maternal renal function. We therefore wanted to evaluate until when maternal creatinaemia still affects neonatal creatinaemia in ELBW infants.

Methods: Retrospective data analysis of maternal (within 24 h of delivery) creatinaemia (mg/dl) and neonatal creatinaemia in the first 8 postnatal days in ELBW infants (< 1 000 g). Postnatal data were compared with maternal creatinaemia (paired Wilcoxon, correlation, Bland-Altman).

Results: In an dataset of 155 neonates (weight = 810, 330-1000 g, age = 27, 23-33 weeks), 80 neonates were linked with maternal creatinaemia (median 0.8, range 0.41-1.6) at delivery. Median postnatal creatinaemia was not significantly different from maternal observations on day 1 (0.78) and displayed a progressive, significant (Wilcoxon) increase up to day 3 (1.085) with subsequent significant decrease from day 4 (1.075) until day 8 (0.81). Correlations between maternal and neonatal creatinaemia became weaker ($r = 0.72, 0.37, 0.21$) with increasing age and were no longer significant after day 3. Bland-Altman fit was perfect (mean 0.02, SD 0.19) on day 1, with a subsequent weakening on day 2 and 3 (mean -0.23, SD 0.39, -0.28, SD 0.53).

Conclusions: Maternal creatinaemia is the most relevant covariate of neonatal creatinaemia in the first 3 days of life. In these first postnatal days, creatinaemia does not yet reflect neonatal renal function and therefore, cannot yet be used to assess glomerular filtration rate.

939

PARTICIPANT FEEDBACK FROM THE JAPANESE VERSION OF THE NEONATAL RESUSCITATION PROGRAM (NEONATAL CARDIOPULMONARY RESUSCITATION: NCPR COURSE)

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Background: The Japanese version of the neonatal resuscitation program (Neonatal Cardiopulmonary Resuscitation: NCPR course) was implemented in July 2007 sponsored by the Japanese Society

of Perinatal and Neonatal Medicine (JSPNM). Although the number of participants is increasing, the effects and limitations of the NCPR course remain incompletely understood.

Objective: To ascertain the prevalence of the NCPR course in Japan and assess its effects and limitations.

Methods: The total number of NCPR courses and participants was compiled by the JSPNM from July 2007 to December 2009. Participant feedback after attendance of NCPR courses was obtained using a questionnaire at Shizuoka Saiseikai General Hospital, where most NCPR courses were held.

Results: A total of 814 NCPR courses were attended by 12,318 participants throughout Japan. Feedback from 276 participants in 42 NCPR courses held at Shizuoka Saiseikai General Hospital was obtained. Before the course, 59.4% indicated that they had no confidence in performing NCPR. After the course, this percentage dropped to 1.4%. The percentage of participants who indicated that they strongly recommend attending the course was 81.0%. The period allotted for the practical lesson was considered adequate by 78.1%, whereas 20.4% answered that the period was slightly short.

Conclusions: The total number of NCPR courses and participants has increased steadily in Japan. Participants appeared to gain sufficient confidence in performing NCPR after attending the NCPR course. The NCPR course period, especially the portion allotted for the practical lesson, might be short. In this regard, enhancement of the practical lesson would be beneficial.

940

DOES INTERNATIONAL COLLABORATION IMPROVE NEONATAL SURVIVAL?

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Aim: Neonatal care was not well established or resourced in Romania in 1999. Through Medical Support in Romania (MSR), close links have been forged between clinicians from UK and Romania with frequent visits, sharing of guidelines and training on the use of CPAP (continuous positive airway pressure). Our aim was to see, if this collaboration

has had a measurable impact on neonatal survival rates.

Method: We retrospectively collected data from District General Hospital (DGH) Z, between 1999-2009, especially looking at admission, survival rate and cause of neonatal death in different birth weight groups: above 2500g(A), 2000-2500g(B), 1500-2000g(C), 1000-1500g(D) and less than 1000g(E).

Results: In group A there has been no change in survival. There have been an increase in the number of admissions and survival of very low birthweight (VLBW) infants in groups D and E. Respiratory problems are one of the main causes of death in DGH Z.

Conclusion: We have demonstrated a changing pattern of admission to the neonatal unit with better survival following the introduction of treatments such as CPAP with established links between institutions. The introduction of standardised protocols and staff training has made a difference. Further improvements in survival could be achieved by introducing formalised Neonatal Life Support resuscitation courses for all staff, medical and nursing, involved in neonatal care.

941

AIR VERSUS OXYGEN IN NEONATAL RESUSCITATION - A REGIONAL AUDIT AND GUIDELINE

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Introduction: Recent meta-analyses of randomised controlled trials have demonstrated that air may be effective as and arguably safer than oxygen during neonatal resuscitation (NR). Measured outcomes include reduced neonatal mortality and oxidative stress with reduced chronic lung disease. National and International Guidelines now recommend initiating NR in air. Available guidance is limited regarding FiO₂ increments and variations in gestation. A local audit was taken to determine the resuscitation practice using air or 100% oxygen during initial NR in the Cheshire and Merseyside Neonatal Network (CMNN). We also present a resuscitation-in-air guideline recently implemented at Liverpool Women's Hospital (LWH).

Method: Lead Clinicians from all eight hospitals within CMNN were sent electronic questionnaires on NR guidelines and practice.

Results: All Clinicians responded by e-mail. Two centres initiate resuscitation in air for term and pre-term infants. Six centres reported policies to initiate resuscitation in 100% oxygen. Six centres had gas blenders to facilitate administering lower concentration of FiO₂. Practice for assessment of oxygen requirements varied, including visible estimation of cyanosis, changes in HR and saturation monitoring. Two centres had changed NR guidelines in past five years. Following the audit, LWH introduced a resuscitation guideline, including pulse oximetry and inspired oxygen titration guidance.

Discussion: Initial NR practices varied within the CMNN and may reflect similar variation in the UK. Six out of eight centres did not initiate resuscitation of term infants using air as recommended by NICE. The guideline for resuscitation in air is suggested to enable a consistent nationwide approach to NR.

942

DOES INTRAPARTUM OXYTOCIN DURING LABOUR AFFECT FETAL HORMONE STATUS?

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Background: Oxytocin is a common drug used during labour. The placenta is not an effective barrier to the passage of drugs, and the blood/brain barrier is under-developed in the fetus. Therefore, the assumption that oxytocin does not cross the placenta and the fetal blood/brain barrier have been questioned. Cortisol (a stress hormone) in umbilical cord may vary between various methods of delivery and analgesia.

Aims: The objective of the study is to evaluate the effect of intrapartum exogenous oxytocin used during induced labour on fetal stress hormone status.