

**Abstract PO-0663 Table 1** Incidence of congenital anomalies based on race, birth weight, and antenatal detection

Anomalies	Ethnicity			Low birth weight (LBW)		Antenatal detection	
	Hispanics	African A.	Asians and others	<2.5 kg	>2.5 kg	Prenatal	Postnatal
Major	279	104	15	96	302	145	253
Minor	1444	457	49	148	1802	962	988

**Introduction** Transfer of behavioural skills learnt in the simulation room to the delivery room setting has not been well addressed.

**Methodology** We queried the physicians and nurses who participated in resuscitation in an actual delivery room setting. Their training included simulation based training for previous 4 years with emphasis on behavioural skills. Open ended questions included: (1) What went well?, (2) What did not go well?, (3) What would you do differently?, (4) Other comments.

**Results** 32 events attended by teams of nurses and physicians were the focus of analysis. There was overlapping of physicians and nurses attending different events. 74 nurses and 35 physicians completed questionnaires that formed the database. Teamwork and communication (2 hallmarks of behavioural skills) were analysed. 40/74 (54.05%) of nurses and 13/35 (37.14%) of physicians responded that teamwork was good. 11/74 (14.86%) of nurses and 12/35 (34.28%) physicians responded that communication was good. None of the nurses commented negatively about the teamwork but 2/35 (5.71%) physicians mentioned that teamwork did not go well. 10/74 (13.51%) of nurses and 6/35 (17.24%) of physicians mentioned that communication was not good. Thus, 68.91% of nurse responses and 71.42% of physician responses were favourable for teamwork and communication. Calling for help and delegating responsibility were also noted on the responses.

**Discussion** Based on our open ended questionnaire, we conclude that physicians and nurses consider teamwork and communication to be important and these skills are being utilised in the delivery room setting. These results encourage us to continue our study.

#### PO-0662 UMBILICAL CORD BLOOD GASES ANALYSIS IN PREGNANCIES COMPLICATED BY NUCHAL CORD

<sup>1</sup>R Vasa, <sup>2</sup>S Patel, <sup>3</sup>R Dimitrov. <sup>1</sup>Pediatrics, Mercy Hospital and Medical Center and University of Chicago, Chicago, USA; <sup>2</sup>Pediatrics, Mercy Hospital and Medical Center, Chicago, USA; <sup>3</sup>Biostatistics, Mercy Hospital and Medical Center, Chicago, USA

10.1136/archdischild-2014-307384.1303

**Introduction** Cardio-pulmonary compromise in fetus and newborn secondary to loose or tight nuchal cord at or prior to delivery is an important area for research. Our aim in this study is to evaluate umbilical arterial (UA) and venous (UV) pH, pO<sub>2</sub>, pCO<sub>2</sub>, base deficit and the umbilical veno-arterial difference (Uv-a) in these parameters in newborns born following nuchal cord.

**Methodology** UA and UV pH, pO<sub>2</sub>, pCO<sub>2</sub>, and base deficit of 47 newborns born following tight nuchal cord, 44 newborns born following single loose nuchal cord and 44 newborns born without nuchal cord were compared across.

**Results** Mean UA pH (7.25 vs. 7.28) was lower in the nuchal cord group and mean UA pCO<sub>2</sub> (58.11 vs. 54.38) was higher in the nuchal cord group; however the difference was not statistically significant. No difference was found in pO<sub>2</sub> or base deficit across groups. However, nuchal cord to control group

comparisons of U v-a pH and U v-a pCO<sub>2</sub> change were both significant (p < 0.05). No U v-a pH and pCO<sub>2</sub> differences between control and tight nuchal cord were observed. U v-a pO<sub>2</sub> difference and U v-a base deficit difference was also non-significant across groups.

**Discussion** UA acidosis was observed in group with nuchal cord, as seen by lower mean UA pH and elevated UA pCO<sub>2</sub> (statistical non-significance could be due to low power) and U v-a difference in pH and pCO<sub>2</sub> (statistically significant). Large prospective studies would be needed to clearly understand the patho-physiology of acidosis in newborns born following nuchal cord.

#### PO-0663 REVIEW OF BIRTH DEFECTS IN A COMMUNITY HOSPITAL OVER A 10-YEAR PERIOD

M Vaz, E Erickson, B Rajegowda. Division of Neonatology/Department of Pediatrics, Lincoln Medical and Mental Health Center Affiliate of Weil Medical College/Corn, New York, USA

10.1136/archdischild-2014-307384.1304

**Background** Birth defects are responsible for majority of morbidity in neonates and are detected antenatally or postnatally.

**Aims** Our aim is to review types of birth defects that have occurred over a 10-year period in an urban community hospital.

**Methods** Data was analysed retrospectively by reviewing documentation through EMR from January 1, 2003 through December 31, 2012.

**Results** We analysed the incidence of congenital anomalies based on race, birth weight, and antenatal detection as shown in Table 1, taking into account the system-based occurrence for any clustering of defects. During the study period, there were 24,203 live births. 2156 infants were identified with congenital anomalies, incidence rate of 8.90%; including multiple anomalies. There were a total of 2348 anomalies, including single and multiple unrelated anomalies. 16.9% were classified as major and 83.04% as minor.

**Conclusion** Chromosomal and major structural anomalies were detected using prenatal testing, like amniocentesis and imaging studies. Despite preventive measures, counselling and termination of pregnancy where applicable, birth defects continue to occur. The recent Federal Policy on monitoring of infants by Pulse Oximetry prior discharge helps to detect ductal dependent cardiac defects and identify those missed by clinical examination, necessitating it as an additional tool.

#### PO-0664 SUPERGLUE, A SIMPLE AND EFFECTIVE METHOD FOR SEALING AN UNTIGHT CATHETER FOR PERITONEAL DIALYSIS

M Wald, A Schneider, C Weisser, J Brandner. Department for Pediatrics Division for Neonatology, Salzburger Landeskliniken/Paracelsus Medical University, Salzburg, Austria

10.1136/archdischild-2014-307384.1305

**Introduction** Acute renal failure is a severe complication in neonatal intensive care medicine. The only therapeutic option for renal replacement therapy in small infants or premature babies with acute renal failure is peritoneal dialysis. In this paper two case reports of sealing an untight peritoneal catheter with cyanoacrylate glue will be presented.

**Patient 1:** Premature infant of 34 + 2 weeks gestational age. Dorsal cloaca malformation with megacystis and megareter, peritoneal dialysis for 13 days.

**Patient 2:** Term neonate of 40 + 4 weeks gestational age with meconium plug syndrome and volvulus, double ileostomy, necrotising enterocolitis and Morbus Hirschsprung. Alagille syndrome with renal malformation, peritoneal dialysis for 46 days.

All catheters were extremely untight from the very beginning; effective dialysis was not possible. Sealing with fibrine glue was not efficient. Only sealing of the skin with cyanoacrylate glue allowed for effective peritoneal dialysis. Apart from gradually increasing irritation of the skin no serious side effects occurred. No dialysate entered the surrounding soft tissue although the subcutaneous part of the skin channel was always filled with dialysate.

**Conclusion** It is possible to seal a catheter for peritoneal dialysis quickly and effectively with cyanoacrylate glue without serious complications. The existence of an ileostomy did not interfere with the dialysis.

#### PO-0665 THE RELATIONSHIPS BETWEEN RISK FACTORS FOR HEARING IMPAIRMENT AND THE RESULTS OF NEWBORN HEARING SCREENING

H Sarbay, S Guven, A Yazar, S Bozdogan, S Akova, I Islek. *Pediatrics, Umraniye Training and Research Hospital, Istanbul, Turkey*

10.1136/archdischild-2014-307384.1306

**Background and aims** Normal hearing in early infancy is essential for speech, language, and social and emotional development of human beings. Congenital hearing loss has an impact on normal speech and language. Newborn hearing screenings has been proposed for the early diagnosis and treatment of infants with hearing loss, and thereby improve language outcomes in these babies. Our aim was to evaluate the relationships between risk factors for hearing impairment and auto acoustic emission (OAE) and auditory brainstem responses (ABR) results in patient's follow-up at Neonatal Clinic.

**Material and methods** OAE and ABR measurements were performed to identify infants with hearing loss. Thosenewborns who did not pass OAE test or passed the OAE test but had risk factorsfor hearing impairment were screened by an ABR. The risk factors for hearingloss have been evaluated according to the Joint Committee on Infant Hearing (JCIH), 2007.

**Results** 17 of 100 neonates in the group with risk factors failed OAE tests, of which 5 were also failed ABR test. 3 of 100 neonates in the group without risk factors failed OAE tests, of which 1 was also failed ABR test. When the test fails compared with the number of risk factors; 1% in neonates with no risk factors, 3.2% in neonates with 1 risk factor, 25% in the group with two risk factors, 100%.of neonates with 3 risk factors were failed the screening.

**Conclusions** The increase in the number of risk factors significantly increases the failure rate of the ABR test.

#### PO-0666 ACUPRESSURE FOR PRETERM INFANTS IN PAIN RELIEF

<sup>1</sup>A Abbasoglu, <sup>2</sup>T Cabioglu, <sup>3</sup>E Yapakci, <sup>1</sup>A Ecevit, <sup>1</sup>A Ecevit, <sup>1</sup>AU Tugcu, <sup>1</sup>A Tarcan. <sup>1</sup>Neonatology, Baskent University, Ankara, Turkey; <sup>2</sup>Physiology, Baskent University, Ankara, Turkey; <sup>3</sup>Neonatology, Ankara Güven Hospital, Ankara, Turkey

10.1136/archdischild-2014-307384.1307

**Background and aims** Recent studies have shown that newborns remember and perceive the pain, and they have been shown to feel pain from intrauterine life. To avoid adverse effects of pharmacologic analgesic agents, non pharmacologic strategies to minimise neonatal procedural pain have been proposed. Acupressure is a complementary treatment that uses fingers and applies pressure to stimulate acupoints of the human body. We studied the analgesic effect of acupressure in preterm infants during heel prick blood draw.

**Methods** This study was carried out in a tertiary care neonatal unit at the Baskent University in Turkey. 32 infants born before the age of 37 weeks, and who did not have sepsis, any metabolic or genetic disease, and did not receive any medication for sedation or analgesia were included. The experimental group was given both routine care and acupressure. The control group only underwent routine care. Kunlun point (EX-HN3) and Taixi point (K3) was kneaded for 3 min before the procedure. All babies were scored according to the Premature Infant Pain Profile (PIPP) by a second researcher.

**Results** In both groups of infants enrolled in the study; gestational age, birth weight, postnatal day, the actual weights were similar ( $p > 0.05$ ). The procedure time and crying time in the acupressure group was significantly lower than other group ( $p = 0.00$ ). PIPP scores were not found different ( $p = 0.046$ ).

**Conclusions** In this study, applying acupressure did not change the PIPP score in preterm infants. More research should be done in different acupressure points for analgesic effect for preterm infants.

#### PO-0667 RECOGNITION OF BILE COLOUR IN NEONATAL VOMIT

H Abdelrhim. *Neonates, North Bristol NHS Trust, Bristol, UK*

10.1136/archdischild-2014-307384.1308

**Introduction** Neonatal bilious vomiting is a surgical emergency until proved otherwise, and requires prompt investigation. Health workers who are unfamiliar with the colour of bile may over or under-diagnose the presence of bile in vomit or gastric aspirates.

**Objective** The aim of this study was to assess whether the nursing staff, midwives and doctors at a district general hospital, where the exposure to newborns with bilious vomiting is less common than in tertiary hospitals, are able to identify the colour of bile accurately.

**Design** A total of 163 participants of both parents and health workers were asked to identify bile colour from a colour-chart of 8 green/yellow colour options.

**Setting** Paediatric Department in Yeovil District Hospital from the first of April, 2013 to August, 2013.

**The results** Chi-Square goodness-of-fit tests and Kolmogorov-Smirnov two-sample tests were conducted to compare different groups and answers.

Showed that the colour of bile was correctly identified by 95.5% of medical staff, 91% of nurses, midwives 72% and only 16.5% of parents. Whereas 16% of doctors, 30.5% of nurses, midwives 28% and 34% of parents wrongly identified the