Royal United Hospitals Bath
NHS Foundation Trust

Report to:	**Public Board of Directors**	**Agenda item No:**	**10**
Date of Meeting:	**6 November 2024**		

Title of Report:	**Maternity and Neonatal Safety Report Quarter 1**
Board Sponsor:	**Antonia Lynch, Chief Nursing Officer**
Author(s):	**Zita Martinez, Director of Midwifery**
Appendices	**Appendix 1: Stillbirth Review 2024** **Appendix 2: Transitional and ATAIN Audit report Q1 24/25**

1. Executive Summary of the Report

This report outlines locally and nationally agreed measures to monitor maternity and neonatal safety. The purpose of the report is to inform the Local Maternity and Neonatal System (LMNS) and Board of Directors of present and/or emerging safety concerns.

This RUH Maternity and Neonatal Safety report identifies at the end of Q1, the Royal United Hospitals Bath NHS Foundation Trust (RUH) rolling 12-month average stillbirth rate is 2.38 per 1000 births; this remains below the reported national average of 3.3 per 1000 births (2022), however is an increase on the RUH calendar year average reported at the end of Q3 23/24 of 1.42 per 1000 (Mothers and Babies Reducing Risk through Audit and Confidential Enquiries-UK reporting timeframe).

The service has conducted a case cohort review of all stillbirths between December 2023 and May 2024 (Appendix 1). This report identifies no causative commonalities within the 6 cases as aligned to the Saving Babies Lives Care Bundle v3 (2023). When reviewing the background demographics of stillborn babies across the last 4 years there may be a potential over-representation, based on background prevalence of babies born to families residing in Index of Multiple Deprivation areas 1 and 2. The service is currently conducting a secondary review of factors to ensure no further commonalities or opportunities for service improvement can be identified (n=6).

The RUH neonatal mortality rate for Q1 24/25 is 1.19 per 1000 births, this remains below the reported national average for 2022 of 1.7 per 1000 births. All stillbirths and neonatal deaths, during Q1 have been reported to Mothers and Babies Reducing Risk through Audit and Confidential Enquiries-UK (MBRRACE-UK), and where applicable, excluding Medical Terminations of Pregnancy (MTOPs), a Perinatal Mortality Review Tool (PMRT) process will be undertaken.

The service made 2 referrals to the Maternity and Neonatal Safety Investigations (MNSI) team hosted by the Care Quality Commission (CQC) in Q1. One case has been confirmed and is currently being reviewed at the family request. One of the referrals was rejected following the MNSI triage process due to a lack of family consent. The service has conducted an internal rapid review of the care, the learning is detailed within this report. No new internal Patient Safety Incident Investigations were declared in Q1.

During Q1 the service made a third submission of evidence to the LMNS for validation of assurance and progression towards full implementation of the Saving Babies Lives Care Bundle v3of 2023. External verification by the LMNS is a standard detailed within the Clinical Negligence Scheme for Trusts (CNST) Maternity Incentive Scheme (MIS) Safety Action 6. The service has received confirmation of progression to 79% compliance and continues to work towards standards maintenance and further implementation.

On 31 of March 2024 the service received Year 6 safety standards for MIS, the current and projected position at submission is detailed within this report. See section 7.0.

The Avoiding Term Admissions into Neonatal Units (ATAIN) and Transitional Care reporting is included in this report. The Transitional Care service was available 100% of the time with >50% of neonatal care provision taking place within a Transitional Care Pathway (TCP), providing neonatal care at the mother's bedside. On no occasion were there identified missed opportunities to have provided TC care or identified admissions to the Neonatal Unit that would have met current TC admission criteria.

The Avoiding Term Admissions into the Neonatal Unit (ATAIN) working group identified 2 avoidable admissions into the Local Neonatal Unit (LNU) in Q1. There have been no identifiable commonalities between the avoidable admissions reviewed at the ATAIN Multi-disciplinary Team (MDT). The report details an identified current data capture issue regarding re-admissions into the LNU and ATAIN figures externally retrieved by the South West Operational Delivery Network (ODN) which may be falsely inflating the RUH ATAIN rate. The neonatal governance lead is working with data analysts within the ODN to ensure transparent and comparable data capture for local and regional benchmarking across the network.

2. Recommendations (Note, Approve, Discuss)

Discuss and approve.

3. Legal / Regulatory Implications

It is a legal requirement to comply with the Health and Social Care Act 2008 (Regulated Activities) Regulations 2014 (Part 3).

4. Risk (Threats or opportunities, link to a risk on the Risk Register, Board Assurance Framework etc.)

In Q1 Maternity and Neonatal, services presented 1 new risk assessment, which was approved for the risk register:

Risk No	Title of Risk	
2784	Maternity and Neonatal Services Adult Basic Life Support Compliance	6

Current Open Risks in Maternity and Neonates Q1 24/5:

1948	Obstetric ultrasound scan capacity	8
2359	Maternity Information System IT support/capacity	8
2467	Maternity workforce	8
2481	Staff Entonox exposure in birthing environments	4
2482	Assessment of minor and low harm Datix management in Maternity and Neonatal Division.	4
2522	The Provision of maternity care to birthing people who do not identify as a female gender	4
2562	There is a risk to the Electronic Patient Record (EPR) due to unsecured funding following withdrawal from Cerner Millenium	4
2591	There is a risk that the current funded provision of Allied Health Professionals in the Neonatal Unit will not continue following cease of fixed term funding from the neonatal Operational Delivery Network.	9
2649	Delays to commencement of induction of labour	8
2679	Service provision of digital blood pressure monitors validated for use in pregnancy and pre-eclampsia	5
2660	Tertiary level neonatal cot capacity in the region	8

	2681	Mandatory Training room booking availability	9
	2717	Shared Father/Partner information within the multi-agencies	10
	2718	Bacillus Calmette-Guerin (BCG) Vaccination programme	8
	2724	Risk of loss of Obstetric USS reporting System	9

5.	Resources Implications (Financial / staffing)
Compliance with the Maternity Incentive Scheme for Trusts has financial and safety implications for the Trust. There is a financial commitment required by the Trust to achieve full compliancy.	

6.	Equality and Diversity
Equality and Diversity legislation is an integral component to registration.	

7.	References to previous reports
Previous monthly Perinatal Quality Surveillance reporting Safer Staffing Report – August 2023 CNST Maternity Incentive Scheme – Year 5 declaration of compliance Q1, 2, 3 and 4 Maternity and Neonatal Safety Reports – Quality Governance Committee & Board of Directors	

8.	Publication
Public.	

REPORT OVERVIEW

This report outlines locally and nationally agreed measures to monitor maternity and neonatal safety, as outlined in the NHSEI document '*Implementing a revised perinatal quality surveillance model'* (December 2020). The purpose of the report is to inform the Local Maternity and Neonatal System (LMNS) Board and the Board of Directors of present or emerging safety concerns within Maternity and Neonatal services. The information within the report reflects actions and progress in line with Ockenden 2022 and the Clinical Negligence Scheme for Trusts (CNST) Maternity Incentive Scheme (MIS).

1. PERINATAL MORTALITY RATE

The following graphs demonstrate RUH performance against the national ambition to reduce stillbirth in the UK by 50%, and the local ambition for continual progression in reducing perinatal mortality at the RUH. From March 2024 the national averages have been adjusted to reflect the publication of the MBRRACE-UK report of 2022 perinatal mortality.

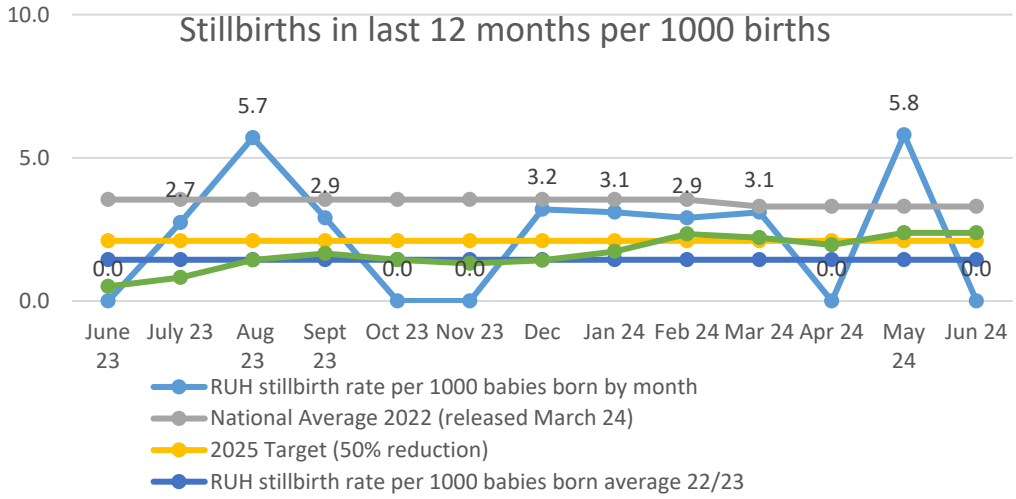

Figure 1: RUH NHS Trust stillbirth rate per 1000 births over last 12 months

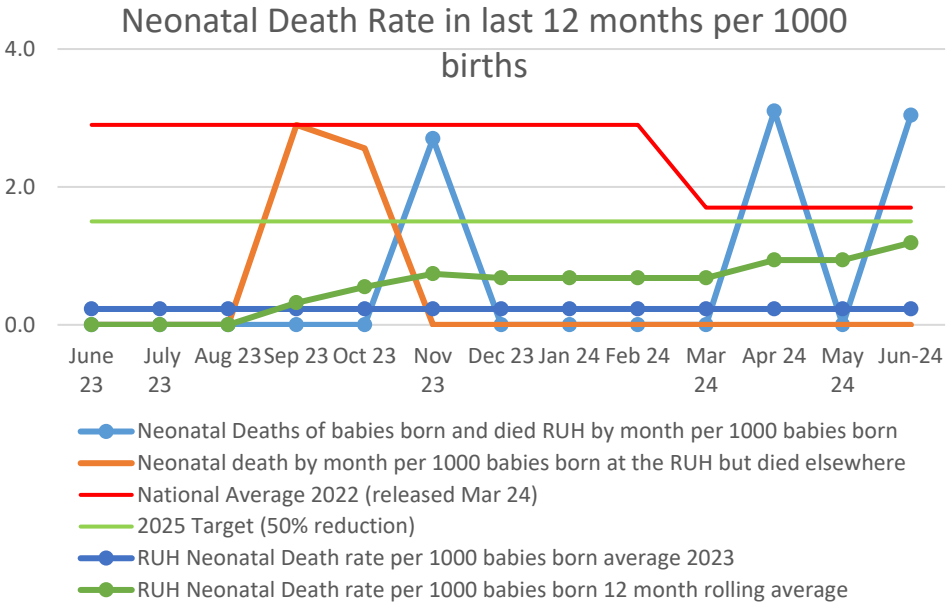

Figure 2: RUH NHS Trust Neonatal Death rate per 1000 births over last 12 months

Mothers and Babies: Reducing Risk through Audits and Confidential Enquires-UK (MBRRACE-UK) collects data on perinatal death defined as babies born without signs of life from 22 weeks gestation to term and neonatal deaths at any gestation up to 28 days of age, excluding terminations of pregnancy.

The RUH Electronic Patient Record records all stillbirths (24 weeks or greater gestation) and neonatal deaths at the RUH. Births between 22-24 weeks are pulled manually and added to the data set submitted to MBRRACE-UK as in figure 1. Perinatal deaths are defined from birth after 22 weeks gestation and include neonatal deaths at any gestation where the baby is born with signs of life, but stillbirths are defined from 24 weeks at diagnosis of death. The rate of stillbirth and perinatal death may therefore be different.

Trusts are provided with initial MBRRACE-UK perinatal mortality rate per 1000 births, results are subsequently stabilised and adjusted to reflect RUH statistics if representative of the national socioeconomic demographics. MBRRACE-UK collates the data for those babies who were born at the RUH and subsequently died elsewhere. This report has therefore separated these values to ensure alignment of internal mortality data figures ahead of reported and adjusted MBRRACE-UK figures, see Figure 1 and Figure 2.

Five perinatal deaths (excluding Medical Termination of Pregnancies (MTOP)) were reported in Q1. This consisted of 2 stillbirths; 1 at 32 weeks, and 1 at 36 weeks, 1 late fetal loss attributable to a congenital anomaly, and 2 neonatal deaths; 1 at a term gestation following an elective caesarean birth and 1 at 22 weeks of pregnancy following a placental abruption.

2023/24 (excluding terminations for abnormalities)	**Q1 24/25**	**Annual total 24/25**	**Annual total 2024 (calendar year)**
Stillbirths (>37 weeks)	0	0	2
Stillbirths(>24weeks-36+6weeks)	2	2	4
Late miscarriage (22+weeks-23+6weeks)	1	1	1
Neonatal death at the RUH	2	2	1
Neonatal death elsewhere following birth at the RUH	0	0	0
Total	**5**	**5**	**8**

Table 1: Perinatal Mortality summary by number of cases, quarter 1 2024/25

2. PERINATAL MORTALITY REVIEW TOOL (PMRT)

All perinatal deaths that occur within the Trust have been reported using the PMRT tool since 2018. PMRT reporting is a requirement of Safety Action 1 of the NHS-R Maternity Incentive Scheme year 5. All Q1 cases have been reported to MBRRACE-UK via PMRT (Table 1).

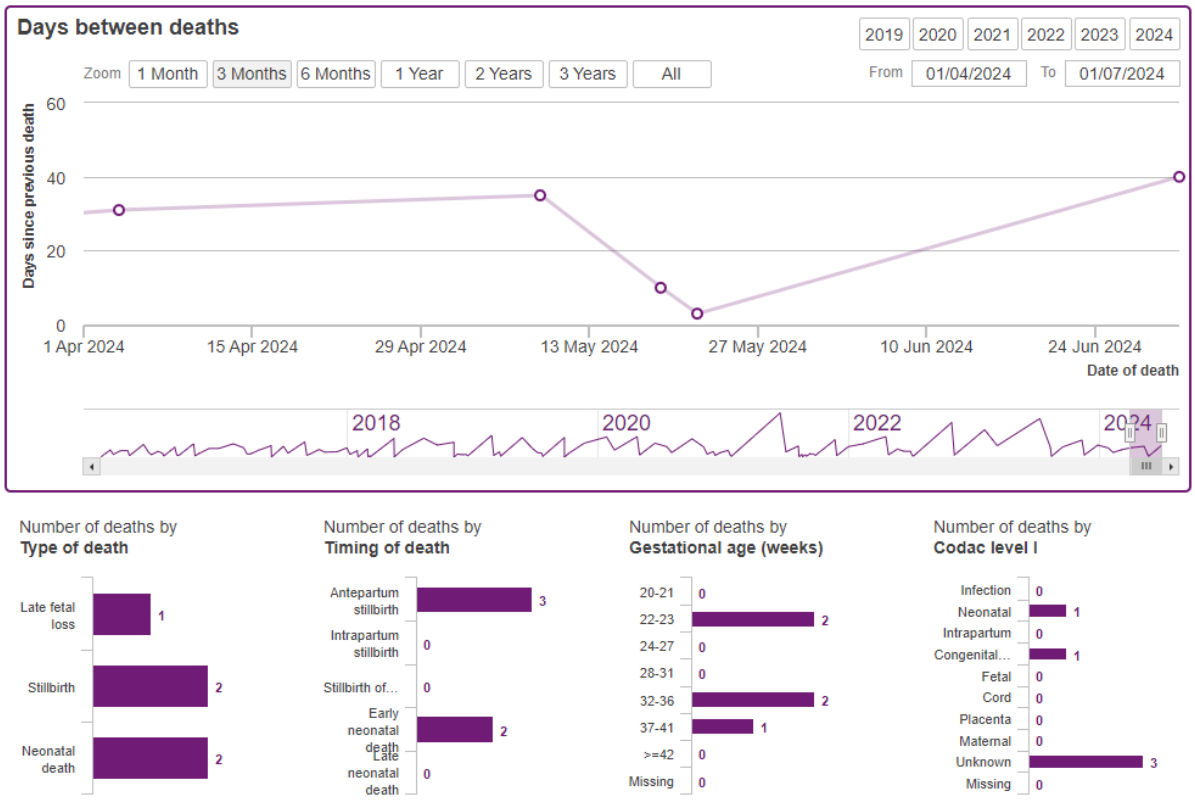

Figure 3: Reporting of RUH NHS Trust Deaths within Organisation for Q1 24/25

2.1 LEARNING FROM PMRT REVIEWS

One PMRT review reached completion during Q1 pertaining to a term stillbirth in December 2023. The actions identified from this case are outlined below:

Ref	Issue/area for improvement	Review Response/Action plan	Action target date
	A growth USS on the Small for Gestational Age Care Pathway was cancelled after identification the baby was growing above the 90th centile – however in retrospect, this scan may have provided additional information such a developing liquor volume concern.	Requirement for a midwife sonographer framework of practice to outline collaboration and escalation of USS findings for onward care planning.	May 24 - Complete

Table 2: PMRT Action plan

In view of the increased rate of stillbirth seen at the RUH across Q4 23/24 and Q1 24/25, the Consultant Obstetric Governance Lead and the Quality and Safety Lead for Maternity and Neonatal Services conducted a case cohort review of all incidents of stillbirth between

December 2023 and May 2024 to ensure no commonalities or additional areas for improvement are identified (Appendix 1).

The review considered the background demographics of the women/birthing people alongside care provision, aligned to local and national guidance, and the Saving Babies Lives Care Bundle v3. The review was unable to find any causative commonalities within the 6 stillbirths.

When considering the background demographics, due to the small sample size in the stillbirth cohort it was difficult to interpret the presence of any trends or commonalities within the data, therefore the scope was extended to include all births and stillbirths between 2020-2024.

This identified a disproportionate representation of stillbirths within populations from Index of Multiple Deprivations (IMDs) 1 and 2 compared to women of an IMD >5 (figures 4 and 5).

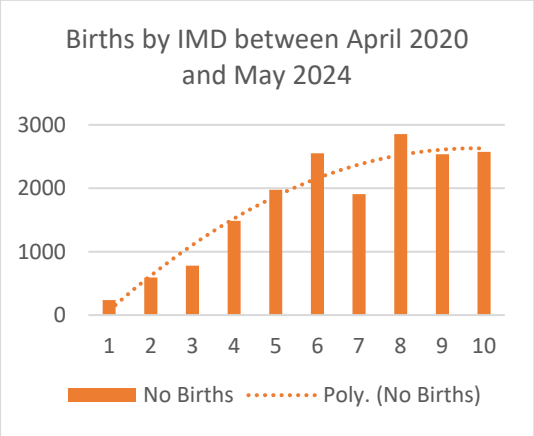

Figure 4: RUH Maternities by IMD Dec 23-May 2024

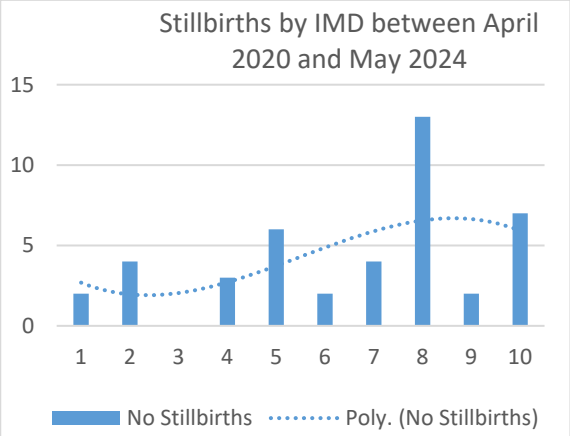

Figure 5: RUH Stillbirths by ethnicity Dec 23-May 2024

The increased incidence of perinatal morbidity and mortality associated with lower socio-economic IMDs is recognised nationally within MBRRACE-UK reports.

In total the report has made 3 recommendations:

- The bereavement team and the Health in Pregnancy team work together to better understand the proportional over-representation of stillbirth incidence in woman booked for Maternity care with RUH services from IMDs 1 and 2.

- The Maternity service continues to plan for the implementation of Badger.net digital EPR system in June 2025 with specific reference to ensuring the embedded Symphysis Fundal Height (SFH) charts align to the Saving Babies Lives Care Bundle v3 standards.

- The Maternity service continues to work towards full implementation of the Saving Babies Lives Care Bundle v3.

3. MATERNITY AND NEONATAL SAFETY INVESTIGATIONS (FORMERLY THE HEALTHCARE SAFETY INVESTIGATION BRANCH) AND MATERNITY SERIOUS INCIDENTS

3.1 BACKGROUND

Maternity and Neonatal Safety Investigations (MNSI) undertake maternity investigations in accordance with the Department of Health and Social Care criteria (Maternity Case Directions 2018), taken from Each Baby Counts and MBRRACE-UK. In accordance with these defined criteria, eligible babies include all term babies (at least 37 completed weeks of gestation) born following labour who have one of the following outcomes:

- Maternal Deaths
- Intrapartum stillbirth
- Early neonatal death
- Severe brain injury diagnosed in the first seven days of life

3.2 INVESTIGATION PROGRESS UPDATE

Two new referrals were made in Q1, one was rejected by MNSI following triage, and one has progressed to review at family request. Table 3 identifies the ongoing MNSI reviews into Q1. The findings and recommendations of these reviews, and the actions taken in response, will feature in future reports.

Ref	Details of Event	confirmed Investigation	External Notifications and Other Investigations
Completed in Q1			
MI-034606	Neonatal transfer to Tertiary Neonatal Unit for ongoing care and active therapeutic cooling. Normal MRI post active therapeutic cooling, progressing at family request.	Sept 2023	N/A
MI-035529	Neonatal transfer to Tertiary Neonatal Unit for ongoing care and active therapeutic cooling. Normal MRI post active therapeutic cooling, progressing at family request.	October 2023	N/A
Ongoing			
MI-036771	Stillbirth of baby en route to hospital for labour assessment.	February 2024	MBRRACE/PMRT. Discussed with coroner.
New Referrals			
MI-037554	Neonatal transfer to Tertiary Neonatal Unit for ongoing care and active therapeutic cooling. Normal MRI post active therapeutic cooling.	April 24 Not progressing due to lack of family consent.	
MI-037619	Neonatal transfer to Tertiary Neonatal Unit for ongoing care and active therapeutic cooling, progressing at family request.	June 24	

Table 3: MNSI referrals and ongoing investigations Q1 2023/24

3.3 CORONER REGULATION 28 MADE DIRECTLY TO TRUST

Not applicable.

3.4 MATERNITY PATIENT SAFETY INCIDENT INVESITGATIONS (PSII)

No Patient Safety Incident Investigations reached completion in Q1. There were no new Patient Safety Incident Investigations declared during Q1 (Table 4).

Ref	Details of Event	Review Response	External Notifications and Other Investigations
Completed reviews			
Ongoing reviews			
	Placental abruption, stillbirth and maternal ITU admission at 34 weeks of pregnancy	PSII ongoing with terms of reference looking at the use of computerised CTG and holistic risk assessments.	PMRT/MBRRACE.

Table 4. Maternity and Neonatal Patient Safety Incident Investigations Q1

There were 5 moderate harm events reported during Q1, of which 2 were the MNSI referrals outlined in table 3, the further 3 have received a local review, the multidisciplinary review team (MDT) did not identify any care concerns casual to the event. Co-incidental learning and findings have been actioned at specialty level feeding into the 'triangulation of feedback' data base to allow for assessment of commonalities or trends.

3.5 LEARNING AND IMPROVEMENT

Two completed MNSI reviews were received in Q1 20234/25. No safety recommendations were made to the Trust within the reports. For reference, a safety recommendation is made where alterations in care may have altered the outcome for either the mother or baby.

Having reviewed a) Q1 incidents b) received reports c) opportunities for learning and improvement and d) the claims scorecard for 2023, one commonality has been identified. The service has paid damages pertaining to informed consent provision under the Montgomery ruling of 2015 applied retrospectively for 2 cases within the scorecard of 2023. During Q1 this aligned to family feedback through the family factual accuracy process in the MNSI report MI-035529, and the RUH 'Insights Report' of May 24 which identified that the current information provision to support informed consent is a 'safety priority' for 24/25.

During Q1 the service has set up an 'informed consent working party' consisting of a multidisciplinary team across: Obstetrics, acute midwifery, community midwifery, specialist midwives and service user voice representatives to begin developing aims and actions to improve informed consent provision across maternity services.

The group has reviewed the 'insights' report from May 24, with the commonality of informed consent and has identified, there are 2 currently designated workstreams:

- Antenatal Education - specifically mode of birth and emergency scenario information provision

- Intrapartum consent – specifically the communication considerations needed when seeking consent during intrapartum care, considering the competing/influencing human factors which can often present barriers to effective communication such as contraction pain.

In June 24, the maternity service launched a social media campaign to seek service user voice and experiences regarding informed consent within our services, subsequently inviting participants to take part in focus groups to be held in Q2. The aim of this is to identify the content and format of information provision the service currently utilises and identify what would work best for our families going forward.

Learning and Improvement drivers from service insights are fed back to staff in a variety of formats including: the maternity newsletter, staff e-mails, staff safety briefings, patient safety 'Safety Catch' newsletter, Microsoft Teams RUH Maternity Team, case review QR code posters to full reports and quality and safety whiteboards displayed in clinical areas with a 'Safety Hot Spot' of the month. Safety Hotspots are identified from co-incidental learning through service insights such as themes of low and no harm incidents, audit and, or family feedback.

4. OCKENDEN UPDATE

4.1 OCKENDEN FINAL REPORT UPDATE – Q1 2024-2025

The Trust is not required to submit evidence of compliance with the 15 Immediate and Essential Actions outlined within the Ockenden report of 2022. Monitoring of compliance and improvement towards compliance is monitored via Specialty Governance, Maternity and Neonatal Safety Champions via the Internal Performance Review (IPR) presentation every month.

Ockenden 2022						
IEA	Blue	Green	Amber	Red	Total Actions	% of Compliance
1- Workforce Planning and sustainability	12	0	5	0	17	70.6
2- Safe Staffing	8	1	1	0	12	66.7
3- Escalation and Accountability	5	1	1	0	7	71.4
4- Clinical Governance Leadership	14	1	1	0	16	87.5
5- Incident investigation and complaints	7	2	0	0	9	77.8
6- Learning from maternal deaths	4	0	0	0	4	100.0
7- Multidisciplinary Training	11	5	1	0	17	64.7
8- Complex Antenatal Care	5	0	0	0	6	83.3
9- Pre-term Birth	3	2	0	0	5	60.0
10- Labour and Birth	7	1	1	0	11	63.6
11- Obstetric Anaesthesia	4	2	0	0	6	66.7
12- Postnatal Care	1	1	2	0	4	25.0
13- Bereavement Care	8	1	0	0	9	88.9
14- Neonatal Care	7	3	0	0	9	77.8
15- Supporting Families	3	1	0	0	4	75.0
Total	99	21	12	0	130	76.2

Table 5: Q1 24/25 Ockenden 2022 Immediate and Essential Action (IEA) compliance

Progress towards full implementation is outlined within Table 5; percentage compliance is only attributed to those actions within the action plan which have been complete.

- Blue actions - Evidence of implementation assurance can be obtained if required

- Green actions - Improvement work is on target for completion, and/or the service is developing assurance processes
- Amber actions - Improvement work in progress however continued work is required, or no assurance of compliance is available at present
- Red actions - Current non-compliance with no work in progress to address currently.

During Q1, the service has developed a workforce group to codesign a maternity and neonatal workforce strategy encompassing succession planning and senior leadership development opportunities such as mentoring in line with IEA 1.

5. TRAINING COMPLIANCE FOR ALL STAFF GROUPS IN MATERNITY RELATED TO THE CORE COMPETENCY FRAMEWORK AND WIDER JOB ESSENTIAL TRAINING

5.1 SITUATION REPORT

Compliance with fetal monitoring, neonatal resuscitation and multi-disciplinary training (MDT) Emergency Skills Training (PROMPT) across all staffing groups is required to be above 90% across all staff groups to fulfil the requirements set out within the CNST MIS, Saving Babies Lives Care Bundle v3 and the core competency framework v2.

During the CQC inspection in November 2023, the RUH Maternity and Neonatal Training compliance for Adult Basic Life support (ABLS) was below the local target of 90% at 66%. In response to the 'should do' recommendation, the specialty has liaised with the trust-wide resuscitation team to manage compliance 'in specialty' as part of the scheduled mandatory 'PROMPT' agenda. Since its implementation during Q1, the service has seen a steady increase in compliance to 80% for maternity and neonatal staffing at the end of June. It is projected the service will reach 90% compliance by the end of Q2.

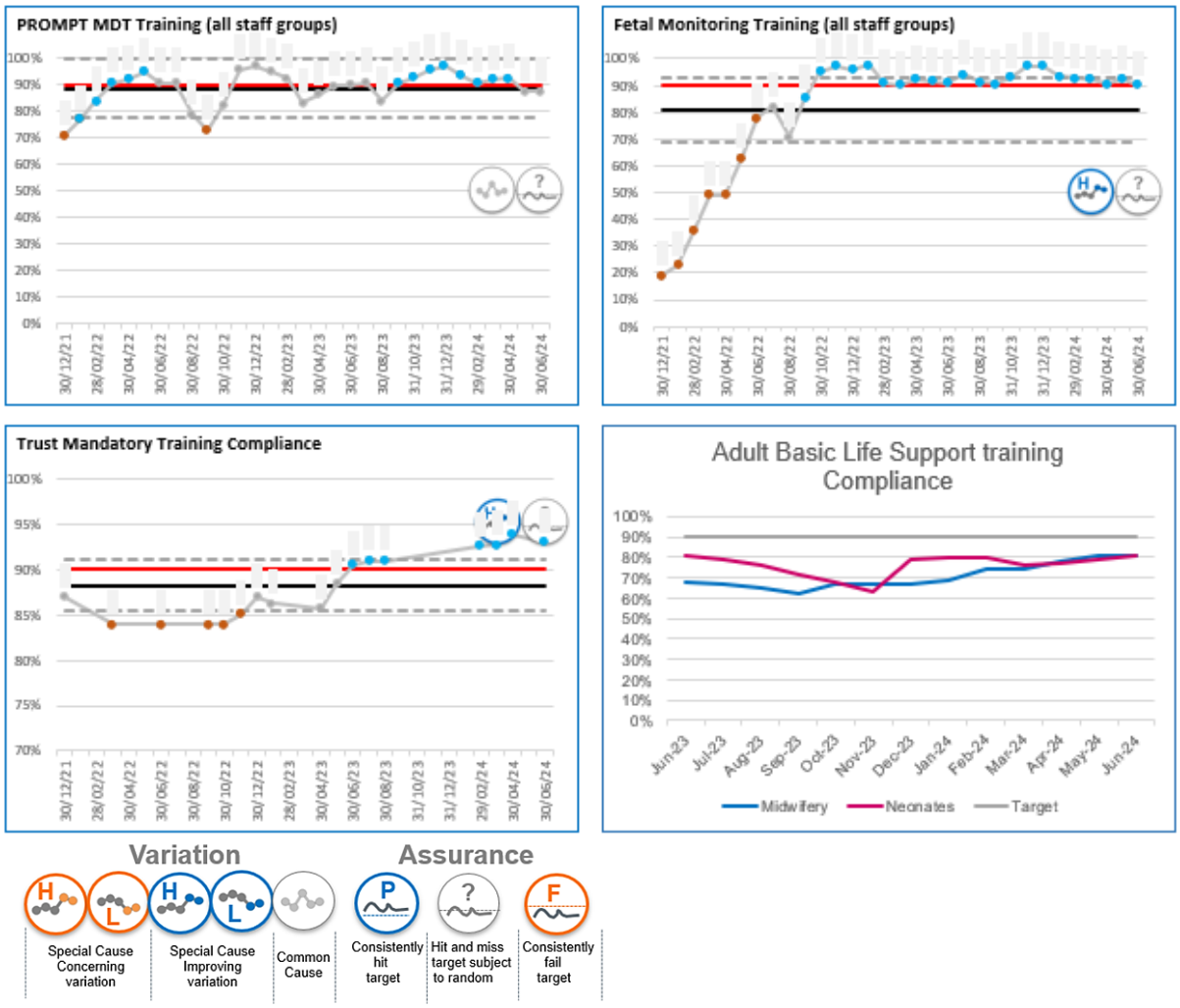

Figure 6. Maternity Training Statistical Process Charts for PROMPT, Fetal Monitoring, Mandatory Training compliance and Adult Basic Life Support compliance (reported on 30/06/2024)

During Q1 the service has seen a marginal drop in overall compliance for PROMPT to 88% (target 90%) during May and June 2024, attributable to summer month annual leave impacting on both training attendance and ability to release from clinical shifts to maintain clinical safe staffing. Additional training days are scheduled for September through to November to both to support compliance recovery, and in recognition of the influx of new starters anticipated throughout Q3 and doctor rotations.

6. BOARD LEVEL SAFETY CHAMPIONS

The Maternity and Neonatal Safety Champions are active in their role to listen to the staff voice in maternity services. All staff are invited to attend monthly 'listening event' meetings and interact with Safety Champions during walkabouts with the Chief Nursing Officer, the Non-Executive Director for Maternity and Neonatal services, and the Obstetric, Neonatal and Maternity Safety champions.

Members of the maternity and neonatal team attended the listening event meetings in Q1 from a range of areas, including neonatal services, community midwifery and specialist midwives.

Themes raised during Q1 were:

- Identified current issues with neonatal blood sampling coagulation in the laboratory leading to increased sampling
- Concerns regarding the trust-wide paid breaks consultation and outcome, both regarding break facilitation on shift, and the impact the unpaid breaks will have on work-life balance due to an increased requirements for 'make-up shifts' if not reducing hours.
- Positive feedback for the new 'Birth Options' clinic
- Positive feedback following launch of the new Day Assessment Unit and Maternity Triage

Current work to address the concerns raised:

- Neonatal Nurse Consultant working with biochemistry to understand the source of increased coagulation of neonatal blood samples and identify improvement steps to be taken
- Maternity services developed 'breaks working party' looking at developing tools, systems and techniques to support staff to effectively take their unpaid breaks particularly pertaining to work on Mary Ward.

Themes, commonalities and actions from this feedback is monitored via the Maternity and Neonatal Safety Champions meetings and is triangulated with further service insights in the Maternity and Neonatal Bi-annual 'Insights' report to drive our continuous improvement work.

7. NHS RESOLUTION MATERNITY INCENTIVE SCHEME UPDATE Q4 2023/24

The Clinical Negligence Scheme for Trusts released their Safety Actions for Year 6 on 31 March 2024. Updates on progress and monitoring towards achievement of the 10 Safety Actions outlined is completed and shared within Maternity and Neonatal Speciality Governance meeting and Board Level Safety Champions monthly.

Areas of current non-compliance are in response to the reporting time scales set within MIS not yet reached to be able to achieve the set standards.

	Maternity Incentive Scheme Y6 - Safety Action Detail	Current position 30/06/24	Anticipated submission position March 25
1	Are you using the National PMRT to review perinatal deaths to the required standard?		
2	Are you submitting data to the Maternity Services Data Set (MSDS) to the required standard?		
3	Can you demonstrate that you have transitional care services in place to minimise separation of mothers and their babies?		

4	Can you demonstrate an effective system of clinical* workforce planning to the required standard?		
5	Can you demonstrate an effective system of midwifery workforce planning to the required standard?		
6	Can you demonstrate that you are on track to compliance with all elements of the Saving Babies' Lives Care Bundle Version Three?		
7	Listen to women, parents and families using maternity and neonatal services and coproduce services with users		
8	Can you evidence the following 3 elements of local training plans and 'in-house', one day multi professional training?		
9	Can you demonstrate that there are robust processes in place to provide assurance to the Board on maternity and neonatal safety and quality issues?		
10	Have you reported 100% of qualifying cases to Healthcare Safety Investigation Branch (HSIB/CQC/MNSI) and to NHS Resolution's Early Notification (EN) Scheme from 30 May 2023 to 7 December 2023?		

Table 6: Position of compliance with MIS Year 6.

8. SAFETY ACTION 6 - MIS SAVING BABIES LIVES CARE BUNDLE V3.

Saving Babies Lives Care Bundle Version 3 implementation is subject to ongoing continuous improvement work assessed externally by the LMNS as per MIS safety Action 6 standards using the national implementation tool on NHS Futures Platform. The RUHs evidenced position in Q1 is reported in table 7 identifying progression of implementation from 73% in January 24 to 79% at the end of Q1.

Intervention Elements	Description	Element Progress Status (Self assessment)	% of Interventions Fully Implemented (Self assessment)	Element Progress Status (LMNS Validated)	% of Interventions Fully Implemented (LMNS Validated)	NHS Resolution Maternity Incentive Scheme
Element 1	Smoking in pregnancy	Partially implemented	90%	Partially implemented	80%	CNST Met
Element 2	Fetal growth restriction	Partially implemented	75%	Partially implemented	65%	CNST Met
Element 3	Reduced fetal movements	Fully implemented	100%	Fully implemented	100%	CNST Met
Element 4	Fetal monitoring in labour	Fully implemented	100%	Fully implemented	100%	CNST Met
Element 5	Preterm birth	Partially implemented	81%	Partially implemented	78%	CNST Met
Element 6	Diabetes	Fully implemented	100%	Fully implemented	100%	CNST Met
All Elements	TOTAL	Partially implemented	84%	Partially implemented	79%	CNST Met

Table 7: RUH Maternity position for implementation of Saving Babies Lives Care Bundle v3.

Ongoing work continues towards full implementation of all elements of Saving Babies Lives Care Bundle Version 3.

Key areas of focus are:

- Element 1 - Increased assurance data regarding the care pathways for smoking mothers to increase compliance via a new 'smoking mother's care pathway', audit report triangulating process indicators to clinical outcome measures to identify areas of improvement
- Element 2 - Capacity of Obstetric Ultrasound (USS) department to facilitate alignment to the national USS pathways, whilst fulfilling next working day targets for unscheduled USS in response to reduced fetal movements. Significant systems and practice changes required in response. Risk Register entry 1948. Ongoing audit plan in place; to closely monitor service change impacts
- Element 2 - Small for Gestational Age and Fetal Growth Restriction care pathways and guidance
- Element 2 - Digital Blood Pressure (BP) monitors are not currently validated for use in pregnancy and pre-eclampsia. National procurement issue in response to Saving Babies Live v3. Risk register Entry 2679
- Element 5 - Assurance data for the pre-term birth counselling for neonatal care expectations by the neonatal team ahead of an anticipated pre-term birth.

9.0 SAFE MATERNITY STAFFING
9.1 MIDWIFERY STAFFING

During Q1 the funding for the new increased midwifery establishment increase came into budget as seen in Figure 7. As of June 2024, the Band 5/6 Midwifery establishment vacancy position has a gap of 10.27 WTE. All vacancies have been recruited into with starters beginning in September and October 2024.

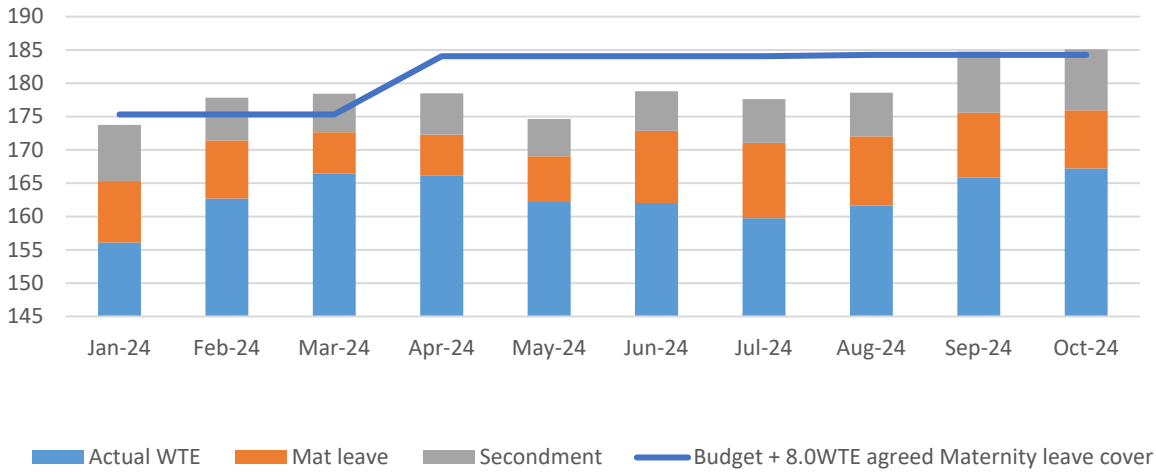

Figure 7. Band 5/6 Midwifery Workforce staffing vacancy and forecast (not including long-term sickness)

Measure	Aim	April	May	June
Midwife to birth ratio	1:24	25	27	27
Midwife to birth ratio including bank	1:24	24	24	25
Episodes of inability to maintain Supernumerary labour ward coordinator	0	0	0	0

status				
1:1 care not provided	0	0	0	0
Confidence factor in Birth-rate+ recording	60%	87.22	87.63	89.44

Table 8: Midwifery staffing safety measures

9.2 OBSTETRIC STAFFING

Measure	Aim	April	May	June
Consultant presence on BBC (hours/week)	≥90 hours	98	98	98
Consultant non-attendance (in line with RCOG guidance)	0	0	0	0
Twice daily MDT ward round	90%	97%	90%	100%

Table 9: Obstetric staffing safety measures

Q1 has seen a return to the previously stable position for compliance with twice daily MDT ward round >90%. This is following a period of instability during Q3 and Q4 23/24 due to a trial of digital data capture which was unsuccessful. Due to the extended period of instability in data capture, the service will continue to monitor monthly to ensure assurance of a stable position reflective of 'work as done', achieving consistence of ≥90% compliance.

The maternity investment case supported an increase of 2.0 WTE consultants, following an identified risk associated to the obstetric workforce. During Q1, one of the successful candidates appointed during Q4 commenced their substantive post, with an anticipated second clinician joining the service in July of 2024.

10.0 INSIGHTS FROM SERVICE USERS AND MATERNITY VOICES PARTNERSHIP CO-PRODUCTION

10.1 COMPLAINTS/COMPLIMENTS/PATIENT ADVICE AND LIAISON SERVICE/CONTACTS

	April	May	June
Number of formal compliments	0	5	3
Number of Patient Advice and Liaison Service (PALS) contacts/concerns	4	2	5
Complaints	1	0	0

Table 10: Complaints and compliments Q1 24/25

Compliments to the service were received across all areas of Maternity and Neonatal care including Bath Birthing Centre, Anaesthesia and Mary Ward. A continued theme amongst compliments to the service is the kindness and compassion showed to birthing people and their families from members of staff providing care. We are currently exploring a more robust method of capturing compliments received to the service as these are often received via informal routes, and kind gestures from families such as cards.

During Q1, 1 formal complaint was received, all complaints, PALS contacts and informal feedback are assessed for commonalities, trends or themes within the monthly Maternity and Neonatal 'Insights' Family feedback Triangulation group.

During Q1, 3 commonalities were identified within the service feedback received.

- A recognition that a curtain is not soundproof, particularly pertaining to the new Triage area. This was identified across digital feedback, Maternity and Neonatal Voices Partnership (MNVP) contacts and direct feedback to the management team
- Concerns were raised regarding coagulated neonatal blood samples and need to repeat samples. This was identified across Friends and Family Survey responses, PALS contacts and staff feedback within the Maternity and Neonatal Safety Champion listening events.
- Concerns regarding the external website for information about Maternity services (accessibility and content). Identified within PALS contacts, MNVP feedback.

Next steps:

- Reminders to all staff working in the triage area regarding lack of soundproofing and awareness of holding professional conversations privately in this area
- Triage doors closed during day time hours to support privacy of the women having assessments, with patients in the waiting room oversight being provided from administrative offices. Out of hours the doors will need to remain open to facilitate the clinicians in triage ability to maintain oversight of patients in the waiting room
- Neonatal Nurse Consultant currently liaising with clinical laboratory to understand causation for neonatal blood sample coagulation and develop actions to mitigate
- The service is aware of a trust-wide piece of work to review the patient facing website interface and is keen to engage and review to improve the accessibility of information.

All service feedback received 'in month' is reported into a cumulative tracker to allow for thematic assessment of trends or commonalities seeking identification of areas for improvement.

10.2 MATERNITY AND NEONATAL VOICES PARTNERSHIP PLUS (MVPP)

The Maternity and Neonatal Voices Partnership Plus (MNVPP) are a key stakeholder and member of the 'Insights' Family Feedback group and have been providing feedback into the meetings since their commencement in October 23.

The NHSE Maternity and Neonatal Programme published the Maternity and Neonatal Voices Partnership Guidance in November 2023; a gap analysis was undertaken in Q4, the priorities for the service are currently undergoing system-wide agreement within the Local Maternity and Neonatal System (LMNS).

MNVP hours have been increased and agreed via the LMNS Programme Board to support the work plan across the Bath and North East Somerset, Swindon and Wiltshire (BSW) system. This will support delivery of the key priorities:

- To review outcome of the inclusion midwife pilot and embed recommendations
- To promote the care to translate app and undertake a review of the current translation services
- To increase voice of the bereaved and the Neonatal Unit parent/family with the MNVP
- To complete the '15 steps' to drive environmental improvements in the clinical areas
- To champion co-production between the clinical teams and the MNVP ensuring service user voice is at the centre of projects.

11.0 AVOIDING ADMISSION INTO THE NEONATAL UNIT (ATAIN) & TRANSITIONAL CARE

During Q1, the Transitional Care service was operational for 100% of the time with >50% of

neonatal care provision within a Transitional Care Pathway (TCP), providing neonatal care at the mother's bedside. Staffing in line with the TCP model was met on average of 96% of the time across the quarter. On no occasion were there identified missed opportunities to provide TC care or identified admissions to the Neonatal Unit that would have met current TC admission criteria. No babies were admitted to or remained on NNU because of their need for nasogastric tube feeding, which could have been cared for on a TC if nasogastric feeding was supported there.

The Avoiding Term Admissions into the Neonatal Unit (ATAIN) working group identified 2 avoidable admissions into the Local Neonatal Unit (LNU) in Q1. There have been no identifiable commonalities between the avoidable admissions reviewed at the ATAIN MDT. The learning from these cases has been actioned by the Obstetric Consultant and the Quality and Education Midwife with an identified quality hot spot focus on the Safety Catch and Quality Boards.

The report identified current data capture issues regarding re-admissions into the LNU and ATAIN figures externally retrieved by the Southwest Operational Delivery Network (ODN) which may be falsely inflating the RUH ATAIN rate. The neonatal governance lead is working with the data analysts in the ODN to ensure transparent and comparable data capture for local and regional benchmarking of clinical outcomes across the network. The RUH ATAIN rate Q1 remains below the national target of 5% at 4.3% following exclusions (Appendix 2).

12.0 RISK REGISTER

In Q1 Maternity and Neonatal, services presented one new risk assessments, which was approved for the risk register:

Risk No	Title of Risk	
2784	Maternity and Neonatal Services Adult Basic Life Support Compliance	6

Table 11: New Risks for the Maternity and Neonatal risk register Q1 2023/24

During Q1 three risks were closed as detailed in table 12.

Risk No	Title of Risk	Rationale for closure	
2417	Maternity Triage	Completion of the estates work during Q1 to separate scheduled and unscheduled care enabled the implementation of the nationally recognised Birmingham Symptomatic Obstetric Triage System (BSOTS) mitigating the risk of an inability to deliver nationally recommended best practice.	12
1734	Day Assessment Unit patient safety risk – area not compliant or fit for purpose	Completion of the estates work during Q1 has provided the service with a purpose-built estate for scheduled and unscheduled antenatal care.	12
2680	Unavailability of Fetal FibroNectin (FFN) in Maternity Services	National alert received for the cease in production of FFN, all national guidance will be redacted to reflect this, with next line best practice currently in use by RUH Maternity therefore the risk of the service being unable to provide nationally identified best practice is	12

		removed.	

Table 12: Closed Risks for the Maternity and Neonatal risk register Q1 2023

A full summary of the Maternity risk register is detailed in table 13. Actions towards closing the gaps identified within the individual risk assessments on datix, and continued mitigation of risk, will be monitored through Specialty and Divisional governance with Trust Management Executive, oversight to ensure appropriate actions are taken in accordance with the Trust risk framework.

1948	Obstetric ultra sound scan capacity	8
2359	Maternity Information System IT support/capacity	8
2467	Maternity workforce	8
2481	Staff Entonox exposure in birthing environments	4
2482	Assessment of minor and low harm Datix management in Maternity and Neonatal Division.	4
2522	The Provision of maternity care to birthing people who do not identify as a female gender	4
2562	There is a risk to the Electronic Patient Record (EPR) due to unsecured funding following withdrawal from Cerner Millenium	4
2591	There is a risk that the current funded provision of Allied Health Professionals in the Neonatal Unit will not continue following cease of fixed term funding from the neonatal Operational Delivery Network.	9
2649	Delays to commencement of induction of labour	8
2679	Service provision of digital blood pressure monitors validated for use in pregnancy and pre-eclampsia	5
2660	Tertiary level neonatal cot capacity in the region	8
2681	Mandatory Training room booking availability	9
2717	Shared Father/Partner information within the multi-agencies	10
2718	Bacillus Calmette-Guerin (BCG) Vaccination programme	8
2724	Risk of loss of Obstetric USS reporting System	9

Table 13: Maternity and Neonatal Risk Register June 2024

13.0 RECOMMENDATION

The Quality Assurance Committee is asked to discuss and approve the content of the report.

Appendix 1 RUH Stillbirth Case Cohort review of 2024.

Appendix 2 TC and ATAIN report Q1 24/25

Stillbirth case cohort review in Royal United Hospitals (RUH) Bath, Maternity and Neonatal Services. December 2023 to May 2024.

Author: Jodie Clement – Quality Improvement and Patient Safety Lead Midwife for Maternity and Neonatal Services

Date: July 2024

1. Background and Context.

Between December 2023 and May 2024, Maternity services identified an increased incidence of stillbirth with 6 cases within a 6-month period. This is equal to the total value of stillbirths for the calendar year 2023 (12-month period). This indicates 2 times increase in the stillbirth rate per 1000 births during the 6-month period with a rate of 2.38 per 1000 births, in comparison to the overall rate of 1.42 per 1000 births during 2023. The rate however remains below the national average for 2022 of 3.3 per 1000 births,

All cases received a 'rapid review' by the multidisciplinary team and have been referred to Mothers and Babies Reducing Risk through Audit and Confidential Enquiries (MBRRACE) for review via the Perinatal Mortality Review Tool (PMRT).

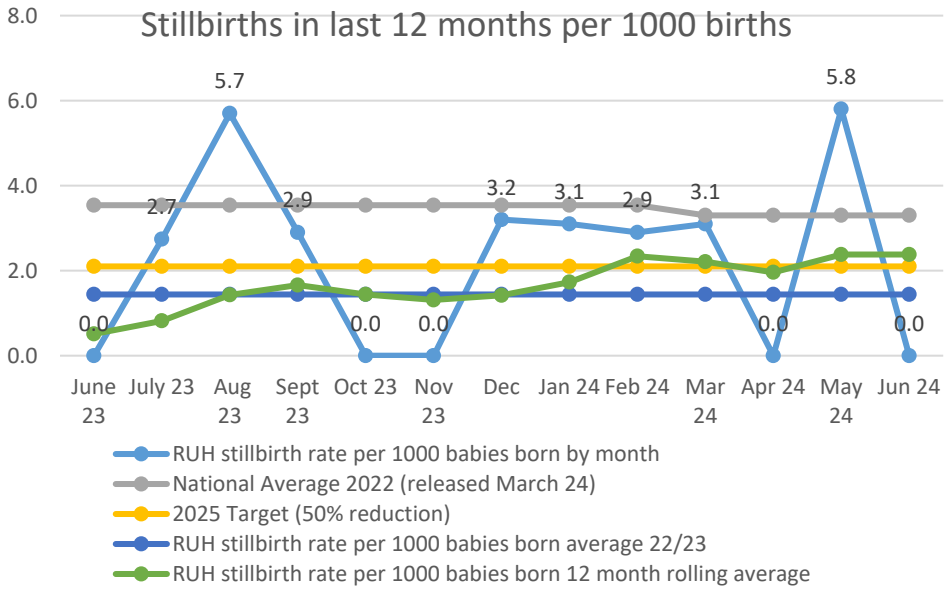

Figure 1: RUH rolling stillbirth rates against national benchmarks

2. REVIEW METHODOLOGY

This Maternity service undertook a retrospective case cohort review of the stillbirths which occurred between December 2023 – May 2024. The review aims to identify/exclude any modifiable factors, factors of commonality, or cause for concern which may identify areas for further exploration, or improvements in maternity care with the aim to optimise risk assessment, mitigation and prevention of stillbirth, in line with the national ambition to reduce stillbirth in the UK (Saving Babies Lives version 3, 2023).

This review involved a deep dive of the 6 stillbirths (sample size 100%) looking at background demographics, care provision aligned with the interventions within the Saving Babies Lives Care Bundle version 3 of 2023.

- Treating Tobacco Dependency in Pregnancy
- Risk Assessment, prevention and surveillance of fetal growth restriction
- Management of reduced fetal movements
- Intrapartum fetal monitoring
- Prediction prevention and optimisation of pre-term birth
- Management of pre-existing diabetes in pregnancy

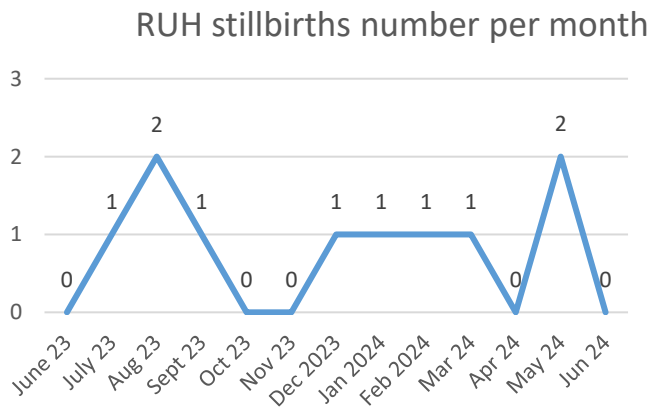

Figure 2: 12-month stillbirth figures per month at RUH Maternity

3. BASELINE DATA

This review analysed the baseline demographic data for all births within the RUH within the same 6-month period (December 2023 to May 2024); a total of 1933 births.

3.1 ETHNICITY

Ethnicity	No Stillbirths (n=6)	No Births (n=1933)
White British	5 = 83%	1782 = 92%
Mixed Race	0 = 0%	26 = 1.35%
Asian	0 = 0%	72 = 3.7%
Black	1 = 17%	30 = 1.56%
Other ethnic group	0 = 0%	27 = 1.3%

Table 1: RUH births and stillbirths by ethnicity Dec 23 – May 24.

When reviewing the ethnicity of mother's who experienced a stillbirth during Dec 2023-May 2024 in comparison to all births at the RUH across the time frame, the largest proportion of births within both groups were from women who identified as White British at booking, with 92% of all births and 83% of stillbirths which shows a correlative proportion. There is a disparity between the number of women who identify as black (1.56%) and 1 stillbirth equating to 17% of stillbirths, however, note the small sample size.

To determine if this is a true disparity, a larger data set would need to be considered, therefore the review further considered all births and stillbirths from April 2020-May 2024.

Ethnicity	No Stillbirths (n=43)	No Births (n=17,489)
White British	36 = 83%	15,961 = 91%

Mixed Race	1 = 2.3%	282 = 1.6%
Asian	2 = 4.65%	450 = 2.6%
Black	2 = 4.65%	187 = 1.1%
Other Ethnic group	1 = 2.3%	268 = 1.5%
Not stated/unknown	1 = 2.3%	341 = 1.9%

Table 2: RUH births and stillbirths by ethnicity April 2020-May 2024

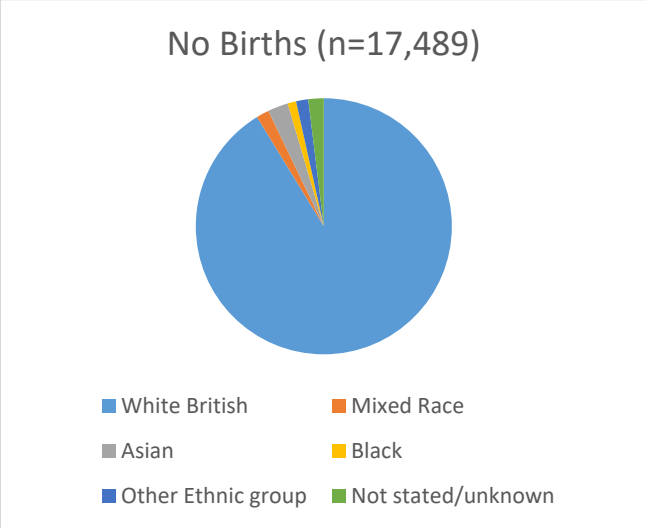

Figure 3: RUH Maternities by ethnicity April 2020-May 2024

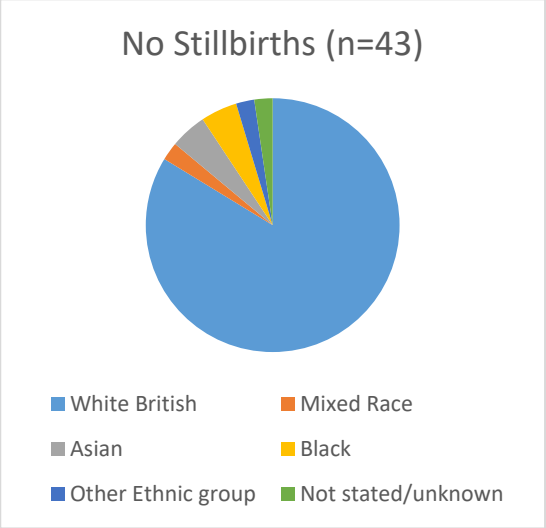

Figure 4: RUH Stillbirths by ethnicity April 2020-May 2024

Figures 3 and 4 demonstrate a wider spread/ increased proportional representation of ethnicities amongst the stillbirth cohort in comparison to the total births between the same timeframes. However, due to the small values within the stillbirth cohort, it is still not possible to clearly tell if this is indicative of an increased risk of stillbirth for women of black and Asian ethnicities under RUH maternity care.

3.2 AGE

The age range of the women who had a stillbirth between Dec 23 and May 24 ranged between 24-36 years of age.

Tommy's (2024) states that 'women who become pregnant when they are over the age of 35 are more at risk of giving birth to babies that are too small, or stillborn.' (Tommy's, Lean, et al 2024).

Within the 6 stillbirths, 1 mother had an age at the booking > 35, upon review of her antenatal care plan, the review concluded that her care was in line with local and national pathways for increased maternal age.

3.3 INDEX OF MULTIPLE DEPRIVATION (IMD)

IMD is used to identify those postcodes at risk of low socioeconomic status, lower IMDs have shown, within national reports, to be associated with higher incidence of poor perinatal outcomes including increased perinatal mortality.

All of the stillbirths have been assessed for their IMD and background prevalence of IMDs across the women and families the RUH maternity provided care for.

IMD	No Stillbirths (n=6)	No Births (n=1661)
1	1	28
2	2	55
3	0	81
4	0	152
5	2	217
6	0	207
7	0	320
8	1	230
9	0	293
10	0	78

Table 3: RUH Maternities and stillbirths by IMD Dec 23 – May 24.

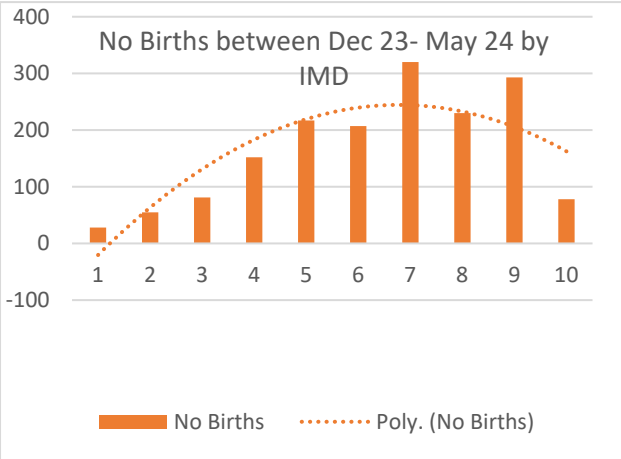

Figure 5: RUH Maternities by IMD Dec 23-May 2024

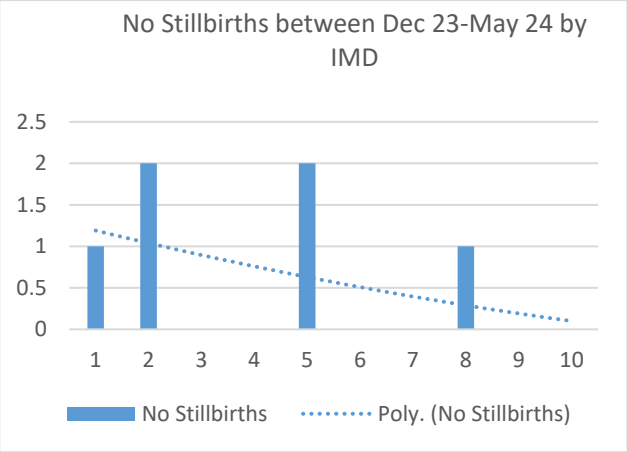

Figure 6: RUH Stillbirths by ethnicity Dec 23-May 2024

When plotting the spread of IMD across all births at the RUH between December 23 to May 24, in comparison to the spread of IMD across the stillbirths within the same time, there is a disproportionate alignment. The majority of births took place from women who live in IMDs between 5-9, which is in contrast to the stillbirth cohort where the largest proportion of representation was between IMDs 1-5.

However, it is to be noted the sample size is small (n=6) which may skew the figures to prevent any statistically significant findings. The review therefore increased its sample size to test the theory further with the aim to confirm or exclude the potential trend in data and identify areas for exploration and improvement in RUH maternity.

The review has therefore, further considered all births and stillbirths at the RUH from April 2020-May 2024.

IMD	No Stillbirths April 2020-May 2024 (n=43)	No Births April 2020-May 2024 (n=17,489)
1	2	236
2	4	593
3	0	779
4	3	1485
5	6	1975
6	2	2551
7	4	1907
8	13	2853
9	2	2536
10	7	2574

Table 4: RUH Maternities and stillbirths by IMD April 2020 – May 24.

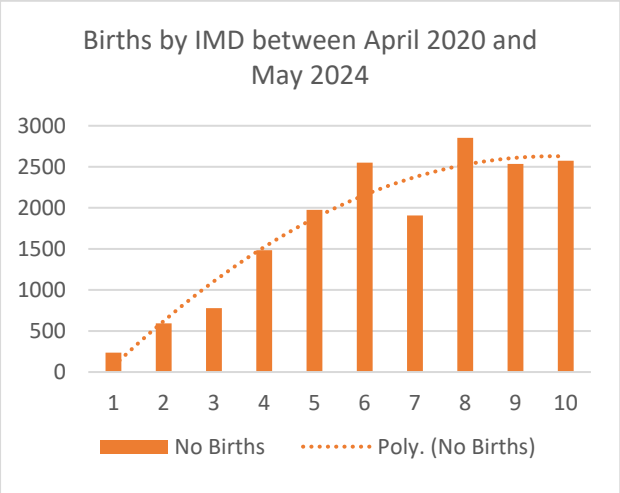

Figure 7: RUH Maternities by IMD April 2020-May2024

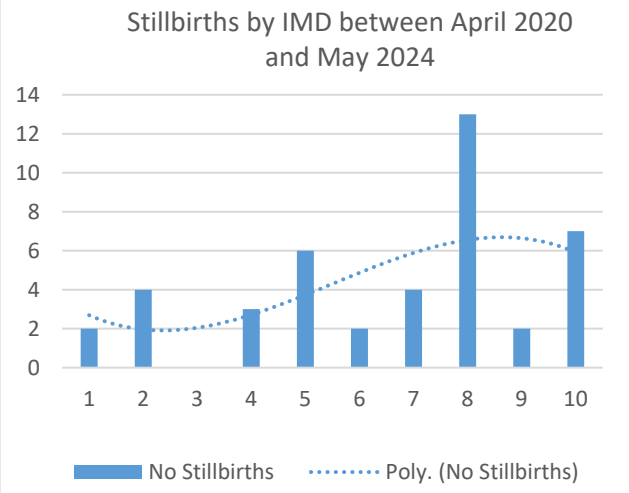

Figure 8: RUH Stillbirths by IMD April 2020-May 2024

Following increasing of the sample size, the negative correlation between IMD and overall number of stillbirths is no longer present. Therefore, this review could find no direct correlation between IMD and stillbirth rates within the RUH births. The trend lines in both graphs (figure 7 and 8) identify the same trajectory and spread of data with the largest proportion of births and stillbirths being from mothers within IMDs 5-9. However, it is of note within the stillbirth data, comparatively there appears to be a potential over-representation of stillbirths in the lowest 2 IMDs. Women and birthing people who accessed Maternity care at the RUH between April 2020 and May of 2024 from the lowest 2 IMDs accounted for 4.5% of all bookings between April 2020 and May 2024, however represented 15% of all stillbirths across this same timeframe. The cause for this is unknown.

It is therefore recommended that the bereavement team collaborate with the Health in Pregnancy team to explore the potential proportional over-representation of stillbirth incidence in woman booked for RUH Maternity care IMD's 1 and 2.

3.4 BODY MASS INDEX (BMI)

The Royal College of Obstetrics and Gynaecology (RCOG) states that 'the overall likelihood of stillbirth in the UK is 1 in every 200 births however if you have a BMI of 30 or above, this risk increases to 1 in every 100 births' (RCOG, 2018).

Stillbirth	Maternal BMI at maternity booking
1	30.48
2	19.78
3	21.63
4	27.13
5	27.97
6	55.45

Table 5: Stillbirth by Maternal BMI at booking appointment Dec 23 – May 24

In cases 1 and 6, the maternal BMI at booking was greater than 30. The mother's care pathways have been assessed to see if they followed both local and national guidance for a raised BMI in pregnancy, in both cases their care pathway followed local and national guidance.

4. CASE COHORT REVIEW

As part of this review process, a deep dive into the individual care provision for the 6 women who experienced a stillbirth within RUH maternity care between Dec 2023 - May 2024 looking for any modifiable factors, factors of commonality or areas for improvement, the first section of this review has aligned to the 6 elements of the Saving Babies Lives Care Bundle Version 3.

Saving Babies Lives Care bundle version 3

- **Treating Tobacco Dependency (TTD) in Pregnancy**

None of the mothers who experienced stillbirths between Dec 23-May 24 identified as a smoker in their pregnancy. Two of the mothers identified as a smoker at conception, however, gave up smoking upon confirmation of pregnancy. Therefore, none of the cases would have been eligible for referral to the TTD team.

Carbon Monoxide Screening was conducted at booking for 100% of women, however compliance for screening at every routine appointment was lower at 66%. This is reflective of current audit findings for RUH maternity services

Month	April 24	May 24	June 24
	All women (20) Calculated from all possible contacts	**All women (20) Calculated from all possible contacts**	**All women (20) Calculated from all possible contacts**
CO documented at each routine antenatal appointment	**84% (135/161)**	**88% (173/196)**	**85% (120/142)**

CO documented at all antenatal contacts	**70%** **(161/230)**	**79%** **(209/265)**	**68%** **(147/215)**
Smoking status at 36 weeks gestation	**89%** **(17/19)** **1 N/A del 36/40**	**70%** **(14/20)**	**100%** **(20/20)**
CO documented at 36 weeks gestation	**89%** **(17/19)** **1 N/A del 36/40**	**90%** **(18/20)**	**100%** **(20/20)**

Table 6: RUH Maternity Carbon Monoxide and Smoking status audit results Q1 24/25

- **Risk Assessment, prevention and surveillance of fetal growth restriction**

Risk Assessment and Aspirin

Of the 6 cases of stillbirth cases, all women received a risk assessment for intrauterine growth restriction, inclusive of risk assessment for aspirin prophylaxis. Upon review of the notes, all women and their presenting risk factors were appropriately and accurately risk assessed for Aspirin. This is reflective of current audit findings for RUH maternity services.

Standard - 45 women	**Compliance** **X45** **September 23**	**Compliance** **X40** **March 24**
All women should be risk assessed at booking to determine if aspirin is required.	100%	100%
Women who are identified as requiring aspirin should be advised to take aspirin.	9 identified as requiring aspirin and were advised to take. 34 n/a do not require aspirin 2 had risk factors for SGA so on SGA pathway for USS but did not qualify for aspirin according to our Aspirin SOP	9/11 identified as requiring aspirin and were advised to take. The other 2 were smokers and taking aspirin was not on SOP until Jan 24 29 n/a do not require aspirin

Table 7: Aspirin risk assessment audit results Q1 24/25

Symphysis Fundal Height (SFH) Measurements

In the given period, 100% of routine antenatal midwifery appointments, the SFH measurement was taken, of these measurements 82% were plotted onto the Intergrowth SFH measurement chart.

The missed opportunities to have been plotted onto the Intergrowth chart have been retrospectively plotted and identified that no change in management would have taken place.

This is reflective of current audit findings for RUH maternity services.

Standard	2021/22 x 240 audits	2022/23 x 240 audits	2023/24 x 239 audits	April 24 x 20 audits	May 24 x 20 audits	June 24 x 20 audits
The SFH should be measured & documented in cms at every Midwife ANC from 25 weeks gestation	98% (235/239)	100% (240/240)	100% (239/239)	100% (20/20)	95% (19/20) BMI of remaining woman 49 however only USS 28/36??	100% (20/20)
The SFH measurement should be documented on the SFH chart at every visit from 25 weeks	80% (188/236)	81% (194/240)	72% (172/239)	85% (17/20) had 100% of their SFH measurements plotted.	74% (14/19) had 100% of their SFH measurements plotted.	55% (11/20) had 100% of their SFH measurements plotted.
				Of all measured SFHs undertaken across the 20 women the mean average plotting compliance was 96.8% 13 SFH not plotted	Of all measured SFHs undertaken across the 20 women the mean average plotting compliance was 98.3% 6 SFH not plotted	Of all measured SFHs undertaken across the 20 women the mean average plotting compliance was 97% 13 SFH not plotted
The SFH should be plotted correctly on all occasions	97% (229/235)	97% (231/239) 1N/A	99% (237/239)	100% (20/20)	100% (20/20)	100% (20/20)
If the SFH falls outside the normal range then an appropriate referral should be made	90% (38/42)	95% (59/62) 1 N/A USS in last 2 weeks	97% (76/78)	100% (5/5)	89% (8/9) X1 22 cms at 25/40 no referral made	100% (7/7)

Table 8: Symphysis Fundal Height measurement audit results Q1 24/25

The drop in compliance from 100% of SFH measurements is attributable the paper-based procedure to transcribe the recorded numerical measurement value from one page in the maternity record to the growth chart. This presents the opportunity for missing data/human error. There is a digital solution available in 'Badger.net' which will launch in RUH Maternity

in June 25. Badger.net automatically plots the SFH onto your desired growth chart following entry of numerical SFH value (current compliance 100%).

- It is recommended that the service continues to plan for the implementation of Badger.net digital EPR system in June 25 with specific reference to ensuring the embedded SFH charts align to the services chosen scale and Saving Babies Lives v3 standards.

Birth weights

The birth weights of the babies ranged between 1750g and 4450g, with a gestational age range between 32 weeks and 39 weeks of pregnancy. The spread of birth weight centiles per gestational age is as below.

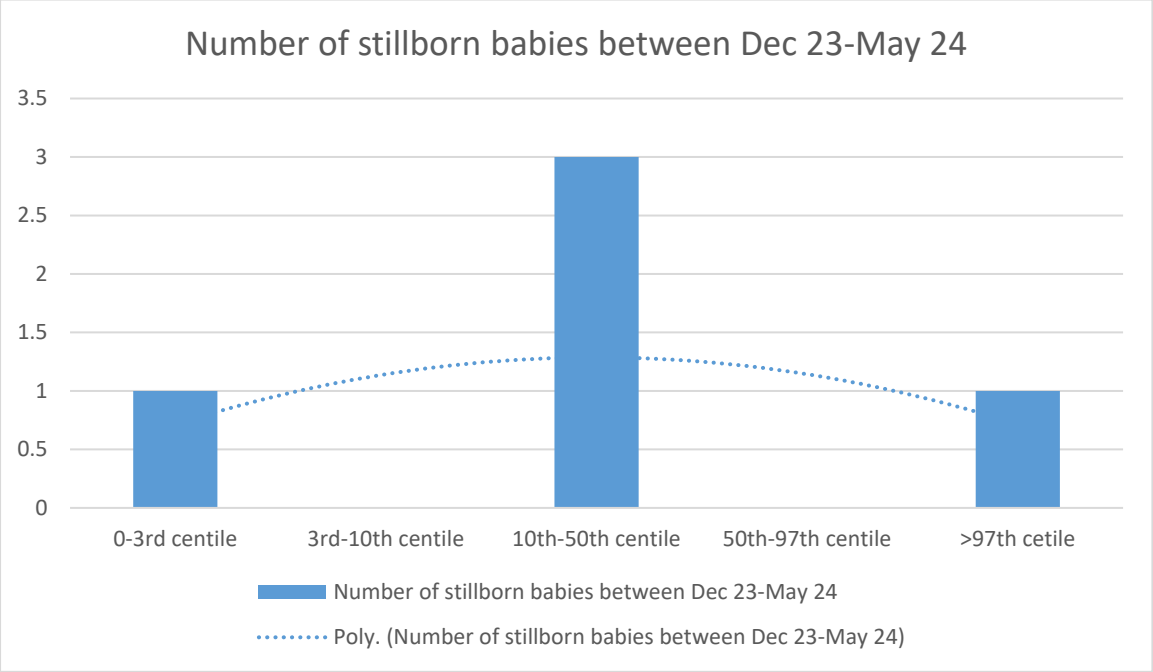

Figure 9: Stillborn babies between Dec 23-May 24 by birthweight percentile.

This indicates the largest proportion of babies who were born stillborn were between the 10th and 50th centile, 1 baby was born less than the 3rd percentile and 1 was born greater than the 97th.

In the birth of the baby born less than the 3rd percentile, the mother was on a healthy multiparous care pathway, no concerns had been raised regarding the growth of the baby via Symphysis Fundal Height measurements within her routine midwifery care therefore the low birthweight was an unexpected outcome.

- **Management of reduced fetal movements**

Across the 6 stillbirths, the mothers attended maternity triage for a total of 9 additional unscheduled same day appointments, 1 of which was in response to reduced fetal movements. No concerns were raised in the management of this episode of care which took place at 30 weeks of pregnancy.

In all other incidences of recorded reduced fetal movements in the stillbirth cohort, the first and only presentation with reduced fetal movements was at the diagnosis of the stillbirth (n=2). On both occasions, the maternity triage ‘colour’ risk assessment pathway was correct, and the

mother was seen within the recommended time frame for initial assessment, unfortunately on auscultation the fetal heartrate could not be found.

100% of the women received the Tommy's reduced fetal movement leaflet at their 16-week midwifery appointment.

All of the cases have been assessed for routine fetal movement discussion and documentation at each midwifery antenatal appointment. The review has found one occasion where, evidence that fetal movements were discussed could not be found. This presented a 97.6% compliance in all midwifery appointments.

None of the cases were under a recurrent reduced fetal movement care pathway at the time of their stillbirth.

- **Intrapartum fetal monitoring**

Five of the stillbirths were antenatal stillbirths therefore intrapartum fetal monitoring was not a factor in their care.

One stillbirth was classified as an intrapartum stillbirth and was referred to the Maternity and Neonatal Safety Investigations team. This was a case of a baby born before arrival to the hospital for labour assessment, showing no signs of life. Therefore, no intrapartum care was provided.

- **Prediction prevention and optimisation of pre-term birth**

All of the 6 mothers had a risk assessment for pre-term birth conducted at their booking appointment.

None of the mothers were treated for presentations of threatened pre-term labour.

None of the 6 cases had intrapartum care provision at a pre-term gestation with a live fetus.

- **Management of pre-existing diabetes in pregnancy**

None of the mothers were known to be pre-existing diabetics at the time of their booking appointment

- It is recommended that the service continues to work towards full implementation of the Saving Babies Lives Care Bundle version 3.

<u>Midwifery Continuity.</u>

The number of midwifery appointments per mother ranged between 7-10 appointments, with the average number of appointments being 9 appointments. 100% of the mothers received a schedule of antenatal appointments in line with the minimum under national guidance. Some mothers received increased midwifery appointments during their pregnancy as part of increased care planning in collaboration with obstetrics, or at maternal request/choice.

Each mother saw an average of 3 midwives during their pregnancy. The minimum number of midwives a mother saw was 2 and a maximum of 5. The impact of non-continuity of carer was not identified within the family feedback as impacting upon quality of care in any of the 6 cases explored via PMRT.

Presenting medical and obstetric history.

Within 4 of the 6 stillbirth cases, the mother presented with medical co-morbidities at the commencement of their maternity care.

National Health Service lists the risk factors for stillbirth as:

- Antepartum Haemorrhage
- Pre-eclampsia
- Fetal Growth restriction
- Obstetric Cholestasis
- Pre-existing diabetes
- Active infection
- First pregnancies
- Twins or multiple pregnancy
- Maternal age of under 20 or greater than 35
- Smoking, drinking alcohol or misuse of drugs during pregnancy
- Previous stillbirth
- Maternal obesity – having a BMI of 30 or above (NHS, 2024)

When comparing the listed risk factors above, with the stillbirth cases (excluding maternal age and obesity as this had been further considered above), only 1 of the mothers presented with a medical/obstetric fitting that of the factors above.

Of the 6 births, 2 of the mothers were within their first pregnancy.

Family feedback

Each of the families has kindly provided feedback to the service regarding their care as part of the nationally recommended Perinatal Mortality Review Tool (PMRT) pathway. The families' comments and questions have been assessed as part of this review, no commonalities have been identified indicating areas for systematic improvement in care provision. In all cases, feedback was often about very specific clinical questions pertinent to specific times or points within in their pregnancies.

Conclusion

This review has been unable to identify any clear causal or contributory commonalities within the 6 cases of stillbirth.

However, it has identified the following findings for further exploration or improvement within Maternity services.

- It is recommended that the bereavement team collaborate with the Health in Pregnancy team to explore the potential proportional over-representation of stillbirth incidence in woman booked for Maternity care with RUH services from IMD's 1 and 2.

- It is recommended that the service continues to plan for the implementation of Badger.net digital EPR system in June 25 with specific reference to ensuring the

embedded SFH charts align to the services chosen scale and Saving Babies Lives v3 standards.

- It is recommended that the service continues to work towards full implementation of the Saving Babies Lives Care bundle version 3.

Clinical Audit Report

Appendix 2: Transitional Care Pathway (TCP) and ATAIN Audit Q1 2024/2025

Speciality: Local Neonatal Unit

Division: Family & Specialist Services Division

Project team				
Kirstie Flood	Title/grade:	Lead Nurse	Data period:	Q1 April 2024-June 2024
Sarah Goodwin	Title/grade:	Neonatal Governance Lead	Report completion:	August 2024

Transitional Care Pathway and ATAIN Audit Q4 2023/2024

Contents

Executive Summary

Background

ATAIN is an acronym for **A**voiding **T**erm **A**dmissions **I**nto **N**eonatal units. It is a national programme of work initiated under patient safety to identify harm leading to term admissions. The current focus is on reducing harm and avoiding an unnecessary separation of mother and baby.

Mothers and babies have a physiological and emotional need to be together, hours and days following birth – this is important for physiological stability of baby and initiation of maternal infant interaction.

There is overwhelming evidence that separation of mother and baby so soon after birth interrupts the normal bonding process, which can have a profound and lasting effect on maternal mental health, breastfeeding, long-term morbidity for mother and child.

This makes preventing separation, except for compelling medical reason, an essential practice in maternity services and an ethical responsibility for healthcare professionals.

As part of the RUH Maternity and Neonatal services, the continued monitoring of admission data and modifiable factors which may have impacted upon the resulting admission allows the continuous evaluation of current systematic care provision and seeks to identify key areas of improvement.

This audit report is demonstrative of the upward reporting from the ATAIN working group's Terms of Reference (TOR) supporting the continued improvement of our services and supplementary evidence of the Maternity Incentive Scheme - year five, Safety Action 3*.

**Safety Action 3: To demonstrate that you have transitional care services in place to minimise separation of mothers and their babies and to support the recommendations made in the avoiding term admissions (ATAIN) into Neonatal units (LNU) programme.*

Objectives

- To review all pathways into TC have been jointly approved by maternity and neonatal teams to minimise the separation of mothers and babies. Please see Guidance Neo-100. Neonatal teams are involved in decision making and planning care for all babies in transitional care.
- To monitor pathway of care into TC has been fully implemented and is audited quarterly. Audit findings are shared with the neonatal safety champion, Local Maternity and Neonatal System (LMNS), Trust Board of Directors, commissioner and Integrated Care System (ICS) quality surveillance meeting each quarter.

- To evaluate the number of admissions into the neonatal unit that would have met TCP admission criteria but were admitted to the neonatal unit due to capacity or staffing issues.
- To evaluate the number of babies that were admitted to or remained on LNU because of their need for nasogastric tube feeding but could have been cared for on a TCP if nasogastric feeding was supported there. 34+0 - 36+6
- To provide a data record of existing TCP activity, (regardless of place - which could be a TCP, postnatal ward, virtual outreach pathway etc.). The data should capture babies between 34+0-36+6 weeks gestation at birth, who neither had surgery, nor were transferred during any admission, to monitor the number of special care or normal care days where supplemental oxygen was not delivered.
- To analyse staff/Parent feedback via a questionnaire around satisfaction and quality and safety of care.
- Outline the key findings and improvements identified by the ATAIN working group's activity on a quarterly basis for sharing within Maternity and Neonatal Governance structures and the Board Level Safety Champion.
- To provide evidence and assurance of progression with the action plan for sharing with the neonatal maternity safety champion, and Board Level Champion, LMNS and ICS quality surveillance meeting each quarter.
- To provide an audit trail of evidence that reviews of all term babies transferred or admitted to the LNU, irrespective of their length of stay.

The ATAIN working group is responsible for completing a thematic review of the primary reasons for all admissions, with a focus on the leading cause/ reason(s) for admission through a deep dive to determine relevant areas of improvement to be addressed. This is in line with the working group's TOR.

Key findings

Standard	Compliance April 2024	Compliance May 2024	Compliance June 2024	Quarter 1 24/25 Totals
Audit findings shared with neonatal safety champion	**Complete**	**Complete**	**Complete**	**Complete**
The % of babies who received all their care on the TC pathway	**47%**	**46%**	**53%**	**49%**

The % of babies who received care on the TC pathway for part of their admission	**53%**	**63%**	**61%**	**59%**
The number of admissions to the neonatal unit that would have met current TCP admission criteria but were admitted to the neonatal unit due to capacity or staffing issues	**0**	**0**	**0**	**0**
The number of babies that were admitted to or remained on NNU because of their need for nasogastric tube feeding but could have been cared for on a TCP if nasogastric feeding was supported there. 34+0 -36+6	**0**	**0**	**0**	**0**
% of shifts TCP nurse provided as per TCP staffing model	**95%**	**98%**	**97%**	**96%**
TCP open	**100%**	**100%**	**100%**	**100%**
Number of babies readmitted to neonatal unit from TCP	**0**	**0**	**0**	**0**
The percentage of term transfers or admissions reviewed by the ATAIN working party irrespective of their length of stay.	**100%**	**100%**	**100%**	**100%**
The number of avoidable term admissions 37+0 weeks gestation and above admitted to the neonatal unit.	**2**	**0**	**0**	**2**
The number of term babies transferred or admitted to the neonatal unit from other areas –e.g. Emergency Department, Children's ward.	**1**	**2**	**1**	**4**

Table 1: Q1 compliance with ATAIN

Project title

Transitional Care and ATAIN Audit Q4 2024/2025 April- June 2024

Division

Family & Specialist Services Division

Specialty

Local Neonatal Unit

Disciplines involved

Neonatal Nurse Consultant, Neonatal Governance Lead

Obstetric Consultant, Patient Safety Midwives

ATAIN working group

Project leads

Kirstie Flood Lead Nurse

Sarah Goodwin Neonatal Governance Lead

Standards

Maternity Incentive Scheme - year six. Safety Action 3.

Sample

- All admissions to LNU and TC Pathway 01/04/2024-30/06/2024 to determine if the correct location of care was achieved.
- All babies born at 37+0 weeks gestation and above from 01/04/2024-30/06/2024 who were admitted to the LNU.

Data source

Badger Net, LNU and TCP admission book and individual medical notes.

Audit type

Retrospective and live data collection.

1.0 Transitional Care Pathways Findings Q1

Staffing: In Q1 the TC pathway remained open 100% of the time with staffing meeting the identified TC pathway model on average 96% of the time. There were no identified occasions when there were missed opportunities to have provided TCP care or identified admissions to the neonatal unit that would have met current TCP admission criteria but were admitted to the neonatal unit due to capacity or staffing issues. No babies were admitted to or remained on NNU because of their need for nasogastric tube feeding, which could have been cared for on a TCP if nasogastric feeding was supported there.

Admissions: When reviewing the leading causes of admission to the TCP, see figure 1. The leading causes for admission remains consistent from Q4 into Q1 as:

- Requirement for intravenous antibiotics
- Requirement for 'Kaiser' observations for a risk of sepsis

Admissions to the TCP outside of these parameters remain low in line with audit findings and rates below the national averages for RUH Maternity such as rates of births with evidence of Fetal Growth Restriction (FGR) (below the 2nd centile), and Pre-term birth (births below 37 weeks of pregnancy).

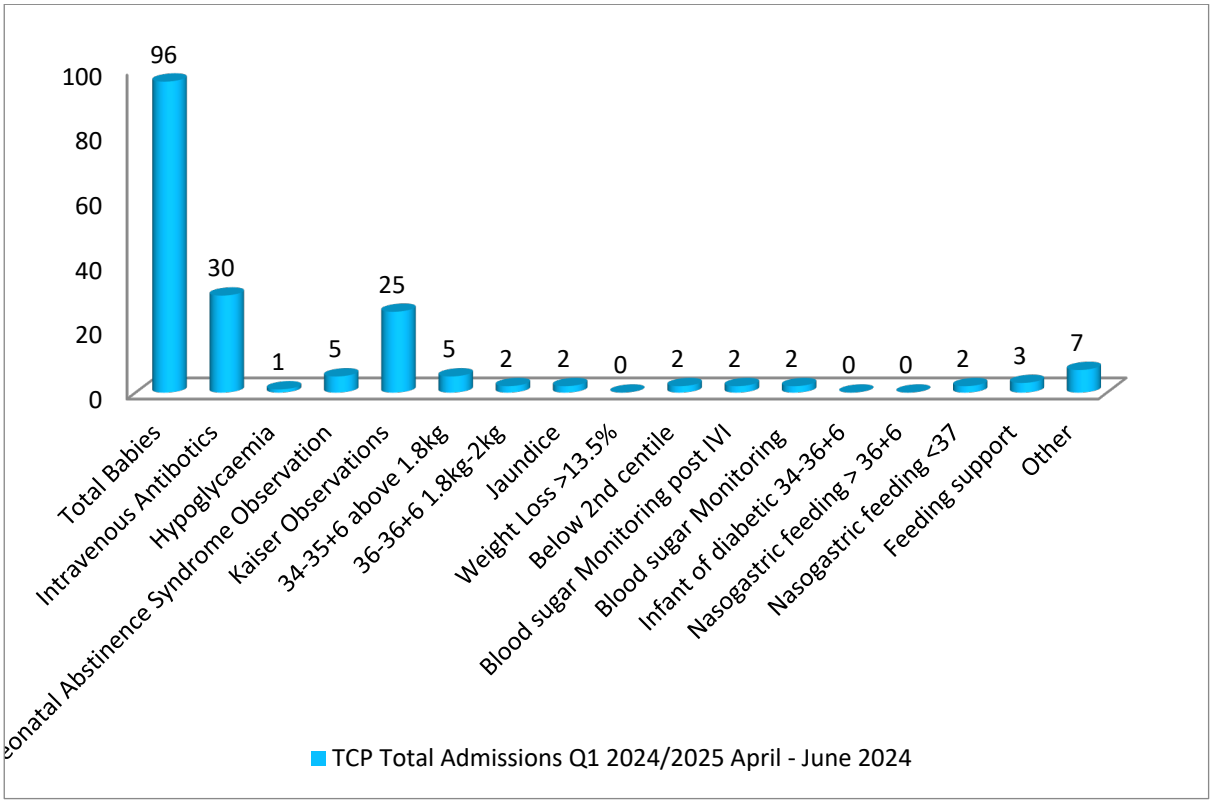

Figure 1: Admissions to the RUH Transitional Care Pathway (TCP) by causation Q1 24/25

1.1 Parental TCP feedback

The TC pathway seeks parental feedback via an optional patient/parent survey sent to all families who received TCP care. A QR code is sent to families, which is collated by the Trust-wide Patient Experience team. The results are analysed by the maternity team to identify service improvements. During Q1, eight responses were received to the TCP patient experience survey.

- 100% of people responded identifying that the reason for their baby being on a TCP was clear and easy to understand
- 100% of people responded identifying that the staff caring for their baby were available when needed
- 100% of people responded identifying they felt supported by the neonatal nurse caring for their baby whilst under the TCP
- 100% of people responded identifying they felt their baby was safe
- 100% of people responded identifying they felt their baby was well cared for.

Within the 8 responses, one family provided feedback for service improvement regarding information provision for milk feed volumes when caring for twins, as a new family with competing demands this can be confusing, therefore some written information provision such as a leaflet may have been helpful. This feedback has been shared with the infant feeding specialist neonatal nurse for assessment and improvement actions looking at information tools specific for parents of multiples.

From review of the written comments left by parents and families within the survey, a commonality regarding positive feedback about the level of care and support provided by the TCP team was identified within 4 of the 8 responses, the other 4 responses left the optional comments box blank.

2.0 ATAIN Audit Findings Q1

The ATAIN working group meets fortnightly to undertake a Multi-Disciplinary Team (MDT) review of all admissions and transfers into the neonatal unit assessing if alterations in care may have provided opportunities to have avoided the admission into the Local Neonatal Unit (LNU), therefore providing insight into areas of potential service improvements. Q1 identified 2 possible avoidable admissions to the LNU, a reduction from Q4 (n=3)

In Q1 there has been no identifiable commonalities between the causation of avoidable admissions reviewed at the ATAIN MDT.

In line with standard 3, neonatal unit transfers or admissions regardless of their length of stay, of all term babies transferred or admitted to the neonatal unit from other areas within the RUH, are reviewed. This includes Emergency Department and the Children's ward. In Q1 2024, 4 babies were admitted, a reduction from Q4 (n=7). Admissions are assessed against current admission guidance seeking to ascertain if the NNU was the appropriate care setting. The review looks for common themes within the source and cause of admission.

In Q1, 2 babies were deemed as being cared for in the appropriate location and 2 were identified as being cared for in an inappropriate care setting; a preference would have been for the babies to have been more appropriately cared for on the Children's ward. See section 2.1.

Where cases have highlighted learning, information is cascaded to the teams on vignette Safety Catches, shift Safety Briefs, Local newsletters, Quality Board displays and is shared at the Maternity Neonatal Governance meeting.

When reviewing the leading causes for admission to the Neonatal Unit during Q1, respiratory symptoms remain the leading cause of term admissions into the LNU, this is in line with national data. No commonalities or cause for concerns in respiratory management was identified within the MDT review of care, all admissions were deemed as appropriate based on the clinical presentation of the babies.

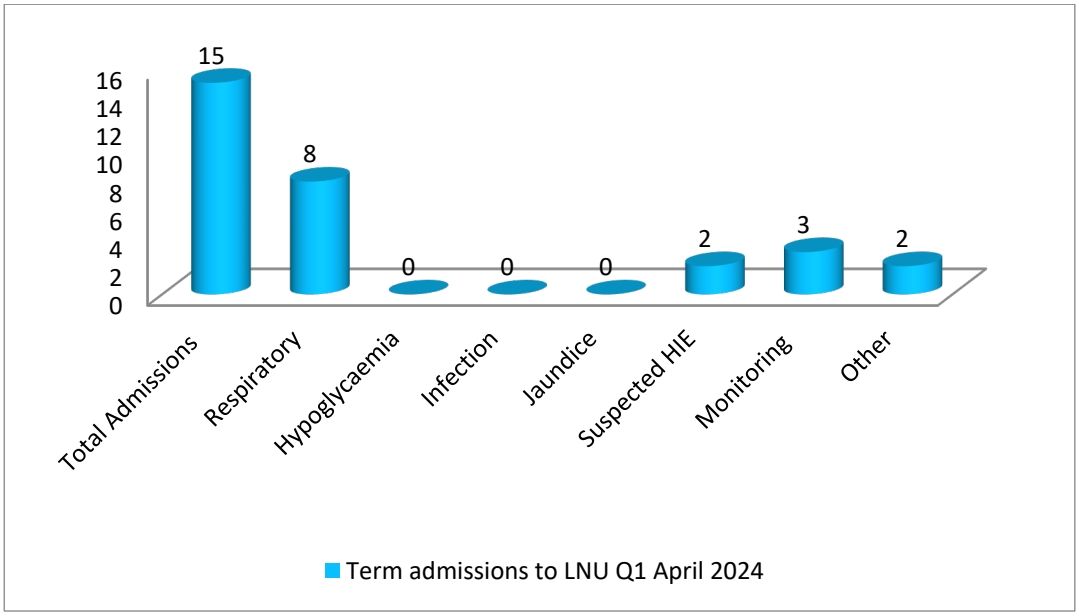

Figure 2: Term admission to the RUH LNU by causation April 24

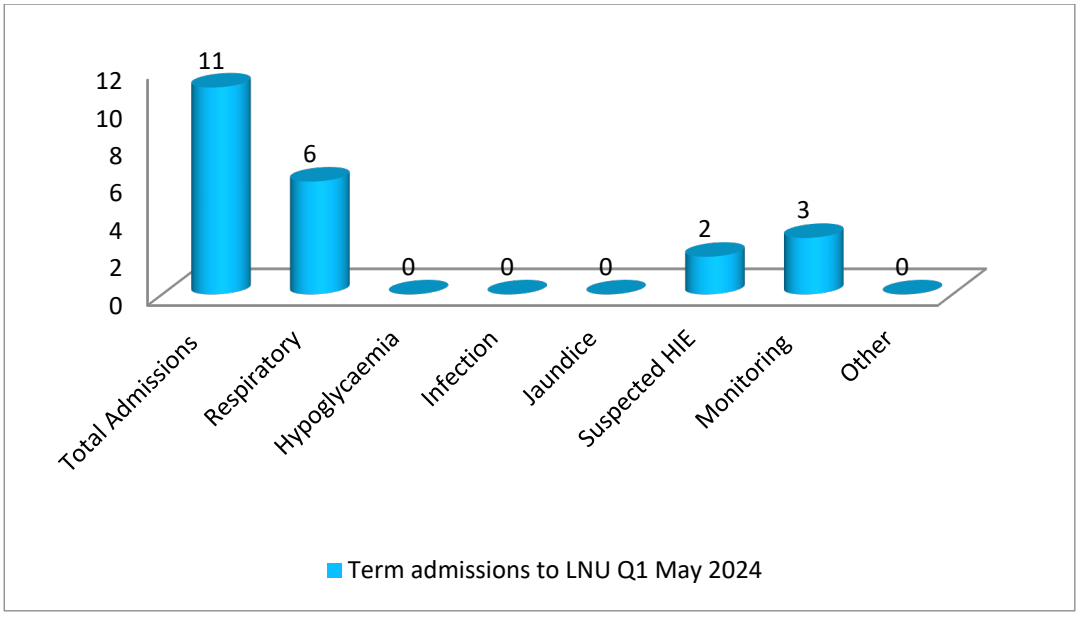

Figure 3: Term admission to the RUH LNU by causation May 24

2.1 Data capture for the RUH ATAIN rates

Under the national service specification, neonatal services would normally provide care for infants < 4 weeks of age, or for infants born pre-term until 44 weeks corrected gestational age (CGA). The care pathway differs slightly at RUH and babies outside of these criteria are referred to neonatal services rather than paediatric services. As such, there are increased re-admissions to the LNU that may not occur in other LNU within BSW. Work is ongoing to standardise this process and reduce the occurrence.

When data is extracted as part of external data capture via the South West Operational Delivery Network (ODN), these re-admissions are being added to the overall values of term admissions into the LNU subsequently elevating the RUH ATAIN percentage. This presents an issue for concurrent benchmarking of clinical outcome measures at local and regional levels due to system variance.

The RUH Neonatal Governance lead has been working with Data Analysts for the Southwest Neonatal Network to ensure consistency of readmission data across the region (Figure 4).

Unit	ATAIN	Change (if >0.25%)	Exclusions *	Action Plan Requested
North Bristol NHS Trust (Southmead)	4.0%	↓ -0.3%	4.0%	
St Michael's Bristol	4.4%		3.4%	
Derriford Plymouth	4.9%	↑ 0.5%	4.8%	
Gloucestershire Royal Hospital	3.4%	↓ -0.4%	3.3%	
Great Western Hospital Swindon	3.4%		3.4%	
Royal Cornwall, Truro	4.6%		4.5%	
Royal Devon and Exeter	4.7%	↓ -0.4%	4.6%	
Royal United Bath	4.5%		4.3%	
Taunton and Somerset	4.5%		4.5%	
North Devon District, Barnstaple	5.4%	↑ 0.4%	5.3%	
Torbay District General, Torquay	6.9%		6.5%	Y
Yeovil District	4.7%		4.4%	
Network Average	**4.6%**		**4.4%**	

* Exclusions: This refers to the ATAIN figure when excluding re-admissions to the neonatal unit from home/community (>3 Days of age) and also babies referred for cardiac or surgical care or with congenital conditions

Figure 4: Q1 2024-25 South West Operational Delivery Network ATAIN percentages adjustments by location following exclusions.

Figure 4 identifies that an adjustment resulting in a reduction in the RUH ATAIN percentage is seen from 4.5% to 4.3% following exclusions of babies re-admitted from home/community at >3 days of age. This remains below the national target of less than 5%.

There is ongoing exploration of data capture of 37+ week gestation babies being readmitted into neonatal services and subsequently included within the neonatal ATAIN rates. There is a current working party within the LNU to explore current pathways of care for all babies that are readmitted

from home into the RUH. This is to improve the efficiency of the service and protect the vulnerable and immunosuppressed babies being cared for in the LNU from a potential risk of introducing community acquired infections into the LNU via re-admissions. It is also imperative to recognise the potential impact on patient experience, with families often appreciating the holistic aspects of the current referral pathways back into care via maternity and neonatal services.

Quality Improvement Projects update to reduce RUH Term Admissions to the Neonatal Unit

- Newborn Early Warning Track and Trigger charts V2 (NEWTT2) were implemented in April 2023 with ongoing audit in place to ensure sustained high compliance of adherence. NEWTT2 charts support systematic assessment of babies requiring observations for identified risk factors for clinical deterioration. The tools feature stratified clinical indicators and guided escalation toolkits/processes to support timely identification and escalation of neonatal condition, and MDT care planning between Midwifery and Neonates.

  Audit results for the use of NEWTT2 charts identify full completion, 10 sets of notes were audited in Q1 of babies who qualified for observations documented on NEWTT2 charts whilst being cared for on the TCP. Incorrect escalation of care was shown for 1 baby who scored a 1 on scoring system, correct escalation of care was documented in all other cases in sample group. No issues were identified in subsequent care planning as a result of the incorrect escalation. However, the audit did highlight inconsistencies with following the process for increasing frequency of observations in babies who had scored on NEWTT2 scoring, most cases where baby scored 1 or 2, observations were continued to be performed 3 hourly instead of increasing to hourly observations. This will be highlighted to staff and education reminders sent to all staff.

- TCP working group to establish expansion of the TCP into the LNU environment with outreach midwifery care is in the process of being established. This group will be made up staff across all grades from neonatal unit, to work collaboratively with a maternity representative and ward sisters.

- The service continues explore options to increase the community Outreach team to enable a 7 day a week service. This will support naso-gastric tube (NGT) feeding in the home environment; reducing the number of babies who remain an inpatient within the LNU for a sole reason of NGT feeding such as babies whom following pre-term birth their mother is no longer under maternity care, therefore TCP cannot be facilitated. The service currently supports a 6 day a week service from patient facing budget. Home tube feeding guideline being ratified.

Table 2 provides an overview of the improvement work.

Action	Details	Progress	Lead	Due	RAG	Complete
Audit of 10 sets of notes. This tool is designed to support recognition and escalation of the deteriorating Newborn	NEWTT2 outlines a standardised escalation response including who is responsible, time scale of review target, and support information for further escalation	Quarter 3 2023/24 demonstrated compliance by 80% Staff training and awareness increased of correct escalation pathway. Quarter 4 was 100% compliant	Neonatal transitional care lead	30June 2024 - on going audit		
Conversion of clinical room G into a 4 bedded TCP room, to reduce the length of time babies are cared for on the neonatal unit by being able to room in mothers to establish feeding sooner	To provide additional TCP space and to offer TCP for 34/40-week babies where postnatal ward may not be correct environment	Privacy rails installed. Converted the Visitor toilet into a shower room - almost complete awaiting bench to be fitted. Furniture for room in progress of purchase.	Neonatal transitional care lead and Maternity Matron	January 2025		

To examine the Southwest Operational Network Dashboard ATAIN Data	Have a greater understanding and awareness of Data with particular focus on readmission of 37+/40 babies from home or other areas within the RUH and that impact on ATAIN Data	To arrange a meeting with the Network Data Manager and Analyst	Consultant Neonatal Nurse, Neonatal Governance Lead	30/06/24 		
TCP working group to be established to work together to implement change and improve and progress TCP service	This group will have members of staff across all grades from the neonatal unit with a senior maternity representative	Now established, TOR awaiting ratification. 1st meeting 16/09/24 monthly.	Neonatal transitional care lead, Consultant Neonatal Nurse and Senior Midwife	16/09/24		Complete
Increase community Outreach team to enable a 7 day a week service	To support naso-gastric tube feeding at home to reduce length of stay and reduce admissions	Service evaluation via the senior leadership team budget review has enabled expansion Exploration of models of delivery and expansion A Naso-gastric feeding at home guideline has been ratified.	Consultant Neonatal Nurse	11/11/24		

Standardise clear pathways of review and care for infants less than 10 days of age under maternity services.	To ensure infants are reviewed and cared for in the correct location based on condition and dependency.	MDT Meeting with neonatal and paediatric senior team held 12/09/24. Draft pathways of care and conditions relevant for neonatal input devised. Draft document reviewed in Paediatric and Neonatal Consultant meeting 10/10/24. Need to reiterate to maternity colleagues and parents on discharge that GP, 111 or ED should be approached for newborn concerns excluding feeding and jaundice.	Consultant Neonatal Nurse and Clinical Lead Consultant	13/12/2024		

Table 2: Overview of the improvement work.