Echogenic Bowel (MATY087)	
Type: Guideline	HDSS Certification Standard:
Issued by: Maternity PPG Group	**Version:** 1.2
Applicable to: Hutt Valley DHB	**Contact person:** O&G SMO
Lead DHB: Hutt Valley DHB	**Level:**

Hutt Maternity Policies provide guidance for the midwives and medical staff working in Hutt Maternity Services. Please discuss policies relevant to your care with your Lead Maternity Carer.

Purpose:

To provide guidance for the clinical management of pregnant people when echogenic fetal bowel is detected on anatomy scan.

Scope:

For the purposes of this document, staff will refer to:

All staff within Hutt Valley DHB. This includes staff not working in direct contact with patients/consumers. Staff are taken to include anyone engaged in working to the Hutt Valley DHB. This may include but is not limited to:

- Employees irrespective of their length of service
- Agency workers
- Self-employed workers
- Volunteers
- Consultants
- Third party service providers, and any other individual or suppliers working in Hutt Maternity, including Lead Maternity Carers, personnel affiliated with third parties, contractors, temporary workers and volunteers
- Students

Definitions:

Fetal bowel with homogeneous areas of echogenicity equal to or greater than that of surrounding bone on anatomy scan (16-20 weeks). In the third trimester fetal bowel is usually echogenic, so its detection is not clinically significant.

CF Cystic fibrosis

CMV Cytomegalovirus

FGR Fetal growth restriction

IUFD Intrauterine fetal demise

PCR Polymerase chain reaction

TORCH Toxoplasmosis, Other, Rubella, CMV, Herpes simplex screen

Causes

- Normal variant (resolves without sequelae)
- Up to 35% may have underlying pathology (many cases not an isolated finding)
    - Chromosomal abnormality (most commonly trisomy 21)
    - Cystic fibrosis (2-3%)
    - Fetus swallowing intra-amniotic blood
    - Congenital bowel malformations (e.g. atresia, perforation, meconium peritonitis, Hirschsprung's disease)
        - FGR (due to mesenteric ischaemic, poor prognosis)
        - Fetal infections (CMV, Toxoplasmosis)
        - Other: fetal alcohol syndrome, alpha thalassaemia

Management

History

- Bleeding, trauma
- Recent infection, travel, alcohol
- Past obstetric history and any anomalies
- Family history of cystic fibrosis, aneuploidy, syndromes
- *A priori* risk (calculated risk) for aneuploidy (i.e. 5.5 x for Trisomy 21)

Investigation

- MFM consultation and tertiary anatomy scan may be recommended (MFM Referral)
- Maternal blood: TORCH screen, cystic fibrosis (CF) screen
- Paternal blood: CF screen (if woman positive)
- Amniocentesis: fetal karyotype; PCR for CMV / Toxoplasmosis if woman positive; DNA analysis for cystic fibrosis if either parent positive

Management

- Consultation recommended with Maternal Fetal Medicine (MFM Referral)
- Review in Obstetric Paediatric Combined Multidisciplinary Meeting recommended
- Individual management will depend upon the cause
- If no cause found, for serial growth scans at 28, 32, 36, 40 weeks (and plot on customised growth chart) as increased risk of FGR
- Consider induction of labour at 40 weeks

Prognosis

Most commonly echogenic bowel spontaneously resolves (still requires investigation however), and if it does the outlook is good.

Poor prognosis if associated with FGR: there is an increased risk of IUFD and adverse perinatal morbidity and mortality.

References:

- Martin J Whittle. Abdomen. In Fetal Medicine, basic science and clinical practice. Charles H Rodeck, Martin J Whittle (eds) pp 447-458.Churchill Livingstone. Second edition.
- NZMFM network: Guidelines on fetal echogenic bowel. (click here)

Keywords for searching:

1. Echogenic Bowel

2. MATY087

3. Fetal

Informed Consent

The right of a consumer to make an informed choice and give informed consent, including the right to refuse medical treatment, is enshrined in law and in the Code of Health and Disability Consumers' Rights in New Zealand. This means that a woman can choose to decline treatment, referral to another practitioner, or transfer of clinical responsibility. If this occurs follow the process map on page 18 of the Referral Guidelines (Ministry of Health, 2012).

Tangata Whenua Statement

The Women's Health Service recognises the rights and responsibilities of Māori as tangata whenua and Treaty Partners. This allows and acknowledges the importance of cultural diversity in all aspects of our care and practice in Aotearoa New Zealand.

As stated in Te Pae Amorangi (Hutt Valley DHB Māori Health Strategy) 2018-2027, Hutt DHB as a Crown agency is committed to our role in maintaining active relationships with iwi, under Te Tiriti o Waitangi. This strategy recognises the established principles of Partnership, Participation and Protection and recognises steps towards the reviewed interpretation of Te Tiriti principles to date (from the Wai 2575 claim into health). These are tino rangatiratanga, equity, active protection, partnership and options.

Attention in particular is drawn to:

- **Article one – Kāwanatanga**: actively engaging and working alongside with local iwi through the Hutt Valley Māori Health Unit
- **Article two – Tino Rangatiratanga**: Self-autonomy, self-determination; the responsibility to enable Māori to exercise their authority over their own health, determinants and definition of health
- **Article three – Ōritetanga**: equal health outcomes of peoples; ensuring that policy, guidelines or programmes do not further perpetuate any inequity
- **Article four (the 'oral clause') – Wairuatanga**: spirituality; thriving as Māori and the importance of health providers understanding health in te ao Māori (the Māori world), acknowledging the interconnectedness and inter-relationship of all living and non-living things.