

an incidence around 1/100 000/year. We studied the characteristics and outcome in PICU patients with ICH.

Methods Children with ICH admitted to PICU during 2000–2010, were retrospectively studied. Clinical information was abstracted via chart review.

Results 21 consecutive cases, aged 5.6 ± 4.5 years, 12 girls, were analyzed. 70% of the children presented with vomiting, 55% with seizures, 38% with headache and 9.6% with focal neurological signs. Mean Glasgow Coma Scale (GCS) before intubation was 7.33 ± 2.45 . In 66.6% emergent evacuation of hematoma or hydrocephalus at admission was performed. 23.5% had an arteriovenous malformation (AVM) and 15% of these children underwent embolization for AVM obliteration. Mortality was found 19%. Patients who died had lower GCS (4.75 ± 2.06 vs. 7.9 ± 2.16), $P<0.05$, higher PRISM III-12 (first 12 hours from admission), (21.5 ± 8.1 vs. 7.8 ± 7.7), $P<0.005$, higher PRISM III-24 (next 12 hours), (17.2 ± 8.3 vs. 5.2 ± 5.1), $P<0.001$, and longer α PTT, $P<0.01$ than those who survived. Patients who needed inotropic support the 1st day of PICU stay had 12 times greater mortality than children who didn't need inotropic support. Among survivors 68.7% presented neurologic deficit at PICU discharge. Children with neurologic deficit had lower GCS (6.8 ± 1.6 vs. 10 ± 1.5), $P<0.005$ than those without deficit.

Conclusions As outcome is dismal in children with ICH and critical illness at presentation, low GCS, high PRISM III and need for inotropic support, prompt diagnosis seems essential to improve prognosis in these children.

811 USEFULNESS OF THE PRISM III SCORE TO PREDICT OUTCOME IN CRITICALLY ILL CHILDREN WITH VAP

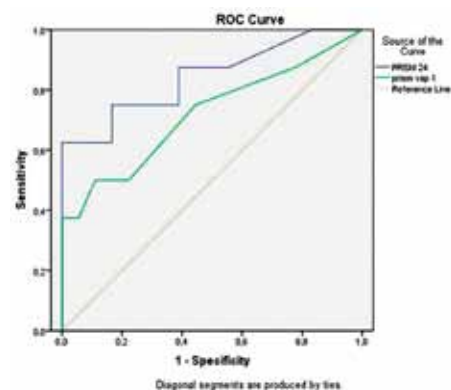
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Background and Aims Ventilator-associated pneumonia (VAP) is associated with increased length of stay and adverse outcomes in PICU patients. In a retrospective study, we examined if PRISM III score at admission or at the day of VAP development could better predict the outcome in patients with VAP.

Methods The medical records of PICU patients admitted to a 8-Bed PICU of a tertiary-care hospital from January–December 2011 were reviewed. Clinical data, PRISM III score at admission or at the day of VAP development were recorded. VAP was diagnosed according to CDC criteria.

Results 27 patients, mean age 4.40 ± 4.23 years, 59.3% boys, developed VAP. 4 patients presented 2 VAP episodes. Mean PRISM III score at admission was 10.19 ± 7.65 , at the day of first VAP episode 7.31 ± 6.94 , and at the day of 2nd VAP episode 4.75 ± 3.60 . The receiver operator characteristic curve (ROC) analysis showed that PRISM III at admission could better predict mortality in PICU patients with VAP than PRISM III at the day of VAP episode. (Figure 1).



Abstract 811 Figure 1

The area under the curve was found 0.85 (asymptotic 95%CI 0.59 to 1, $P<0.01$) for PRISM III at admission and 0.72 (95%CI 0.48 to 0.95, $P=0.081$) for PRISM III at VAP episode.

Conclusions PRISM III at admission could better predict mortality in PICU patients with VAP than PRISM III at the day of VAP episode suggesting that VAP may not independently affect mortality.

812 CARDIOPULMONARY ARREST IN PEDIATRIC EMERGENCY CARE AND INTENSIVE CARE: A MULTICENTER STUDY IN TURKEY

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Background and Aim The most cause of cardiopulmonary arrest (CPA) is respiratory system disorders. Usually the survive from CPA is 30% in hospital and under 10% in out of hospital. The aim of this study, the cause of CPA, applications and results of CPA in pediatric ICU and emergency care in Turkey.

Methods This study conducted between January 15 and July 15, 2011, multicenter, prospective, observational from Turkey.

Results We enrolled 239 children whose CPA developed. Fifty-four percent of all patients were boy and their mean age were 42.4 ± 58.1 months. The causes of CPA were respiratory failure in 49.8%, sepsis in 30.1%, cardiac disease in 21.3% and rhythm disorders in 8.8%. The place of CPA occurred were PICU in 68.6%, services in 18%, out of hospital in 10% and emergency care in 3.3% of patients whose CPA developed. Adrenalin was performed in 221, defibrillation in 16 and automatic external defibrillation in patients. Mean resuscitation time was 30.7 ± 23.6 minutes. Return percent after first resuscitation application was 44.8%. We check to mortality rate after first resuscitation 43.3% in PICU, 41.9% in services, 50% in Emergency Care, 41.7% at out of hospital ($p=0.539$). The 83% of them were unconsciousness, renal replacement therapy was applied in 16 patients. After first resuscitation, 54.2 patient survived and neurologic sequelae was in 32% of them.

Conclusion Mortality and morbidity are higher either hospital and out of hospital CPA, therefore prevention to CPA and well resuscitation applications are very important.

813 PALLIETERBURGH: DEVELOPMENT OF A HIGH DEPENDENCE TRANSITIONAL CARE UNIT

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Background Ongoing advances in paediatric intensive care led to increased survival, with increased morbidity and long-lasting sequelae.

This increases parental burden and impedes quality of life of both child and parents. A poll amongst parents of children with congenital anatomical anomalies showed a need to better prepare parents for hospital discharge with their chronically ill child. Besides, parents needed a ward providing a more structured environment for child and parents rather than the hectic PICU.

Aim Evaluation of a high dependence transitional care unit (HDTCU) as part of PICU care.

Methods A 6 bedded HDTCU for chronically ill children in need of intensive nursing care was built, managed under full (medical and nursing) responsibility of our PICU. Increasingly during admission, parents take responsibility of caring for the child. We calculated duration of admission and bed occupancy rate. Furthermore a survey was held evaluating satisfaction among parents.

Results Pallieterburgh is an extramural HDTCU providing care between PICU and home for children dependent on medical appliances. From January 2010 until April 2012, 33 children were admitted with a median length of stay of 50 days (range 4–345). Bed occupancy was 67%. Main appliances were: tracheal cannula 16 (48%), mechanical home-ventilation 3 (1%) and home parenteral nutrition 12 (36%). Parental satisfaction and parental confidence at discharge were high.

Conclusions Although the number of patients is too small to draw definitive conclusions, occupancy rates are high and parents seemed better prepared to accept full responsibility in home-care for their child.

814 OUTCOME OF CHILDREN ADMITTED TO A REGIONAL PAEDIATRIC INTENSIVE CARE UNIT (PICU) WITH CONVULSIVE STATUS EPILEPTICUS (CSE)

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Background and Aims Children presenting with CSE are commonly referred to PICU for ongoing care. Limited data is available on their outcome.

Objectives:

1. To determine mortality and short-term morbidity of children admitted to a regional PICU with CSE.
2. To identify differences in outcome for those with pre-existing epilepsy compared to non-epileptics.

Methods A retrospective cohort study of 57 children (1 month to 16 years) admitted to a regional PICU between January 2008 and December 2011 with CSE was carried out. Study population were divided into Group 1 (n=23, presence of pre-existing epilepsy) and Group 2 (n=34, absence of pre-existing epilepsy).

Results The results of the group 1 and 2 respectively were:

Median age (months): 33 and 21.5
 Male: female ratio (%): 57:43 and 76:24
 Refractory seizures (>60 min) at presentation: 83% and 53%
 Deviation from APLS protocol for seizure control: 43% and 32%
 Extra doses of benzodiazepine: 50% and 91%
 Neurological co-morbidity: 91% and 24%
 Median duration of PICU ventilation: 18.1 hrs and 10.5 hrs
 Median duration of PICU stay: 24.1 and 24.5 hrs
 Seizure control at PICU admission: 61% and 94%
 Midazolam infusion in PICU: 96% and 97%
 Neurological investigations (LP, CT/MRI Head, EEG) performed in 22% and 94%
 Pre-discharge neurological morbidity: 2 (aggressive behaviour, decerebrate posturing) and 1 (increased tone)
 No mortality identified

Abstract 814 Table 1

Percentage	Group 1	Group 2
Median age (months)	33	21.5
Male:Female	57:43	76:24
Refractory seizures >60min	83	53
APLS protocol for seizure control deviation	43	32
Reason for deviation: extra doses of benzodiazepine	50	91
Neurological co-morbidity	91	24
PICU ventilation (median hours)	18.1	10.5
PICU stay (median hours)	24.1	24.5

Abstract 814 Table 2 PICU Events

	Group 1	Group 2
Seizure control at PICU admission	61%	94%
Midazolam infusion in PICU	96%	97%
Neurological investigations (LP, CT/MRI Head, EEG)	22%	94%
Neurological morbidity	2 (aggressive behaviour, 1 (increased tone) decerebrate posturing)	
Mortality	0	0

Conclusion Epileptics presented frequently with refractory seizures and were ventilated longer though this didn't affect total PICU stay; non-epileptics were investigated more frequently. Morbidity (5%) was still seen though there was no mortality in our study.

815 PATIENTS WITH PRIMARY IMMUNODEFICIENCY DISORDERS IN PEDIATRIC INTENSIVE CARE UNIT: OUTCOMES AND MORTALITY-ASSOCIATED RISK FACTORS

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Introduction Primary immunodeficiency disorders (PID) are characterized by poor or absent function in one or more components of the immune system. Early diagnosis and treatment is crucial for preventing morbidity and mortality. Despite adequate treatment, most of these patients require intensive care because of organ dysfunctions related to infections and HSCT complications. We reviewed our PID patients admitted to pediatric intensive care unit (PICU) over a 10-year period.

Patients and methods: PID patients, who were admitted to PICU between 1 January 2002 and 1 January 2012, were included. Data were collected from patient medical records.

Results A total of 51 patients (27 males) were admitted to PICU. There were a total of 71 admission episodes. The median age was 12 months. Age and sex were not significantly associated with mortality. The most common diagnosis was SCID. A total of 20 patients underwent HSCT. In all, 52 (73.2%) of all admission episodes were for respiratory problems, 10 (14%) for proven infections, 8 (11.4%) for neurological problems and 1 (1.4%) for surgical problems. Of the 71 episodes, 51 (71.8%) required mechanical ventilation, 11 (15.4%) required renal replacement therapy, 32 (45%) required inotropes. In all, 40/71 (56.3%) of the episodes resulted in survival. Requirement for ventilation, inotropes and renal replacement therapy were related with poor outcome. Multi-organ failure, PELOD score, duration of PICU admission were associated with mortality.