OBSTETRICS AND GYNAECOLOGY
CLINICAL PRACTICE GUIDELINE

Decreased fetal movements

Scope (Staff):	WNHS Obstetrics and Gynaecology Directorate staff
Scope (Area):	Obstetrics and Gynaecology Directorate clinical areas at KEMH, OPH, Community Midwifery Program and Midwifery Group Practice

This document should be read in conjunction with this Disclaimer

Aim

To guide the appropriate management of a singleton pregnancy with perceived decreased fetal movements (DFM).

Key points

1. All women with DFM should be assessed for risk factors for stillbirth.[2]
2. All women who report a concern about fetal movements should undergo immediate assessment. Presentation should not be delayed through efforts to stimulate the baby by food or drink.[2]
3. Maternal concern about perceived reduction in fetal movements is more important than any definition of DFM based on movement counting.[2]

<28 weeks:

If < 28 weeks, listening to the fetal heart with a handheld Doppler should be performed to exclude fetal death.[1] Assess the maternal pulse, noting if same or different.[2] If no fetal heart, perform a bedside ultrasound scan (USS) (by an appropriately credentialled practitioner), for fetal cardiac activity[2]. Complete a full antenatal assessment including symphysis fundal height if over 24 weeks and risk factors for adverse outcomes as detailed in ≥28 week flow chart. If first episode of DFM and now happy with movements and no risk factors for adverse outcomes and clinical assessment does not suggest fetal growth restriction - reassure and discharge. If these criteria not fulfilled, perform bedside scan by credentialed clinician for assessment of liquor and arrange formal growth scan within 2 days assuming has not had a growth scan within last 2 weeks. If has had a growth scan within 2 weeks then seek senior review for ongoing monitoring plan.

≥ 28+0 weeks

Decreased fetal movements in singleton pregnancies over 28^{+0} weeks gestation- **See flowchart on next page and guideline to follow.**

Decreased Fetal Movement (DFM) Care Pathway

for women with singleton pregnancies from 28+0 weeks' gestation

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INITIAL RESPONSE

- All women who report a concern about fetal movements should undergo immediate assessment.
- Presentation should not be delayed through efforts to stimulate the baby by food or drink.

CLINICAL ASSESSMENT

- Listen to fetal heart to exclude fetal death.
- Conduct a full antenatal assessment with addition of cardiotocograph (CTG).
- Review clinical history and fetal movement history for risk factors for adverse outcome (see table).

→ **If no fetal heart heard:**

- Seek urgent obstetric review
- Confirm fetal death with ultrasound
- Manage as per Clinical Practice Guidelines for Care Around Stillbirth and Neonatal Death https://bit.ly/2WzoSnF

→ Medical consultation is required in the presence of any concerning findings including pre-existing medical conditions.

CARDIOTOCOGRAPHY (CTG)

- Interpretation of antenatal CTG tracings should be in accordance with local guidelines.
- No further investigations are required for women if:
  (1) normal CTG and clinical assessment; and
  (2) first presentation for DFM; and
  (3) maternal perception of normal fetal movement resumes during assessment.

→ If CTG findings are abnormal, seek urgent obstetric review.

FURTHER INVESTIGATION

- Ultrasound scan should be offered if:
  (1) clinical assessment suggests fetal growth restriction (FGR); or
  (2) maternally perceived fetal movements remain decreased during CTG; or
  (3) there are other anomolies in the clinical assessment, and there has been no ultrasound in the last 2 weeks.
- Ultrasound assessment should include fetal biometry, estimated fetal weight, and amniotic fluid volume.
- If not already assessed, and the woman agrees, a fetal morphology scan should be arranged
- If fetomaternal haemorrhage (FHM) is suspected, and immediate birth is not indicated by CTG findings, senior obstetric input should be sought.

→ If ultrasound findings are abnormal or FMH is suspected, seek obstetric review.

MANAGEMENT FOLLOWING ASSESSMENT

- Manage FGR or other abnormal findings according to existing clinical guidelines.
- If there is no objective evidence of fetal compromise revealed during clinical assessment, the woman can be reassured that planned birth is not required.
- The woman should be reassured that she did the right thing and not to hesitate to report any further concerns of DFM to her care provider.
- Women who present multiple times for DFM are at increased risk of adverse outcomes and should have ultrasound assessment as part of subsequent investigations.

Risk factors for adverse outcome in presentation with DFM

- Abnormal CTG
- Maternal age >35 years
- Cigarette smoking
- Overweight and obesity
- Recurrent presentation for DFM
- Previous stillbirth or SGA
- Pre-existing diabetes or hypertension
- Symphysis-fundal height <10th centile
- Raised uterine atery PI in the 2nd trimester
- Delayed presentation (>24 hrs without movement)

*If women have a concern of DFM prior to 28 weeks' gestation, they should be advised to contact their care provider. There is currently insufficient evidence to inform the management of women who report DFM prior to 28 weeks' gestation.

Disclaimer: This DFM Care Pathway is for general guidance only and is subject to a clinician's expert judgement. The DFM Care Pathway should not be relied on as a substitute for clinical advice.

Safer Baby Bundle
WORKING TOGETHER TO REDUCE STILLBIRTH

The Safer Baby Bundle resources are based on five key areas to support healthcare professionals with new strategies to help reduce stillbirths.

- Smoking Cessation #Quit4Baby
- Fetal Growth Restriction (FGR) #GrowingMatters
- Decreased Fetal Movements (DFM) #MovementsMatter
- Side Sleeping #SleepOnSide
- Timing of Birth #LetsTalkTiming

For more information see the DFM Clinical Practice Guideline

Version 2.0, updated October 2022

Acknowledgement: Used with permission. Stillbirth Centre of Research Excellence, Safer Baby Bundle. v2. (2022). DFM-Management-Pathway.pdf (stillbirthcre.org.au).

Note: When USS applicable: If there has been a formal USS in the last 2 weeks, a bedside USS (including MVP) is acceptable if the CTG and assessment was normal

Clinical assessment ≥28^{+0} weeks

- History of fetal movements – including when fetal movements last felt, any previous presentations for DFM, any changes in strength or frequency,.[2]
- Conduct a full antenatal examination with addition of cardiotocograph (CTG) (assessing for clinical signs of IUGR, fetomaternal haemorrhage and co-existing conditions (e.g. diabetes, hypertension)).[2]
  - Include maternal observations, urinalysis, blood sugar level (if diabetic, unwell or poor dietary intake), abdominal examination
  - Note if maternal pulse is the same or different to fetal heart rate[2]
- Review clinical history and screen for risk factors for stillbirth – see See Decreased fetal movement (DFM) care pathway in this document.[2] Consider medications (particularly sedating drugs i.e. benzodiazepines, methadone)[1].

Escalation is required in the presence of any concerning findings.

CTG assessment

See WNHS Guideline on Fetal Surveillance: Antepartum Fetal Heart Rate Monitoring for interpretation of antenatal CTG. For management, see DFM care pathway (in this document).

Ultrasound

For when to offer ultrasound and management, see DFM care pathway*

- For women who require an USS according to the DFM care pathway, they should have a bedside USS prior to leaving Maternal Fetal Assessment Unit (MFAU) / Assessment Unit (AU), with assessment of liquor, volume and fetal movements. Formal growth scan should be within 1 week.

*Note: As per the DFM care pathway, patients who have a first presentation of DFM, who have no risk factors, a normal CTG, and are happy with movements, do not need a bedside USS.

Kleihauer test

- Urgent Kleihauer testing (KT) should occur if: DFM with 2 consecutive abnormal CTGs and a quiet fetus on ultrasound
- If fetomaternal haemorrhage is suspected and immediate birth is not indicated by CTG findings, senior obstetric input should be sought.[2]

For other conditions for urgent KT and further details, see WNHS Transfusion Medicine: 'Kleihauer Test for Feto-Maternal Haemorrhage' guideline (section 'Urgent KT').

Further management

See DFM care pathway (in this document)

- Where the DFM pathway indicates no further investigations are required, and no objective evidence of fetal compromise during clinical assessment: Follow 'Management following assessment' in DFM pathway and notify Obstetric Registrar or above, then discharge home with antenatal care continuing with

usual health care provider.

- **If the CTG is abnormal and/or the ultrasound is abnormal** then arrange medical review by the obstetric Registrar or above. Perform a full blood picture, group and hold +/-KT.
- If the woman is planning for a vaginal birth and is ≥39^{+0} weeks, after consultation with the Obstetric Registrar, offer induction of labour (IOL). This may be appropriate in earlier gestations depending on the clinical picture and risk factors for stillbirth. Seek guidance from the Obstetric SR/Consultant.
    - Inform women ≥39 weeks gestation that IOL is not associated with increased rates of caesarean birth or adverse maternal or fetal outcomes.[2]
    - See also WNHS Labour and birth: Planned birth timing and Stillbirth CRE Improving Decision-Making About Timing of Birth for Low-Risk Women at Term (external website, PDF, 1.1MB).
- **If maternal concern of DFM persists despite a normal CTG and normal USS**, discuss with the Obstetric SR/consultant for a plan for surveillance.
- **For women representing with DFM** on a second and subsequent occasion, manage as per initial presentation, with addition of USS (departmental USS for growth if they have not had one in the preceding 2 weeks) and individualised care (as per DFM care pathway).[2]
    - **If there have been ≥3 presentations of DFM within this pregnancy (≥28^{+0} weeks),** notify and discuss with the Obstetric SR/consultant for a plan for surveillance.
- Provide verbal and written information about fetal movements, discussing the patterns that occur – for example, increased movement felt at night.
- For multiple pregnancies or the management of specific conditions identified in the course of care, see WNHS specific guidelines (e.g. small for gestational age (SGA) / intrauterine growth restriction (IUGR), diabetes, hypertension).

Staff education

Online education on the Safer Baby Bundle is available on the WNHS education website (training framework).

Compliance, audit and monitoring

Compliance review of this guideline may incorporate quality improvement audits and Datix Clinical Incident Management System (CIMS) monitoring, with trends or findings escalated to the relevant Obstetrics and Gynaecology Directorate and/or Standard 8 (Acute Deterioration) committee as required. Audit topics may include (but are not limited to):

Percentage of women attending MFAU / AU with DFM over 28^{+0} weeks who:

- had a CTG to exclude fetal compromise
- had an ultrasound offered (as per the criteria in the DFM Pathway)

Additional audits as determined by organisation.

References

1. Royal College of Obstetricians and Gynaecologists. Reduced fetal movements Green-Top Guideline 57 [Internet]. 2011; edited version Feb 2017.
2. Perinatal Society of Australia and New Zealand and Centre of Research Excellence Stillbirth. Clinical practice guideline for the care of women with decreased fetal movements with a singleton pregnancy from 28 weeks' gestation. Brisbane, Australia: Centre of Research Excellence in Stillbirth; 2023. Available from: https://learn.stillbirthcre.org.au/wp-content/uploads/2023/05/DFM_Clinical-Practice-Guideline_V2.5_Mar2023.pdf

Other resources and guidelines

- WNHS Transfusion Medicine protocol: Kleihauer Test and Feto-Maternal Haemorrhage
- Department of Health WA webpage: Safer Baby Bundle (resources for clinicians and consumers)
- Stillbirth Centre of Research Excellence
  - Safer Baby Bundle Working Together to Reduce Stillbirth (external website, PDF, 2.8MB)
  - Translated Resources (external website)

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Version history

Version Number	Date	Summary
1 to 4	Prior to May 2018	Archived- contact OGD Guideline Coordinator for previous versions. Original titled as B.2.15: 'Maternal Fetal Assessment Unit- Quick Reference Guide Decreased Fetal Movements'.
5	May 2018	For a list of changes- see OGD Guideline Updates by month/year of review date
6	May 2025	• All women who report a concern about fetal movements should undergo immediate assessment. Presentation should not be delayed through efforts to stimulate the baby by food or drink. • Reviewed in line with Stillbirth CRE guidelines. Clearer separation of gestations. • If < 28 weeks: ➢ Complete a full antenatal assessment- read new section ➢ If no fetal heart, perform bedside ultrasound for fetal cardiac activity. • If ≥28^{+0} weeks: ➢ Content condensed and now links to DFM Care Pathway from Stillbirth CRE- read pathway; Safer Baby Bundle elements incorporated, and resources added to end of guideline ➢ As per the DFM care pathway: o patients who have a first presentation of DFM, who have no risk factors, a normal CTG, and are happy with movements, do not need an bedside USS o For women representing with DFM on a second and subsequent occasion, manage as per initial presentation, with addition of USS (departmental USS for growth if they have not had one in the preceding 2 weeks) and individualised care ➢ Section for considering IOL changed to 39^{+0} weeks to align with other timing of birth guidelines. ➢ If fetomaternal haemorrhage is suspected and immediate birth is not indicated by CTG findings, senior obstetric input should be sought • When assess for fetal heart, also assess maternal pulse- note if same or different • Staff education, and compliance, audit and monitoring sections added with audit examples from RCOG
7	June 2025	Amendment: For women who require an USS according to the DFM care pathway, they should have a bedside USS prior to leaving MFAU / AU, with assessment of liquor, volume and fetal movements. Formal growth scan should be within 1 week.

7.1	27/06/2025	Minor amendment (as per June MOCPOC meeting); added “≥28 weeks” to page 4, point 4, sub point arrow