Fetal Ventriculomegaly	
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 to the clinician regarding basic workup of a case of fetal ventriculomegaly diagnosed on antenatal scans.

Scope:

- All obstetric and midwifery staff employed by Hutt Valley DHB
- All Hutt Valley DHB maternity access agreement holders
- Paediatric team and Special Care Baby Unit staff
- Radiologists and ultrasonographers employed by Hutt Valley DHB
- Radiologists and ultrasonographers working in at community ultrasound providers

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:

Dilatation of the lateral cerebral ventricles of the fetus above the normal cut off (10 mm). The lateral ventricle is measured at the widest part in the posterior horn called atrium.

AP (anteroposterior) diameter is used.

Acronyms:

- **CNS** Central nervous system
- **CMV** Cytomegalovirus infection

- **MRI** Magnetic resonance imaging
- **PCR** Polymerase chain reaction
- **TORCH** Toxoplasma, Other, Rubella, CMV, Herpes simplex screen

Fetal ventriculomegaly

Grades of Ventriculomegaly

Grade	Ventricle AP measurement
Normal	< 10.0mm
Mild	10.0 – 11.9mm
Moderate	12.0 – 14.9mm
Severe	≥ 15.0mm

Causes

- Idiopathic
- Chromosomal abnormalities (esp. trisomy 21): 5-17%
- Genetic syndrome
- Fetal CNS infections
- Abnormal neuroanatomy e.g. absent corpus callosum
- Cerebral haemorrhage

Investigation & Management

History

- Viral / bacterial illness
- Past obstetric history and any anomalies or neonatal thrombocytopenia
- Any family history of note, in particular aneuploidy or genetic syndromes
- Consanguinity

Blood tests

- TORCH (CMV, Toxoplasmosis, Rubella, Herpes simplex) screen
- Anti-platelet antibodies

Consider amniocentesis

- Karyotype
- PCR for CMV and toxoplasmosis (if maternal blood test positive)

Refer to maternal fetal medicine (MFM) at Wellington Hospital

Prognosis

- Depends on underlying aetiology
- If isolated and upon exclusion of other causes:
    - Mild ventriculomegaly: 5% require extra assistance at school

- Moderate ventriculomegaly: 14% some degree of intellectual disability
- Severe ventriculomegaly: 48% intellectual disability

Mode of birth

Most babies with ventriculomegaly have a normal head circumference (HC) and thus there is no increased risk of cephalopelvic disproportionation (CPD).

Vaginal birth is safe.

Caesarean birth is for standard obstetric indications.

References:

Gustavo Malinger, Gianluigi Pilu. Sonography of the fetal central nervous system. In Fetal Medicine, basic science and clinical practice. Charles H Rodeck, Martin J Whittle (eds). Pp 387-407. Churchill Livingstone, Second edition.

New Zealand Maternal Fetal Medicine Network guideline: Fetal ventriculomegaly. May 2010. doi

Keywords for searching:

1. Fetal
2. Cerebral
3. Ventriculomegaly
4. MATY092

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.