incremental fluid/calorie intake to achieve 150mls/kg/day of fluid; 90kcal/kg/day calorie intake and 3.54g/kg/day of protein intake by 5 days age.

**Aim** To assess whether nutrition needs of very preterm infants are met with the current evidence based nutritional policy.

**Methods** A retrospective study was undertaken for 6 months at a neonatal unit of North Tees hospital, UK. The daily intake of protein, calorie and fluid was calculated in the group of babies born < 32 weeks gestation. Unit guidelines recommend commencing TPN in < 24 hrs and early feeding. Babies who died before 14 days and those who were transferred to another unit within the same time period were excluded from the study.

**Results** Complete data was obtained from 20 consecutive babies over 6 month period. Median gestation was 29 weeks (range 27+5 to 31+6 weeks), birth weight 1300g (840 to 1890g).

Although babies had weight loss < 10% of their birth weight, nutritional intake varied significantly. The total intake was adequate but could achieve an average of 55 kcal/kg/day at by day 5 and not the recommended 90 Kcal/kg/day.

**Abstract 1880 Table 1 Nutritional requirements in preterm infants**

<table>
<thead>
<tr>
<th></th>
<th>Calories Kcals/kg/day</th>
<th>Protein g/kg/day</th>
<th>Total Fluid ml/kg/day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommended</td>
<td>90</td>
<td>3.54</td>
<td>150</td>
</tr>
<tr>
<td>Achieved</td>
<td>55</td>
<td>4.4</td>
<td>139.5</td>
</tr>
</tbody>
</table>

**Conclusion** Feeding policies are sub-optimal despite best efforts. The impact of this change should be assessed on long term outcomes.

**1881 SYSTEMATIC METHOD TO IMPROVE MANAGEMENT OF CRITICALLY ILL CHILDREN**

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**Background** Akershus University Hospital is the largest acute care hospital in Norway. It employs 6,200 people to serve 460,000 inhabitants, of which 115,000 are children. Currently, our Department is experiencing an increased admission of critically ill children, which let physicians and nurses feel overwhelmed and insecure. Our project aimed to improve knowledge, communication and documentation to meet today’s standards for quality of care.

**Methods** Based on the Acute-Life-Threatening-Events-Recognition-Treatment (ALERT™) courses, the Airway-Breathing-Circulation-Disability-Exposure (ABCDE) algorithm, and the Identify-Situation-Background-Assessment-Recommendation (ISBAR) tool, we have developed an interactive platform for physician and nurses to improve clinical communication and to standardize assessment for intensive care patients. Furthermore, we have introduced the Brigh ton Paediatric Early Warning Score (PEWS) to detect children with the highest risk for cardio-respiratory failure.

**Results** Our healthcare providers have benefited from this program. For example, they gained useful skills to create efficient work flows and improve team communication. For half an hour every other week, we play a scenario where 2 physicians and 2 nurses practice the ABCDE algorithm, ISBAR tool and the PEWS in a simulated patient. We have implemented training courses (Casetraining) to help them use the various assessment tools. Our main focus is to provide high quality of care, patient safety and efficient clinical operations. However, we understand that it takes an ongoing effort to introduce a systematic method in practice.

**Conclusion** We have introduced a program for physicians and nurses to increase clinical competence and patient care with a high potential for further development.

**1882 THE EFFECT OF OPEN AND CLOSED ENDOTRACHEAL SUCTION SYSTEMS IN INTUBATED NEONATES IN 2012**

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**Background** The study aimed to review the effect of two open and close suctioning methods on respiratory parameters of infants undergoing mechanical ventilation.

**Methods** In this cross-sectional clinical trial study, forty-four infants among the infants underwent mechanical ventilation in NICU of Isfahan’s Al-Zahra Hospital were selected by simple continuous sampling method. The samples randomly divided into two groups. In the first group, first, open suctioning and then after three hours of cleaning, closed suctioning was done and in the second group, first closed suctioning and after three hours of cleaning, open suctioning was implemented and respiratory rate (RR) and percentage of arterial blood oxygen saturation was reviewed and compared before, during and after each type of suctioning. Data were analyzed using ANOVA with repeated measures and independent t-test through Software SPSS16.

**Results** There was a significant difference between mean respiratory rate and arterial blood oxygen saturation in infants before, during and after the closed and open suctioning. The percentage of arterial blood oxygen saturation had a significant reduction in open method compared to closed method on the same time and immediately after suctioning and RR in 3 minutes after suctioning in both steps in open method.

**Conclusion** Results showed that close method causes fewer changes in hemodynamic status of infants. Therefore, in order to prevent from respiratory complications in infants, nurses are recommended to perform the endotracheal tube suctioning in closed method.

**Keywords** Respiratory rate; ventilation, neonate, suction