UNIVERSITY HOSPITALS BIRMINGHAM NHS FOUNDATION TRUST
BOARD OF DIRECTORS
THURSDAY 20 MAY 2021

Title:	**CLINICAL QUALITY MONITORING REPORT**
Responsible Director:	Prof. Simon Ball, Chief Medical Officer
Contact:	Mariola Smallman, Head of Chief Medical Officer's Services, 13768

Purpose:	To present an update to the Board	
Confidentiality Level & Reason:	None	
Strategy Implementation Plan Ref:	#2 Eliminate unwarranted variation in services for patients through aligning and standardising pathways and service delivery #3 Provide the highest quality of care to patients through a comprehensive quality improvement programme #4 Meet regulatory requirements and operational performance standards, in line with agreed trajectories	
Key Issues Summary:	• Latest performance for a range of mortality indicators (CUSUM, SHMI, HSMR). • Summary of Serious Incidents (SIs) meeting Never Event criteria reported between 9th February and 08 April 2021 • Learning from Deaths, Quarter 4, 2020/21 • Child Death Reviews, Quarter 3, 2020/21 • Perinatal Mortality Reviews, Quarter 2, 2020/21	
Recommendations:	To discuss the contents of this report.	
Approved by:	Prof Simon Ball	Date: 15/04/2021

UNIVERSITY HOSPITALS BIRMINGHAM NHS FOUNDATION TRUST

BOARD OF DIRECTORS
THURSDAY 20 MAY 2021
CLINICAL QUALITY MONITORING REPORT
PRESENTED BY CHIEF MEDICAL OFFICER

1. Introduction

The aim of this paper is to provide a patient safety update to the Board of Directors, based on information reported as part of clinical quality monitoring and the Clinical and Professional Review of Incidents Group (CaPRI) meetings. The Board of Directors is requested to discuss the contents of this report and approve any actions identified.

2. Mortality - CUSUM

UHB had 3 CCS (Clinical Classification System) diagnosis group triggers and 2 groups with higher than expected numbers of mortalities in January 2021. These cases are subject to internal review processes.

- Triggers:
    - Pneumonia (except that caused by TB or STD) – 62 observed deaths compared to 42 expected
    - Urinary tract infections – 13 observed deaths compared to 8 expected
    - Septicaemia (except in labour) – 37 observed deaths compared to 29 expected

- Higher than expected:
    - Chronic ulcer of skin – 4 observed deaths compared to 2 expected
    - Chronic obstructive pulmonary disease and bronchiectasis – 16 observed deaths compared to 8 expected

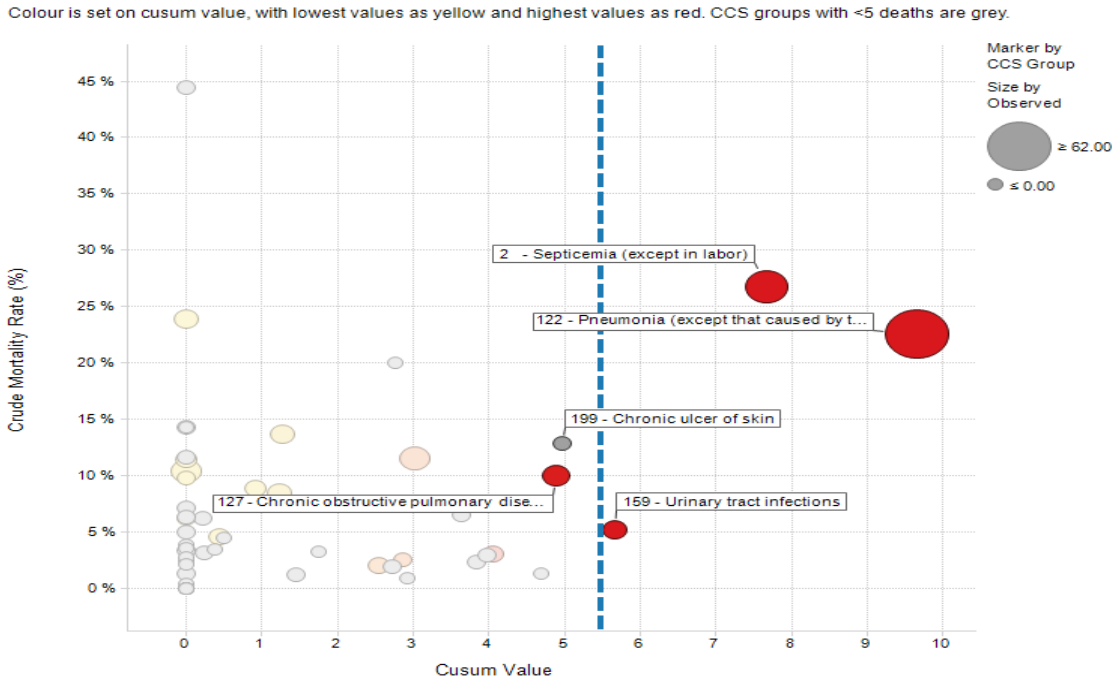


Figure 1: CCS graph for January 2021

3. Mortality - SHMI (Summary Hospital-Level Mortality Indicator)

UHB's SHMI performance for the period January 2020 to December 2020 was 95. The expected level is 100. There were 5846 observed deaths, compared with 6134 expected.

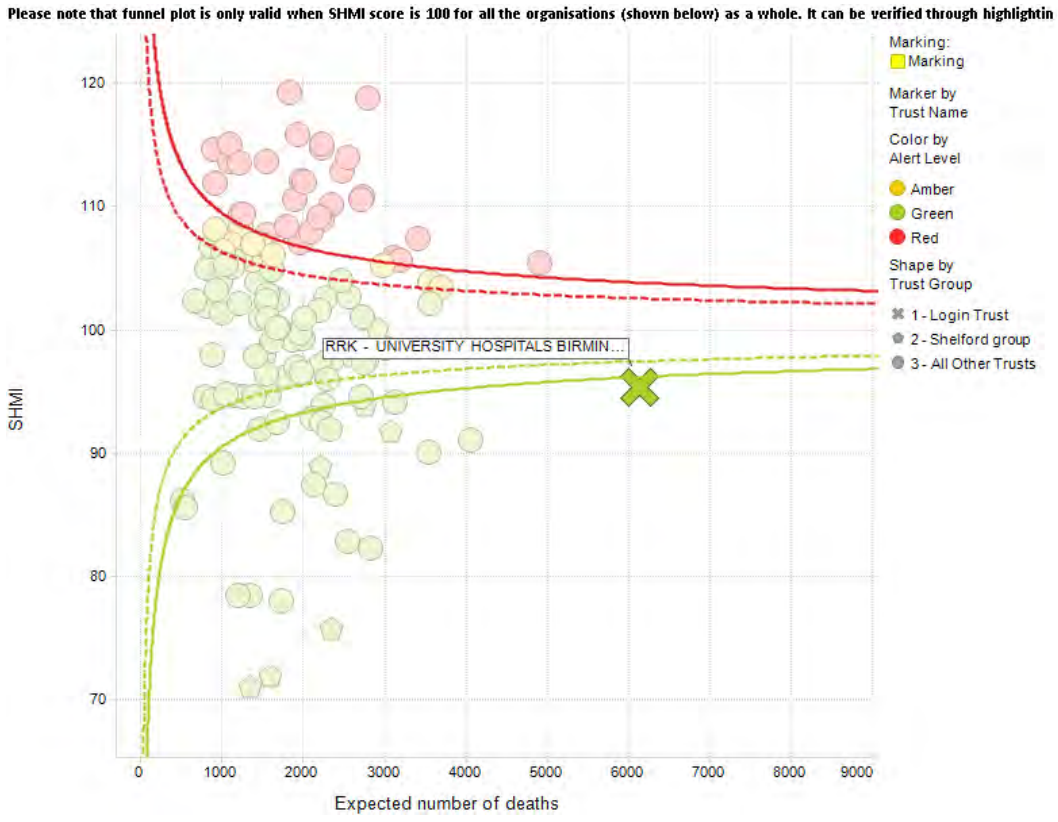


Figure 2: SHMI January 2020 to December 2020

SHMI January 2020 to December 2020						
Treatment Site	SHMI	Expected number of deaths	No. of patients discharged who died in hospital or within 30 days	Number of total discharges	Crude mortality rate	Obs - Exp
Good Hope Hospital	91	1468	1338	46358	2.9%	-130
Heartlands Hospital	99	1942	1919	72488	2.7%	-23
Queen Elizabeth Hospital	99	2389	2359	57486	4.1%	-30
Solihull Hospital	67	323	215	15107	1.4%	-108
Grand total	95	6134	5846	192669	3.0%	-288

4. Trust HSMR (Hospital Standardised Mortality Ratio)

UHB HSMR; between February 2020 to January 2021 it was 105 due to 3574 observed deaths, compared to 3401 expected.

Figure 3: HSMR February 2020 to January 2021

HSMR February 2020 to January 2021						
Treatment Site	HSMR	Number of discharges	Number of expected deaths	Number of deaths	Crude mortality rate	Obs - Exp
Heartlands Hospital	114.7	28849	1071	1229	4.3%	158
Good Hope Hospital	112.5	21879	771	868	4%	96
Solihull Hospital	64.8	11114	125	81	0.7%	-44
Queen Elizabeth Hospital	97.4	35164	1434	1396	4%	-37
Grand total	105.1	97170	3401	3574	3.7%	173

5. Learning from Deaths – Q4 2020/21

The Learning from Deaths, Quarter 4, 2020/21 update is at Appendix A.

6. Child Death Review Process

A summary of child death reviews, for Quarter 3, 2020/21, is at Appendix B.

7. Perinatal Mortality Reviews

A summary of perinatal mortality reviews, for Quarter 2, 2020/21, is at Appendix C.

8. Never Events

The Trust has reported one Never Event between 9th February and 8th April 2021. A pleural drain was inserted for right sided pleural effusion. However the guidewire which should have been removed at the time of insertion was left inside the drain and in pleural cavity. No harm was caused and the wire was removed at the time of replacing the drain. A Serious Incident investigation is underway.

9. Recommendations

The Board of Directors is asked to:

Discuss the contents of this report.

Prof Simon Ball
Chief Medical Officer

Appendix A

Learning from Deaths
Quarter 4, 2020/21

1. Introduction

The purpose of this report is to provide the Board of Directors with a summary of the all inpatient deaths between 1st January and 31st March 2021.

2. The Trust's process for reviewing inpatient deaths

The Trust has agreed a final process for escalating reviews of inpatient deaths and outcomes of Medical Examiner/M&M reviews.

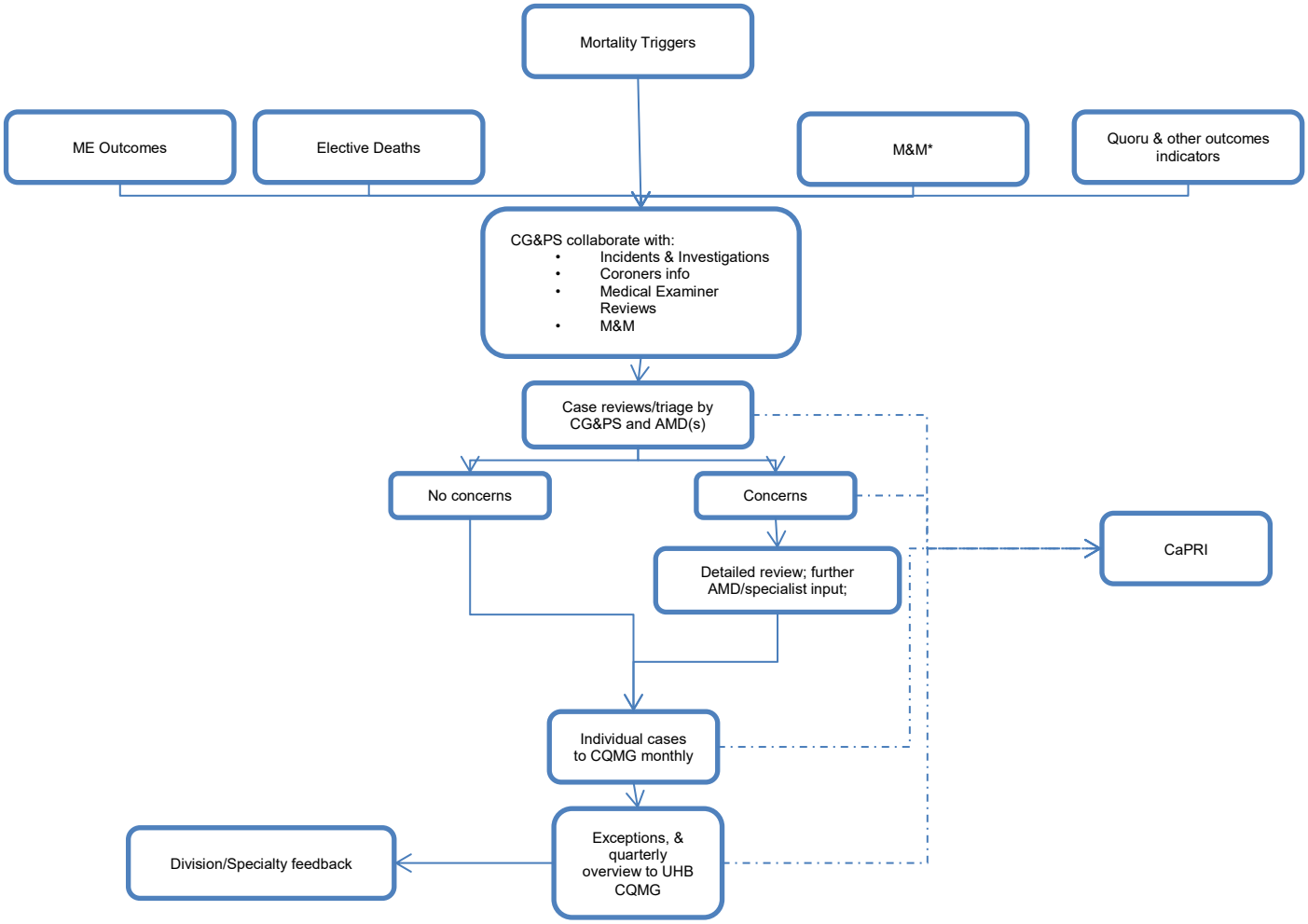


Figure 1: Trust Mortality Review Process

3. External Measures

In accordance with the National Quality Board's Learning from Deaths guidance The Trust is required to include the following information in a public board paper on a quarterly basis:

- The total number of inpatient deaths in the Trust
- The total number of deaths receiving a front line review
- The number identified to be more likely than not due to problems in care

University Hospitals Birmingham's (UHB) definition of more likely than not due to problems in care is based on the Royal College of Physician's (RCP) Avoidability of Death scoring system. Any case that scores as a 3 or less is considered to be possibly due to problems in care and so a possibly avoidable death.

The RCP Avoidability scoring system is defined as follows:

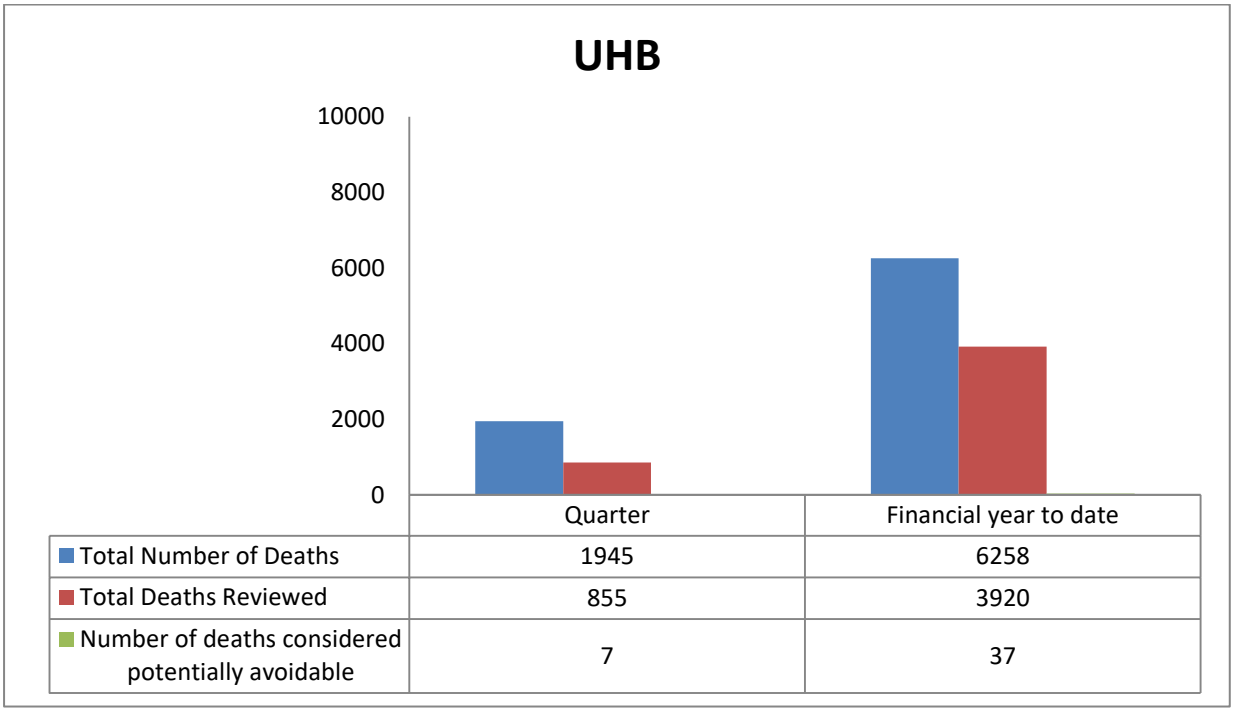
- Score 1: Definitely avoidable
- Score 2: Strong evidence of avoidability
- Score 3: Probably avoidable
- Score 4: Possibly avoidable but not very likely
- Score 5: Slight evidence of avoidability
- Score 6: Definitely not avoidable

Medical Examiners (MEs) will not have had any input into the care of the patient they are reviewing and are not specialists in the clinical specialty of the deceased patient. This is intended to provide an independent opinion into the case. MEs are expected to be overly critical and cautious to prompt further review into cases where there is the suggestion of shortfalls in care. Any cases which are identified by the Medical Examiners as having potential shortfalls in care are escalated for further review as per usual Trust processes.

Emergency legislation (Coronavirus Act 2020) includes changes to death certification, registration and cremation paperwork. During the pandemic it was necessary to temporarily suspend scrutiny; however, retrospective scrutiny was subsequently completed for approximately half of these cases and any meeting the criteria for further follow-up were escalated via usual governance processes. Oversight of coroner referrals and death certification continues during any period of temporary scrutiny suspension.

4. UHB Quarter 4, 2020/21, Summary

The graph overleaf shows: the total number of deaths within the Trust during the last quarter; the total number of deaths reviewed by the Medical Examiners; and the number considered potentially avoidable.



	Quarter	Financial year to date
Total Number of Deaths	1945	6258
Total Deaths Reviewed	855	3920
Number of deaths considered potentially avoidable	7	37

Figure 2: Number of front line reviews of deaths and those considered avoidable (a score of 3 or less on the RCP Avoidability of Death scoring system) based on front line Medical Examiner reviews.

Seven deaths received a score of three or less which is the criteria for being classified as potentially avoidable. Of these, four were Hospital Onset Covid-19 cases. There is an established process for these incidents which is overseen by Infection Prevention and Control (IPC). All cases identified by MEs were referred to IPC for investigation.

Of the remaining three cases, none had been flagged for higher investigation prior to the ME review. The first two are being investigated as an Executive RCA and Divisional RCA respectively, with the third pending review at CaPRI.

The three cases were as follows:

- A patient with Parkinson's Disease, kidney disease and hypertension presented with abdominal pain. The patient was admitted under acute medicine and there was a delayed surgical referral. The patient died 48 hours after referral. This case was reviewed at CaPRI and has been referred for Executive RCA investigation.

- A patient with type 2 diabetes, cervical myelopathy, and history of upper GI bleed was admitted with weight loss, vomiting and poor oral intake. The patient was managed for acute kidney injury, but died suddenly with some electrolyte abnormalities. This case was reviewed at CaPRI and is now subject to a local investigation.

- A patient was admitted with a benign intracranial tumour and obstructive hydrocephalus. The patient was planned for surgery, but before it was undertaken, the patient deteriorated and did not survive despite emergency neurosurgery. This case will be presented to CaPRI in April 2021.

The graphs below show the breakdown of scoring against the avoidability measure across the 4 hospital sites.

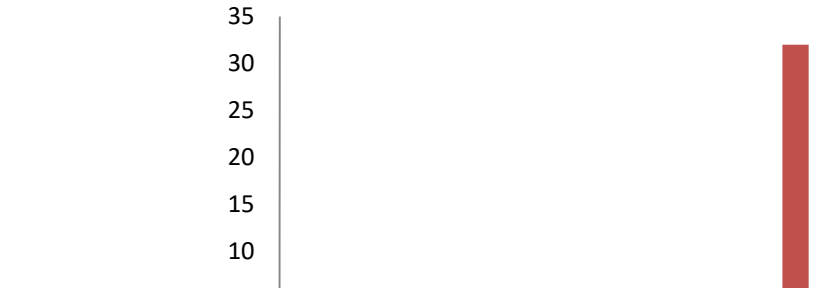
Figure 3 - QEH

	Score 1	Score 2	Score 3	Score 4	Score 5	Score 6
Most recent quarter	0	1	5	12	41	451
Financial Year to Date	0	10	12	41	203	1637

Figure 4 - BHH

	Score 1	Score 2	Score 3	Score 4	Score 5	Score 6
Most recent quarter	0	0	1	5	22	241
Financial Year to Date	0	2	12	22	71	1153

Figure 5 - SH



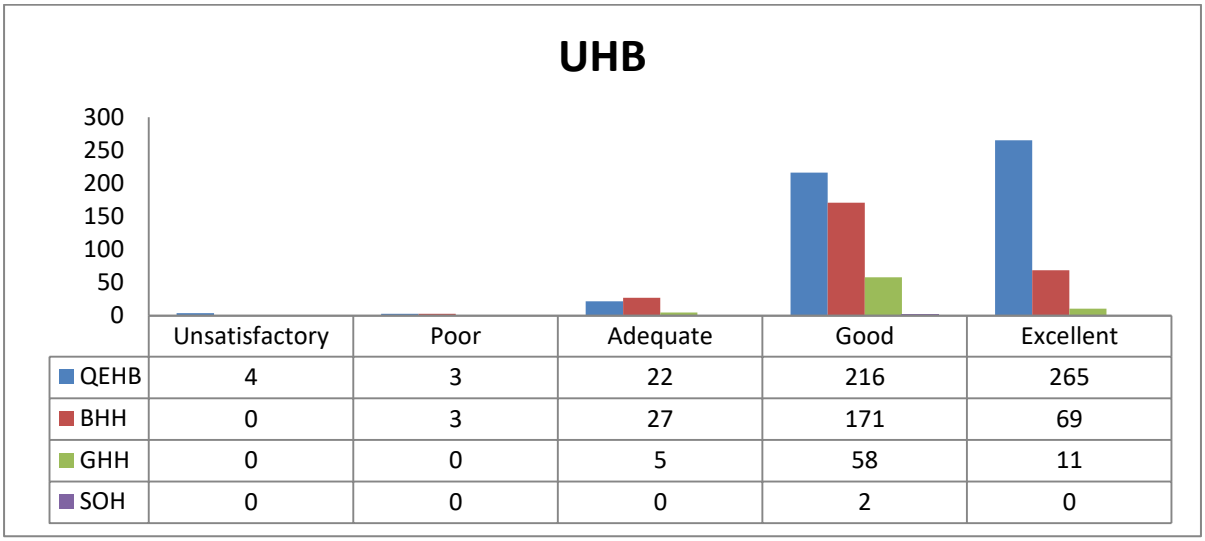
	Score 1	Score 2	Score 3	Score 4	Score 5	Score 6
Most recent quarter	0	0	0	0	0	2
Financial Year to Date	0	0	0	0	2	32

Figure 6 - GHH

	Score 1	Score 2	Score 3	Score 4	Score 5	Score 6
Most recent quarter	0	0	0	0	1	73
Financial Year to Date	1	0	0	2	23	666

5. Medical Examiner Scoring of Care

This section summarises Medical Examiner overall scoring of care, which is based on the RCP Summary Category of Care scoring system. This scoring system is only monitored and reported internally. Internal scoring of care focuses mainly on the quality of care provided, regardless of the effect on the patient's outcome, whereas the external avoidability measure is focused on outcomes.



	Unsatisfactory	Poor	Adequate	Good	Excellent
QEHB	4	3	22	216	265
BHH	0	3	27	171	69
GHH	0	0	5	58	11
SOH	0	0	0	2	0

Figure 7: UHB Scoring of Care by Hospital Site for the quarter

The RCP Summary Category of Care scoring system is defined as follows:

- Excellent care: This was excellent care with no areas of concern.
- Good care: This was good care with only one or two minor areas of concern and no potential for harm to the patient.
- Adequate care: This was satisfactory care with two or more minor areas of concern, but no potential for harm to the patient.
- Poor Care: Care was suboptimal with one or more significant areas of concern, but there was no potential for harm to the patient.
- Unsatisfactory care: Care was suboptimal in one or more significant areas resulting in the potential for, or actual, adverse impact on the patient.

The cases marked as unsatisfactory care this quarter were the same cases found to have been potentially preventable already described above, with one additional case where there were concerns raised regarding clinical management of a patient with a pathological fracture and sepsis. This has been reviewed by an Associate Medical Director of Governance and has been referred for review at the specialty Mortality and Morbidity meeting.

6. Deaths in Patients with Learning Disabilities

There were eight deaths in patients with Learning Disabilities reviewed by the Medical Examiners within Quarter 4, 2020/21, at UHB. All of the cases were found to have good or excellent care, and all were definitely not avoidable.

Appendix B

Child Death Review Process
Quarter 3, October to December 2020 / 2021

1. Introduction

The purpose of this report is to provide the Board of Directors with a summary of the child death reviews for the period 1st October 2020 to 31st December 2020.

The Trust introduced the Child Death Review Process, following the transfer of this responsibility from the Department of Education to the Department of Health and Social Care. The aim of the Child Death Review Process is to identify learning to prevent future child deaths. These reviews are in addition to other existing governance processes as appropriate such as: Sudden and Unexpected Deaths in Children (SUDIC) multi-agency reviews; safeguarding; and learning disabilities.

2. UHB Child Death Review Process

The Child Death Review meeting is chaired by a Deputy Chief Medical Officer and includes consultants (paediatrics, neonatology and obstetrics) and senior nursing and midwifery leads. Other attendees include clinicians who were directly involved in the care of the child during his or her life, the Clinical Service Lead and any professionals involved in the investigation into the death.

Child Death Review meetings usually take place on a bi-monthly basis and aim to review deaths within a recommended period of three months. Child Death Review meetings include:

- A review of the background history, treatment, and outcomes of investigations, to determine, as far as is possible, the likely cause of death;
- Ascertaining contributory and modifiable factors across domains specific to the child, the social and physical environment, and service delivery;
- A review of support provided to the family;
- Identification of any learning arising from the death and, where appropriate, to identify actions to improve the safety or welfare of children.

There has been some disruption to the timetable due to the pandemic but additional monthly meetings have been scheduled to address the backlog.

3. UHB Quarter 3, 2020/21, Summary

There were 7 neonatal deaths during quarter 3, 2020/2021 and one paediatric death.

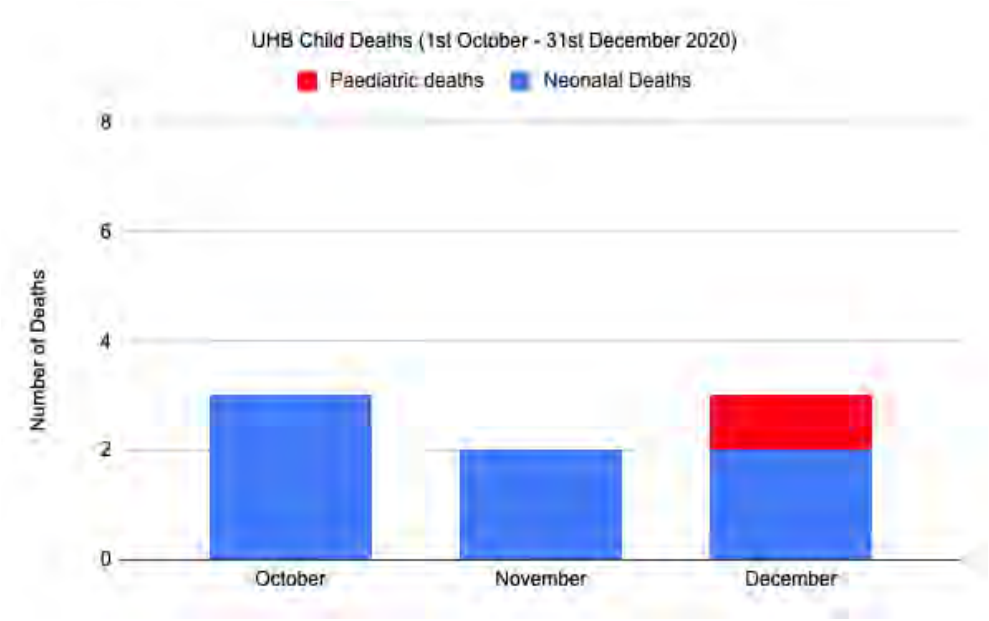


Figure 1: Paediatric and Neonatal Deaths reported by month

Data from the previous quarters for comparison are shown below:

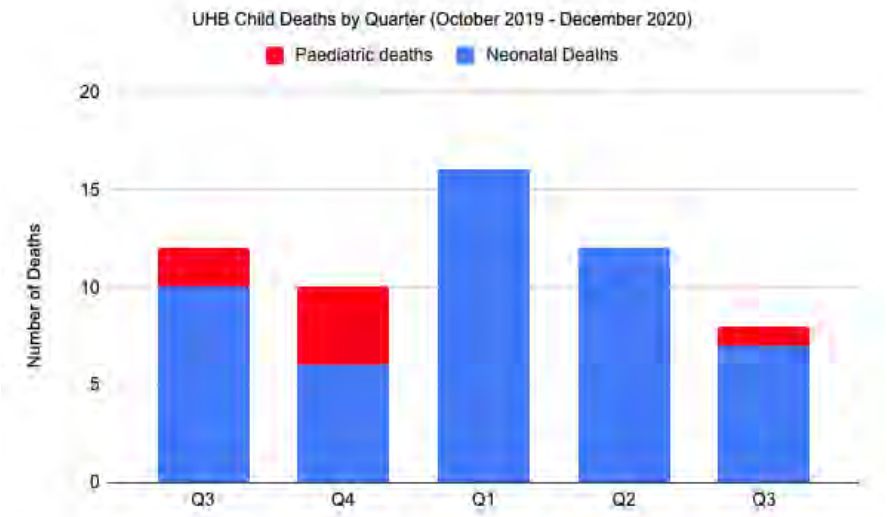


Figure 2: Paediatric and Neonatal Deaths reported by quarter

3.1. Neonatal deaths

The seven early neonatal deaths (between 0 – 7 days) were babies who, with the exception of one, were all born prematurely (gestation range from 21+4 weeks to 38 weeks). PMRT[1] reports are produced for all babies born at 22 weeks and over (six babies). Three babies died very shortly after birth (less than two hours); one baby of 31 weeks gestation was born via emergency caesarean section and resuscitation was sadly unsuccessful in this case.

Five of the neonatal deaths were categorised as perinatal/neonatal events with two deaths categorised as chromosomal/genetic/congenital anomaly.

[1] **PMRT:** Perinatal Mortality Review Tool. The aim of the PMRT programme is to support standardised perinatal mortality reviews across NHS maternity and neonatal units in England, Scotland and Wales.

One mother had a baby with a congenital anomaly, amenable to prenatal ultrasound detection, which was not initially detected. Intensive care was commenced for the baby but an examination revealed various abnormalities; the baby's care was re-orientated and she sadly died within a few days. The mother has been followed up and provided with a plan for future pregnancies. Individual feedback has been given to the sonographer and the case is to be presented at the sonographer CPD meeting.

PMRT reviews include a grading system to apply a quality of care level:

- A - No issues with care identified;
- B - Care issues identified that would have made no difference to the outcome;
- C - Care issues identified which may have made a difference to the outcome;
- D - Care issues identified which were likely to have made a difference to the outcome.

From the two PMRT reports available at this stage, the panel identified some care issues although they were of the opinion that this would sadly not have changed the outcome for the babies. The reports were graded as B for obstetric care, B for neonatal care and A for bereavement care.

4. Paediatric/adolescent death

There was one paediatric death in this quarter involving a seventeen year old girl who was admitted sedated and ventilated for the management of a devastating brain injury (DBI), having been involved in a high speed road traffic accident.

Appendix C

Perinatal Mortality Reviews
Quarter 2, 1st July – 30th September 2020

1. Introduction

The purpose of this report is to provide a summary of the Perinatal Mortality Review Tool (PMRT) for the period 1st July 2020 to 30th September 2020.

2. Background

The Trust has an established PMR process as part of the Trust's approach to identify learning to prevent future deaths.

Output from the Trust's PMR Process is reported internally within the Division and to Clinical Quality Monitoring Group.

The Trust's PMR Process is complementary to other existing governance processes as appropriate such as: Sudden and Unexpected Deaths in Infancy /Childhood (SUDI/C) multi-agency reviews; Learning from Deaths (adult cases until the statutory Medical Examiner system is introduced); safeguarding; and learning disabilities (LeDeR), etc. Where appropriate 'Perinatal deaths' are also subject to internal incident investigation processes.

3. UHB Perinatal Mortality Review Process

The PMR meeting is a multi-professional meeting chaired by a Consultant Obstetrician and Feto Maternal Medicine, and includes senior nursing and midwifery leads and neonatal consultant colleagues. The purpose of the PMRT which was designed by MBRRACE (UK Mothers and Babies: Reducing Risk through Audits and Confidential Enquiries across the UK) in 2018, is to facilitate comprehensive, robust and multidisciplinary reviews of all perinatal deaths from 22+0 gestation, to 28 days after birth, including those babies who die after 28 days following neonatal care.

PMR meetings take place on a monthly basis to ensure:

- A comprehensive case review is completed utilising the standard PMRT;
- The identification of any learning and actions to prevent re-occurrence;
- The identification of cases requiring escalation to the Chief Medical Officer for further review and decision to initiate formal / serious incident investigations.

4. PMR Standards

	Trust Compliance
Standard A I. All perinatal deaths eligible to be notified to MBRRACE-UK from 1 October 2020 onwards must be notified to MBRRACE-UK within seven working days and the surveillance information where required must be completed within four months of the death. II. A review using the Perinatal Mortality Review Tool (PMRT) of 95% of all deaths of babies, suitable for review using the PMRT, from 20 December 2019 to 30 September 2020 will have been started by 31 December 2020. This includes deaths after home births where care was provided by your Trust staff and the baby died. III. A review using the Perinatal Mortality Review Tool (PMRT) of 95% of all deaths of babies, suitable for review using the PMRT, from 1 October 2020 will have been started within four months of each death. This includes deaths after home births where care was provided by your Trust staff and the baby died.	I. Not applicable for this Quarter. II. **Achieved: 100%** All eligible cases have their review started on PMRT III. Not applicable for this Quarter
Standard B I. At least 75% of all deaths of babies (suitable for review using the PMRT) who were born and died in your Trust, including home births, from 20 December 2019 to 31 July 2020 will have been reviewed using the PMRT, by a multidisciplinary review team. Each review will have been completed to the point that at least a PMRT draft report has been generated by the tool by 31 December 2020. II. At least 40% of all deaths of babies (suitable for review using the PMRT) who were born and died in your Trust, including home births, from 1 August 2020 to 31 December 2020 will have been reviewed using the PMRT, by a multidisciplinary review team. Each review will have been completed to the point that at least a PMRT draft report has been generated by the tool.	I. **Achieved**: **100%** (requirement was 75%) all eligible cases had their review completed and report published. II. **Achieved: 100%** (requirement was 40%)
Standard C I. For 95% of all deaths of babies who were born and died in your Trust from 20 December 2019, the parents will have been told that a review of their baby's death will take place, and that the parents' perspectives and any concerns they have about their care and that of their baby have been sought. This includes any home births where care was provided by your Trust staff and the baby died. If delays in completing reviews are anticipated parents should be advised that this is the case and be given a timetable for likely completion.	I. **Achieved: 100%** (requirement was 75%) for all eligible cases parental concerns were sought and inputted on the tool
Standard D I. Quarterly reports will have been submitted to the Trust Board from 1 October 2020 onwards that include details of all deaths reviewed and consequent action plans. The quarterly reports should be discussed with the Trust maternity safety champion.	I. **Achieved:** Reporting established.

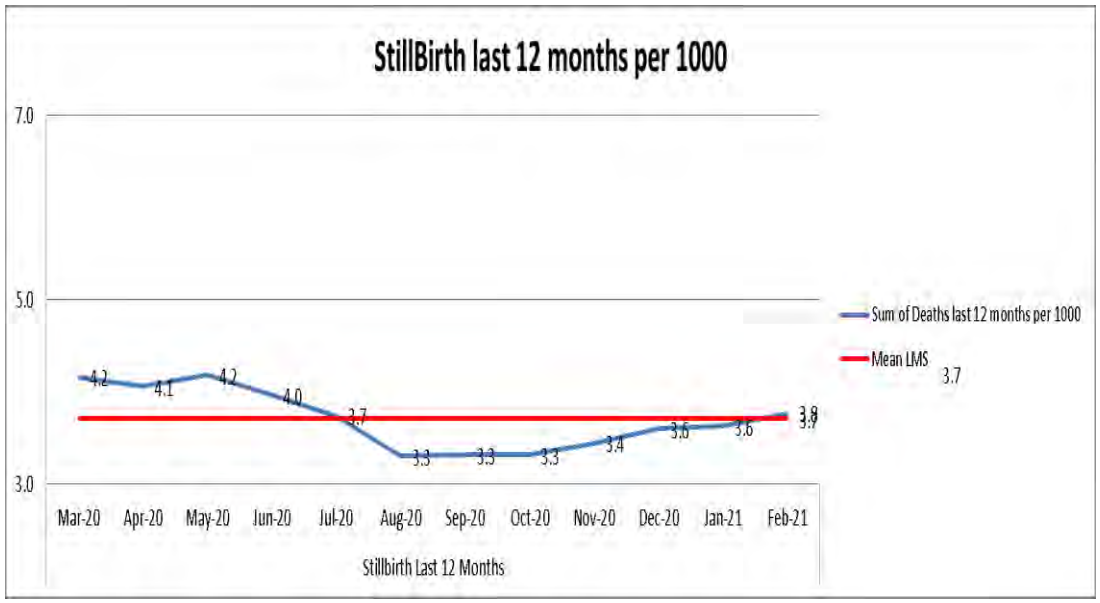
5. Summary

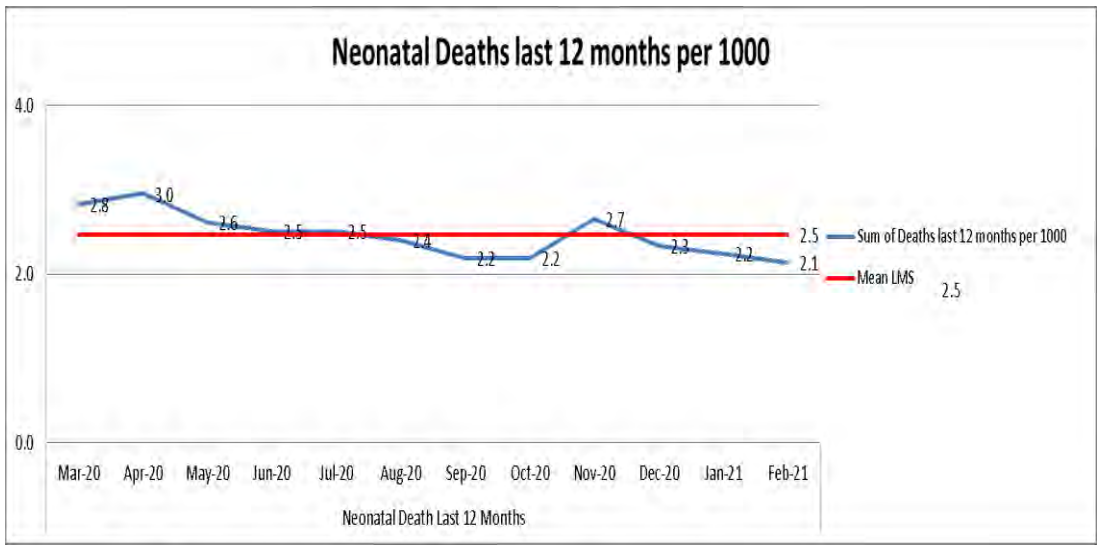
The outcomes of the Q3 PMRT (Calendar) and associated action plans were reported to the CQMG meeting in March. A summary of the outcomes reported were:

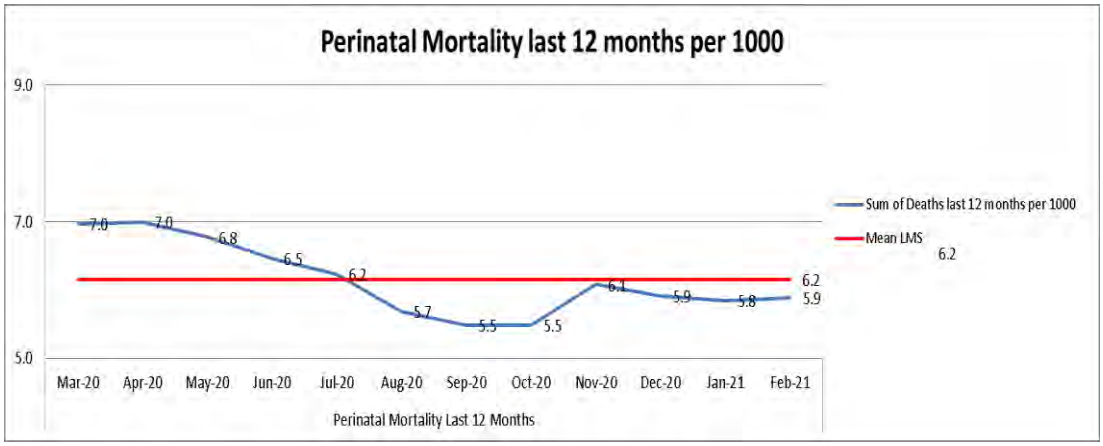
- 2 out of 16 cases (12.5%) outcome would/may have been different;
- 25% cases had good care;
- 62.5% cases had care issues or learning identified;
- Targets of Safety Action 1 / NHSR-3 Achieved;
- PNMR improved during this quarter from 6.2 to 5.5.

Next steps:

- Continued focus on Education:
    - Learning from PMRT/PEM-G Stillbirth and Neonatal Death reviews;
    - Focussed interventions(Saving babies Lives –2);
    - Robust action plans and audit compliance.
- Annual PNMR rolling audits;
- Sustain progress and continue improvement;







6. Learning and Actions:

6a. Immediate Learning:

Themes	Actions: All completed
1. Ensure prompt access to pre-eclampsia medications in A&E for maternity patients.	PET Grab box.
2. Ensure management of late bookers asper trust Guidance.	ANC staff signposted to guidance on share point for Late bookers via Team meetings.
3. Avoid inappropriate administration of steroids for foetal lung maturity.	Education and awareness of the maternity staff to ensure the timing of steroid administration to optimise the outcome of the baby.
4. Promote awareness of safeguarding services accessible to maternity team.	Presentation of the roles of safeguarding services at risk and audit meeting.
5. Ensure timely provision of neonatal counselling to patients admitted with threatened preterm birth/IUT.	Ward patients waiting neonatal counselling to be highlighted at daily equity meetings.
6. Avoid delays in administering blood during resuscitation.	Blood fridge on delivery suite was temporarily not working. New fridge installed now.
7. Ensure investigations on the neonatal unit are carried out timely as per clinical need.	Neonatal staff reminded via newsletter
8. Ensure full clinical details are included on PM request form.	To make sure BadgerNet death summary goes with consent form to PM.
9. Offer parents opportunity to take baby home (following loss).	Bereavement check list amended to include this option.

6b. Systems Learning:

Themes	Actions: 3x completed 11x in Progress
1. Education and learning around correct interpretation of CTG.	Mandatory full day foetal monitoring study day
2. Missed opportunities on more than one occasion to detect gestational diabetes.	Guideline amended with addition of a time frame for completing GTT when GTT is indicated at an advanced gestation (3days for>/+36 weeks).
3. Lack of pathway for antenatal care for un-booked women.	Un-booked appointment & risk assessment Pathway: NEW
4. Inappropriate advice /triaging for patients seeking telephone advice via triage.	New 'Triage system' : BSOTS: up and running at GHH, not yet at BHH
5. Difficulty and delay in prescribing of aspirin in community.	Exploration of Aspirin prescription as PGD.
6. Inconsistent management of DNA's	Review and revise the existing SOP for DNA. To explore if DNA's can be captured on the pregnancy summary/ front page on BadgerNet net to make DNA visible easily to staff.
7. Inappropriate risk assessment at booking	New triage pathway so that the booker goes to the most appropriate clinic right from the outset.
8. No recognised /documented lead professional for hospital and community midwifery care (also Ockenden action)	To audit the documentation of the lead professional on BadgerNet.
9. Recurring theme of women with RFM presenting late.	To ensure that the women understand the importance of seeking help at the earliest opportunity with RFM: Expert working group on RFM.
10. Inappropriate thermal management of the baby during the first 24 hours of arrival on the neonatal unit.	Audit of golden hour to check practice at neonatal unit.
11. Inappropriate ongoing haematological management of the baby on the neonatal unit.	Education/teaching/grand round presentation on fluid and blood products administration to a sick neonate.
12. Incorrect drugs or doses and incorrect volume of blood administered during resuscitation.	To create a dosing sheet for drugs used in resuscitation.
13. During resuscitation the baby was given a blood transfusion which was an appropriate thing to do, but there was a delay in giving the blood	Joint simulation with obstetrics on a case needing emergency neonatal blood transfusion.
14. Lack of joined- up process between neonatal and community palliative care team (Late NND with T13/paramedic team commenced resuscitation)	To develop integrated palliative care pathway (RESPECT)