on the scales did not achieve a good correlation between the two scales.

PO-0260c PERTUSSIS EPIDEMIOLOGY IN IZMIR, TURKEY.

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Pertussis (whooping cough) is a highly contagious, life-threatening, vaccine-preventable respiratory infection. Adults can infect infants who have not completed their primary immunization schedule. Besides, the infection can be asymptomatic among adults so that the reported cases of pertussis reflect only a fraction of the actual number of the patients in Turkey. The aim of this study is to determine the antibody levels against B. pertussis toxin (PT) and filamentous heamagglutinin (FHA) in ages from 6 months to ≥60 years in Izmir, Turkey. The study population consisted of 400 healthy subjects. A cluster of sample design developed by EPI of the World Health Organization was carried out for the selection of the study population. Anti-PT and anti-FHA levels were tested by in-house ELISA in Public Health Institution of Turkey. Anti-PT IgG levels of <10 EU/ml, ≥10 EU/ml and ≥100 EU/ml were accepted as non-immun, immune and possible acute/recent infection, respectively. Of the study population 8.5% had <10 EU/ml, 68.2% had 10–100 EU/ml, and 23.3% had ≥100 EU/ml anti-PT IgG antibodies. According to anti-PT IgG antibody levels 23.7% of the cases were correlated with possible acute/recent infection. The incidence of possible acute/recent infection (≥ 100 EU/ml anti-PT antibodies) was highest among 10–14 and 20–29 years old. The incidence was lowest (18.9%) among 5–6 years old and increased in the school age and was highest (34.3%) among 15–19 years old. Although high infant pertussis vaccination coverage in Turkey, our results showed that, pertussis is endemic, particularly in adolescent and adults. Adolescent and adults can be a major reservoir for the disease who haven't completed their primary immunization.

PO-0260d THE USEFULNESS OF AN ANTIMICROBIAL STEWARDSHIP PROGRAM: EIGHT-YEAR TRENDS OF ANTI-INFECTIVE THERAPY IN A TERTIARY PAEDIATRIC HOSPITAL FROM BARCELONA

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Background and aims Antimicrobial drug resistance is a serious threat to public health worldwide. Antimicrobial stewardship program (ASP) information related to the paediatric population is scarce. This study assesses the usefulness of ASP instituted in 2005 in our centre.

Methods Retrospective study in a 214 bed-tertiary care paediatric hospital (52% patients in high-complexity areas), from 2005 to 2012. Variation in admissions, hospital complexity index, mortality rate, bacterial resistance and invasive fungal filamentous infection (IFFI) episodes were recorded. Rates of systemic antibiotics (glycopeptides, aminoglycosides, carbapenems) and intravenous antifungal drugs consumption in admitted patients were assessed, calculated by drug units and related cost.

Results A significant decrease in the number of admissions (-27%) was observe but complexity index and number of transplants increased significantly (+206% and +14%, respectively), as episodes of proven and probable IFFI (+88%). ESBL E.coli and K.pneumoniae increased (5 to 7.6% and 13.8 to 20%) while AmpC hiperproduced Enterobacter cloacae remained stable (29.2 to 29.5%). Multiresistant P. aeruginosa (1.1 to 5%) and MRSA (6.5 to 12.2%) increased moderatelely. Mortality rate showed a decrease of 8%.

The use of aminoglycosides (-24%) and glycopeptides (-3%) decreased while carbapenem and antifungal drug use increased (+45 and +76%, respectively) less than complexity indicators along these years. Global antimicrobial cost slightly increased (+14%).

Conclusions Since ASP implementation a considerable proportional decrease in anti-infective drugs use in comparison to complexity indexes and severe infection episodes was observed without an increase in mortality. ASP should be implemented in all high-complexity paediatric hospitals to optimise patient's care.

Intensive Care and Paediatric Emergency Care Medicine

PO-0261 CLINICAL APPLICATION OF BIOMARKERS FOR CHILDREN WITH SEVERE ENTEROVIRUS 71 INFECTION

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Background Severe enterovirus 71 (EV71) infection in children can result in high morbidity and mortality. The purpose of this study was to use biomarkers for detection of EV71 infection with cardiac involvement.

Methods A total of 53 children, aged 2.5 ± 1.7 years, were studied. Patients were divided into three groups. Group I comprised 30 normal control patients. Group II included 20 patients with EV71-stage 2 infection, and group III included 3 patients with EV71-stage 3 infection. The demographic data, laboratory results and plasma BNP levels were statistically analysed.

Results All group II patients recovered completely without neurological sequelae. Two patients in group III were rescued by ECMO and successfully weaned off and survived without cardiac complications. The group III patients had higher plasma troponin-I, creatine kinase-MB fraction, B-type natriuretic peptide (BNP) level and BNP z-score than those of other groups. The median BNP values were < 5, 9.5 and 238 pg/mL, and median of BNP z-scores were -2.02, -0.22, and 6.11 in the three groups, respectively. Using a BNP cut-off value of 100 to identify cases with concomitant severe EV71 infection and acute heart failure, the sensitivity and specificity were 100% and 100%, respectively. The group III patients had higher urine catecholamine levels than those of group II ($p < 0.01$).

Conclusions Children with severe EV71 infection have varying degrees of myocardial stress that would be caused by

hypercatecholaminemia. Plasma BNP is a sensitive and reliable cardiac biomarker for detection of cardiac involvement in children with severe EV71 infection.

PO-0262 ANALYSIS OF PAEDIATRIC FORENSIC CASES; A SECOND LEVEL HOSPITAL EMERGENCY SERVICE EXPERIENCE

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Background and aims Childhood accidents are the leading cause of health problems, death and disability that can be prevented. Accidents can be predicted and avoided by identifying the risks. The aim of this study is to investigate the characteristics of paediatric forensic cases and to reveal the relationship between judicial decisions and trauma scores.
Methods Forensic reports of the Children under 18 admitted to our emergency department of Van Military Hospital, a second level hospital, between January and November 2013 were retrospectively evaluated. Demographic data of the patients and life threat decisions were investigated and trauma scores were calculated. P-value under 0,05 was considered to be significant.
Results Forty-four (15.1%) of 290 forensic cases admitted to our emergency department were under 18. Of the patients, 43.2% (19) were female and the mean age was 8.7 ± 5.41 (min-max: 0–17). Ten (22.7%) of them were traffic accident, 8 (18.2%) were falling from height, 12 (27.3%) were assault, 2 (4.5%) were burn, 10 (22.7%) were poisoning and suicide. Four of all patients (9.1%) were having life threat and 9 (20.5%) patients were having no injury requiring simple medical intervention. In the evaluation of the cases; Injury Severity Score (ISS) was 1.93 ± 2.27 (1–16), Revised Trauma Score (RTS) was 99.72 ± 0.17 (99–99.83), Trauma score- injury severity score (TRISS) was 7,082 ± 0.15 (7,108–7,841) and New Injury Severity Score (NITS) was 2.55 ± 3.52 (1–16).
Conclusions Traffic accidents, falls, assaults and poisonings are the most common forensic cases in childhood and we found a significant relationship between life threat decision and anatomical and physiological trauma scores.

PO-0263 SAFETY NETTING IN PAEDIATRIC EMERGENCY CARE: A SYSTEMATIC REVIEW AND PROTOCOL DEVELOPMENT

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Background Safety netting strategies after emergency department (ED) discharge are mostly not standardised.
Aim To develop a safety netting protocol for children at risk for serious infections (SI) discharged from the ED.
Methods Patients: Children with fever, vomiting/diarrhoea or dyspnoea (1 month^{-1}6 years).

Design: Systematic Literature Review to Select Best Evidence for Determinants of ED-Revisits and Prospective Cohort Study

Setting: ED of Erasmus MC-Sophia Children's Hospital (May 2010–December 2012)

Intervention Standardised telephonic questionnaires on disease course three days after ED-discharge.

OutcomeED-Revisits with Intervention (Diagnostics or Treatment)

Analysis All determinants and time until ED-revisits were tested by multivariable logistic regression and Kaplan-Meier survival analysis.
Results (Preliminary) Follow-up data were available for 1366/1656(83%) children, median age 21 months (IQR10–45), 57% boys. 856(63%) were febrile children, 300(22%) children suffered from vomiting/diarrhoea and 210(15%) children had dyspnoea. Overall there were 401(29%) revisits in which 54% (n = 216) interventions were performed.

We confirmed the determinants: age <1 year, respiratory/circulatory symptoms and signs of dehydration, as identified in our systematic review, associated with ED-revisits. Additional, parental concern was a determinant for revisit in febrile children. Unscheduled revisits of children with vomiting/diarrhoea occurred mostly within one day and in febrile or dyspnoeic children within 2 days after initial ED-visit.
Discussion and conclusion We identified strong determinants of revisits by prospective data collection in ED-discharged children at risk for SI. We are preparing a multicentre efficacy study to use these determinants and time frames in ED safety netting management.

PO-0264 CONSTIPATION TREATMENT PROTOCOL IN CRITICALLY ILL CHILDREN

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Backgrounds and aims Constipation in critically ill patients is associated with severity of illness. There are no clinical guidelines in critically ill children. The aim of this study is to review the results with our treatment protocol.
Methods Prospective observational study including children admitted to the PICU >3 days. Constipation was defined as ≥4 days with no stools. Constipation was treated with saline rectal enemas or polyethylene glycol + ions (PEGI). PEGI was prepared mixing one paediatric packet (6.9 g) with 20 ml of water. Initial dose was 1–2 ml/kg/8 h and after intestinal transit was observed, it was diminished to 0,5–1 ml/kg/24 h. Adult preparation form (13,8 g) in 40 ml of water was used in children >25 kg. Clinical and demographic data were recorded.
Results 68/150 patients (45.3%), median age 38.5 months (IQR 8.5–82.5) had constipation. Rectal enemas were administered to 15 patients (19.2%). It was useful (stool produced within the next two hours) in 50% of them. 47 patients (60.2%) were treated with PEGI obtaining stool production in the next 48 h in 60.3% of them. Median (IQR) dose of PGEI was 0.9 (0.6–1.3 g/kg/day). Median (IQR) time to first stool production after PEGI was 1 (0–2 days). Diarrhoea was the most frequent side effect observed in 4 patients with PEGI.
Conclusions Constipation in critically ill children is a very common problem. Our treatment protocol seems to be useful and secure. More studies are necessary to evaluate treatment efficacy and security and to develop clinical guidelines.