UNIVERSITY HOSPITALS BIRMINGHAM NHS FOUNDATION TRUST
BOARD OF DIRECTORS
THURSDAY 22 OCTOBER 2020

Title:	**CLINICAL QUALITY MONITORING REPORT**
Responsible Director:	Prof. Simon Ball, Chief Medical Officer
Contact:	Mariola Smallman, Head of Chief Medical Officer's Services, 13768 James Bentley, Chief Medical Officer's Services Manager 13693

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 08/09/2020 and 08/10/2020 • Learning from Deaths, Quarter 2, 2020/21 • Child Death Reviews, Quarter 1, 2020/21 • Perinatal Mortality Reviews, Quarter 4, 2019/20	
Recommendations:	To discuss the contents of this report.	
Approved by:	Prof Simon Ball	Date: 09/10/2020

UNIVERSITY HOSPITALS BIRMINGHAM NHS FOUNDATION TRUST

BOARD OF DIRECTORS
THURSDAY 22 OCTOBER 2020
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 2 CCS (Clinical Classification System) diagnosis groups with higher than expected numbers of mortalities in June 2020:

June 2020 CUSUM Triggers:

- Other circulatory disease – 2 observed deaths compared to 1 expected.
- Other upper respiratory disease – 3 observed deaths compared to 1 expected.

The case-lists for these are subject to internal review processes.

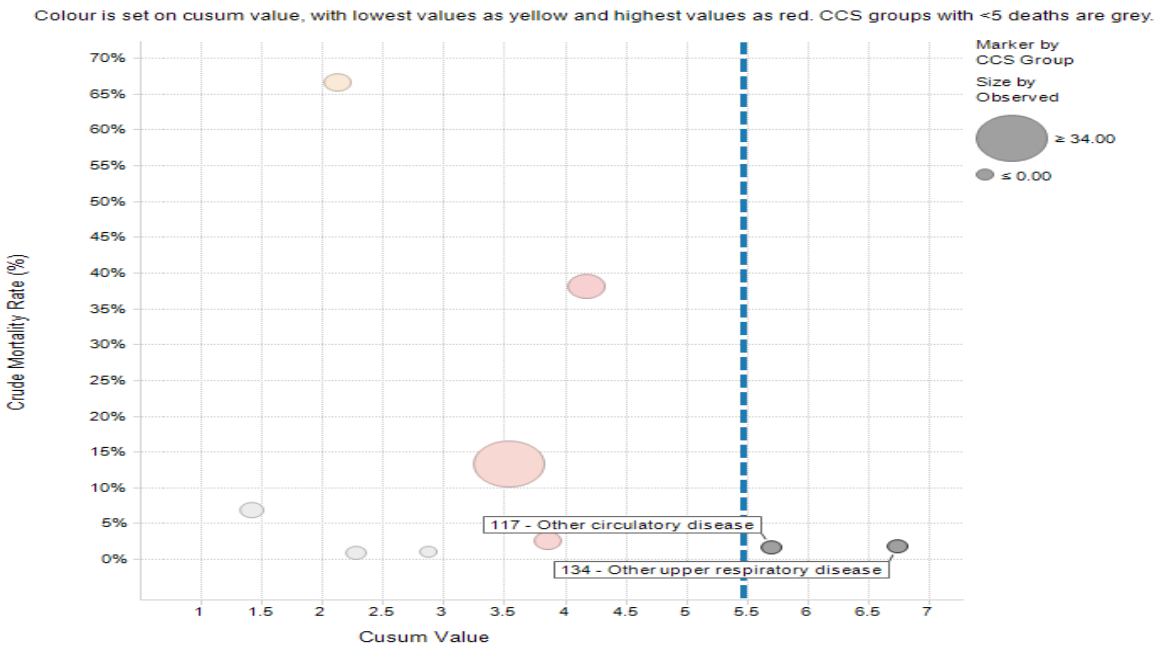


Figure 1: CCS Groups for UHB, June 2020

Following a refresh of the report, further triggers have been identified in the April 2020 mortality CUSUM. The CCS groups for these are as follows:

April 2020 CUSUM Triggers:

- Congestive heart failure; non-hypertensive – 17 observed deaths compared to 8 expected.
- Acute Bronchitis – 12 observed deaths compared to 3 expected.
- Aspiration pneumonitis; food/vomitus – 12 observed deaths compared to 7 expected.
- Urinary tract infections - 14 observed deaths compared to 5 expected.
- Fracture of neck of femur (hip) – 14 observed deaths compared to 5 expected.
- Fluid and electrolyte disorders – 7 observed deaths compared to 3 expected.

The case-lists for these are subject to internal review processes.

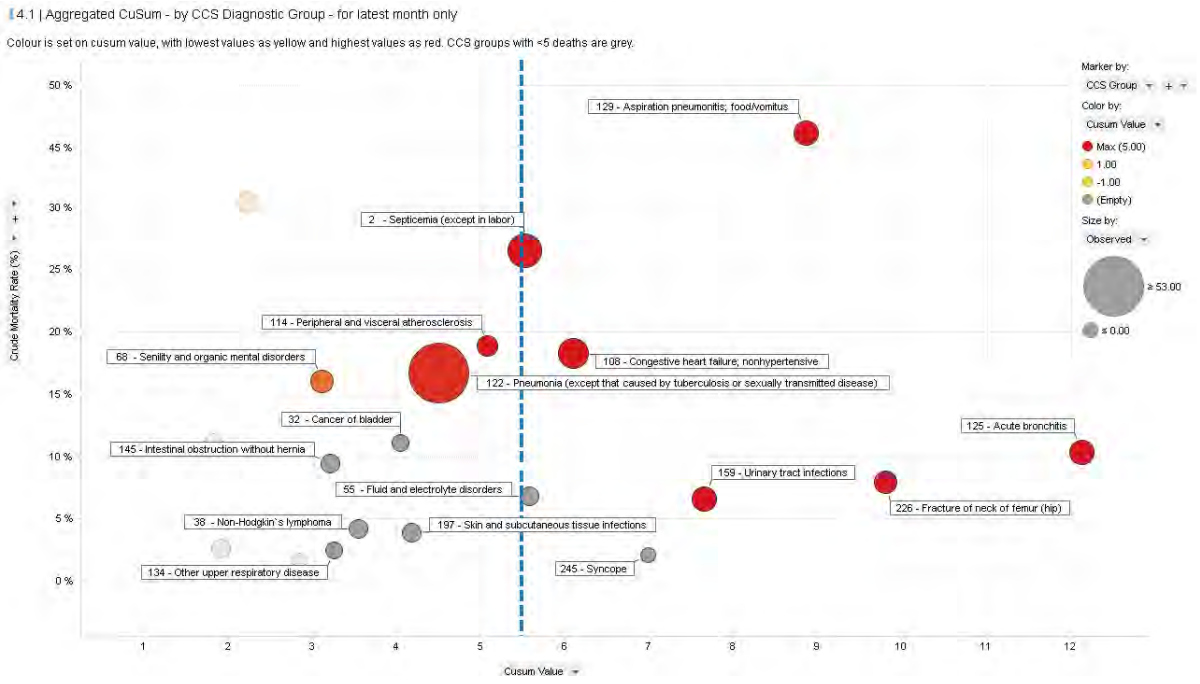


Figure 2: CCS Groups for UHB, April 2020

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

UHB's SHMI performance for the period June 2019 to May 2020 was 100. The expected level is 100. There were 6810 observed deaths, compared with 6802 expected.

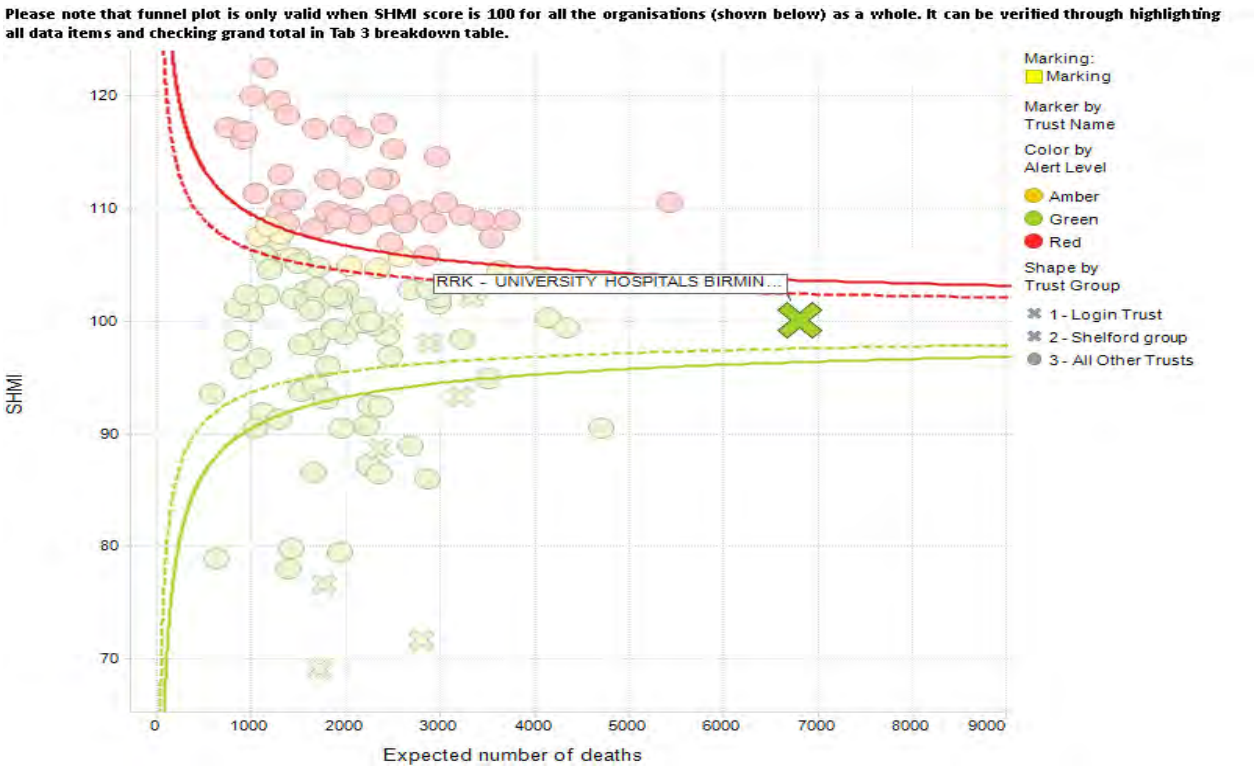


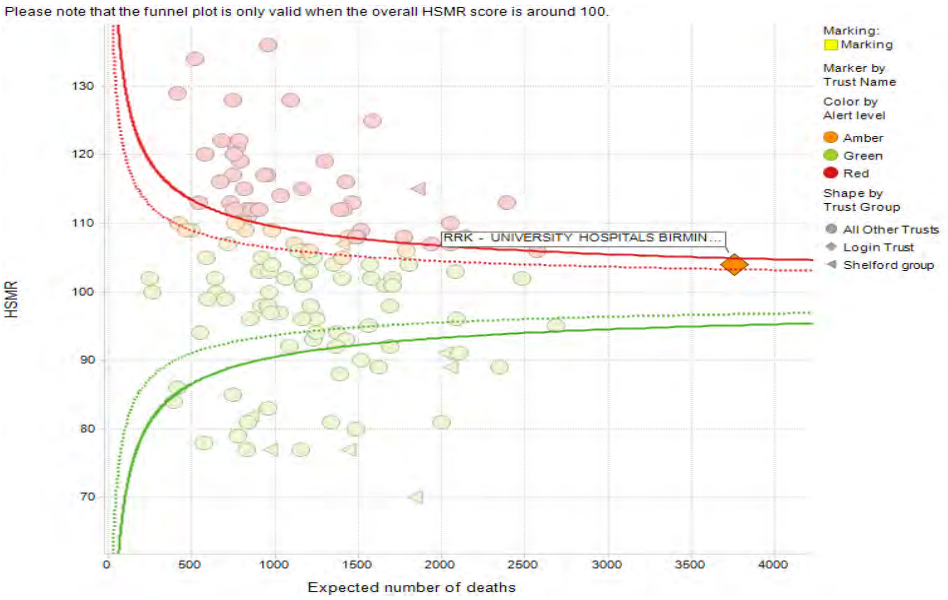
Figure 3: Trust SHMI June 2019 to May 2020

SHMI June-19 to May-20

Site	SHMI	Expected number of deaths	Number of patients discharged who died in hospital or within 30 days	Number of total discharges	Obs. - Exp.
HEARTLANDS HOSPITAL	105	2019	2121	82270	102
GOOD HOPE HOSPITAL	96	1658	1584	56355	-74
SOLIHULL HOSPITAL	76	733	561	26704	-172
QUEEN ELIZABETH HOSPITAL BIRMINGHAM	107	2564	2745	73505	181
Grand total	100	6803	6810	233086	7

4. Trust HSMR (Hospital Standardised Mortality Ratio)

UHB HSMR; between July 2019 to June 2020 was 104 due to 3900 observed deaths, compared to 3757 expected.



HSMR July-19 to June-20					
Site	HSMR	Number of discharges	Expected number of deaths	Number of deaths	Obs. - Exp.
RRK15 - QUEEN ELIZABETH HOSPITAL BIRMINGHAM	105	37621	1362.54	1427	64
RRK97 - HEARTLANDS HOSPITAL	109	34796	1113.38	1216	102
RRK98 - GOOD HOPE HOSPITAL	107	28982	903.78	970	66
RRK99 - SOLIHULL HOSPITAL	75	18554	359.47	268	-92
Grand total	104	124151	3757.99	3900	142

Figure 4: Trust HSMR July 2019 to June 2020

The HSMR graph showing split by site is currently unavailable as the site codes are different for pre and post-April 2020 figures. A request has been submitted for the codes to be merged so that this can be available in future reports.

5. Learning from Deaths – Q2 2020/21

The Learning from Deaths, Quarter 2, 2020/21 update is at Appendix A.

Emergency legislation (Coronavirus Act 2020) includes changes to death certification, registration and cremation paperwork. Within the Trust there was a need to temporarily suspend ME scrutiny for the period 23rd March 2020 to 30th May 2020. However, during this period measures were in place to ensure the oversight of Medical Certificates of Cause of Death (MCCDs) completion, including appropriate referral to the Coroner. Medical Examiner Scrutiny resumed from 1st June 2020. A sample of cases during the period scrutiny was suspended are being retrospectively reviewed. Any cases that highlight potential shortfalls in care are escalated for further review as per usual Trust processes.

6. Child Death Review Process

A summary of the child death reviews, for the period 1st April to 31st June 2020, is at Appendix B. 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.

7. Perinatal Mortality Reviews

A summary of perinatal mortality reviews, for the period 1st January to 31st March, is at Appendix C.

8. Never Events

The Trust has not reported any Never Events between 8th September and 08 October 2020. Four investigations are in progress.

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 2 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 July and 30th September 2020.

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.

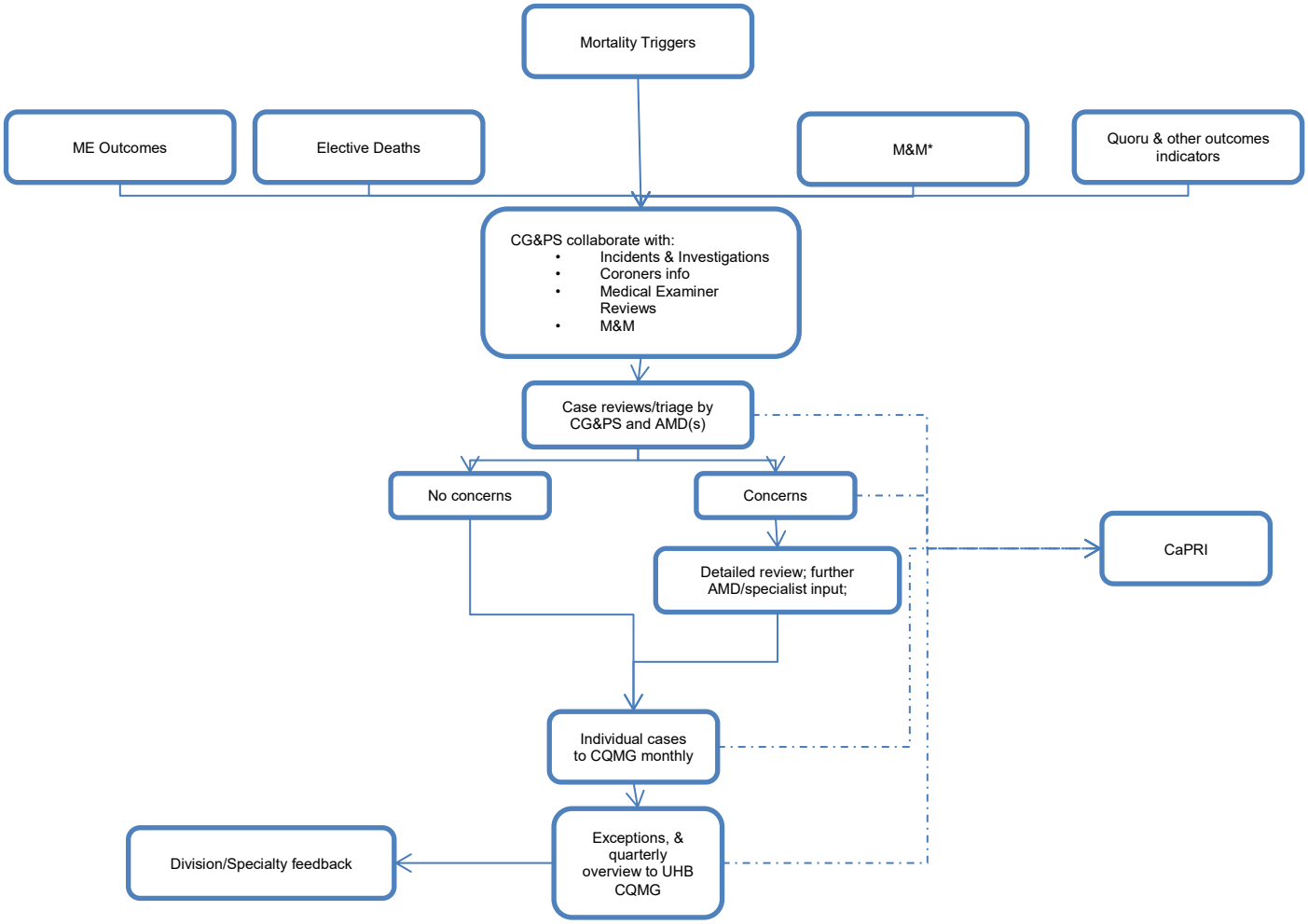


Figure 1: Trust Mortality Review Process

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. Within the Trust there was a need to temporarily suspend ME scrutiny for the period 23rd March 2020 to 30th May 2020. However, during this period measures were in place to ensure the oversight of Medical Certificates of Cause of Death (MCCDs) completion, including appropriate referral to the Coroner. Medical Examiner Scrutiny resumed from 1st June 2020.

A sample of cases during the period scrutiny was suspended are being retrospectively reviewed. Any cases that highlight potential shortfalls in care will be escalated for further review as per usual Trust processes.

4. UHB Quarter 2, 2020/21, Summary

The graph below 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.

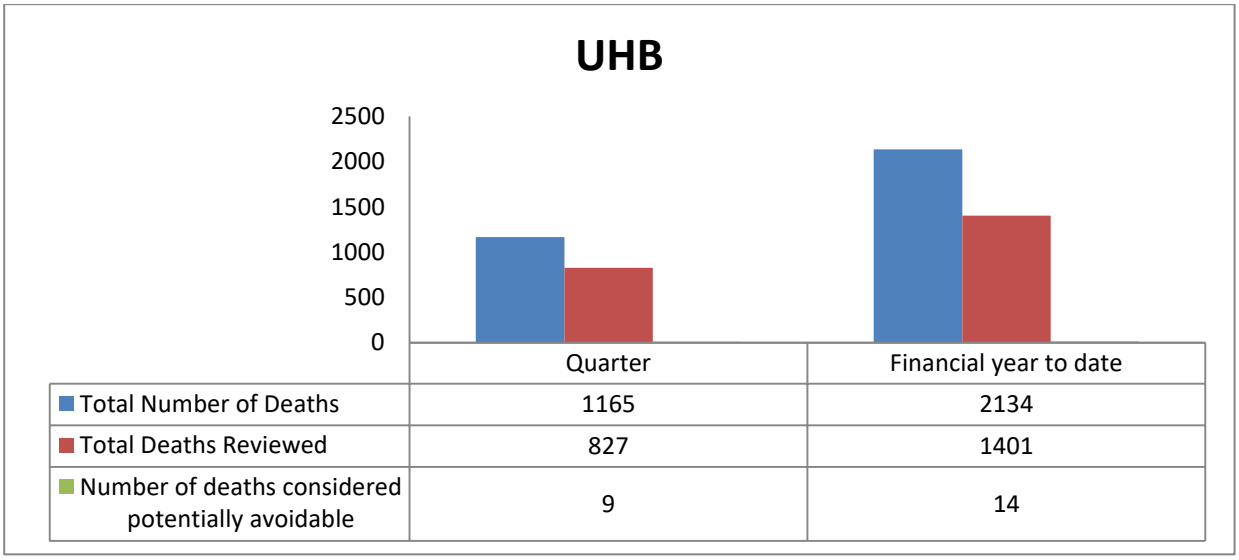


Figure 2: Number of front line reviews of deaths and those considered avoidable (a score of 3 or less on the RCP Avoidability of Death scoring system) based on front line Medical Examiner reviews.

Nine deaths received a score of 3 or less which is the criteria for being classified as potentially avoidable. Of these, five had been escalated prior to the ME review. All the remaining cases had further assessment and action as a result of the ME review.

1. A patient who presented with abdominal pain and a reduced functioning ileostomy was admitted to ward 620/728 for further assessment and observation overnight. The patient was found unresponsive the following morning and resuscitation was unsuccessful. Limited evidence of observations or medical review during the night were identified during the investigation. The case had already been identified via incident reporting, and was investigated as a Serious Incident.

2. A patient was admitted for surgical management of an ankle fracture. During the admission the patient had a coffee ground vomit, aspiration, and cardiac arrest. During the resuscitation there was a short delay in applying airway suction. After review at CaPRI, the delay was not deemed to have affected the outcome. The case has been referred for Divisional RCA.

3. A patient was admitted for repair of left common femoral artery pseudoaneurysm. The operation was cancelled post admission due to the risk of contracting COVID-19. Subsequently the patient died of COVID-19 one month post discharge in hospital. A complaint response had already been prepared, and discussion is scheduled for CaPRI as to whether any further investigation is required.

4. A patient was admitted with haematological issues and deteriorating mental health. The patient was medically fit for discharge, but there was a discharge delay of over a month whilst awaiting psychiatric input for the discharge plan. The patient developed COVID-19 infection and subsequently died. The case was referred to UHB's Mental Health Team to address with community healthcare providers.

5. The patient had a cardiac arrest when attending CT scan outpatient appointment for TAVI planning. Whilst no issues were identified relating to the scan, there were potentiality two opportunities missed to expedite surgery. The family have submitted a complaint and the case is scheduled for discussion at CaPRI.

6. A patient on a palliative care pathway had an in-hospital fall and sustained bilateral subdural and subarachnoid haematomas and skull fractures. The case has been investigated as a Serious Incident. Contributory factors were unfamiliar environment, frailty and postural hypertension. Staff have shared the learning from the case regarding postural hypertension, falls leaflets and accurate documentation.

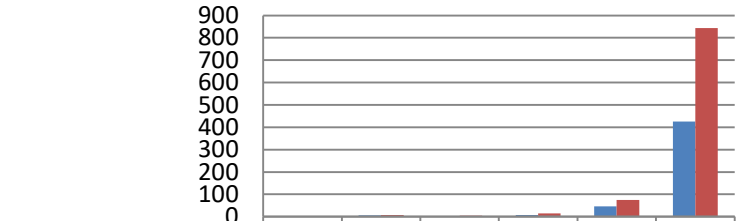
7. Patient admitted with an episode of urinary sepsis and impaired renal function (Cr 380). A trans-oesophageal echocardiogram (TOE) demonstrated large vegetation on both the mitral and aortic valves. Following discussion at MDT, it was agreed that the patient should proceed to surgery but there were no ITU beds available in the trust or region due to the pandemic. The patient subsequently died. The case was reviewed at CaPRI and is being investigated as an Internal Serious Incident.

8. Missed opportunities to diagnose and manage chronic liver disease, Hepatitis C infection and hepatocellular carcinoma relating to investigations from 2015, 2019 and 2020. The patient now has advanced liver disease and HCC with no treatment options. Case had been identified prior to ME review and is being investigated as a Serious Incident.

9. Elderly patient died of pneumonia and frailty. Case reviewed by Associate Medical Director and no care management problems identified. Clarification is being sought from the Medical Examiner to better understand the issues they had identified.

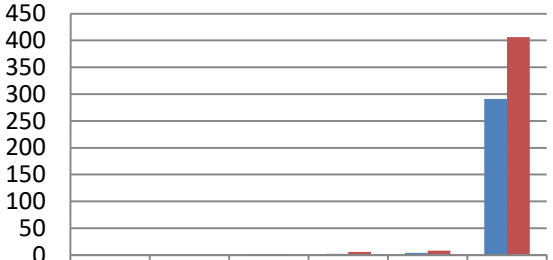
The graphs below show the breakdown of scoring against the avoidability measure across the 4 sites.

Figure 3 - QEH



	Score 1	Score 2	Score 3	Score 4	Score 5	Score 6
Most recent quarter	0	6	2	8	46	426
Financial Year to Date	0	7	5	15	75	843

Figure 4 - BHH

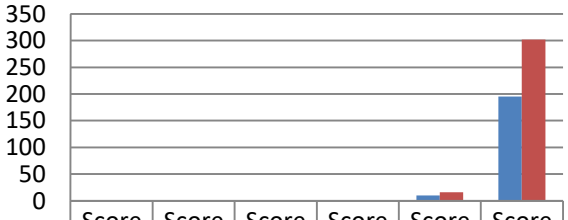


	Score 1	Score 2	Score 3	Score 4	Score 5	Score 6
Most recent quarter	0	0	1	2	4	291
Financial Year to Date	0	0	1	6	8	406

Figure 5 -SH

	Score 1	Score 2	Score 3	Score 4	Score 5	Score 6
Most recent quarter	0	0	0	0	0	0
Financial Year to Date	0	0	0	1	1	20

Figure 6 - GHH

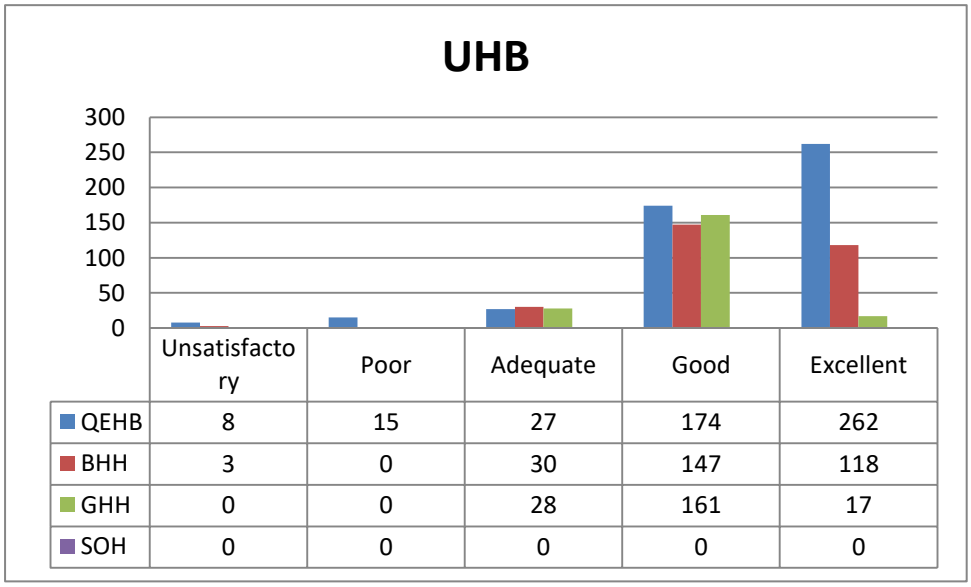


	Score 1	Score 2	Score 3	Score 4	Score 5	Score 6
Most recent quarter	1	0	0	0	10	195
Financial Year to Date	1	0	0	0	16	302

n.b. Solihull Hospital was in the process of reconfiguration during this quarter and no deaths occurred on that site during the period.

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	8	15	27	174	262
BHH	3	0	30	147	118
GHH	0	0	28	161	17
SOH	0	0	0	0	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.

Based on the cases that were escalated by MEs this quarter, the themes identified from quality of care scoring were care planning, communication with family members and end of life decision making.

6. Deaths in Patients with Learning Disabilities

There were 17 deaths in patients with Learning Disabilities reviewed by the Medical Examiners within Quarter 2, 2020/21, at UHB. Two of these cases have been referred to M&M for further learning.

Appendix B

Child Death Review Process
Quarter 1, April to June 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 April 2020 to 30th June 2020.

2. UHB Child Death Review Process

The Child Death Review meeting is chaired by a Deputy Chief Medical Officer and includes consultants (paediatrics, neonatology, obstetrics, clinical governance and emergency medicine) 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.

Details of the discussion from the Trust Child Death Review Meeting (CDRM) are reported to the appropriate external Child Death Overview Panel.

The April and June meetings were cancelled due to the COVID pandemic. Additional monthly meetings are now taking place to discuss the backlog of patients.

3. Update on a previously reported out of hospital child death

A previously reported out of hospital child death identified that the patient had attended GHH Emergency Department. The CDRP reviewed these attendances and identified learning as follows: staff should carefully record the name and status of the adult presenting with any looked after child and clarify the care arrangement with the child's social worker. The current process is being reviewed and the safeguarding team are involved with the paediatric team. The police investigation into this little boy's cause of death is ongoing.

4. UHB Quarter 1, 2020/21, Summary

There were 16 neonatal deaths during quarter 1, 2020/2021 and no paediatric deaths.

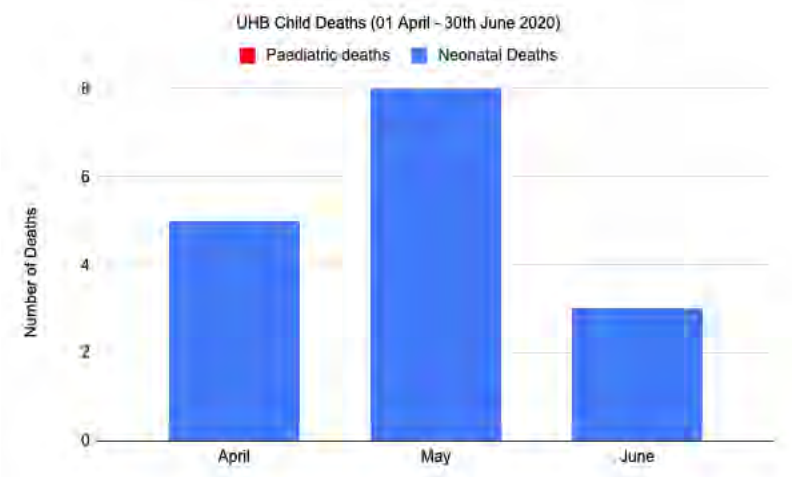


Figure 1: Paediatric and Neonatal Deaths reported by month

4.1. Neonatal deaths

There were 16 neonatal deaths in Quarter 1 20/21. The neonatal deaths were all born prematurely (gestation range from 17 weeks to 38 + 2 weeks). Their birth weights ranged from 140 grams (0.3 lbs) to 3200 grams (7 lbs). PMRT[1] reports are produced for all babies born at 22 weeks and over.

Babies below 22 weeks gestation

There were five babies born under 22 weeks with a gestational age range of 17+ 3 to 20+ 6 weeks with a birth weight range of 140 grams (0.4 ounces) to 340 grams (11.9 ounces). These babies survived no more than 3 hours.

Babies born under the age of 22 weeks are not subject to PMRT review. However, the cases are reviewed at the Trust's Child Death Review Meeting (CDRM) and forwarded as per usual governance processes as appropriate.

Babies of 22 weeks gestation and above

11 of the 16 neonatal deaths were reviewed (and in three cases, in the process of being scrutinised) using the national Perinatal Mortality Report Tool (PMRT) prior to discussion at the Trust Child Death Review Meeting.

In all cases where the PRMT review was completed, care was graded as either grade no issues with care identified or care issues that would have made no difference to the outcome across the three domains (maternity, neonatal and care of mother following the death of her baby).

PRMT reports are awaited for 3 babies:

- Two of these reports are for out-born babies from a neighbouring area. The PMRT process has changed and requires joint reporting with the referring hospital. As a result, there has been a delay in submitting two PMRT reports whilst waiting for the referring hospital to complete their section of the review.
- The third report will be available in the next few weeks.

[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.

Of the cases that were reviewed the following learning / actions were identified:

- In one case there were missed opportunities for appropriate counselling on more than one occasion, however, this would not have changed the outcome.
- A case highlighted the need for two nurses to assist when a baby is having a lateral abdominal x-ray (PMRT report has been completed by UHB but awaited from other hospital).

5. Paediatric deaths

There were no paediatric deaths in this quarter.

Appendix C

Perinatal Mortality Reviews
Quarter 4, 2019/20

6. Introduction

The purpose of this report is to provide the Board of Directors with a summary of the Perinatal Mortality Reviews (PMR) for the period 1st January 2020 to 31st March 2020.

7. 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 and externally to state here if it's mandated to report somewhere e.g., CCG, CQC, Local Maternity System, etc.

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.

8. UHB Perinatal Mortality Review Process

The PMR meeting is a multi-professional meeting chaired by Ms Shalini Patni, 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 PMR Tool (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.

9. PMR Standards

Standard	Trust Compliance
a) A review of 95% of all deaths of babies suitable for review using the Perinatal Mortality Review Tool (PMRT) occurring from Wednesday 12 December 2018 have been started within four months of each death.	Achieved: 100%: (requirement was 95%) all eligible cases have their review started on PMRT
b) At least 50% of all deaths of babies who were born and died in your trust (including any home births where the baby died) from Wednesday 12 December 2018 will have been reviewed, by a multidisciplinary review team, with each review completed to the point that a draft report has been generated, within four months of each death.	Achieved: 94.5% (requirement was 50%) cases have their review completed and report published. Only one case which need to be re-opened for discussion at Joint PMRT with LMS.
c) In 95% of all deaths of babies who were born and died in your trust (including any home births where the baby died) from Wednesday 12 December 2018, the parents were told that a review of their baby's death will take place and that their perspective and any concerns about their care and that of their baby have been sought.	Achieved: 100%: for all eligible cases parental concerns were sought and inputted on the tool.

10. Summary

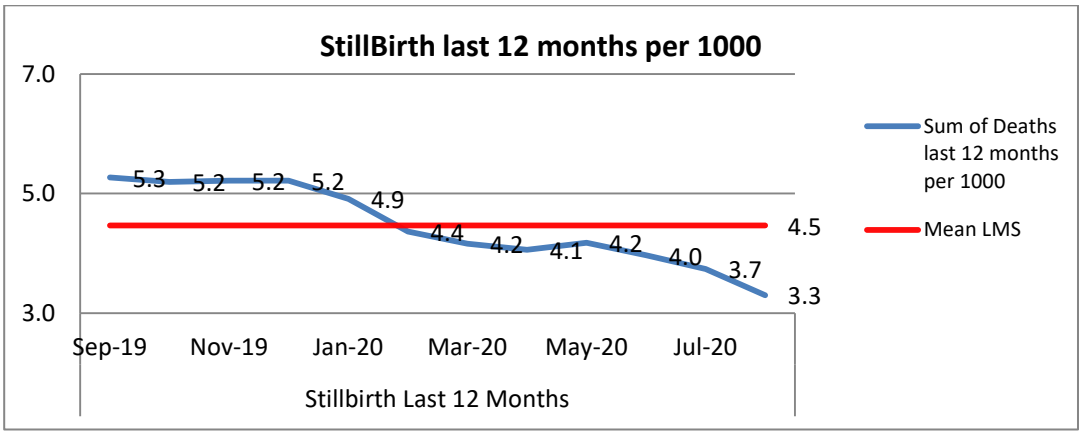
The outcomes of the Q1 PMRT and associated action plans were reported to the CQMG meeting in September. A summary of the outcomes reported were:

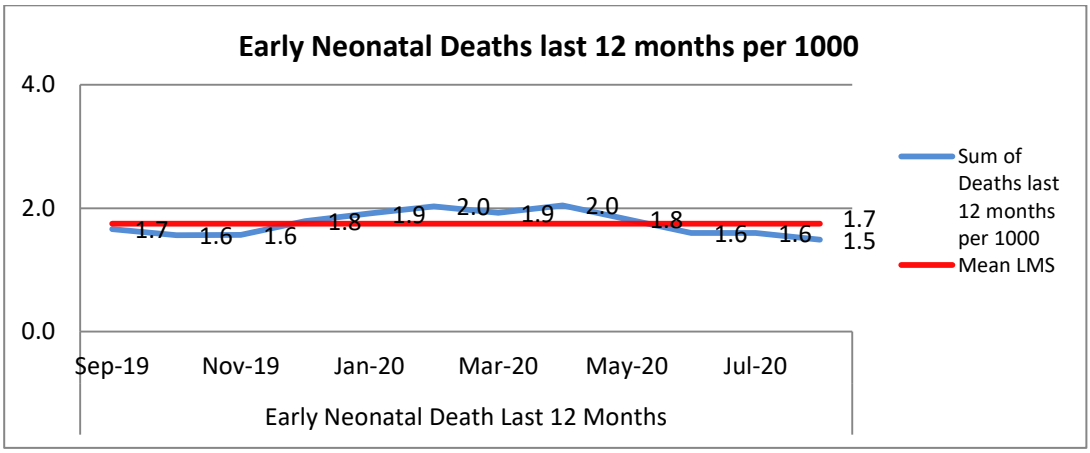
Conclusions:

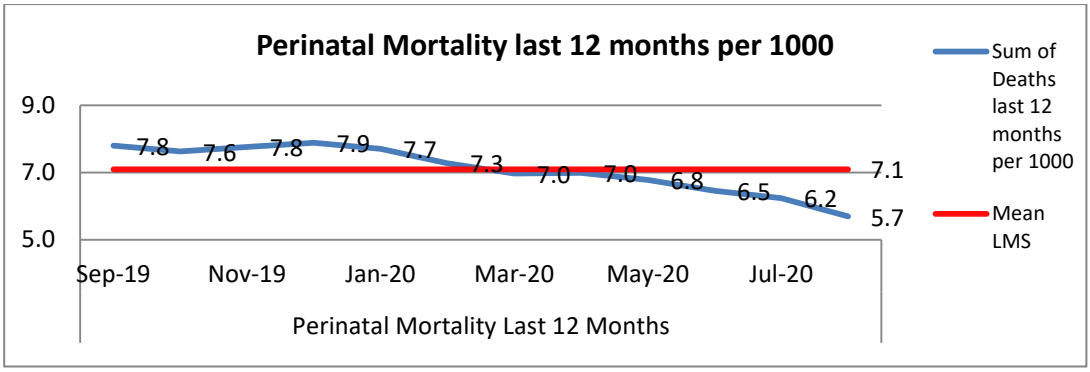
- 2 out of 18 cases were avoidable losses
- 1 out of 18 cases was potentially avoidable
- Over all in 17% cases outcome would/may have been different
- 39% were identified as good care.
- 44% cases had care issues or learning was identified

Next steps:

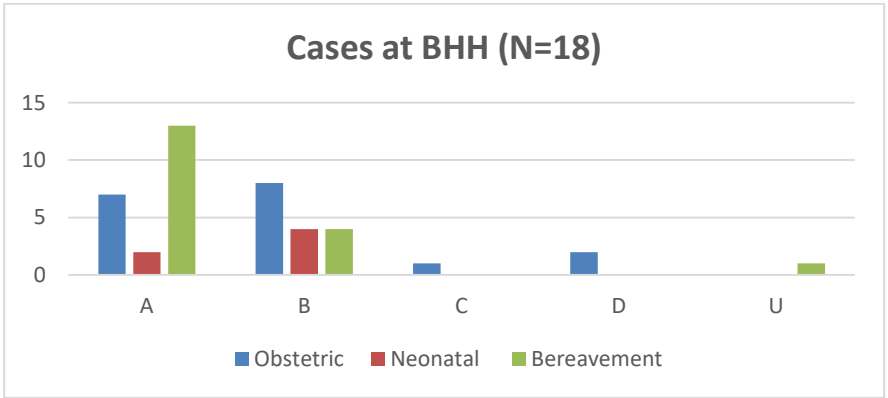
- PNMR is on the downward trend – see graphs below.
- Set to achieve the first milestone of 20% reduction in still-birth by end of 2020
- MBRRACE report for 2019 still awaited
- Focussed interventions (Saving Babies Lives –2)
- Robust action plans and audit compliance
- Annual PNMR rolling audits
- Sustain progress and continue improvement







Distribution of cases by site: Q1 2020: N=18



Cases at GHH (N=0)

11. Learning Themes

- Continual risk assessment
- Management of pre-term labour
- Fetal monitoring and surveillance
- Management of un-booked women
- Communication (verbal and written): timely neonatal counselling /timely action of Neonatal Alert Forms
- Adherence to guidance/protocol /referral processes
- Routine Enquiry/Domestic Violence
- Specimen samples (sampling, reporting and results)
- Booking Management Plans

12. Action Plans Completed or In Progress

- Pre-eclampsia risk assessment/ aspirin audit in community
- Reduced Fetal Movement / Saving Babies Lives audit
- Small for Gestational Age audit
- Pathway for un-booked ladies
- Review of antenatal pathways cross-site
- Ongoing fetal surveillance: CTG cross site meetings; Fresh Eyes and Fresh Ears
- Update of BadgerNet: mandatory fields for routine enquiry
- Production board mapping for key safety metrics (Swab count, PNMR, PPH)
- Updating guidelines
- SBAR/Huddles between Labour ward, Wards and NNU