Results: Leucine levels (mean $\pm$ SD) in normal (65.3 $\pm$ 12.3mcM) and diabetic (80.7 $\pm$ 21.4mcM) pregnancies were significantly lower than in controls. (95.5 $\pm$ 6.6mcM, $p < 0.001$ and $p = 0.051$, respectively). Mean valine levels were significantly higher only in diabetic pregnancies (87.5 $\pm$ 26.2mcM) as compared to the control (65.1 $\pm$ 7.6mcM, $p = 0.011$). Moreover, leucine and valine concentrations in diabetic pregnancies, were significantly higher than in normal pregnancies. Despite the different concentrations of both aminoacids in diabetic and normal pregnant women, their neonates had comparable concentrations in leucine (84.5 $\pm$ 11.2mcM vs 80.9 $\pm$ 18.4mcM) and valine (93.7 $\pm$ 14.4mcM vs 82.2 $\pm$ 21.6mcM).

Conclusions: BCAA levels are increased in diabetic pregnancies probably due to a counter balancing mechanism to improve the disturbed glucose homeostasis. More concretely, the increase of BCAA induces two distinct metabolic pathways with following production of two different intracellular end products, glucose and /or ketone bodies, balancing in this way the decreased amount of glucose entering the cell in women with gestational diabetes.

719

DEVELOPING PAEDIATRIC PAIN MAPS IN THE ACCIDENT AND EMERGENCY DEPARTMENT

K.P. Kelly^{1,2}, S. Gardner¹, Z. Haslam¹

¹Paediatric Accident and Emergency Department, Southport & Ormskirk Hospital NHS Trust, Ormskirk, ²School of Medicine, University of Liverpool, Liverpool, UK

Background and aims: The College of Emergency Medicine has consistently identified pain score recording as essential in the provision of adequate analgesia in the Paediatric acute care setting. This study recorded patients' stated pain scores in real-time at set defined time points.

Methods: A prospective, observational pilot study utilising convenience sampling of children aged 5 - 15 years was conducted in the Ormskirk District General Hospital Paediatric Emergency Department, UK (20,815 presentations pa) 10 - 24th July 2009. Self-reported pain scores in acute pain were recorded every 15 minutes for 4 hours, using a combination of a numeric rating scale from 0-10 and the Wong-Baker FACES pain scale.

Results: During the study period 54 patients were enrolled, 7.27 % (n = 743) of the attendances, with 47 completing the 4 hour pain score period.

All patients showed a reduction in their pain scores compared to their pain score on presentation. Maximal pain score reduction occurred within 1 hour (varied treatment regimes - medical / non-medical). Some patients showed secondary peaks in pain towards 4 hours.

Conclusions: Mapping patients' pain through sequential pain scoring should provide valuable information to predict intervention responses and in the future may be facilitated by a patient-controlled real-time pain assessment electronic device. In addition we envisage calculating the area under the curve for pain versus time graphs, which may make us re-evaluate moderate pain regimes.

720

DILEMMA OF DIAGNOSES IN NEONATAL INTENSIVE CARE UNIT IN SUB-SAHARAN AFRICA

B.M. Afolabi

Health Department, Health, Environment and Development Foundation, Lagos City, Nigeria

Background and aims: Neonatal period in sub-Saharan Africa is characterized by various infectious diseases that make up leading causes of morbidity and mortality in this part of the world. The main objective of this study is to document frequently diagnosed illnesses in early, mid and late neonatal periods, record management of the ill neonate and scrutinize clinicians' prescription patterns.

Methodology: This was a health facility-based retrospective case review of records of children admitted into the intensive care unit (ICU). Records of all neonates admitted from March 2005 to February 2007 were extracted for analysis.

Results: Two hundred and twenty four neonates (135 males; 89 females), disaggregated into different age groups, were admitted into the ICU during the period of study. The main diagnoses *in early, mid and late neonatal periods* were birth asphyxia (63%) and neonatal septicaemia (50%), neonatal septicaemia (46%) and neonatal jaundice (15%), bronchopneumonia (50%) and neonatal meningitis (30%) respectively. Common investigations requested for across different age groups were full blood count, electrolyte, urea and creatinine, and

serum bilirubin. Most prognoses were poor or very poor. The commonest prescriptions were antibiotics and fluids; common route of drug administration was intravenous and mortality ranged from 20-30%. Malaria parasite examination was very low.

Conclusion: Accurate diagnosis of neonatal infectious diseases poses a dilemma to clinicians in ICU. Modern instrumentation for quick diagnosis and life-support system will support improved neonatal health care delivery system and reduce high mortality rate in this period of life.

721

THORACOABDOMINAL TRAUMA EPIDEMIOLOGY ON THE PEDIATRIC POPULATION OF THE HOSPITAL UNIVERSITARIO DE PUEBLA DURING THE PERIOD AUGUST 2008 - 2009

Y. Martinez Tovilla¹, B. Salazar Perea²,
A. Marquez Toledo³

¹*Coordinación de CeGeDHaM, Facultad de
Medicina BUAP*, ²*Pediatrics Third Year Resident*,
³*Intensive Care Pediatrician; Chief of the Pediatrics
Division, Hospital Universitario de Puebla,
Puebla, Mexico*

Background: In Mexico, trauma is the leading cause of death in children older than 5 years.

Justification: Thoracoabdominal trauma is an underdiagnosed phenomenon, since it is commonly associated with politrauma and head injury, diagnoses with which the patients are coded.

Objective: To describe the epidemiologic characteristics of thoracoabdominal trauma in the pediatric population.

Methods: A prospective, descriptive, observational, and longitudinal study.

Results: A total of 276 patients were hospitalized, 163 (59%) of them were for trauma. Thoracoabdominal trauma occurred in n=19(6.88%) of all patients and in n=19(11.66%) of all trauma patients. Distribution by gender was male n=15(78.9%). Age range was 1 to 18 years, with a mean of 9.5 years. Isolated thoracic trauma was found in n=9(63%), isolated abdominal trauma in n=6(22%), and both traumas in n=4(15%). Automobile accidents were the most frequent cause of lesion n=7(35.84%). The most frequently injured structures were the lungs n=10(52.63%). Surgery was performed in

n=7(36.84%). The most frequent surgery was pleural drainage n=3(42.86%). The mean duration of hospital stays was 5.37 days with an interval of 1 to 23 days. Mortality was n=3(15.79%)

Conclusions: In our environment traumas occupy more than half of inpatients. Most patients did not require surgery and the most frequent surgery performed was pleural drainage. Most of the cases fall in the field of clinicians, therefore the effort to train healthcare providers in the understanding of the anatomic, physiologic and psychosocial differences proper of the pediatric age is justified. In our unit we are a multidisciplinary team.

722

CARDIAC OR NOT CARDIAC - THAT IS THE QUESTION?

K. Armstrong

*Emergency Department, Childrens University
Hospital, Dublin, Ireland*

Aims: To determine the diagnosis and current management of chest pain in the Emergency Department (ED.)

Methods: A retrospective analysis of children presenting to the Emergency Department with chest pain over a one year period.

Using the Symphony System those presenting with "chest pain" or "pain in chest" from October 2008-October 2009 were identified. Variables recorded were referral pattern, age, sex, vital signs, investigations, final diagnosis and follow up.

Results: There were 239 presentations, which was 0.5% of total presentations. Sex distribution was equal. Mean age was 10.7 yrs (range 2 -16yrs)

232 (97%) had a normal cardiac examination; the remaining had a cardiac murmur related to underlying cardiac disease.

97 (41%) of children had an ECG performed, only one of which was abnormal. 73 (31%) had a CXR, of those which were abnormal all had a respiratory illness.

Seven children had a pre existing cardiac condition and 4 were re referred to cardiology services. Thirteen children with no pre existing cardiac condition were referred for cardiology review with no new diagnosis to date.