age and birth weight between the subgroups. 167 (77.7%) deliveries was by Caesarean section. Premature rupture of membrane was found in 59 cases (27.4%) with mean latency period 28 hours (range 2-624hrs). Placental and membranes inflammation was found in 40 (18.6%) placental samples. The incidence of BPD2 was significantly elevated in the subgroup with chorioamnionitis compared to the subgroup without chorioamnionitis (OR= 3.9652, CI 95% 1.8251-8.6149). There were no significant differences regarding brain injury, gastrointestinal complications and death between the subgroups.

Conclusion: This study adds further evidence that chorioamnionitis may lead to higher incidence of BPD2 in preterm VLBW infants.

434

COMPARABLE BREASTFEEDING RATES ARE ACHIEVABLE IN A HIGH RISK POPULATION

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Background: Although breastfeeding has many benefits the incidence and duration of breastfeeding in preterm infants admitted to neonatal intensive care is less than that of full-term infants (32-46% of premature infants discharged home fully or partly breastfeeding compared to 71% of term infants in the UK). Many parents do not wish their infants to have exposure to alternative methods of feeding as they fear this may affect rates of breastfeeding.

Aim: To assess breastfeeding rates and to establish if there is a link with alternative feeding methods used within neonatal services and poor breastfeeding outcomes.

Method: Prospective study of infants requiring admission to neonatal services. Data were collected on gestation, birth weight, diagnosis, intravenous fluids, enteral nutrition and feeding method 6 weeks post discharge.

Results: 100 infants were included: 64 preterm and 36 term, 54% < 2.5 kg and 24% < 1.5 kg. 52% of infants had received bottle feeds. Bottle feeding did not affect success of breastfeeding. Breastfeeding was fully established in 48% of infants at discharge. 61% of infants were fully or partially breastfed at 6 weeks of age. Lack of advice/ support was implicated in 11-12% of breastfeeding discontinuation.

Conclusions: Breastfeeding rates are low but comparable to hospital overall rates despite initial respiratory distress in 45%, hypoglycaemia in 34% and requirement for intravenous fluids in 65%. Early bottle feeding to wean from intravenous fluids did not decrease the incidence of breastfeeding at discharge or 6 weeks of age.

435

PHOTOTHERAPY (PT) IN THE NEAR-TERM NEWBORN (NB): ARE THE GUIDELINES SUFFICIENT? CURRENT PRACTICE IN SWITZERLAND

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Background: PT for hyperbilirubinemia in the NB is well established. Guidelines (GL) are based on the updated latest AAP guidelines. This is a 1st step to evaluate current ICU practice

Method: A survey of cardiopulmonary side-effects (CPSE) and -monitoring (CPM), nutritional management and duration was sent to all Swiss neonatal and pediatric ICUs. Statistics are descriptive and results confronted to the literature.

Results: Of 32 surveys, 27 were returned (incl. all level III units). 26 units had GL for all ages and 25 followed the updated GL. Of 25 that admitted NB born ≤ 35 0/7 weeks of gestation (WG), 22 had specific GL for this group. Top 4 PT side-effects were: hyper-/ hypothermia, irritability, poor weight gain/ feeding issues. Tachy-, bradycardia, tachypnea and apnea were less frequent. 4 units require ECG and SpO2 monitoring, 4 monitor by SpO2 only while 19 do not require either. 1 unit always adds fluids, breastfeeding is continued.

70% do not apply any CPM during PT despite evidence for CPSE. Reports on cardiopulmonary changes secondary to PT exist but clinical relevance is unclear. Additional fluids remain controversial as they are not recommended, despite reports of shorter PT and ICU stays. Further reports claim that breastfeeding is enough in this context.

Conclusion: Current GL state TSB levels for PT start. Duration, CPM and fluid management aren't addressed. Current Swiss practice does not warrant CPM, a standard duration or supplemental fluids.

The question if a near-term NB needs level III care for PT remains unanswered.

436

UTILITY OF THE FLUID BALANCE IN SICK NEONATES ADMITTED TO THE NEONATAL HIGH CARE WARD

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Background: Fluid balance monitoring is commonly used to assess patient fluid volume status. However, studies on its reliability and usefulness are lacking, particularly in newborns.

Aim: To assess clinical usefulness of recording fluid balances in sick neonates.

Methods: We conducted a randomised, controlled non-inferiority trial in newborns admitted to the high care ward in whom urine output and body weight were assessed daily. Fluid balance data and totals were available in the control group, but were blacked out in the intervention group, thus blinding the attending physician to this information. The primary outcome was hospitalization duration, secondary outcomes included interventions based on information from the fluid balance, and broken randomisation codes by the attending physicians.

Results: 170 neonates were included in the intention-to-treat analysis (mean gestational age 36 weeks 2 days, mean birth weight 2751 gram). Median hospitalization duration was 9 days in the intervention group (n=86) and 8 days in the control group (n=84) (95% CI of difference 0-3 days, p=0.18). No differences in medical interventions influencing fluid status, were reported. The code was broken once.

Conclusion: Recording fluid balance in neonatal high care does not reduce hospitalization duration or medical interventions. This time-consuming and inaccurate method cannot be recommended as a routine procedure in newborn high care.

437

OVERWEIGHT AND IRREGULAR MENSTRUAL CYCLE BEFORE PREGNANCY AND PRETERM BIRTH

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Background and aims: Obesity and pre-pregnancy irregular menstrual cycle may independently increase the risk of preterm birth. High body mass index (BMI) and irregular menstrual cycle are both symptoms of the polycystic ovary syndrome (PCOS). The endocrine profile in women with PCOS may further increase the risk of preterm birth. The aim of this study is to investigate the interaction between BMI and irregular menstrual cycle on the risk of preterm birth.

Methods: A population of 55,889 women enrolled in the Aarhus birth cohort was studied. The women were followed during pregnancy and delivery. Self reported data on height and pre-pregnancy weight was used to define 4 groups of BMI: 0-18.5, 18.5-25, 25-30 and >30 kg/m². Groups of self-reported irregular menstrual cycle (yes/no) were used. Odds ratios (OR) of preterm birth, i.e. before 37 completed gestational weeks, determined by ultrasonography, were estimated using logistic regression models.

Results: Compared to normal weight women (BMI 18.5-25) with regular menstrual cycle, the OR's of preterm birth for women with other BMI and cycle characteristics were: Regular cycle; BMI 0-18.5, 1.34 (95 % confidence interval (CI): 1.12; 1.60); BMI 25-30, 1.31 (1.16; 1.48); BMI >30, 1.44 (1.20; 1.73). Irregular cycle: BMI 0-18.5, 1.62 (95 % CI: 1.31; 1.99); BMI 18.5-25 1.12 (1.03; 1.23) BMI 25-30, 1.24 (1.06; 1.45); BMI >30, 1.70 (1.37; 2.10).

Conclusion: Obese women with a pre-pregnancy irregular menstrual cycle had an increased risk of preterm birth. The prevalence of polycystic ovary syndrome is expected to be higher among these women.