

**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 megaureter, 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**

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**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**

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**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**

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**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

yellow colours as being that of bile. Our results are not significantly different from reports of similar studies done in tertiary neonatal units.

**Conclusion** Using bile colour posters and charts might be of value in recognising the bile colour accurately. We suggest checking the colour by 2 professionals to reduce the possibility of incorrect recognition of bile.

#### PO-0668 RECOGNITION OF BILIOUS VOMITING OR ASPIRATE AT DISTRICT HOSPITAL

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**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.

**Aim** The aim of this study was to assess whether the nursing staff, midwives and doctors at a district general hospital were able to identify the colour of bile accurately.

**Method** 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.

**Results** The results 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 yellow colours as being that of bile.

**Conclusion** Using bile colour posters and charts might be of value in recognising the bile colour accurately. Further education and training is needed with the involvement of nurses and midwives. Checking the colour by 2 professionals reduce the possibility of incorrect recognition of bile due to colour blindness.

#### PO-0669 NEW BORN OBSERVATION TRACK AND TRIGGER (NOTT) CHART – BURTON EXPERIENCE

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**Background** Use of early warning system scores and track and trigger charts is widespread in adult and paediatric hospitalised patients. Its use in neonatal group is not well recognised. Lack of well established normal ranges for biophysical variables in preterm/term neonates illustrate difficulties in establishing a scoring system that can potentially be used on the neonatal units (NNU) and postnatal wards (PNW). We have recently developed NOTT chart for use in newborn babies on PNW.

**Aim** To validate NOTT chart in order to enable early identification of neonates in need of urgent medical assessment and intervention.

**Methods** A service evaluation was carried out to evaluate the efficacy of NOTT chart. All admissions from PNW to NNU (Feb–Aug 2013) were evaluated. Notes of all babies on PNW (2 weeks duration in Nov 2013) were also reviewed.

**Results** There were 24 NNU admissions from PNW between Feb–Aug 2013. Sensitivity of NOTT chart's 'medium' and 'high' score was 96% (22/23). Charts of 42 babies on PNW were

examined in Nov 2013. 7/42 babies scored 'medium' or 'high' out of which, 3 were admitted to NNU. Specificity of NOTT chart was 90%. Positive and negative predictive value was 43% and 100% respectively.

**Conclusions** NOTT is an effective screening tool to identify any deterioration in the condition of a new born so prompt and timely assessment and medical intervention could be carried out. It is a useful tool for information sharing and provides a one stop solution for unifying all neonatal observations on PNW.

#### PO-0670 IS PERINATAL ASPHYXIA A SIGNIFICANT RISK FACTOR FOR CEREBRAL PALSY? ASSESSING PERINATAL FACTORS FOR CEREBRAL PALSY IN TERM BORN CHILDREN ON FOLLOW UP

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**Background** Cerebral palsy is one of the main causes of neurologic dysfunction in term born children. Unlike that of the developed countries, most cases of cerebral palsy are due to perinatal asphyxia which is potentially preventable.

**Aims** This study Conducted to assess the perinatal risk factors for cerebral palsy in Tikur Anbessa Specialised hospital and to identify the possible clinical predictors of adverse neurologic outcome in asphyxiated children.

**Methods** A case-control study which is done by review of a four year (Jul 1, 2009 to Jul 1, 2013) patient's medical record from a registry document whose current age is greater than 8 mos.

**Result** The result shows that 60.9%(28/46) of patients with CP had PNA in the earlier hours of neonatal life (OR: 4.95; P value 0.000) and 56% children who had had PNA have CP. The mean duration of hospital stay in patients with birth asphyxia 10 days in patients with CP as compared with control group which is 6 days and found to be a significant prognostic factor (OR= 0.411, CI: 0.11- 3.13 and P-value of 0.003. Severity of PNA at presentation is a poor prognostic factor (OR= 3.6, CI 1.7- 7.1 and P-value of 0.001). Spastic quadriplegic type of CP was found in 67.4% (31/46) children with CP.

**Conclusion and recommendations** Based on this study there is a significant contribution of PNA for cerebral palsy in term born normal weight children. Further research is recommended to find out possible preventable risk factors for PNA.

#### PO-0671 THE USE OF SUSTAINED INFLATIONS IN THE RESUSCITATION OF PRETERM INFANTS IN THE DELIVERY ROOM – A SYSTEMATIC REVIEW AND META-ANALYSIS

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**Background and aims** Sustained inflations (SI) have been advocated as an alternative to intermittent positive pressure ventilation (IPPV) during the resuscitation of preterm infants at birth to facilitate the early development of an effective functional residual capacity, reduce atelectotrauma, improve speed of