Results: Leucine levels (mean±SD) in normal (65.3±12.3mcM) and diabetic (80.7±21.4mcM) pregnancies were significantly lower than in controls. (95.5±6.6mcM, p<0.001 and p=0.051, respectively). Mean valine levels were significantly higher only in diabetic pregnancies (87.5±26.2mcM) as compared to the control (65.1±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±11.2mcM vs 80.9±18.4mcM) and valine (93.7±14.4mcM vs 82.2±21.6cmM).

**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

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**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 - 24<sup>th</sup>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

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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