PO-0648 | NORWEGIAN – INDIAN COLLABORATION PROJECT TO IMPROVE NEWBORN CARE

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Background Norway India Partnership Initiative (NIPI) is cooperation between the Governments of Norway and India, and has a particular focus on improving newborn health by training health personnel. A former exchange program in Kolkata (2011–2013) reports reduction in neonatal mortality rate and improved newborn care.

Aim This project aims to improve the care of sick and premature newborns, in line with international standards, in Rajasthan, India. The exchange of health personnel in north-south collaboration can reduce neonatal morbidity and mortality by improving basic neonatal nursing. Focus areas are KMC, nutrition and breastfeeding, developmental care, hygiene and pain management. The project intends to increase multicultural understanding within newborn health care.

Method Exchange of 4 indian and 2 norwegian nurses/year for a 3 year period. Norwegian nurses will stay in JK Lone Hospital, Jaipur for 12 months and indian nurses in Oslo university hospital for 6 months.

Focus for Norwegian nurses in Jaipur will be teaching doctors and nurses in evidence based newborn care through bedside training in the NICU. Interact with the indian team of doctors, nurses,and family of the sick newborn, in order to develop an understanding of the culture and society they are working in.

Focus for Indian nurses in Oslo will be hands on bedside training in the NICU under surveillance of experienced personell. In depth knowledge of the focus areas. All participants are to convey their experience to their home partners after homecoming through teaching, demonstrations and reports. The goal is sustainable practice change according to evidence based care.

PO-0649 | USEFULNESS OF POSTMORTEM IMAGING AND AUTOPSY IN NEONATAL INTENSIVE CARE UNIT

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Background and aims Rates of traditional medical autopsy are low in Japan. In particular, obtaining consent for autopsy of children from parents is difficult. Although postmortem imaging of adults has been well studied, this is not the case in children. Few studies have investigated the accuracy of postmortem imaging in diagnosing the causes of neonatal deaths. We aimed to identify the accuracy of postmortem computed tomography (CT), and compared postmortem CT findings to clinical diagnosis and autopsy in the neonatal intensive care unit (NICU).

Methods Twenty-five patients died in our NICU from 2010 to 2012. Consent for autopsy was obtained for 10 cases (40%) and consent for postmortem imaging was obtained for 19 (76%). Both postmortem imaging and autopsy were able to be performed for 10 cases (40%).

Results The concordance rate between cause of death from postmortem CT and that from clinical diagnosis was 74% (14/19), while the rate between cause of death from postmortem CT and that from autopsy was 70% (7/10). Moreover, postmortem CT uncovered unrecognised diagnoses such as pericardial emphysema that remained undetected from the clinical course or autopsy.

Conclusions Postmortem imaging is reliable and valid in NICU settings, and the combination of postmortem imaging and autopsy could improve the accuracy of determining causes of neonatal deaths.

PO-0650 | THE INFLUENCE OF DISORDERED EATING ATTITUDES ON PREGNANCY AND NEONATAL OUTCOMES

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Background and aim Nutritional status of the mother in the periconceptional and gestational period can influence the course of pregnancy and newborn health. The aim of our study was to identify and assess the prevalence of disordered eating attitudes in mothers of newborns requiring neonatal intensive care admission compared to those of mothers who delivered healthy infants requiring only normal care in a large maternity hospital.

Methods An anonymous self-report study was conducted among 199 mothers of newborns hospitalised in a Neonatal Intensive Care Unit, and a control group of 127 mothers of healthy newborns who "roomed in" with their mothers. An EAT-26 (Eating Attitudes Test-26) questionnaire and a survey regarding the pregnancy, neonatal outcomes and other health related behaviours were used in the study.

Results Women with EAT-26 scores >20 smoked significantly more often during their last pregnancy in the study group (p = 0,010). There were fewer women with appropriate pre-gestational BMI in the study group (p = 0.052) and they gained less weight during pregnancy (p = 0.001). Women who feared weight gain during pregnancy were younger (p < 0.001) and had higher EAT-26 scores (p < 0.001). Caesarean section was more frequent in the study group (p = 0.017).

Conclusions Perinatal public health education must focus on issues related to eating disorders since the awareness of these issues among obstetricians may improve the outcomes of pregnancy and newborns' health.

PO-0651 | ARE NEONATAL AUTOPSY RATES INFLUENCED BY THE TIME OF DEATH OF THE INFANT?

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Background and aims In a previous study on 135 cases, the rate of autopsies in infants dying after 28 days of life appeared low. The aim of the present study was to analyse in a larger sample whether age at death influences autopsy rates.

Methods Retrospective cohort study. Descriptive statistics was used for continuous variables. To study the relationship between rates of autopsy and days of age at death, Chi^2 test and Kruskal Wallis rank test were performed. The variable "days of age at death" was stratified in four groups: A: 0–2 days, B: 3–7 days, C: 8–28 days, D: >28 days.

Results 402 infants died during the period 1/1998–12/2012 and 239 had an autopsy (59.4%). The mean value of days-of age-at-death in infants with autopsies was 9.8 ± 23 days, CI 95% (6.8–12.9) vs. 18.3 ± 28 days CI 95% (13.9–22.6) for cases without autopsy, p < 0.01. Group A had a high percentage of cases with autopsy: 115/ 171 (67%) In group D a low percentage of cases had an autopsy: 13/46 (28%). Using Kruskal Wallis rank test differences between Group A and group D were significant (p < 0.001).

Conclusions Autopsy rates in infants dying during the first 2 days of life were significantly higher than rates after 28 days of life. Reasons for these differences need to be evaluated in a prospective manner that should include social, educational, religious and behavioural aspects of parents and caregivers.

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Background Bag mask ventilation of the newborn is the most difficult part of neonatal resuscitation, as experienced in the Helping Babies Breathe program. Methods to facilitate improved bag mask ventilation and aid training are therefore needed.

Methods 41 nursing and medical students without any knowledge of newborn resuscitation were trained in basic bag mask ventilation and ventilated with the two devices; a new Upright resuscitator (Laerdal Global Health, Stavanger) and a standard newborn resuscitator (Laerdal Medical, Stavanger) on a manikin in random order. Ventilation data was collected with the Newborn Resuscitation Monitor (Laerdal Global Health) and analysed for 40 students. One was omitted due to inaccurate data signal reading. The students answered questions grading mask seal (1) and ease of air entry (2) from 1 (difficult) to 4 (easy) and finally which device they preferred.

Results 31 of 41 (76%) students preferred the Upright resuscitator. For "mask seal" mean score was 3 for Upright and 2.5 for standard (one sample binomial test p = 0.03), and for "ease of air entry" 3.5 for Upright and 3.2 for standard (p = 0.05). Mean expired lung volume was 15.5 ml for Upright and 13.8 for standard resuscitator with mean difference 1.7 ml (95% confidence interval 3.2–0.2, one sample t-test for paired observations p = 0.03). Mean mask leakage for Upright was 46% and standard 60% (paired sample test p < 0,001).

Conclusion The students showed a preference towards the Upright resuscitator, which also provided a slightly higher expiratory volume and significantly reduced mask leakage compared to the standard resuscitator.

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Aim The aim of this study is to identify the presence of main periodontal pathogens in the oral cavity of 12-month-old infants and compared the occurrence of these microbes between a cohort of very low birth weight infants and a control cohort.

Methods The research cohort was composed of 69 one-year-old infants, 24 of whom were born prematurely with very low birth weight and 45 of whom were born at term. At 12 months of age, both groups of infants were examined, and unstimulated saliva samples from the dorsum of the tongue and dental plaque samples were collected. The periodontal pathogens *Aggregatibacter actinomycetemcomitans*, *Porphyromonas gingivalis*, *Tannerella Forsythensis*, *Treponema denticola*, *Peptostreptococcus micros*, *Prevotella intermedia* and *Fusobacterium nucleatum* were identified using a PCR-based method. Chi-square and Fisher´s factorial tests were used for the statistical evaluation.

Results Periodontal pathogens were present in 83% of the preterm infants and 96% of full-term infants. *Aggregatibacter actinomycetemcomitans* was the most common periodontal pathogen found in the oral cavities of the infants enrolled in our study. No statistically significant differences between the preterm infants and the full-term infants were found regarding the presence of periodontal pathogens.

Conclusions The study confirmed the early transmission of periodontal pathogens to the oral cavity of one-year-old infants. Future research should focus on establishing the clinical importance of periodontal pathogens in the saliva of infants and their role in the aetiology of early onset periodontal disease.

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Background Prematurity postpones the birth of a subsequent sibling. This phenomenon is strongest in mothers with long prior interbirth interval, a proxy of fertility problems.

Aim We assessed whether a history of miscarriages explains the postponed birth of next sibling after preterm birth.

Methods We obtained pregnancy and newborn data from Finnish Medical Birth Register (Jan 1, 1987 - Sep 30, 1990). Sibling data came from the National Population Register Centre.

Of the total of 230378 singleton births we excluded 1242 (0.5%) due to death before 1 yrs. GA was missing for 2922

Abstract PO-0654 Table 1

Miscarriages			
GA	n (subjects)	n (misc.)	% within GA group
<28	235	76	32,3
28–31	793	186	23,5
32–37	8360	1638	19,6
38 -42	206640	35237	17,1
>42	9622	1467	15,2
total	225650	38604	17,1