chain reaction for *Mycobacterium tuberculosis* and were stained for acid-fast bacilli.

Results We performed 33 procedures. Median age of children was 56.4 months (13–360). 10 children were diagnosed with pulmonary tuberculosis and another 1 with latent tuberculosis. Mean MOPS score was 4 (range 2–8). The degree of sedation achieved enabled all procedures to be completed without requiring additional drugs. The only side effect registered was transitory euphoria in 6 cases (18%). Sedation was always well accepted by both parents and health workers.

Conclusions This study has shown that the combined use of intranasal Midazolam and Ketamine appears to be a safe and effective method to achieve children's short-term sedation and to facilitate the gastric lavage procedures.

866 PAEDIATRIC STOOL TESTING PRACTICES IN IRELAND AND POTENTIAL INFLUENCE ON EPIDEMIOLOGY OF ROTAVIRUS GASTROENTERITIS (RVGE) AND ROTAVIRUS IMMUNISATION

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Background and Aims Rotavirus vaccination has not been taken up in Ireland. We aimed to conduct a regional audit of gastroenteritis and paediatric stool testing patterns to generate better epidemiological data to support a rotavirus vaccination programme in Ireland.

Methods A retrospective audit of infants and children < 5yrs with Hospital Inpatient Enquiry (HIPE) coded gastroenteritis admitted between 2005 and 2010. Stool testing patterns from the community and hospitals, from the Mid-West Ireland was analysed. Trends of Rotavirus, Adenovirus, Bacterial, Stool test Negative gastroenteritis was tabulated. Audit was approved by hospital audit committee.

Results The incidence of rotavirus in the tested paediatric population is 26% and that of adenovirus is 5%. Rotavirus peaked in 2006 with 30% testing positive, compared with 22% in 2008 and 25% in 2010. The positive pick up rate for stool culture & sensitivity (C&S) by community clinicians and Hospital respectively was 4%, 7% and 9% in 2001, 2006 and 2010. While only 1640 stool samples were tested for rotavirus over 5 years, 7534 samples were tested for C&S with the vast majority not warranting any anti-microbial treatment. In a 5 yr period, GPs in community only requested rotavirus on 287 stool samples, while testing 3353 for C&S.

Conclusion Our rotavirus epidemiological data, based on which the decision not to incorporate an oral rotavirus vaccine to the National schedule, is possibly inaccurate reflecting our stool testing practices. Further reduction of clinical burden due to RVGE could be achieved by incorporating rotavirus immunization to the National programme.

867 EPIDEMIOLOGY OF BACTERIAL MENINGITIS IN TUNISIAN CHILDREN (2000–2011)

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Bacterial meningitis is associated with high mortality and neurological sequelae world wide.

We reported epidemiological characteristics of laboratory confirmed bacterial meningitis in children during 2000 to 2011 period.

We analyzed all laboratory confirmed bacterial meningitis cases. The serotypes and serogroups were determined by slide agglutination. Antibiotic susceptibility was determined by disk diffusion

method according to CA-SFM guidelines. Beta-lactamase production was analyzed using cefinase test. MIC of beta-lactams was determined by E-test method (AB BIODISK).

During the study period we have collected 486 cases of bacterial meningitis: 157 cases of *S. pneumoniae* (32.3%), 118 of *N. meningitidis* (24.3%), and 99 of *H. influenzae* (20.4%). Most cases (66.5%) occurred in children under 3 years. The most frequent serotype among *S. pneumoniae* was 14 (27.2%) followed by 23F (9%). The majority of *N. meningitidis* strains belonged to serogroup B (72.9%) and 88.8% of *H. influenzae* strains to serotype b.

Before Hib conjugate vaccine introduction (2000–2002), *H. influenzae* were the first species responsible for meningitis (40%). During vaccine generalisation (2003–2005) we noted a decrease in Hib meningitis. At the beginning of 2006, Hib vaccination was stopped and we observed an increase of Hib meningitis cases. Antimicrobial susceptibility studies show that 43.6% and 60% respectively of *S. pneumoniae* and *N. meningitidis* strains had reduced susceptibility to penicillin. Among *H. influenzae* 47.3% was beta-lactamase producing.

The data presented in this study demonstrate that *S. pneumoniae* is the most frequent in bacterial meningitis in children and that beta-lactams resistance is frequent in our hospital.

868 THE PREVALENCE OF HBS ANTIGEN AND ANTI-HBS ANTIBODY AMONG PREGNANT WOMEN IN FARS PROVINCE, SOUTHERN OF IRAN

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Background and Aims Hepatitis B virus (HBV) infection is a worldwide health problem. Vertical transmission is a route of HBV infection that is regarded as a considerable factor in HBV prevention program all over the world. This study was conducted to screen the hepatitis B antigen (HBsAg) and hepatitis B surface anti body (Anti-HBs Ab) in pregnant women in Fars province southern of Iran.

Methods From September to October 2009, two hundred fifty pregnant women in Zeynabieh hospital of Shiraz were recruited consecutively to this study at the time of their delivery. Sera were examined for the detection of HBsAg and Anti-HBs Ab using enzyme-linked immunosorbent assay (ELISA). Different demographic data (i.e. age, nationality, vaccination and family history of HBV infection) were investigated to determine the presence or absence of HBsAg and Anti-HBs Ab.

Results Among 250 subjects the prevalence of HBsAg and Anti-HBs Ab were 1.2% and 50% respectively. Demographic data that showed significant association with prevalence of HBsAg were family history of HBV infection ($X^2=7.735$, $p=0.05$), age ($X^2=3.762$, $p=0.05$) and nationality ($X^2=5.41$, $p=0.02$).

Conclusions Findings of this study recommend the necessity of HBsAg screening test for pregnant women especially for those younger than 25 years and with the family history of HBV infection and also for immigrants.

869 CLINICAL SIMILARITIES AND DIFFERENCES OF ACUTE VIRAL INFECTIONS HEPATITIS A AND E IN CHILDREN IN MONTENEGRO

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The Aim To compare the clinical characteristics of hepatitis A virus (HAV) and hepatitis E virus (HEV) infections in children in Montenegro.

Patients and method: During the period 2000–2012, 400 children suffering acute viral hepatitis were examined on Infective Diseases Clinic, Clinical Center of Montenegro, Podgorica. Complete history, route of infection, an abdominal ultrasound and standard biochemical tests were done. During the research we used virus tests sensible to: HAV, HEV, HBV, HCV, EBV. Research sample is consisting from 27 examinees of both sex, different ages with clinical, laboratory and virology verification and description of acute hepatitis E viral infection and 27 examinees with acute hepatitis A infection.

Results Baseline characteristics were: 75% male, age 10 ± 3 . Examiness with infection HEV had most frequent symptoms loss appetite 70.8% and slackness (66.6%) while examiness with HAV infection hadretch 70% and loss appetite 100%. Hepatomegaly, rice temperature were present at all examiness with hepatitis A, while examiness with acute hepatitis E had hepatomegaly at 66.6% cases and rice temperature at 45.8% race. Patients without symptoms was present in group with hepatitis E. (29%). Increase spleen was more frequent at patients with acute hepatitis A. Values alaninamino-transferasis was higer at patients with acute hepatitis A. Rice of all patients with acute hepatitis E had Glutamat dehydrogenasis (GGT) twice higer than referent values.

Conclusion Hepatitis E has many similarities with hepatitis A: enterically transmitted self-limited infections. We had important different of symptoms, clinic image and laboratory analysis between this both of virus hepatitis.

870 EFFECT OF EARLY TOOTH EXTRACTION ON THE DURATION OF HOSPITALIZATION IN FACIAL CELLULITIS OF ODONTOGENIC ORIGIN IN CHILDREN

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Purpose To investigate the clinical characteristics of pediatric facial cellulitis of odontogenic origin and the impact of early tooth extraction on the length of hospitalization in children.

Methods Medical records of all patients with a discharge diagnosis of facial cellulitis of odontogenic origin or buccal cellulitis were reviewed. Clinical characteristics, including age, sex, symptoms of infection, location of infection, type of tooth involved, length of hospitalization, and the timing of dental interventions, were gleaned. Variables were correlated to length of hospitalization.

Results A total of 106 children (62 boys and 44 girls) were diagnosed with facial cellulitis of odontogenic origin. Early tooth extraction (within 48 h) and white blood cell count at admission were significantly associated with length of hospitalization ($p = 0.007$ and $p = 0.03$, respectively). The length of hospitalization for upper face infections was significantly different than that for lower face infections ($p = 0.01$) and that for left face infections was significantly different than that for right face infections ($p = 0.01$). There was also a significant correlation between length of hospitalization and type of tooth involved ($p = 0.01$). Patients who had an infection of a primary first molar tooth had a shorter length of hospitalization.

Conclusion In the management of pediatric facial cellulitis of odontogenic origin, early tooth extraction may decrease the length of hospitalization. White blood cell count, site of infection, and the type of tooth involvement at admission have significant impacts on length of hospitalization.

871 FREQUENCY OF NOROVIRUS INFECTION IN CHILDREN WITH ACUTE GASTROENTERITIS

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Background and Aims Noroviruses are one of the common causes of acute gastroenteritis and have a great impact on child health. The aim of this study was to determine the prevalence of Norovirus in children with acute gastroenteritis in 2009 and 2010.

Methods Fecal samples were collected from children under 16 years of age who were suffering from acute gastroenteritis. All the children were referred to Yeditepe University Hospital, located in Istanbul. Norovirus was detected using immunochromatography.

Results Norovirus infection was detected in 112 of the 1027 collected samples (10.9%). Most of the positive cases were between 1 and 24 months of age ($n = 75$, 67%). The rate of norovirus infection peaked in winter in 2010 (in winter and spring: $n = 57$, 92%), however, the rates were not significantly different between seasons in 2009 (in winter and spring: $n = 26$, 52%, in summer: $n = 23$, 46%). We did not detect any positive cases in late summer and autumn in 2010.

Conclusions This study improves our epidemiological knowledge of the prevalence of Norovirus in Istanbul. Immunochromatography is preferable, that provides rapid diagnosis. The prevalence of Norovirus is similar but seasonal distribution is different between two years. Most of the cases were < 24 months of age. Because this virus is transmitted by contaminated food or water, and transmitted by personal contact, we recommend improved training in hygiene to reduce the incidence of Norovirus infection in children. Like Rotavirus, Norovirus vaccine can be developed to prevent infection.

872 NEONATE SKIN LACERATION DURING DELIVERY AS IATROGENIC RISK FACTOR OF MOTHER-TO-CHILD HCV INFECTION

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HCV mother-to-child transmission occurs mainly in the peripartum period. Cesarean section delivery is not recommended as prevention of HCV neonate infection. Available data from professional centers are conflicting. There is no information about association between neonate laceration during delivery and HCV infection.

The Aim of the study was to establish the rate of neonate injury during delivery and the role of this complication in the risk of mother-to-child HCV transmission.

Methods We collected data of mode of delivery in the group of 392 children born to anti-HCV+ mothers: 34 HCV infected children and 358 without HCV infection.

Results 235/392(60%) children were delivered vaginally, 157/392(40%) by cesarean section. Skin laceration was observed in 9(2.3%) children: 4/235(1.7%) delivered vaginally, 5/157(3.2%) by cesarean section. In the group of HCV infected children 25/34(74%) were delivered vaginally, 9/34(26%) by cesarean section. The rate of HCV infection among children delivered vaginally was 25/235 (10.6%), by cesarean section 9/157(5.7%). 5/9(55%) children with skin laceration were HCV infected. In the group of children without skin laceration HCV infection was diagnosed in 29/383(7.5%). There were 43 children delivered by elective cesarean section in 38Hbd and none of them was injured, none of them was HCV infected.

Conclusions:

1. Iatrogenic exposure to HCV during delivery may increase the risk of HCV mother-to-child infection.