

REDUCED FETAL MOVEMENT

CLINICAL GUIDELINE MCSA.MBC.2.1

Definition

There is currently no universally agreed definition of Reduced Fetal Movement (RFM). Movements reach a plateau at 32 weeks gestation but are not reduced in the third trimester.

- All patients should be provided with information regarding normal fetal movements during the antenatal period
- This should include sleep/wake cycles and factors which may modify the mother's perception of movement
- Patients should be advised to contact their healthcare provider if they are concerned about decreased or absent fetal movements and should be advised not to wait until the next day.
- If a woman is concerned about a reduction in fetal movements in comparison to what she usually experiences, she needs to go to the hospital for proper assessment. (If uncertain she can lie on her left side (not supine!) and focus on the movement for an hour.
- If a patient presents to the ward or consultation room with a subjective complaint of decreased fetal movements ≥ 26 w gestation, she requires a full assessment.

Conditions associated with maternal perception of RFM

- Fetal sleep
- Congenital fetal malformations incl. fetal akinesia sequence
- Fetal anaemia or hydrops
- Acute or chronic hypoxia
- Polyhydramnios
- Drugs such as alcohol, narcotics, benzodiazepines, smoking, corticosteroids for fetal lung maturity

Management

Take a proper history looking for predisposing factors for stillbirth

- Fetal growth restriction (FGR)
- Previous stillbirths
- Small for gestational age fetus (SGA)
- Current hypertensive disease
- Diabetes mellitus
- Previous antepartum haemorrhage in current pregnancy

Examination:

- Blood pressure, pulse and temperature
- Urine dipstick (check for proteinuria)
- Abdominal palpation – tenderness and SF measurement, amniotic fluid volume, fetal movements

Confirm presence of fetal heart with doptone or ultrasound

- FH Absent: confirm with ultrasound and get second doctor to also confirm via sonar and manage accordingly.
- FH present:
 - $\geq 27w0d$ gestation, proceed to doing a CTG and if abnormal manage accordingly
 - 26w0d -26w6d discuss with neonatologist and parents before proceeding with CTG
 - 24w – 25w6d: reassure, ask to come back if reduced movements reoccur
 - If persistent RFM (confirmed by ultrasound) without fetal distress: refer to a fetal medicine specialist to rule out rare congenital neuromuscular defects.

Perform ultrasound if:

1. Perception of Reduced Fetal Movements persists despite a normal CTG
2. Suspected SGA based on SF measurement and abdominal palpation
3. Clinical suspicion of oligohydramnios
4. Postdates
5. Additional risk factors for FGR or stillbirth exists

Ultrasound should include:

- biometry for estimated fetal weight (EFW)
- morphology
- amniotic fluid volume
- umbilical artery Doppler
- assessment of fetal movements, tone and breathing.
- middle cerebral artery Doppler (maximal velocity) to rule out fetal anaemia (If there is evidence of fetal anaemia or hydrops, perform a Kleihauer-Betke test for fetomaternal haemorrhage and urgent indirect Coombs; and ensure no signs of hydrops).

Further management of patients with normal investigations:

- Reassure and ask to return when another episode of RFM occurs.
- Routine use of a kick chart has not shown to change outcome.

Management of recurrent reduced fetal movements:

- Full assessment of fetus again including CTG and ultrasound.
- Test for fetomaternal haemorrhage (Kleihauer-Betke test)

Decision regarding induction of labour at term for recurrent RFM's, remains a difficult decision and management should be individualised weighing up the risks of early delivery vs the risk of stillbirth. There is no clear evidence that induction of labour reduces perinatal morbidity or mortality.

- Delivery can be considered if recurrent RFM's persist after 39 weeks (where even in low-risk nulliparous women the benefits might outweigh the harm)

- Prior to 37 weeks, recurrent RFM is better managed by CTG twice weekly, with patient instruction to contact the caregiver if the movements decrease further or cease.
- Between 37 and 39 weeks, careful counselling and individualization of delivery plan is recommended.

Definitions

Term, Acronym or abbreviation	Definition
FGR	Fetal Growth Retardation
SGA	Small for Gestational Age
SROM	Spontaneous Rupture of Membranes
EFW	Estimated Fetal Weight
CTG	Cardiotocograph
IUFD	Intrauterine Fetal death
RFM	Reduced fetal movement
SF	Fundal Height measured from Symphysis Pubis to top of Fundus

References

1. Adam, S. Soma-Pillay, P. Obstetric Essentials. 2018. 3rd Edition. University of Pretoria

Authorship

These guidelines were drafted by a clinical team from Mediclinic and were reviewed by a panel of experts from SASOG and the BetterObs™ clinical team in 2019 and revised by the scientific committee of BetterObs™ in 2022. All attempts were made to ensure that the guidance provided is clinically safe, locally relevant and in line with current global and South African best practise. Succinctness was considered more important than comprehensiveness.

All guidelines must be used in conjunction with clinical evaluation and judgement; care must be individualised when appropriate. The writing team, reviewers and SASOG do not accept accountability for any untoward clinical, financial or other outcome related to the use of these documents. Comments are welcome and will be used at the time of next review.

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History and version control

Author	Version	Details of update	Effective date
Cape Gate Obstetrician working group	1	Initial Release	2017 07 01
External Expert Obstetrician	1.1	Validated	2017 01 01
A Hall	1.2	Rebranded to clinical guideline	2019 12 01
SASOG scientific committee Dr C Groenewald	2.1	A more comprehensive list was added under the Ultrasound A list of options was added regarding induction of labour at term for RFM or earlier	2022 11 01

Approval and sign-off

Approved by

Department/ Area/ Group/ Forum	Representative name	Signature	Designation	Date
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