circulatory rate and oxygenation after birth. The role of SI on major neonatal outcomes remains controversial.

Methods We conducted a systematic review and meta-analysis of randomised clinical trials that evaluated the effects of SI and IPPV on mortality and bronchopulmonary dysplasia (BPD). Descriptive and quantitative information was extracted; relative risk (RR) and risk difference (RD) estimates were synthesised under a random-effects model. Heterogeneity was assessed using the Q statistic and I^2 .

Results Pooled analysis of 4 trials ($n = 611$) showed significant reduction in the need of mechanical ventilation within 72 h after birth (RR=0.87 [0.77–0.99], RD=-0.10 [-0.17, -0.03], number-needed-to-treat=10) in preterm infants treated with an initial SI compared to IPPV. However, significantly more infants treated with SI received treatment for patent ductus arteriosus (RR=1.27 [1.05–1.54], RD=0.09 [0.02, 0.16], number-needed-to-harm=11). There were no differences in BPD, death at latest follow-up, the combined outcome for BPD or death, and other major neonatal outcomes between the two approaches.

Conclusions Compared to IPPV, preterm infants initially treated with SI at birth required less mechanical ventilation within 72 h after birth with no improvement in the rate of BPD and/or death. SI should currently only be used in randomised trials until future studies demonstrate the efficacy and safety of this lung aeration manoeuvre.

PO-0672 CORD BLOOD OSTEOCALCIN, LEPTIN AND TNF α LEVELS IN GESTATIONAL DIABETIC PREGNANCIES

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Aim To compare cord blood osteocalcin, leptin and TNF α levels in gestational diabetic and normal pregnancies.

Method 191 deliveries were included in this research. 41 (21.5%) of pregnancies were gestational diabetic and 159 (78.5%) of pregnancies were normal. Cord blood osteocalcin, leptin and TNF α levels were compared.

Results There was no significant difference among birth weights ($p:0.409$), heights ($p:0.07$), head circumferences ($p:0.201$), gender ($p:0.4$), gestational weeks ($p:0.201$), ponderal index (0.564) between groups. There was no significant difference between groups regarding pregnancy complications. However, hypothyroidism was more common in gestational diabetic group ($p:<0.001$). In addition, hypoglycemia was more common in gestational diabetic group ($p:0.047$).

Gestational diabetic group's cord blood osteocalcin levels were higher than in non diabetic group ($p:0.037$). Cord blood TNF α ($p:0.813$) and leptin average levels ($p:0.212$) were not statistically different. Osteocalcin, leptin and TNF α levels were not statistically different between boys and girls.

Discussion Osteocalcin; originating from bones, increases insulin sensitivity in peripheral organs and insulin secretion. Leptin is known to inhibit insulin and osteocalcin secretion. Osteocalcin level increase in gestational diabetic group, may be related to osteocalcin regulation of blood glucose levels. Cord blood leptin and TNF α levels showed no significant difference between groups, probably due to proper regulation of cord blood glucose levels during gestation.

PO-0673 IMPROVING QUALITY OF CARE FOR ELBW IN OUR NEONATAL UNIT: AN INTERDISCIPLINARY PROJECT

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Background Our hospital attends 90 VLBW and 40 ELBW infants/year. Vermont Oxford Network is used as benchmarking tool.

Aims To improve quality of care delivered to ELBW's during the first week of life. Primary outcome is IVH reduction. Secondary outcomes are mortality, late onset sepsis (LOS) and ROP reduction.

Methods An interdisciplinary group led by 4 nurses and 3 neonatologists was created in January 2012. Management of ELBW infants was reviewed to identify weaknesses and strengths. The original team was then divided into subgroups that worked together for problem resolution. 2 gynaecologists, 1 surgeon and 60 members of the neonatal unit were involved (70% of nurses and 90% of neonatologists). Specific actions were developed for 1. Delivery Room: plastic wrapping, delayed cord clamping and blood sampling; 2. Admission and first golden hours: temperature and humidity targets, blood sampling, calostrum administration, enemas and positional care. Results were transmitted in oral sessions and written guidelines to the rest of the Unit.

Results No changes were found in 2012 compared to the last five years. However in 2013, a decrease was seen in inborns in severe IVH (from 11,6 to 10,9%), LOS (15,8% to 9,8%) and severe ROP (10,1 to 5,9%).

Conclusions A high percentage of the neonatal unit has been involved in this project. Short term outcomes have improved for the first time last year. A qualitative change difficult to quantify has also been produced. Caution must be taken when interpreting numerical results as they reflect improvement of only one year.

PO-0674 INCIDENCE OF INDIRECT HYPERBILIRUBINEMIA AT NEWBORN, ASSOCIATED PATHOLOGY AND THE ROLE OF PHOTOTHERAPY

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Background Indirect hyperbilirubinemia at newborn is a distinct and various epidemiological described entity, having multiple causes and mechanisms, in which bilirubin level rises to 15–20 mg%.

Aim of the study The aim of the study was to evaluate the incidence of jaundice with indirect bilirubin at newborns admitted at the Newborn Department of the Childrens Clinic Hospital from Brasov, Romania. As secondary objectives we considered the associated pathology along with the usefulness of phototherapy.

Patients and methods We undergone a retrospective study on 1020 patients admitted at our hospital during one year period 1st January 2012–31st December 2012. We have evaluated