Results: There were differences in DR management with level III units using significantly more ventilation devices with PEEP (95% vs 88%, $P < 0.05$) and delivery room CPAP (43% vs 16%, $P < 0.0001$). Significantly more level III units commenced resuscitation in air (49% vs 30%, $P = 0.01$) and fewer used 100% oxygen (12% vs 40%, $P < 0.0001$). The use of pulse oximeters (III=23% vs II/I=12%), plastic wraps/bags (III=97% vs II/I=96%), DR surfactant (III=92% vs II/I=83%) and elective intubation of preterm infants (III=83% vs II/I=73%) were not statistically different.

Conclusions: These important data highlight significant variance of DR management for newborn infants in the UK with level III units adopting a more evidence-based practice. Furthermore, these data differ markedly from those reported in other developed countries. These discrepancies between resuscitation guidelines, DR management and poor evidence-base need urgent attention.

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OUTCOME OF LIVEBORN INFANTS WITH CONGENITAL DIAPHRAGMATIC HERNIA IN A TERTIARY NEONATAL UNIT

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Background and aims: The incidence of congenital diaphragmatic hernia (CDH) is approximately 1 in 3000 with reported survival of 60-70%[1]. The aim of this study was to review management and outcome of all live born babies with CDH delivered at Birmingham Women's Hospital from January 2000-December 2009.

Methods: Retrospective case-note review of babies with CDH identified by their clinical diagnosis code. Trust audit department approval was obtained.

Results: 60 live newborns with CDH were identified. Median gestational age at birth was 39 weeks (range 33-42 weeks). The median birth weight was 2970g (range 1080-4090g). There were 35 boys (58%). 53 cases were left sided. 3 babies died in delivery suite despite active resuscitation. 18 babies died on the neonatal unit despite full intensive care. 6 were referred for ECMO (5 of these survived). 33 babies were transferred to PICU but 3 babies died before surgery (1 unknown). 29 babies had surgery and 2

died post-surgery. The 30 day surgical survival rate was 93%. 32 babies are alive to date (1 unknown).

Conclusion: In our experience, 35% of babies died in the immediate neonatal period. Transfer for ECMO has been a recent practice with 83% survival. 30 day surgical survival was 93%. However, the overall survival of a live born baby with CDH was 53%. Therefore, when counselling parents in the antenatal period, it is important to quote all figures rather than surgical survival alone.

[1] Robinson PD, Fitzgerald DA. Congenital diaphragmatic hernia. *Paediatric Respiratory Reviews* 2007;8:1526-0542

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A SURVEILLANCE STUDY OF SUDDEN UNEXPECTED POSTNATAL COLLAPSE WITHIN THE UNITED KINGDOM

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Background: Sudden and unexpected collapse (SUPC) of a well newborn infant is a rare event which carries high risk of mortality and neurodisability. Where no underlying disorder is found there are associations with prone position, breast-feeding and primigravid status.

Objective: To ascertain the population incidence of SUPC in term infants ≤ 12 hours old and describe associated factors.

Methods: Cases were referred through the British Paediatric Surveillance system over a 13 month period. Data was collected on maternal and infant characteristics. Infants included were ≥ 37 weeks, had Apgars ≥ 8 at 5 minutes and collapsed within 12 hours.

Results: There were 44 cases reported, an incidence of 0.05/1000 live births. Twelve infants died. In 6 cases no cause was found. In 16 there was an underlying abnormality. Of the remaining 22, the clinical/pathological diagnosis was airway obstruction during breast-feeding or in prone position. In 16 (73%) of these the mother was primigravid and was unattended in all but three. In 16 (73%) the mother was sedated or receiving spinal anaesthesia. Approach to investigation of