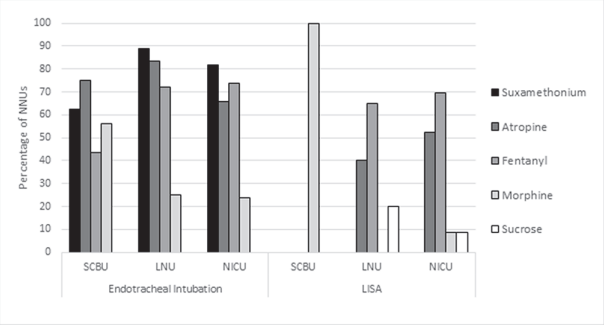
for LISA. In regards to adverse effects of premedication, 23% of units reported chest rigidity/stiffness associated with opioid use. Written guidelines for premedication in intubation in were available all but one hospitals and for LISA in 80%. Premedication choices for LISA were more variable than for endotracheal intubation. There was no significant variation of preferences within networks; the main source of variation arose between the levels of the NNU and personal preferences of the physician, especially for second-line premedication choices.



Abstract 695 Figure 1 First line medication choices by neonatal network level, represented as a percentage of response from each network

Conclusion This survey demonstrates wide variation in premedication practices for endotracheal intubation of neonates. Although some variation due to physician preference is expected, especially for second-line choices, the lack of national or even regional consensus on first-line premedication was clear. Use of premedication for intubation could be standardised through national guidance driven by organisations such as BAPM. Given the use of LISA is preferable to intubation in current practice, the divisive view around premedication is striking and deserves an answer through a randomised controlled trial.

698 REFERRAL PATHWAYS FOR AMINOGLYCOSIDE INDUCED OTOTOXICITY IN NEONATES

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Aims To establish whether the current referrals to tertiary paediatric audiology services for high serum aminoglycoside levels are appropriate and to estimate the long-term impact on hearing for these patients.

Methods Data was collected for all patients referred to a tertiary paediatric audiology service for raised trough levels of an aminoglycoside antibiotic between 2018 and 2021. The notes were searched for the referral reason, serum concentrations of the antibiotic, neonatal history and the results of audiometry.

Results 62 out of 79 referrals had been seen for their first assessment. 24 had received amikacin, 35 had gentamicin and for 3 patients the information was not provided.

49 out of 62 presented with satisfactory hearing thresholds at their first appointment, hearing thresholds have not been obtained for 7 patients as 4 only had Transient Evoked Otoacoustic Emission testing completed with clear responses obtained bilaterally. 2 patients were seen for a virtual assessment, 1 could not be contacted so no hearing information could be obtained.

6 had a hearing loss recorded. 4 had a conductive hearing loss in the presence of middle ear effusion, 1 has a permanent conductive hearing loss due to microtia/atresia and 1 had a right sided unilateral sensorineural hearing loss.

The patient with the sensorineural hearing loss was noted to have had a tumultuous perinatal period. They required respiratory support with signs of respiratory distress syndrome. There were also some features of neonatal abstinence syndrome. There was a family history of hearing loss on the paternal side with some family members requiring hearing aids, the cause for this hearing loss is not known. The peak gentamicin trough level was not included in the referral.

Conclusion Our finding of 1.6% of patients with a hearing loss possibly linked to aminoglycoside administration is consistent with the currently available research. It is not easy to identify aminoglycoside usage as a sole cause for this hearing loss- also consistent with available research.

We intend this work to start a conversation about the referral process for neonates with high trough levels of aminoglycosides. We feel that as a sole parameter it has not been shown to be predictive of hearing loss and that additional factors should be taken into account before making a referral for audiology review. This is important to ensure that:

1. Those at risk of hearing loss are referred appropriately
2. Resources are not used up with unnecessary referrals and,
3. Parents and families are not unduly concerned by unnecessary referrals

707 REDUCTION IN ANXIETY AND DEPRESSION SCORES IN PARENTS WHOSE INFANTS RECEIVE DONOR HUMAN MILK ALONGSIDE LACTATION SUPPORT

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Aims Access to donor human milk (DHM) has primarily been based on the health and development outcomes of premature infants but there has been little examination of the broader impact of an infant receiving it upon parental mental health. However, although significant research highlights the protective effect of being able to breastfeed for maternal mental health, less is known about the potential mental health impacts of being able to receive DHM for an infant. Previous work has established supporting the mental health and wellbeing of mothers for whom their infant receiving human milk is important. The aim of the current study was to explore the impact on standardised depression and anxiety scores in mothers receiving DHM and lactation support from a community milk bank programme.

Methods Between May 2020 and January 2021, consecutive parents referred to receive DHM for their infant from the Hearts Milk Bank, part of the Human Milk Foundation charity, were invited to complete a recipient questionnaire examining mental health using a combination of the Hospital Anxiety and Depression Scale and open-ended qualitative questions. Families were contacted 2 weeks after the cessation of support

to complete a follow-up survey. The survey was prepared using input from previous recipient families, milk bank experts and academics, and the study had approval from the Swansea University Institutional Research Ethics Committee.

Results Almost all of the 107 participants (women=102) agreed that receiving DHM had a positive impact upon infant health and development, their own mental and physical health, and their family's well-being. Parents felt relieved that their infant was receiving DHM for health reasons but also due to the experience of being listened to, supported and having their infant feeding decisions facilitated. Receiving DHM helped mothers to process some of their emotions at not being able to breastfeed, in part because knowing their baby was being fed gave them the space to focus on recovery and bonding with their baby. Some parents did experience challenges, feeling guilty at receiving DHM, insecure that another woman was able to feed their baby when they could not, or negative reactions from family. Although the impact of receiving DHM upon breastfeeding was not measured, some women who were working to build their own milk supply noted that it helped motivate them to continue.

Abstract 707 Table 1 Overview of recipients indications, mean volume per category, exclusive vs. partial usage of DHM as feed and indicance of twins

Indication	Recipients (n)	Mean volume DHM (L)	DHM sole feed (n)	Partial BF (n)	Twins (n)
Low supply	42	11.6	0	42	3
*Developmental anomaly	10	19.7	3	7	0
Maternal cancer	10	33.8	10	0	0
Maternal ill health*	8	18.2	5	3	0
Surrogacy	6	15.6	5	1	0
Bilateral mastectomy	3	23.7	3	0	0
Infant ill health	1	10.0	0	1	0
Total	80		26	54	3

BF: Breastfeeding; DHM: donor human milk.
*Breast anomalies included insufficient glandular tissue, breast hypoplasia and previous surgery for breast hypertrophy.
**Maternal ill health included HIV, need for medication contraindicated for breastfeeding, pituitary tumour.

Conclusion Breastfeeding and mental health are closely tied with women who experience breastfeeding difficulties or are unable to meet their own breastfeeding goals often experiencing feelings of guilt, sadness and anger, alongside an increased risk of postnatal depression. Access to DHM may play an important role not only in protecting infant health and development but in supporting the mental health and well-being of mothers for whom their infant receiving human milk is important. Future randomised controlled trials planned to explore this effect in the broader population. Given the significant personal, social and financial impact that postnatal depression and anxiety have upon parents, infants and communities, this research indicates a further reason to explore broadening the availability of milk bank lactation support services.

709 REVIEW OF NETWORK MANAGEMENT FOR NEONATAL HYPOXIC ISCHAEMIC ENCEPHALOPATHY (HIE); COMPARISON AGAINST THE BRITISH ASSOCIATION OF PERINATAL MEDICINE (BAPM) FRAMEWORK FOR PRACTICE

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Aims In 2020, BAPM published the new 'Therapeutic Hypothermia for Neonatal Encephalopathy Framework for Practice'. Aligned with this, we aimed to establish whether the following key recommendations were being met across our neonatal network:

- Infants who meet criteria A, but with normal initial neurological examinations should have serial assessments within the first 6 hours.
- The decision to initiate therapeutic hypothermia (TH) should be discussed with a consultant & the infants' parents or guardians
- Management must involve continuous rectal temperature monitoring with prevention of cooling <33.5°C
- TH should be initiated and core target temperature reached within 6 hours
- Special Care (SCUs) and Local Neonatal Units (LNUs) should be able to instigate TH and use amplitude integrated electroencephalogram (aEEG) to confirm treatment eligibility
- Infants receiving TH should undergo MRI between day 5-15 (preferably day 5-7) and have a standardised neurodevelopmental assessment at 2-years.
- In the absence of RCT evidence, TH should be cautiously considered for infants <36 weeks and those with sudden unexplained postnatal collapse (SUPC) and reserved for clinical trials in cases of mild HIE.

Methods This retrospective audit involved 3 Neonatal Intensive Care Units (NICUs) and 10 SCUs or LNUs across one UK neonatal network. Cases were identified by the network analyst using BadgerNet. Search terms included: 'moderate or severe HIE diagnosis', or 'active therapeutic hypothermia', or 'met any A criteria'.

Results For infants who met criteria A but didn't undergo TH, 67.9% had serial neurological assessments completed within the first 6 hours. Of those assessed, the number of assessments per infant ranged from 1 (37.2%) to 5 (12.4%).

For infants who completed TH:

The decision to initiate TH was made by a consultant in 89% of cases and a discussion with parents documented in 67.3%.

Rectal temperature monitoring was conducted in 95%. Core temperature <34°C was achieved within 6 hours in 73.3% (median 232, Interquartile Range (IQR) 145-170 minutes) and dropped <33°C in 11%.

aEEG was commenced pre-transfer (if delivered in a SCU or LNU) or in NICU in 76.3%. Only 50% of SCUs and LNUs could instigate TH and aEEG prior to NICU transfer.

MRI was performed between day 5-7 in 48% and day 5-15 in 77.4% (median 6, IQR 5-9 days).

At follow up, 8.3% had died, 56% had 2-year follow up data available and 67% of these infants had normal neurodevelopment.

9% of infants undergoing TH were < 36 weeks (31+6-35+6), 4.5% underwent TH following a SUPC and 36.8% had a discharge diagnosis of mild HIE.

Conclusion Widespread use of a network assessment form to document serial neurological assessments, as well as increasing accessibility to aEEG and cooling equipment across the network could improve the identification of infants eligible for TH, avoid over-cooling, prevent TH use for mild HIE and minimise delays initiating and reaching core target temperature.