Early Age and Haematology and Oncology

**O-037** SHORT-TERM EFFECTS OF RED BLOOD CELL TRANSFUSION ON HEPcidIN CONCENTRATION IN PRETERM INFANTS

**Authors:** L. Lorenc, K.M. Müller, A.P. Peter, G. Oliba, M. Westerman, A.R. Franz.

**Affiliations:** 1Department of Neonatology, University Children’s Hospital Tübingen, Tübingen, Germany; 2Department of Internal Medicine Division of Endocrinology Metabolism Pathobiochemistry and Clinical Chemistry, University of Tübingen, Tübingen, Germany; 3The BioIron Company, Intrinsic LifeSciences, La Jolla, USA

**Objectives:** To evaluate the effects of red blood cell (RBC) transfusions on serum hepcidin concentrations in preterm infants.

**Methods:** A prospective observational study including very preterm infants born at a mean gestational age of 26.0 (interquartile range: 24.9–28.1) days received 27 RBC transfusions over the first 8 weeks of lactation. Serum hepcidin concentrations were measured before and after each transfusion. Results: The study was conducted between May 2009 and September 2010 at Tübingen University Hospital, 20 preterm infants born at a mean gestational age of 26.0 (interquartile range: 24.9–27.4) weeks and with a mean postnatal age of 30.8 (interquartile range 29.9–32.1) days received 27 RBC transfusions. When measured shortly after transfusion (mean 10 h), hematocrit values increased from a median of 26.6% (SD 2.8) to 32.1% (SD 3.2; p < 0.05) but Hep (S) remained unaffected. Conclusion: These data indicate a short-term effect of RBC transfusions on serum hepcidin concentrations in preterm infants. Further longer-term observational studies are needed to understand the dynamics of hepcidin regulation in preterm infants.

**O-039** WITHDRAWN

End of Life

**O-040** END-OF-LIFE DECISION MAKING – PAEDIATRIC INTENSIVISTS’ AND NONINTENSIVIST PAEDIATRICIANS’ ATTITUDES

**Authors:** S. Grossel, M. Orazem, M. Karic, G. Vidmar, U. Grossel.

**Affiliations:** 1Pediatric Surgery and Intensive Therapy, University Medical Centre Ljubljana, Ljubljana, Slovenia; 2Faculty of Medicine, University of Ljubljana, Ljubljana, Slovenia; 3Department for Rhythmology, Heartcenter Leipzig, Leipzig, Germany; 4Department for Research, University Rehabilitation Institute of the Republic of Slovenia, Ljubljana, Slovenia; 5Department of Paediatric Endocrinology Diabetes and Metabolic Diseases, University Children’s Hospital University Medical Center Ljubljana, Ljubljana, Slovenia

**Objective:** To describe the attitudes at the end-of-life decision (EOLD) making among Slovene paediatricians.

**Design:** A cross-sectional survey using questionnaire and case scenario.

**Setting:** Paediatric Health Care Institutions in Slovenia.

**Participants:** Paediatric intensivists, specialists and residents in paediatrics.

**Interventions:** None.

**Main outcome measures:** Differences between attitudes regarding EOLD.

**Results:** 323 participants of registered paediatricians in Slovenia 586 (55.1%) were included. The response rate was 46.7% (151 of 323 paediatricians) or 25.8% (151 of 586 of registered paediatricians). The decision to limit life-sustaining treatment at (LST) the end-of-life was ethically acceptable among Slovene paediatricians. The highest consent was found among residents 90.2%, followed by 83.3% of intensivists and 73.8% of specialists. Ethical differences between withholding and withdrawing were found in all three groups found, though intensivists agreed on this issue the least, in only 25.4%, while specialists and residents consented almost evenly, 40.0% and 40.7%, respectively. Answers on attitudes of EOLD did not show any statistical differences. 28.3% of specialists would follow do-not resuscitate order in comparison to 59.1% and 64.2% of intensivists and residents. The majority of participants answered that religious and cultural beliefs of paediatricians should not be considered in...
EOLD. In the presented case scenario intensivists would wait with the EOLD until the morning meeting and continue full treatment in contrast to specialists and residents.

Conclusions No major differences were found among paediatricians on attitudes about EOLD, while in case scenario intensivists were found to be more cautious in EOLD.

Enteral Nutrition

**INTESTINAL MICROBIOTA DIVERSITY IN PREMATURE NEONATES AFTER SUPPLEMENTATION WITH PROBIOTIC LACTOBACILLUS AND BIFIDOBACTERIUM**

2. Department of Food Science Faculty of Life Sciences, University of Copenhagen, Copenhagen, Denmark; 3. Department of Neonatology, Rigshospitalet, Copenhagen, Denmark; 4. Microbiology and Infection Control, Statens Serum Institute, Copenhagen, Denmark

**Purpose** Routine probiotic supplementation with Bifiborn (Lactobacillus rhamnosus and Bifidobacterium lactis) in infants with gestational age below 30 weeks was introduced in January 2010 at the Department of Neonatology, Rigshospitalet to reduce the risk of NEC. We aimed to investigate the presence of the probiotic agents as well as potential changes in the total microbiota in the stools collected in two cohorts of infants, before and after the introduction of routine probiotics.

**Methods** The first cohort (“control cohort”) was recruited from September 2006 to January 2009; the second cohort (“probiotic cohort”) was recruited from May 2010 to October 2011. Stool samples were collected by nurses as part of routine care at postnatal day 0–5 (sample1), day 10 (sample 2) and day 30 (sample 3). The total number of samples was 446 in the control cohort and 225 in the probiotic cohort. All the stool samples were examined by conventional culture, tested by PCR for the 16S DNA of the two probiotic agents, as well as denaturing gel gradient electrophoresis (DGGE). The band patterns from DGGE were subjected to principal component analysis (PCA).

**Results** In the probiotic cohort 82% was PCR positive for L. rhamnosus, 34% was positive for B. lactis in contrast to 6% and 3% in the control cohort. The PCA from the DGGE results did discriminate the two groups with a p < 1⁻¹⁰. This was dominantly caused by a strong first component representing mainly the total number of bands, with no dominant pattern. Culture showed also a higher number of organisms (pp < 1⁻¹⁰) with no specific bacteria.

**Conclusion** L. rhamnosus and B. lactis are not naturally present in the stool of neonates. Administration of probiotics resulted in the presence of the probiotic organisms in the stools and more importantly a profound increase in diversity of the intestinal microbiota. No specific bacteria were seen to be favoured by the probiotic supplementation.

Gastroenterology I

**HELPING BABIES BREATHE (HBB) TRAINING IN ROMOTE AREAS OF CHINA: EDUCATIONAL IMPACT OF A PILOT TRAINING WORKSHOP**

1. Child Health Department, National Center for Women and Children’s Health, China CDC, Beijing, China; 2. Pediatrics, Peking Union Medical Collage Hospital, Beijing, China

**Background and aims** Helping Babies Breathe (HBB) is an evidence-based educational program which teaches the simple and essential steps that effectively resuscitate the majority of infants not breathing at birth. This study aims to evaluate the training effectiveness of HBB program in remote areas of China.

**Methods** Based on the HBB educational materials of American Academy of Paediatrics (APP), a two-day intensive training workshop was carried out by sufficient master trainers among 73 healthcare providers from countylevel hospitals of Tibet and Sichuan province in 2013. The neonatalresuscitation (NR) knowledge of trainees and their self-confidence to complete NR were evaluated and compared before and after training. Bag and mask ventilation skills (BMVS) and objective structured clinical