

**Method** A neonatal research nurse was recruited in 2012. Measures were implemented to increase the number and complexity of studies, and to be proactive in effective screening mechanisms, resulting in early identification of patients. Research was actively promoted, and teaching provided on a rolling programme. A close link was established with the Paediatric Research Nursing Team, to provide administrative support and cover in times of absence.

Links were made with research colleagues both regionally and nationally, and attendance at study days and conferences were identified as effective networking strategies.

Parental participation in research was encouraged, with the research nurse providing a link for the parents.

**Results** The number of studies has increased from an average of 1 ongoing study to 7 current studies. These studies include a meningitis study, a vaccine study, a platelet transfusion study and a large cohort observational study. A Patient Participation Involvement study is planned for the near future, and a service evaluation of the research team is awaiting approval.

**Conclusions** Effective neonatal research is dependent on a motivated and adequately resourced research team, including dedicated nursing research time. This has ensured that our LNNU will continue to provide excellent neonatal care, underpinned by research.

**PO-0896 CONSEQUENCES OF SECOND – AND THIRDHAND SMOKE EXPOSURE FOR NEWBORNS AT THE NEONATAL INTENSIVE CARE UNIT**

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10.1136/archdischild-2014-307384.1519

**Background and aims** Smoking is consuming the smoke of smouldering tobacco. Inhaling harmful substances from tobacco and a higher risk for disorders, is general knowledge. Less well known are the possible effects of second- and thirdhand smoke. Secondhand smoking is the involuntary inhalation of tobacco smoke in the ambient air. Inhaling the smoke residues from walls, furniture, clothes, toys and other objects or absorbing it through the skin is referred to as thirdhand smoking. The aim is to provide a scientifically based advice on dealing with this issue in a hospital setting.

**Methods** A literature-study is performed. A PICO (patient-intervention-comparison-outcome) question is formulated to guide a literature search in scientific databases. Articles will be critically appraised.

**Results** Four studies (two reviews, one cohort, one descriptive) were found all pointing out that exposure to second- and thirdhand smoking may adversely affect young children, especially in the age up to 1 year including preterm or otherwise respiratory compromised newborn infants in the NICU. Also addressed is the lack of knowledge of parents and staff on the consequences of second-and thirdhand smoke. Hospital staff has an opportunity to educate parents about the effects of smoking on their newborn baby. Additional steps as changing clothes and wearing gloves after smoking would be appropriate.

**Conclusions** Healthcare professionals should take their responsibilities in preventing harm to fragile newborn infants as a result of tobacco smoke more serious.

**PO-0897 SUDDEN INFANT DEATH SYNDROME IN LOW BIRTH WEIGHT INFANTS**

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10.1136/archdischild-2014-307384.1520

**Background** Sudden infant death syndrome (SIDS) occurs less frequently in the first month of life, peaks between 2 and 4 months of age, and decreases thereafter. Prone sleeping (placing an infant to sleep on his/her stomach), bed sharing, parents not sleeping in the same room as the infant, an infant not using a pacifier during sleep, overheating, and maternal smoking during pregnancy have been suggested as contributing factors for SIDS.

**Aim** To examine SIDS in low birth weight infants.

**Methods** Compilation.

**Results** Infants who are born prematurely or who have low birthweight have up to four times the risk of SIDS than those infants born at term, and this risk increases with decreasing gestational age or birthweight. Low birth weight infants have a significantly higher risk of SIDS, a risk tightly correlated with prematurity. High SIDS incidence among low birth weight, very low birth weight, and extremely low birth weight infants persists despite increased overall survival within these infant populations. As a result, an increase in SIDS deaths could be expected in the lower birth weight infants because of the decreased competing mortality pressures during the neonatal period. In low birth weight and normal birth weight infants, we would anticipate a less marked increase in survival and, because of their increased maturity, a less apparent effect on SIDS rates.

**Conclusion** Parents of low birth weight infants require appropriate SIDS prevention education, including information about the dangers of environmental tobacco exposure and prone infant sleep.

**PO-0898 UMBILICAL CATHETER AND BLOOD SAMPLING IN VERY LOW BIRTH WEIGHT INFANTS FOR THE FIRST 72 HOUR OF LIFE PROTOCOL**

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10.1136/archdischild-2014-307384.1521

**Background and aims** Very low birth weight (VLBW) infants are extremely vulnerable and usually require central catheters and frequent blood tests. Our aim was to develop a protocol regarding umbilical catheter fixation and blood samples for VLBW during the first 72 h of life.

**Methods** A retrospective study was carried out by a multidisciplinary team describing the intervention variables in 10 VLBW admitted to our Unit. In parallel a bibliographic research was performed on the International data bases, answering our PICO questions. The population of the study was VLBW under 32 weeks of life and/or under 1.500 grams of weight. Interventions were catheter fixation, number, volume and speed of extraction and reinfusion during first 72 h.

**Results** Our population had a mean gestational age and birth weight of 30 weeks and 1200 grams. Our data showed a mean of 11 tests per patient during first 72 h of life, none using umbilical cord blood. Registration of velocity was not reported. After a literature review we designed a protocol of catheter fixation and blood samples for VLBW during first 72 h. The protocol included using cord blood for the first sampling and a description of adequate sample size and velocities.