University Hospitals Sussex
NHS Foundation Trust

Reduced Fetal Movements Guideline

Summary statement: How does the document support patient care?	By providing evidence based guidance for staff on the appropriate management of pregnant women and people experiencing reduced fetal movements during pregnancy.
Staff/stakeholders involved in development:	Labour Ward obstetric Leads Clinical Effectiveness Midwife
Division:	Women and Children's
Department:	Maternity
Responsible Person:	Chief of Service
Author:	Consultant Obstetrician
For use by:	Obstetric Medical and midwifery staff
Purpose:	To ensure that pregnant women and people who report reduced fetal movements are referred and managed safely and appropriately.
This document supports:	RCOG 2011 Green-top guideline No.57 AFFIRM trial 2016 NHS England: Saving babies' lives v3.1: a care bundle for reducing perinatal mortality (2023)
Key related documents:	UH Sussex Antenatal and Labour Risk assessments
Approved by:	Joint Obstetric Guideline Group (JOGG)
Approval date:	15th November 2023 Date uploaded: 21st November 2023
Ratified by Board of Directors/ Committee of the Board of Directors	Not Applicable - Divisional Ratification only required
Ratification Date:	Not Applicable - Divisional Ratification only required
Expiry Date:	May 2026
Review date:	November 2026
If you require this document in another format such as Braille, large print, audio or another language please contact the Trusts Communications Team.	
Reference Number:	UHS-CG-0015-2023

Version	Date	Author	Status	Comment
1.0	October 2023	N.Maguire & S.Das Fetal Wellbeing Consultant Leads (Legacy West) K. Fraser Fetal Wellbeing Consultant (Legacy East)	LIVE	New Trust-wide guideline replacing: CG01197 Reduced Fetal Movements Guideline (Legacy West) MP024 Reduced Fetal Movements

Contents

The interpretation and application of clinical guidelines will remain the responsibility of the individual clinician.

If in doubt contact a senior colleague or expert.

Reduced Fetal Movements (RFM) Guideline

1.0 Aim

To reduce the number of avoidable still births - reduced fetal movements being one of the 5 elements of the latest NHS England NHS England: Saving babies' lives care bundle v3.1 (2023)

To ensure that pregnant women and people are aware of the importance of reporting reduced fetal movements; and that midwives and obstetricians are aware of appropriate referral pathways to follow when this occurs.

This guideline is to provide recommendations as to how pregnant women and people presenting with reduced fetal movements (single/recurrent) in both the community and hospital settings should be managed.

2.0 Scope

- Obstetricians
- Midwives

3.0 Responsibilities

Midwives and Obstetricians are expected:

- To access, read, understand and follow this guidance.
- To use their professional judgement in the application of this guideline.

Midwifery management are expected:

- To ensure the guideline is reviewed as required in line with Trust and National Recommendations.
- To ensure the guideline is accessible to all relevant staff.

4.0 Abbreviations used within this guideline

BPM Beats per minute	**FGR** Fetal growth restriction
FHR Fetal heart rate	**SGA** Small for gestational age
IA Intermittent auscultation	**CTG** Cardiotocograph
RFM Reduced Fetal Movements	**EFM** Electronic fetal monitoring
BPP Biophysical profile	**LV** Liquor volume
USS Ultrasound scan	**EFW** Estimated fetal weight
AC Abdominal circumference	**MIS -** Maternity Information System eg Badgernet

5.0 Introduction

Fetal movements have been defined as any 'kicking', 'pushing', 'jabs', 'elbowing' and 'stretches'. Feeling hiccups is also common. Most pregnant women and people are aware of fetal movements by 18-24 weeks of gestation. From 24 weeks onward most women and people will start to recognise their baby's movements more regularly and become more used to the feeling and the pattern. Clinicians should be aware that although fetal movements tend to plateau at 32 weeks of gestation, there is no reduction in the frequency of fetal movements in the late third trimester. Also, having an anterior placenta is never a reason to dismiss reduced movements.

Changes in the number and nature of fetal movements as the fetus matures are considered to be a reflection of the normal neurological development of the fetus. Fetal movements are usually absent during fetal 'sleep' cycles, which occur regularly throughout the day and night and usually last for 20 - 40 minutes. These sleep cycles rarely exceed 90 minutes in the normal, healthy fetus. (RCOG Green Top 2011)

Reduced Fetal Movements (RFMs) are associated with key risk factors such as small-for-gestational age (SGA) fetus, placental insufficiency, congenital malformations and high risk maternal and birthing person conditions such as hypertension, diabetes, auto-immune diseases (Anti-Phospholipid Antibody Syndrome/Systemic Lupus Erythematosus), and chronic kidney disease.

6.0 Factors which may influence a woman and person's perception of RFM

There are some factors which may alter the perception of fetal movements but should NOT be considered a reason or explanation for a reduction or change in movements.

- An anteriorly positioned placenta (prior to 28 weeks: RCOG)
- Sedating drugs which cross the placenta such as alcohol, benzodiazepines, methadone and other opioids.
- Fetuses with major malformations.
- Fetal position e.g fetus lying with back anteriorly (RCOG)

7.0 Advice

Women and people who are concerned about RFMs should not wait until the next day for assessment of fetal wellbeing.

There is no formal definition of reduced fetal movements – previous studies have suggested that the women and person's perception of reduced fetal movements are the most helpful criterion definition of reduced fetal movement, so that an arbitrary reference range for number of movements is not recommended.

Women and people should be aware of their baby's individual movements. If they are concerned about a reduction in or cessation of fetal movements at any gestation women and people should be advised to contact the maternity unit immediately. This should be discussed with the woman and person in one of their early midwife antenatal consultations. Women and people should be directed to online maternity information. Tommy's Patient information leaflet on reduced fetal movement should be given out to all pregnant women and people by 25 weeks and discussed. This should be documented on and Maternity Information System (MIS). The Tommy's Patient information leaflet on reduced fetal movements can be accessed in different languages using this link.

Women and people should be advised that they should not delay seeking help by trying to make their baby move with any kind of food/ drinks intake. If they perceive their baby's movements have slowed down, stopped or changed, they should contact maternity triage immediately and **never wait until the next day**. Women and people should also be advised to call straight away if their baby has gradually reduced their movements over several days.

A significant reduction or sudden alteration in fetal movement is a potentially important clinical sign. It has been suggested that reduced or absent fetal movements may be a warning sign of impending fetal death. Studies of fetal physiology using ultrasound have demonstrated an association between RFM and poor perinatal outcome. The majority of women and people (2 out of 3) experiencing a stillbirth perceived a reduction in fetal movements prior to diagnosis.

8.0 Hospital Assessment

8.1 History

Clinicians should be aware that a woman and person's risk status may change throughout pregnancy.

A relevant obstetric history should be taken, with emphasis on present episode of reduced fetal movement, duration and the number of previous attendances. All clinicians should be aware of the potential association of decreased fetal movements with key risk factors such as FGR, small-for-gestational-age (SGA) fetus, placental insufficiency and congenital malformations.

The history must include a comprehensive stillbirth risk evaluation, including a review of the presence of other factors associated with an increased risk of stillbirth, such as multiple consultations for RFM, known FGR, hypertension, diabetes, extremes of maternal and birthing person age, primiparity, smoking, placental insufficiency, congenital malformation, obesity, racial/ethnic factors, poor past obstetric history (e.g.FGR and stillbirth), genetic factors and issues with access to care (RCOG 2011)

The episode number should be clearly recorded within the maternity information system. Risk factors for SGA should be assessed and documented.

The MIS CTG / Reduced Fetal Movement documentation pathway should be used to identify and assess for risk factors.

Please refer to appendix 1 for risk factors from SBLCBv3.1 & appendix 2 and 3 flowcharts.

8.2 Clinical Examination

- The key priority when a woman and person presents with RFM is to confirm fetal viability. In most cases, a handheld Doppler device will confirm the presence of the fetal heart beat.
- Further clinical assessment of a woman and person with RFM should include assessment of fetal size with the aim of detecting SGA babies using symphysis-fundal height and accurate plotting on the INTERGROWTH chart (unless serial growth scans have already been commenced, in which case SFH should no longer be performed).
- As pre-eclampsia is also associated with placental dysfunction, all woman/people with RFM should have their blood pressure checked and their urine tested for protein.
- Computerised CTG (cCTG) should be undertaken from 26 weeks gestation (see below).

9.0 Management of reduced fetal movements based on gestational age

Timing of assessment:

Women and people presenting before 24+0 weeks:

- Full antenatal assessment with auscultation of the fetal heart beat using handheld Doppler as soon as possible.
- Review any risk factors for fetal growth restriction/stillbirth and arrange appropriate referrals (Appendix 1)

Women and people presenting from 24+0 to 25+6 weeks:

- Full antenatal assessment with auscultation of the fetal heart beat using handheld Doppler as soon as possible. There is no evidence to recommend the routine use of CTG surveillance between 24+0 and 25+6 weeks.
- Review anomaly scan.
- Review any risk factors for fetal growth restriction/stillbirth and arrange appropriate referrals (Appendix 1).
- If fetal movements have never been felt by 25 weeks of gestation, consider a referral to a fetal medicine specialist.

Women and people presenting from 26+0 weeks onwards:

- Referral to Day Assessment Unit (or Delivery Suite/MAU if capacity issues or closure): aim to perform a computerised CTG within 2 hours.
- On arrival, a complete a BSOTs assessment on MIS of the woman and person should be undertaken Including CO monitoring, asking smoking status and recording both on lifestyle report. Review any risk factors for fetal growth restriction/stillbirth and arrange appropriate referrals (Appendix 1).
- If reported 26+0 weeks and over with absent movements – immediate referral to delivery suite. Day Assessment Unit (DAU) referral only if decided by DS co-ordinator due to capacity/staffing issues.
- If reported 26+0 weeks and over and is a recurrent episode within 3 weeks – immediate referral to DAU/DS (decision based upon individual circumstances of risk/absent FM's).

If a computerised CTG has been performed and is normal and there are no other indications for an ultrasound scan (based on assessment of risk factors) then a scan is not required for a first presentation of RFM but should be offered for women and people reporting recurrent RFM. Computerised CTG's are recommended over and above visualised CTG due to the potential to reduce the risks of human error. If an appropriate scan has been performed within the previous two weeks and was normal a repeat scan is not required. (SRH& WH: See CG1116 Fetal monitoring guideline for further information on Dawes Redman Criteria)

Before booking a growth scan, please check whether growth scans have already been requested or performed **within last two weeks** to reduce the workload on the scan department with duplicate scans.

9.1 Single episode of presenting with reduced fetal movements

Up to 23+6 weeks (below viability gestation):

Some women and people by this gestation have begun to notice a regular fetal movement pattern. Some women and people may have only just begun to feel some movements but not every day and therefore this should be judged on an individual basis.

The woman and person can be offered auscultation of the fetal heart with a sonicaid if this would reassure them. Ideally this should be done by their community midwife but if the unit has capacity, the woman and person can be offered to attend antenatal day assessment unit if community are unable to accommodate. Document accordingly in the hand held and maternity information system.

24+0 - 25+6 weeks:

- Confirm fetal viability (ideally Community Midwife) within 2 hours of report of RFM – if absent FM's, see as soon as practicably possible for reassurance.

- Assess for risk factors for stillbirth and SGA.
- Check anomaly scan already completed and was normal.
- Referral to fetal medicine consultant is to be done if no fetal movement is felt at all till 25+0 weeks.
- If risk factors or a history of SGA and stillbirth are present, arrange serial growth scans as per Trust guideline.
- If no risk factors are found, return to original care with advice about recurrent RFM.

26+0 - 38+6 weeks:

- Assess for risk factors for stillbirth and small for gestational age.
- Perform computerised CTG within 2 hours of call.
- If absent RFM's, see as soon as possible.
- Women and people with no risk factors and reassuring assessment may go home to observe movements.

If risk factors with normal CTG - arrange growth scan with liquor volume and umbilical artery Dopplers (if not done in last 2 weeks). Scans should be arranged as soon as practicably possible (ideally within 24 hours). If delays booking scan appointment due to demand – arrange for CTG in interim period. At PRH/RSCH any scans requested between 26-28 weeks should be booked through the fetal medicine team.

39+0 weeks or over:

- Assess for risk factors for stillbirth and small for gestational age (SGA).
- Perform computerised Cardiotocography (CTG) within 2 hours of call.
- If absent RFM's, see as soon as possible.
- Discuss expediting birth by induction of labour or cesarean birth as deemed appropriate.

9.2 Recurrent episodes of reduced fetal movement

Recurrent reduced fetal movement is defined as any subsequent (2nd episode onwards) episode of reduced fetal movement from 26 weeks onwards within a 3 week period.

Up to 23+6 weeks (below viability gestation):

As above for first episode unless risk factors identified then consider obstetric review for plan of care.

24+0 - 25+6 weeks:

- Confirm fetal viability by auscultation as soon as practicably possible (this can be done in the community).
- Assess for risk factors for stillbirth and Fetal Growth Restriction (FGR).
- Ensure that anomaly scan has been done.

- If high risk of FGR then arrange serial growth USS as per Trust guideline.
- If no risk factors are present return to original care with advice about recurrent RFM.

26+0 - 38+5 weeks:

- Perform CTG within 2 hours of call from woman and person to report RFM. If absent FM's to see as soon as practicably possible.
- Ultrasound scan for growth, liquor volume, umbilical artery dopplers and AC if no scan within the previous 2 weeks. Scans should be arranged as soon as practicably possible (ideally within 24 hours). At PRH/RSCH Scans requested between 26-28 weeks should be booked through the fetal medicine team. If delays booking scan appointment due to demand – arrange for CTG in the interim period.
- If estimated fetal weight (EFW), liquor volume (LV), dopplers and AC all normal, assess for stillbirth and SGA risk factors. If no risk factors return to routine care.
- If risk factors are present, plan serial scans.
- If CTG is abnormal, there should be an individualised plan from a Senior Obstetrician.
- EFW/AC ≤ 10th Centile or reduced growth velocity there should be an individualised plan from a Senior Obstetrician.

38+6 - 39+0 weeks or more:

- Perform CTG within 2 hours of call from woman and person to report RFM. If absent FM's to see as soon as practicably possible.
- Discuss and offer expediting birth by induction of labour or caesarean birth as deemed appropriate.

On discharge, women and people should be signposted back to the Tommy's leaflet and informed to contact the maternity unit should they perceive a further episode of reduced fetal movements.

For women and people who are not reassured despite normal CTG and USS and cannot feel fetal movements, should be referred to a senior obstetrician for on-going plan.

10.0 Documentation

It is important that full details of assessment and management are documented on MIS.

It is also important to record the advice given to the woman and person about follow-up and when and where to present if a further episode of reduced fetal movements is perceived.

11.0 Induction of labour

The decision for induction of labour following recurrent episodes of RFM should be made by a senior obstetrician.

Continuous monitoring in labour is recommended for cases where labour is being induced for RFM.

11.1 Timing of induction of labour (IOL) or caesarean birth

Counsel regarding risks of expediting birth by induction of labour or caesarean birth prior to 39 weeks if no other risk factors, e.g. increased rate of operative birth, small increases in perinatal morbidity and neurodevelopmental delay (NHS England, 2019). Therefore, a recommendation for birth needs to be individualised and based upon evidence of fetal compromise (for example, abnormal CTG, EFW <10th centile or oligohydramnios) or other concerns (for example, concomitant maternal and birthing person medical disease, such as hypertension or diabetes, or associated symptoms such as antepartum haemorrhage).

An obstetric consultant or senior registrar should be involved in any decision to expedite birth at less than 39 weeks.

National statistics support IOL after 39 weeks. Induction of labour therefore, could be discussed where appropriate (risks, benefits and mother and birthing parent's wishes) with women and people presenting with a single episode of RFM after 38+6 weeks gestation. IOL is not associated with increase in caesarean birth/instrumental vaginal birth, fetal morbidity or, admission to neonatal intensive care (NHS England, 2023). However local data may differ from this. Both national and local data should be included as part of the discussion for IOL with the woman and person.

It is important that women and people presenting with recurrent RFM are additionally informed of the association with an increased risk of stillbirth and given the option of birth for RFM alone after 38+6 weeks.

IOL could be discussed at 39 weeks and over in cases of single episode of reduced fetal movement and should be offered with information on increased risk of stillbirth at 39 weeks or more in case of recurrent presentations.

If IOL is declined by the woman and person, a clear care plan should be documented on MIS.

12.0 Summary

- Tommy's RFM Leaflet to be provided and documented by 25 weeks.
- MIS CTG / Reduced Fetal Movement documentation pathway should be used to identify and assess for risk factors.
- Be mindful of inducing prior to 39 weeks without risk factors.
- Always use computerised CTG's unless contraindicated.

13.0 Audit options

Process indicators:

1. Percentage of women and people who received RFM information by 25 weeks.
2. Percentage of women and people with RFM who had computerised CTG.

Outcome indicators:

1. Percentage of stillbirths attributed to RFM based on current guidelines.
2. Rate of induction of labour where RFM is the only indication before 39+0 weeks.

References

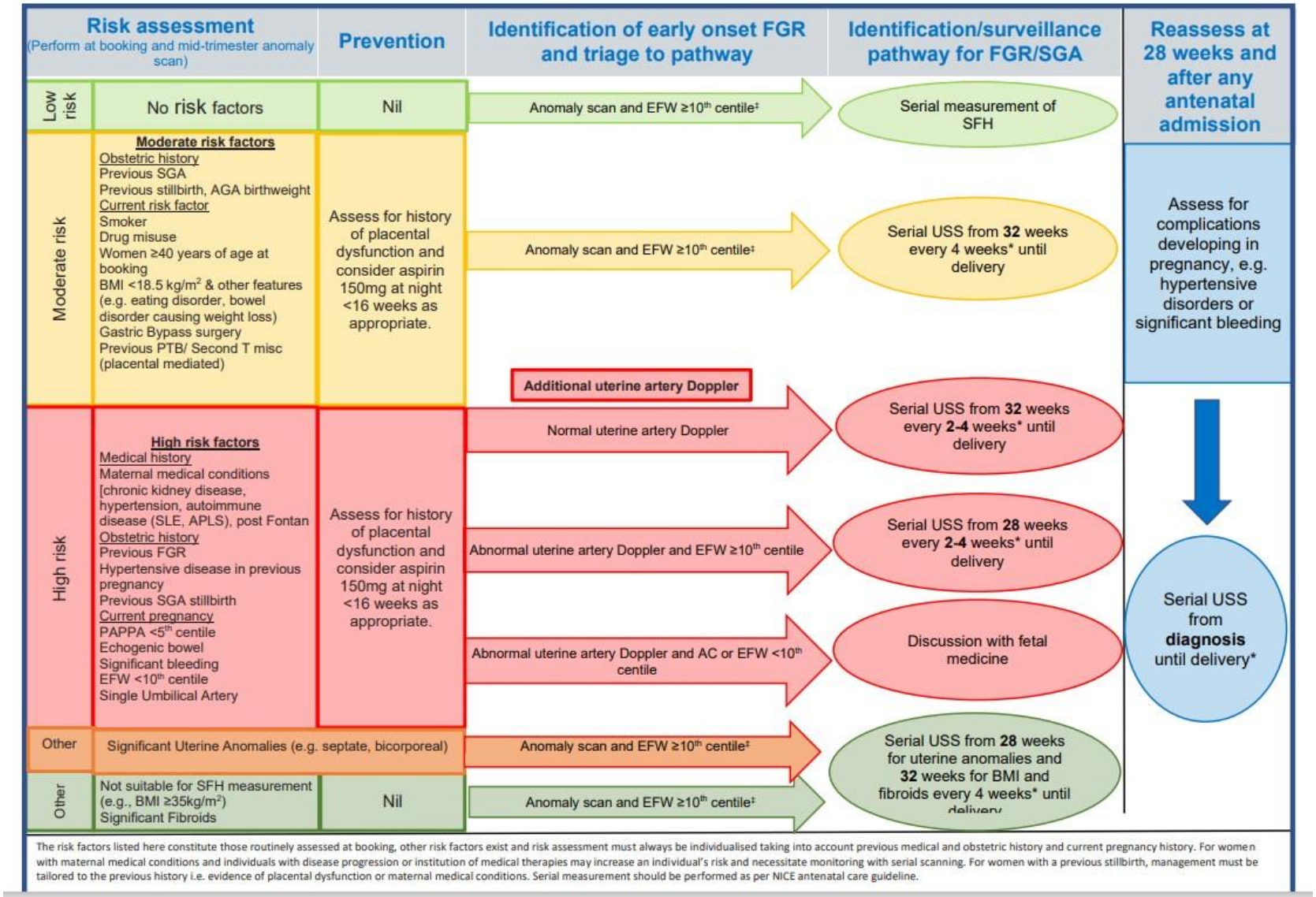
Royal College of Obstetricians and Gynaecologists (2011) Green- top Guideline No. 57 Reduced Fetal movements.

Royal College of Obstetricians and Gynaecologists. Green- top Guideline No. 31: The Investigation and Management of the Small-for gestational- age Fetus. London: RCOG; 2002 [http://www.rcog.org.uk/files/rcog-corp/uploaded-files/GT31SmallGestationalAgeFetus.pdf].

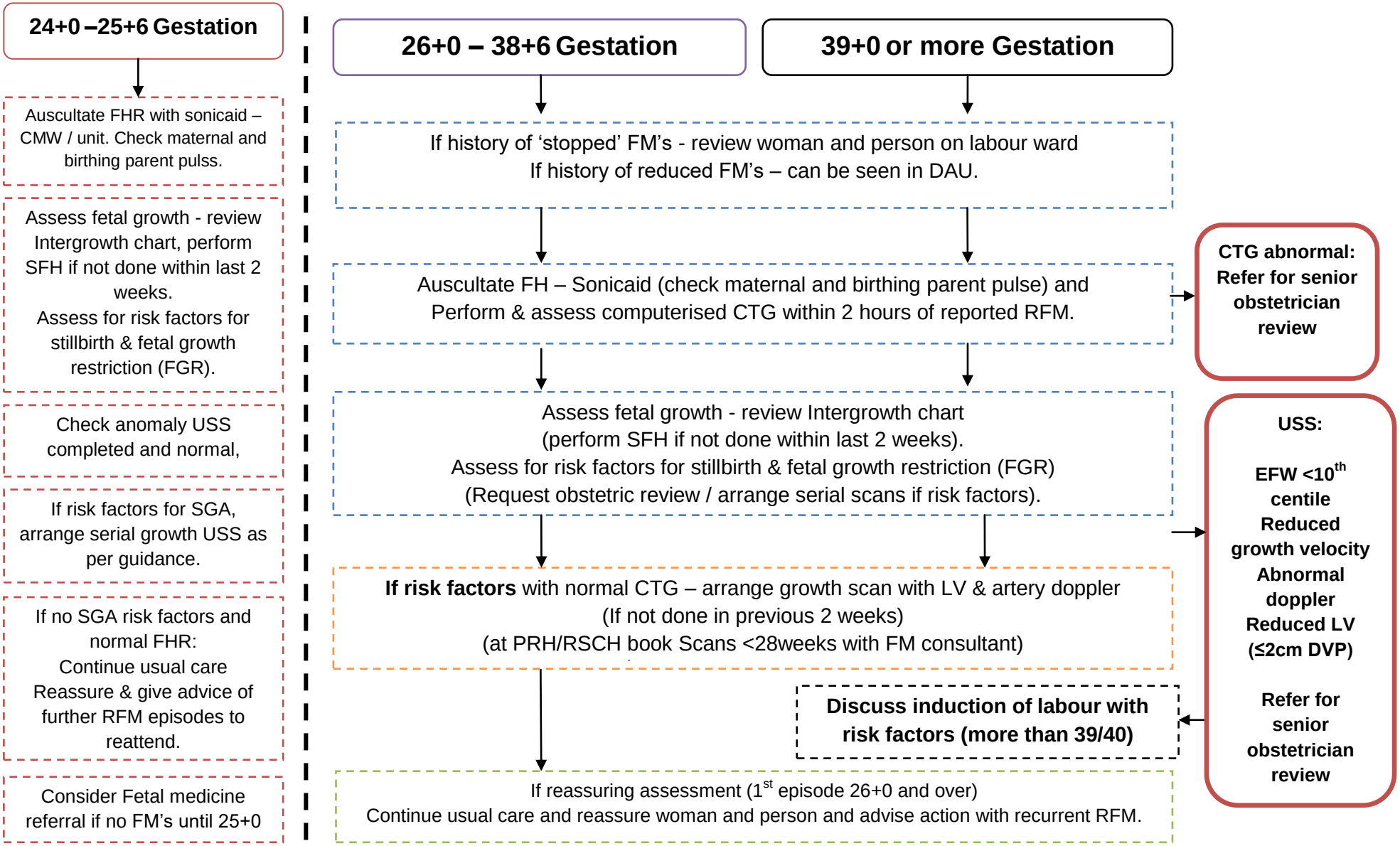
NHS England (2023) Saving Babies' Lives Care Bundle Version 3.1. A care bundle for reducing perinatal mortality. NHS England: Saving babies' lives v3.1: a care bundle for reducing perinatal mortality

Appendix 1: Saving Babies Lives Care Bundle v3.1

[NHS England: Saving babies' lives v3.1: a care bundle for reducing perinatal mortality July 2023]



Appendix 2: RFM First episode management flowchart



Appendix 3: RFM Recurrent Episode (within 3 weeks) management flowchart