

# HYWEL DDA UNIVERSITY HEALTH BOARD



## Echogenic Bowel (isolated) Guideline

|                   |               |   |                |                   |              |
|-------------------|---------------|---|----------------|-------------------|--------------|
| Guideline Number: | 989           | Supersedes:                                   |                | Classification    | Clinical     |
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|----------------------------|--|
| Brief Summary of Document: | To appropriately manage the care of the woman following the discovery of Echogenic Bowel (isolated) in the fetus.  |
| Scope                      | Healthcare professionals involved in the care of women identified with fetal echogenic bowel with the absence of any other identified structural abnormality (isolated). |

|                                 |   |
|---------------------------------|---|
| To be read in conjunction with: |   |
| Patient Information             | Information for women whose fetal anomaly scan has shown that their baby has isolated echogenic bowel.<br><a href="http://www.antenatalscreening.wales.nhs.uk/sitesplus/documents/968/Info%20for%20women%20Echogenic%20Bowel%20English%20April%202020.pdf">http://www.antenatalscreening.wales.nhs.uk/sitesplus/documents/968/Info%20for%20women%20Echogenic%20Bowel%20English%20April%202020.pdf</a> |
| Owning committee/group          | Obstetric Guideline, Audit and Research Group   |

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| Reviews and updates |               |                |
|---------------------|---------------|----------------|
| Version no:         |               | Date Approved: |
| 1                   | New Guideline | 12/02/2021     |

|          |                                 |
|----------|---------------------------------|
| Keywords | Echogenic bowel, echogenic gut. |
|----------|---------------------------------|

| Glossary of Terms |                                  |
|-------------------|----------------------------------|
| AWS               | Antenatal Screening Wales        |
| AFI               | Amniotic fluid index             |
| CLC               | Consultant-led care              |
| CF                | Cystic fibrosis                  |
| CMV               | Cytomegalovirus                  |
| FMU               | Fetal medicine unit              |
| IUGR              | Inter-uterine growth restriction |
| TAS               | Trans-abdominal scan             |

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## 1. INTRODUCTION

This guideline is for women where only echogenic bowel is identified on scan in the absence of any other identified structural abnormality (isolated).

## 2. DEFINITION

Echogenic bowel is where a part of the fetal bowel appears 'brighter than bone' on ultrasound scan. It is thought to be identified in approximately 0.4% (4 in 1000) of anomaly scans performed in Wales (Antenatal Screening Wales, 2018).

## 3. OBJECTIVES

For healthcare professionals to appropriately manage the care of women identified with fetal echogenic bowel with the absence of any other identified structural abnormality (isolated) following accurate diagnosis from ultrasound imaging undertaken in accordance with the All Wales Screening Policy

<http://www.antenatalscreening.wales.nhs.uk/sitesplus/documents/989/Ultrasound%20observations.pdf>.

Those women identified with echogenic bowel (isolated) should have appropriate Consultant-led care throughout their pregnancy and for delivery and the care of the neonate to be appropriately managed with paediatric input following birth.

## 4. RISK FACTORS FOR ECHOGENIC BOWEL (isolated)

Echogenic bowel is found in approximately 4 in every 1000 (0.4%) anomaly scans performed in Wales.

The exact cause is unknown however, it is thought that the most common cause is bloodstained fluid in the fetal bowel; the fetus normally swallows amniotic fluid and if it contains blood this will appear brighter on ultrasound (ASW, 2018).

Echogenic bowel has also been linked with cystic fibrosis, viral infections and chromosomal abnormalities.

## 5. ASSOCIATED CONDITIONS

Approximately 70% of babies who have been identified as having isolated echogenic bowel at the anomaly ultrasound scan are born without any problems however, the following problems have been identified in some cases of babies with echogenic bowel.

IUGR – 9%

Prematurity – 12%

Increased risk of stillbirth – 3%

Cystic Fibrosis – 2%

Cytomegalovirus (CMV) – 2%

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## 6. INVESTIGATIONS

Both maternal and paternal testing for cystic fibrosis (CF) should be offered as this can be indicated in instances of echogenic bowel. CF testing is done via the genetics laboratory in Cardiff and a genetics referral for testing should be completed by the antenatal clinic midwife/obstetrician when echogenic bowel is identified. Should both parents test positive for CF then an urgent referral to medical genetics and consultant appointment is required.

Maternal testing for cytomegalovirus (CMV) testing is also advised, this is to rule out maternal infection which can be transmitted to the fetus resulting in congenital cytomegalovirus. If positive for CMV then a referral to fetal medicine is required.

Amniocentesis should however be considered if any of the preliminary tests are positive.

It is useful to note that chromosomal abnormalities can be linked to echogenic bowel however there is not enough evidence to routinely karyotype for echogenic bowel.

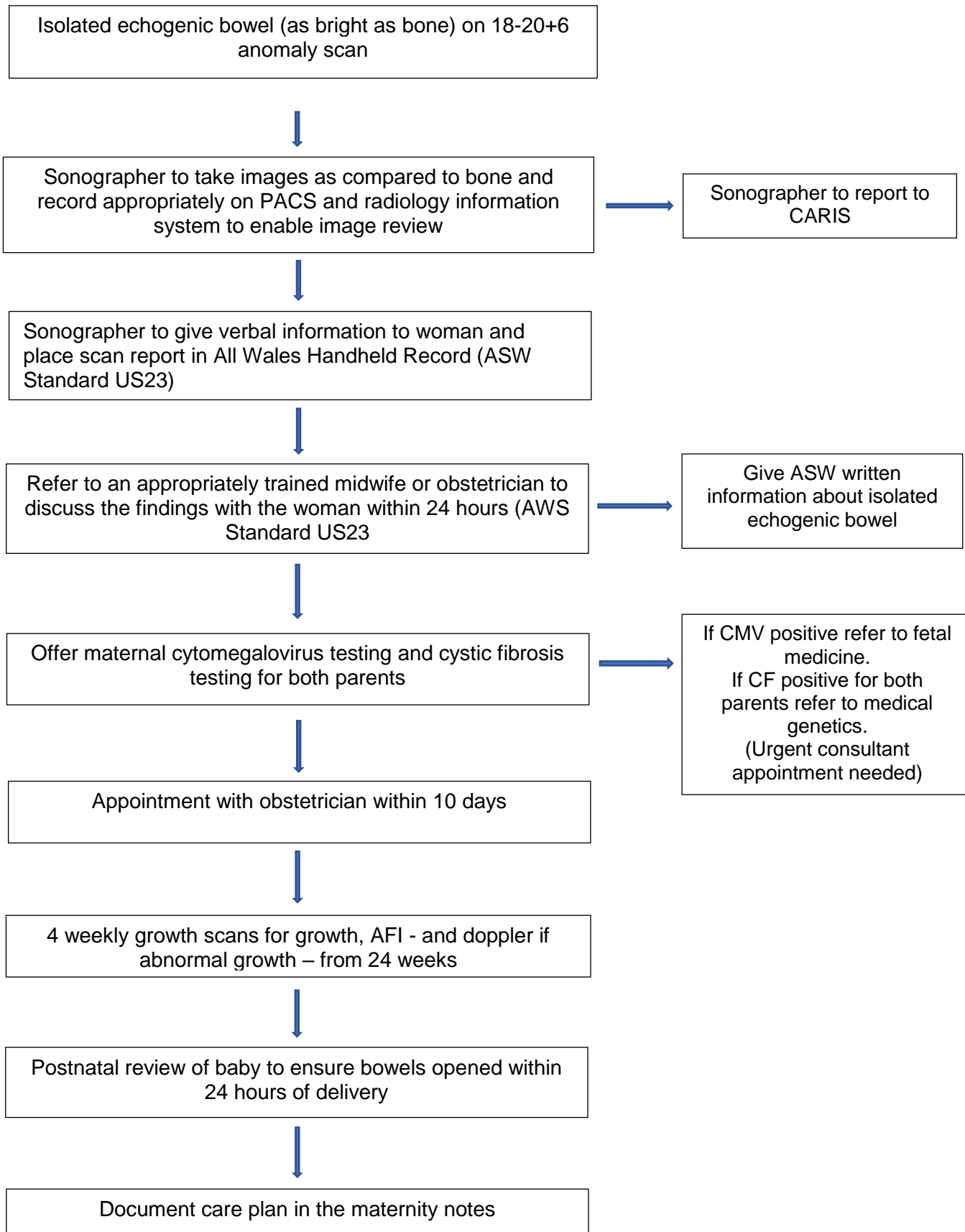
## 7. PATIENT INFORMATION

English <https://phw.nhs.wales/services-and-teams/screening/antenatal-screening-wales/what-do-results-mean/ultrasound-docs/echogenic-bowel/>

Welsh <https://icc.gig.cymru/gwasanaethau-a-thimau/sgrinio/sgrinio-cyn-geni-cymru/beth-yw-ystyr-y-canlyniadau/pdfs-tudalen-canlyniadau/goluddyn-ecogenig/>

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## 8. ANTENATAL SCREENING WALES CARE PATHWAY FLOW CHART



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## 9. AUDITABLE STANDARDS

1. Evidence of two separate ultrasound images from the anomaly scan stored on system showing both the fetal bowel and bone to compare echogenicity.
2. Evidence of appropriate referral to an obstetric consultant within the given timeframe.
3. Evidence of screening/ the offer of screening to parents for cytomegalovirus and cystic fibrosis.
4. Evidence of serial growth scans from 24 weeks gestation.
5. Evidence of appropriate referral to UHW fetal medicine unit if required.

## REFERENCES

Public Health Wales, 2018. Ultrasound Observations Pathways: isolated echogenic bowel, isolated renal pelvis dilatation and isolated ventriculomegaly available at <https://phw.nhs.wales/services-and-teams/screening/antenatal-screening-wales/information-for-professionals/ultrasound/ultrasound-observations/>