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ANALYSIS OF CLINICAL PHARMACY ACTIVITIES IN THE PEDIATRIC INTENSIVE CARE UNIT AT IPPMG / UFRJ

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Introduction: The clinical pharmacy in the pediatric intensive care unit (PICU) is a complex activity since children have pharmacokinetic and pharmacodynamic differences in relation to adults that may influence treatment (posology regimen, pharmaceutical form and administration routes) and compromise the desired therapeutic effect. The Pharmacy Service of *Instituto de Puericultura e Pediatria Martagão Gesteira* (IPPMG / UFRJ) started since 2013, in several multiprofessional activities of the Intensive Care Unit.

Objective: To analyze and compare pharmaceutical care services in the PICU to concepts recently discussed in Brazil.

Methodology: Procedures and practices related to clinical pharmacy activities was identified and assessed during the residence in-service training between July (2017) and February (2018) at IPPMG. Document analysis was based on conceptual framework as gold standard published by Brazilian Council of Pharmacy (in 2016).

Results: Few changes were necessary on the documents, forms and accompanying instruments. It was observed that the services offered in the IPPMG (drug therapy evaluation, drug dosage adjustment, therapeutic drug monitoring, drug distribution, patient education, multiprofessional rounds participation) are appropriate to the conceptual framework indicated by the Brazilian Council of Pharmacy.

Conclusion: We believe that this review about internal procedures proposed by work will enable the development a guideline of the clinical activities from IPPMG in the future. This guideline may also be useful to other pediatric institutions, considering the scarcity of Brazilian publications on pharmaceutical care in PICU.

Keywords: pediatrics, clinical pharmacy, pharmaceutical care, pediatric intensive care unit.

APPLICATION OF THE QUESTIONNAIRE PEDCARBQUIZ FOR EVALUATION OF KNOWLEDGE ON CARBOHYDRATE COUNTING IN CHILDREN AND ADOLESCENTS AT A UNIVERSITY HOSPITAL OF RIO DE JANEIRO

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Objective: To verify the knowledge about the method of carbohydrates counting (CC) in children and adolescents with diabetes mellitus type I with application of the PedCarbQuiz questionnaire.

Methods: An observational, cross-sectional, analytical study. The study population consisted of children (≥ 1 to 9 years and 11 months) and adolescents (≥ 10 and ≤ 17 years) of both sexes, diagnosed with DM1, followed up at a university hospital of reference for the treatment of diabetes. The questionnaire was applied with the parents / guardians or with the patient when the patient was responsible for performing the CC and the insulinization. PedCarbQuiz evaluates seven domains regarding DM control by means of 52 scored items with a value of one. The following variables were analyzed: glycemic control, anthropometric parameters, clinical, sociodemographic and biochemical data. Statistical analyzes were performed in SPSS software for Windows version 23.0 (SPSS Inc., Chicago, USA).

Results: The sample consisted of 49 children and adolescents, 63.3% female ($n = 31$), mean age 11.3 (± 3.15) years and mean disease time 6.44 (± 3.21) years. The nutritional status of most patients was eutrophic ($n = 33$, 67.3%). The average score of correct answers of the sample was 58.5 (± 9.4) points, approximately, 75% of correct answers. The mean of Hb1Ac was 8.25 (± 1.58)%, without association with knowledge of CC by PedCarbQuiz ($p = 0.310$). The average of parent's years of study was 13 (± 2.33) and it had no association with the knowledge of the CC ($p = 0.414$).

Conclusion: There was no association between knowledge of the CC method and glycated hemoglobin levels, despite good knowledge in general.

Keywords: Diabetes type I, carbohydrates counting, children, adolescents.

CHARACTERIZATION OF INFANTS WITH MICROCEPHALY EXPOSED OR SUSPECTED OF EXPOSURE TO THE ZIKA VIRUS AT 12 MONTHS ON CHRONOLOGICAL AGE: SERIES CASE

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Introduction: In the last couple of years, the identification of infants with microcephaly and the association to the Zika virus got the attention of researchers from different areas. While various groups started to worry about the understanding of vertical transmission and the development of a vaccine against the Zika virus, others endeavored to follow the infants with microcephaly with the aim of detecting changes and proceed to specialized treatment.

Objective: To characterize neuropsychomotor development of infants with microcephaly at 12 months of chronological age, accompanied in the Nucleus of neuropsychomotor development and rehabilitation of *Instituto de Puericultura e Pediatria Martagão Gesteira* (NRDN / IPPMG / UFRJ), in the year of 2017.

Method: The pre, peri and postnatal information of the infants, including the results of Alberta Infant Motor Scale (AIMS) were collected from the charts.

Results: The sample included six infants, two premature infants and four full-term infants. All mothers had shown suspected diagnosis of infection by Zika virus, but only one diagnosis was laboratory confirmed. All infants began the follow-up in the *Nucleus* RDN at the end of the fourth trimester of life, only for guidelines. At 12 months of chronological age, all were delayed in development and were below P5 on the scale chart, which categorize their development as abnormal.

Conclusion: Even though most of the mothers didn't present laboratorial confirmation of infection by the Zika virus, they reported the presence of very characterized signs and symptoms, which can justify the cephalic perimeter below normal on birth and typical motor development deviation. However, the prematurity of two infants must as well be considered.

Keywords: microcephaly, infant development, Zika virus.

CHILDREN WITH LONG PERMANENCE CATHETER'S FAMILIES' CHALLENGES IN THEIR RESIDENCES, RELATED FOR NURSES

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Introduction: The pediatric cancer is characterized as a group of neoplasias, which affect people under 15 years old, and can have different causes. After the diagnoses, chemotherapy is the most used treatment. For this reason, central venous catheters are utilized, invasive devices that allow discharge from the hospital for the child to go home. These catheters need special cares and the family must get specific orientations about these cautions.

Objectives: Identify and analyze the children with long permanence catheter's families' difficulties and challenges in their residencies, related for nurses.

Method: Qualitative and descriptive research, developed by using semi-structured interviews, guided by a 3 open questions script, with thirteen nurses who worked in Nursery and hemo-oncological Ambulatory located in a University Hospital in Rio de Janeiro state. The data were analyzed by Minayo theme. This study was approved by the institute's CEP, under de number: 2.300.245.

Results: The difficulties and challenges were related to home cares, catheters complications, children issues and staff orientations, besides problems with bandages, some kind of leisure activities deprivation and change of habits.

Conclusion: There is still the need for creating a standard in the way professionals give families and the children themselves the necessary orientation. Making strategy for the families to overcome these problems is extremely important for efficiency of long term care. Encouraging a support group for families is also of great value, considering that information and strategies exchange can help both families of children in the beginning of the treatment and the ones with more experience with it.

Keywords: Pediatric nursing, hematology, catheter, family.

DEVELOPMENT IN THE VISION OF PREGNANT WOMEN: WHAT DO THEY KNOW?

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Introduction: The development of a child is a complex process that occurs with the interaction of biological factors with the environmental influences and the everyday experiences. Mothers are the main stimulating agents of their children, since they spend most of their time caring, interacting and showing the “new” to their baby. In this way, checking the mother’s knowledge of child development can bring information about the biggest gaps and doubts about the subject for educational measures may be propose for this public.

Objective: To check the degree of knowledge of pregnant women on child development up to 12 months.

Method: There were 50 pregnant women who carry prenatal care, aged between 12 and 45 years, accompanied at the Maternity School of the Federal University of Rio de Janeiro (UFRJ) and in a private doctor’s office of the City of Rio de Janeiro. Pregnant women responded to a questionnaire with easy-to-understand questions about the motor and respiratory development of their child. According to the results obtained, there is a limited knowledge of pregnant women on child development in a global way, and those accompanying the public system had 43.9% of hits, which was relatively minor in relation to the private (55.5%), A difference of 11.6%, already in comparison between the primiparous and multiparous and adolescent and adult pregnant women, there was little difference, being 47.9% hits between the primiparous and 44.15% in multiparous and 42.5% hits between adolescents and 46.3% hits between the Adult. The summary and descriptive analyses of the results found were carried out.

Results: According to the results obtained, there is a limited knowledge of pregnant women on child development in a global way, and those accompanying the public system had 43.9% of hits, which was relatively minor in relation to the private (55.5%), A difference of 11.6%, already in comparison between the primiparous and multiparous and adolescent and adult pregnant women, there was little difference, being 47.9% hits between the primiparous and 44.15% in multiparous and 42.5% hits between adolescents and 46.3% hits between the Adult.

Conclusion: This study showed that there is a shortage of information given about child development for pregnant women. This demonstrates the need for family access to quality information so that they are able to stimulate their children properly and identify warning signs to seek a specialized professional.

Keywords: Maternal knowledge, pregnant women, child development.

FUNCTIONAL PROFILE OF CHILDREN WITH DIABETES MELLITUS TYPE 1

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Introduction: Diabetes mellitus can be defined as a heterogeneous group of metabolic disorders that have in common hyperglycemia, arising from defects in insulin action, insulin secretion or both. Currently, the incidence of type 1 diabetes mellitus is increasing, mainly, in the population under five years old.

Objective: To outline the functional profile of children with type 1 diabetes mellitus aged 1 to 7 years.

Methods: Fifty-two children with type 1 diabetes mellitus, mean age 5 years and 8 months \pm 1 year and 10 months, participated in the study. To evaluate the children, the Pediatric Evaluation of Disability Inventory (PEDI) was used.

Results: The results showed that children with type 1 diabetes mellitus had functional abilities adequate for age. In addition, they revealed that children perform tasks of medium to high complexity, however, some tasks were identified as already being part of the children's functional repertoire, among which we can highlight: combing and hair distribution; tie the shoes; keep dry overnight; opening and closing the tap; seeking an adult to work the solution together in the face of a problem; invent elaborate pretend sequences from the imagination; go to an adult to ask for help on how to get home; start simple routine how to take care of own belongings; start and finish at least one household task; cross a busy street safely in the absence of an adult; make transactions at a neighborhood store without assistance.

Conclusion: In this study, children with type 1 diabetes mellitus did not present dysfunctional functional abilities. However, changes such as nocturnal enuresis and the excessive protection of caregivers in the performance of some tasks were investigated.

Keywords: diabetes mellitus, functional skills, child development.

HOW CAREGIVERS AND ADOLESCENTS COPING WITH DIABETES? REPERCUSSIONS FOR THE ADHERENCE TO TREATMENT

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Introduction: Diabetes mellitus type 1 (DM1) is a chronic health condition diagnosed early in the childhood. In the adolescence, the adherence to diabetes treatment has an impact on the disease control, and depends on how the young person and their caregiver perceive and cope with this condition.

Objective: Was to analyze how caregivers and adolescents deal with the demands of DM1 based on the investigation of indicators of coping and theirs repercussions for the adherence to treatment.

Method: This is a comparative study with 20 adolescents with DM1 compared to

their caregivers in terms of coping strategies and a profile of the Diabetes treatment adherence. Both answered, individually, the COPE Inventory to identify coping strategies and General Data Protocol to collect sociodemographic data, and identify indicators of adherence to treatment.

Results: Most of the caregivers were female, with a mean of 41.1 years; while adolescents averaged 14.8 years of age, and 55% were in high school. Related to the coping with DM1, both adolescents and their caregivers more often adopted an engaging such as Positive re-interpretation and growth, Active coping and Planning. Disengaged coping strategies, such as Focus on Emotion, were used only by adolescents. Finally, it was observed that 65% of them presented good clinical indicators due to an adequate treatment adherence (ideal weight and glycated hemoglobin below 7.5%), with follow-up of nutritional guidelines.

Conclusion: It is concluded that the coping style of adolescents and their caregivers has repercussion in DM1 treatment adherence because the prognosis of diabetes is best when both are able to deal with the difficulties imposed by the disease and its treatment in an engaged way. Therefore, knowing about the confrontation, both of the adolescents and their caregivers, should guide interventions that help them to live better with this silent disease that has serious consequences.

Keywords: Adolescent, Caregivers, Diabetes Mellitus, Coping, Treatment adherence.

PROFILE OF ANTIEMETIC UTILIZATION BY ACUTE LYMPHOBLASTIC LEUKEMIA PATIENTS WITH IN A PEDIATRIC UNIVERSITY HOSPITAL

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Background: Leukemia treatment is composed by combined antineoplastics of different action mechanisms with potential emetogenic variables. Antiemetic drugs are commonly prescribed (immediately before the chemotherapy administration, regularly during the chemotherapy cycle *or pro re nata* (prn). However updated guidelines about management of chemotherapy induced nausea and vomiting in children are not always followed.

Objective: To evaluate the profile of antiemetic drugs utilization by children in the treatment of acute lymphoid leukemia (ALL) in a pediatric hospital.

Methodology: A drug utilization study was carried out between March and August of 2017 and included children in ALL Berlin-Frankfurt-Münster chemotherapy regimens. Profile of antiemetics utilization was compared to MASCC and ESMO guideline (2016).

Results: We observed antiemetics prescription for all children in treatment with intrathecal, intravenous or subcutaneous chemotherapy. Its majority the 5-HT₃ antagonist, ondansetron, regardless of the emetogenic potential of the antineoplastics. In the meantime only in 24% of the prescriptions related oral chemotherapy had association with antiemetic.

Conclusion: Findings showed the importance of creation of an antiemetic protocol for the institute. It should be based on the most uphold guidelines, with a view to the rational use of that support therapy, having a relevance the emetogenic potential and the dose of the antineoplastic used, in addition to intrinsic characteristics of the patient.

Keywords: Pediatrics, chemotherapy induced to nausea and vomit, antiemetic.

SAFE MEDICINE PREPARATION FOR HOSPITALIZED CHILDREN: STRUCTURE REVIEW OF THE ENTERIC USE PREPARATION'S COMPOUNDING ROOM

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Introduction: The most of the medicines used for pediatrics doesn't have specifications of this use described in their package, and so they are categorized as off-label or unlicensed. When a drug isn't available on a commercial formulation suitable for pediatric use, it is necessary to use magisterial manipulation or carry a pharmaceutical dosage form modification, in order to adapt them for patient's needed.

Objectives: Search on literature and current legislation about the safest way to carry compounding activities and pharmaceutical forms modifications, and from this review, propose changes in hospital's pharmacy structure in *Instituto de Puericultura e Pediatría Martagão Gesteira* - IPPMG.

Methods: A literature review was carried out to gather the available knowledge about the structure, methods, techniques and procedures related to safe compounding drugs for oral administration in children. Books, legislations and articles indexed in virtual databases (Pubmed, Science Direct and Lilacs) were used.

Results: Several studies have been found, but just a few were conclusive regard the safety of drugs and excipients. RDC 67 was used as basis for the construction of a pharmacy adequacy project for magisterial manipulation medicines.

Conclusion: Oral use of compounding formulations will contribute to increase patient safety in hospital. The pharmaceutical dosage form modification, previously carried out by nursing professionals in the hospital ward, will be carried out by pharmacists inside a suitable environment, applying good manipulation practices and based on scientific literature.

Keywords: Pharmacotechnical, Pediatrics, Patient Safety.

THE RESIDENT'S PERSPECTIVE FROM THE PRODUCTION OF HEALTH CARE

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Introduction: Residency is a postgraduate studies focus on education in service. It is an intersection space between teaching and working, which can contribute of the formation of professionals and all institution. The care can be considered like one of the premises of the work in health system. And it can be defined as the bond, the meeting between professional and user, and their development and implication in the health-disease process.

Objective: To the conception of care from the perspective of the residents and the implications in their practice.

Method: It is a qualitative exploratory descriptive study conducted with 12 residents who worked in a pediatric hospital. The interviews were analyzed based on the Bardin methodology of content analysis. Their answers were divided in some categories: Care; Integrality; Educational and Residency Training; The child in the Hospital.

Results: The most part of the residents tended to conceptualize health care from a technical perspective of their professional qualification. A few of them included the user, especially the child, as one of the protagonist of their own health care, although they recognized the importance of multiprofessional team work to produce this health care.

Conclusion: This research indicated that the majority of the residents had a very similar comprehension, independent of the professional category. This fact may be happened because the biomedical model still being quite present and strong in the process of work in health. This research desired to produce affectations, which can be a tool for a new perspective about the health care, the bond, the importance of integrality practices, the residence formation. These changes can contribute for a new model of producing the health care, in a new clinic which the singularities of all and the relationship are important factors in this meeting of different worlds.

Keywords: Integrality of care, Health care, Medical residency, Multiprofessional residency.

THE SICKLE CELL TRAIT AND SICKLE CELL DISEASE IN THE FAMILY OF THE ACCOMPANYING CHILD IN AN OUTPATIENT CLINIC: FAMILY MEMBERS' KNOWLEDGE ABOUT HEREDITY

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Objective: To analyze the family members knowledge about who carry the trait or have sickle cell disease by one of the legal guardians of the child.

Methodology: Descriptive study with a qualitative approach. The study scenario was the sickle cell outpatient clinic of a pediatric institution located in the city of Rio de Janeiro. Participants were 23 mothers of children with sickle cell disease who were waiting for medical consultation and who accepted to spontaneously participate in the study. The data were collected by interview technique and analyzed on the basis of the scientific literature.

Results: All study participants and their partners had sickle cell trait, having at least one child with the disease and the participants who had more than one child had healthy children and / or sickle cell trait. The diagnosis was informed by the result of the foot test, however, three participants only discovered the disease of the child, when already hospitalized. It is observed that despite being a genetically transmitted disease, the participants reported that they did not know about the heredity of this disease in other members of the family, they just know about the nuclear family (father, mother and child), only four reported having knowledge of the sickle cell trait in grandparents, uncles and cousins, and three reported knowing about sickle cell disease in nieces.

Final considerations: It is concluded that there is still a gap of information about the results of the foot test and the search of other members of the family of second and third grades (grandparents, uncles and cousins) for sickle cell disease and / or its trait. This study presents a great contribution to nursing as a member of the multiprofessional team that must be present in the guidelines and follow up of the child with sickle cell disease and his relative.

Keywords: Anemia, Sickle cell, Pediatric Nursing, Child.

THE VIOLENCE AGAINST CHILDREN AND ADOLESCENTS AS A DETERMINANT OF HEALTH: AN ANALYSIS ON THE IDENTIFICATION / NOTIFICATION OF CASES ATTENDED AT IPPMG / UFRJ

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The main objective of this study was the survey about the situations of violence against children and adolescents attended at IPPMG, seeking to reveal the way in which this social phenomenon was expressed in the health unit, considering it as a significant epidemiological factor that has consequences to the health of children and adolescents. The analysis presented here is based on data obtained through the survey of SINAN records notification issued by IPPMG, on cases of violence against children and adolescents, during the period from March 2016 to June 2017. The results show some aspects that deserve attention: in the year 2016, neglect / abandonment and physical violence were the main forms of violence reported. In 2017, the highest rate of notifications was related to neglect and abandonment. In both years the mother appears as the main perpetrator of the violence, which makes it possible to question about the accountability of women in matters related to child and adolescent care. Among the professional categories that filled out the notification forms, only the Physicians and the Social Workers appear, as well as the Hospital Director. The research sought to foment and deepen the discussion about the issue of violence, making it possible to qualify the knowledge about its main forms, experienced by children and adolescents attended at IPPMG.

Keywords: Violence, Notification, Health, Childhood and Youth.