CLINICAL PRACTICE GUIDELINE

# Decreased Fetal Movements: Management of

**This document should be read in conjunction with the Disclaimer**

### Aim

To guide appropriate management of a woman with decreased fetal movements (DFM).

## Key points

- 55% of women who have a stillbirth experienced a reduction in fetal movements prior to the diagnosis being made.[1] All women with decreased fetal movements should be assessed for risk factors for stillbirth.[2]
- All women with decreased fetal movements should present urgently to MFAU and be assessed as soon as possible.[2]
- Maternal concern and perceived reduction in fetal movements is more important than any definition of DFM based on movement counting.[2]
- For women under 23 weeks gestation it is appropriate for her local health provider to auscultate the fetal heart rate for reassurance.

## Stillbirth risk factors[2]

- Previous stillbirth
- Intrauterine growth restriction (IUGR) or small for gestational age (SGA)
- Previous reporting of decreased fetal movements
- Previous preterm birth with SGA
- Increased maternal BMI ≥ 25 (overweight or obese)
- Smoking
- IVF pregnancy
- Nulliparity or parity ≥3
- Pre-existing diabetes
- Hypertension
- Antepartum haemorrhage
- Indigenous ethnicity
- Low socioeconomic status
- Advanced maternal age
- Illicit drug use

## Assessment

### History

- History of DFM – duration, pattern and intensity of fetal movements felt, and any previous concerns/presentations with decreased fetal movements.
- Other symptoms – including abdominal pain, contractions, PV bleeding or fluid loss, headaches, blurred vision, or itchy hands/feet.

- Maternal lifestyle and medical history including smoking, alcohol or medication use (particularly sedating drugs i.e. benzodiazepines, methadone)[1]
- Screen for risk factors for stillbirth – see list on page 1

## Examination

- Perform baseline maternal observations (T, P, R, BP, SpO2, conscious state)
- Perform urinalysis (particularly for proteinuria)
- Perform a BSL if diabetic, unwell or poor dietary intake.
- Perform an abdominal assessment, including symphysis-fundal height measurement, fetal presentation and lie, assessment of uterine tone, palpation for uterine contractions or fetal activity, and assessment of amniotic fluid volume.
- Auscultate the fetal heart – if under 28 weeks with a handheld Doppler, and if over 28 weeks commence fetal monitoring (CTG).
- If ≥38 weeks gestation and aiming for a vaginal birth, consider a vaginal examination for calculation of a Bishop score +/- stretch & sweep.

## CTG assessment

See KEMH Guideline on Fetal Surveillance: Antepartum Fetal Heart Rate Monitoring

**If the gestation is ≥ 28 weeks and the CTG is:**

- **Normal** with no risk factors for stillbirth / growth restriction and there is a perception that the DFM has resolved, reassure the woman, notify obstetric registrar or above, then discharge home with antenatal care continuing with usual health care provider.
- **Normal** but **with** risk factors, reduced symphysis-fundal height (>2cm), and / or DFM persisting - arrange an ultrasound scan
- **Abnormal:** arrange urgent registrar / consultant review and an USS

**If the gestation is < 28 weeks:**

- Confirm the fetal heart is present by auscultation, discuss further management with obstetric staff, and arrange for an ultrasound assessment including documentation of fetal activity, amniotic fluid index (AFI) and UA Doppler.
- If there is to be a significant delay in obtaining an ultrasound (> 1 hour), a CTG should be performed. At the limits of viability (between 23-25 weeks) this should be discussed with a Registrar or Consultant.

## Ultrasound

- An ultrasound should be completed if:
  - The perception of DFM persists
  - There have been previous presentations with DFM
  - There are concerns regarding fetal growth restriction (i.e. previous IUGR baby, decreased symphysis fundal height)
  - There are other risk factors for stillbirth present
  - The CTG is not acceptable
- The ultrasound should be performed by a credentialed obstetric Registrar or Consultant.[1] A departmental scan should be arranged if this is not possible, if there are any concerns on bedside scan, or if an assessment of fetal growth is required (i.e. nil recent growth scans, decreased symphysis fundal height, multiple risk factors). This should be completed in a timely and clinically appropriate manner.
- Ultrasound assessment should include:
  - Fetal activity and/or Biophysical profile score
  - AFI and umbilical artery(UA) Doppler
  - Fetal growth (if no recent growth scans)
  - Fetal morphology (if not recently performed)
- If the AFI is normal **and**
  - Normal UA Doppler **and**
  - Normal fetal activity on the scan, the woman may go home after discussing with the obstetric Registrar/ Consultant.
- If the AFI is reduced **and / or**
  - Elevated systolic/diastolic (S/D) ratio **and/or**
  - Inactive fetus on scan, then commence a CTG and arrange urgent medical review by the Obstetric Registrar or above.

## Kleihauer test

- Urgent Kleihauer testing should occur in the following situations:
  - DFM with 2 consecutive non-reactive/abnormal CTGs and a quiet fetus on ultrasound
  - Significant maternal abdominal trauma, with a non-reassuring CTG and a quiet fetus on ultrasound
  - Sinusoidal fetal heart rate trace in a non-immunised woman
  - Non-immune fetal hydrops with abnormal MCA PSV
- See the KEMH Transfusion medicine: '[Rh D Negative Women: The Kleihauer Test & Feto-Maternal Haemorrhage]' guideline.

## Further management

- **If the CTG is abnormal and/or the ultrasound is not reassuring** then arrange urgent medical review by the obstetric Registrar or above. Perform a full blood picture, group and hold +/- Kleihauer.
- If the woman is planning for a vaginal birth and is >38 weeks, after consultation with the Obstetric Registrar, consider +/- offer induction of labour. This may be appropriate in earlier gestations depending on the clinical picture and risk factors for stillbirth. Seek guidance from the Obstetric SR/Consultant.
- **If maternal concern of DFM persists despite a normal CTG and normal USS**, discuss with the Obstetric SR/consultant for advice +/- a plan for surveillance.
- **If there have been ≥3 presentations of DFM within this pregnancy,** notify and discuss with the Obstetric SR/consultant for advice +/- a plan for surveillance.

## References

1. Royal College of Obstetricians and Gynaecologists. Reduced fetal movements Green-Top Guideline 57 [Internet]. 2011; edited version Feb 2017.
2. Gardener G, Daly L, Bowring V, Burton G, Chadha Y, Ellwood D, et al. Clinical practice guideline for the management of women with decreased fetal movements. Australia and New Zealand Stillbirth Alliance (ANZSA) [Internet]. Sept 2016. Available from: http://www.stillbirthalliance.org.au/guideline.htm.

## Other resources & guidelines

- WNHS Transfusion Medicine: Rh D Negative Women: The Kleihauer Test & Feto-Maternal Haemorrhage
- NSW Health. Maternity: Decreased fetal movements in the third trimester. North Sydney: **NSW Health**; 2011 (accessed 12.04.2018)

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