NHS
Royal United Hospitals Bath
NHS Foundation Trust

Report to:	Public Board of Directors	Agenda item:	11
Date of Meeting:	4 September 2024		

Title of Report:	Annual Mortality Review 2023-24
Status:	For Information
Board Sponsor:	Andrew Hollowood, Chief Medical Officer
Author:	Heather Boyes, Trust Lead for Claims and Inquests
Appendices	None

1. Executive Summary of the Report

Executive Summary

Conducting and learning from a review of the care provided to patients who die should be an integral part of every Trust's clinical governance and quality improvement processes. This requirement is reinforced by the National Quality Board's National Guidance on Learning from Deaths, which sets out a framework for Trusts to identify, report, investigate and learn from deaths that occur in their care. This aim of this report is to assure the Board of the Trust's compliance with this requirement, but also that it is actively taking the opportunities to improve the quality and safety of the care that it provides as a result of the work that it does in this area.

This report focusses on patients who died in hospital between 1st April 2023 and 31st March 2024.

- The Trust recorded 1364 deaths of patients in hospital.
- 252 Structured Judgement Review's (SJR) have been completed.
- No patient who died during 2023/24 assessed as having received very poor care and there has been a reduction in the number of patients who have received poor care.

Inquests:

- 57 inquests were concluded with two Regulation 28 reports being issued.

Serious Incidents

- 13 patient deaths were linked to serious incident investigations during. 2023/2024 of which two were raised from SJR's However 1 incident occurred prior to the 1st of April 2023 but was reported as a Serious Incident after that date

In-hospital mortality was examined for all inpatient admissions to Royal United Hospitals Bath NHS Foundation Trust for the 12-month time period April 2023 to May 2024:

- HSMR is reported to be 97.6 by the Dr Foster report, this was within the expected range. Both weekday and weekend HSMR are within the expected range
- SMR is reported as 94.6, within the expected range
- SHMI was reported as 94.37, within the expected range.

2. Recommendations (Note, Approve, Discuss)

This report is for approval.

3. Legal / Regulatory Implications

The Trust is required, by national guidance, to have a process in place to ensure that it identifies, reports, investigates and learns from deaths in its care.

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

Quality – There is a risk that due to gaps in the collation of demographic data in relation to

ethnicity, religion and learning disability the Trusts ability to have oversight in the quality of services for patients with protected characteristics.

5.	Resources Implications (Financial / staffing)
No specific resource implication identified.	

6.	Equality and Diversity
The report highlights gaps in the collation of data in relation to ethnicity, religion and learning disability. It is unclear if each function has undertaken an equality analysis.	

7.	References to previous reports
Annual Mortality Review 2022-23	

8.	Freedom of Information
Public	

1.0 Introduction

The Care Quality Commission (CQC) 2016 report *'Learning, candour and accountability: A review of the way NHS trusts review and investigate the deaths of patients in England'* found that learning from deaths was not being given sufficient priority in some organisations and consequently valuable opportunities for improvements/learning were being missed. *The National Guidance for Learning from Death* was published in March 2017 following a number of high-profile cases of suboptimal clinical governance. Trusts are now mandated to implement a system of 'mortality governance'. A mortality review database has been implemented to enable the collection of data relating to patients that have died in the Trust.

1.1 Mortality review process

All deaths are screened against specific criteria by the Medical Examiner at the time of certification of the death. If a death meets any of these criteria, then a structured judgement review is requested.

Structured Judgement Review

The Trust has adopted the recommendation from The Royal College of Physicians to embed the Structured Judgement Review (SJR) as a means of standardising the way in which a review of patient care is conducted. All surgical and medical deaths meeting certain criteria are reviewed utilising this approach which is a type of case note review that provides both quantitative and qualitative information on care that goes well or not so well. The SJR results in a score on a scale of 1 (very poor) to 5 (very good). The score is allocated to each phase of care and a rating of overall care. The outcomes of the SJR are reviewed within the specialty and divisional governance process where they are triangulated with other patient safety data to identify any themes and to inform local improvement.

1.2 Governance Arrangements

The Trust has oversight and assurance of the learning from deaths process through the following governance forums:

Mortality and Morbidity (M&M) Meetings

Within the Divisions specialities undertake Mortality and Morbidity review meetings regularly throughout the year and review cases identified through the SJR process. A number hold cross specialty M&M meetings with learning feeding into the clinical Divisions and beyond where appropriate.

Mortality Surveillance Group

The Mortality Surveillance group ensures that all hospital associated deaths and those who have died within 30 days of discharge, are proactively monitored, reviewed, reported and where necessary, investigated. The Mortality Surveillance Group is chaired by the Deputy Chief Medical Officer and reports to the Trust Quality and Safety Group. The Group receives and reviews the following:

- Structured Judgement Reviews

  The mortality review group receive and discuss a quarterly Learning from Deaths dashboard which includes key performance indicators related to the completion of SJRs as well as a summary of the SJR outcomes.

- The LeDeR Annual Report

  The Mortality Review Committee receives a summary of the Learning Disability Annual Report (LeDeR) programme activity. The NHS Long Term Plan made a commitment to continue LeDeR and to improve the health and wellbeing of people with a learning disability. NHS England and NHS Improvement published '*Learning from lives and deaths – People with a learning disability and autistic people (LeDeR) policy 2021*' which sets out the review process and local delivery expectations. In the future the BSW LeDeR Steering

group will be sharing learning from each local LeDeR Review undertaken with an RUH focus.
The RUH Learning Disability and Autism Lead shares learning from each local LeDeR Review undertaken and scrutinised by the BSW LeDeR Governance and Assurance Group with the RUH Mortality Surveillance Group.

- Inquest report information
  An inquest will be opened by a coroner when the cause of death is unknown, when the person may have died a violent or unnatural death, or when the death has occurred in police or state custody.

Clinical Outcomes Group

The Clinical Outcomes Group reports to the Trust Quality and Safety Group, is chaired by the Chief Medical Officer. The group receives and reviews a monthly report produced by Telstra Health UK (formerly Dr Foster) which includes:

- Hospital Standardised Mortality Ratio (HSMR) review
  This is a type of adjusted mortality rate used to monitor in hospital mortality rates across NHS Trusts. It is based on a subset (basket) of 56 diagnosis groups that account for approximately 80% of in-hospital deaths nationally. This is expressed as a ratio and placed into one of three bandings:
    - Statistically significantly higher than expected
    - Within the expected range
    - Statistically significantly lower than expected
- Standardised Mortality Ratio (SMR) for all diagnoses review
  This is a type of adjusted mortality rate used to monitor in hospital mortality rates across NHS Trusts. It is based on all diagnosis groups
- Summary Hospital-Level Mortality Indicator (SHMI) review
  This is a type of hospital mortality rate which includes deaths up to 30 days post discharge and all diagnosis groups excluding still births.

The data is benchmarked against national and regional peers and this alongside local intelligence is utilised to identify any trends and anomalies in the Trust's performance including reviewing unexpected deaths.

SI Panel Meetings

Until the 1st April 2024, the SI Panel reported to Trust Quality and Safety Group, is chaired by the Chief Nurse. The SI Panel is responsible for reviewing and approving all Serious Incident reports, including those arising from the death of a patient. As of 1st April 2024 the Trust went live with the new NHS England Patient Safety Incident Response Framework. The PSIRF describes the approach to managing patient safety incidents

Local Child Death Review (CDR) Meeting

The child death process varies quite considerably depending on whether the death is expected or unexpected and where the death occurs. The process for unexpected deaths is led through a Joint Agency Response (JAR) process which includes specially trained on call Health responders (often health visitors) who attend the scene and hospital alongside specially trained police officers. These replace the on-call out of hours community paediatrician. All unexpected deaths in children should be brought to hospital for initial investigations, safeguarding considerations and discussion with the coroner as well as family support. Subsequently the JAR process is led by the community paediatricians who chair reviews for children who die unexpectedly in the community or who are brought in deceased to the RUH.

Meetings are within the first week and then when final post-mortem results are available and all the key professionals involved in the child's care should be invited to the meeting. The meeting will:

- Review circumstances of death and outcome of investigation

- Decide how cause of death will be shared and by whom with parents
- Plan support for the family
- Review professional responses to the child's death
- Collate information for the Child Death Overview Panel (CDOP)
- Consider if abuse or neglect was a factor in child's death and record decision.
- Form C case report of the meeting will be sent to the Coroner.

Regional CDOPs meetings are held monthly and intermittently publish reports on regional death statistics, trends and learning outcomes. There is currently a significant backlog in post mortems due to the regional lack of pathologists.

RUH paediatricians chair the review for children who die in the RUH or are expected deaths in the community whose care was co-ordinated by RUH paediatricians. Trust guidelines for child death and lab processing of samples/chain of evidence have been updated.

2.0 Demographic overview of patient deaths during 2023/24

During 2023/24, 1364 of the Royal United Hospitals Bath NHS Foundation Trust's patients died in hospital with a crude mortality of 1.4%. This comprised the following number of deaths which occurred in each quarter of that reporting period:

- 376 in the first quarter;
- 322 in the second quarter;
- 330 in the third quarter;
- 336 in the fourth quarter

The demographics of the patients who died were as follows:

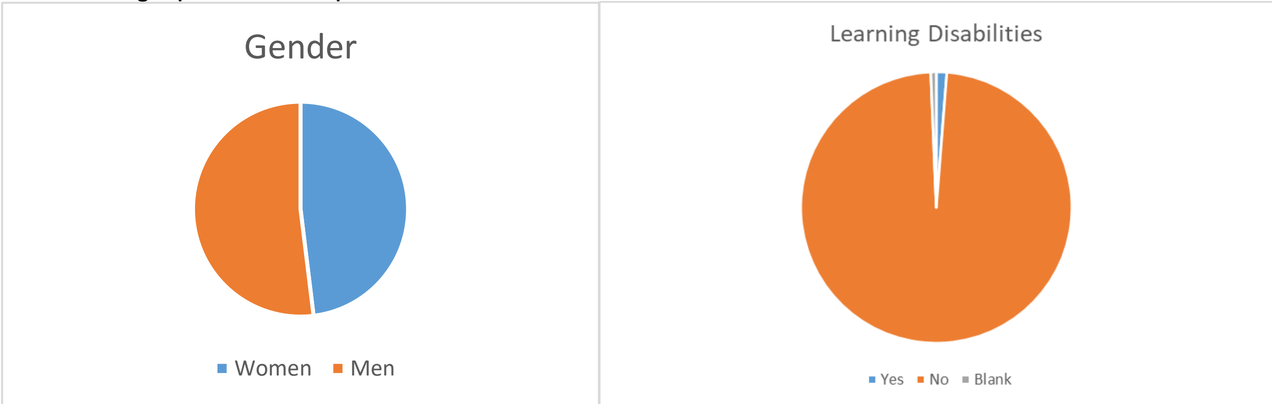


Table 1 Mortality Review Database

Seventeen patients with learning disabilities died - six were female and 11 were male. This is considered further below under LeDeR.

Table 2 below shows the age of the patients who died at the RUH, divided by gender. Of note, the Mortality Database, the source of this data, only permits the recording of "male" or "female". Consideration should be given to increasing the number of options available within this category to greater reflect the society the Trust serves.

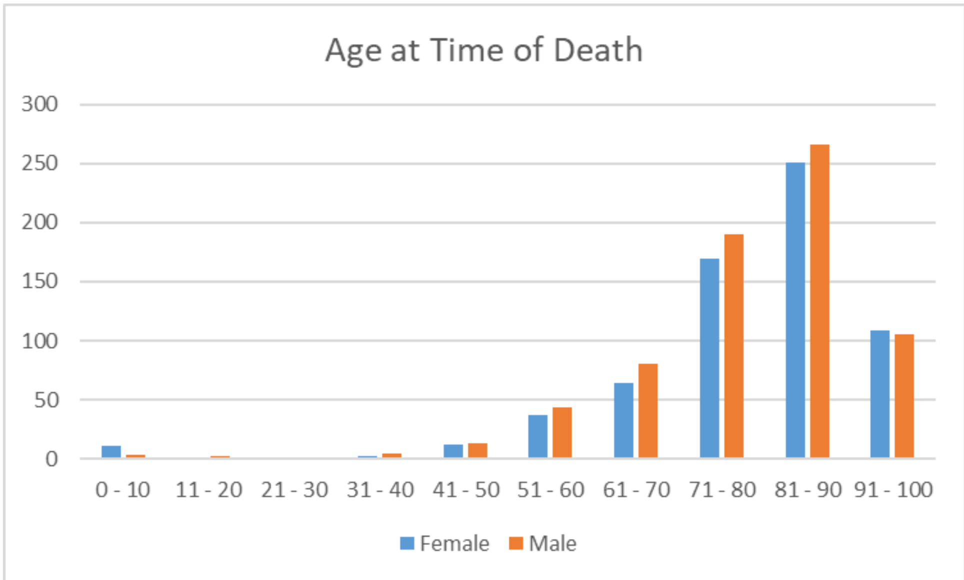


Table 2 Mortality Review Database

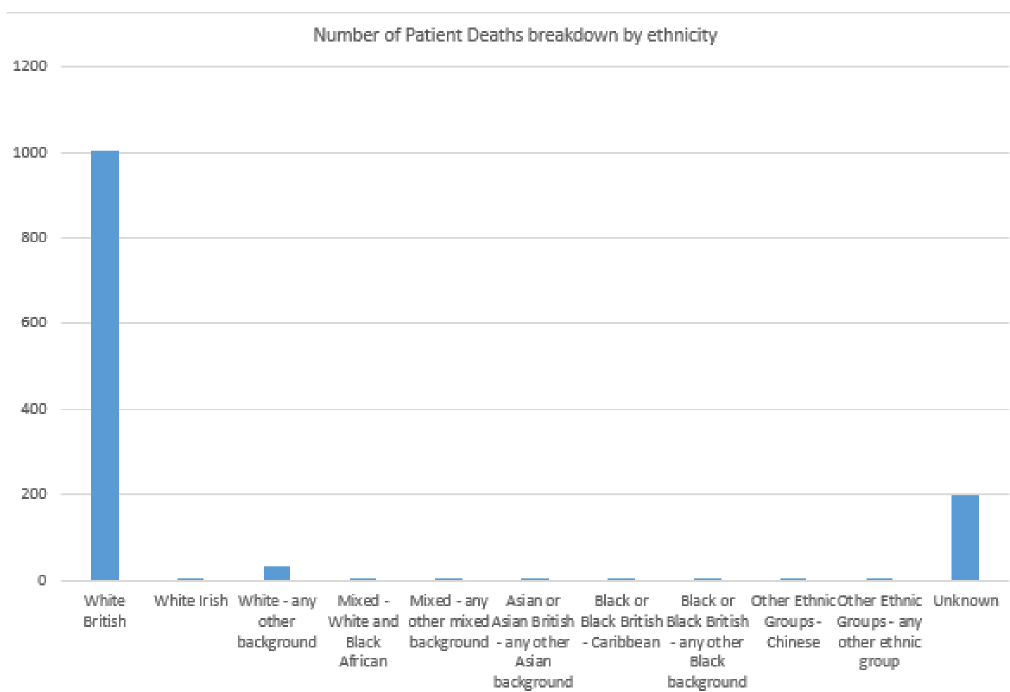


Table 3 Millennium

Deprivation and Mortality

Bath and North East Somerset, Swindon and Wiltshire has a combined population of around 923,000 people (BSW System Intelligence Report, 2021). Life expectancy across the three areas varies from 73 years to 91 years according to sex and geographical location.

The Indices of Deprivation 2015 provide a set of relative measures of deprivation for small areas across England, based on seven domains of deprivation. The domains were combined using the following weights to produce the overall Index of Multiple Deprivation (IMD):

• Income Deprivation (22.5%)
• Employment Deprivation (22.5%)
• Education, Skills and Training Deprivation (13.5%)
• Health Deprivation and Disability (13.5%)
• Crime (9.3%)
• Barriers to Housing and Services (9.3%)
• Living Environment Deprivation (9.3%)

The Indices of Deprivation measure deprivation on a relative rather than an absolute scale, so a neighbourhood ranked 100th is more deprived then a neighbourhood ranked 200th, but this does not mean it is twice as deprived. Deciles are calculated by ranking the 32,844 small areas in England from most deprived to least deprived and dividing them into 10 equal groups. Decile 1 represents the most deprived area and Decile 10 represents the least deprived area.

3.0 Mortality review outcomes 2023/24

3.1 Structured Judgement Reviews

Of the 1364 patient deaths between 01/04/2023 and 31/03/2024, 237 were screened into the SJR process. Table 5 demonstrates the criteria that resulted in an SJR being requested, the two largest categories were Coroner's Inquest and surgical patients (all deaths of surgical patients are selected for an SJR).

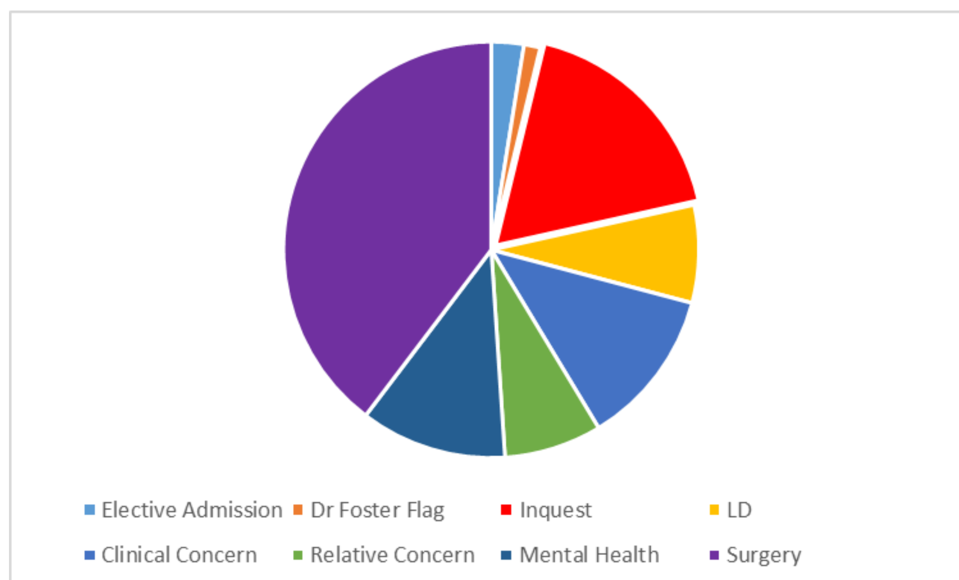


Table 5: SJR selection criteria

The table below sets out the ratings of care for each phase of an inpatient admission and overall care. Of the 252 SJRs completed during the financial year, 79% (199) assessed the overall care to be either Good (a score of 4) or Very Good (a score of 5).

No SJR identified overall care as being Very Poor (a score of 1). 5.6% (14) of SJRs completed identified a phase of care provided as being poor (score of 2), with 2.8% (7) of SJRs assessed overall care as poor. In 1.2% (3) of SJRs the quality of the patient's records was assessed as below expected quality.

Rating Type	Average	Number of	Number Of 1s	Number Of 2s	Number Of 3s	Number Of 4s	Number Of 5s
Initial Admission	4.26	252	0	5	27	117	103
Ongoing Care	4.05	211	1	6	45	89	70
Care During	4.28	68	0	0	8	33	27
Return To Theatre	3.80	10	0	1	2	5	2
Perioperative Care	3.98	50	1	1	10	24	14
End Of Life	4.26	207	0	1	34	82	90
Overall	4.09	251	0	7	45	118	81
Patient Record	3.98	248	0	3	84	75	86

Table 6 Phase of Care Ratings

A Datix record is produced when an SJR identifies either a phase of care or overall care as very poor or poor or when care is thought to have contributed to a patient's death.

Table 7 shows the themes arising from completed SJRs. In 58% of SJRs (146) no additional learning was identified and in 15% (38) the learning identified was that the care provided had been Good or Excellent.

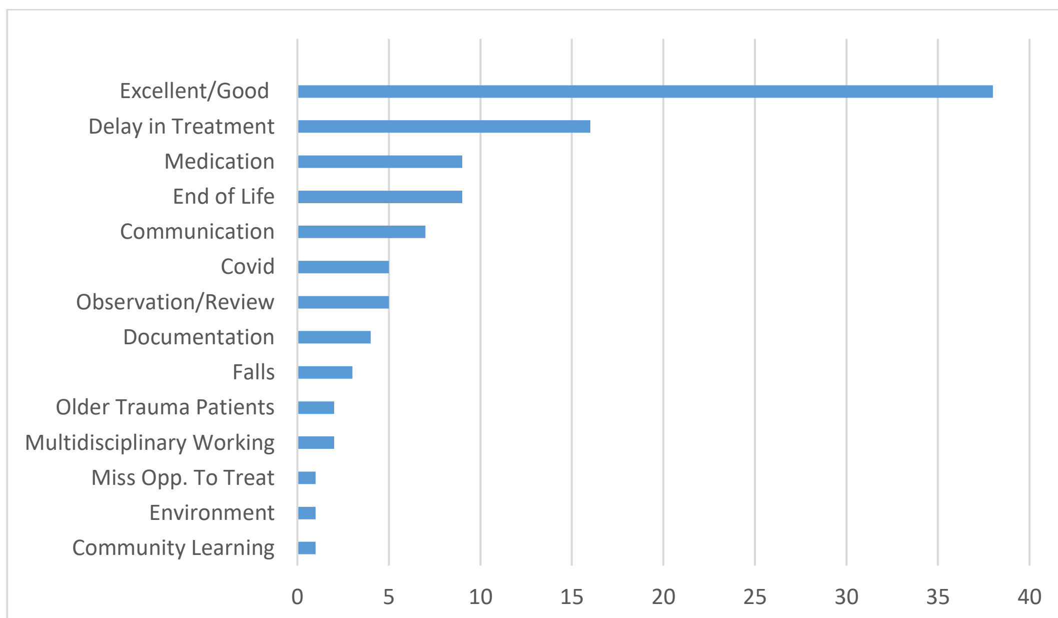


Table 7: SJR themes

The top themes identified through the SJR process continue to align to our patient safety priorities: Safe discharge, Preventing Infections, Preventing Medication Errors, Preventing Falls, Early Identification of Deteriorating Patients. The learnign from the SJRs is fed into the appropriate improvement workstreams.

3.2 Inquests

12 inquest hearings took place during the financial year. This is an increase on the previous year but still not back to pre-pandemic levels. A far greater proportion of matters have been dealt with by way of an "All Read" inquest – an inquest when only written evidence is considered. 57 matters were concluded overall; an increase from 43 during the previous financial year.

The Trust has received two Regulation 28 Reports. A Coroner must make a Regulation 28 Report when they believe there is a risk that the safety of future patients may be at risk. The first matter related to a medical outlier and delays in reviewing her condition. She sadly deteriorated following a lack of medical review over a four day period. The second related to a patient developing significant pressure damage and subsequent sepsis. It was apparent from the records that there was a misunderstanding in relation to moving a patient and fully repositioning them.

Both Regulation 28 Reports have been fully responded to and HM Coroner has raised no further concerns. One matter has subsequently become a clinical negligence claim.

3.3 The Learning Disabilities Mortality Review

LeDeR was established in 2017 and funded by NHS England. This is a service improvement programme to improve care for people with Learning Disabilities and Autism. LeDeR aims to reduce health inequalities for people with a learning disability and autistic people, and prevent people with a learning disability and autistic people from early deaths. All deaths of patients with Learning Disabilities and Autism within the trust are reported to LeDeR. An SJR is completed for all of these patients.

The BSW LeDeR Steering Group is co-ordinated by Bath and North-East Somerset, Swindon and Wiltshire Integrated Care Board (ICB) and is being held virtually through Microsoft Teams. The trust lead for Learning Disabilities and Autism sits on this panel. The BSW LeDeR Steering Group has produced a 3-year strategy with priorities for each year that are linked with the BSW Learning Disabilities and Autism Programme Board based on thematic learning from LeDeR reports.

Deaths reported to LeDeR from 1st April 2023- 31st March 2024:

Patient	Month of Death	Gender	Age	Speciality at death	Cause of death
A	April	M	62	Geriatrics	Spontaneous gastrointestinal haemorrhage/Sepsis
B	May	F	53	Neurology	Metastatic Breast Cancer
C	May	M	85	Geriatrics	Sepsis
D	June	M	40	Endocrinology	Sepsis due to aspiration pneumonia and intra-abdominal abscess
E	June	M	70	Emergency Medicine	Respiratory Arrest
F	June	M	91	Geriatrics	UTI
G	July	M	61	Surgical	Cholecystitis
H	July	F	65	Respiratory Medicine	COVID-19
I	September	M	51	Respiratory Medicine	Respiratory Failure
J	October	M	72	Geriatrics	Heart Failure
K	October	M	13	Paediatrics	Metachromatic Leukodystrophy
L	November	M	54	Cardiology	Severe left ventricular systolic dysfunction
M	December	M	64	Surgical	Multiorgan Failure
N	December	M	56	ITU	Spontaneous GI Haemorrhage
O	December	F	55	Respiratory Medicine	Multiorgan Failure
P	December	F	56	Respiratory Medicine	Metastatic Lung Cancer
Q R S T	January January February March	M F F M	64 65 54 62	Endocrinology Respiratory Medicine Respiratory Medicine Anaesthetics	Spontaneous Upper GI bleed Pneumonia Bronchopneumonia Pneumonia

*Referral to coroners due to circumstances around death, subsequent Safeguarding Enquiry (Care Act 2014) opened and police investigation. Coroner ruling was accidental however safeguarding and police enquiries remain open.

**Awaiting outcome from coroner.

3.4 Clinical Outcomes Group and Mortality Indicators

The Clinical Outcomes Group receives a monthly report from Telstra Health UK (formerly Dr Foster) which provides an updated rolling monthly update on a number of mortality indicators. The report published in August covers the period April 2023 – May 2024. We have utilised this time period as there was an issue with data which affected reporting for part of the first quarter. The data reported the following:

Metric	**Result**
HSMR (Basket of 56 Diagnoses)	97.6 within the expected range
Emergency Weekend/Weekday HSMR	Weekday – 96.9, within the expected range Weekend – 98.9, within the expected range
SMR (All Diagnoses)	94.6, within the expected range
SHMI (February 2022 to January 2023)	94.37, within the expected range

The Hospital Standardised Mortality Ratio (HSMR) is the ratio of 'observed deaths/expected deaths' having standardised the figures by taking into account risk factors such as age, diagnoses and the

presence of other diseases (the hospital's case mix) for a basket of 56 diagnosis groups that account for around 85% of deaths in a hospital such as the RUH. It measures only those deaths that occur in hospital and uses Hospital Episode Statistics (HES) as its data source. The HSMR is reviewed each month by the Clinical Outcomes Group who take responsibility for reviewing and driving actions surrounding all alerts outside of the expected range.

3.5 Serious Incidents

The SI panel would only review patient deaths if they were:

1. Raised on the local risk management system (LRMS), Datix being the system used by the Trust, as a Catastrophic, major or moderate harm event and investigated as a Serious Incident or
2. If an SJR identified concerns surrounding a patient death. It would then be raised through Datix following the process set out in Appendix 2

The SI data relating to patients who have died is captured from Datix by selecting the field that indicates the patient died within 28 days of the incident taking place. All open incidents recorded as SI's on Datix are checked by the risk management team each month to see if the patient has died since the investigation began. This process captures both those patients who died as a direct result of the incident, and those whose death is unrelated to the index event.

The local risk management system is not linked directly to the Trust electronic patient record system and is reliant on human interface to update the data. Therefore it is possible that data relying on the incident reported date will capture some patients who died before 1st April 2022, and fail to capture some patients who died towards the end of the reporting period, due to a lag in incident reporting.

There are instances when concerns about a patient death do not immediately come to light but are raised as part of the SJR, complaint, inquest or claim processes. The limitations of the data should be taken into account when reviewing the following charts and tables.

The table below indicates that 13 patient deaths were linked to serious incident investigations during 2023/2024 of which two were raised from SJR's However 1 incident occurred prior to the 1st of April 2023 of but was reported as a Serious Incident after that date.

Two of the tissue viability incidents were not reported to StEIS and were investigated as a part 'C' concise report. This means the incidents were of serious concern because the level of harm met the serious incident criteria, however, there was no new learning identified beyond the scope of the current tissue viability work plan at the time. The process for tissue viability serious incidents involves a concise investigation being carried out focussing on work stream priorities. The report undergoes a review by the pressure ulcer steering group and is submitted to the Integrated Care Board for final sign off. The pressure ulcer / tissue viability work stream report to the patient safety steering group. The patient's involved in the part 'C' pressure ulcer incidents were on end of life pathways, not as a result of their pressure ulcers.

There was, 1 stillborn and 2neonatal deaths.

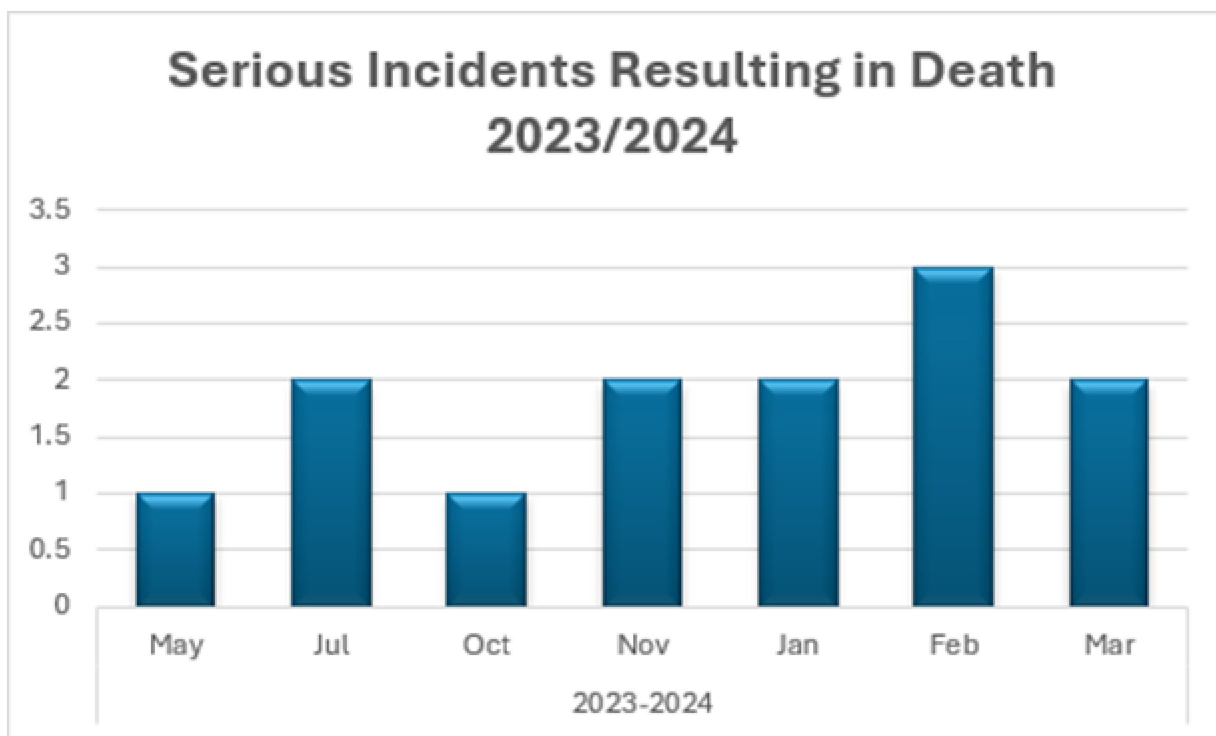


Table 9: Serious Incidents relating to patient deaths

The categories of incidents relating to patients who have died are recorded on Datix with Clinical assessment or review (6) and Tissue Viability (4) being the largest contributors.

3.6 Babies, Children and Mothers

The situation with babies, children and mothers is complex. Unexpected paediatric deaths are often confirmed in the community and brought to the RUH for further investigation. The paediatric intensive care unit (PICU) is in Bristol Children's Hospital. Critically ill children admitted to the RUH will be stabilised and transferred to the PICU and sadly some do die there. Likewise the RUH Local Neonatal Unit (LNU) is a level 2 Neonatal unit working as part of an operational delivery network across the South West with the sickest and most preterm infants born at the RUH transferred to regional tertiary level 3 neonatal intensive care units (NICU), most commonly this is St Michaels or Southmead in Bristol. To ensure alignment to nationally reported neonatal mortality data from Mother's and Babies Reducing Risk through Audit and Confidential Enquiries (MBRRACE) the numbers listed in this report are identified by place of birth rather than place of death.

Although deaths in this group are much rarer it is important to be cognoscente of the nuances, impact of deaths in this area as relatively small numbers in these categories have highlighted serious Trust deficiencies in other areas of the country.

During April 2023 – April 2024 the Trust recorded 19 deaths in patients under the age of 18:

Stillbirths	8
Neonatal deaths	5
Paediatric death	8
Maternal deaths	0

Figure 1 table of paediatric, neonatal, intrauterine and maternal death 2023/24

3.6a Paediatric Deaths:

There were 5 unexpected deaths and 3 expected deaths between 1st April 2023 and March 31st 2024. The expected deaths included a preterm baby with multiple congenital anomalies and a metabolic disorder who was treated in our Local Neonatal Unit (LNU) at RUH before transferring to St Michaels neonatal unit for specialist care over 5 weeks before palliation. The 2nd expected death was a baby born at the RUH with a mitochondrial/metabolic condition. She was treated in our LNU and then discharged home. She was managed at home with outreach support, specialist and local consultant support and died peacefully at home. The 3rd Expected death was a particularly distressing and challenging case. A 13 year old with Metachromatic leukodystrophy who had multiple long admissions to the paediatric ward finally died from his illness. There was close liaison with specialist teams in Bristol Children's Hospital and Paediatric intensive care with support from local ITU teams due to mothers wishes of ongoing resuscitation. He subsequently died with his mother present on the children's ward at RUH without escalation to intensive care services.

Of the unexpected deaths 3 died at home, 1 died in a holiday caravan park and a 5 year old with a complex medical background died in Oxford PICU after stabilisation at the RUH – this was from Human Metapneumovirus pneumonia. 2 of the children who died at home had a Sudden unexpected death of the infant (SUDI). They were aged 2m and 5m respectively with the 5 month old being an ex 27/40 premature infant – this increases the risk of SUDI. The 3 month old who died in the caravan park had police involvement due to the possibility of neglect associated with a sudden death. The final child who died at home was a 13 year old suicide by hanging.

All of the unexpected deaths were investigated through the Joint Agency response which has continued to work effectively and were referred to the Coroner. There have been some minor issues around contactability of the health responders and expected arrival times in the Emergency department. This has been highlighted and fed back through the regional Joint Agency response quarterly review meetings.
The neonatal deaths have all gone through the perinatal mortality review tool (PMRT) which feeds directly into CDOPs. The neonatal deaths are also reviewed in a regional South West Neonatal Network Mortality Review meetings on a quarterly basis. None of the neonatal deaths identified have had PMRT gradings of C or D (Issues that may have or were likely to have contributed to the deaths). The RUH neonatal death rate is similar to others in the South West which as an area has one of the lowest neonatal mortality rates in England.

There are 2 neonatal deaths from 2022 that are progressing to a Coronial inquiry. 1 had an in depth PMRT review including external representation from a local tertiary NICU which graded the postnatal care as a D identifying an issue that on balance was likely to contribute to the death of a baby who died unexpectedly of pneumonia on day 1 of life. The other case is of a baby with complex congenital heart disease being managed by Bristol Children's hospital who died at the RUH after a sudden event at home.

We have been working alongside the Medical Examiners (ME) to comply with recent legal change that all deaths should be discussed with the ME. Currently any deaths involving children in the trust which are not reported to the coroner should be discussed with the Medical examiner. The ME will also contact the family within 5 days of the death to ensure no concerns.

3.6b Maternal Deaths:

In maternity, during the period of 23/24 there have been no direct, or indirect, maternal deaths within the Trust. We have are not aware of any deaths where the mother received maternity care within RUH Services, and subsequently died in another Trust within one year of birth as per MBRRACE maternal death definition.

3.6c Stillbirths and neonatal deaths PMRT process:

Between the 1st of April 2023 and the 31st of March 2024 there were 5 Neonatal deaths of babies born at the RUH, of which 3 babies were born at the RUH and transferred to a NICU where they subsequently died.

Of the three babies who were born at the RUH and died in another provider 1 was a baby born at 23 weeks of pregnancy and died of complications of extreme prematurity , and 1 was a baby born at 27 weeks with an impacted fetal head at birth and subsequent neonatal death. 1 baby was born at the RUH then presented on day 3 of life with a metabolic condition, stabilised in Nicu and then subsequently died at Bristol Children's hospital on day 7 of life.

Of the babies who were born and died at the RUH, one baby was a neonatal death following a termination of pregnancy where the baby was born showing signs of life at birth, and one was a pre-viability 21 week late miscarriage where the baby was born with signs of life.
As the baby we pre-22 weeks of pregnancy this is not classed as a perinatal death, however as the baby showed signs of life this is classed as a neonatal death.

The RUH supported 4166 babies' births from April 1st 2023 - 31st of March 2024.
Therefore, the RUH neonatal perinatal death percentage is 0.07%. When excluding terminations of pregnancy this percentage is reduced to 0.04%.

All deaths have been reported to MBRRACE and have been assessed for eligibility for Perinatal Mortality Review Tool (PMRT) review, and where appropriate reporting into the CDOP panel

The PMRT is a nationally recommended/mandated review tool process for the review of stillbirths and neonatal deaths (excluding medical or surgical terminations of pregnancy). PMRT reporting is a requirement of Safety Action 1 of the NHS-R Maternity Incentive Scheme. This takes the form of an online form which is completed from the data within maternity records and parent feedback to support a robust review of care during pregnancy, birth and post-natally when a baby dies. Following the input of data a group of quorate professionals as set by MBRRACE, inclusive of consultants, maternity safety champions, bereavement team professionals and an external clinician, meet to grade the care provided, agree a cause of death if possible, identify learning, and answer the family's questions. PMRT then generates a report which the parents receive (unless they prefer not to) giving an overview of the pregnancy, grading of care and answers to their questions.

During 2023/2024 there were a total of 12 deaths; 2 of which were not eligible for review via PMRT, both under the category of neonatal death; 1 was due to a gestation <22 weeks of pregnancy does not fit the criteria of a perinatal death, and 1 was following a termination of pregnancy and therefore not eligible for PMRT.

PMRT referrals	Total
Stillbirths >24/40	8
Late Loss >22<24	1
Neonatal Death at the RUH	2
Neonatal death elsewhere following birth at the RUH	2
Total Deaths	**12**

Figure 2 table of PMRT referrals 2023/24

PMRT supports the group to agree a cause of death whenever possible, in the 10 cases during 2023/24, 3 reviews remain ongoing at the point of writing this report, 7 have reached review completion, of which 4 have identified a cause of death. In one instance the review group identified care issues which they considered may have made a difference to the outcome for the baby. In all other cases the care was not identified as being contributory to the outcome. Causes and

contributing factors to the deaths included: placental abruption, placental insufficiency and marginal placental abruption with a background of delayed villous maturation.

In the instance where it was considered that care issues may have contributed to the outcome, it was identified that an Ultrasound Scan (USS) as per a pre-set care pathway was cancelled based on new information, however the review group felt that with hindsight the USS may have identified a developing liquor volume abnormality which may have expedited the baby's planned birth. This has been identified as a care issue within figure 3.

'Saving babies lives care bundle version 3 (SBLv3)' is a nationally improvement programmed focused on improving six elements of care to prevent perinatal death;

- reducing smoking in pregnancy,
- risk assessment prediction and prevention of fetal growth restriction,
- management of reduced fetal movements,
- intrapartum fetal monitoring,
- risk assessment prediction, prevention, and perinatal optimisation, of preterm birth,
- and management of pre-existing diabetes.

The table below shows the prevalence of each element in the RUH cases reviewed in PMRT, where issues were highlighted.

Total cases	Smoking	Preterm birth	Fetal Growth Restriction	Reduced Fetal Movements	Fetal monitoring in labour	Pre-existing diabetes
Care issues identified relating to the care pathway in response (both contributory and non contributory)	0	1	3	0	0	0

Figure 3 Issues identified via PMRT aligned to SBLv3 interventions 2023/24

0% of the cases were associated with management of reducing smoking in pregnancy

9% (n=1) of the cases identified care issues related to the prevention and prediction of pre-term birth, this related to a missed opportunity to have referred the mother to the pre-term birth clinic for cervical length scans in response to a uterine anomaly.

18% (n=2) of the cases identified that on one occasion in each case the Symphysis Fundal Height (SFH) measurement was not plotted on the SFH chart. These have been retrospectively plotted and identified this would not have indicated a care pathway change.

9% (n=1) of the cases identified that the cancellation of a scheduled growth USS based on new clinical information.

0% of the cases were associated with reduced fetal movement management.

0% of the cases were associated with fetal monitoring in labour

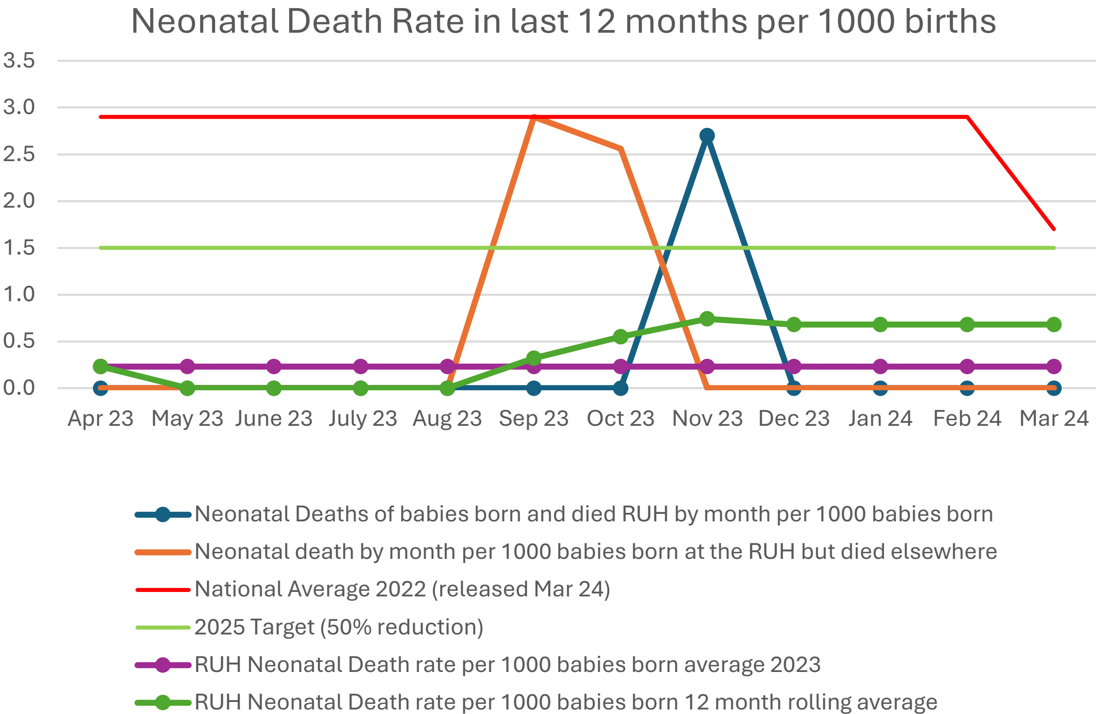
0% of the cases were associated with the management of pre-existing diabetes.

SBL v3 requires trusts to assess their mortality to discharge in very pre-term infants as a percentage of all births occurring between 24-31+6 weeks of gestational age with 'additional reporting' accounting for those babies born from 22+0 weeks of gestational age (excluding terminations of pregnancy).

During 2023/24 the RUH supported 82 babies to be born following birth between 24-31+6 weeks of gestation.
Of these births 2 neonatal death has occurred following stabilisation and transfer to a level 3 NICU. No deaths have occurred at the trust. Therefore, the RUH very pre-term death percentage as per SBLv3 of infants born at 24-31+6 weeks is 0%
When accounting for babies born at the RUH but subsequently died elsewhere this percentage is 2.4%

When including and accounting for births at the RUH between 22-24 weeks of gestation as per SBLv3 'additional reporting' this number of deaths increases to 3 babies (excluding terminations of pregnancy).The number of babies born increased to 83 therefore, the 'additional reporting' adjusts this percentage to 3.6%

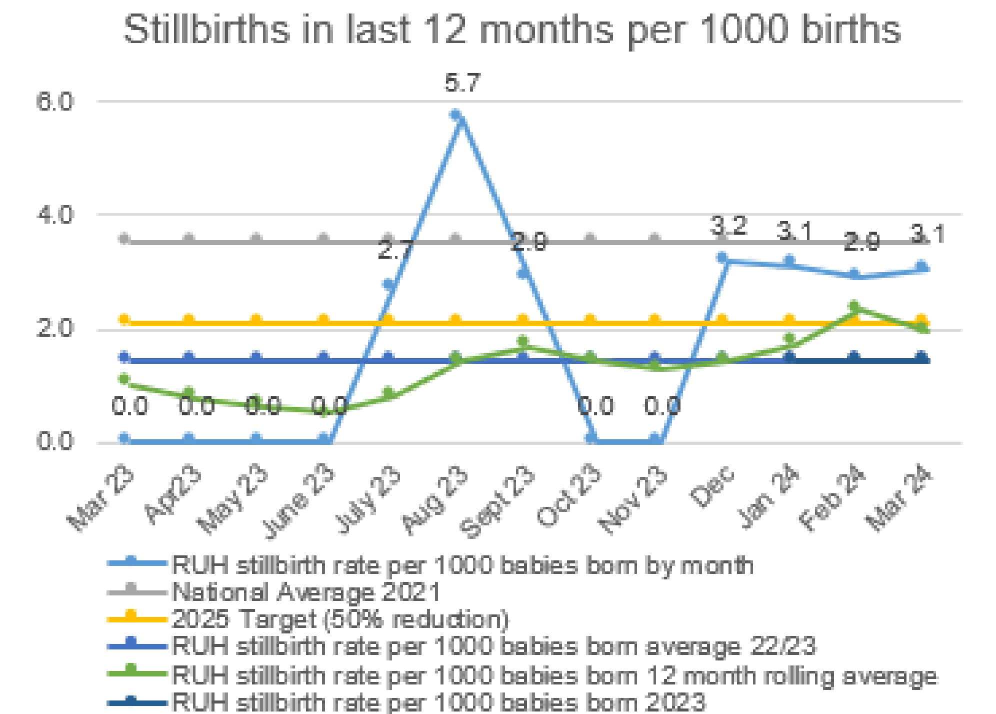
This identifies the RUH neonatal death percentages remain below the national average from 2022 of 1.7 per 1000 births (0.17% national RUH 0.04%). There is no national benchmarking available for 'mortality to discharge in very pre-term infants percentages'.



Graph 1 RUH neonatal death rate per 1000 births rolling averages vs national averages.

Although graph 1 identifies an increased neonatal death rate in 23/24 when comparing to 22/23 figures, this is the first year the RUH has represented babies born at the RUH and subsequently died elsewhere in internal reporting, therefore it is anticipated that this will look like an increase.

The RUH crude 12 month rolling stillbirth rate also remains below the national average at 1.96 per 1000 births (national average 2022 3.3 per 1000 births)



The service recognises the increased stillbirth incidence in Q4 of 23/24 and is undertaking a case cohort review to ensure there are no identifiable commonalities or causative factors within the stillbirths and will be reported upon through the Maternity and Neonatal Governance structures to ensure actions or mitigations as appropriate.

Local Child Death Review / Joint Agency Response (JAR)
All of the paediatric deaths have been reviewed in our departmental internal morbidity and mortality meetings whilst awaiting the formal feedback from the CDOPs committee.
1 patient who died at the RUH has an outstanding child death review meeting being organised for later this year.

Of note there is a significant issue with paediatric post-mortems due to the lack of trained pathology staff in the south of England. Initial post-mortems take a minimum of 6-8 weeks but specialist samples such as bone, brain or heart can take between 12 and 24 months for results. This can make it extremely challenging for the PMRT review process and for families whilst awaiting the final cause of deaths especially in unexpected cases. This is not expected to improve in the near future.