

Quality Committee

| COVER SHEET | | | | | | | | | | | |
|--|---|--|--|---|-------------|--|--|--|--|--|--|
| Agenda Item (Ref) | 21/22/122 | | Date: 27/09/2021 | | | | | | | | |
| Report Title | Learning from Deaths Quarter 1, 21/22 | | | | | | | | | | |
| Prepared by | • • | Allan Hawksey; Acting Associate Director of quality and Governance; Ai-Wei Tan, Consultant Obstetrician; Rebecca Kettle, Consultant Neonatologist and Andrew Drakeley, acting Deputy Medical Director. | | | | | | | | | |
| Presented by | Lynn Greenhalgh, Medical Director | ınn Greenhalgh, Medical Director | | | | | | | | | |
| Key Issues / Messages | To note key findings. | o note key findings. | | | | | | | | | |
| Action required | Approve □ | Receive □ | Note ⊠ | Take Assura | nce 🗵 | | | | | | |
| | To formally receive and discuss a report and approve its recommendations or a particular course of action | To discuss, in depth, noting the implications for the Board / Committee or Trust without formally approving it | For the intelligence of the Board / Committee without in-depth discussion required | To assure the Bo Committee that effective system control are in pl | t ns of | | | | | | |
| | Funding Source (If applicable): N/A | | | | | | | | | | |
| | For Decisions - in line with Risk Appet If no – please outline the reasons for | | | | | | | | | | |
| | The Committee members are there is adequate processes a Quality Board. | | | | | | | | | | |
| Supporting Executive: | Lynn Greenhalgh Medical Dire | ector | | | | | | | | | |
| Fauality Impact Assessment (| if there is an impact on E,D & I, | an Fauality Impact | Assessment MIIST accomno | any the renort) | | | | | | | |
| Strategy | | vice Change | Not App | | | | | | | | |
| Strategic Objective(s) | Tolley E Serv | vice change — | ποιπρ | nicubic E | 9 | | | | | | |
| To develop a well led, capable entrepreneurial workforce To be ambitious and efficient | | deliver the | ate in high quality research most <i>effective</i> Outcomes he best possible <i>experience</i> | | \boxtimes | | | | | | |
| available resource | | and staff | · · | · | | | | | | | |
| To deliver <i>safe</i> services | | | | | | | | | | | |
| Link to the Board Assurance F | Framework (BAF) / Corporate R | isk Register (CRR) | | | | | | | | | |
| :: = | ative assurance or identification In menu if report links to one or more BA | _ : | n Comment: N/A | | | | | | | | |
| Link to the Corporate Risk Re | gister (CRR) – CR Number: | | Comment: No | | | | | | | | |

EXECUTIVE SUMMARY

Key findings in this report:

ADULT:

- There were 2 deaths within Gynaecology Oncology, on the ward. Both deaths were expected and there were no immediate deficiencies in care identified. Both have had mortality reviews completed by the gynaecology safety lead and governance manager and were deemed to have been appropriately managed.
- The Safety and Effectiveness Senate has overview of responsiveness to potential areas of risk to adult mortality.

PERINATAL:

- The stillbirth rate excluding TOP in the first quarter (Q1) of 2021/2022 is 4/1000.
- All stillbirths underwent a multidisciplinary review panel meeting utilising the PMRT tool.
- All parents were invited to be involved by submitting comments and questions for discussion at these reviews.
- The majority of stillbirths had appropriate antenatal care (Grade A).
- Adaption of care to telephone reviews due to Covid-19 played a role in the outcome of 1 case of stillbirth in Q1.

NEONATAL:

- Q1 mortality rate for all LWH neonatal deaths is 3.1/1000 births.
- Q1 mortality for LWH <u>inborn</u> babies is 1.0/1000 births.

NEW DEVELOPMENT:

The Medical Director & Nursing & Midwifery Director have established a 'mortality workforce group' to meet quarterly and prior to submission of quarterly mortality reports to the Quality Committee. The key workstreams include:

- i) embed learning from families into adult deaths (already done elsewhere and in LWH neonates). SOP to be developed.
- ii) Formalise structured judgement review of all deaths with two reviews. First by consultant in charge of the case and subsequently by Trust wide mortality review group.
- iii) Shared learning from regionally reviewed perinatal deaths.
- iv) Review end of life framework.
- v) Peer review of mortality e.g. by CHKS nationally benchmarked data.
- vi) Quarterly mortality and morbidity discussion at Trust GREAT Day.
- vii) Revise the Trust strategy for adult and extended perinatal mortality strategies.

RECOMMENDATIONS:

- a. The Committee members are asked to review the contents of the paper and take assurance that there is adequate processes and progress against the requirements laid out by the National Quality Board.
- b. Take assurance that there are effective processes in place to assure the Board regarding governance arrangements in place to drive quality and learning from the deaths of adults in receipt of care at the Trust.

MAIN REPORT

This is the quarter 1 mortality report for adults, perinatal and neonates. The report is part of the regular reporting schedule of the Trust to ensure that there is oversight and assurance monitoring of the mortality rates related to the clinical activity of the Trust. This is in accordance with recommendations by the National Quality Board and the Care Quality Commission. It outlines the work taking place within the department which is reported to the neonatal NWODN (North-West operational delivery network) and reviewed at CDOP (child death overview panel).

The data contained in this report is pure data and is not standardised mortality data such as SHMI, due to the low level of mortality numbers encountered and the complexity of the patients cared for by the Trust.

The use of pure data and not standardised mortality rates has been previously agreed with the CCG as the Trusts approach to monitoring mortality rates.

Of note there is a key change in the data presented in this years' neonatal quarterly reports. Overall mortality is present and then broken to inborn mortality, previously it has been booked mortality which has been reported. However, given that PMRT is looking via case by case at the quality of care provided and in line with network and MBRRACE which review inborn mortality rates, it is deemed more appropriate to report on inborn mortality rather than just the LWH booked population.

ADULT MORTALITY Q1

This report updates the Board regarding the Trust systems and processes to review and learn from deaths of patients under their care. This is in accordance with recommendations by the National Quality Board and the Care Quality Commission. It outlines the work taking place operationally and being overseen by the Safety and Effectiveness Sub - Committee and Quality Committee.

Table 1: Obstetric Mortality

This includes all obstetric activity in-hospital.

| | Apr- | May- | Jun- | Jul- | Aug- | Sep- | Oct- | Nov- | Dec- | Jan- | Feb- | Mar- | |
|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|-------|
| Obstetrics | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 22 | 22 | 22 | TOTAL |
| Total Mortality | 0 | 0 | 0 | | | | | | | | | | |
| Discharges | 1938 | 1971 | 1851 | | | | | | | | | | 5760 |

Table 2: Gynae-oncology mortality

| Gynaecology (oncology) | Apr- 21 | May- 21 | Jun- 21 | Jul- 21 | Aug- | Sep- 21 | Oct- | Nov- | Dec- 21 | Jan- 22 | Feb- 22 | Mar- 22 | TOTAL |
|---------------------------|------------|------------|------------|------------|------|------------|------|------|------------|------------|------------|------------|-------|
| Total Mortality | 0 | 1 | 1 | | | | | | | | | | 2 |
| Discharges | 65 | 70 | 58 | | | | | | | | | | 193 |

Table 3: Benign Gynaecology

| Gynaecology Oncology | Apr- 21 | May- 21 | Jun- 21 | Jul- 21 | Aug- 21 | Sep- 21 | Oct- 21 | Nov- 21 | Dec- 21 | Jan- 22 | Feb- 22 | Mar- 22 | TOTAL |
|-------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------|
| Total | 0 | 0 | 0 | | | | | | | | | | 0 |
| Mortality | | | | | | | | | | | | | |
| | 547 | 601 | 640 | | | | | | | | | | 1788 |
| Discharges | | | | | | | | | | | | | |

Out of hospital deaths 2021-22 Quarter 1

Out of hospital deaths in Maternity are considered as community deaths and not allocated to the Trust. The Trust does however, review care provided in all these cases to determine any thematic points for learning.

There were no reported out of hospital maternal deaths related to women who died within 12 months of delivering a baby at LWH in Q1.

No out of hospital Gynaecological deaths in Q1 were observed.

Mortality reviews and Key Themes

Table 4. Themes

| Mortality reviews in Q1 | | | | | | | | | |
|--|--------------------|-------------|--|--|--|--|--|--|--|
| | Maternity (Direct) | Gynaecology | | | | | | | |
| No of Adult Deaths | 0 | 2 | | | | | | | |
| No of Mortality Reviews completed | 0 | completed | | | | | | | |
| No of deaths requiring RCA's | 0 | 0 | | | | | | | |
| No of deaths due to deficiencies in care | 0 | 0 | | | | | | | |
| Mortality Themes | N/A | N/A | | | | | | | |
| Progress v Smart Plans | N/A | N/A | | | | | | | |
| Mortality Outcomes | N/A | N/A | | | | | | | |
| Measures for ongoing scrutiny | N/A | N/A | | | | | | | |

Unexpected adult gynaecology deaths trigger a 72- hour report and are recorded on Ulysses (Trust risk management and incident recording system).

There were no unexpected gynaecology deaths recorded in this quarter.

All **direct maternal deaths** trigger serious incident investigation. No direct maternal deaths were recorded in this quarter.

Risk Assurances in relation to mortality

As part of the Trusts assurances processes the Effectiveness and Safety Sub – Committee work to gain assurance as to actions taken in relation to Serious Incident reviews, Lessons Learnt, External Alerts and National guidance on Quality and Safety.

Horizon Scanning

Horizon Scanning Summary for guidance, reports and publications.

There were no updates of note for this reporting period.

PERINATAL MORTALITY Q1

Mortality Dashboard

Previous annual stillbirth rates excluding termination of pregnancy per 1000 births were: 2018/19 = 3.91; 2019/20 = 2.89 and 2020/21 = 3.4.

It has been agreed with the Clinical Lead for Obstetrics that this table, and a summary of cases discussed at PMRT will be an agenda item at the monthly Maternity Clinical Meeting so that the Stillbirth rate can be monitored, and relevant issues identified discussed.

Table 5: Stillbirths >24 weeks

| STILLBIRTHS | Jul- 20 | Aug- 20 | Sep- 20 | Oct- 20 | Nov- 20 | Dec- 20 | Jan- 21 | Feb- 21 | Mar- 21 | Apr- 21 | May- 21 | Jun- 21 | Q1 TOTAL 2021/22 |
|-----------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|---------------------|
| Total Stillbirths | 2 | 3 | 1 | 4 | 1 | 2 | 4 | 0 | 1 | 3 | 6 | 4 | 13 |
| Stillbirths (excluding TOP) | 2 | 2 | 1 | 2 | 1 | 2 | 3 | 0 | 3 | 3 | 3 | 2 | 8 |
| Births | 658 | 677 | 681 | 669 | 605 | 605 | 604 | 615 | 650 | 639 | 672 | 696 | 2007 |

| Overall | 3.03 | 4.43 | 1.47 | 5.98 | 1.65 | 3.31 | 6.6 | 0 | 4.6 | 4.7 | 8.9 | 5.7 | 6.5 |
|------------|------|------|------|------|------|------|-----|---|-----|-----|-----|-----|-----|
| Rate/1000 | | | | | | | | | | | | | |
| births | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| Rate | 3.03 | 2.95 | 1.5 | 1.47 | 1.65 | 3.31 | 4.9 | 0 | 4.6 | 4.7 | 4.5 | 2.9 | 4.0 |
| (excluding | | | | | | | | | | | | | |
| TOP)/1000 | | | | | | | | | | | | | |
| , | | | | | | | | | | | | | |

Table 6: Stillbirth rate (excluding terminations) per quarter

| Quarter | Rate 2019/2020 | Rate 2020/2021 | Rate |
|---------|----------------|----------------|-----------|
| | | | 2021/2022 |
| Q1 | 4.0 | 5.5 | 4.0 |
| Q2 | 4.1 | 2.5 | |
| Q3 | 1.5 | 2.7 | |
| Q4 | 1.7 | 3.2 | |
| ANNUAL | 2.9 | 3.4 | |

Table 7: Gestation at diagnosis of Stillbirths and cause of death

| Gestation at Stillbirth | Number (N=8) | Cause of death |
|-------------------------|-----------------|--|
| <28 weeks | 3 | Extreme Prematurity Twin to twin transfusion Fetal Growth Restriction (FGR) / Placental insufficiency |
| 28-34 weeks | 1 | FGR / Placental insufficiency |
| 34-37 weeks | 3 | Lethal congenital anomaly Complex placental pathology (CHI) Placental insufficiency |
| > 37 weeks | 1 | FGR / Placental insufficiency |

Mortality reviews and Themes

The methodology for review of stillbirths has been explained in previous reports and remains unchanged. The PMRT is completed and the antenatal and postnatal care a mother receives is graded in line with the MBRRACE-UK grading system. The postnatal care is focused on the bereavement care the family receive, but also reviews care in relation to management of complications of labour and the postnatal period. Table 8 shows the criteria for grading.

Table 8: MBRRACE - UK Care Grading

| Care Grade | Description |
|------------|--|
| Grade A | No improvements in care identified |
| Grade B | Improvements in care identified that would not have changed the outcome |
| Grade C | Improvements in care identified that may have changed the outcome |
| Grade D | Improvements in care provided that could have changed the outcome |

Any cases graded D are automatically reported as a Serious Incident and added to StEIS. A root cause analysis (RCA) investigation is completed and the family are informed of the findings.

All the stillbirths in Q1 have been reviewed, and the grading of care provided are as below.

Table 9: Grading of care for babies in Q1 of 2021-22

| Grade | Care in antenatal period | Percentage (%) | Care in postnatal period | Percentage (%) |
|----------------------|--------------------------|----------------|--------------------------|----------------|
| Α | 5 | 62.5 | 7 | 87.5 |
| В | 1 | 12.5 | 1 | 12.5 |
| С | 2 | 25 | 0 | 0 |
| D | 0 | 0 | 0 | 0 |
| Total cases reviewed | 8 | | 8 | |

Table 10. Grading of ANTENATAL care where care issues were identified (B, C or D)

| Gestation of SB | Grading of care | Cause of death | Issues | Actions | Lessons Learnt |
|-----------------|-----------------|----------------------------|---|---|---|
| 35+1 | В | Placental insufficiency | Comments conveyed to patient that there will be altered perception of | Lesson of the week (LOTW) to disseminate to all clinicians (doctors, midwives, sonographers) that | Importance of not giving information to patient that are not evidence based |

| | | | fetal movement (FM) due to an anterior placenta | perception of FM does not change with placental site, and not to tell patient this | |
|------|---|--|--|---|---|
| 28+2 | С | Placental insufficiency Pre- eclampsia (PET) | Telephone appointments for community midwifery (CMW) due to Covid | CMW appointments to revert back to face-to- face reviews. ACTION COMPLETED | Importance of face-to- face reviews for CMW appointments to allow for routine observations and urine analysis to be done |
| 36+1 | С | Complex placental pathology (CHI) FGR | Did not attend (DNA) policy not followed, as lost to follow up in Obstetric Day Unit (ODU) for monitoring of PET; Not triaged appropriately at booking into high risk care | assessment unit (MAU)/ODU on the importance of adhering to the DNA policy To monitor change to electronic patient records (EPR) and assess if provision of antenatal documentation is affected by it | Importance of ensuring patients have appropriate follow up if DNA appointments |

Table 11. Grading of POSTNATAL care where care issues were identified (B, C or D)

| Gestation of stillbirth | Grading of care | Cause of death | Issues | Actions | Lessons Learnt |
|-------------------------------|--------------------|------------------------|--|--|--|
| 24+4 | В | Extreme prematurity | Lack of co-location of services and woman required 2 different transfers to LUHFT for CT scan and echocardiogram | An ongoing action in the trust to review availability of services in the trust | Single site issues well documented elsewhere |

Learning from perinatal deaths in Q1

Although the numbers are low, compared with 2020/21, there continues to be a low number of cases where antenatal care issues have been identified and learning from these needs to continue.

In Q1, learning points identified are:

- Importance of adhering to the 'did not attend' policy, to ensure appropriate follow is available after a patient DNA's an appointment.
- Importance of face-to-face community midwifery reviews.
- To not give advice to patients that fetal movements are affected by placental site.

The trust has implemented the K2 electronic patient record in January 2021, with a significant change to the documentation of maternal reviews and assessing important documents such as GROW charts and fetal medicine unit scan reports. Through the PMRT process, data will also be collated on whether implementation of K2 has a role in the antenatal care provided in stillbirth cases, whether positive or negative.

Following previous reports, the Trust has now updated the guideline for serial growth scans to be fully compliant with recommendations from Saving Babies' Lives.

Recommendations

It is recommended that the board take assurance that

- The rate of stillbirth will continue to be monitored.
- Parents continue to be at the centre of the investigation process.
- All stillbirths undergo a robust review process where learning is identified and shared.
- Issues identified at the reviews and recommendations made will now be tracked through the maternity clinical meeting.
- The trust will comply with nationally mandated initiatives such as Saving Babies' Lives, CNST, PMRT and MBRRACE-UK.

NEONATAL MORTALITY Q1

1. Mortality Dashboard

It has been agreed with the Head of Governance and Deputy Medical Director, that the following table showing the total mortality and the rate of death per 1000 births will be used as the mortality dashboard metric. Tables 12 and 13 refer to LWH NICU in-hospital mortality before discharge. The end of year annual neonatal mortality report will detail all neonatal deaths (<28 days), both on NICU and labour ward, all deaths before discharge, deaths at home or in another organisation after delivery and / or care in LWH neonatal unit.

Table 12: LWH Mortality

| NICU | Jul 20 | Aug 20 | Sep 20 | Oct 20 | Nov 20 | Dec 20 | Jan 21 | Feb 21 | Mar 21 | Apr 21 | Ma y 21 | Jun 21 | Q1 Total |
|--------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------------|-----------|-------------|
| Discharges | 102 | 108 | 91 | 94 | 98 | 90 | 91 | 92 | 89 | 100 | 97 | 106 | 303 |
| Total Mortality | 9 | 3 | 9 | 0 | 3 | 4 | 6 | 4 | 2 | 3 | 1 | 2 | 6 |
| Births | 658 | 677 | 681 | 669 | 605 | 605 | 610 | 618 | 658 | 622 | 654 | 673 | 1949 |
| Mortality Rate per 1000 births | 13. 6 | 4.4 | 13. 2 | 0 | 4.9 | 6.6 | 9.8 | 6.5 | 3.0 | 4.8 | 1.5 | 3.0 | 3.1 |

In Q1 of 21/22 we have seen a return to the mortality rates we are used to seeing in the years prior to 20/21, when we had a higher than normal mortality rate. There is an ongoing network collaborative review with another surgical NICU in the region looking at LWH preterm (<32 week) mortality, in addition to the cases themselves it also includes a wider review of service specification and population comparison to identify learning, changes or improvements that may be relevant to the higher than average mortality rates (MBRRACE 2018) we have been seeing in the last few years.

Figure 1. Neonatal mortality

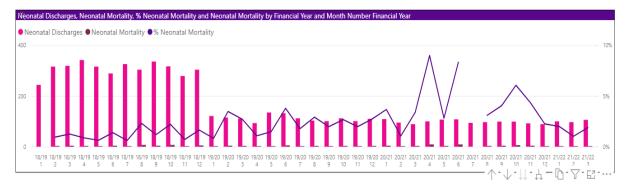


Figure 1 details over time, month by month from 18/19 to 21/22, the discharges and neonatal mortality as bar charts, with the percentage neonatal mortality as the purple line chart. This demonstrates the change we have seen over the last year in the neonatal mortality rates in LWH. The spikes we saw in mortality last year appear to

have settled over the last few months to previous rates. The lower rates are reassuring to see, although we will be monitoring to see if this is sustained.

Table 13 details the mortality for babies born in LWH only, excluding post-natal transfers. Tables 14 and 15 detail the breakdown of the deaths by gestation and cause. As a regional tertiary surgical and cardiac NICU we accept inutero and post-natal transfers of high-risk babies requiring intensive care after birth and have an increased risk of mortality.

Table 13: NICU Mortality (inborn LWH)

| NICU (LWH INBORN) | Jul 20 | Aug 20 | Sep 20 | Oct 20 | Nov 20 | Dec 20 | Jan 21 | Feb 21 | Mar 21 | Apr 21 | Ма у 21 | Jun 21 | Q1 Total |
|--------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------------|-----------|-------------|
| Discharges | | | | | | | | | | 100 | 97 | 106 | 303 |
| Total Mortality | | | | | | | | | | 2 | 0 | 0 | 2 |
| Births | 658 | 677 | 681 | 669 | 605 | 605 | 610 | 618 | 658 | 622 | 654 | 673 | 1949 |
| Mortality Rate per 1000 births | | | | | | | | | | 3.2 | 0 | 0 | 1.0 |

This tables details the inborn deaths in LWH, in May and June we had no deaths of babies born in LWH.

Some babies who are born and or cared for in NICU are subsequently transferred to Alder Hey (AH) for ongoing management, or to hospice for end-of-life care. If a baby dies after transfer to AH the case is reviewed through the AH mortality review process by the hospital mortality review group with neonatal input from the Liverpool Neonatal Partnership. If a baby is transferred to a hospice for end of life care the case is reviewed through the LWH PMRT process.

Table 14: Mortality after discharge from NICU

| | Jul 20 | Aug 20 | Sep 20 | Oct 20 | Nov 20 | Dec 20 | Jan 21 | Feb 21 | Mar 21 | Apr 21 | May 21 | Jun 21 |
|--|------------------------------|----------------------------------|------------------------------|-----------|-----------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Alder Hey Children's Hospital | | | 1 (LW H book ed) | | 3 (2 book ed | | | | | 2 | | |
| Hospice | 1 (LW H book ed) | 1 (non- LWH book ed) | | | | | 2 | 1 | | 1 | | |
| Repatriation to booking hospital | | | | | | | | | | | | |
| Home | | | | | | | | | | | 1 | |

Babies who died after transfer to AH are reviewed through the LWH PMRT process which will then feed into the AH HMRG (hospital mortality group) for a complete review of the mother and babies' care.

In Q1, 4 babies died after transfer to another care setting, 2 babies died after transfer to AH for surgical management (1 term CDH and 1 extreme preterm with bowel perforation), 2 babies had inoperable complex congenital cardiac abnormalities and were on palliative care pathways 1 was transferred to hospice for end of life care and 1 baby went home for end of life care.

Table 15: All mortality by gestation Q1 21/22

| | LWH INBORN mortality | PNT mortality | All mortality |
|--------------------------------|-------------------------|---------------|---------------|
| Extremely preterm (<28 weeks) | 2 | 3 | 5 |
| Very preterm (28-32 weeks) | | 1 | 1 |
| Moderate preterm (32-37 weeks) | 1 | 1 | 2 |
| Term (>37 weeks) | 2 | | 2 |

Table 16 details the breakdown by primary cause of death as stated on the death certificate, overall for Q1 the largest cause of death was congenital abnormalities accounting for 4 out of the 10 deaths this quarter, these included complex congenital cardiac anomalies, congenital diaphragmatic hernia and multi-cystic kidneys with pulmonary hypoplasia. There was also a rare case of Down Syndrome associated leukaemia in a preterm baby during this quarter.

Table 16: All mortality by cause Q1 21/22

| | LWH INBORN | Ex-utero transfers | Unbooked | Total |
|----------------------------------|---------------|-----------------------|----------|-------|
| Prematurity | 1 | 1 | | 2 |
| Infection | | 1 | | 1 |
| Hypoxic ischaemic encephalopathy | | | | |
| Congenital abnormality | 2 | 2 | | 4 |
| Respiratory | | | | |
| Cardiovascular | | | | |
| NEC | 1 | | | 1 |
| Neurological | | 1 | | 1 |
| Other | | 1 | | 1 |

Benchmarking data

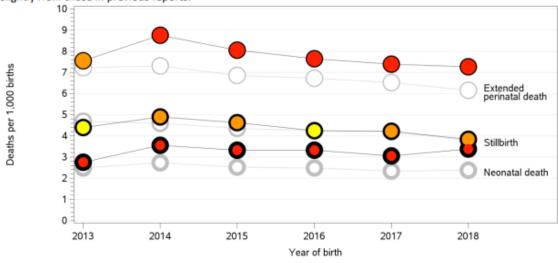
We benchmark our mortality through MBRRACE nationally and the international VON network. MBRRACE has reported most recently on 2018 data, figure 2 demonstrates mortality rates over time, the grey lines demonstrate UK average for the LWH comparator group i.e. other NICUs with neonatal surgery.

Figure 2.

Stabilised & adjusted mortality by year of birth

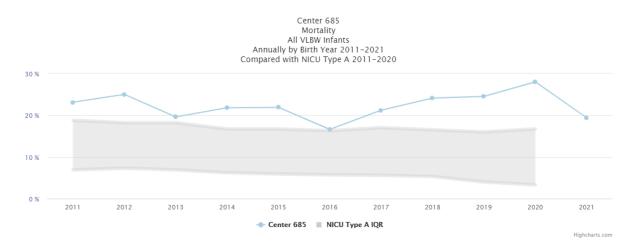
Stabilised & adjusted mortality rates for each type of death compared to the average mortality rate for Trusts and Health Boards in the same comparator group (shown in grey) by year of birth.

Due to updates to the data and improvements to the statistical methodology used, these results might differ slightly from those in previous reports.



We also benchmark through an international group VON, we can compare within the UK members of this network for various aspects of care, figure 3 is the mortality rates specifically for inborn, VLBW (<1500g) babies over time. The 2020 increase is a notable increase in the deviation away from the IQR over the last few years. Whilst reassuring to see 21/22 trend return towards the IQR, it is too soon to comment on this.

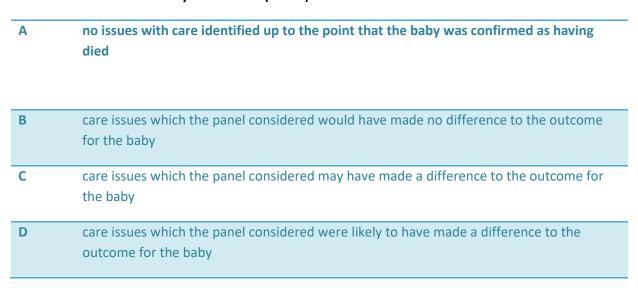
Figure 3



2. Neonatal mortality reviews

All neonatal deaths on NICU are reviewed using the standardised national perinatal mortality review tool (PMRT). There is a monthly multi-disciplinary review meeting with representation from neonatal, obstetrics, bereavement support and palliative care teams. Reviews are planned for 6-8 weeks after the baby has died. Where there has been an in-utero transfer or a baby has been transferred post-natally for higher level care, the hospital of booking and or/ birth along with other care providers involved are invited to the meeting to complete a joint review encompassing all aspects of care. Each case is then assigned a grade (A-D, see below) for each of the following areas: antenatal care, neonatal care and care after the baby has died.

Table 17. Perinatal mortality review tool (PMRT)



Cases where a grading of C or D has been assigned will be then reviewed further as a table-top review, or if deemed appropriate a formal review or serious incident. Local mortality review outcomes and learning are shared within the department and at the Clinical Effectiveness Group for Cheshire and Mersey NWODN. The PMRT outcomes are reported to the regional child death overview panel (CDOP).

The PMRT process encourages parental engagement, all parents are informed of the review process at the time the baby dies, followed up with a letter detailing the process and how they can engage is provided. Any comments / questions / concerns which the parents send in are addressed as part of the review and parents are offered an appointment to discuss the response thereafter and a letter detailing the PMRT outcome is provided following the appointment.

Table 18: 20/21 Neonatal Mortality Summary

| | Q1 | Q2 | Q3 | Q4 | Total |
|--|------|----|----|----|-------|
| All mortality | 10 | | | | |
| | | | | | |
| NICU deaths | 6 | | | | |
| LWH INBORN NICU deaths | 2 | | | | |
| Mortality rate /1000 births | 3.1 | | | | |
| LWH INBORN mortality rate / 1000 births | 1.0 | | | | |
| PMRT Reviews completed | 6/10 | | | | |
| No. of deaths where any care issues were identified (i.e. grades B/C/D) | | | | | |
| Antenatal | 1 | | | | |
| Neonatal | 4 | | | | |
| Care of mother after death of baby | 1 | | | | |
| No. of deaths where care issues may have or were likely to have affected the outcome (grade C/D) | | | | | |
| Antenatal | 0 | | | | |
| Neonatal | 0 | | | | |
| Care of mother after death of baby | 0 | | | | |

Learning from Deaths from Q1

- 6/10 reviews completed, 3 LWH deaths, 3 non- NICU deaths.

Neonatal care:

Of the reviews held to date we identified care issues in the neonatal care in 4 of 6 cases, however in all 4 they were issues or opportunities for improvement which would not have affected the outcome of the baby dying.

The issues identified which did not have affect the outcome for the baby (grade B) include:

- o Non co-location with paediatric surgical services.
- Unplanned extubation / endotracheal tube dislodgement.
- o Parent communication.
- o Admission temperature.

Actions to address the above issues include:

- Ongoing development of the Liverpool Neonatal Partnership with AH, provisional opening of 2 NICU cots for Spring 2022 delayed due to concerns about variation in RSV season and estate being protected to manage paediatric admissions.
- Audit / QIP commenced on unplanned extubations in June 2021 this will be due to be reported at the end of 2021.
- o Admission hypothermia remains under a rolling audit / review process.

Antenatal Care

Five of the six PMRT cases that have been reviewed received antenatal care in LWH. In 4 of these cases, there were no antenatal care issues identified and have been graded 'A'.

There was one case of a home birth where antenatal care has been graded C, due to an error in the referral triage process, and thus was not reviewed in the pre-term labour clinic in a timely manner. As a response, there is a planned discussion with the ultrasonography department of feasibility of listing scan reports and requests in a chronological manner to avoid a similar occurrence in the future.

Revised 21/22 CNST requirement targets

The trust was in receipt of the revised maternity invective scheme guidance which has included updated timescales and deadlines for the reporting and reviewing of stillbirths and neonatal deaths.

The neonatal PMRT team are aware of the changes to the guidance and can provide assurance that standards required will be met.

This quarterly report (and previous quarterly reports) will continue to be discussed with the maternity safety champion.

Mortality review group

The Medical Director & Nursing & Midwifery Director have established a 'mortality review group' to meet quarterly, prior to submission of quarterly mortality report to the Quality Committee. The first meeting took place on 23rd August 2021.The key workstreams include:

- i) Embed learning from families into adult deaths (already done elsewhere and in LWH neonates). SOP to be developed.
- ii) Formalise structured judgement review of all deaths with two reviews. First by consultant in charge of the case and subsequently by Trust wide mortality review group.
- iii) Shared learning from regionally reviewed perinatal deaths.
- iv) Review end of life framework.
- v) Peer review of mortality e.g. by CHKS nationally benchmarked data.
- vi) Quarterly mortality and morbidity discussion at Trust GREAT Day.
- vii) Revise the Trust strategy for adult and extended perinatal mortality strategies.

Overall Recommendations

- a. The Committee members are asked to review the contents of the paper and take assurance that there is adequate process and progress against the requirements laid out by the National Quality Board
- b. Take assurance that there are effective processes in place to assure the Board regarding governance arrangements in place to drive quality and learning from the deaths of adults in receipt of care at the Trust
- c. Be aware of the establishment of a Trust mortality review group.