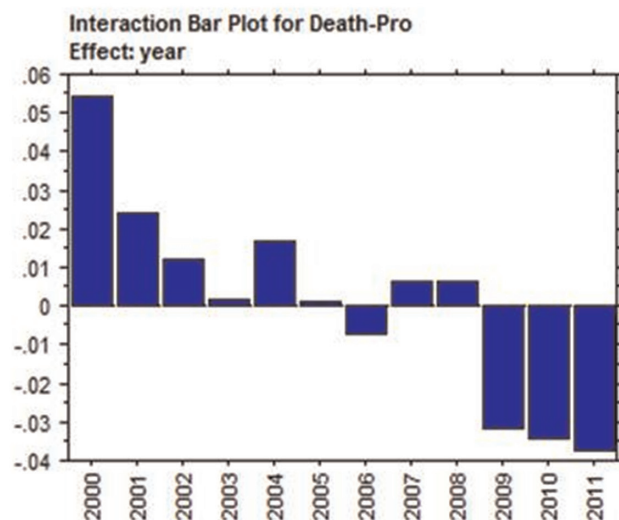


Abstract PO-0694 Figure 1

**Conclusions** These preliminary data suggest that SB is strongly correlated to UB. SB could be related to neurotoxicity as it may be formed by UB passed from circulation to a tissue. Further investigations are needed to clarify this relationship and possible influencing factors.



**Conclusions** The use of LR is better than GA and BW in predicting M of VLBWs. RAM can be used as a tool for quality improvement.

**PO-0694 RISK-ADJUSTED MORTALITY OF VLBW IN TAIWAN- A POPULATION-BASED STUDY**

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**Background and aims** Preterm babies have higher mortality than terms. Risk-adjusted mortality (RAM) is useful for making comparisons among different NICUs. GA, BW, sex, singleton birth and antenatal steroid have been used to estimate mortality (M) of preterm. The aims of this study are 1. To compare the performance of GA, BW, and Logistic Regression (LR) in predicting M of VLBW infants. 2. To compare the RAM in different areas and periods.

**Methods** Cohort data from 2000 to 2011 were used. M is defined as death prior to discharge. Exclusion criteria included 1) Transferred after 24 h of age; 2) Death within 24 h of admission and 3) Lethal malformation. We developed a LR model to predict M [expected probability (Pro)]. ROC curves were used for assessing performance of predicting M. To compare the RAM, we calculated (O-E) Pro (observed Pro - expected Pro) values in each patient and used these values for comparisons.

**Results** 9207 VLBWs were enrolled. The calculated probability of death by LR model was:  $P = 1/(1+e^{-z})$ , where e= natural logarithms and  $z = (-0.62 \cdot [\text{prenatal steroid}]) - (0.219 \cdot \text{GA}) - (0.004 \cdot \text{BBW}) - (0.327 \cdot [\text{singleton}]) + (0.286 \cdot [\text{male}]) + 8.438$ . Area under ROC were 0.858 for LR (95% CI: 0.847-0.869), 0.841 for BW (95% CI: 0.829-0.853) and 0.827 for GA (95% CI: 0.815-0.839).

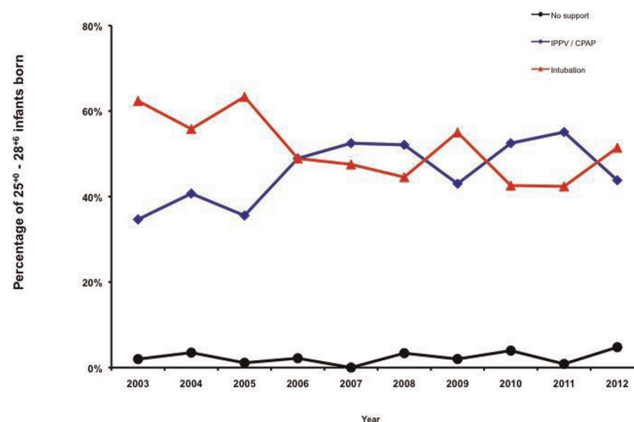
There were significant differences of RAM in different locations and years (Figure 1).

**PO-0695 DELIVERY ROOM MANAGEMENT OF EXTREMELY PRETERM INFANTS IN A TERTIARY NEONATAL CENTRE: A TEN YEAR REVIEW**

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10.1136/archdischild-2014-307384.1334

**Background and aims** In the delivery room (DR), respiratory support for preterm infants has traditionally been provided through mechanical ventilation following intubation, which is known to increase neonatal morbidities including BPD and sepsis. The Nasal CPAP or Intubation at birth for very preterm infants (COIN) Trial demonstrated that infants spontaneously breathing at birth may be managed in the DR with non invasive support (CPAP) rather than intubation, which may be preferred. We aimed to review the management of extremely preterm infants in the DR at the Royal Women's Hospital (RWH) during a ten-year period and evaluate whether respiratory support practices differed during and after the COIN trial.



Abstract PO-0695 Figure 1

**Methods** We compared DR resuscitation practices (obtained from the neonatal database) of infants born between 25+0 and 28+6 weeks gestation at RWH between 2003–2006 and 2007–2012.

**Results** 1013 infants were included in the study, 97% of which received respiratory support in the DR during the ten-year period (Figure 1). Mean gestation (SD) and birth weight (SD) were 27+0 (1.11) weeks and 947(244) grams, respectively. There was a substantial decrease in the number of newborns intubated in the DR between 2003–2006 (58%) and 2007–2012 (47%) ( $p = 0.05$ ). The number of infants intubated in the DR remains highest at lower gestational ages.

**Conclusion** There has continued to be an increase in the use of CPAP instead of intubation in the DR since completion of the COIN trial, suggesting a change in clinical practice.

**PO-0696** **BASELINE COAGULATION TIMES DO NOT INFLUENCE LIKELIHOOD OF INTRAVENTRICULAR HAEMORRHAGE (IVH) IN EXTREMELY PREMATURE NEONATES**

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**Background** Derangements of haemostasis are implicated in IVH. Prothrombin time (PT), activated partial thromboplastin time (APTT) and fibrinogen level are frequently monitored in premature infants. Neonates frequently receive frozen plasma (FP) in attempt to correct perceived haemostatic abnormalities based on laboratory results.

**Methods** Prospective observational study was performed. Blood was drawn into citrated tubes from neonates (<30/40) on admission ( $n = 76$ ) from non-heparinised lines. Platelet poor plasma was obtained by centrifugation of whole blood; PT, APTT, and fibrinogen were measured and correlated with IVH.

**Results** Infants with IVH ( $n = 30$ ) had no significant difference in PT ( $p = 0.949$ ), APTT ( $p = 0.405$ ) and fibrinogen ( $p = 0.560$ ) than those without IVH ( $n = 46$ ). There was no association between IVH grade and APTT ( $p = 0.937$ ). There was no significant difference in APTT in those with or without IVH, excluding infants with IVH on admission ( $p = 0.534$ ). Of patients administered FP, there was no significant difference in IVH ( $p = 0.38$ ). FP is frequently administered when APTT >100 s. In this subgroup; IVH rates in those that received FP ( $n = 17$ ) vs. those that did not ( $n = 4$ ) was not significantly different ( $p = 0.447$ ). There was no significant difference in IVH development in high risk (APTT >100 s, Administered FP) vs. low risk infants (APTT <100 s, No treatment), ( $p = 1.00$ ) or when comparing infants with lesser degrees of coagulopathy (APTT 60 s-80 s vs. 80 s-100 s,  $p = 0.6334$ ).

**Conclusions** Justification of FP based on coagulation values is unclear. In this study, IVH rates following FP administration was not increased. Coagulation values were not predicative of IVH, indicating lack of therapeutic window for intervention.

**PO-0697** **AN EDUCATIONAL INTERVENTION TO IMPROVE NURSE'S UNDERSTANDING OF PAIN IN CHILDREN**

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**Background and aims** Accurate assessment of pain and its management is important but challenging aspect of paediatric care. Nurses, usually the primary care-givers showed inadequate knowledge and restrictive attitudes towards pain assessment. We evaluated feasibility of an educational intervention to improve the situation.

**Methods** Workshops targeted at overall understanding of pain, its assessment and management strategies were conducted for nurses working in paediatric/neonatal wards and intensive care units and paediatric cardiac intensive care unit. A modified and consensually validated "Knowledge and Attitudes Survey Regarding Pain questionnaire-2008" consisting 25 True/False questions, 8 Multiple Choice Questions and 2 case scenarios was administered before, immediately after and 3 months after the workshops to evaluate the impact of the intervention. Descriptive statistics, paired t test and test of proportion were used to depict the results.

**Results** Eighty-seven (all females) nurses participated in the study. Mean (SD) age and experience was 27.7(6.4) and 4.04 (5.9) years respectively. About half (49.4%) of the nurses had not previously heard of pain scales while 47.1% reported using a pain scale in their routine practice and 37% felt they could assess pain without any scale. A statistically significant improvement was observed between the pre-test and post-test total score (15.69[2.94] vs. 17.51[3.47],  $p < 0.001$ ) as well as the pre-test and retention score (15.69[2.94] vs. 19.40[4.6],  $p < 0.001$ ).

**Conclusions** The educational intervention was successful and better retention test scores suggest cascading effect. Pain assessment and management in children should be incorporated in the nursing curriculum and should be reinforced in all paediatric units.

**PO-0698** **NEONATAL RESUSCITATION PRACTICES IN THE DELIVERY ROOM IN INDIA: AN AUDIT USING VIDEOGRAPHY**

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**Background and aims** Care given to a newborn in the first few minutes of life following delivery is protocol driven. Yet there are deviations which do occur. Deviations may be due to unrealistic expectations from the protocol. We audited practices of managing patients in relation to guidelines for neonatal care.

**Methods** Observational Study. Continuous video recording occurred at the warmer where babies are routinely placed after delivery. The videos were downloaded and analysed as per steps related to neonatal resuscitation guidelines 2010.

**Results** In all the 77 videos assessed, pre-delivery arrangements were made appropriately and in time. The post-delivery care was provided by a single person in 24 (31.2%) cases. In most cases this was provided by first year residents (53) and nurses (34). Wearing gloves, providing routine care, drying the baby and changing the wet sheet was followed in 100% cases. The mean (SD) time required to provide routine care was 6.97 (2.07) minutes. Heart Rate was not assessed in 30 (39%) cases whereas Respiratory Rate was not assessed in 28 (36.4%) cases. The mean (SD) time at which heart rate and respiratory rate was assessed were 6.31 (9.17) and 4.16 (1.68) minutes. PPV was required in just one case and it was done properly.

**Conclusions** Fairly short duration of routine care was provided to neonates with absence of major issues. However regular