



NHS

North West Neonatal

Operational Delivery Network

NWNODN Annual Governance Report 2024/25

Working together to provide the highest standard of care for babies and families

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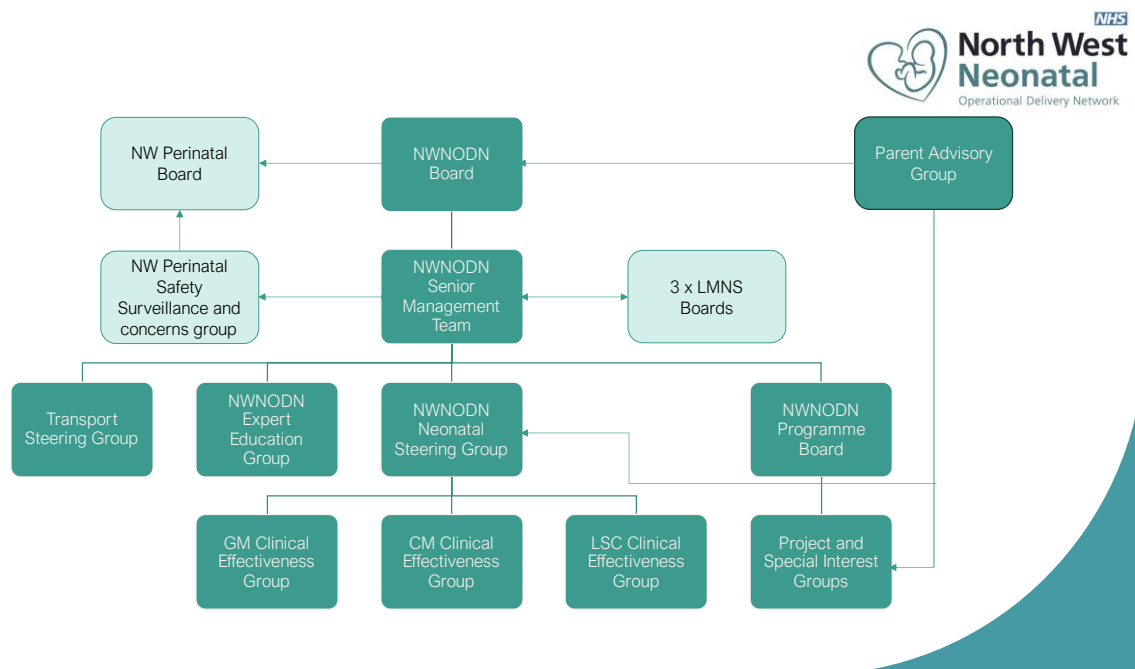
Introduction

The Northwest Neonatal Operational Delivery Network (NWNODN) is made up of three localities: Cheshire & Merseyside, Greater Manchester, and Lancashire & South Cumbria. Together, the network consists of 22 neonatal units and a total of 469 cots, delivering neonatal care across the Northwest (NW) region. As the one of the largest neonatal networks in the country, governance is essential to ensure the delivery of safe, equitable, and high-quality neonatal services. Through governance frameworks, the NWNODN aims to enhance clinical excellence and improve outcomes for babies and their families

Background

The NWNODN has a clear governance structure (fig 1) which supports shared learning and a model of oversight across all NW neonatal providers. The processes in place support understanding of activity flow in line with agreed pathways and national Neonatal Critical Care Service Specification, peer review and shared learning through review of incident and mortalities and opportunities for specific unit level support where signals may have been identified through data.

Figure 1: NWNODN Governance Structure



The NWNODN Governance team is made up of a Quality Improvement Lead Nurse (QILN) and a Governance Project Manager with support from the wider NWNODN Senior Management Team. All governance processes can be accessed through the [NWNODN website](#).

Purpose

This annual governance report provides a comprehensive overview of the governance activities, assurance, patient safety and improvements in practice undertaken by the NWNODN during the reporting period of April 2024 to March 2025 inclusive. For alignment with National neonatal mortality reporting measures the data presented in the NW wide mortality overview section is based on calendar year 2024.

NWNODN Clinical Effectiveness Group

The NWNODN supports services across the Northwest to improve safety and reduce risk through the facilitation of locality-based Clinical Effectiveness Groups (CEGs). These well-attended meetings provide a psychologically safe environment for providers to present high-level incidents and share learning identified from cases submitted following local investigations, in line with the NHS Patient Safety Incident Response Framework (PSIRF). Incidents and reviews are recorded within an action log which is circulated within 7 working days of each meeting. All neonatal unit mortalities in the NW are discussed through CEG. A high-level summary of each mortality is shared and any learning found locally is discussed with peers.

Provider engagement at CEG

As outlined in the CEG Terms of Reference ([Appendix 1](#)), each provider is expected to be represented at each meeting by a medical lead, a nurse lead and colleagues from other professional groups with an interest in governance. e.g. Clinical Educators, Advanced Neonatal Nurse Practitioners and Allied Health Professionals.

A breakdown of attendance per locality can be seen in [Appendix 2](#)

Incident themes across the NWNODN

Incident investigations remain the responsibility of individual organisations within the NWNODN. Table 1 sets out the top 5 themes and common patterns, these themes are opportunities for shared learning, prevention of reoccurrence and organisational improvements.

Table 1: Incident themes

Medication errors	Incidents involving incorrect prescribing, preparation, storage and administration
Skin Injury	Cases of pressure damage, extravasation and other avoidable skin injury
Staffing Issues	Suboptimal staffing levels, skill of mix or availability of allied health professionals which may potentially contribute to patient safety
Wrong blood in tube	Incidents involving mislabelled blood samples
Incorrect administration of Expressed Breast Milk (EBM)	Various situations where EMB was given to the wrong infant

High level investigations reported through CEG

High-level investigations are prioritised within the NWNODN Clinical Effectiveness Groups. These cases are discussed in greater depth to ensure robust analysis, cross-organisational reflection, and optimal dissemination of learning. The forum provides an opportunity where investigations can be discussed in detail, supporting a culture of transparency, safety, and continuous improvement. Outcomes from these investigations are shared and inform practice, reduce variation, and implement interventions aimed at preventing recurrence. There were 13 patient safety incident investigations, 1 never event, 14 after action reviews, 1 swarm based huddle shared in 24/25.

Table 2 sets out the top 5 themes identified through high-Level incidents discussions through CEG meetings across the three localities.

Table 2: Themes of High Level Incidents

<p>Misdiagnosis of Fractures</p>	<p>Delayed or missed identification of fractures, often presenting amongst babies with underlying conditions such as metabolic bone disease.</p> <p>Learning: <i>Maintain high vigilance in at risk infants. Quality improvement project presented by one provider highlighting preventative interventions to avoid accidental fractures.</i></p>
<p>Delayed Recognition and Management of Jaundice</p>	<p>Late detection, incorrect plotting of bilirubin results potentially increasing the risk of severe hyperbilirubinaemia and associated complications.</p> <p>Learning: <i>Reinforced adherence to national guidelines, timely bilirubin monitoring, and appropriate escalation based on thresholds.</i></p>
<p>Missed Diagnosis on NIPE</p>	<p>Cleft palate not identified during routine newborn examination, leading to delayed feeding support and specialist referral.</p> <p>Learning: <i>Highlighted the importance of thorough oral examination and standardised training for all staff conducting newborn checks.</i></p>
<p>Communication Issues Surrounding Antenatal Alerts</p>	<p>In some cases, key risk factors or clinical concerns identified during the antenatal period were not effectively communicated to neonatal teams at the point of delivery or admission. This has resulted in delayed preparedness, suboptimal resource allocation, and in rare cases, avoidable clinical compromise.</p> <p>Learning: <i>Emphasised the importance of robust, standardised handover processes between maternity and neonatal services. Encouraged the use of shared documentation systems and early involvement of neonatal teams when antenatal concerns are identified.</i></p>
<p>Guidewire Left Insitu</p>	<p>An isolated but serious incident involving a guidewire left in situ during central line insertion. This event represents a "Never Event" under NHS patient safety definitions and underscores the critical importance of stringent procedural checks.</p> <p>Learning: <i>Reinforced adherence to central line insertion checklist, verbal and documented confirmation of guidewire removal and completion of all steps. Routine post procedure imaging and staff training.</i></p>

Education & Risk

Learning and Sharing from Governance Processes

The NWNODN's learning from CEG and Northwest wide governance systems highlight a strong link between governance, education and learning. The governance lead and the education lead liaise on a bi-monthly basis to identify areas of learning and explore how education may be facilitated to support units in specific areas of education identified from risk. Specific learning across the Northwest is identified through various sources, including safety alerts, updates to national guidance, and safety field notes. This learning is regularly shared through the Clinical Effectiveness Group (CEG) and the NWNODN weekly bulletin. In addition, relevant communications are distributed via email to

appropriate groups. Education priorities identified through all NWNODN governance activity is set out in Table 3.

A breakdown of learning themes is detailed in [Appendix 3](#).

Table 3: Summary of Education Priorities Identified through NWNODN Governance Activity

The Golden Hour	<ul style="list-style-type: none"> • Emphasis on timely, high-quality care immediately after birth • Focus on thermoregulation, glucose management, and respiratory support
Optimisation Measures	<ul style="list-style-type: none"> • Early interventions to optimise neonatal outcomes (e.g., delayed cord clamping, appropriate use of surfactant, fluid management)
Stabilisation	<ul style="list-style-type: none"> • Respiratory and cardiovascular stabilisation of the newborn prior to transfer or escalation
Airway Management	<ul style="list-style-type: none"> • Skill-based training in airway assessment, intubation, ventilation, use of CPAP, and other non-invasive ventilation techniques
Escalation	<ul style="list-style-type: none"> • Clear understanding of when and how to escalate care within and beyond the neonatal unit • Utilisation of NWNODN referral pathways and decision-making tools
Communication	<ul style="list-style-type: none"> • Structured handovers (SBAR), clear documentation and MDT communication across providers • Parent communication and updates particularly during critical periods
Therapeutic Hypothermia/ Cooling Themes	<ul style="list-style-type: none"> • Identification and eligibility for cooling as per NWNODN HIE guideline • Initiation and management of therapeutic hypothermia, documentation of neurological assessment, insertion of rectal probes, with a focus on timely transfer
Use of NWNODN Pathways	<ul style="list-style-type: none"> • Familiarity with and adherence to NW guidelines and pathways

Education and learning identified through various governance processes are delivered through a range of education initiatives within the NWNODN, such as webinars, study days, on-site training, collaboration with Special Interest Groups and the Neonatal Steering group. A detailed education summary can be found in the [NWNODN Annual Education report](#)

Learning and Improvements Across the NWNODN

When a provider identifies an area for improvement, whether through incident reports, mortality reviews or adverse events and successfully implements changes, relevant cases are shared through CEG. This process supports the sharing of learning and dissemination of best practice across the network in a number of ways demonstrated in figure 2.

Figure 2: Mechanisms of Sharing Learning from Providers



This collaborative approach ensures continuous learning, promotes consistency, and drives high standards of neonatal care throughout the NWNODN. Throughout 2024/2025, the NWNODN has heard eight improvements via this mechanism.

Details of these presentations can be found in [Appendix 4](#).

Multi Provider Incident Reviews and Independent Reviews

Multi-Provider reviews and requests for independent network reviews take place following an escalation through CEG or the Senior Management Team (SMT) regarding care issues or parental concerns where numerous providers were involved. The NWNODN Multi-provider review process describes the detail of the review. Any care issues identified within the review process are collated within a report with a summary of clinical findings, recommendations and neonatal specific learning.

There were two independent reviews completed within this annual reporting period and one multi-provider review. A summary of these reviews is set out in table 4.

Table 4: Summary of NWNODN Supported Reviews

Independent Reviews	
June 2024	An independent review was conducted by the NWNODN at the request of the providing Trust, following a neonatal death in the community. The review focused specifically on the care provided during the post-natal period, identifying gaps in practice and outlining recommendations for improvement.
November 2024	This report reviewed the care of a preterm infant within a non-NWNODN organisation. The review was prompted by parental concerns, following unsatisfactory responses from the organisation to their initial questions. The family approached the Northwest Network seeking further clarity and support.
Multi-provider Reviews:	
December 2024	An independent review was initiated following concerns raised by both the provider and the infant’s parents regarding a neonatal death. The review focused on issues within the surgical pathway and multidisciplinary team (MDT) communication, which may have contributed to a delay in the infant’s transfer to a NWNODN-designated surgical centre.

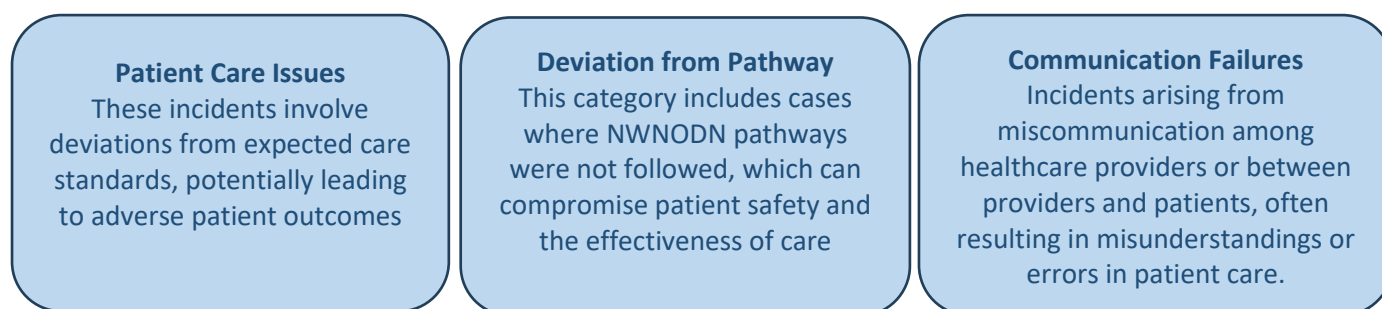
NWNODN Multi-Provider Incident (MPI) Reporting Process

When a clinical incident is identified by one provider but occurred during an episode of care at another NW provider, it should be reported as a multi-provider incident (MPI). This includes any incident that caused, or had the potential to cause, harm to a patient (including near misses).

All such incidents are reported using the NWNODN Multi-Provider Reporting Form and submitted to the NWNODN governance contact. Details on the clinical incident reporting process for MPI reports are available on the [NWNODN website](#).

In the 2024/25 period, a total of 121 Multi-Provider Incidents (MPIs) were submitted through the specified mechanism, resulting in 66 returned reports. This indicates a return rate of approximately 54.5%. The top three categories of incident are set out in figure 3.

Figure 3: Themes of Multi-Provider Incidents across the NWNODN



Addressing these areas is crucial for enhancing patient safety, family experience and care quality. These issues are addressed through provider investigations, the Senior Management Team (SMT), high level investigations are further discussed and shared through the Clinical Effectiveness Group (CEG), and the NWNODN Neonatal Steering Group (NSG).

NWNODN Guidelines

The NWNODN has a formal ratification process for the implementation of network level guidelines and processes. In 2024/2025, a total of 19 guidelines were ratified—14 existing guidelines were re-ratified, and 5 new NWNODN guidelines were developed and approved.

Guideline audits

The NWNODN has an established process for auditing clinical guidelines ([appendix 5](#)) to ensure they are both fit for purpose and actively implemented at unit level. This audit process helps identify gaps in stakeholder compliance and supports informed decision-making regarding the continued relevance and use of each guideline. In 2024/2025 there were 9 guidelines audited and to date, all NWNODN guidelines that have undergone the audit process have remained in use. However, some guidelines require further dissemination and exploration of barriers that may be preventing their consistent implementation. Targeted engagement sessions and feedback mechanisms are being introduced to support greater understanding and uptake across the network.

To facilitate access for providers, all guidelines have been made available on the [NWNODN website](#).

NWNODN Quarterly Governance Report

The NWNODN produces a quarterly governance report to provide information and assurance to stakeholders, the Local Maternity and Neonatal System (LMNS) and Specialist Commissioners. The report outlines NWNODN governance activities, provider compliance with the neonatal service specification and patient safety matters. Key messages are shared at NSG to provide a NW wide view on adherence to the [Neonatal Critical Care service specification](#), highlighting incidences where care may have been offered outside of the service specification. Quarterly reports are shared throughout the NWNODN and are available to view on request.

Exception Reporting

Exceptions against service specification in both Local Neonatal Units (LNUs) and Special Care Units (SCUs) are identified on a weekly basis and managed by the NWNODN team. Exception reports are used to identify instances where a provider may have operated outside of the agreed [neonatal critical care service specification](#). Each exception report is reviewed and assessed to understand the context and rationale behind care delivered outside of specification and further determine whether it constitutes a confirmed deviation from the specification or not. Where exceptions are validated and particular themes emerge, they are escalated through the Specialised Commissioners, LMNS and

appropriate governance channels and may trigger targeted actions, shared learning, or support to prevent recurrence.

Birth in the right place

There is increasing emphasis on ensuring that infants born at less than 27 weeks' gestation, <28 weeks gestation multiple and babies less than 800gm are delivered in a maternity unit co-located with a Neonatal Intensive Care Unit (NICU). This approach is associated with significantly improved neonatal outcomes, including reduced mortality and morbidity, and forms a cornerstone of perinatal working. The NWNODN actively monitors and reviews all these births that occur outside of tertiary centres. Each exception report is assessed locally, with a focus on identifying missed opportunities for in-utero transfer.

Summary of birth in the wrong place

Figure 4 illustrates the number of births that occurred outside of settings with neonatal intensive care facilities across the North West region.

Figure 4: Summary of Birth in the Wrong Place

No.<27 Wks (<28 Wks Multip) or 800g born in Wrong Place Performance of latest 4 quarters					
	24/25 Q1	24/25 Q2	24/25 Q3	24/25 Q4	Total
Cheshire & Merseyside	3	2	2	2	9
Greater Manchester	3	6	3	5	17
Lancashire and South Cumbria	0	1	1	1	3
ODN Total	6	9	6	8	29

Total Deliveries	29 (28 singleton, 1 Twin)
Total babies/Exception reports	30
Returned Exceptions	24
Missed opportunities for in-utero transfer	4
<i>Two out of four neonatal deaths in this category occurred following births in settings without on-site NICU facilities. In these instances, the clinical scenario suggested that antenatal transfer to a NICU-capable maternity unit would have been feasible and appropriate. These cases highlight the ongoing need for robust perinatal planning, early risk identification, and effective escalation pathways.</i>	

The findings support continued efforts to strengthen antenatal transfer processes and reinforce the importance of timely decision-making in the care of extremely preterm pregnancies. Facilitating in-utero transfer and ensuring delivery within a NICU-equipped facility for infants at risk of extreme preterm birth should be a priority within perinatal teams. This strategy is a key component of improving neonatal outcomes and aligns with national recommendations.

Therapeutic Hypothermia (TH) and Hypoxic Ischaemic Encephalopathy (HIE)

The NWNODN have clear structures in place to monitor activity around Therapeutic Hypothermia (TH) treatment following hypoxic Ischaemic Encephalopathy (HIE). National focus on this key area means assurance is required around data, review of care pathways and quality clinical practice across maternity and neonatal services. The cooling special interest group manages oversight of key clinical data metrics, supports education and training offers and is responsible for the development of processes to support effective TH across services in the NW. Any TH in an LNU is recorded as an

exception. TH in infants <36/40 is monitored as an exception in NICUs. The value of this regional level oversight is set out in table 5.

Table 5: Benefits of regional oversight of TH data and practices

Identifying Regional Variations	Collecting and analysing this data helps identify any regional variations in treatment delivery, enabling targeted interventions to address disparities in the care provided across different units or localities.
Ensuring Compliance and Accountability	Tracking HIE cases and cooling treatments helps ensure that providers are adhering to national and local guidelines, improving accountability and fostering a culture of continuous improvement.

Therapeutic Hypothermia Data

Data around HIE is captured in a number of ways and displayed on the NWNODN Dashboard. Data showing rates of TH per 1000 live births is available and shared with maternity systems in line with maternity dashboard measures acknowledging the influence of maternity care on these neonatal admissions.

Details around the timing of a HIE diagnosis in the babies journey is shared through the SIG to improve diagnosis and recording alongside breakdown of babies by number and gestation to support insight where pathways may not have been followed or there may be signals in the data of increased incidence.

Figure 5 represents a trend comparison across the NW localities for the last 5 years of HIE grade 2 and 3 rates per 1000 live births. It highlights a steady rate per 1000 live births with LSC showing the highest rate but on a downward trajectory for FY24/25.

Figure 5: Rates of HIE grade 2 or 3 across the last 5 FY at ODN and Locality level

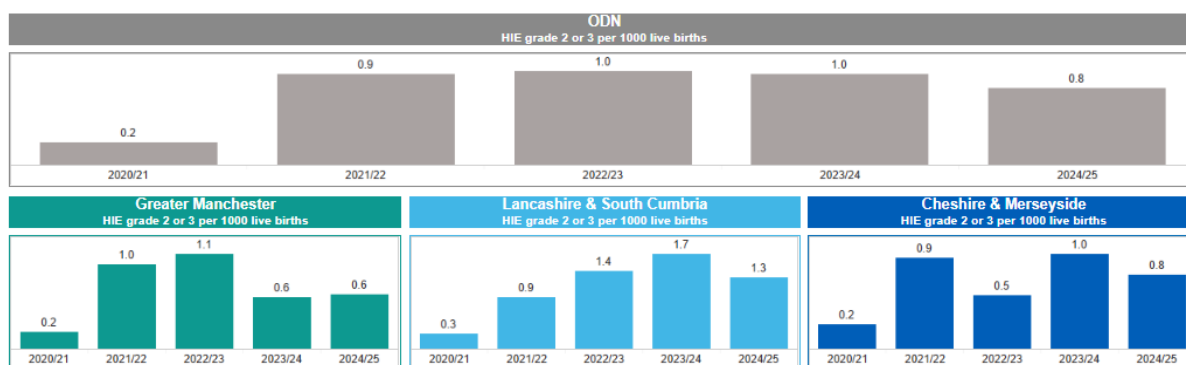


Figure 6 shows the distribution of babies who received therapeutic cooling, broken down by gestational age. This data highlights that while cooling is typically associated with term infants (37 weeks and above), a small number of late preterm babies are also receiving this intervention. Within the NWNODN, there is clear guidance in place for the use of therapeutic hypothermia (TH). Any case that falls outside the standard eligibility criteria requires a high-level discussion with senior neonatal colleagues to ensure appropriate decision-making and consistent practice across the network. Following new evidence leading to a change to the BAPM framework for practice around TH any case of a baby <37/40 receiving the treatment will be exception reported for all services to understand process around decision making out with eligibility.

Figure 6: Number of babies cooled in FY 24/25 by Gestational Age

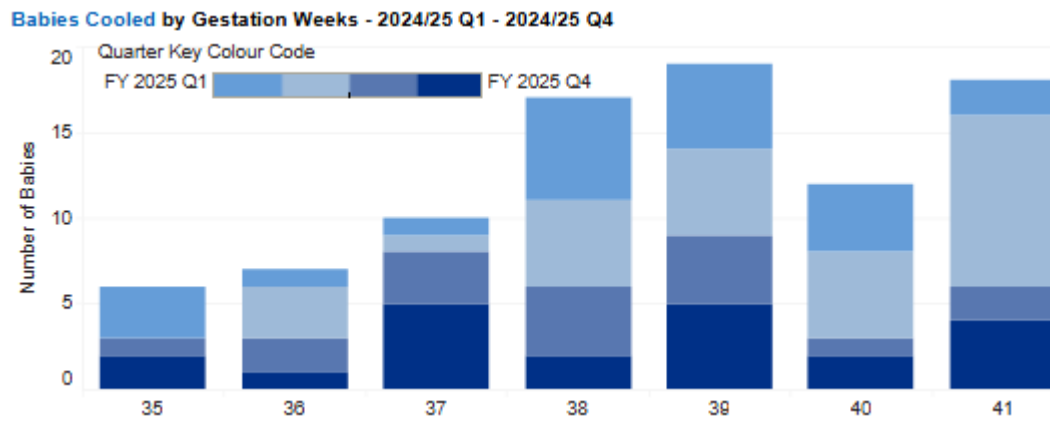
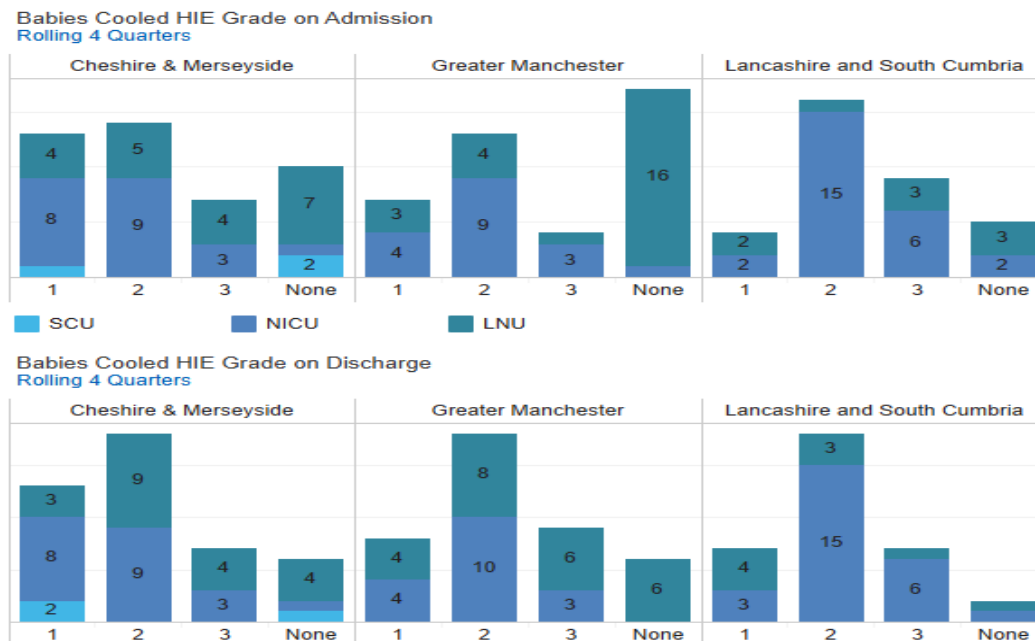


Figure 7 compares final grade of HIE on admission and discharge. Discharge grade is based on MRI findings. The cooling SIG use this data to support education and training around decision making to instigate TH and to demonstrate to colleagues across the NW the disparity in recording. Grades on admission should drive the decision to treat. If the grade of HIE is not recorded or is 1 this calls to question the decision to treat. The observed changes in HIE grading following therapeutic cooling suggest that interventions were effective in improving outcomes for affected infants.

Figure 7: HIE grade as recorded on Badgernet at admission to and discharge from care in FY 24/25



Quarterly Summary of Sharing and Learning from Exceptions 2024/2025

The quarterly governance reports present a summary of learning from exceptions and this is also shared in each Neonatal Steering Group meeting to ensure themes and challenges can be highlighted and discussed for all to learn from. A summary of learning across 24/25 can be found in table 5.

Table 6: Summary of Learning from Exceptions - 24/25

Quarter 1 (Q1 2024/25)	Quarter 2 (Q2 2024/25)
<ul style="list-style-type: none"> • Improvement noted: Significant reduction in high-risk births outside of NICU settings: <ul style="list-style-type: none"> ○ 5 cases in Q1, down from 13 in Q4 2023/24. • Six true exception reports submitted for High Dependency (HD) care in Special Care Units (SCUs). • Actions: <ul style="list-style-type: none"> ○ Emphasis on timely escalation and communication. ○ Reminder that HD care should not exceed 6 hours in SCUs; NICU teams must be contacted promptly. 	<ul style="list-style-type: none"> • Training gap identified: Need for improved understanding of Volume-Targeted Ventilation (VTV). • Actions: • Training delivered by Clinical Nurse Educator to address the issue. • Communication issues flagged between units around: <ul style="list-style-type: none"> ○ Safeguarding cases ○ Babies with complex needs • Recommendation for improved escalation processes and clear documentation.
Quarter 3 (Q3 2024/25)	Quarter 4 (Q4 2024/25)
<ul style="list-style-type: none"> • Continued decrease in <27-week deliveries outside of NICU. • All exceptions reviewed and deemed unavoidable. • Reminder issued: <ul style="list-style-type: none"> ○ All units must contact their designated advice NICU to ensure appropriate planning and continuity of care, particularly for high-risk deliveries. 	<ul style="list-style-type: none"> • Communication and NICU capacity issues: Exception reports highlighted challenges in contacting the designated advice Neonatal Intensive Care Unit (NICU) due to capacity constraints. <ul style="list-style-type: none"> ○ In such cases, Central and North West (CNW) stepped in to provide secondary clinical advice. ○ The NWNODN will continue to monitor NICU availability and assess the potential risk to patient care. • Replogle tube management: A theme emerged regarding the identification of babies requiring Replogle tubes. <ul style="list-style-type: none"> ○ Reviews showed early recognition, timely escalation, and appropriate transfers in line with established pathways. • Hypothermia as a recurring issue: Although hypothermia was noted as a theme in exception reports, it was not consistently acknowledged in the learning sections. <ul style="list-style-type: none"> ○ NWNODN emphasises the importance of maintaining normothermia as a key component of neonatal safety. • Clinical teams are reminded to reflect this in both practice and documented learning.

Next Steps

- Ongoing monitoring of exception reports.
- Continued emphasis on education, cross-unit communication, and NWNODN guideline adherence.
- Network-wide sharing of learning via NSG and CEG.

North West Wide Neonatal Mortality Overview

All local mortality reviews following deaths are peer reviewed through the NWNODN locality CEG meetings, once the local PMRT review has been completed. Any identified learning is shared, and details can be found within locality CEG meeting logs.

Mortality rates for infants born between 24-31 weeks gestation are monitored and presented in locality dashboards, which are reported through the Neonatal Steering Group. Review of this cohort reflects the oversight provided by NNAP and the measures presented within the dashboard provide comparison to the most recently published NNAP figures.

All neonatal deaths captured by the NWNODN have been subject to internal case review, where applicable PMRT and peer review at CEG. All summaries submitted to CEG are then shared with the relevant Child Death Overview Panel (CDOP) team and feature as an additional paper to the CDOP reviews.

Flags identified (as per the [NWNODN Dashboard Flags](#) document) on the dashboard for overall mortality per 1000 live births are reviewed through NSG. Providers identified as outliers or "flagging" throughout 2024 can be viewed in the NWNODN MBRRACE Response Report [INSERT LINK/available on request](#)

The following section provides an overview of neonatal mortality across the Northwest region over the past five calendar years up to December 2024. The NWNODN now reports mortality data by both calendar and financial year, aligning with the reporting frameworks of MBRRACE-UK and NNAP. This approach supports clearer contextual and comparable understanding with national data and enhances consistency across neonatal mortality reporting. The following highlights data from all organisations within the NWNODN. It aims to identify trends, highlight areas of concern, and support the development of targeted interventions, in particular, optimisation measures in improving outcomes in extremely preterm infants.

Table 7 sets out the criteria used for data included in this section of the report showing a focus on all neonatal unit (NNU) admissions and deaths among babies born at less than 32 weeks' gestation within the NWNODN, over the last five calendar years. Data are aligned with the NNAP methodology for attributing deaths to Episode 1 of care. The inclusion criteria reflect a recognised measure of neonatal mortality risk in this cohort.

Table 7: Inclusion criteria for neonatal mortality data shared

Gestational age: <32+0 weeks at birth
Mortality window: Death prior to discharge home <i>or</i> before 44+0 weeks postmenstrual age (PMA), whichever occurs first
Care attribution: Deaths are assigned to the neonatal provider responsible for the first episode of care
Year of analysis: Year in which death occurred

Whilst year-on-year variation is evident, Figure 8 illustrates mortality trends within the 22-23 cohort consistently at or above the national average. Highlighting the ongoing vulnerability and high-risk nature of this population. Within the NWNODN, there were a total of 49 deliveries in the 22–23 week gestational age cohort, resulting in 27 neonatal deaths. This reflects the significant clinical risk and

complexity associated with births at the limits of viability and the continued need for effective antenatal counselling incorporating parental wishes, implementation and monitoring of optimisation measures and ongoing review of survival data.

Figure 8



Appendix 6 presents a comprehensive five-year overview of neonatal admissions and mortality across the North West region, broken down into localities. This analysis draws on data from the NWNODN dashboard and adheres to the NNAP mortality definition to ensure consistency and comparability.

NWNODN Mortality Rates

Figures 9 and 10 show all neonatal unit mortality split by neonatal units and separated comparisons between NICU and non-NICU services. This data allows the NWNODN to see trends across the last 5 years and identify outliers. Peaks in mortality trigger provider reviews to identify themes and learning opportunities, with NWNODN targeted support provided where needed.

Figure 9: Mortality rates by provider based on place of episode 1 of care split by NICU and Non NICU

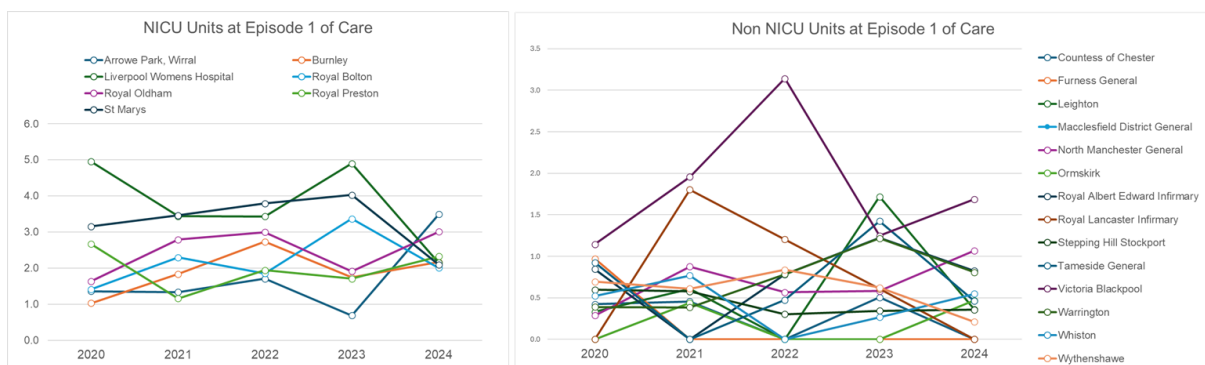


Figure 10: Mortality rates by provider based on place of death split by NICU and Non NICU

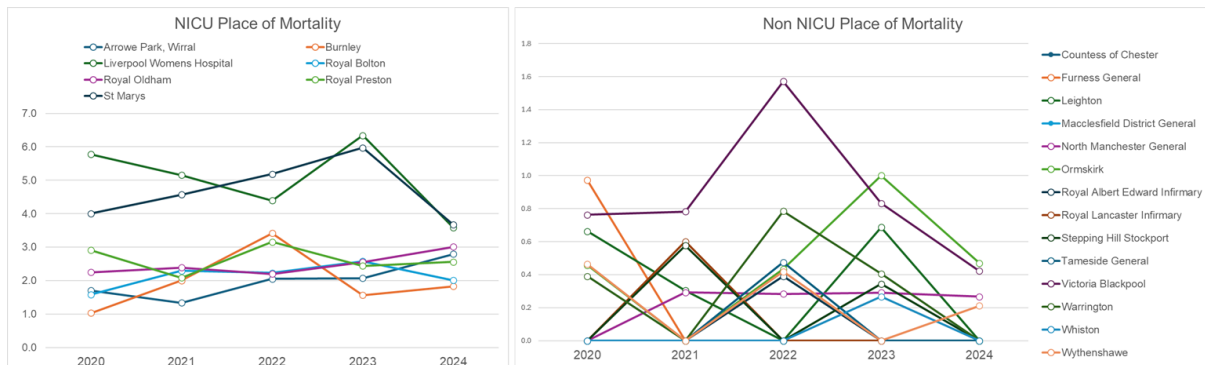


Figure 10 demonstrates when shown by place of death, appropriately rates increase in the two tertiary neonatal services that accept the most complex babies from across the NW due to access to or colocation with surgical and specialist services. This trend is expected compared to non-surgical NICUs.

Figures 9 and 10 for the non-NICU services show a clear flag for mortality at Blackpool neonatal service. This was identified and an external review into all cases undertaken which was supported by both the NWNODN and LSC LMNS. This review identified a number of areas of learning and led to a comprehensive action plan being developed which is monitored internally and progress shared with the NWNODN and LMNS. Ongoing support is being provided and we have seen a downwards trend since this work.

Equality, Diversity and Inclusion – Neonatal Mortality

The NWNODN is committed to understanding and addressing inequalities in neonatal mortality, particularly those affecting different ethnic groups and socioeconomic backgrounds as has been highlighted in the national MBRRACE reports in recent years. Figure 11 illustrates neonatal mortality rates across all gestational ages, by maternal ethnicity for 2024. The data highlights potential disparities continued analysis is needed to explore neonatal and preterm outcomes across ethnic groups.

Figure 11: Neonatal Mortality split by mother’s ethnicity

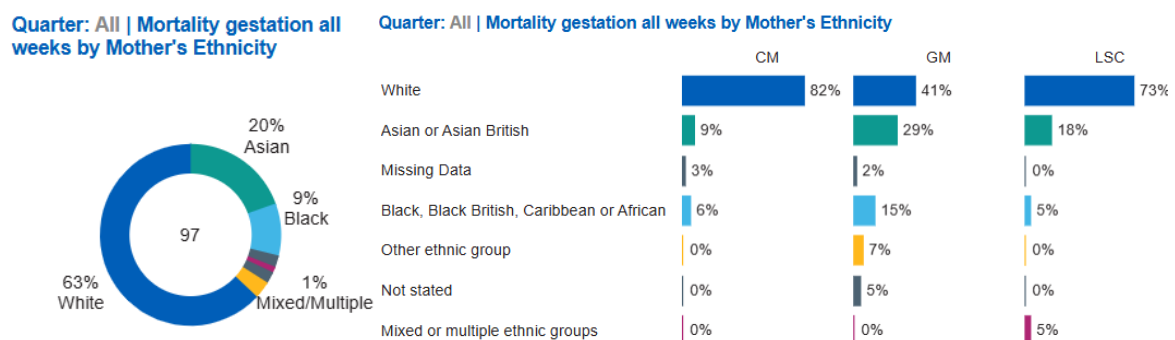
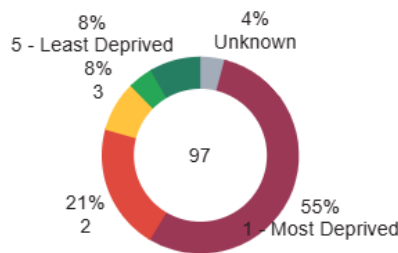


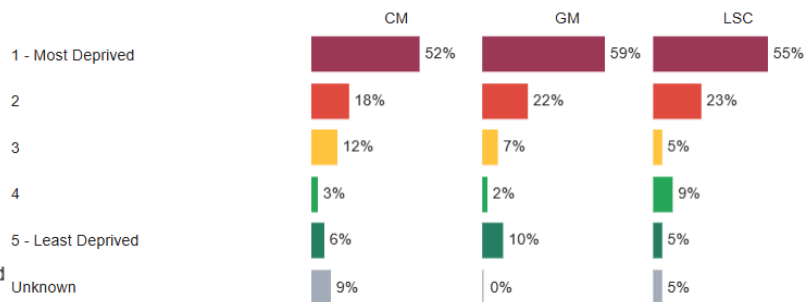
Figure 12 illustrates mortality in relation to indices of multiple deprivation based on GP postcode. This distribution shows a social gradient, with the majority of neonatal deaths occurring in the most deprived communities. Over half (55%) of all NWNODN neonatal unit deaths are among families in the most deprived quintile, suggesting that deprivation is a significant contributing factor to poor outcome.

Figure 12: All neonatal Mortality split by Indices of Multiple Deprivation

Quarter: All | Mortality gestation all weeks by IMD Quintile



Quarter: All | Mortality gestation all weeks by IMD Quintile



This reinforces the importance of addressing health inequalities, ensuring equitable access to high-quality care, and embedding targeted support for vulnerable populations throughout ante-natal care and beyond. The NWNODN works in collaboration with Local Maternity and Neonatal Systems (LMNS), Maternity and Neonatal Voices Partnerships (MNVP), and the NWNODN Parent Engagement Lead to gain insight into lived experiences of all communities. This collaborative approach helps identify factors affecting maternal health and supports efforts to reduce neonatal mortality through co-produced, equitable care improvements.

NWNODN Perinatal Mortality Review (PMRT) Tool Project

All neonatal unit deaths within the NWNODN are thoroughly reviewed at the Clinical Effectiveness Group (CEG), following an internal Perinatal Mortality Review Tool (PMRT) and clinical case review process. This ensures that every case is examined in detail to identify key themes, learning opportunities, and areas for improvement.

The NWNODN is committed to continually improving the mortality process to enhance the quality of mortality reviews and ensure that lessons learned are disseminated effectively across the network. This commitment included implementation of support to ensure external neonatal representation at PMRT panels across the region.

In April 2024 the NWNODN commenced the External PMRT Project, to establish a ratified system for including Independent External Neonatal Reviewers within NW PMRT panels. The aim of this project is to achieve a more robust and standardised PMRT process across the NWNODN, to improve shared learning and development across the NWNODN.

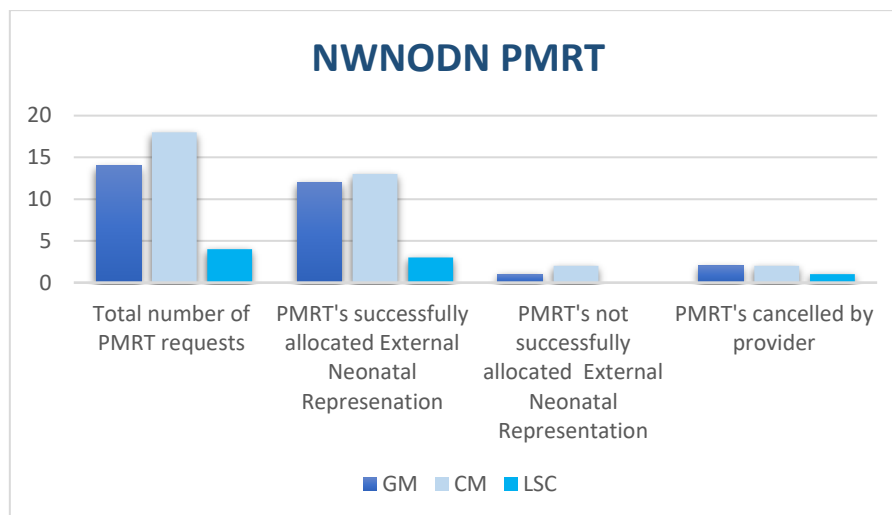
Additionally, this process also enables families a better understanding around their child's care. The process was ratified through SMT and NSG's and was launched across the NWNODN in September 2024.

Challenges:

- The process of scheduling PRMTs within each of the providers varies, with the time frame of scheduling PMRT's/assigning badger ID's/babies not aligning with the process initially set out within the project's Standard Operating Procedure.
- Several providers within C&M/L&SC have historically used the PMRT external representation process provided by the LMNS, this was not known on launch of the process and has caused duplication in allocation of panel members.
- Communication between the NWNODN and governance teams within certain providers was lengthy and delayed the process coming into effect within the initial expected time scale.
- There are several providers that set PMRT's dates that are not specific to neonatal deaths only.

From the launch of the project in September 2024, the NWNODN were notified of 36 PMRT dates from providers across the Northwest. From those 36 review dates, the NWNODN successfully allocated external neonatal representatives for 28 reviews, 3 reviews were not successfully allocated and a further 5 review meetings were cancelled by the provider.

Figure 13: External Neonatology PMRT support allocated by NWNODN



This project continues and data will be reviewed and processed improved following learning from this first launch year.

MBRRACE Data

MBRRACE data for neonatal deaths within the specific criteria set out by MBRRACE was released for 2023 in early 2025. This mortality summary should be read in conjunction with the NWNODN response to the MBRRACE report, which provides a more detailed account of the network's position, with a specific focus on provider status. Particular attention is given to the identification and context of any outlier units, allowing for a more comprehensive understanding of local and regional variation in neonatal outcomes.

Conclusion

This joint governance and mortality report highlights the NWNODN's commitment to improving neonatal outcomes through shared learning, transparent reporting, and quality improvement. The integration of clinical governance themes with mortality data provides a view of safety and performance, enabling focused action—particularly where outliers or recurrent issues are identified. The network remains dedicated to fostering a culture of continuous improvement and collaborative care across all neonatal services.

Appendix 1: Clinical Effectiveness Group Terms of Reference



TOR-ODN-09 CEG
(2).pdf

Appendix 2: Engagement from NW Neonatal Providers at CEG

Below outlines the level of engagement from NW Neonatal Providers at CEG per provider/Locality
(April 2024 to March 2025 inclusive)

NWNODN Clinical Effectiveness Group Engagement									
Cheshire and Merseyside	13.05.24		15.07.24		21.10.24		16.01.25		
Alder Hey Children's Hospital	3		1		2		2		
Arrowe Park	4		4		5		4		
Countess of Chester	3		2		2		2		
Leighton	2		2		2		1		
Liverpool Women's Hospital	3		3		2		2		
Macclesfield	0		2		1		1		
Ormskirk	2		2		2		3		
Warrington	1		2		1		1		
Whiston	2		1		2		1		
CNW	1		1		1		1		
Total	21		20		20		16		
Lancashire and South Cumbria	22.05.24		17.07.24		16.10.24		26.02.25		
Blackpool	3		3		4		3		
Burnley	5		5		5		5		
Furness	1		1		3		2		
Preston	5		4		5		3		
Royal Lancaster Infirmary	2		6		2		3		
CNW	2		0		1		1		
Total	18		19		20		17		
Greater Manchester	14.05.24		23.07.24		01.10.24		26.11.24	28.01.25	26.03.25
Bolton	2		2		2		3	5	3
North Manchester	1		2		2		2	2	1
Oldham	3		2		3		2	4	4
St Marys Hospital	4		3		4		3	3	4
Stepping Hill	2		1		2		1	3	3
Tameside	2		1		2		1	2	1
Wythenshawe	2		2		2		0	1	1
Wigan	2		2		2		3	2	2
CNW	2		2		1		2	3	2
Total	20		17		20		17	25	21

Appendix 3: Learning from each of the locality CEG Q1 – Q4 2024/2025

Topic	Learning/Themes
Q1 24/25	
Medication errors of various types.	There was a theme of medication errors throughout the North West, various incidents related to prescribing, administration, incorrect labelling, incorrect inputting of infusion pumps. Units mitigated locally for safe administration of medicines. The network pharmacist commenced a Special Interest Group focussing on standardised infusions.
Pathways	Units were reminded of the NWNODN surgical and cardiac pathways and to contact CNW in the first instance to organise a conference call.
Exchange transfusion	Advice given for those units using B-Braun pumps and kits to observe and ensure correct infusion line is used for the procedure. They will have a white filter and is a Infusomat Space Line - NOT infusomat Space Line SAFESSET.
Infusions for transfer	All units were reminded to ensure infusion lines are connected, unclamped and have a drug label insitu checked by two staff.
Cooling	Discussion at CEG meeting summary: - Insertion of rectal probe at point of cooling for effective monitoring - Maintain normothermia during resuscitation - Completion of neurological assessment prior to cooling and ensure documentation of findings
Warm Bundle	Furness shared information on the warm bundle initiative for learning purposes.
Q2 24/25	
CNW response to unanswered call incident	CNW have set up a re-direct line for calls that are not being responded to in a timely manner - CNW advise to hold onto the line until connection.
Ventilator setting documentation on blood gas chart	The CEG group were informed of an issue where lack of ventilator setting documentation on blood gas charts made decision making difficult for future settings.
Governance Huddle	MFT shared initiative of sharing governance and learning via a huddle at mandatory training sessions every two weeks.
Video/Direct Laryngoscopy	Burnley presented a Quality Improvement regarding video versus direct laryngoscopy for learning purposes.
EPR	Preston shared presentation around implementation of EPR system for learning purposes.
Q3 24/25	
Knitted/Crocheted items	Due to the risk of injury, all units should cease having knitted mittens and crochets blankets to cover neonatal babies.
Chlorothiazide in neonates	Medication incidence with chlorothiazide: Incidental finding from clinical pharmacist that liquid formulation containing propylene glycol had been dispensed.
Learning from Rapid Review AAR (Apr-June High Level Incident)	35+6 born poor condition. Concerns raised regarding Resus: Issues around suction containers, no 2nd suction container on trolley. Replacement suction cups now available on Del Suite and on resus trolley. Transport incubator was not working: Worked with manufacturer to ensure escalation processes in place for any future issues to ensure quick turn around with any future issues Staffing Levels: On review staffing levels were acceptable however shift leaders have been instructed on the importance of raising situational awareness on the unit with all staff on shift during similar situations. HB sample and transfusion delay: Working with labels on best practise for urgent samples - development of a new pathway in process/possibility of shift co-ordinator deck phone to receive results. Roll out of skills SIM's regarding emergency blood collection, including use of dummy bar codes. Hb analysis actioned on gas machine
Parental Communication	Important of documenting communication with parents on badger - useful for those babies that are transferred/repatriated for other clinicians to review
Urology: Catheterisation and Neonatal Nursing Care	Discussed at meeting and agreed a valuable resource to share as part of the NWNODN SIG resources

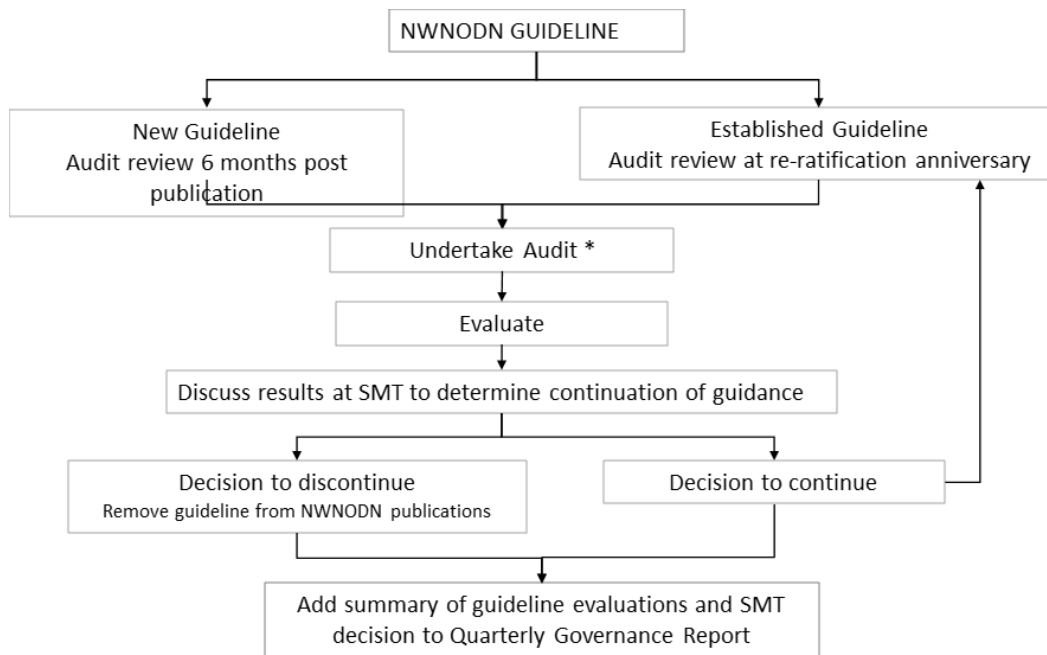
Snuggle and PEEP QI	QI for early respiratory care practices to reduce BPD
Q4 25/25	
Discharge Badger letter for transport	All units were advised to ensure discharge letter is prepared and ready to be handed to the transport team upon their arrival
Trans warmer use	Staff are reminded to exercise caution when using Transwarmers, particularly when used alongside other heat sources (e.g., incubators, overhead warmers). The combination can lead to unintended overheating or skin injury

Appendix 4: Quality Improvement Summary

QI presentations at CEG	
Cheshire and Merseyside	
October 2024 Alderhey Children's Hospital Buccal Breast Milk	<p>Conclusions</p> <p>Difficult to initiate early breast milk when admissions are not within the first few days of life and feeding choice has already been decided Progress is promising. November 2022 was 22% and September 2024 was 67%. Still could be improved, and missed opportunities avoided</p> <p>Actions</p> <p>Donor EBM criteria updated to include neonates who are separated from their mum due to ill health Feeding assessments now added to the care plan to remind staff to be documenting regular support MDT approach to early breast milk – discussed on ward round Repeat audit in 6 months</p>
January 2025 Arrowe Park Incidents that involve both maternity and Neonatal staff	Reviewed at respective meetings and learning shared with both teams via email. To strengthen learning and share ideas/suggestions for improvement the addition of a monthly joint meeting to review joint incidents will be implemented this month (January 2025) and to trial for 3 months to see if this is beneficial.
Greater Manchester	
May 2024 Royal Oldham Thermoregulation	Thermoregulation QI following recognition that babies were becoming hyperthermic in DS.
November 2024 Royal Bolton Snuggle and Peeps	<p>Increasing use of non-invasive respiratory support and reducing bronchopulmonary dysplasia rates</p> <p>Trying to reduce rates of bronchopulmonary dysplasia requires a multifaceted MDT approach Addressing challenges - used data to raise awareness and build support for the QI project We have improved in the following areas with our interventions Intubation rates are decreasing LISA rates are increasing</p>
January 2025 MFT – St Marys Hospital Fracture Identification and Prevention on NICU	<p>Created a SOP for the prevention and management of fractures in babies. Whilst good practice in handling is expected in all babies, unit created a means of identifying those most at risk, and as the risk of fracture increases in each group, there are an increase in special considerations, using a traffic light type of system. At risk, at high risk and very high risk. Emphasis is on careful handling rather than minimal handling. Information sheet is provided to parents to explain why their baby is at risk and with visual prompts and descriptions to aid best practice- is a supplement to education and support provided by nursing team and fracture prevention ward round. Key to this is education- of medical and nursing staff, and parents.</p>

	<p>Medical education- ACE day, message of the week at daily huddle, WR education Driven and delivered by a core MDT involving medical team of different grades, nursing, PT, OT Established a dedicated weekly ward round Concluded as useful from an awareness point of view as part of the start of the roll out of a new project.</p>
Lancashire and South Cumbria	
<p>July 2024 Royal Preston RPH shared presentation around implementation of EPR system</p>	<p>RPH shared presentation around implementation of EPR system</p>

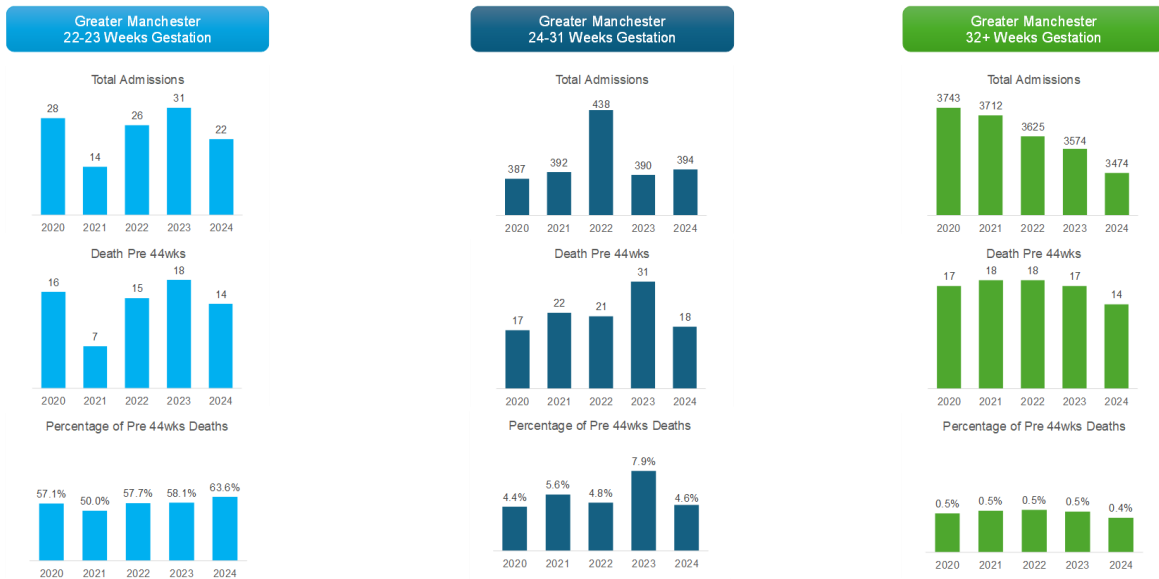
Appendix 5: NWNODN Guideline Audit Process



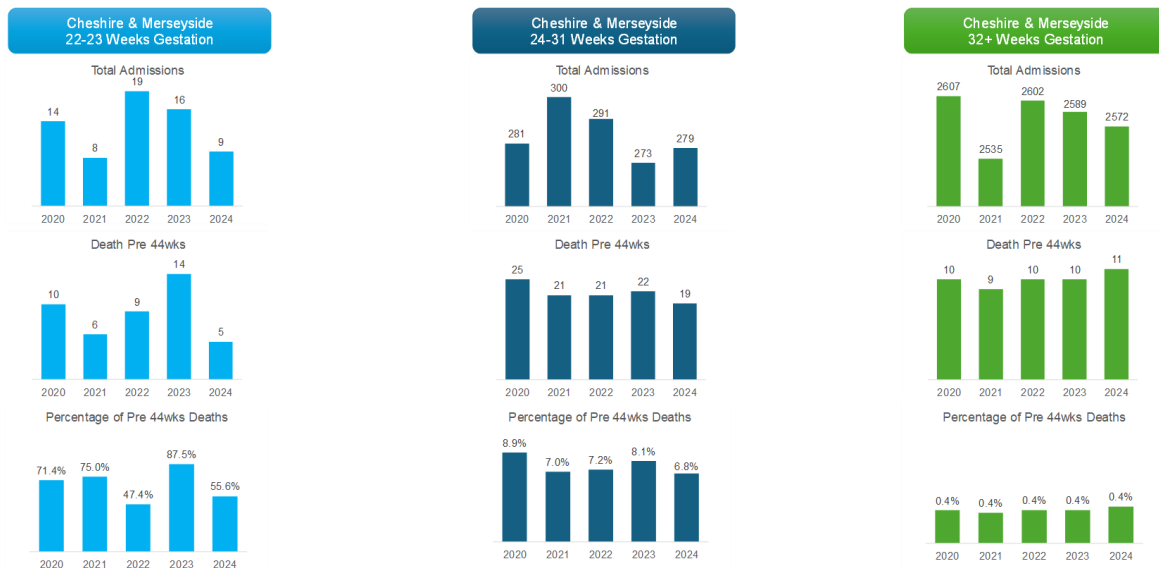
Appendix 6: Mortality Data – Five year Overview by locality

Note: Data presented in the illustrations below are not to scale.

Greater Manchester Neonatal Admissions and Mortality: Five-Year Overview

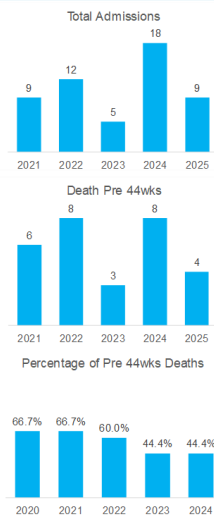


Cheshire and Merseyside Neonatal Admissions and Mortality: Five-Year Overview

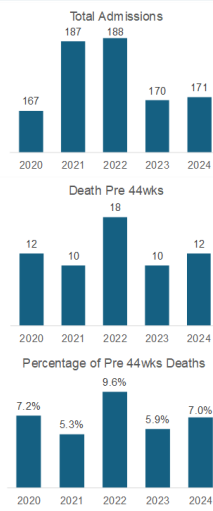


Lancashire and South Cumbria Neonatal Admissions and Mortality: Five-Year Overview

**Lancashire & South Cumbria
22-23 Weeks Gestation**



**Lancashire & South Cumbria
24-31 Weeks Gestation**



**Lancashire & South Cumbria
32+ Weeks Gestation**

