TORCH screen, 15 infants had a1 antitrypsin level, 13 infants had Gal-1-p level, 25 infants had abdominal ultrasound scan and 26 infants had urine metabolic screen). Regarding diagnosis: 18 babies had TPN related cholestasis, 3/40 had biliary atresia, one had choledochal cyst. 3/40 had liver failure. All babies received ursodeoxycholic acid and 80–90% had vitamin supplements (vitamin K, E, and/or dalavit). 27 babies were referred to the liver team.

Conclusion Conjugated hyperbilirubinaemia is rare on neonatal units. Infants who are less than 33 weeks gestation and less than 1251g are most at risk. The majority were diagnosed with TPN-associated cholestasis. It is important to develop guidance for diagnosis and treatment for conjugated hyperbilirubinaemia in the neonate to ensure cost effectiveness of a more streamlined investigation plan, limiting discomfort and risk of anaemia for babies and also consistency in management.

G137(P) PATENT DUCTUS ARTERIOSUS OF PREMATURITY: TO TREAT OR NOT TO TREAT?

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Background Incidence of patent ductus arteriosus in neonates is 30–60% depending on the degree of prematurity. Although patent ductus arteriosus is associated with significant morbidity and mortality in preterm infants, there is a wide variation in management of patent ductus arteriosus in preterm infants.

Methods We reviewed of our 22 year experience from 1992 to 2013 in all neonates diagnosed with a haemodynamically significant patent ductus arteriosus at the University Hospital of Wales. Haemodynamically significant patent ductus arteriosus is described as: (1) left atrium/aortic ratio of >1.5 , (2) significant left heart volume overloading, (3) bounding femoral pulses, (4) hyperactive precordium and (5) persistent ventilator requirements.

Results A total of 200 cases were eligible. The results are summarised in the Table 1:

Abstract G137(P) Table 1

	Pharmacologically treated	Not treated
n	88 (44%)	112 (56%)
Males n (%)	42 (47%)	65 (57%)
Median gestation in weeks (Q3-Q1)	26 (25–28)	27 (26–31)
Median Birth weight in grams (Q3-Q1)	850 (700–1077)*	1020 (820–1387)*
Median NICU stay (Q3-Q1)	62 days (27–104.75)*	34 days (13.5–64)*
Median left atrium/aortic ratio (Q3-Q1)	1.72 (1.5–2)*	1.43 (0.9–2)*
Treatment Success rate	37/42%	N/A
Surgery/catheter	36 (40.9%)*	21 (18.7%)*
Necrotising Enterocolitis (NEC)	14/88 (15.9%)	20/112 (17.8%)
Intraventricular Haemorrhage (IVH)	12/38 (13.6%)	13/48 (11.5%)
Chronic Lung Disease (CLD)	29/38 (76.13%)	29/48 (60.4%)
Death	12/88 (13.6%)	13/88(11.6%)

*P = < 0.05 .
(Q3-Q1) = Interquartile range.

Pharmacological treatment = Treatment with either Indomethacin or Ibuprofen

Conclusion There were no significant differences in NEC, IVH, CLD or death between treatment and no-treatment group despite the former cases being at lower gestations with lower birth weights. Our result may lend further support towards non-surgical management of patent ductus arteriosus with medication if treatment is not considered to be contraindicated.

G138(P) THE RAPID DEBRIEF: A TOOL THAT TRANSFORMS LEARNING AND SYSTEM CHANGE

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Aim To test the rapid debrief tool as a way of extracting immediate learning to implement system changes following the care of the critically child; overcoming the dispersion of people and memories in the traditional incident reporting cycles.

Method A rapid debrief was tested immediately after the care of a critically ill child was completed by the team. A template was used to collect what improvements were needed technically (resources, skills) as well human factors such as communication and leadership. Action plans were generated by the team. The debrief and action plan was then circulated to all staff and discussed at the weekly service meetings. Outcomes were monitored by the Paediatric Resuscitation Group.

Results A total of 29 rapid debriefs were completed over 12 months, generating 81 action plans, of which 50 have been completed. Many of the actions were completed before the incident forms reached the clinical governance system. 20 related to equipment, 5 to medications, 7 to team issues (communication, leadership), 10 training issues and 11 planning and organisation wide issues. Compared to the year previous to the rapid debrief, clinical Incident reporting now shows a 1.7 times increase of low risk incidence reporting; incidents of moderate or high risk have been reduced by half. Staff feedback has been very positive. The learning outcomes include the development of safe hand-over tools, improving resuscitation resources and team needs, incorporating human factors into the resuscitation training to build team resilience and an open challenging culture.

Conclusion The rapid debrief has helped improve our care of the critically ill child through the immediate extraction of learning and implementation of improvements. The tool enables faster system change compared to traditional reporting governance systems.

G139(P) ADVANCED NEONATAL EMERGENCIES: CONFIDENCE AND EXPERIENCE LEVELS OF NEW REGISTRARS

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Aims Paediatric trainees, who step up to the role of registrars at ST4/5 levels, are required to be competent in neonatal emergencies. Some of the competencies as highlighted by the RCPCH curriculum for level 2 are:

1. Ability to lead initial and advanced resuscitation when required
2. Ability to intubate pre-term babies without supervision
3. Understanding of the principles and ability to initiate mechanical ventilation

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.¹

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