Results A total of 30 infants were included in the survey; 22 of these infants were ≥32 weeks gestation at birth, and the other 8 infants were <32 weeks gestation. The results are shown in Table 1. A total of 372 days were saved with a cost saving around £167,400 (≈£450/scbu day). No family used additional support. No infant was readmitted due to poor growth or skin infection.

Conclusions

- Early discharge to home on NG feeds was safe and the infants gained weight appropriately. This saved a median of 8 bed days. The families required routine support from their close relatives and community team.

G127(P) IS THE NEONATAL LIFE SUPPORT COURSE REALLY THAT STRESSFUL? AN OBSERVATIONAL STUDY

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Objectives To determine whether there is a significant stress response to the neonatal life support airway test (NLSAT) amongst nurses, midwives, doctors and other professionals; to compare level of experience with the stress response measured in each participant and identify whether high stress levels correlate with difficulty passing the NLSAT.

Design Quantitative observational study measuring stress levels of candidates on the NLS course using salivettes to measure salivary cortisol levels and a validated anxiety questionnaire (State Trait Anxiety Inventory).

Setting NLS course centres in the UK in 2013

Participants: 80 healthcare professionals (nurses, doctors and midwives) enrolled on the NLS course.

Interventions: Stress levels measured at baseline (10am), immediately before and then 20 min after the initiation of the NLSAT. Demographic data including professional experience and prior exposure to the NLS course was collected.

Results Cortisol measurements failed to detect any significant rise in stress levels. Significant stress levels were induced by the NLSAT when measuring anxiety scores with baseline mean scores of 39.63 (11.75), mean pre-NLSAT scores of 48.38 (SD 12.89, p-value <0.001) and mean post-NLSAT scores of 42.82 (SD 13.65, p-value 0.03). STAI scores significantly rose in all professionals from baseline to post-NLSAT ($p < 0.001$) with greatest change detected for midwives (+11.82 (SD 7.64, p-value <0.001) compared to nurses (+8.86 (SD 12.1, p-value <0.001) and doctors (+7.96 (SD 2.9.69, p-value <0.001). There was no impact of experience on stress levels. It was not possible to determine if stress levels impacted on performance due to the low re-sit rate (7.5%).

Conclusions Stress levels induced by the NLSAT are significant and need to be considered when instructing and developing the NLS course with variation amongst different healthcare professionals.

G128(P) ABSTRACT WITHDRAWN

G129(P) THE EFFECT OF INDIVIDUALISED CARE ON MATERNAL ANXIETY AND DEPRESSION

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Aims The introduction of individualised care rooms (ICR) at Barnet Hospital has allowed family-centred neonatal care to take place in an environment where the mother is empowered as the main carer for her newborn with the support of trained staff. This study aims to quantify the effect this has on maternal mood in the postnatal period.

Methods Mothers of babies that had either been in the special care baby unit (SCBU) or ICR for 3 or more days were asked to complete the Edinburgh Postnatal Depression Questionnaire. The questionnaire is scored out of 30, with a higher score representing more severe concerns regarding maternal mood.

Results Questionnaires were handed out to 10 parents in each of the 2 groups. They were returned by 7 parents from ICR and 8 parents from SCBU. The average length of stay was 18 days in the ICR group and 24 days in the SCBU group. The mean score was 4.57 in the ICR group, compared to 10.37 in the SCBU group with a p value of 0.04.

Conclusion This study highlights how important maternal involvement and empowerment can be in neonatal care. Improvements in maternal mood will aid bonding and have a positive effect on the emotional and social development of the child and the family unit.

G130(P) WHAT IS THE EFFICACY OF NITRIC OXIDE IN NEONATES WITH PRETERM PROLONGED RUPTURE OF MEMBRANES?

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Background Preterm prolonged rupture of membranes continues to be associated with significant morbidity and mortality, predominantly as a result of respiratory failure due to pulmonary hypoplasia and/or pulmonary hypertension. Although iNO is not routinely indicated for treatment of respiratory failure in the preterm infant successful treatment with inhaled nitric oxide (iNO) has been reported in small studies.

Methods Retrospective review of neonates with PPROM of latency 14 days or more at gestation less than 34 weeks at birth from June 2008–July 2014. Infants with respiratory failure who were treated with nitric oxide were compared to those who had not received iNO, and timing of treatment was correlated with outcome.

Results 41 patients with PPROM (range 23^{+2}–33^{+5} days) were included, of whom 61% (25/41) had respiratory failure with oxygenation index >20 (OI 53.5 (IQR 38–87). Respiratory failure was associated with ultrasound confirmed oligohydramnios ($p = 0.01$) and male gender ($p = 0.03$). 64% (16/25) of infants with respiratory failure were started on iNO. Within the iNO group all patients demonstrated significant reduction in OI following iNO; 81% responding within 1 h. The median OI prior to iNO 59 (IQR 47–88) vs after iNO administration 7.3 (IQR 4.7–10.8) ($p < 0.01$). Neonates were more likely to respond quickly to iNO if it was started early (<6 h, $p = 0.047$). This was a small cohort of infants and although infants receiving iNO had a higher OI this did not reach statistical significance. There was no difference in rate of bronchopulmonary dysplasia, intraventricular haemorrhage or mortality between patients who received iNO compared to those who did not.

Conclusion PPROM is associated with significant mortality (22%) and morbidity with 92% BPD and 29% IVH grade 3 or above. These babies show significant respiratory failure with

median OI of x in the first day of life. iNO improved OI in all cases, although there was no significant effect on BPD, IVH or mortality. Our data supports the findings of earlier studies that iNO can improve respiratory function in PPHN associated with PPROM. Further prospective trials are needed to assess long term outcomes in this subsection of babies with severe respiratory failure following preterm delivery.

G131(P) MICROBIOLOGICAL FLORA AND THEIR SENSITIVITIES TO ANTIBIOTICS, IN A TERTIARY NEONATAL UNIT AT NORTH EAST OF ENGLAND

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Background Sepsis remains one of the biggest causes of neonatal morbidity and mortality. The antibiotic guidelines used on our NICU are influenced heavily by national epidemiological data from NeonIN, collected from 2006–2008. The objective of this service improvement project was to establish the current epidemiology of bacteraemia-causing pathogens on our unit, and their sensitivity to our empirical antibiotic regimens, in order to establish whether our guidelines remain adequate.

Methods Laboratory data on positive blood cultures from April 2011 to March 2014 were analysed. We established the common pathogens, their incidence, and their sensitivity to recommended empirical antibiotics.

Results Out of 2367 blood cultures analysed, 116 (5%) were positive for an organism. These were made up of 70 (60%) Coagulase Negative Staphylococcus, 13 (11%) Group B Streptococcus, 12 (10%) coliforms, 8 (7%) *Enterococcus faecalis* and 6 (5%) *Staphylococcus aureus*. The remaining were rarer Gram positive organisms and 1 *Haemophilus influenzae*. 100% of organisms that commonly cause early-onset sepsis (GBS and *Escherichia coli* n = 19) were sensitive to the recommended antibiotic combination of penicillin and gentamycin. 100% of non- CoNS pathogens were sensitive to the Amoxicillin and/or Gentamycin in the late onset sepsis regimen of Amoxicillin/Flucloxacillin/Gentamycin. Sensitivity to Flucloxacillin was measured at 22% of positive cultures tested. Only 54% of CoNS was tested for sensitivity to Vancomycin, which is the recommended antibiotic for suspected CoNS (eg. central line *in situ*). 100% of these were sensitive.

Conclusions Initial analysis shows that guidelines are appropriate for early-onset sepsis and non-CoNS late-onset sepsis. However, the data questions the need for Flucloxacillin in the LOS regimen. There is apparent inconsistency in testing of CoNS for sensitivity to Vancomycin, not allowing a full judgement as to whether this provides adequate cover. The need for Ceftazidime (recommended with Vancomycin when a baby remains sick despite the Amoxicillin/Flucloxacillin/Gentamycin regimen) is questioned by this study.

G132(P) IMPACT OF IMPLEMENTING NATIONAL GUIDELINES ON 'ANTIBIOTICS FOR EARLY-ONSET NEONATAL INFECTION' ON A LEVEL 2 NEONATAL UNIT

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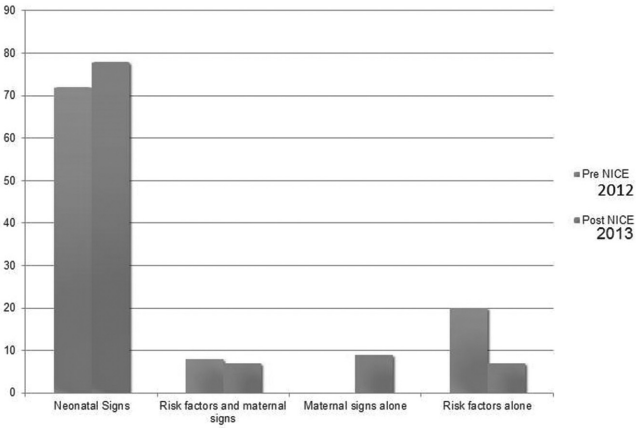
Aims NICE projected cost savings of £50 million per annum with its guideline on "Antibiotics for early-onset neonatal infection'. We assessed the impact of implementing this guideline in a Level 2 Neonatal Unit.

Method Retrospective case notes review of neonates born in our hospital who received antibiotics within 72 h of birth. We compared a pre-guideline implementation cohort (March–April 2012) and a post-guideline cohort (March–April 2013). Data on characteristics of the neonates, reasons for starting antibiotics, length of antibiotics course and adherence to the guidelines were collected.

Results 138 neonates were identified, 57 in the pre-guideline cohort and 81 in the post-guideline cohort (Figure 1). From the pre-guideline cohort, 39 were included. From the post-guideline cohort, 59 were included. The cohorts were matched. Overall, post-guideline implementation, there is a 51% increase in the number of neonates receiving antibiotics, with the main reason being for neonatal signs and symptoms in both cohorts (72% and 77%) (Figure 2). However, there was a 9% rise in neonates being started on antibiotics because of maternal risk factors alone in the post guideline cohort. This is due to the increasing number of mothers started on intravenous antibiotics for suspected invasive bacterial infection, although the criteria defining 'suspected invasive bacterial infection' are unclear. Post-guideline implementation, the number of neonates receiving more than

	Pre NICE Cohort 2012	Post NICE Cohort 2013
Gestation (median week) Term (percentage)	38 56	38 55
Started antibiotics within first 24 hours of life (percentage)	79	81
Admitted to the NNU (percentage)	64	61

Abstract G132(P) Figure 1 Characteristics of the two cohorts



Abstract G132(P) Figure 2 Reason for starting antibiotics

	2012 N=39	2013 N=59
Up to 2 days	22 (56%)	19 (32%)
3-5 days	16 (41%)	28 (47%)
6-7 days	1 (2.5%)	10 (17%)
> 7 days	0	2 (3%)

Abstract G132(P) Figure 3 Duration of antibiotics