

Quality Committee

COVER SHEET

Agenda Item (Ref)	21/22/167	Date: 12/11/2021		
Report Title	Learning from Deaths Quarter 2, 21/22			
Prepared by	Julie Connor, gynaecology risk lead; Ai-Wei Tan, Consultant Obstetrician; Rebecca Kettle, Consultant Neonatologist and Andrew Drakeley, acting Deputy Medical Director.			
Presented by	Andrew Drakeley, acting Deputy Medical Director and Lynn Greenhalgh, Medical Director			
Key Issues / Messages	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			
Action required	Approve <input type="checkbox"/>	Receive <input type="checkbox"/>	Note <input checked="" type="checkbox"/>	Take Assurance <input checked="" type="checkbox"/>
	<i>To formally receive and discuss a report and approve its recommendations or a particular course of action</i>	<i>To discuss, in depth, noting the implications for the Board / Committee or Trust without formally approving it</i>	<i>For the intelligence of the Board / Committee without in-depth discussion required</i>	<i>To assure the Board / Committee that effective systems of control are in place</i>
	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	<input checked="" type="checkbox"/>	To participate in high quality research and to deliver the most effective Outcomes	<input checked="" type="checkbox"/>
To be ambitious and efficient and make the best use of available resource	<input checked="" type="checkbox"/>	To deliver the best possible experience for patients and staff	<input checked="" type="checkbox"/>
To deliver safe services	<input checked="" type="checkbox"/>		

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) <i>Copy and paste drop down menu if report links to one or more BAF risks</i>	Comment: N/A
Link to the Corporate Risk Register (CRR) – CR Number:	Comment: No

Key findings:**ADULT:**

- There were two deaths within gynaecology oncology, on the ward. One of which was an expected death. A mortality review has been completed by the Governance Safety Lead and the Governance Manager. This identified that the patient's care was appropriately managed. The other death was an unexpected death of a patient who underwent interval debulking surgery for ovarian cancer in August. A 72-hour report was completed following the patient's death and the incident is being investigated as a SUI.
- The Safety and Effectiveness Senate has overview of responsiveness to potential areas of risk to adult mortality.

PERINATAL:

- There were 11 stillbirths (excluding TOP) in the second Quartile of 2021/2022, giving a stillbirth rate of 5.3/1000 (4/1000 in Q1).
- There has been an increase in the stillbirth rate over the past few quartiles
- 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
- There were 3 babies (excluding TOP) born between 22-24 weeks gestation and were also reviewed utilising the PMRT process
- From the reviews of Q1 cases (N=8), the majority (62.5%) of stillbirths had appropriate antenatal care (Grade A)
- Changes in clinical care due to Covid played a role in the outcome of 1 case of stillbirth in Q1

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.

NEONATAL:

- Q2 mortality rate for all LWH neonatal deaths is 5.3/1000 births
- Q2 mortality for LWH INBORN babies is 3.4/1000 births
- Overall, 21/22 mortality rate for all LWH neonatal deaths is 4.4/1000 births
- Overall, 21/22 mortality for LWH INBORN babies is 2.2/1000 births

MORTALITY REVIEW GROUP:

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.

The group met on 1st November 2021. It was agreed to completely re-write the Trust adult and children's mortality strategies. Sub-section headings will be agreed by the adult, perinatal and neonatal leads in conjunction with the Deputy Medical Director.

LEARNING FROM DEATHS

ADULT

- A presentation at a Gynaecology Oncology Morbidity & Mortality highlighted the awareness for potential rapid deterioration, severe morbidity and mortality in older people and the potential for dissemination of infection and the importance of rapid anti-microbial treatment.
- The NEWS (2) Guideline has been updated in line with the Acutely Ill Patient Guideline to highlight NEWS (2), 3, 5 and 7.
- Draft SBAR for NEWS (2) escalation and recognition has been developed.
- Questions have been added to the NEWS (2) audit which include whether this was above 5, was it escalated and what was the outcome.
- The NEWS (2) audit is now electronic and will be available to review on Power BI (software system).
- Findings from a recent SUI investigation following a death of a patient has been shared with the staff who are running the newly developed MANAGE Gynaecology Emergencies Programme.

PERINATAL

- Importance of compliance with the DNA policy, to ensure appropriate follow is available after a patient DNA an appointment
- Importance of face-to-face appointments for booking and CMW reviews
- To not give advice to patients that FM is affected by placental site

The Trust moved to K2 electronic patient records in January 2021, with a significant change on the documentation of maternal reviews and assessing important documents such as GROW charts and FMU scan reports. Through the PMRT process, we collect data on whether implementation of K2 has a role in the antenatal care provided in stillbirth cases

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

Revised 21/22 CNST requirement targets

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

Although it is likely that the Trust can adhere to the new deadlines, concerns in being able to meet these new targets have been raised and discussed in the regional NW Stillbirth SIG and will be fed back to NHS Resolution as a region.

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

NEONATAL

- Fetal medicine referral pathway for district general hospitals to be reviewed. Especially referral process for pre-term labour clinic.
- Alder Hey bereavement team reminded to inform LWH's Honeysuckle bereavement team to notify them on the death of a neonate.
- Ongoing workstreams include: Liverpool Neonatal Partnership; additional NICU cots; quality improvement project for extubation and admission hypothermia audit.

– 10/10 reviews completed

Neonatal care

All Q1 PMRT panel reviews have been completed. Q2 mortality reviews are in progress and all learning will be reported in the Q3 report. Of the 10 reviews 5 were found to have care issues which would not have affected the outcome (grade B). One case identified care issues which may have made a difference to the outcome, possibly due to care received prior to transfer to LWH.

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

- Non co-location with paediatric surgical services, 2 babies
- Unplanned extubation / ETT dislodgement, 2 babies
- Parent communication
- Admission temperature
- Genetics not sent on a congenital cardiac anomaly
- Late antibiotic administration on admission

Antenatal Care

In quarter 1 there were 2 cases where there were issues identified in the care of the mother up until the birth of the baby. 1 of these cases was a postnatal transfer and the issue relates to the fetal medicine referral pathways which will be reviewed locally by that hospital.

The second case was a lady booked at LWH and delivered an extremely preterm baby at home. It was identified that the preterm labour clinic referral for this lady with a history of previous preterm labours was rejected by error, and thus care was graded C. This was due to reading a historical ultrasound report which showed that she had miscarried. Since this event, all who triage FMU referrals have been taught to arrange CRIS ultrasound scan reports in chronological order prior to reading the reports, to reduce the risk of this happening again.

Care after the death of the baby

One episode of bereavement care was graded B as the Honeysuckle team at LWH were not aware a baby had died at Alder Hey (AH). This has been fed back to the AH bereavement team through the AH HMRG meeting.

MAIN REPORT

This is the quarter 2 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.

For neonates, mortality is presented in total and then as 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 Q2

This report updates the Quality Committee 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.

Obstetrics	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 Mortality	0	0	0	0	0	0							0
Discharges	1938	1971	1851	1925	1853	1887							11425

Table 2: Gynae-oncology mortality

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 Mortality	0	1	1	1	0	1							4
Discharges	65	70	58	82	66	84							425

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 Mortality	0	0	0	0	0	0							0
Discharges	547	601	640	640	573	568							3569

Out of hospital deaths 2021-22 Quarter 2

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 Q2.

No out of hospital Gynaecological deaths in Q2 were observed.

Mortality reviews and Key Themes**Table 4. Themes**

Mortality reviews in Q2		
	Maternity (Direct)	Gynaecology
No of Adult Deaths	0	2
No of Mortality Reviews completed	0	1
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).

The mortality review has commenced for the unexpected patient death, however this will be updated following the completion of the SUI.

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 Q2

Mortality Dashboard

The perinatal mortality rate for 2020-21 was 3.4/1000. In the 1st quartile of 2021-22, it was 4/1000, and 5.3/1000 for the Q2. Although not statistically significant, there appears to be a rising trend, and thus will be monitored closely.

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	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	TOTAL 2021/22
Total Stillbirths	4	1	2	4	0	1	3	6	4	7	4	2	26
Stillbirths (excluding TOP)	2	1	2	3	0	3	3	3	2	7	3	1	19
Births	669	605	605	604	615	650	639	672	696	692	695	684	4078
Overall Rate/1000 births	5.98	1.65	3.31	6.6	0	4.6	4.7	8.9	5.7	10.1	5.8	2.9	6.4
Rate (excluding TOP)/1000	1.47	1.65	3.31	4.9	0	4.6	4.7	4.5	2.9	10.1	4.3	1.5	4.6

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	5.3
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=11)	Cause of death
<28 weeks	1	FGR / Placental insufficiency
28-34 weeks	5	Complications of twin (IUD 22 weeks) FGR / Placental insufficiency x2 Placental abruption Placental insufficiency
34-37 weeks	2	FGR / Placental insufficiency *Unexplained* - awaiting PM/histology
> 37 weeks	3	Discordant twin congenital anomaly (IUD 30 wks) Placental insufficiency Cord accident (true knot, wrapped around baby)

Babies born 22-23 weeks gestation

There were 4 babies who were born in this gestation, including 1 which was a planned termination of pregnancy. These cases were also reviewed utilising the PMRT review process. To note that here was a case with histological findings of Covid placentitis in a mother diagnosed with Covid, a case of lethal congenital anomaly and a case where PM and placental histology is awaited.

Mortality reviews

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 3 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 Q2 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 (%)
A	5	62.5	7	87.5
B	1	12.5	1	12.5
C	2	25	0	0
D	0	0	0	0
Total cases reviewed	8		8	

Twelve of the 14 cases (including pregnancy losses at 22-24 weeks) in Q2 have been reviewed and care graded. Detailed findings and learning from Q2 will be reported in the next report as agreed at the mortality review group.

Table 10: Grading of care for babies in Q2 of 2021-22

Grade	Care in antenatal period	Percentage (%)	Care in postnatal period	Percentage (%)
A	7	58.3	9	75
B	2	16.7	2	16.7
C	2	16.7	1	8.3
D	1	8.3	0	0
Total cases reviewed	12		12	

Although the numbers are low, compared with 2020/21, there continues to be an improvement in the proportion of cases where antenatal care issues have been identified, and learning from these issues need to be continued.

Table 11: 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	B	Placental insufficiency	Comments conveyed to patient that there will be altered perception of FM due to an anterior placenta	LOTW to disseminate to all clinicians (doctors, MW, sonographers) that perception of FM does not change with placental site, and not to tell patient this	Importance of not giving information to patient that are not evidence based
28+2	C	Placental insufficiency Pre-eclampsia	Telephone appointments for CMW due to Covid	CMW appointments to be reverted back to face-to-face reviews – Already COMPLETED	Importance of face-to-face reviews for CMW appointments to allow for routine observations and urine analysis to be done
36+1	C	Complex placental pathology (CHI) FGR	DNA policy not followed, as lost to FU in Obstetrics Day Unit for monitoring of PET; Not triaged appropriately at booking into high-risk care	LOTW in MAU/ODU on the importance of adhering to the DNA policy Booking appointments to be reverted back to Face-to-face reviews - Already COMPLETED To monitor change to EPR and assess if provision of AN and documentation is affected by it through PMRT reviews	Importance of ensuring patients have appropriate follow up if DNA appointments Importance of face-to-face reviews for booking appointments to allow for baseline observations and BMI calculation to be done Importance of transfer of paper charts and documentation into the new EPR

Table 12. Grading of POSTNATAL care where care issues were identified (B, C or D)

Gestation of SB	Grading of care	Cause of death	Issues	Actions	Lessons Learnt
24+4	B	Extreme prematurity	Lack of co-location of services and woman required 2 different transfers to RLUH for CT scan and echocardiogram	An ongoing action in the trust to review availability of imaging services in the trust	NA

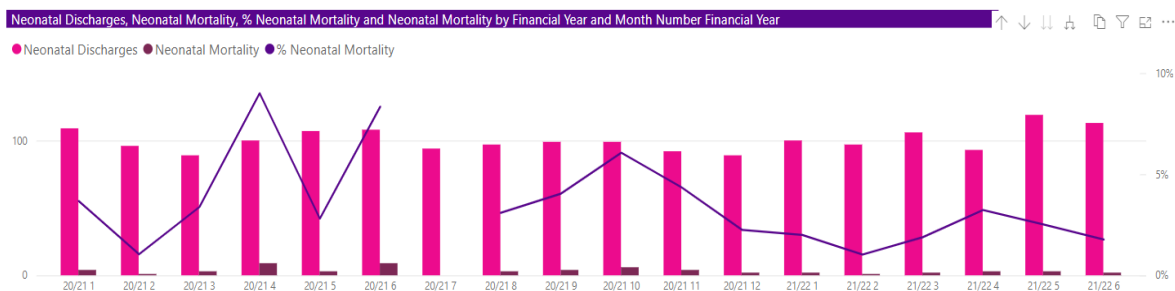
NEONATAL MORTALITY Q2

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 13 and 14 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 13: LWH All Neonatal Mortality

NICU	Oct 20	Nov 20	Dec 20	Jan 21	Feb 21	Mar 21	Apr 21	May 21	Jun 21	Jul 21	Aug 21	Sep 21	21/22 total
Discharges	94	98	90	91	92	89	100	97	106	93	119	113	628
Total Mortality	0	3	4	6	4	2	3	1	2	5	3	3	18
Births	669	605	605	610	618	658	622	654	673	692	695	684	4020
Mortality Rate per 1000 births	0	4.9	6.6	9.8	6.5	3.0	4.8	1.5	3.0	8.6	4.3	4.3	4.4

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.



The graph (Fig 1) above details over time, month by month from Q1 start 20/21 to Q2 end 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 15 details the mortality for babies born in LWH only, excluding post-natal transfers. Tables 16 and 17 detail the breakdown of the deaths by gestation and cause. As a regional tertiary surgical and cardiac NICU we accept

in-utero and post-natal transfers of high-risk babies requiring intensive care after birth and have an increased risk of mortality.

Table 14: NICU Mortality (inborn LWH)

NICU (LWH INBORN)	Apr 21	May 21	Jun 21		Aug 21	Sep 21									21/22 Total
Discharges	100	97	106	93	119	113									628
Total Mortality	2	0	0	3	2	2									9
Births	622	654	673	692	695	684									4020
Mortality Rate per 1000 births	3.2	0	0	4.3	2.9	2.9									2.2

This table details the numbers of deaths of babies born in LWH and admitted to NICU.

We also have babies who die in the delivery room and babies who are cared for on NICU but die in the neonatal period after transfer to another care setting for ongoing management, or to hospice for end-of-life care. If a baby dies after transfer to Alder Hey (AH) the case is reviewed through the AH mortality review process by the hospital mortality review group (HMRG) with neonatal input from the Liverpool Neonatal Partnership. These mothers and babies are reviewed through the LWH PMRT process which will then feed into the AH HMRG for a complete review of the mother and babies’ care.

If a baby is transferred to a hospice for end-of-life care, the case is reviewed through the LWH PMRT process.

Table 15: Mortality before or after NICU admission

	Oct 20	Nov 20	Dec 20	Jan 21	Feb 21	Mar 21	Apr 21	May 21	Jun 21	Jul 21	Aug 21	Sep 21
Delivery room deaths							1			1	1	1
Alder Hey Children’s Hospital		3					2					
Hospice				2	1		1			1		
Repatriation to booking hospital												
Home								1				

In Q2, 1 baby died after transfer to a hospice for palliative care, and there were 3 delivery room deaths this quarter. Delivery room deaths included extreme preterm delivery with PPROM, and planned delivery room palliation for complex congenital anomalies.

Table 16: All mortality by gestation Q2 21/22

	LWH INBORN mortality	PNT mortality	All mortality
Extremely preterm (<28 weeks)	5		5
Very preterm (28-32 weeks)	1		1
Moderate preterm (32-37 weeks)	1		1
Term (>37 weeks)	3	1	4

Table 16 indicates we have 2 distinct groups this quarter in terms of gestational age. Extremely preterm babies are known to be the highest risk group by gestational age. We have several term neonatal deaths this quarter. All the inborn term babies died from congenital anomalies including congenital diaphragmatic hernia, renal agenesis and pulmonary hypoplasia. One baby died from severe HIE (hypoxic ischaemic encephalopathy) after transfer from a district general hospital into LWH for higher level care. Of note, both the very and moderately preterm babies who died this quarter also had congenital anomalies including hydrops of unknown cause and a complex congenital heart defect.

Table 17 details the breakdown by primary cause of death as stated on the death certificate. For Q2, as in Q1, the largest cause of death was congenital abnormalities accounting for 6 out of the 11 deaths this quarter - all inborn. These cases included complex congenital cardiac anomalies, congenital diaphragmatic hernia renal agenesis with pulmonary hypoplasia, bilateral severe ventriculomegaly.

Table 17: All mortality by cause Q2 21/22

	LWH INBORN	Ex-utero transfers	Unbooked	Total
Prematurity	2			2
Infection	1			1
Hypoxic ischaemic encephalopathy		1		1
Congenital abnormality	6			6
Respiratory	1			1

Cardiovascular				
NEC				
Neurological				
Other				

Benchmarking data

We benchmark our mortality through MBRRACE nationally and the international VON network. MBRRACE has reported most recently on 2018 data, figure 1 demonstrates mortality rates over time, the grey lines demonstrate UK average for the LWH comparator group, for example other NICUs with neonatal surgery.

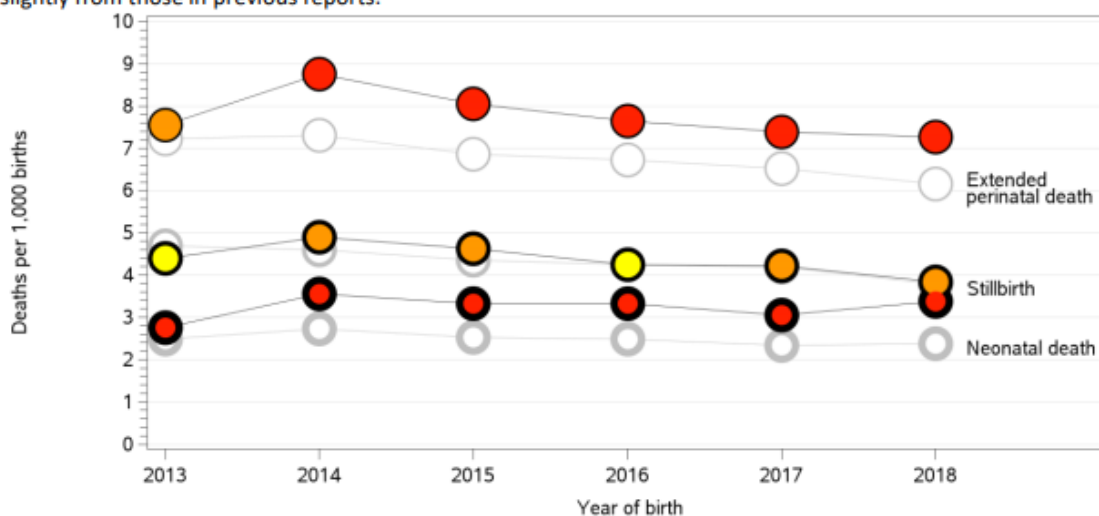
MBRRACE have recently launched the 2019 national report, we await the 2019, unit specific report for LWH.

Figure 2.

Stabilised & adjusted mortality by year of birth

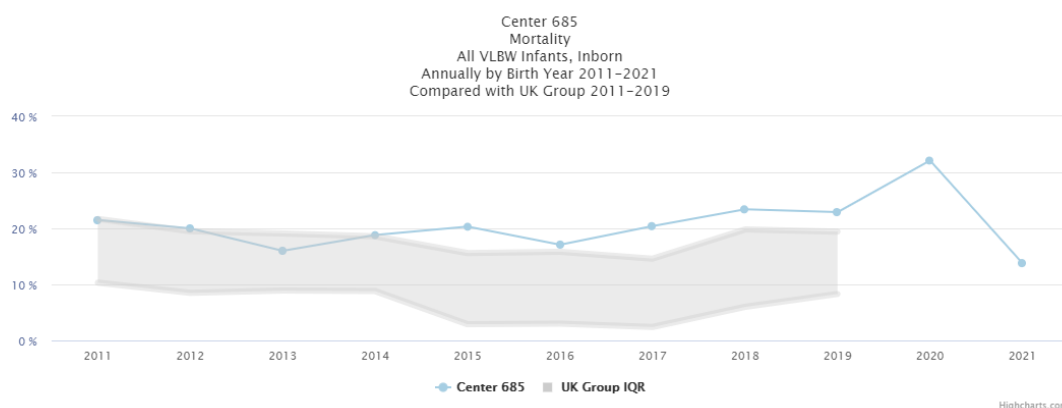
Stabilised & adjusted mortality rates for each type of death compared to the average mortality rate for Trusts and Health Boards in the same comparator group (shown in grey) by year of birth.

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



LWH also benchmark through an international group VON, we can compare within the UK members of this network for various aspects of care. Figure 2 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 for inborn VLBW babies, it is too soon to comment on this.

Figure 3



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 18. Perinatal mortality review tool (PMRT)

A	no issues with care identified up to the point that the baby was confirmed as having died
B	care issues which the panel considered would have made no difference to the outcome for the baby
C	care issues which the panel considered may have made a difference to the outcome for the baby
D	care issues which the panel considered were likely to have made a difference to the outcome for the baby

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 or concerns which the parents send in are addressed as part of the review, and parents are offered an appointment to discuss the response and a letter detailing the PMRT outcome is provided following the appointment.

Table 19: 21/22 Neonatal Mortality Summary

	Q1	Q2	Q3	Q4	Total
All mortality	10	11			
NICU deaths	6	7			
Mortality rate /1000 births	3.1	3.3			
LWH INBORN deaths	2	7			
LWH INBORN mortality rate / 1000 births	1.0	3.3			
PMRT Reviews completed	10/10	5/11			
No. of deaths where any care issues were identified (i.e. grades B/C/D)					
<i>Antenatal</i>	2	3			
<i>Neonatal</i>	6	3			
<i>Care of mother after death of baby</i>	1	1			
No. of deaths where care issues may have or were likely to have affected the outcome (grade C/D)					
<i>Antenatal</i>	1	1*			
<i>Neonatal</i>	1	1*			
<i>Care of mother after death of baby</i>	0	0			

*Gradings refer to care at DGH prior to LWH admission

Recommendations

It is recommended that the board take assurance that:

ADULT

- Continue to complete the mortality review tools in a timely manner
- Presentation to continue to be shared and discussed at the gynaecology oncology 'morbidity & mortality meeting'.
- Issues identified at the reviews and recommendations are tracked through the gynaecology governance meeting.
- All ward staff are to attend MANAGE gynaecological emergencies simulation training sessions
- Continue to complete the 7-minute briefing templates to cascade to staff to ensure learning is shared via staff huddles/ward meetings and via presentation at the 'virtual safety check in meeting'.

PERINATAL

- the rate of stillbirth will continue to be monitored.
- parents continue to be at the centre of our investigation process.
- all stillbirths undergo a robust review process where learning is identified and shared.
- There is a plan to undertake a thematic review of all stillbirths in 2021-22 due to the rising trend.
- Issues identified at the reviews and recommendations made will now be tracked through the 'maternity clinical meeting'.
- The trust will adopt the regional stillbirth report template for these quarterly reports.
- The Trust will comply with nationally mandated initiatives such as 'Saving Babies' Lives', CNST, PMRT and MBRRACE-UK.

NEONATAL

- To note that the review process for neonatal deaths is robust and that parental involvement is central to the process.
- Neonatal mortality is stable and there are collaborative processes in place with neighbouring tertiary level neonatal intensive care units to share best practice, notably in the care of the pre-term infant.