

## Guideline for the Management of the Large for Gestational Age Fetus and Polyhydramnios

|                               |   |          |
|-------------------------------|---|----------|
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| <b>Approved By:</b>           | Women and Children's Policies & Procedures Governance Group |          |
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The latest approved version of this document is online.  
If the review date has passed please contact the Author for advice.

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## Version Control

| Version | Summary of Changes/Amendments | Issue Date   |
|---------|-------------------------------|--------------|
| 1       | Initial Issue                 | October 2023 |
|         |                               |              |
|         |                               |              |

## Engagement & Consultation

### Key Individuals/Groups Involved in Developing this Document

| Role / Designation   |
|--|
| Midwife sonographer<br>Training and Governance Lead Ultrasound |

### Circulated to the following for Consultation

| Date       | Role / Designation   |
|------------|--|
| 08/06/2023 | Powys Midwives including DAU staff                         |
| 08/06/2023 | Midwifery Leadership and Management team                   |
| 08/06/2023 | Members of Women and Children's policy and guideline group |
| 08/06/2023 | Training and Governance Lead Ultrasound                    |
| 08/06/2023 | Ultrasound/Radiology team                                  |
|            |  |

### Groups Approved at

| Date      | Group  |
|-----------|--|
| 3/7/2023  | Maternity guidelines Group                         |
| 17/7/2023 | Women and Children's policies and procedures group |
| 3         |  |
| 14/7/2023 | Therapies Heads of Service meeting                 |
| 3         |  |

| Evidence Base  |
|--|
| Antenatal Screening Wales -<br><a href="http://www.antenatalscreening.wales.nhs.uk/professional/ultrasound">http://www.antenatalscreening.wales.nhs.uk/professional/ultrasound</a> |

National Institute for Health and Clinical Excellence. Draft for Consultation. Induction of labour for suspected fetal macrosomia. Draft consultation Clinical Guideline 70 (update). London: NICE;2021

Perinatal institute (2020). Growth Assessment Protocol Guidance. Perinatal institute. <https://perinatal.org.uk/GAPguidance.pdf>

## Impact Assessments

| Equality Impact Assessment Summary   |           |         |              |          |  |
|--|-----------|---------|--------------|----------|--|
|  | No impact | Adverse | Differential | Positive | Statement  |
| <b>Age</b>   | X         |         |              |          | <p>Please remember policy documents are published to both the <b>intranet</b> and <b>internet</b>.</p> <p>The version on the internet must be translated to Welsh.</p> |
| <b>Disability</b>  | X         |         |              |          |  |
| <b>Gender reassignment</b>   | X         |         |              |          |  |
| <b>Pregnancy and maternity</b>   | X         |         |              |          |  |
| <b>Race</b>  | X         |         |              |          |  |
| <b>Religion/ Belief</b>  | X         |         |              |          |  |
| <b>Sex</b>   | X         |         |              |          |  |
| <b>Sexual Orientation</b>  | X         |         |              |          |  |
| <b>Marriage and civil partnership</b>  | X         |         |              |          |  |
| <b>Welsh Language</b>  | X         |         |              |          |  |
| <b>Human Rights</b>  | X         |         |              |          |  |
| Risk Assessment Summary  |           |         |              |          |  |
| <p><b>Have you identified any risks arising from the implementation of this policy / procedure / written control document?</b></p> <p>No risks identified</p>                          |           |         |              |          |  |
| <p><b>Have you identified any Information Governance issues arising from the implementation of this policy / procedure / written control document?</b></p> <p>No issues identified</p> |           |         |              |          |  |
| <p><b>Have you identified any training and / or resource implications as a result of implementing this?</b></p> <p>No issues identified</p>  |           |         |              |          |  |

## **1 Policy Statement / Introduction**

Polyhydramnios is the presence of excess amniotic fluid in the uterus based on ultrasound evidence of a constant value of single deepest vertical pool (SDVP) more than 8cms or amniotic fluid index (AFI) more than 25cms.

Reported incidence of polyhydramnios varies from 0.2-4% and has been associated with a variety of adverse pregnancy outcomes including preterm premature rupture of membranes (PPROM), preterm birth, cord prolapse and admission to the neonatal unit (NICU). Maternal complications include increased risk of postpartum hemorrhage (PPH) and lower segment caesarean section (LSCS).

The definition of a Large for Gestational Age (LGA) fetus varies across literature. NICE (2021) state that fetal macrosomia describes a baby that is believed to be large for its gestational age, with an estimated fetal weight above the 95th percentile, at or after 36 weeks of pregnancy.

In Wales, the most reasonable definition of excessive EFW or suspected macrosomia is in line with the Perinatal Institute, as this is a standardized programme accepted in Wales and all other parameters in relation to fetal weight in this programme are recognized and nationally accepted.

Therefore the 97<sup>th</sup> centile should be used to define excessive fetal weight on USS at or after 36 weeks.

In Powys, within the MLC Guideline (MAT030), it states that a client will remain MLC in current pregnancy if the Estimated Fetal Weight (EFW) is >90th centile but <97<sup>th</sup> centile on USS. If the EFW is >97<sup>th</sup> centile the client will be recommended for referral to consultant led care and birth in a district general hospital (DGH)

## **2 Objective**

The aim of this guideline is to outline the referral and management process where polyhydramnios and/or a large for gestational baby is suspected and then identified on ultrasound scan within Powys.

### **3 Definitions (Mandatory Heading)**

- **PTHB** – Powys Teaching Health Board
- **DAU** – Day Assessment Unit
- **USS**- Ultrasound Scan
- **SDVP** – Single Deepest Vertical pool
- **AFI** – Amniotic Fluid Index
- **EFW** – Estimated Fetal Weight
- **PPROM** – Preterm premature rupture of membranes
- **NICU**- Neonatal Intensive care unit
- **PPH** – Postpartum Hemorrhage
- **LSCS** – Lower Segment Caesarean Section
- **GTT** – Glucose Tolerance Test
- **TORCH** – Screening test for Toxoplasma, Rubella, Cytomegalovirus, Herpes simplex and Parvovirus B19
- **SFH**- Symphysis Fundal Height
- **LGA** – Large for Gestational Age
- **NMR** Non-Medical Referrer

### **4. Role / Responsibilities**

#### **4.1 Ultrasound Governance and Training Lead**

- To ensure all Practitioners are complying with best practice, governance is in place.
- Ensure staff have access to relevant training
- Undertake regular audit alongside sonographers
- Undertake regular quality assurance of images
- Provide Preceptorship
- Be accountable for staff training.
- Provide support and leadership
- Advise on DATIX submissions
- Ensure all Midwives who refer for ultrasound scans complete Non-Medical Referrer (NMR) training and have health board entitlement to refer
- Deliver NMR training and NMR update training.
- Ensure the NMR entitlement matrix is up to date and available to all referrers to view on sharepoint

#### **4.2 Governance Lead for Maternity**

- To review any datix submissions relating to the context of this guideline

#### **4.3 Head of Midwifery and Sexual Health**

|  |   |
|--|---|
|  | <p>The Head of the Department must:</p> <ul style="list-style-type: none"><li>• Ensure all staff read and understand this procedure</li><li>• Arrange regular review to monitor compliance with this procedure</li><li>• Follow up on audit reports received from Antenatal Screening Wales (ASW)</li></ul>   |
|  | <p><b>4.4 Sonographer Midwife / Sonographer</b></p> <ul style="list-style-type: none"><li>• The sonographer must be familiar with the content of this guideline</li><li>• The sonographer must be in compliance with the Nursing and Midwifery council (NMC) or Health and Care Professions Council (HCPC) and maintain a professional registration in Midwifery and / or Ultrasound.</li><li>• They must hold a post graduate certificate /diploma in medical ultrasound for obstetrics and have trained at a recognized and CASE accredited Centre.</li><li>• The sonographer must be registered with the Down Syndrome’s Screening Quality Assurance Support Service (DQASS) via ASW and assessed as competent by the Nuchal Translucency (NT) lead for Powys Teaching Health Board (PTHB) who will be assessed by the ASW Obstetric Ultrasound Coordinator.</li><li>• Sonographers should carry out their own audit using the proformas supplied by ASW</li><li>• All scans must be reported on the RadIS system using the relevant template and images must be stored on the relevant PACS system to allow adequate monitoring, audit data and image review as per ASW guidelines (refer to ASW standards and protocols and ultrasound handbook for compliance standards).</li><li>• All midwives are responsible for ensuring they are NMR compliant and attend NMR update training every 2 years.</li><li>• All Midwives to complete annual NMR audit as directed by the Radiology department to maintain NMR status.</li></ul> <p><a href="http://www.antenatalscreening.wales.nhs.uk/professional/ultrasound">http://www.antenatalscreening.wales.nhs.uk/professional/ultrasound</a></p> |
|  | <p><b>4.5 Community Midwife</b></p> <ul style="list-style-type: none"><li>• Community midwives must be familiar with the content of this guideline and follow guidance outlined within it.</li></ul>  |

## 5 Polyhydramnios and/or LGA Identification

### 5.1 Polyhydramnios and/or LGA Signs and Symptoms

1. Symphysis Fundal Height (SFH) plotting above the 90<sup>th</sup> centile on CGC **AND** suspected Polyhydramnios by clinician.
2. Excessive SFH velocity greater than the 90<sup>th</sup> centile curve on the CGC.
2. Difficulty palpating fetal parts
3. On palpation skin can appear tight, shiny and/or fluid 'thrill'

### 5.2 Referral Process for community midwife.

When a community midwife suspects Polyhydramnios and/or a LGA fetus during palpation, the community midwife is to refer the client for an ultrasound scan within Powys Day Assessment Unit (DAU) using the routine ultrasound referral process (see appendix A).

There is no evidence regarding the time scale that an ultrasound scan should be performed for suspected Polyhydramnios and/or large for gestational age, therefore, to keep in line with all urgent scans in Powys it has been decided that the Ultrasound scan should be performed within 72 hours of identification. If the scan cannot be performed within 72 hours in Powys, the client is to be referred to the DGH by the community midwife for consultant review and scan appointment. If the DGH cannot perform the scan within 72 hours following the consultant review, the client is to be booked into the first available scan appointment within Powys or DGH.

### 5.3 Diagnosis and Classification

Polyhydramnios is the presence of excess amniotic fluid in the uterus based on ultrasound evidence of a constant value of single deepest vertical pool (SDVP) more than 8cms.

There is no universal accepted classification but based on literature searches it can be classified into:

- Mild - Deepest pool 8-11cms.
- Moderate - Deepest pool 12-15cms.
- Severe - Deepest Pool >15cms.

A Large for Gestational Age fetus is diagnosed when the Estimated Fetal Weight (EFW) on scan is plotting above the 97<sup>th</sup> centile on the CGC.



## **6 Management of Polyhydramnios and/or LGA**

- The findings of the scan should be explained to the client.
- Document on scan report whether fetal stomach, kidneys and bladder have been visualized and appear normal or abnormal and store images to exclude anomaly, if polyhydramnios is diagnosed.
- Findings of the scan should be recorded in the clients' handheld records including a scan report, the EFW plotted on the Customized Growth Chart (CGC) and the care plan moving forward. Named midwife to be informed.
- Client will be referred to the District General Hospital (DGH) of client's choice if Midwife Led Care (MLC) or, to DGH already referred to if under Consultant Led Care (CLC) for review and the woman will be advised of the need to be Consultant Led Care for the remainder of the pregnancy. DGH to be contacted by the midwife sonographer the same day to arrange an appointment with either antenatal clinic or triage within 24 hours for consultant review and plan of care for the remainder of the pregnancy.
- A glucose Tolerance Test (GTT) will be recommended if gestation is less than 34 weeks and this will be offered and arranged as soon as possible for the day assessment unit in Powys and results will be followed up the next day and actioned accordingly. According to the All Wales Guideline for screening for Gestational Diabetes there are no validated tests for screening of gestational diabetes after 34 weeks gestation therefore the following options could be considered: Hba1C (<39mmol/mol) and a fasting plasma glucose (<5.3) OR consider capillary blood glucose monitoring for 1 week. This will be arranged as soon as possible with the Day Assessment Team (MAT086)
- TORCH screening will be recommended, offered, and taken as soon as possible (considering blood transport times) with the Powys Day Assessment unit or community midwife. However, if the follow up with the consultant obstetrician is within 24 hours, then the TORCH screening may be carried out then. If the bloods are taken in Powys then the results are to be forwarded onto the relevant DGH.
- Named Midwife to follow up plan of care following consultant review and arrange further scans in Powys if consultant requests this.
- Recommendation made by Powys Midwife to the client to birth in DGH if Polyhydramnios or the EFW is plotting above the 97<sup>th</sup> centile on the customized growth chart (discussing and recording the benefits and risks with the client and in the All Wales Handheld

Record). If a client wishes to birth in Powys following discussion and review in DGH, Clinical Information Sharing (CIS) (MAT079) to be put in place and shared with all Powys Midwives, DGH, and hardcopy filed in All Wales Handheld Records.

## **7 Non-Medical Referrer**

PTHB's Non-Medical Referrer Training program for midwives fully complies with IR(ME)R and associated guidelines, prioritizing patient safety. Completion of the training empowers midwives to safely refer for ultrasound scans, understanding their responsibilities in justification, optimization, and protective measures. Collaborating with regulatory bodies and experts, PTHB ensures ongoing compliance and evaluation to uphold IRMER principles.

The program involves attending the NMR US course, a half-day in a US department, E-Learning for health modules (details below) and completion of the NMR application form. Once requirements are met, the radiology department grants the entitlement to refer for ultrasound scans. The entitlement is valid for 2 years, requiring completion of an annual update course for renewal. Annual reviews and audits conducted by referring midwives lead to the issuance of an annual entitlement. In case of non-compliance, the radiology department can withdraw the entitlement, ensuring continued adherence to standards.

PTHB's comprehensive process guarantees compliance, quality assurance, and ongoing training to enable midwives to refer for ultrasound scans safely.

Details of e- Learning modules 1-4

Course title: Ultrasound: Introduction to Obstetric Ultrasound and Early Pregnancy

## **8 Monitoring Compliance, Audit & Review**

- Compliance will be monitored by the Datix system of reporting, and any issues raised during training days.
- Image reviews will be conducted if incidents occur relating to this guideline.
- Governance Audit and Datix system.
- This document will be reviewed every three years or earlier should audit results or changes to legislation / practice within PTHB indicate otherwise.

## 9 References / Bibliography

- Karkhanis P and Patni S (2014) Polyhydramnios in singleton pregnancies: perinatal outcomes and management. TOG Volume 16, Number 3: 207-213
- The Obstetrician & Gynecologist (TOG) 2010 TOG release: Management of large babies in non-diabetic women, Aye SS, Miller V, Saxena S, Farhan M. Management of large-for-gestational-age pregnancy in non-diabetic women. The Obstetrician & Gynecologist 2010; 12:250-256.
- NICE August 2021 Antenatal Care NG201
- PTHB MAT030: All Wales Midwife Led Care Guidelines
- PTHB MAT086: Strategy for the diagnosis and management of gestational diabetes
- PTHB MAT079: Informed choice, personalised care and the care of the woman making choice outside of recommended guidelines.
- [Polyhydramnios \(isuog.org\)](http://www.isuog.org)
- <http://www.antenatalscreening.wales.nhs.uk/professional/ultrasound>
- [Ionising Radiation \(Medical Exposure\) Regulations \(IR\(ME\)R\) - Care Quality Commission \(cqc.org.uk\)](http://www.cqc.org.uk)

## Appendix A

### Ultrasound Scan Request Form.



For DAU feedback

Addressograph

#### Midwifery Ultrasound Request

Lead professional: .....

Contact Number: .....

BMI: ..... Interpreter Required: Y / N

MLC / CLC

Relevant Clinical Details - LMP -----/-----/-----

Smoker  Diabetic  IVF  EDD from IVF -----/-----/----- Allergies Y / N .....

**Assisted Reproduction:**

Harvest Date -----/-----/----- Transfer Date -----/-----/----- Donor age at harvest .....

NMR Number.....

Referred by: Sign ..... Print ..... Date: .....

| Dating Scan | Combined Screening | Anomaly scan | Growth Scan | Serial scans | Presentation |
|-------------|--------------------|--------------|-------------|--------------|--------------|
|             |                    |              |             |              |              |

Counselled and consented to:- Please tick as appropriate

#### FOR DAU USE

Dating scan Appointment :

..... / ..... /.....

Time.....

Letter Sent:

Letter given at dating appointment

**Anomaly Scan** EDD-----/-----/----- Appointment -----/-----/----- Time -----

**Growth Serial Scans, gestation and appointment** .....

.....  
 .....  
 .....

Version 3 updated on 23/06/2021

[NEW Universal ultrasound referral form version 3 \(3\).pdf](#)