Maine Medical PARTNERS Women's Health

A department of Maine Medical Center

Fetal Heart Rate Auscultation Guideline

Purpose:

- To provide guidelines for the fetal heart rate monitoring via auscultation with a Doppler device.

Basic Requirements:

- The low-risk patient is at term (37-42 weeks) with absence of medical/obstetrical complications.
- Any low-risk patient at term may be evaluated via auscultation in accordance with the physician/midwife's preference.
- Following reactive NST
- Initiation approved by attending physician with order

Auscultation vs. EFM In Specific Clinical Situations				
Organization	Labor triage	Cervical Ripening	Pitocin	VBAC
MMC	Auscultate following Reactive NST	EFM while in place & 15 min post removal	EFM	EFM

Frequency of intermittent auscultation:

Recommended Frequency of Auscultation			
Source	Latent Phase (0-5 cm)	Active Phase (6-10 cm)	Second Stage(pushing)
low-risk	Every 30 minutes	Every 15-30 minutes	Every 5 minutes

Additional criteria for fetal heart rate assessment via auscultation:

Assess and document FHR prior to:	Assess and document FHR following:
• Artificial rupture of membranes • Ambulation • Administration of medications	• Rupture of membranes (AROM or SROM) • Recognition of abnormal uterine activity patterns • Administration of medications (during/ following placement/bolus of epidural) • Vaginal exam • Cook Balloon

Auscultation Procedure:

1. Explain the procedure to the woman and her support person(s).
2. Assist the woman to a semi-Fowler's or wedged lateral position.
3. Palpate the maternal abdomen while performing Leopold's maneuvers.
4. Assess uterine contractions (frequency, duration, intensity) and uterine resting tone by palpation.
5. Apply conduction gel to underside of the Doppler.
6. Position the bell of the Doppler on the area of maximum intensity of the fetal heart sounds (usually of the fetal back).
7. Place a finger on the woman's radial pulse to help differentiate from FHR.
8. Count the FHR after uterine contractions for at least 60 seconds.
9. To clarify FHR increases and decreases, counting for multiple, consecutive brief periods of 6-10 seconds (multiplying by 10 and 6 respectively) may be particularly helpful.
10. Interpret FHR findings and document rate, rhythm, presence of increases or decreases and their relationship to the contraction.
11. Share findings with physician, patient and her support person(s) and answer questions as needed.
12. Promote maternal comfort and continued fetal oxygenation.

Interpretation:

Interpretation of Auscultation Findings
Normal or Category I: FHR characteristics auscultation include all of the following:
• Normal FHR baseline between 110 and 160 bpm • Regular rhythm • Presence or absence of FHR increases from the baseline rate • Absence of FHR decreases from the baseline rate
Indeterminate or Category II: FHR characteristics by auscultation include any of the following:
• Irregular rhythm • Presence of FHR decreases from the baseline rate • Tachycardia (baseline > 160 bpm > 10 minutes in duration) • Bradycardia (baseline < 110 bpm > 10 minutes in duration)

Interventions:

Responses to changes in baseline fetal heart rate (increases & decreases)

- Auscultation of any change in baseline FHR should be confirmed by listening again after the next contraction rather than waiting until the next designated auscultation period.
- Baseline changes in the FHR require prompt intrauterine resuscitation interventions and physician should be notified.
- Consider placing patient on EFM for further evaluation.

Resuming Auscultation after EFM:

- Auscultation may be resumed after 20 minutes of a reactive tracing and approval of physician

Documentation:

Fetal Heart Rate

1. Mode (auscultation)
2. Baseline rate (in bpm)
3. Rhythm (regular or irregular)
4. Increases (accelerations)
5. Decreases (absent or present/gradual or abrupt) from the baseline FHR and relationship to the contraction

Maternal HR (in conjunction with FHR)

Uterine contractions:

1. Palpation
2. Frequency
3. Duration
4. Intensity (mild, moderate, strong)
5. Resting tone (soft or firm)

For irregular FHR, change in FHR, or FHR decreases, document:

- The time the indeterminate FHR characteristic was detected
- Interventions initiated for maternal or fetal resuscitation/resolution
- Continued FHR assessment to evaluate the fetal response to interventions
- Continued maternal assessments to evaluate response to interventions
- Communication with physician and their responses
- Chronologies of other actions and interventions and who performed them
- Patient concerns or requests

Communication:

- Explain to the patient and her support person how the equipment works, the sounds heard and what the findings mean in lay terms.
- Discuss what might happen if the FHR becomes indeterminate so the patient and her family can be prepared if intrauterine resuscitation techniques are initiated quickly.
- SBAR should be used when communicating with physician or nurse midwife and during hand-off at shift change.

References:

1. AWHONN Fetal Heart Monitoring Principles and Practices, 5th edition, 2015

2. ACOG Practice Bulletin Number 106. Intrapartum Fetal Heart Rate Monitoring: Nomenclature, Interpretation, and General Management Principles, reaffirmed 2015.