Liverpool Women's NHS Foundation Trust

Trust Board

COVER SHEET

Agenda Item (Ref)	*23/24/009d*		**Date: 06/04/2023**	
Report Title	Mortality and Learning from Deaths Report Quarter 3, 22/23			
Prepared by	Lidia Kwasnicka, Gynaecologist; Ai-Wei Tang, Consultant Obstetrician; Rebecca Kettle, Consultant Neonatologist and Chris Dewhurst, Deputy Medical Director.			
Presented by	Lynn Greenhalgh, Medical Director			
Key Issues / Messages	The Board is 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			
Action required	Approve ☐	Receive ☐	Note ☒	Take Assurance ☒
	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 Board / Committee that effective systems of control are in place*
	Funding Source (If applicable): N/A			
	For Decisions - in line with Risk Appetite Statement – Y *If no – please outline the reasons for deviation.*			
	It is it is requested that the members of the Board review the contents of the paper and take assurance that there are adequate governance processes in place when learning from deaths. In addition, as per The Learning from Deaths framework requirements the Board are requested to note: • number of deaths in our care • number of deaths subject to case record review • number of deaths investigated under the Serious Incident framework • number of deaths that were reviewed/investigated and as a result considered due to problems in care • themes and issues identified from review and investigation • actions taken in response, actions planned and an assessment of the impact of actions taken. • the care issues identified in the antenatal management from referring trusts. It is recommended that a review of antenatal care findings from the previous PMRT reviews is undertaken and if any common themes identified that this is presented to the local maternity system			
Supporting Executive:	Lynn Greenhalgh, Medical Director			

Equality Impact Assessment *(if there is an impact on E,D & I, an Equality Impact Assessment **MUST** accompany the report)*							
Strategy	☐	Policy	☐	Service Change	☐	Not Applicable	☒

Strategic Objective(s)			
To develop a well led, capable, motivated and entrepreneurial ***workforce***	☒	To participate in high quality research and to deliver the most ***effective*** Outcomes	☒
To be ambitious and ***efficient*** and make the best use of available resource	☒	To deliver the best possible ***experience*** for patients and staff	☒
To deliver ***safe*** services	☒		

Link to the Board Assurance Framework (BAF) / Corporate Risk Register (CRR)	
Link to the BAF (positive/negative assurance or identification of a control / gap in control) *Copy and paste drop down menu if report links to one or more BAF risks*	Comment: N/A
Link to the Corporate Risk Register (CRR) – CR Number:	Comment: No

EXECUTIVE SUMMARY

This "Mortality and Learning from Deaths" paper presents the mortality data for Q3 2022/23 with the learning from the reviews of deaths from Q2 2022/23. The 'learning' can take some time after the death occurs due to the formal processes and MDT review process that occur. This results in the learning being presented a quarter behind the data.

In quarter 3 there were the following deaths:

Adult deaths	**0**
Direct Maternal Deaths	**0**
Stillbirths	**8 (excluding ToP)**
Neonatal deaths	**16 (including 8 in-utero transfers and 1 post-natal transfer)**

The stillbirth rate remains lower this year than last year but there is an increase in this quarter to 4.3/1000 live births. Due to small numbers, full year data should be reviewed to determine any trends. Benchmarking data is presented for Q3 which shows that LWH stillbirth rate is below the average for similar sized maternity services.

There was an increase in Neonatal mortality. This resulted from 10 babies whose deaths resulted from congenital anomalies. International network benchmarking data is presented for 2021 neonatal mortality. This risk adjusted mortality for 2021 was the lowest it has been since this benchmarking commenced.

Learning from PMRT reviews is presented with more detailed information relating to the reviews in the paper.

Recommendation: It is it is requested that the members of the Board review the contents of the paper and take assurance that there are adequate governance processes in place when learning from deaths. In addition, as per The Learning from Deaths framework requirements the Board are requested to note:

- number of deaths in our care
- number of deaths subject to case record review
- number of deaths investigated under the Serious Incident framework
- number of deaths that were reviewed/investigated and as a result considered due to problems in care
- themes and issues identified from review and investigation
- actions taken in response, actions planned and an assessment of the impact of actions taken.
- the care issues identified in the antenatal management from referring trusts. It is recommended that a review of antenatal care findings from the previous PMRT reviews is undertaken and if any common themes identified that this is presented to the local maternity system

MAIN REPORT

This is the quarter 3 2022/23 mortality report for adults, stillbirths 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 "National Guidance on Learning from Deaths" 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. The paper also provides the evidence required for the Maternity Incentive Scheme (MIS) which was recommenced on May 6th 2022.

The data presented in this report relates to Q3 2022-23. The learning relates to deaths in Q2 2022-23. This is due to the multidisciplinary review of deaths not occurring in the quarter when the death occurred.

Additional data/information relating to mortality is presented in the embedded word document.

1 Adult Mortality

The data relating to adult mortality is pure data and is not standardised mortality data (such as SHMI) due to the low number of deaths in our care 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.

1.1 Obstetric Mortality Data Q3 2022/23

There were no direct maternal deaths (deaths within 42 days of delivery) in Q3.

1.2 Learning from Obstetric Mortality Data Q2 2022/23

In Q3 2021/22, there was one death of a woman who died approximately 8 weeks after delivery. This case is subject to a Coronial investigation and, as per the requirements of the Ockenden review, a multiagency review has been completed. The Coroner's inquest was due to take place in late November 2022 but has been adjourned to a later date. The internal SI has been completed with learning included in the previous Q2 report. The outcome from the Coroner's investigation will be included in this report when available.

1.3 Gynaecology Mortality data Q3 2022/23

There was 0 deaths within Gynaecology Oncology in Q3 2022/23.

1.4 Learning from Gynaecology Mortality Q2 2022/23

There were no deaths to review from Q2 2022/23. There was one death of a woman who had surgery at LWH before being transferred to LUFHT where she later died. This death is reported as an LUFHT death but is subject to a joint SI that will complete in February 2023. Learning form the SI will be presented in the Q4 report. This death is also subject to a coronial investigation

2 Stillbirths

2.1 Stillbirth data

There were 8 stillbirths, excluding terminations of pregnancy (TOP) in Q3 2022/2023. This has resulted in an adjusted stillbirth rate of 4.3/1000 live births for Q3.

STILLBIRTHS	Feb-22	Mar-22	Apr-22	May - 22	June-22	July-22	Aug-22	Sept-22	Oct-22	Nov-22	Dec-22	Jan-22	Q3 Cases (Oct-Dec)	TOTAL 2022/23 (until Jan)
Total Stillbirths	4	6	3	4	3	7	3	2	**3**	**4**	**6**	2	**13**	**37**
Stillbirths (excluding TOP)	**0**	**5**	1	4	2	3	3	1	**1**	**2**	**5**	**1**	**8**	**23**
Births	561	595	601	652	613	643	657	659	**649**	**596**	**619**	613	**1864**	**6302**
Overall Rate /1000	7.1	10.1	3.3	6.1	4.9	10.9	4.6	3.0	**4.6**	**6.7**	**9.7**	3.3	**7.0**	**5.9**
Rate (excluding TOP)/1000	**0**	**8.4**	1.7	6.1	3.3	4.7	4.6	1.5	**1.5**	**3.4**	**8.1**	**1.6**	**4.3**	**3.6**
Pregnancy loss 22-24 weeks	0	1	0	0	0	0	0	1	**1**	**1**	**1**	1	3	5

Table 1 Stillbirth rates > 24 weeks for 2022-23

Quarter	Rate 2019/20	Rate 2020/21	Rate 2021/22	Rate 2022/23
Q1	4.0	5.5	4.0	**3.7**
Q2	4.1	2.5	5.3	**3.6**
Q3	1.5	2.7	5.1	**4.3**
Q4	1.7	3.2	5.0	
ANNUAL	2.9	3.4	4.9	**3.6**

Table 2: Quarter and Annual Stillbirth rate/1000 births since 2019/20 (excluding terminations)

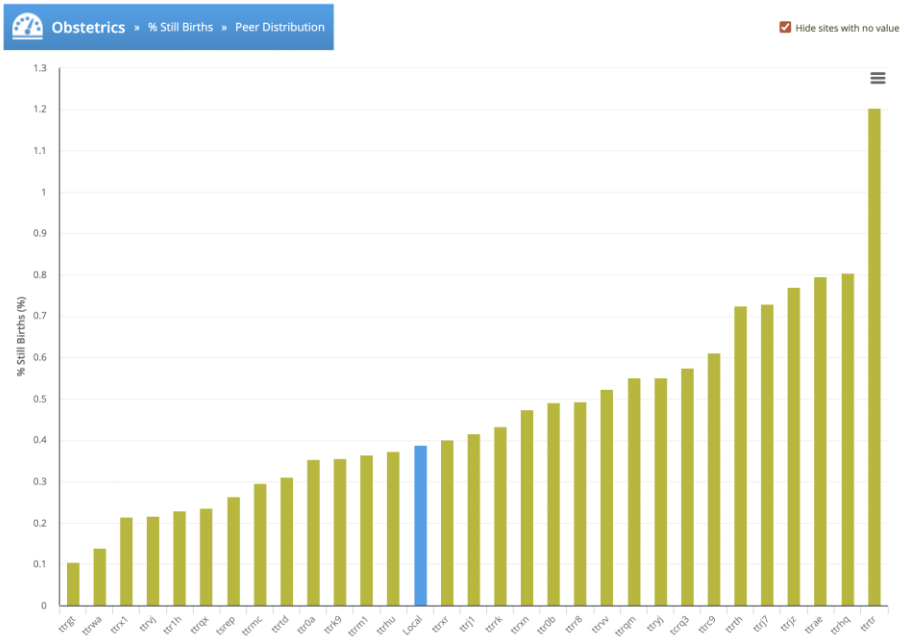

Figure 1. Stillbirth data for Q3 with LWH benchmarked against other large maternity services (>7000 deliveries) for Q3 2022-23. The blue bar is LWH data demonstrating the observed rate is below the average.

The stillbirth rate for Q3 22/23 has increased from Q1 and 2 but is lower than the average rate seen in 2021/22. The stillbirth rate in the first three quarters 2022-23 is also lower than seen on 2021-22. This is reassuring but assurance will only be provided with full year data due at the end of Q4. There were three pregnancy losses (excluding TOP) born between 22 – 24 weeks gestational age.

Two women (3 Stillbirths as 1 set of twins) were of non-white ethnicity, and both did not speak English as their first language

2.1 Learning from Stillbirth reviews Q2 2022-23 N=8

All eligible cases underwent a full multidisciplinary team PMRT review with external clinician presence in 6/8 reviews. Care from across the antenatal and intrapartum period was subject to clinical and managerial scrutiny. All bereaved parents were invited to be involved in the review process by submitting comments and questions via the Honeysuckle Team for discussion at the MDT Review

The reviews of Q2 stillbirths (N=8) demonstrated that 3 cases (38%) had no antenatal care issues identified, and 4 (57%) had care issues identified which would not have changed the outcome of the pregnancy. There was one case where care issues were identified which may have affected the outcome of the pregnancy. This related to the time interval between ultrasound scanning for fetal growth. This case has been subject to a 72-hour review and is proceeding as a formal review of care to maximise any potential learning.

Half of the cases identified issues with postnatal care. The issues, learning and action plans are included in the appendix Q3 SB report. They include not completing all stillbirth investigations and patient experience due to lack of HDU support on delivery suite, inability to provide one to one care and acuity on MAU not facilitating the ability for the woman to be triaged in a private side room as is routine practice.

Grade	Care in antenatal period	Percentage (%)	Care provided after Stillbirth	Percentage (%)
A	3	37.5	4	50
B	4	50	4	50
C	1	12.5	0	0
D	0	0	0	0

Table 3 PMRT review panel grading of care provided in cases of Stillbirth (N=8)

Learning from Q2 in the provision of antenatal care includes:

- Ensuring the neonatal team are included in the morning maternity base safety huddle and utilise the joint extreme prematurity proforma
- Arranging serial growth scans so that the time interval is 3-4 weekly.
- Develop a management pathway for counselling and review in cases of arthrogryposis

Actions that are completed from areas of learning from previous quartiles include:

- Joint Obstetric and Neonatal counselling formed part of the maternity base improvement plan, and there is now a morning safety huddle in the ward, where the neonatal team are informed of cases requiring joint counselling
- Palliative care team has been granted access to K2 which allows them to document intrapartum and postnatal management plans, and attach relevant documents into the electronic notes.
- Complex FMU cases discussed in the MDT will have a detailed management plan (including intrapartum management) from 32 weeks gestation, which are uploaded onto K2.
- LOTW sent on: importance to send cord blood gas for analysis in situations of adverse outcomes; to complete ‘pregnancy loss’ referral to ensure subsequent appointments are cancelled accordingly; and for PN readmission to be reviewed by most senior clinician, and for investigations to be arranged on site if possible

Ongoing actions that are in progress include:

- Capacity and demand review of services in FMU, including the multiple pregnancy service
- Review of bereavement services to increase staffing levels to be able to have a 7 day service
- Upskilling of midwives to improve provision of HDU care in Delivery Suite

The attached appendices provide information on progress with on-going actions from related to prior stillbirths.

3. Neonatal Mortality

3.1 Neonatal mortality Data Q3 2022/23

Neonatal deaths can be reported in several ways. The population can include in-born babies only, LWH booked pregnancies or all babies cared for in LWH (including babies transferred to LWH from other care providers). Deaths may be those within 28 days (reported in MBRRACE), those occurring prior to discharge from the NICU and those who die following transfer to another hospital. The data may include or exclude babies with congenital anomalies. The table below presents the total mortality at LWH, and mortality for those babies born at LWH in a rolling 12-month period.

	Jan-22	***Feb-22***	***Mar-22***	***Apr-22***	***May-22***	***Jun-22***	***Jul-22***	***Aug-22***	***Sep-22***	***Oct-22***	***Nov-22***	***Dec-22***	***Total***
Total Mortality	2	3	3	*3*	*7*	*3*	7	3	4	5	5	6	51
INBORN Neonatal Mortality	**2**	**3**	**3**	***2***	***4***	***3***	**5**	**3**	**4**	**5**	**5**	**5**	**44**
BORN + DIED LWH Neonatal Mortality Rate / 1000LB	---	---	---	---	---	---	---	---	---	*1*	*2*	*3*	
Births	659	561	595	*602*	*654*	*613*	632	658	652	649	596	619	7490
INBORN Neonatal Mortality Rate/1000LB	**3.0**	**5.3**	**5.0**	***3.3***	***6.1***	***4.9***	**7.9**	**4.5**	**6.1**	**7.7**	**8.3**	**8.1**	**5.9**

Table 4: NICU Mortality by month for the past 12 months.

Quarter	NMR all babies	NMR *in born*
Q4 (21_22)	4.4	4.4
Q1 (22_23)	7.0	4.8
Q2 (22_23)	7.2	6.2
Q3 (22_23)	8.6	8.0

Table 5: Neonatal Mortality Rate per quarter

In this quarter there was a total of 16 deaths. 10/16 (63%) of these babies were born following an in-utero transfer from another hospital provider. 1/16 was a postnatal transfer (6%). The cause of death was attributed to congenital anomalies in 8/16 (50%) of deaths. Prematurity (<28 weeks) was the cause in 5/16 babies (32%).

10/16 (63%) of babies who died were from the most deprived decile as per postcode data.

Benchmarking data is available for 2021 mortality from the Vermont Oxford Network. This is an international network of 1400 neonatal unit of which LWH NICU is a member. The outcome for infants born less than 1500g (Very Low Birth weight) infants is compared. In 2021, the risk adjusted mortality for the LWH cohort was within the expected range, with the observed mortality being the closest since participation in the network began (1.2).

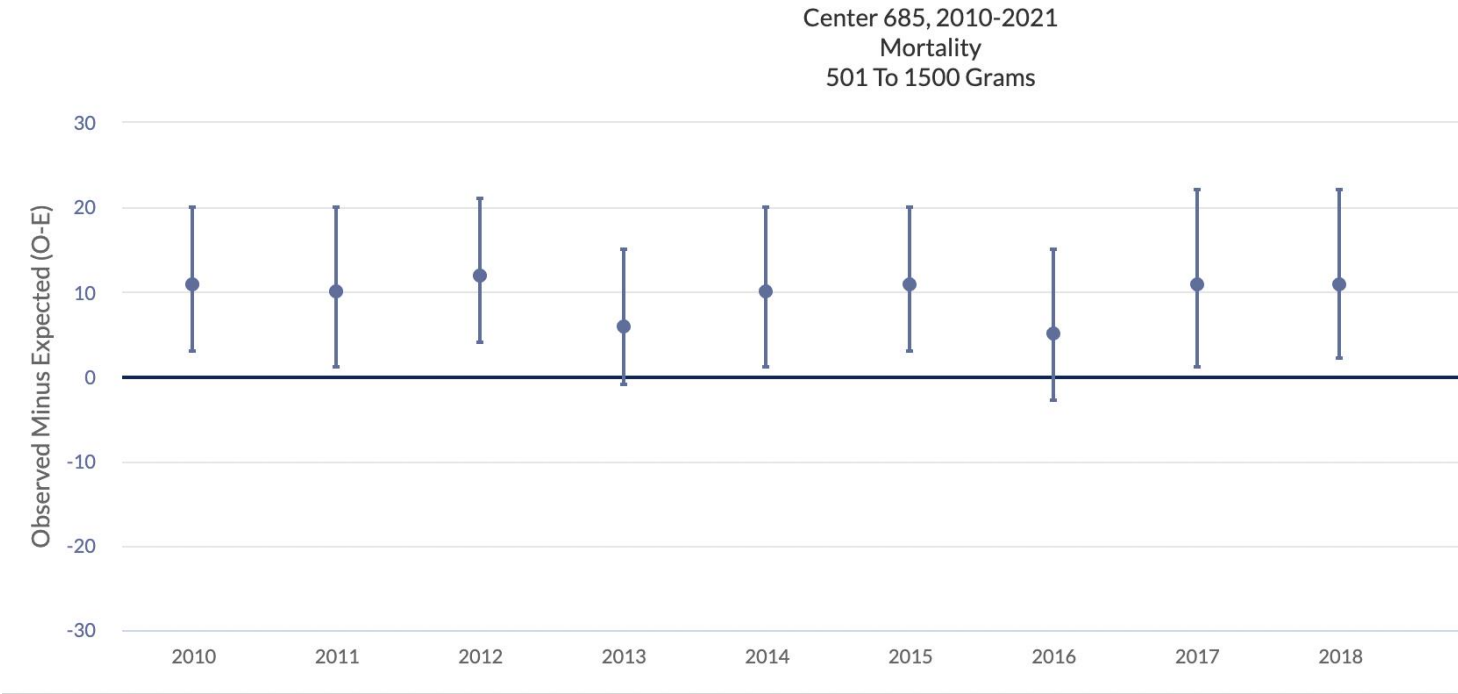

Figure 3. Observed vs expected mortality for VLBW infants at LWH since 2010. The vertical line indicates the 95% confidence interval for the standardised mortality rate. If the line crosses the 0

horizontal line (as in 2013, 2016 and 2021) it demonstrates that the observed infant mortality is within the expected range.

3.3. Learning from neonatal mortality reviews for Q2

There were 12 deaths subject to a PMRT review. There were no cases identified with care issues which were likely to have made a difference to the outcome. There were 3 (25%) cases where care issues were identified in the antenatal care in other organisations that may have affected the outcome. These is similar to last quarter where 5/12 cases identified antenatal care issues related to care provided from referring organisations. The author recommends that a review of antenatal care findings from the previous PMRT reviews is undertaken and if any common themes identified that this is presented to the local maternity system.

One case was subject to an SI review as neonatal care issues may have made a difference to the outcome. This SI has concluded (STEIS 2022-17258) with several lessons learned regarding the management of endotracheal tubes, intubation, resuscitation, documentation, and management. The SI report includes recommendations for practise for teams and individuals with an action plan monitored through the neonatal integrated governance meeting.

There were three cases (19%) identified where antenatal care issues may have made a difference to outcome. This related to communication issues. There were 7/16 (44%) incidents of neonatal care that may have made a difference to the outcome. Airway management was identified in 3 of these with an ongoing QI project underway to address this issue.

Other Learning included the following:

- Unplanned extubation continue but the QI project has now commenced to aim to reduce this.
- Skin injuries in extremely preterm infants with plan to revise the extreme preterm pathway to include changing stas probe regularly and not to use ECG leads.
- Consultant team reminded of importance of documenting parental discussions

The attached appendices provide information on progress with on-going actions from related to prior deaths.

4. Recommendations

It is it is requested that the members of the Board review the contents of the paper and take assurance that there are adequate governance processes in place when learning from deaths. In addition, as per The Learning from Deaths framework requirements the Board is requested to note:

- number of deaths in our care
- number of deaths subject to case record review
- number of deaths investigated under the Serious Incident framework
- number of deaths that were reviewed/investigated and as a result considered due to problems in care

- themes and issues identified from review and investigation
- actions taken in response, actions planned and an assessment of the impact of actions taken.

5. Appendices

- Cheshire and Mersey Maternity Provider Standardised Quarterly Perinatal Board Report – Q3 (Oct – Dec 2022)
    - Available to Board members via Admin Control Supporting Documents folder.