

#### 4. Ability to perform needle thoracocentesis for management of pneumothorax

These factors are especially important out of hours, when Consultants are non-resident. The aim of this project is to establish the current level of knowledge and skill set of ST4/5 trainees in the South West region. This information was acquired as part of the process to set up advanced neonatal simulation training within the region.

**Methods** A 10 questions survey was sent to the ST4/5 paediatric trainees in the South West region. To improve number of responses, the survey was sent through the respective deaneries and posted on the region's paediatric social media page. The survey was carried out for a period of 45 days (October to November 2014).

**Results** Responses were obtained from 12 trainees (ST4:7, ST5:5) and the key results are listed below:

1. Confidence in mechanical ventilation strategies: Only 41% of trainees stated that they were confident, with the rest either having confidence only with Consultant support or not confident.
2. 50% of trainees have intubated < 5 term or preterm babies without supervision.
3. 83% of trainees have never performed emergency needle thoracocentesis independently.
4. 91% of trainees have never led an advanced resuscitation leading to withdrawal of care on the resuscitaire.
5. 100% of trainees agreed that simulation training on advanced neonatal emergencies would add value to their skills and knowledge.

**Conclusion** New paediatric registrars are expected to be competent in advanced neonatal emergencies and procedures. Despite this, a high proportions in the survey lack experience and confidence in independent management and procedural skills for such scenarios. Training through neonatal simulation is vital to address these training needs.

#### G140(P) ABSTRACT WITHDRAWN

#### G141(P) MONITORING RESPIRATORY FUNCTION PARAMETERS IN VENTILATED INFANTS DURING INTER-HOSPITAL EMERGENCY NEONATAL TRANSPORT

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**Introduction** Volume targeted ventilation (VTV) has been shown to decrease the incidence of hypocarbia, air leaks, bronchopulmonary dysplasia (BPD), intraventricular haemorrhage (IVH) and periventricular leukomalacia (PVL). As a result it has now become the predominant mode of ventilation in the NICU. Within the setting of a UK neonatal transport service, ventilation is more commonly non-triggered pressure limited and time cycled. End tidal Carbondioxide (ETCO) monitoring is used as a surrogate marker of ventilation and minute volume and has demonstrable effectiveness. There is a paucity of data however evaluating the use of additional respiratory function parameters, particularly tidal volume and tube leak during inter-hospital emergency neonatal transport.

**Aim** We aimed to assess current use of supplementary respiratory function monitoring within a UK neonatal transport setting.

**Methods** We carried out a telephonic survey of all UK neonatal transport teams to ascertain current practice with regards to monitoring of the following respiratory function parameters in ventilated infants during emergency neonatal transport: PIP, PEEP, MAP, minute volumes, flow, tidal volumes, ETCO and leaks around the ETT. Method of carbon dioxide monitoring was also recorded.

**Results** 21/22 (95%) of UK neonatal transport teams responded to the survey. Currently, during inter-hospital neonatal transport, 9/21(42%) teams monitor tidal volumes and 8/21(38%) teams monitor delivered airway pressures, flow, minute volumes and leaks around ETT. 18/21(85%) teams use ETCO monitoring. Of these, 14/18(77%) use side stream/micro stream and 4/18(23%) use mainstream ETCO monitoring.

**Conclusions** Our survey shows that currently, mechanical ventilation is mainly assessed using heart rate, respiratory rate, oxygen saturations, blood gas, chest rise, auscultation and ETCO monitoring. Hypocapnia is a well-known complication of mechanical ventilation and rates vary significantly between UK neonatal transport teams. Although the vast majority of teams use ETCO monitoring only 40% of services are using a measure of tidal volume. Continuous monitoring of ventilator parameters in an emergency situation and assessment of minute ventilation would allow clinicians to evaluate changes in pulmonary mechanics allowing short-term modifications, potential reductions in key outcome measures such as hypocarbia and possible reduction in medium to long-term adverse respiratory outcomes. Further studies of the potential benefits of enhanced monitoring are required in this high-risk area.

#### G142(P) ARE ANTIBIOTICS ADMINISTERED WITHIN ONE HOUR IN SUSPECTED NEONATAL SEPSIS AS PER NICE GUIDELINES?

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Early-onset neonatal bacterial infection is a significant cause of mortality and morbidity in newborn babies. NICE recommends that if a neonate requires antibiotic treatment should be given as soon as possible, and always within 1 h of the decision to treat.<sup>1</sup>

**Aim** To quantify the time between decision to start antibiotics and its administration to the neonate.

**Method** Retrospective study over 6 weeks of all neonates admitted to postnatal ward for intravenous antibiotics.

**Results** Total of 24 neonatal notes was reviewed on the postnatal ward. In three cases patient records and/or documentation missing. Total of 21 cases data were analysed.

The common indications for antibiotics were prolonged rupture of membranes, respiratory distress and maternal fever.

Time between decision to treat and administration

Time in minutes	Number	Percentage
0-60	1	5%
61-120	10	47%
121-180	7	33%
181-240	2	10%
241-300	1	5%

Only in 5% of cases were antibiotics administered within 1 h of the decision making, in 47% of cases it took 1-2 h. Only in