



AGENDA ITEM

7.4.1

QUALITY & SAFETY COMMITTEE

CTM MBRRACE-UK PERINATAL MORTALITY REPORT: 2019 BIRTHS

Date of meeting	18/01/2022
FOI Status	Open/Public
If closed please indicate reason	Not Applicable - Public Report
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Presented by	Maternity Services Team
Approving Executive Sponsor	Executive Medical Director
Report purpose	FOR NOTING

Engagement (internal/external) undertaken to date (including receipt/consideration at Committee/group)

Committee/Group/Individuals	Date	Outcome
Executive Team	(DD/MM/YYYY)	Choose an item.

ACRONYMS

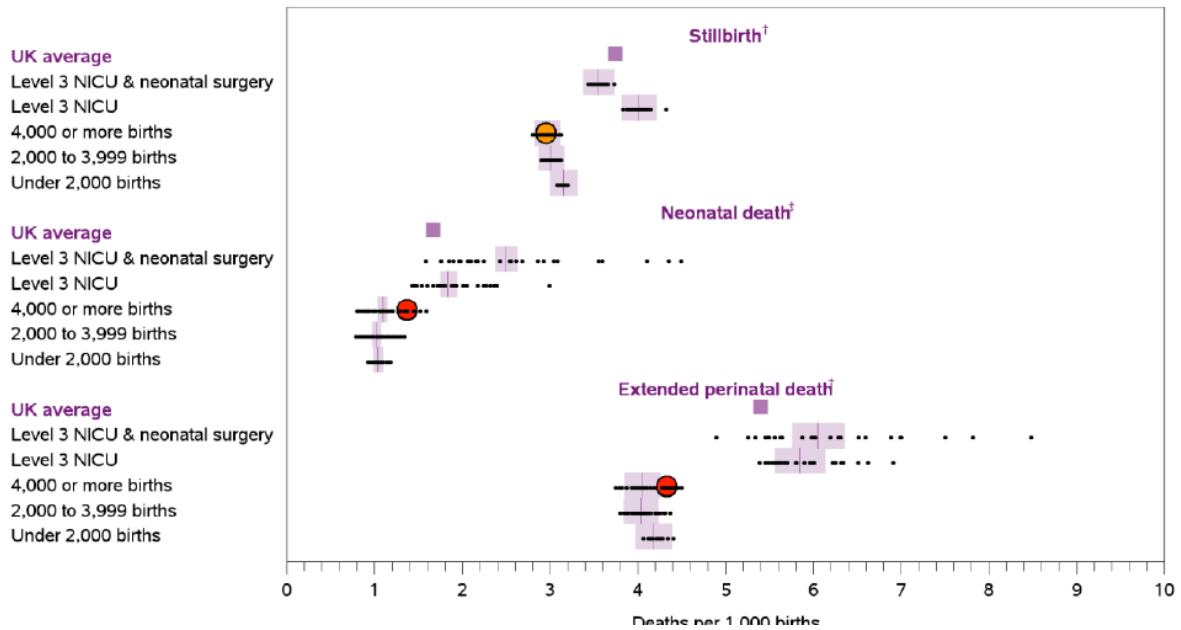
MBRRACE	Mothers and Babies Reducing Risk through Audits and Confidential Enquiries
PMRT	Perinatal Mortality Review Tool
NPEU	National Perinatal Epidemiology Unit
IUGR	Intrauterine Growth Restriction
GAP/GROW	Perinatal Institute fetal wellbeing surveillance tool, includes, ultrasound scan pathway (All Wales) to support fetal surveillance in pregnancy
MAMS	Models of Access to Maternity cessation Support
MEOWS	Maternity Early Obstetrics Warning Score

1. SITUATION/BACKGROUND

- 1.1 The 2019 MBRRACE report for Cwm Taff Morgannwg University Health Board (CTM) was received in October 2021.
- 1.2 MBRRACE is part of the NPEU which is a multidisciplinary research unit based at the University of Oxford.
- 1.3 This report reviews the 4998 babies born within CTM in 2019, excluding terminations of pregnancy and births before 24 weeks gestational age.

2. SPECIFIC MATTERS FOR CONSIDERATION BY THIS MEETING (ASSESSMENT)

- 2.1 This report is a follow up report and action plan to the highlight report presented on 21.10.2021.
- 2.2 Headline comments were that CTM during 2019 were outliers compared to other comparable Health Boards and Trusts in 2 key areas, neonatal deaths and extended perinatal deaths, extended perinatal deaths is a sum of the stillbirths and neonatal deaths combined.
- 2.3 Stillbirth rates were up to 5% below the average for the group.



MBRRACE CTM 2019 UK Comparator for Stillbirth, Neonatal Death and Extended Perinatal Death

- 2.4 Specified actions by MBRRACE were to review the entered key data for accuracy and to review records regarding the deaths to identify and act on any avoidable factors to reduce ongoing risk. Each case is subject to review using the Perinatal Mortality Review Tool linked to MBRRACE surveillance (PMRT) and is accompanied by a MBRRACE generated action plan. Actions are fed into the CSG working groups to support improvements from the learning identified.
- 2.5 MBRRACE also noted that they were given 94% of the key data items for the deaths covering this period and emphasised the importance of accurate and complete data entry. The key areas where data entry was incomplete were:

- Ethnicity of baby CTM 94.1%, UK 95.8%
- Cause of death missing field CTM 14.3% (2 cases) UK 5.9%
- Type of onset of Labour CTM 94.1%, UK 99.3%
- Smoking status CTM 88.2%, UK 96.5%
- Estimated date of delivery CTM 82.3%, UK 97%
- Alive at onset of labour CTM 85.7%, UK 95.3%
- Main cause of death CTM 82.3%, UK 95.3%
- Birth weight CTM 94.1%, UK 99%
- Gestation at birth CTM 82.3%, UK 99.2%

The two Clinical Service Groups (MC ILG and B ILG) have MDT meetings to support the completion of data accuracy and within a timely notification period and we expect to see a year on year improvement with compliance in this reported data.

Timeliness of submission of data was also of concern to MBRRACE with only 17% of neonatal deaths being notified within 30 days. Stillbirth's compliance with reporting was 60% which is an improvement on the 2018 reporting compliance rate of 50%. Maternity services have increased the number of MBRRACE reporters, the Bereavement Lead Midwife is supporting timely reporting. It was identified by the PMRT MDT team that there was a deficit in Neonatal users to provide this data timely. This has since been addressed with a number of the Neonatal Team now having access to support timely reporting of cases.

However, it is worth noting that 2020 and the impact of COVID on business as usual operational meetings did have an effect on the planning and implementation of these meetings so we anticipate not achieving the 100% compliance with the 30 reporting period of late fetal losses, stillbirth and neonatal deaths. All late fetal losses, stillbirth and neonatal deaths were reported in compliance with the national reporting requirements. Initial enquires show that compliance for stillbirth reporting is 73% (invalidated).

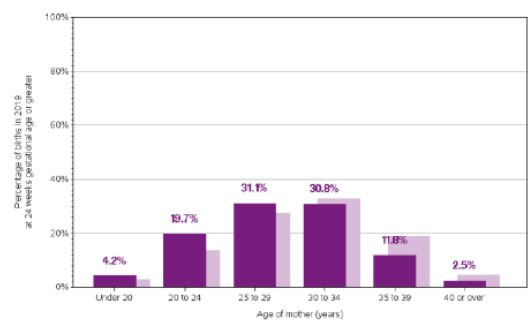
Monitoring of compliance of submission of data will be included in monthly monitoring reports for safe and effective care (SEC), provided through the service's assurance reporting WESEE model.

2.6 It is worth noting the information highlighted by MBRRACE relating to age profile of mothers and the socioeconomic deprivation for CTM UHB

Age of mother

The proportion of mothers under 25 years of age was considerably higher than that of the UK as a whole: 23.9% versus 16.4%.

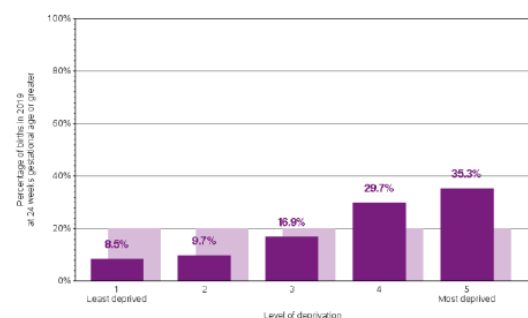
In the national MBRRACE-UK Perinatal Mortality Surveillance Report it was shown that mortality rates were higher for babies born to mothers under 25 and over 34 years of age compared to mothers aged from 25 to 34 years old.



Socio-economic deprivation

This graph shows the distribution of births by level of deprivation, based on the postcode of the mother's residence and using the [Children in Low-Income Families Local Measure](#).

The mothers giving birth in your Health Board were considerably more likely to live in areas of high deprivation than those giving birth across the UK as a whole.



MBRRACE CTM UHB perinatal mortality report 2019 highlight that the UK MBRRACE Perinatal Mortality Surveillance report shown that mortality rates were higher for babies born to mothers under 25 and over 34. The proportion of mothers under 25 years of age was considerably higher in CTM UHB than that of the UK as a whole: 23.6% for CTM UHB versus 16.4% for the UK.

Similarly MBRRACE state that mothers giving birth in our health board were considerably more likely to live in areas of high deprivation than those giving birth across the UK as a whole.

It is also worth noting the distribution of births from neighbouring health boards where mothers choose to birth in CTM UHB.

Commissioning organisation	% Births (N)	Commissioning organisation	% Births (N)
1. Cwm Taf Morgannwg University Health Board	93.5% (4190)	2. Swansea Bay University Health Board	8.7% (307)
3. Aneurin Bevan University Health Board	6.1% (375)	4. Cardiff and Vale University Health Board	2.0% (100)
5. Powys Teaching Health Board	1.6% (17)		

- 2.7 Using the PMRT to support learning from cases reported an action plan is produced which supports areas of thematic analysis and to investigate any themes in care requiring a service wide improvement programme. 23 deaths complied with the MBRRACE reporting criteria and with the PMRT process of review, these were:

Perinatal Death	Number in HB	Number external to HB	Review completed
Late fetal loss or Stillbirth	14	0	14
Neonatal death	7	2	6
Extended perinatal = total SB and NND	23	2	20

N.B. Neonatal deaths are reported by place of birth, irrespective of where the death occurred, as denominator data on the place of care is not available for all birth (MBRRACE)

Post-mortem was offered in 100% of all late fetal losses and stillbirths, with 5 of the 14 stillbirths cases declining this offer. Uptake for post-mortem in this category is 64%. Neonatal death post-mortem offer was in 6 of the 7 cases. Uptake of post-mortem was 2 of the 6 cases, uptake was 33%. One case - post-mortem was

undertaken in accordance with HM Coroners request. Post-mortem supports reviews in understanding where this is identified cause of death. Placental histology provides 60% of the evidence required in supporting review and cause of death. Placental histology was undertaken in 100% of all late fetal losses, stillbirth and the 6 of the 7 neonatal deaths, one case linked to coronial process of post-mortem.

CTM UHB Midwifery Bereavement Lead Midwife provides post-mortem consent training to all midwifery staff. This will be extended to the Neonatal team in the hope we improve the confidence of clinicians to talk to parents about post-mortem process and improve uptake in this category.

Incidental learning identified that the maternal clinical records did not support evidence that parents were told of a review taking place or that they were consulted on any areas that they wished the review to address. This has been rectified, all parents experiencing a loss receive a letter from the Governance team informing them a review will take place and inviting them to share their concerns or questions as part of the review. A central email address for the governance team has been set up to support the families access to the team and to share any concerns or questions relating to their loss. For those wishing to speak directly with the team a named contact and telephone number is also used. This is logged and the letter is recorded on DATIX, linked to the incident reporting.

Themes relating to losses reviewed using the PMRT for the 23 cases in 2019 identified as contributory or relevant to the outcome requiring action are subject to the actions set out in the table below.

All neonatal death reviews are subject to external scrutiny via the Maternity and Neonatal Network Perinatal Meeting. Cases are presented by the MDT and are subject to collaborative grading (All Wales) according to the MBRRACE case categorisation of care:

- A – No issues with care identified
- B - Care issues that would have made no difference to the outcome
- C - Care issues which may have made a difference to the outcome
- D - Care issues which were likely to have made a difference to the outcome

Of the 2019 cases presented at the Maternity, Neonatal Network Perinatal Meeting, in relation to the 7 Neonatal Deaths (In HB), identified 2 graded C or D, cases where different care may have made

a difference or which were likely to have made a difference to the outcome.

The PMRT reviews identified the following actions from contributory or relevant to the outcome from cases in all the late fetal losses, stillbirth and neonatal deaths to maximise learning opportunities:

Action	Number of occurrences in the 23 cases	Action taken in response to learning points	Lead for the action	Date of completion of action points
Mother lives with family members who smoke and were not offered smoking cessation support	1	MAMSS programme developed to support quit attempts in pregnancy – extended family members will be sign posted to Help Me Quit Wales for cessation support Partners take on board the MAMSS workers advice and get their NRT from the community pharmacy. currently	Public Health Midwife Senior Midwife for community Services	Former CT 2017 Bridgend June 2020
Mother missed some of her antenatal appointments that were not followed up	1	CTM UHB Antenatal Care Guidelines 2020 includes management of DNA to support follow up for women disengaging in care pathways.	Antenatal Forum Lead Obstetrician	Guideline ratified and implemented October 2020
Incorrect risk allocation for pathway during pregnancy	2	CTM UHB Antenatal Care Guidelines 2020 includes management of women's	Antenatal Forum Lead Obstetrician	Guideline ratified and implemented October 2020



		pregnancy based on risk categorisation.		
Mother presented with altered fetal movements – there was no evidence of what discussion took place and what written advice given to support escalation of concerns by the mother	1	Maternity Network Wales – All Wales Reduced Fetal Movements Guideline 2016 in place at the time. This has been revised and has clear pathways and advice which must be documented on the new proforma and filed in the mothers notes, this was implemented in November 2021. Lunch and Learn sessions delivered (and recorded) to support clinicians awareness and understanding of requirements.	Fetal Surveillance and Wellbeing Lead Midwife Maternity and Neonatal Network Wales	November 2021
Symphysis fundal height measurement was not carried out at the correct intervals in pregnancy	1	Annual compliance against mandatory training for all clinicians for GAP/GROW fetal surveillance package in place and monitored via the monthly Workforce and Education WESEE assurance framework report	Heads of Midwifery Clinical Directors Fetal Surveillance and Wellbeing Lead Midwife	Monthly assurance framework
Baby was small for gestational age	1	Radiology perform	Fetal Surveillance	



<p>scans were indicated and undertaken but the baby was not identified as IUGR</p>		<p>antenatal ultrasound scans against the Antenatal Screening Wales standards using a standardised software package. Individual cases are reviewed by the department to ensure standards were adhered to and to ensure any learning identified is fed back to sonographers.</p>	<p>and Wellbeing Lead Midwife Superintendent Sonographer</p>	
<p>The mother had SEPSIS in pregnancy – delay in diagnosis</p> <p>Mother had suspected intrauterine infection which was not managed in accordance with guidance</p>	<p>2</p> <p>2</p>	<p>Wales Maternity Network: Maternity Sepsis Screening and Management: Guidelines for standards and practice, implemented in 2018. This is scheduled for review by the Maternity and Neonatal Network in early 2022, CTM UHB membership on this group. CTM UHB SEPSIS screening tool implemented in 2019 including updated MEOWS chart which includes SEPSIS triggers for escalation for clinical review.</p>	<p>Maternity and Neonatal Network</p> <p>Antenatal Forum Clinical Lead</p> <p>CTM UHB Maternity Guideline Group</p> <p>CSG Senior Team across the HB</p>	<p>October 2020</p>



		DATIX incident reporting. Weekly MDT clinical reviews and weekly Senior MDT Incident Review Meeting of cases reported week on week for monitoring.		
The mother had preterm labour/threatened preterm labour or PPROM which was not managed in accordance with local or national guidance.	2	CTM UHB Premature Pre-labour Rupture of Membranes (PPROM) below 37 weeks gestation Guideline ratified and implemented January 2020	Antenatal Forum Clinical Lead Labour Ward Forum Clinical Lead CTM Maternity Guideline Group	January 2020
The mother had preterm labour/threatened preterm labour of PPROM and there was a delay in diagnosis.	2	Accompanying PPROM checklist introduced to support clinicians manage a complex pathway		
The mother had preterm labour/threatened preterm labour and there was a delay in use of magnesium sulphate for neuroprotection of the new-born	1	CTM UHB Management of Pre-term Labour Guideline ratified and Implemented August 2020 – includes magnesium sulphate guidance for neuroprotection CTM UHB implemented rupture of membranes test Amnisure SOP 2021		August 2020 April 2021



<p>The mother had specific antenatal risk factors requiring an individualised birth plan and advice which was not given</p>	<p>1</p>	<p>CTM UHB Antenatal Care guidelines 2020 includes care pathways and requirements for documented birth care plans for women</p>	<p>Clinical Directors Obstetric Consultant body Senior Midwife for Community Services Consultant Midwife CTM Maternity Guideline Group</p>	<p>October 2020</p>
<p>The mother did not give birth in a unit appropriate to her/baby clinical requirements</p>	<p>1</p>	<p>All Wales In Utero Transfer Guideline 2016 Weekly -utero Transfer review meeting with Swansea Bay UHB DATIX incident reporting Escalation Policy Jump Call Policy CTM UHB Multi-disciplinary Labour Ward Handover Guidelines ATAIN neonatal review weekly meeting Senior MDT Incident Review Meeting of cases</p>	<p>Maternity and Neonatal Network Wales CTM Maternity Guideline Group Governance and Risk Lead Midwife Neonatal and Obstetric ATAIN review team Senior MDT across HB</p>	<p>June 2015 September 2019 June 2020 May 2020</p>



		reported week on week for monitoring		
The baby was cold on admission to the Neonatal Unit	1	Ensure appropriate thermoregulation for neonates at birth and during transfer to the NNU. CTM Normothermia pathway under development with QI project. Increased training surrounding neonatal transport system. Implementation of new sterile bags for extreme preterm to be delivered in to.		January 2022
Skin care of the baby in the first 24 hours on the Neonatal Unit was not appropriate	1	CTM guideline for Neonatal skin Preparation for insertion of Umbilical lines, Long Lines, Peripheral Cannulation and Lumbar Puncture. MDT Training surrounding skin care.		March 2020
The baby required resuscitation but there were difficulties during intubation	1	CTM Neonatal Standards of documentation to be developed and agreed.		September 2021



		<p>CTM neonatal resuscitation proforma developed and available on all resuscitation trolleys.</p> <p>MDT simulation training rolled out.</p> <p>Assurance of up to date NLS training.</p> <p>CTM policy for attendance at delivery. Prompt escalation to senior clinician including consultant anaesthetist on call.</p>		
It was not possible from the notes to understand if CO2 detector was used during resuscitation	1	<p>CTM Neonatal Standards of documentation to be developed and agreed with regular audits.</p> <p>CTM neonatal resuscitation proforma developed and available on all resuscitation trolleys.</p> <p>Co2 detector available on all resuscitation trollies.</p>		<p>January 2022</p> <p>September 2021</p> <p>September 2021</p>
Respiratory management of	1	All Wales guideline for		November 2021



<p>the baby in the first 24 hours was not appropriate</p>		<p>neonatal ventilation to be recirculated and available to all staff.</p> <p>Ensure appropriate escalation with clear SBAR communication within the MDT.</p> <p>CTM escalation policy and Jump calling/CUS tool.</p> <p>Advice to be sort from tertiary centre.</p> <p>MDT roll out of simulation training.</p>		
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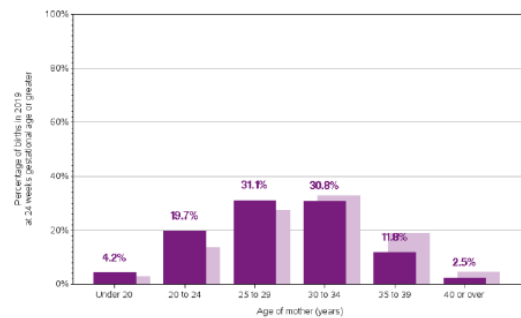
3. KEY RISKS/MATTERS FOR ESCALATION TO BOARD/COMMITTEE

- 3.1 The report has been reviewed in depth and as a public document is available to the IMSOP team who are already reviewing records from this period
- 3.2 The Neonatal Improvement Team have identified the need for additional resource for data management as part of the expansion of the team to meet the IMSOP requirements. The Committee is also asked to note that this may require additional resource going forward
- 3.3 MBRRACE noted the age profile of mothers and the socio-economic deprivation of the communities we serve. The commitment to improving our public health is embedded in the Early Years Programme which both Maternity and Neonatal Services sit as members of the programme.

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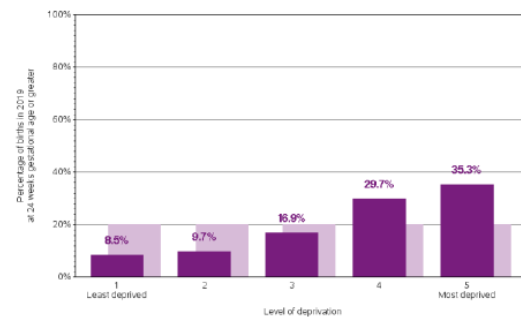
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4. IMPACT ASSESSMENT

Quality/Safety/Patient Experience implications	Yes (Please see detail below)
Related Health and Care standard(s)	Safe Care If more than one Healthcare Standard applies please list below:
Equality Impact Assessment (EIA) completed - Please note EIAs are required for <u>all</u> new, changed or withdrawn policies and services.	No (Include further detail below) If yes, please provide a hyperlink to the location of the completed EIA or who it would be available from in the box below. If no, please provide reasons why an EIA was not considered to be required in the box below. Equality Issues are addressed within the attached report
Legal implications / impact	There are no specific legal implications related to the activity outlined in this report.
Resource (Capital/Revenue £/Workforce) implications /	Yes (Include further detail below)



Impact	Potential increase in the demands on the Neonatal Improvement Team may lead to a need for increased resource
Link to Strategic Goals	Improving Care

5. RECOMMENDATION

- 5.1 That the committee **NOTE** the attached report in relation to other documents presented as part of the Maternity & Neonates Improvement Programme Progress report