Liverpool Women's NHS Foundation Trust

Quality Committee

COVER SHEET

Agenda Item (Ref)	*22/23/135*	Date: 21/11/2022		
Report Title	Mortality and Learning from Deaths Report Quarter 2, 22/23			
Prepared by	Lidia Kwasnicka, Gynaecologist; Ai-Wei Tang, Consultant Obstetrician; Rebecca Kettle, Consultant Neonatologist Chris Dewhurst, Deputy Medical Director			
Presented by	Lynn Greenhalgh, Medical Director			
Key Issues / Messages	The Committee 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.*			
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 quarter 2, 2022/23 with the learning from the reviews of deaths from quarter 1 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.

The paper also provides the compliance data for the Maternity Incentive Scheme year 4, safety action 1:

Are you using the National Perinatal Mortality Review Tool to review perinatal deaths to the required standard?

The MIS recommenced on May 6th 2022. This paper provides assurance to the board that we are compliant with SA1 in the current reporting period.

In quarter 1 there were the following deaths:

Adult deaths	**1 (un-expected)**
Direct Maternal Deaths	**0**
Stillbirths	**7 (excluding terminations of pregnancy) (rate 3.6/1000 total births)**
Neonatal deaths	**15 inborn (rate 7.2/1000 inborn births) + 2 deaths from postnatal transfers**

The stillbirth rate remains lower in this and the previous quarter, than for 21-22. This is reassuring although caution of interpretation due to small numbers is warranted.

There was an increase in Neonatal mortality. This resulted from 9 babies whose deaths resulted from congenital anomalies. Network benchmarking data is presented for neonatal mortality is presented.

The MBRRACE report for extended perinatal mortality in 2020 was published in October 2022. These data demonstrate that LWH is a negative outlier for stillbirth, perinatal and extended perinatal deaths. This year has previously been identified as having a particularly high neonatal mortality rate. Assurance on clinical care was provide by the NWODN review of neonatal mortality that has been presented to the committee and board previously.

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 Committee 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.
- Compliance with SA1 for the MIS of CNST.

MAIN REPORT

This is the quarter 2 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 quarter 2 2022-23. The learning relates to deaths in Q1 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 Q2 2022/23

There were no direct maternal deaths (deaths within 42 days of delivery) in quarter 1.

1.2 Learning from Obstetric Mortality Data

In Q3 2022/23, 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 with the Coroner's inquest due to take place in late November 2022. The LWH internal SI review was published in September 2022 and with root causes being

- Inappropriate discharge from hospital with failure in planning for on-going care
- Failure to provide clear communication between all services that provided care to the woman

Lessons learnt for LWH

- Antenatal screening questions do not identify post or present eating disorders
- There is no failsafe in place for the notification of pregnancy to the Health Visitor services
- The current system in place does not support accurate information sharing following admission/discharge of patients
- The community midwives do not always have close contact with the GPs which prevents sharing of information for vulnerable patients
- Medical input is required into completion of discharge summaries to ensure that there are clear actions for the GP to follow.
- The current system used to prescribe and administer medication does not support staff in the identification of missed doses

An action plan was initiated following the review to address the lessons learnt.

1.3 Gynaecology Mortality data Q2 2022/23

There was 1 death within Gynaecology Oncology in Q2 2022/23. This death was reviewed at a 72 hour review meeting and is progressing as a formal review. The initial outcome was that it is unlikely different management would have resulted in a different outcome but the findings from the formal review will be presented in Q3s learning from death paper.

1.4 Learning from Gynaecology Mortality Q1 2022/23

There were 2 expected deaths in Q1 22/23. Both were end of life palliative care cases that were reviewed using the mortality audit report tool. No issues with care were identified during the review.

2 Stillbirths

2.1 Stillbirth data

There were 7 stillbirths, excluding terminations of pregnancy (TOP) in Q2 2022/2023. This has resulted in an adjusted stillbirth rate of 3.6/1000 live births for Q2.

STILLBIRTHS	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May -22	June-22	July-22	Aug-22	Sept-22	Oct-22	Q2 cases	TOTAL 2022/23 (until Nov)
Total Stillbirths	6	3	7	4	6	3	4	3	7	3	2	3	12	25
Stillbirths (excluding TOP)	**5**	**2**	**4**	**0**	**5**	1	4	2	**3**	**3**	**1**	1	**7**	**15**
Births	665	622	659	561	595	601	654	613	645	659	656	636	1960	4462
Overall Rate /1000	9.0	4.8	10.6	7.1	10.1	3.3	6.1	4.9	10.9	4.6	3.0	4.7	6.1	5.6
Rate (excluding TOP)/1000	**7.5**	**3.2**	**6.0**	**0**	**8.4**	1.7	6.1	3.3	**4.7**	**4.6**	**1.5**	1.6	**3.6**	**3.4**
Pregnancy loss 22-24 weeks	0	0	1	0	1	0	0	0	0	0	1	1		

Table 1 Stillbirth rates > 24 weeks for 2021-22

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	
Q4	1.7	3.2	5.0	
ANNUAL	2.9	3.4	4.9	

Table 2: Annual Stillbirth rate/1000 births (excluding terminations

The stillbirth rate for the first two quarters 2022-23 is lower than seen on 2021-22. This is reassuring but assurance will only be provided with full year data due to the small numbers involved. There was one pregnancy loss (excluding TOP) born between 22 – 24 weeks gestational age.

2.1 Learning from Stillbirth reviews Q1 2022-23

All eligible cases underwent a full multidisciplinary team PMRT review with external clinician presence. 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 Q1 cases (N=7) identified 3 (42.9%) had no antenatal care issues identified, and 4 (57.1%) had care issues identified which would not have changed the outcome of the pregnancy in accordance with the MBBRACE Grading system. In the review of postnatal care provided, 6 (85.7%) of cases had care issues identified, detailed in the narrative of the report.

Grade	Care in antenatal period	Percentage (%)	Care provided after Stillbirth	Percentage (%)
A	3	42.9	1	14.3
B	4	57.1	6	85.7
C	0	0	0	0
D	0	0	0	0

Table 3 PMRT review panel grading of care provided in cases of Stillbirth (N=7)

Learning from Q1 in the provision of antenatal care includes:

- Improving the electronic patient record to improve access to intrapartum plans of care
- Incorporating method for joint counselling into the Maternity base improvement plan.
- Review of demand and capacity in the multipregnancy clinic
- Cross divisional working with CSS to improve the follow up scans for patients who do not attend scanning appointments

In the care provided after delivery,:

- a need to educate on the importance of arranging for stillbirth investigations, thus the plan to develop a pictorial graph with all the SB investigations required, with the appropriate blood sampling bottles, to facilitate and remind all on the need to arrange for investigations.
- the work in progress to increase availability of Honeysuckle team members to provide support out of hours

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

- Integration of K2 with electronic GROW package to have an electronic system for fetal growth surveillance

There is ongoing progress with the following:

- Implementation of the CoC model to improve process in arranging for FU for CMW reviews, while working towards developing a defined role for a midwife in the community hub to review investigation results
- Ongoing recruitment of more fetal medicine consultants
- Business case to increase provision of bereavement care and support out of hours

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

3. Neonatal Mortality

3.1 Neonatal mortality Data

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, 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.

	Oct-21	*Nov-21*	*Dec-21*	*Jan-22*	*Feb-22*	*Mar-22*	*Apr-22*	*May-22*	*Jun-22*	*Jul-22*	*Aug-22*	*Sep-22*	*Total*
Total Neonatal Mortality	8	5	3	2	3	3	*3*	*7*	*3*	8	4	5	54
INBORN Neonatal Mortality	**4**	**4**	**3**	**2**	**3**	**3**	***2***	***4***	***3***	**6**	**4**	**5**	**43**
Deliveries	655	665	622	659	561	595	*602*	*654*	*613*	632	658	652	7568
INBORN Neonatal Mortality Rate/1000 deliveries	**6.1**	**6.0**	**4.8**	**3.0**	**5.3**	**5.0**	***3.3***	***6.1***	***4.9***	**9.5**	**6.1**	**7.7**	**5.7**

Table 4: NICU Mortality.

Quarter	NMR all babies	NMR *in born*
Q3 (21_22)	8.2	5.7
Q4 (21_22)	4.4	4.4
Q1 (22_23)	7.0	4.8
Q2 (22_23)	7.2	6.2

Table 5: Neonatal Mortality Rate per quarter

In this quarter there were 6 babies born to mothers who originally booked there care at LWH. There were 9 in-utero transfers and 2 post-natal transfers. Of note there were 9 congenital anomalies which resulted in neonatal deaths (7 at term), this is a higher than usual number.

3.3. Learning from neonatal mortality reviews for Q4

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. 3/12 cases identified care issues in other organisations which may have affected the outcome. There was one case of poor communication following the death of a baby whereby the community and health visitor teams sent a congratulations on your birth letter. The post-bereavement communication pathway is being reviewed and revised. which were related 3/10 cases were identified with issues which may have made a difference to the outcome.

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. MBRRACE 2020 report

The MBRRACE 2020 report was published in October 2022. These data showed that LWH is a negative outier for thew following;

- Stillbirth (>24 weeks excluding ToP)
- Neonatal Death (deaths a (>24 weeks died within first 28 days of life)
- Extended Perinatal death (stillbirth + neonatal death)

The charts below demonstrate our stabilised and adjusted mortality data which provides a more reliable estimate of the underlying mortality rate, accounting for mother's age, socio-economic deprivation, baby's sex and ethnicity, multiplicity, and (for neonatal deaths only) gestational age at birth.

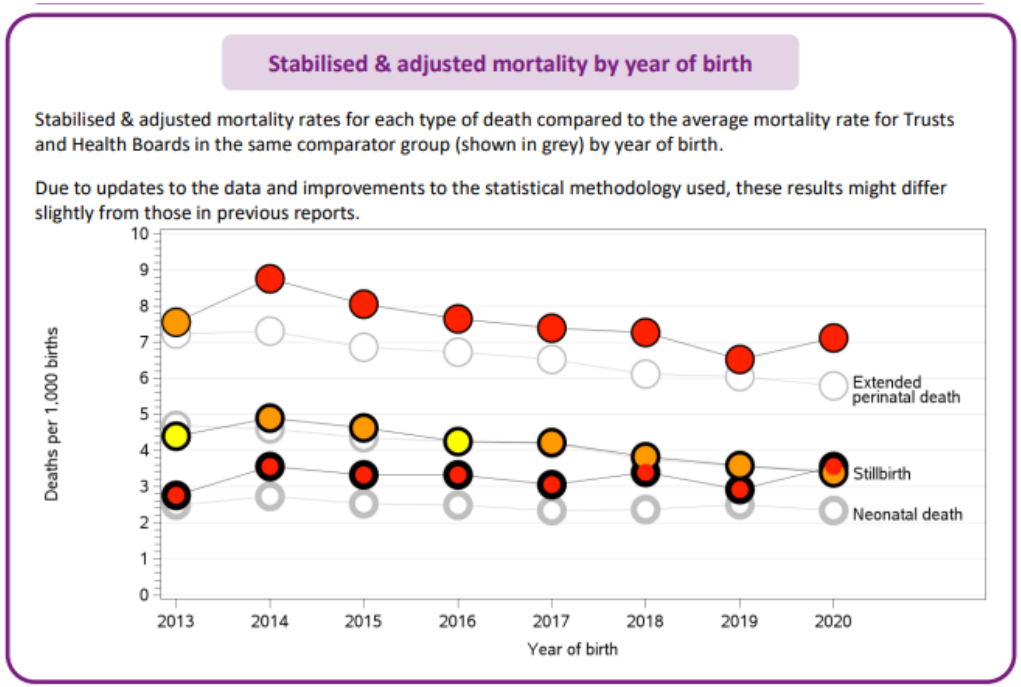

Fig 1.Stabilised and Adjusted mortality rate by year of birth

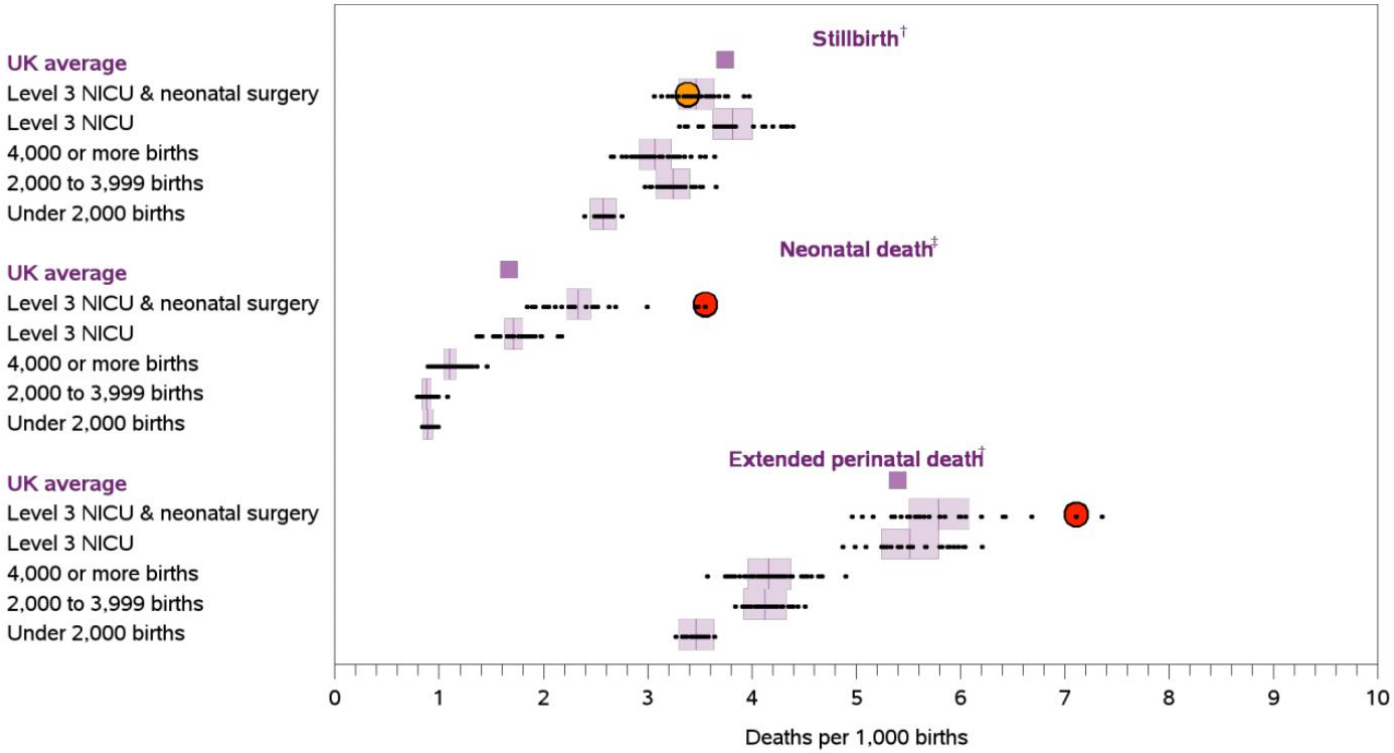

Fig 2. Stabilised and Adjusted Mortality rate Benchmarked against other level 3 NICU with a neonatal surgical provision.

2020 was acknowledged as year with high neonatal mortality. The NWODN network review was partly initiated by these data. This review did not identify a single or specific causal factors. The review did identify that there is a different flow of neonates into LWH, with nearly 4x as many in-utero transfers than other large level 3 NICUs.

Of note the MBRRACE report highlights that neonatal mortality rates increase with deprivation across all ethnic groups. In 2020 c49% of women booking their pregnancies at LWH were in the most deprived decile (10%) in the UK. The MBRACE report does adjust for deprivation,

but only at the quintile level (ie 20%). In other words, in the adjustment our population will look similar to other populations, when in fact it is more deprived.

We are working with Liverpool University, Alder hey Childrens Hospital and the NWODN to undertake a 3-year research collaboration studying geographical inequalities in neonatal mortality. Using local, regional and national datasets, the project is designed to investigate risk factors for neonatal mortality including maternal and pregnancy-related factors and socioeconomic characteristics. It is hoped that this work will allow us to better understand variations in neonatal mortality that have been observed across the North-West region.

5. Revised Year 4 Maternity Incentive Scheme requirements

The MIS was paused in Q3. However the adherence to the safety actions continued. The MIS year 4 recommenced from May 6th 2022 and adherence to safety action 1 is presented below.

This quarterly report (and previous quarterly reports) will continue to be discussed with the maternity, neonatal and Board level safety champions. Dissemination of learning will continue through associated clinical meetings and feedback to staff.

Standard	Denominator	Stillbirth	MTOP	Neonatal deaths	Loss<22	Born alive and still alive as part of a multiple pregnancy with a loss	% compliance	RAG
Ai) All Babies Reported within 7 days	47	14	8	22	1 (21+week triplet)	2	47 (100%)	
A ii) 100% Surveillance questions completed within 2 months	19	13 met (1 not eligible as surveillance assigned to another Trust)	N/A	6 met (3 not eligible as post neonatal deaths, 3 not eligible as gestation at birth <22 weeks, 10 not	N/A	N/A	19 (100%)	

				eligible as assigned to another Trust)				
PMRT reviews undertaken	13	10	N/A	2; 1 not yet (deadline 12/11/22- but awaiting coroners pm);	N/A	N/A	12 (92.3%)	
Bi) At least 50% of all deaths of babies (suitable for review using PMRT) will have been completed to the point that at least a draft report has been generated by the tool within 4 months of each death	13	10 (3 not applicable as the report will be due post qualifying date; of these three it is anticipated that all will be reviewed at this standard after the submission date)	N/A	2 met; 1 not yet met (deadline 12/11/22- but awaiting coroners pm); 3 not eligible as gestation at birth <22 weeks; 3 not applicable as the report will be due post qualifying date	N/A	N/A	12 (92.3%)	
Bii) At least 50% of all deaths of babies (suitable for review using the PMRT) who were born and died in your Trust, including home births, from 6 May 2022 will have been reviewed using the PMRT, by a multidisciplinary review team. Each of these reviews will have been completed to the point that at least a PMRT draft	10	8 (3 have met even though the deadline was outside the qualifying date); 5 not applicable as the report will be due post qualifying date but it is anticipated that all 5 will be completed within this standard following the	N/A	2 met, (1 was met even though the deadline is post qualifying date); 3 not eligible as gestation at birth <22 weeks; 4 not applicable as the report will be due post qualifying date.	N/A	N/A	10 (100%)	

report has been generated by the tool within four months of each death and the report published within six months of each death.		submission date;						
For at least 95% of all deaths of babies who died in your Trust from 6 May 2022, the parents will have been told that a review of their baby's death will take place, and that the parents' perspectives and any questions and/or concerns they have about their care and that of their baby have been sought.	17	13 met (1 not eligible as surveillance assigned to another Trust)	N/A	4 met (including the case awaiting coroners pm); 3 not applicable as not suitable for review; 2 not yet met, data will be updated when review undertaken all not at the 4 month deadline before the data submission date	N/A	N/A	17 (100%)	

4. Recommendations

It is it is requested that the members of the quality committee 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.
- Compliance with MIS year 4.