Guidelines for Management of Ovarian Cysts Found During Pregnancy

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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	16/04/2024

Key Individuals/Groups Involved in Developing this Document

Role / Designation
Governance Leads, Assistant Head of Midwifery, Consultant Midwife

Circulated to the following for Consultation

Date	Role / Designation
11/12/2023	Powys Midwives
11/12/2023	Head of Radiology
11/12/2023	Members of the women and children's guidelines group
11/12/2023	Midwife sonographers
11/12/2023	Ultrasound Governance Leads
11/12/2023	Maternity support workers - DAU

Groups Approved at

Date	Group
03.01.2024	Maternity guidelines Group
22/1/2024	Heads of radiology group
15.01.2024	Women and Children's policies and procedures group

Evidence Base

- National Institute of Clinical Excellence (2016)
- Royal College of Obstetrics and Gynecology – Green top Guidelines No. 5,21, 62,
- Nursing and Midwifery Council (2018) The Code – Professional Standards of practice and behavior for nurses and midwives.

Impact Assessments

Equality Impact Assessment Summary					
	No impact	**Adverse**	**Differential**	**Positive**	**Statement** Please remember policy documents are published to both the **intranet** and **internet.** The version on the internet must be translated to Welsh.
Age	X				
Disability	X				
Gender reassignment	X				
Pregnancy and maternity	X				
Race	X				
Religion/ Belief	X				
Sex	X				
Sexual Orientation	X				
Marriage and civil partnership	X				
Welsh Language	X				
Human Rights	X				

Risk Assessment Summary
Have you identified any risks arising from the implementation of this policy / procedure / written control document? None identified
Have you identified any Information Governance issues arising from the implementation of this policy / procedure / written control document? As above
Have you identified any training and / or resource implications as a result of implementing this? None identified

1 Policy Statement / Introduction

Routine sonographic assessment of women in early pregnancy for the purposes of dating, viability and determination of the number of fetuses, as well as the measurement of nuchal fold thickness, has led to an increase in the diagnosis of adnexal masses. Before the routine use of obstetric ultrasound, adnexal masses were only discovered on abdominal or pelvic examination. These masses are now reported in up to 4% of all pregnant women.

The majority of ovarian cysts in pregnancy either resolve spontaneously or are due to benign conditions.

Ovarian cancer is extremely rare in women of childbearing age and thus most of these cysts can be managed conservatively. If there is a suspicion of malignancy or there is a significant cyst complication, such as torsion, and surgery is planned, this should take place during the second trimester to minimise the risk of miscarriage.

The majority of adnexal masses are ovarian in origin, but can also be due to paratubal cysts, chronic fallopian tube disease (hydrosalpinges) and fibroids that appear to be extrauterine. Fibroids that are pedunculated or located in the broad ligament are sometimes seen as separate from the uterus and thus reported as adnexal masses.

'Malignant tumours vary in size but 75% of them are larger than 5 cm in diameter and most of these have solid, as well as cystic, elements on ultrasound evaluation.

2 Objective

The purpose of this SOP is to guide ultrasound staff as to how to proceed when adnexal pathology is picked up during routine obstetric ultrasounds in asymptomatic and symptomatic women.

3 Definitions

- **PTHB** – Powys Teaching Health Board
- **DAU**- Day assessment unit
- **DGH**- District General hospital
- **USS**- Ultrasound scan
- **FMU-** Fetal Medicine Unit
- **W & C** Women's and Children's
- **SOP-** Standard Operating Procedure
- **MSW-** Maternity Support Worker

4 Responsibilities

4.1 Governance and Training Lead

- To ensure all Practitioners are complying to best practice
- Ensure staff have access to relevant training and remain compliant through audit
- Supply Preceptorship
- Be accountable for staff training and for Governance.
- Provide support and leadership
- Advise on DATIX submissions

4.2 Head of Midwifery and Sexual Health

The Head of the Department must:

- Ensure all staff read and understand this procedure
- Arrange regular review to monitor compliance with this procedure

4.3 Assistant Head of Midwifery and sexual health

The Assistant Head of Midwifery has responsibility for:

- Overseeing compliance with training and service development
- Provide leadership and support
- Overseeing the day to day running of the service
- Ensure all staff members act in accordance to NMC code of conduct
- Be accountable for DAU
- Arranging yearly mandatory update training
- Overseeing and dealing with the service, provision, developments and issues

4.4 Sonographer Midwife / Sonographer

- The sonographer must comply with the NMC /HCPC depending on scope of practice, and maintain a professional registration in Midwifery, Sonography or both.

- The scans must be reported on the RIS 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).
- It is the Sonographers role to ensure follow on pathways of care are in place post scan.

5. Management of Ovarian Cysts in Pregnancy

Management in pregnancy depends on the size of the adnexal mass, its sonographic appearance (**Appendix A**) and any associated clinical symptoms, although the majority of women are likely to be asymptomatic.

Simple cysts that are less than 5 cm in diameter do not need further evaluation (*Ref :- RCOG – Green Top Guideline No.62 and Review of Management of Adnexal Masses in Pregnancy www.rcog.org.uk)* and rescanning is only required if there is a clinical indication, such as pelvic pain. The majority of simple cysts resolve spontaneously during the course of pregnancy and women should be reassured as such. **(Appendix B)**

Cysts that have a complex nature, i.e. solid and cystic elements, need further evaluation irrespective of size. Further ultrasound assessment should take place after a 4-week interval to determine whether the cyst is becoming larger. Due to the nature of our community service this is best undertaken within a DGH setting.

Adnexal masses that undergo torsion are usually Dermoid or Cystadenomas. If this complication occurs, it does so during the first trimester or in the immediate puerperium (up to 14 days after
delivery).

Ovarian Dermoid that measure less than 6 cm are unlikely to grow significantly in pregnancy and can be managed conservatively as the risk of complications, such as torsion, is thought to be low.
The woman should be rescanned in the postnatal period to determine further management of any ovarian Dermoid that has not resolved spontaneously.

Persistent, simple, unilocular cysts without any solid elements that are larger than 10 cm can be aspirated either transvaginal or abdominally under ultrasound guidance using a fine needle and will need to be referred directly to a DGH for Consultant review.
This procedure is only indicated if the cyst is causing pain or thought

to be increasing the risks of fetal malpresentation or obstructed labour due to its location in the pelvis. Although not commonly employed, this technique seems to be a reasonable alternative to surgery in suitable women and appears to be well tolerated and without short or long-term complications

6. Classification and Ultrasound Characteristics

Please review Appendix **C**

7. Reporting

The RIS report should include: -

- A full obstetric report depending on the trimester including all relevant information about the wellbeing of the baby. (please review 1st, 2nd and 3rd trimester scan protocols)
- The location, size and ultrasound characteristics of the adnexal pathology should be documented.
- Labelled supportive images must be stored.
- If increased colour flow is present this should also be reported.

8. Clinical Pathway, Post Classification of Adnexal Pathology

Please see Appendix C

9. Referral for Adnexal Pathology (Appendix c)

The referral will be made by the Sonographer once the obstetric scan has been completed with the help of the MSWs. If the cysts is simple, a letter will be sent out with an appointment time and date for a rescan. Reference will be made in the personal handheld maternity notes to this effect.
If the woman has already triggered serial growth scans at her booking-in assessment, then the serial scans can be used to follow up reported pathology. **(Appendix A and C)**
It is imperative that the Community Midwife is kept informed via a copy of the ultrasound report and documentation in the handheld maternity notes, in case of pelvic pain.
If the cyst is complex a DGH referral will be made.

9.1 Summary of referral process

On identifying a simple adnexal cyst, the Sonographer will either: -

1. Ask for review at the 20-week scan (if identified during the dating scan)
2. Make a referral to the DGH – ANC (antenatal clinic) team depending on size and ultrasound characteristics and women's wellbeing e.g., pain

On identifying a complex cyst, the Sonographer will

1. Directly refer to the woman to her referral DGH- ANC team for consultant review. With supporting images and report.

10. Monitoring Compliance, Audit & Review

This document will be reviewed every three years or earlier should audit results or changes to legislation / practice within PTHB indicate otherwise.

Any adverse incidents related to this guideline will be reported via Datix and reviewed by the ultrasound governance lead.

11. References / Bibliography

1. National Institute of Health and Care Excellence (2021) Antenatal Care Clinical Guideline. NG201. London: NICE Overview | Antenatal care | Guidance | NICE

2. Management of suspected Ovarian Mass in Premenopausal Ladies – RCOG – Green TOP No. 62 www.rcog.org.uk

3. Nursing and Midwifery Council (2018) The Code – Professional Standards of practice and behaviour for nurses and midwives. www.nmc-uk.org

4. Diagnosis and Management of Ectopic Pregnancy (Green-top Guideline No. 21)published: 04/11/2016 www.rcog.org.uk

5. Management of Hyperstimulation Syndrom – RCOG – Green top No. 5 – 26/02/2017 www.rcog.org.uk

6. Management of adnexal masses in pregnancy 2017 - https://doi.org/10.1111/tog.12417

7. Diagnosis and Management of Adnexal Masses in Pregnancy https://doi.org/10.4103%2F2006-8808.110249

Appendix A

Ultrasound appearances of adnexal pathology

Pathology	Ultrasound appearance
Simple ovarian cysts	Unilocular, thin-walled, anechoic
Haemorrhagic cysts	Anechoic with echogenic material within cyst
Hyperstimulated ovaries	Massively enlarged, thin-walled, multilocular cysts
Teratoma / Dermoid	Complex mass with solid and cystic areas due to presence of fat, bone, sebaceous material and hair
Endometrioma	Diffuse 'ground glass' pattern due to presence of old blood ('chocolate') within the cyst
Malignant/ borderline ovarian tumour	Complex, multi-septate mass with solid and cystic areas Papillary projections or mural nodules Ascites may be present Appearance may be bilateral in up to 25% of cases
Hydrosalpinx	Tubular-shaped structure with anechoic content and incomplete septum of tubal wall Always stays the same size during pregnancy
Leiomyoma	Hypoechoic, round, solid masses Cystic change may occur if degeneration develops

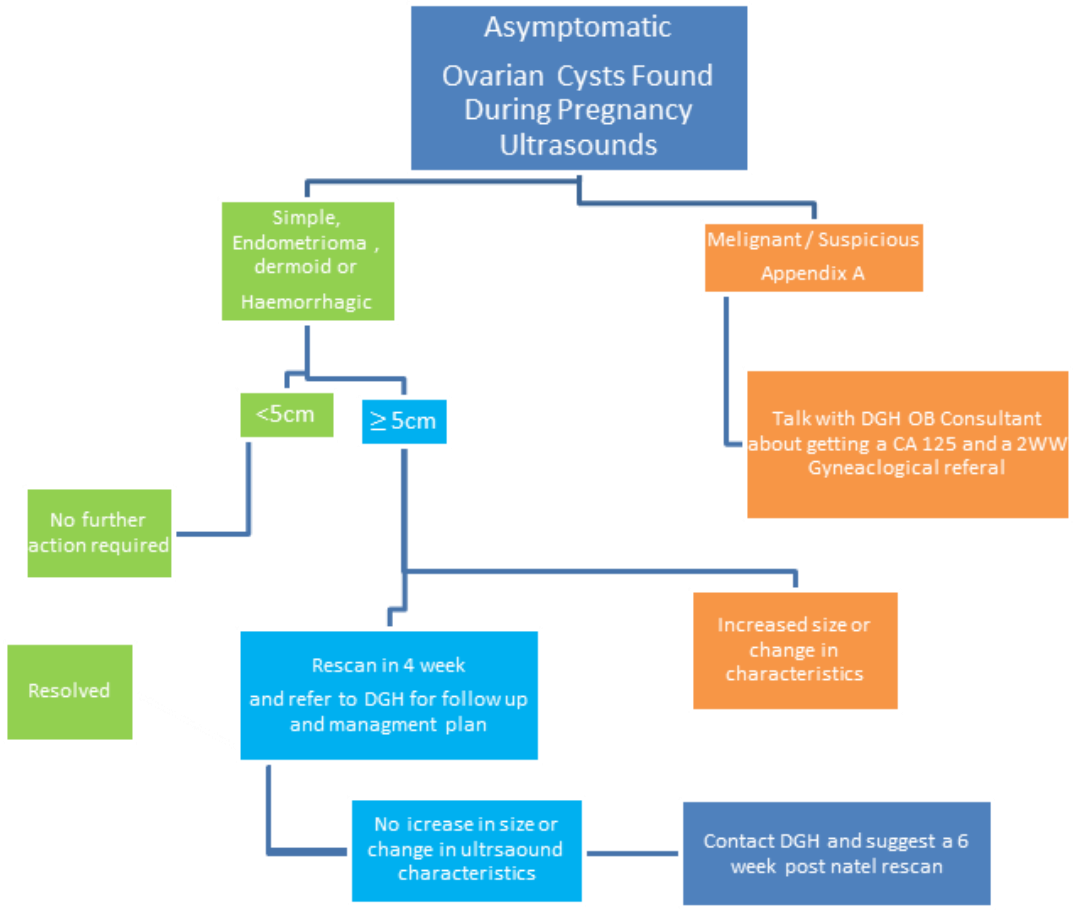
Appendix B

Common ovarian Cysts in pregnancy and resolution rates

Type of Cyst	Resolution rate %
Simple Ovarian Cysts (Follicle, Corpus Luteal)	90–100% if <5 cm in Diameter > 5cm in diameter need gynae referral
Hemorrhagic Cyst	90–100%
Hyperstimulated Ovaries	>90%

Appendix C

Clinical pathway for adnexal masses in pregnancy



Healthcare professionals are expected to consider this when exercising their clinical judgment. Based on NICE and RCOG guidelines after consideration of the evidence available. The guidance does not however override the individual responsibility of the healthcare professional to make decisions appropriate to the circumstances of the individual Patient

****Symptomatic Ladies: - Any ladies presenting with clinical symptoms such as pain, pressure, torsion must be directly referred to the DGH**