Results:** Results show that health professionals should be trained to use appropriate techniques and strategies for a better care provision, aiming to mitigate feelings of fear, rejection, and stress of the child/adolescent and family and facilitating acceptance of the clinical act with subsequent pain relief.

**Conclusion:** This work was based on the analysis of scientific studies about the subject of "Distraction techniques in peripheral venipuncture in children and young people". These highlight the importance of preparing the child/adolescent and family for a painful procedure, with progressive demystification and acceptance of the unknown situation. The Nursing experience in a hospital setting, focused on techniques and means of mitigating feelings of anxiety and fear and providing positive experiences to children/adolescents and their families for an easier procedure acceptance, is also addressed.

## ENF_3321
## IMPLEMENTATION OF KETOGENIC DIET IN CHILDREN/TEENAGERS WITH REFRACTORY EPILEPSY IN PEDIATRIC CONSULTATION

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**Introduction**: The ketogenic diet (KD) is a non-pharmacological treatment that is very effective in refractory epilepsy and some metabolic diseases, characterized by a rich lipid and restricted carbohydrate intake. It is indicated for children resistant to drug therapy.

Several scientific studies suggest that children with refractory epilepsy-associated seizures may benefit from KD for seizure control.

Children/families who adopt this type of diet may experience a reduction in frequency of epileptic seizures and an improvement in behavior, cognition, and sleep.

**Goals**: To share the experience of the Ketogenic Diet Center (KDC) of Centro Materno-Infantil do Norte (CMIN) on the use of this diet in children with refractory epilepsy and to describe the specific guidelines provided to children/families regarding the KD therapeutic regimen.

**Methodology**: Expository method based on the assessment of scientific literature and professional experience. Retrospective case-by-case analysis of the use of KD in CMIN, through consultation of Dice database.

**Results**: Study results raise awareness of the importance of KDC consultation in Pediatrics.

It is crucial to have a Nursing consultation prior to the introduction of KD, as well as well-planned follow-up appointments conducted by a multidisciplinary team.

They also highlight the role of the KDC's multidisciplinary team in the education of families for adherence to diet, as well as in their training, acquisition of skills, and ability to execute.

Family therapeutic education is carried out by competent nurses specialized in the introduction of this diet. It starts in hospitalization according to an established and well-delineated protocol. It is up to nurses to assess expectations and skills and teach these children/families.

Many procedures are required, including daily blood glucose and ketone monitoring and correct completion of a diary provided for recording values and of seizures, when present.

Experience in the Department shows that the rate of abdication of these families is greatly reduced.

**Conclusion**: KD is increasingly used in refractory epilepsy, with a general tendency to shorten the time until introduction, including children in the first year of life.

Considering that KD is very different from conventional diets, it is fundamental to motivate and engage families in the process of changing habits and eating routines.

## ENF_3421
## IMPACT OF DIFFERENT BREAST MILK EXTRACTION METHODS ON THEIR NUTRITIONAL COMPOSITION

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Breastfeeding must be encouraged with accurate and science-based guidelines. Despite the scarce literature on the effectiveness of the different mechanical milk extraction methods available, their use is on the rise. The quality of the constituents of breast milk itself seems to vary depending on the method used, and the present work was based on this premise.

After finding different ways of acting in the daily practice, we proposed to identify the effects of different breast milk extracting methods on their composition, to inform the decision-making process regarding which method to choose.

The research question was elaborated according to PICO model: "What is the impact of different breast milk extraction methods on their nutritional composition?". Results were obtained by searching PubMed and CINAHL databases using the terms "breast milk expression" [Mesh] AND (hand OR pump) and "breast milk expression" AND (hand OR pump), respectively. Outputs were analyzed by two independent reviewers and various exclusion criteria were applied.

A total of 99 results were retrieved, two of which corresponded to duplicates. Of the 97 publications submitted for title and abstract reading, 94 were excluded by the aforementioned criteria. Three articles were submitted to full-text revision, with only the one with quantitative results being included.

There is a higher sodium content in manually extracted milk (22.65% vs 19.35%), whereas potassium appears to be higher in that obtained through mechanical extraction. Protein concentration and fat content also varied between tested methods, with no significant differences in energy content. The positive effect of techniques such as relaxation, heating, breast massage, and early milk extraction initiation is highlighted. The use of extraction pumps should not be implicit or generally used in breastfeeding, but instead a justified intervention before being recommended by a professional. Findings related to nutritional composition, such as sodium levels, are particularly relevant in preterm and term newborns with hydroelectrolyte imbalances. A higher concentration of this nutrient is associated with the manual extraction method, which goes against current trends. To better substantiate the importance of this practice, further studies are needed to validate the impact of sodium on newborn's adaptation to extrauterine life.

## ENF_3521
## PRESSURE ULCER IN NEONATOLOGY: THE IMPORTANCE OF RISK ASSESSMENT

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The care provided to hospitalized newborns (NBs) requires special attention and recognition of their needs by the Nursing staff.

Children have physiological and anatomical characteristics that, during a period of hospitalization and depending on the severity of the disease, can lead to complications that prolong treatment or delay clinical improvement. These complications frequently include pressure ulcers.

The skin of NBs undergoes substantial changes when moving from intrauterine life to a dry environment after birth, being characterized as delicate, thin, fragile, and immature. It acquires skin barrier properties 2 to 4 weeks after birth, regardless of gestational age. In the case of extreme prematurity, it can take up to 8 weeks. The combination of these characteristics with the immaturity of body systems and use of medical devices represents an increased risk of skin damage. This predisposition to the onset of injury requires careful observation and risk assessment from professionals, with instruments specifically validated for this age group.

The present work aimed to understand the importance of assessing the risk of pressure ulcers in NBs as a Nursing diagnostic activity, in order to devote special attention to the NB's skin.

Regarding methodology, this work used the expository method through a review of data from the most recent scientific literature. According to the literature, the risk of developing pressure ulcer in NBs is assessed by the Neonatal Skin Risk Assessment Scale (NSRAS). The evaluation is carried out from birth to 28 days of life. It is based on the Braden scale but using specific risk factors for the development of pressure ulcers in neonates: general physical condition, mental state, activity, mobility, nutrition, and moisture. Each parameter assumes four possible options to be identified. The lower the score, the lower the risk of skin damage.

In conclusion, child and pediatric specialist nurses should use their critical thinking and professional experience/clinical judgment to sensitize the nursing team to the problem of pressure ulcers in Pediatrics, which leads to detrimental consequences for the recovery of the NB. NSRAS appears to be a useful and easily applicable tool that combines the specificities of the hospitalized neonatal population, allows nurses to pay special attention to the skin of this population.

## ENF_3621
## NON-MEDICAL OPTIONS TO STIMULATE LABOR

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**Introduction:** A large range of pharmacological and non-pharmacological modalities are available for labor induction, but the optimal method is unknown. This study aimed to examine the literature about non-medical methods for labor induction.

**Methods:** Systematic literature review through a search in PubMed and Cochrane databases using the descriptors "pregnancy", "induced labor", "cervical ripening", and "physical stimulation" and documents issued by the World Health Organization. Exclusion criteria comprised medical options to stimulate labor.

**Results:** Evidence is limited to support the recommendation of natural options, like sexual intercourse, breast stimulation, acupuncture, castor oil, consumption of date fruit, and homeopathy.

**Conclusion:** Despite limited evidence, health professionals should be aware of options to fully advise women.

## ENF_3721
## To give birth at CMIN

Carla Ferreira1; Joana Albuquerque1; Helena Oliveira1; Olinda Pires1; Paulo Sousa1; Sofia Fernandes1
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Pregnancy represents a touching moment in a woman's life. During this period, she goes through mental and physical hardships, by experiencing strong emotions that can have a significant impact on the daily routine and relationships. The feeling of "becoming a mother" develops within an amalgam of joy, fear, and doubts. Receiving maternal healthcare services and accompaniment every step of the way by a caring nurse is granting soon-to-be mothers the much-needed relief and has proven to be an important measure to overcome their insecurities. Pregnancy is a phase in which the woman should learn how to take good care of herself and, in the future, of her newborn child. Furthermore, healthcare professionals that care for women need to be aware that, behind the simplest questions, may lie a latent bed of societal health and emotional insecurities. The transition to motherhood is defined by an intense involvement and commitment that requires restructuring responsibilities and behaviors. While the woman is still incapable of better managing her needs, it is essential that healthcare professionals be seen as an important resort to the development of this new ability. Direct contact between the professional and the mother during check-ups is fundamental to instruct her on the matters of maternity. However, leaving the doctor or nurse's office nowadays, the woman has access to a wide network of information, mostly and increasingly conveyed through the internet, what represents a concern for potentially compromising the aforementioned relationship. In the eyes of the user, the resources available online may seem more complete and clearer than that provided by healthcare professionals. Because of this, it is evident that literacy in healthcare is key for queries regarding pregnant women assisted at CMIN.

**Methodolgy:** Development of concise and didactic videos and a dedicated website where healthcare contents can be accessed.

## ENF_3821
## SIMULATION IN OBSTETRIC EMERGENCY: SHOULDER DYSTOCIA

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Shoulder dystocia is a major obstetric emergency that causes perinatal mortality and maternal and fetal morbidity, requiring additional obstetric manoeuvres to free the shoulders of the fetus during vaginal birth. Although most cases are unpredictable, risk factors may be associated, with an incidence ranging from 0.2% to 3% of all births. Shoulder dystocia is also the cause of numerous events of maternal and fetal morbidity. As such, it is crucial to provide adequate training for healthcare professionals, enabling them to better solve these issues. As the rotation of professionals within the Delivery Ward of CMIN has been a constant for the past two years, along with obstetric emergencies causing maternal and fetal morbidity (although few requiring internal and external manoeuvres), simulation exercises are important. Therefore, this type of simulation should be part of the training plan of the clinical team. The introduction of an interdisciplinary training experience emphasizing team communication and coordination is critical for reducing maternal and perinatal morbidity.

**Methodology:** In situ training is considered the most effective method for providing health professionals with the referred skills while also developing management skills, logical thought, and organization in emergency situations.

**Objectives:** To promote training in obstetric emergencies, specifically shoulder dystocia, by simulating these scenarios in the Delivery Ward of CMIN; to provide the team with the necessary skills and knowledge to act in cases of shoulder dystocia; to keep the team updated on obstetric emergency practices; to increase the quality of care-taking, towards a decrease in maternal and fetal morbidity.

**Results:** By resorting to the in situ method, we seek to improve trust and safety, particularly in high-risk situations.

## ENF_3921
## PREVENTION OF ARM LYMPHEDEMA AFTER MASTECTOMY

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Lymphedema, the chronic swelling of a limb that can develop after lymph node removal, is a dreaded complication of breast cancer treatment. Factors that may increase the risk of developing lymphedema after cancer, either from cancer treatment or other secondary causes, include older age, excess weight/obesity, axillary extension, radiation, lesion or infection of the arm. Lymphedema causes deformity, functional disability, pain, and recurrent infections in the edematous limb, hindering the performance of activities of daily living (ADLs). It is also associated with psychological morbidity. Women with lymphedema experience anxiety, depression, social isolation, and sexual problems. Treatment of lymphedema is continuous, requiring specific care and self-help for its control. Self-massage is one possible technique, which can be performed by patients themselves if well oriented, that consists in stimulating the axillary and inguinal axil anastomoses, increasing lymphatic drainage pathways. Light exercises to move your affected limb may encourage lymph fluid drainage and help prepare for everyday tasks. Physical exercises of flexion, extension, adduction, abduction, and internal and external rotation are very important in treatment since they prevent retraction and limb dysfunction. They are important for maintaining and improving lymphatic drainage and should be started as soon as possible after breast surgery (including axillary node dissection). However, recent research suggests that arm movements should be restricted to below shoulder level for the first seven days to reduce the incidence of arm lymphedema; after that, full range of movement is encouraged. Referral to breast care nurses, physiotherapists, and lymphedema specialists is helpful in providing specific and relevant exercise programmes. Another resource used to control lymphedema is the elastic restraint that exerts constant pressure on the site. The bandage aims to increase lymphatic flow by increasing tissue pressure and preventing edema worsening. These garments serve as a constant reminder to patients of their cancer diagnosis, decreasing quality of life and increasing anxiety. Prevention and therapeutic intervention have been object of studies. Rehabilitation takes over a preponderant role, as it provides means of intervention that help to minimize the frequency, evolution, and direct consequences of lymphedema.

## ENF_4021
## BATH AS A COMFORT TECHNIQUE FOR NEWBORNS

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**Introduction:** At birth, newborn babies deal with manipulations and changes that are different from the womb. This change and adaptation to the extrauterine environment may lead to a more irritated and tearful behavior. Bathing can cause a similar feeling as the uterine environment for the newborn because it's liquid and warm, providing the baby with calm feelings, relaxation and pleasure, making them feel good. Bathing is extremely important for the baby's organization, providing a more harmonious development and increasing attachment relationships. It facilitates tactile stimulation, making it a great moment for social interaction, as it promotes a state of calm and alertness and increases the baby's contact with the environment and interaction between him and his parents. It is known that the neonatal period is, by itself, highly vulnerable and the least manipulation can make them feel disorganized and stressful. Bathing is one of the procedures that can cause this discomfort and, therefore, studies have shown the influence of different types of baths on the newborn's comfort and assuming the bath as a comfort technique, adapted to their needs. The aim of this work is to understand which type of bath, among the various types found, will most favor the newborn comfort, aiming to introduce this in our daily practice, for newborn's daily and individualized care.

**Methods:** A literature review was carried out through the analysis of articles developed between 2006 and 2019.

**Results:** Comparing sponge baths, immersion bath and swaddle bath, the studies have shown that the type of bath that provides the most advantages for the newborn is the humanized bath, more specifically the swaddle bath. This type of bath seems to minimize the harmful effects on newborn's physiological, behavioral and interaction systems, due to a high level of manipulation, promoting the manifestation of approximation signs.

**Conclusion:** The swaddled bath brings many benefits to newborns, as it favors a better adaptation to the environment, promotes the organization of behavioral, motor, physiological and interaction systems with the environment reduces energy consumption during the bath and contributes positively to a healthy development. Giving a bath to a newborn should be a calm, relaxed, peaceful and pleasant moment to make the newborn remember the intrauterine environment, contributing to its adaptation to extrauterine life.

## ENF_4121
## BARRIERS TO THE USE OF SUCROSE IN NEWBORNS UNDERGOING PAINFUL PROCEDURES

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**Introduction:** Hospitalized newborns are often subjected to painful stimuli resulting from various procedures, including invasive ones, such as immunizations, venous punctures, lumbar punctures, amid others. Considering that children's pain should be reduced to the minimum, the management and consequent pain relief must be faced as a priority of the nursing team. While the use of sucrose as a non-pharmacological strategy is widely recommended and referred to as effective in relieving the pain of newborns undergoing painful procedures, its use is still broadly irregular and infrequent. This work aims to identify and analyse the barriers to the use of sucrose, by nurses, as a pain relief technique in hospitalized term newborns when enduring painful procedures.

**Methodology:** An integrative literature review. Online research was made on the following databases: Cumulative Index to Nursing and Allied Health Literature (CINAHL); Medical Literature Analysis and Retrieval System Online (MEDLINE); MedicLactina; e Academic Search Complete. Inclusion criteria: full text articles, in English and Portuguese, published between 2014 and 2019. Exclusion criteria: Premature newborns. Keywords: "Sucrose", "Newborn", "Neonate", "Infant", "Pain Management", "Nursing Care" and "Paediatric Nursing".

**Results:** 179 articles were initially identified and after a careful selection process 6 were thoroughly analysed and two of those included in this review. The main barriers reported by nurses to the use of sucrose in newborns submitted to painful procedures were the absence of parental consent; nurse's attitude, including lack of knowledge and lack of confidence in the efficiency of the strategy; scarcity of specific policies regarding its use; undesirable effects, such as choking or drowsiness; contraindications related to the new-born's health situation; and poor disposition of the solution in the ward.

**Conclusion:** Though nurses have been improving their intervention regarding children´s pain management, there is still room for improvement. Nurses should recognize the barriers to the use of sucrose as a pain relief method in newborns undergoing painful procedures and adopt strategies to bypass them, endorsing the technique and consequently promoting hospitalized children's comfort and well-being.

## ENF_4221
## Factors that influence the obstetric nurses´s decision-making to perform episiotomy: a scoping review.

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**Introduction:** Episiotomy is one of the commonly used surgical techniques in childbirth care and it has recently been the topic of scientific research with the aim of making labour and birth more humanised. According to World Health Organization (1996), this is a practice that is applied inappropriately in the great majority of situations and as a result, it is recommended that it be used only in specific conditions. This essay aims to map the available scientific evidence on the elements that influence obstetric nurse´s decision to do episiotomy in order to better understand the reality of treatment and encourage reflection.

**Methods:** The Joanna Briggs Institute methodology was used to conduct a scoping review. Nevertheless, supporting literature would be obtained through the EBSCOhost Integrated Search platform, the scientific databases MEDLINE Complete and CINAHL Complete were accessed.

**Results:** The decision-making process is complicated and various factors, such as primiparity, low maternal effort, a prolonged second stage of labour and fetal distress, impact the obstetric nurse´s decision to do an episiotomy. The patient´s request, his improved healing, the nurse´s reputation and his job satisfaction all influence the obstetric nurse to avoid this practice.

**Conclusion:** Decision-making is mainly affected by the view and the expertise of the obstetric nurses and confirm that a portion of the elements referenced are available in current worldwide rules for the act of episiotomy. The discussion and awareness of this practice is fundamental.

## ENF_4321
## PROMOTING MENTAL HEALTH DURING PREGNANCY: THE MIDWIVES ROLE IN OBSTETRICIAN CONSULTATION

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**Introduction:** Promoting mental health is to promote a state of balance that allows the individual to understand, interpret and adapt to the environment, establishing significant relationships and becoming a creative and productive member of society. In turn, pregnancy is one of the most vulnerable life events, marked by deep physical and psychological changes, preparing the couple for parenthood. At the same time, it is during pregnancy that couples are more permeable to change, because of the need to aquire a new identity due to the newborn baby. With these transformations comes the need to support pregnant couples and to pay special atention to pregnant woman´s emotional state. Thus, pregnancy is a critical period for women's mental health.

**Methodology:** Systematic literature review through a search in PubMed and MEDLINE database, using the descriptors "pregnancy" and "mental health". The exclusion criteria were articles published more than five years ago. We also included documents issued by the World Health Organization, General Directorate of Health, National Order of Nurses and the Portuguese Society of Psychiatry and Mental Health.

**Results:** Mental health during pregnancy is influenced by multiple social, family and individual factors. The studies reviewed are convergent on the importance of early identification of these factors, counseling, suport and referrel to most qualified professionals if necessary.

**Conclusion:** Several factors can positively or negatively influence mental health during pregnancy, with early identification being essential. The midwife has a privileged role in monitoring the woman and the couple during pregnancy, with the role of monitoring maternal-fetal health throughout pregnancy, identifying protective and risk factors for the pregnant woman's mental health, and referral risk situations to other health professionals.

## ENF_4421
## BREASTFEEDING PROMOTION - AN IMPROVEMENT PROJECT

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**Introduction:** According to the World Health Organization, protecting, promoting and supporting breastfeeding will save more lives of babies and children than any other single preventive intervention. Therefor every health professionals should be part of this actions. Nurses and midwifes have here an area par excellence of their intervention. In the Postpartum Unit where this project was developed, at the beginning of 2021, only a third of the nursing team has up-to-date training in breastfeeding promotion. Given the vulnerability that the establishment of breastfeeding implies in the woman/family, this project was developed, having has goal to "Provide the acquisition of specific skills, as well as the development of action strategies that allow the nursing team to intervene in a concerted and efficient way in breastfeeding promotion".

**Methods:** The following activities where developed:
1-Determine the rate of exclusive breastfeeding, during hospitalization, in the first 24 hours of life of the newborn and at discharge, before in-service training on breastfeeding promotion - Monitor the type of feeding of the NB in the nursing record of the first one hundred NB that were hospitalized in the Postpartum Unit in 2021.
2-Conduct in-service training sessions for the nursing team on breastfeeding promotion.
3-Carry out the evaluation of the in-service training, applying the hospital questionnaire for these types of sessions.
4-Determine the rate of exclusive breastfeeding, during hospitalization, in the first 24 hours of life of the newborn and at discharge, after in-service training on breastfeeding promotion - Monitor the type of feeding of the NB in the nursing record of the first one hundred NB that were hospitalized in the Postpartum Unit one month after the end of the in-service training.

**Results:** A simple intervention, as the in-service training sessions are, made possible to increase the rate of exclusive breastfeeding, during hospitalization, in the first 24 hours of life of the newborn and at discharge. The in-service sessions were, in general terms, evaluated has very important for the nurses and midwifes work.

**Conclusion**: Breastfeeding is a health behavior that is influenced by multiple factors, including health systems, which can influence decisions and behaviors related to breastfeeding in a very positive and/or negative way over time. As health professionals are the main agents promoting breastfeeding, it is important that they are properly trained.

## ENF_4521
## COUPLES WHO EXPERIENCED A TERMINATION OF PREGNANCY DUE TO MEDICAL REASONS: DIFFICULTIES AND PROPOSALS FOR IMPROVE HUMANIZATION OF CARE.

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**Introduction:** In 2018, 3,8% of the pregnancy termination in Portugal, were for medical reasons. The process of informing, and the decision of the pregnant/couple that as to be made, is a disturbing moment. Emotions experienced and the complexity of the moment, requires articulation and improvement of care between families and health professionals. This review aims to identify the main difficulties experienced by parents and health professionals involved in terminating a pregnancy for medical reasons (TFMR) and propose improvement strategies that can be implemented to promote humanized care centered on these couples.

**Methodology:** A bibliographic search was made on CINAHL, Cochrane Library and PubMed using, stillbirth, care, termination of pregnancy, as search terms.

**Results:** The diagnosis of a congenital malformation or serious illness in a fetus and the consequent decision to terminate the pregnancy is a devastating experience for women and their families. Emotions such as distress, anxiety, depression and shock are initially identified, followed by feelings of grief and pain, guilt and shame and fear that the same event may be repeated. An increased risk of pathological grief in women and their families is also recognized. Important areas in the process are identified by parents: support in creating memories; recognition of father's different needs; vaginal birth preparation and pain control; access to information and time to discuss concerns and options; privacy and non-abandonment; access to post mortem care.Healthcare team behavior and attitudes have a great influence on parents' decision-making and on their ability to deal with these events. Contributing to a positive difference in how the loss is experienced by the couple is an important aspect of health care. Thus, recognizing the impact and facilitate the grieving process, using empathic communication, promoting informed decision-making based on the best evidence and respect individuality and culture, are important strategies that should be addressed by the healthcare team. Adapt physical environments that are often not designed for loss experiences, must be taken in consideration. Having qualified health professionals, with competence in care this complex condition, emphasis the need of training.

**Conclusion:** This review reinforces the importance of developing a model of care centered on the couple undergoing the TFMR process based on decision-making and recognition of the parental role.

## NF_4621
## ATRAUMATIC CARE: WHAT ARE THE INTERVENTIONS THAT PEDIATRIC SPECIALIST NURSE IMPLEMENT?

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**Introduction:** Pediatric hospitalization, its environment and inherent painful procedures can cause child's and families' anxiety and fear, and may have a negative impact on the child's well-being and development. Atraumatic care consists of therapeutic care using a set of interventions to eliminate or reduce physical or psychological suffering experienced by the child and family in health care. Given the competences profile of the Specialist Nurse in Child and Pediatric Health, the interventions that promote atraumatic care are a competence from their intervention area. The aim of the study was to identify the interventions that promote atraumatic care implemented by Specialist Nurses in Child and Pediatric Health in their practice.

Methodology: Descriptive, exploratory, qualitative study, using a focus group, with a convenience sample of 8 Specialist Nurses in Child and Pediatric Health and using the Bardin method for data analysis.

**Results:** From the study carried out, the interventions that promote atraumatic care identified by Specialist Nurses in Child and Pediatric Health were: "therapeutic play"; "establishment of an empathic relationship"; "communication techniques"; "music therapy"; "use of oral sucrose"; "use of EMLA® local anesthetic"; "parental presence"; "presence of the reference object"; "relaxation techniques"; "breastfeeding"; "skin-to-skin contact"; "restraint measures"; and "non-nutritive sucking".

**Conclusion:** The interventions that promote atraumatic care implemented by Specialist Nurses in Child and Pediatric Health are in agreement with those identified in the current literature. The interventions "therapeutic play" and "establishment of an empathic relationship" were the most frequently mentioned, and their implementation was justified with the objective of involving the child in their care and reducing anxiety and fear caused by hospitalization.

## ENF_4721
## ENHANCEMENT OF THE FATHER'S PARTICIPATION IN CHILDBIRTH: AN INTERVENTION BY MIDWIFE

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**Introduction:** father's active participation during pregnancy, labor and childbirth is something that contributes positively to the health of the triad, whereby it is largely stimulated. It is important to reflect on the role of midwife as a facilitator / mediator element of the father's information and training, encouraging his involvement.

**Method:** analysis of scientific evidence and recommendations on father's engagement in childbirth.

**Results:** childbirth is a unique moment for the family, cheerful but simultaneously a source of anxiety and uneasiness. In this regard it's essential the father's inclusion and enlightenment, therefore, midwife must assume a facilitating role in the transition to parenthood, establishing a therapeutic relationship, promoting parental skills, providing the necessary support and training that leads the father to a sense of security and trust.

**Conclusion:** midwife should significantly contribute to the construction of an active and participative role of the father during childbirth, accompanying the transition process to the family. A relationship must be established between the dyad and the midwife that fosters trust, support and development, helping parents to deal with the parental transition they are experiencing. The father's involvement during labor reinforces his identity, reducing the feeling of being excluded. The father's involvement reinforces affective bonds with the woman and favors early bonding with the child. Midwife should develop interventions to encourage and support the bond between the triad, in a moment that is described by many authors as a critical period in the construction of emotional bonds.

## ENF_4821
## THE EXPERIENCE OF PARENTS ACCOMPANYING CHILDREN IN PEDIATRIC PALLIATIVE CARE - A SCOPING REVIEW

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**INTRODUCTION**: The scientific and technological development of recent decades have fostered, the development of the health area changing the profile of patients and diseases.

Also in Child Health and Pediatrics, undeniable progress occurred, making more developed and differentiated the care provided, while allowing some children with complex chronic disease to live longer.

Parents who accompany their children with complex chronic disease until their death experience a limited complex situation with vulnerabilities that is experienced individually and with specific needs.

**Objectives:** To explore and map the available scientific evidence on the experience of parents who followed their children with complex chronic disease until their death, in a context of pediatric palliative care. Moreover, it is specifically intended with the elaboration of this review to answer the question: What is the experience of parents accompanying children with complex chronic disease until their death, in a context of Palliative Care?

**METHODS:** A Scoping review was prepared according to the methodology proposed by JBI. The analysis of the articles, extraction and synthesis of the data was made by two reviewers.

**RESULTS:** Eight studies were identified, published between 2016 and 2020, none conducted in Portugal. The Spirit of Struggle associated with feelings of Suffering and Hope is experienced by parents, being broken by the child's death. The need for Support in Mourning is referenced.

**CONCLUSION:** Eight studies included present results that characterize the experience of parents. Further studies should be conducted to understand the specificity of the experience of these parents in this context.

## ENF_4921
## WHEN THE NIPPLE CRIES...

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**Framing:** About 80% of women will have at least one episode of nipple discharge during reproductive years. And about 5 to 10% will complain of spontaneous nipple discharge, so it´s essential that every physician be familiar with its etiology and approach.

**Clinical case:** 45-year-old female patient. Personal history: Obesity; Gynecological and obstetrical history: menarche at age 12, regular cycles; Contraceptive method: IUS; pregnancy in 2004 without complications, breastfeeded during 4 months; Surgical history: bariatric surgery with gastric sleeve in 2016. She went to the General Practitioner on the 27th of October of 2020 complaining of right nipple discharge when squeezing the nipple, in the past 6 days. She was treated with amoxicillin/clavulanate and mammography and mammary ultrasound were requested. On the 14th of December of 2020, the patient was reassessed, referring the reappearance of symptoms, 7-10 days after antibiotic suspension. She denied fever or pain. She had no inflammatory signs. The mammography and complementary ultrasound study presented an area of increased echogenicity of adipose tissues and focal duct ectasias, with <5mm dimensions, of anechoic content, aspects that could have been related with the recent inflammatory process. However, if persistence of the clinical symptoms after therapy, MRI evaluation should be requested. The patient was referred to a Senology consultation and blood tests were requested that revealed negative inflammatory parameters, normal thyroid function and normal prolactin. On the 31st of December of 2021 the patient underwent MRI examination that showed persistent enhancement around the right nipple with slight associated ductal enhancement (R0). A breast ultrasound was also performed with a high-frequency probe which revealed several microcystic areas in the right breast, retro-areolar, and filled sub-ecstatic ducts, apparent lactiferous duct dilatation with internal content. A retro-areolar FNAB was performed, which showed smears made of proteins and blood material, compatible findings of duct ectasia diagnosis.

**Discussion:** Unsuspicious nipple discharge is sparse, milky, green, gray or black, is uni- or bilateral and can be secreted by several ducts. Suspicious nipple discharge is bloody or watery, profuse, and is secreted by a single nipple duct. The most frequent etiologies are intraductal papilloma (70%), mammary duct ectasia (25%), which is part of the spectrum of cystic fibrosis, or breast cancer (5%)

**ENF_5021**

**Can home support improve the promotion of breastfeeding continuity?**

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**Objective and Methods:** This integrative review aims to determine whether home care can be advantageous in promoting continued breastfeeding since many women drop out of this process soon after postpartum hospital discharge. Results: Covered studies have addressed the importance of specialized and domiciliary backing to continue breastfeeding. We found two studies that met the defined inclusion criteria. Conclusion: The studies showed the importance of women being understood in its social and personal context, being supported on a day-to-day routine, in meeting their doubts and, above all, feeling supported and driven to keep a practice that is favorable to her and her baby.

**ENF_5121**

**WILL THE USE OF HEPARIN OR 0.9% SODIUM CHLORIDE BE MORE EFFECTIVE IN THE PERMEABILITY OF CENTRAL VENOUS CATHETERS IN THE CONTEXT OF HOSPITAL ADMISSION?**

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The selected topic refers to the permeabilization of central venous catheters, in the context of hospitalization, as it is a very controversial topic that raises several doubts among nurses. In order to clarify the issue related to the theme, five articles were selected that will be presented and analyzed. For the elaboration of the present work, several bibliographical sources were used, directed to the theoretical framework, research in content aggregators made available by the Nursing School of Porto and documents made available by the Joanna Briggs Institute (JBI) for the critical appreciation of the articles.

The article Comparison of the Effects of Heparin and 0.9% Sodium Chloride Solutions in Maintenance of Patency of Central Venous Catheters (Gorji, Rezaei, Jafari and Cherati, 2015) did not show statistically significant differences between the control and experimental groups regarding the measured variables : the ability to perform a flush (P=0.872) and the possibility of drawing blood through the CVC (P=0.745).

Despite the small and heterogeneous sample, the study by Beigi, HadiZadeh, Salimi and Ghaheri (2014) did not find statistically significant differences in terms of bleeding loss (P=0.721) and active bleeding time (P=0.322).

Regarding the study Heparin or 0.9% sodium chloride to maintain central venous catheter patency: A randomized trial (Schallom, Prentice, Sona, Micek and Skrupky, 2012), the conclusions are consistent with previous studies, in that the use of 0.9% sodium chloride and heparin show similar results in maintaining CVC permeability. With regard to systematic literature reviews, Encarnação and Marques (2013) highlight the lack of scientific evidence regarding the permeability of CVC.

Bradford, Edwards and Chan (2015), on the other hand, despite recognizing that there is no evidence of the superiority of heparin over 0.9% sodium chloride, also consider that the incidents associated with the use of heparin were inconsistent and insufficient in the studies included in the review.

Empirical knowledge in nursing practice lacks constant updating of professional practices, which must be based on and supported by the best scientific evidence.

By critically reflecting on the object of study selected in the preparation of this work, it is possible to assert that there are no significant differences between the use of heparin and 0.9% sodium chloride in the permeabilization of CVC's.

## ENF_5221
## THE HUMANIZATION OF CARE IN THE CONTEXT OF THE OPERATING ROOM

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**Theoretical framework:** The growing appreciation given to the humanization of health care results from the need to provide care that combines the latest scientific knowledge and the best available technology, with respect for the uniqueness, ethical and cultural values of people meeting their needs, based on the empathic relationship. Thus, the humanization of care aims to provide a better quality of the health professional-patient relationship. In the context of the operating room, in which extremely differentiated and technical care is provided, this is particularly relevant. For the person who will undergo surgery, this represents a change in state, condition, or even role, which requires the incorporation of new knowledge, skills, change in behavior and that change the conception that has been built of itself and in its social context. And that is why it is considered to be facing a transition. One of the greatest challenges for nurses is to understand the transition process, to plan interventions that meet the needs of people, providing them with stability and well-being.

**Objective:** To define a set of nursing interventions aimed at greater Humanization of care provided in the context of the Operating Room.

**Methodology:** A literature review was carried out based on articles present in the database available at CHUP

**Conclusion:** The surgical experience (transition process) brings out in the user, feelings of anxiety and stress generated mainly by the lack of knowledge. In order for the patient to experience the best surgical experience, the nurse should seek to reduce his anxiety, carrying out the reception of the same in hospital (preoperative visit), clarifying all doubts, explaining the process and places where he will go. pass, aspects inherent to anesthesia, the surgical procedure and about postoperative pain. He/she must also carry out the reception in the Operating Room, avoiding that the user is waiting for a long time to start entering the operating room.

Key words: Perioperative nursing, Humanization of care

## ENF_5321
## NEW SKILLS, TRAINING, INNOVATION, NEW PROCEDURES

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**Introduction:** The operating room of Centro Materno Infantil do Norte (CMIN) is a reference center in pediatric surgery due to its technical differentiation in the northern region. The process of acquiring technical and scientific components of the nursing team constitutes, in this context, a differentiating indicator in the different surgical fields. We propose, therefore, in this work, to take a double approach: one, centered on the way in which new skills were mobilized for the exercise of three innovative surgeries; the other, a narrative of its action in these same surgeries: a surgery in the area of otorhinolaryngology - supraglottoplasty and dilation of subglottic stenosis; two other surgeries in the field of pediatric surgery: Strong's surgery, in which we will address the superior meserent artery syndrome (MAS), first described in 1861, and single-port minimally invasive thoracic surgery by single port videothoracic – VATS, in lung neoplasms.

**Methodology:** The presentation will be through a poster, with several indications and references that support the deepening of the issues shaped there.

**CONCLUSION**: Three innovative surgical procedures were disclosed for the correction of Subglottic Stenosis, Superior Mesenteric Artery Syndrome and Thoracic and Pulmonary Pathologies, in particular, in the treatment of tumors in early stages. Consequently, this dynamics and evolutionary complexity on the surgical level demand a quick response from the Pediatric OR team, making the regulation of the profession and its training processes elements of crucial importance for the permanent improvement of nurses' skills.

The development of nurses is centered on a space full of diverse knowledge, composed, among others, of anatomical knowledge and surgical techniques, and on the use of new communication technologies and the existing bibliography, inverting, albeit slowly but precisely, the logic of the nurses' professional identity, making them less actors and more authors of their actions. We think we can affirm that all clinical acts, no matter how complex they present, imply a strong relationship with the different areas of competence of the professionals who perform them, and their success is strongly dependent on an entire permanent and intentional process.

## ENF_5421
## A ESPERANÇA EM CUIDADOS PALIATIVOS PEDIÁTRICOS

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Caring for children with complex chronic disease is a constant challenge, and the role of the specialized Pediatric Palliative Care Intra Hospital Support Team in a University Hospital Center, is an important contribution to improving the quality of life, and alleviating the suffering of these children and families who are in a vulnerable situation.

The established care plan encompasses the physical, psychological, emotional and spiritual dimensions of the child. Family support is one of the pillars of palliative care and the management of hope is one of the determining tools, in the coping process by the family, along the course of the disease. Creating interventions that promote hope among parents, and identify an instrument that allows them, to evaluate their hope are the objectives of this work.

The methodology used was bibliographical research in the Cinhal, Pubmed, Scielo and RCAAP databases and the critical reflection on the articles found. The search terms selected were: pediatric palliative care and hope, from 2015 to 2021.

The results found were interventions that promote hope: redefinition of objectives in a written way; the construction of a travel diary (decisive moments, feelings, doubts); the talent tree (focusing on the acquisition of parental skills), the Kit of hope (photographs, videos, messages of happy moments) and therapeutic letters (admission, sharpening and discharge).

The validated scale in our country to measure hope is Herth Hope Index – Caregiver– Portuguese Version (HHI-EN), which we will include in our care plan.

**Conclusion** – The care requirements of children and families in need of pediatric palliative care, the ethical dilemmas of end-of-life issues, and during the course of illness. The various mournings that the family has to face, make the search and updating of knowledge, as well as the development of skills of each team member, be a lever for the construction of protocols and flowcharts that guide the practice, and also for the construction of tools that, on a daily life, become effective in the care we provide.

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