

A 4% chlorhexidine solution is not commercially available we contracted Galantic Pharma to prepare supplies for two large clinical trials in Africa. This study aimed to evaluate the effect this 4% chlorhexidine solution on the colonization and colony counts in hospital born infants.

Methods Newborns (n=247) from normal deliveries at a hospital in New Delhi were randomly assigned to one of three groups chlorhexidine, placebo or dry cord care. Swab samples were used to collect smear samples before, after 2hrs and 48hrs of application of chlorhexidine and at same times from the dry cord group. All swabs were analysed for growth and colony counts.

Results The overall baseline positivity was 20% (50 of 247 swabs). Chlorhexidine reduced colonisation and bacterial counts in both (2hr and 48 hr) samples. As compared to placebo and dry cord, the reduction in positivity in chlorhexidine group in 2-hour samples was 80% [odds ratio of 0.20, $p=0.001$ and odds of 0.19, $p=0.00$ respectively]. In 48-hour post intervention, chlorhexidine significantly reduced colonisation in comparison to placebo [difference in mean of -1.01 , $p=0.006$] and dry cord [difference in mean -1.16 , $p=0.004$].

Conclusion Cord cleaning with 4% Chlorhexidine soon after birth reduces colonisation as well as density of pathogens significantly.

896 VITAMIN D SUPPLEMENTATION AND THE RISK OF INFECTIONS IN FULLTERM INFANTS. CORRELATIONS WITH THE MATERNAL SERUM VITAMIN D

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Vitamin D insufficiency has been linked with susceptibility to infection, autoimmune diseases and cancers.

Objective To study the effect of vitamin D supplementation on the immunity and the risk of infections during the first year of life in full term infants.

Methods This is a prospective case control study included 99 full term infants attending Minia university hospital during the period from January 2010 to February 2012. They were divided into two groups: group I included forty-eight full term infants supplemented with daily 400 I.U vitamin D for 6-months after birth and group II included fifty-one full term infants not supplemented with vitamin D. History taking and clinical examination and other investigations needed for diagnosis of respiratory, GIT and urinary tract infections were addressed every visit for one year.

Results The incidences of infections totally were less common in infants supplemented with vitamin D than those not supplemented (p -value = 0.01). Otitis media, bronchiolitis, pneumonia and gastroenteritis (p -value = 0.003, 0.001, 0.001 and 0.01 respectively) were less common in them. There were no significant differences as regards urinary tract infections between the two groups ($p=0.3$). significant negative correlations between respiratory and GIT infections and the maternal vitamin D levels were present.

Conclusions Vitamin D supplementation decreased the incidence of infections especially respiratory and GIT infections. Maternal vitamin D levels correlated negatively with the incidence of infections.

897 ROLE OF URINARY TRACT INFECTIONS IN NEONATAL INDIRECT HYPERBILIRUBINEMIA

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Urinary infections are an important cause of prolonged jaundice. But there is conflict about the role of the urinary infections on the pathological jaundice in the first 14 days of the life. This study aims to determine the frequency of urinary tract infections in neonates presenting with jaundice in the first 2 weeks of life with bilirubin levels that require phototherapy.

This study was done with neonates 2–14 days old they have indirect bilirubin levels above the phototherapy limit but were not found to have any condition that would lead to elevated bilirubin levels, e.g. systemic infection, isoimmunization, erythrocyte enzyme defect, erythrocyte structural defect, hypothyroidism, sequestrated blood, polycythemia, or metabolic disease. Urine samples for urinalysis and culture were obtained using catheterization.

During the study, 482 neonates presented with jaundice and 262 of these fulfilled our criteria. UTI rate was 12%. Mean bilirubin level was 20.9 ± 6.1 mg/dl. Thirtyfive (13%) of these patients underwent to blood exchange, the rest were treated with phototherapy only. Weight loss in terms of percentage of birth weight was higher on uninfected patients and rebound bilirubin levels was higher on UTI group.

UTIs may present with isolated jaundice and may cause urosepsis, renal scarring, hypertension and chronic renal failure if they are not treated. In the neonatal period, infections lead to hyperbilirubinemia via hemolysis, inadequate conjugation, decreased excretion and oxidant stress. The findings of this study show the benefits of obtaining urine cultures for the diagnosis of UTI in neonatal patients with hyperbilirubinemia requiring phototherapy who have unexplained hyperbilirubinemia.

898 REDUCING NEONATAL INFECTIONS IN SOUTH AND SOUTHERN CENTRAL VIETNAM: THE OPINION OF HEALTH CAREGIVERS

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Background Infection represents a consistent cause of neonatal mortality in high as well as low income countries. In this study, we assessed the opinion of healthcare providers on how to improve neonatal infection control and prevention in South and Southern Central Vietnam hospitals.

Methods Fifty-four participants to a workshop on infection control and prevention were asked to fill out an anonymous, written questionnaire regarding the priorities that could improve neonatal infection control and prevention in provincial hospitals in South and Southern Central Vietnam.

Results Hand washing, exclusive breastfeeding and safe disposal of medical waste were scored by participants as the highest priorities for preventing neonatal infections. Education through instructional posters and written guidelines, family contact, kangaroo-mothercare, limitation of invasive procedures and screening for maternal GBS infection received relatively low scores.

Conclusions The opinions of operators involved in neonatal health match international recommendations for infection prevention with regards to some, but not all, issues, suggesting the need for a better understanding of this phenomenon. Our results may contribute to better design interventions for infection prevention in settings with limited resources.

899 NEWBORNS AND INFECTION RISKS: EXPERIENCE OF MATERNITY HOSPITAL SOUSSI-RABAT

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The objective of our study is to assess the prevalence of infectious perinatal risk situations in the delivery maternity room in Souissi hospital in Rabat, Morocco.

Materials and Methods A prospective study about all infants born in maternity Souissi (Rabat) during one year: from first January to 31 December 2010. We included all newborns symptomatic or not at birth and whose mothers have at least one infectious case histories from the following: rupture of membrane ≥ 12 hours, chorioamnionitis, urinary tract infection and/or genital, fever $\geq 38^\circ\text{C}$ before or in early labor.

Results On a total of 14792 live births, 1602 newborns were prone to a risky infection (10.83%). Prolonged rupture of membranes showed 1341 cases including 59 newborns were premature. The duration of the rupture was between 12 and 24 hours in 44.30% of cases, between 24 and 48 hours in 44, 37% of cases and more than 48 hours in 11.33% of cases. On 133 cases of chorioamnionitis (10.67%) 129 newborns were full-term and 7 were premature.

The obstetric decision was caesarean section delivery in 25.78% of cases. 4.74% of newborns had respiratory distress with a single case of death in the first hours of life. 4.50% were preterm and 8.86% were hypotrophy. Hospitalization was required from the outset in 1059 cases among which 133 were hospitalized. For other patients an inflammatory report was requested. The were followed as outpatients.

900 NUTRI-MEDICINAL PLANTS FOR MANANGEMENT OF CHILDREN DISEASES IN UGANDA: CASE STUDY OF NAMUNGALWE SUB COUNTY, IGANGA DISTRICT

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Nutrition deficiency is a key determinant of an immune deficient body state. There is scientific evidence that plant species effective in disease management confers both nutritional and medicinal benefits to the people using them. The main objective of this study was to identify the plants known to be used in children diseases management and determine their macronutrient and micronutrient composition. To achieve the first objective, a survey was conducted between July 2009 and February 2010 using semi-structured interviews and questionnaires; focused group discussions, participant observation and field visits. Nutrition composition of plants used was determined using standard laboratory methods in the nutrition laboratory in the department of Food Science and Technology, Makerere University. A total of 67 species were documented as plants used in the disease management among children. These species belonged to 38 families and 35 genera. Faboideae (5), Asteraceae (4) and Mimosaceae (4) families had the most number of plant species. Herbs (37.7%) were the most used plant life forms followed by (34.4%) in disease management among the children. Leaves (58.1%) were the most used plant parts. These plant species are mainly cultivated (42.6%). The plants were mainly boiling. Most plant species were used in management of malaria, anemia and diarrhoea among children. The six selected plants, *Acacia seyal*, *Albizia coriaria*, *Dicliptera laxata*, *Kalonchoe densiflora*, *Persea americana* and *Vernonia amygdalina* that were analysed in this study all had macronutrients and micronutrients except phosphorus and sodium. There is a great potential of nutrition supplements using plants in children diseases management.

901 IS THERE ANY DIFFERENCE BETWEEN THE SYMPTATOLOGY AND CLINICAL FINDINGS OF VIRAL AGENTS THAT CAUSED DEHYDRATION?

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Background and Aims Acute gastroenteritis is responsible for dehydration in many children. The viruses are considered the main agents of gastroenteritis, and these are included by rotavirus, norovirus, adenovirus. Evaluation of the symptoms, clinical findings and hospitalization requirements were aimed in cases of dehydration.

Methods The distribution of age, symptoms, clinical and laboratory findings and hospitalization requirements of viral gastroenteritis cases who have moderate to severe dehydration were evaluated retrospectively. A total of 156 patients with moderate to severe dehydration caused by acute viral gastroenteritis were evaluated. Patients were between 3 months to 16 years of age (mean: 38.7 months). Rotavirus, Norovirus and Adenovirus were detected by immunochromatographic method, as the causes of gastroenteritis.

Results Dehydration were detected in 156 patients with acute gastroenteritis (156/278), which included patients with Rotavirus (48%), Norovirus (41%) and Adenovirus (13.5%), respectively. Norovirus was mostly detected (51.8%) in the first 24 months of age, however, Rotavirus was mostly detected in >24 months of age (61.3%). The common symptoms of all patients were vomiting, diarrhea, abdominal pain and malaise, although fever was seen mostly the cases with Rotavirus. A total of 59 patients were hospitalized, they were Rotavirus cases mostly ($n=35$, 59.3%).

Conclusions The main agents of acute gastroenteritis which caused in dehydration were Norovirus and Rotavirus in our patients. Norovirus was the mostly detected agent in infants and young children who were < 24 months of age. Rotavirus was detected in the most of hospitalized patients, it had caused to most of the severe symptoms.

902 ANTIMICROBIAL UTILIZATION PATTERN IN RESPIRATORY TRACT INFECTIONS AMONG PEDIATRIC POPULATION IN AJMAN, UAE

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Background and Aims Respiratory tract infection (RTI) among children is a leading cause of sickness among school children and parental absenteeism from work. It is associated with hospitalization and significant morbidity. Antimicrobials play an integral role in management of RTIs but irrational use is too common. Hence, this study aimed to determine the prescribing patterns of antimicrobials among children attending the outpatient department (OPD) of pediatrics in GMC Hospital, Ajman.

Methods A cross-sectional drug utilization study was conducted using the prescriptions from the medical records of patients (aged 0–12 years) diagnosed with RTIs during January 2011 at GMC Hospital, Ajman. The demographic data, clinical diagnosis and antibiotic prescription were analyzed using descriptive statistics (SPSS 19).

Results A total of 488 patients (20.2%) presented with RTI to the OPD of pediatrics. Male to female ratio was 1.24. Majority of the patients were Egyptians followed by Emiratis. Majority of children 225 (46%) were between 1–5 years of age. Combination of upper and lower respiratory tract infections (URTI & LRTI) accounted for 187(38%), URTI 208(23%), and LRTI 93(19%). The most frequently prescribed drug categories for treatment of RTIs was antimicrobial