Subject: Electronic Fetal Monitoring	
REVISION DATE: December 2015 REPLACES: Electronic Fetal Monitoring - External and Electronic Fetal Monitoring-Internal	WRITTEN: January 2013 REVIEWED: July 2015 SUPERSEDES DATE: January 2013

This guideline is used to assist staff in use of Electronic Fetal Monitoring. This applies to all medical and nursing personnel.

Purpose: To outline the nursing management of antepartum and intrapartum patients during external and internal fetal monitoring, intermittent fetal heart rate (FHR) auscultation, as well as nursing management for when a fetal heart rate pattern is identified that is suspicious or nonreassuring. It is important for the nurse to have a basic understanding of the principles and factors involved in uterine and fetal heart physiology and to be able to recognize reassuring, suspicious, and nonreassuring FHR patterns as demonstrated by the continuous printed record produced by Electronic Fetal Monitoring (EFM).

Summary of Changes: References/content updated to reflect most current standards of practice.

1. References:

1.1. Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN) (2011). *Core Curriculum for Maternal-Newborn Nursing* (4th ed.). Philadelphia: W.B. Saunders.
1.2. The American College of Obstetricians and Gynecologists (ACOG). (2007). Intrapartum fetal heart rate monitoring; nomenclature, interpretation, and general management principals. *ACOG Practice Bulletin No. 106, Clinical Management Guidelines for Obstetrician-Gynecologists*
1.3. National Institute of Child Health and Human Development Research Planning Workshop (1997). Electronic fetal heart rate monitoring; research guidelines for interpretation. *American Journal of Obstetrics and Gynecology, 177*(6), 1385-1390.
1.4. Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN) (2009). *Fetal Heart Rate Monitoring Principles and Practices* (4th ed.). Dubuque, IA: Kendall Hunt.
1.5. Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN) (2008). Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN) (2008). Fetal heart monitoring. Retrieved from https://www.awhonn.org/awhonn/content.do?name=07_PressRoom/07_PositionStatements.htm.
1.6. Wolters Kluwer Health/Lippincott, Williams and Wilkins, *Intrapartum Management Modules: A Perinatal Education Program* (4th edition). (2009)

2. Responsibilities:

2.1. Credentialed delivering provider

2.1.1. Manage and assume responsibility for patient care administered.

2.1.2. Counsel and consent patient for all medical procedures including patient's understanding of the procedure, indications, risks and benefits.

2.1.3. Place appropriate medical orders in patient's electronic health record (EHR) based on comprehensive patient assessment.

2.2. Nurse.

2.2.1. Acknowledge all patient orders in the Electronic Health Record (EHR).

2.2.2. Monitor fetal heart rate and uterine activity throughout labor and delivery.

2.2.3. Notify provider of abnormalities noted on the electronic fetal monitor.

3. General

3.1. EFM is a means of assessing uterine activity and assessing aspects of the FHR, such as variability, that cannot be heard or measured by auscultation. EFM can serve as a screening tool that, when exhibiting a normal FHR tracing (i.e., normal baseline rate, moderate FHR variability, presence of accelerations, and absence of decelerations), confers an extremely high predictability of a normally oxygenated fetus. It can also show some FHR patterns that may be predictive of current or impending fetal asphyxia. This may allow the recognition of asphyxia at a sufficiently early stage so that timely obstetric intervention can occur which might prevent asphyxia induced complications.

3.2. Upon arrival to OB Triage for evaluation or Labor and Delivery for admission, initiation of continuous EFM and continuous tocodynamometer monitoring will occur.

3.2.1. Patients will usually be evaluated in OB Triage until it is determined that inpatient admission is appropriate.

3.2.2. All intrapartum patients $\geq$ 24 weeks will have continuous fetal monitoring until otherwise ordered by MD/CNM.

3.2.3. For gestational age < 24 weeks, attempt to initiate EFM (unless otherwise ordered by MD/CNM prior to admission/arrival), then obtain a specific order for continued monitoring.

3.2. **Definitions**

TERM	DEFINITION
Baseline Rate	Mean fetal heart rate (FHR) rounded to increments of 5 bpm during a

	10 minute segment excluding periodic or episodic changes, periods of marked variability, and segments of baseline that differ by >25 bpm. (Within a 10 minute window, minimum baseline variability duration must be ≥ 2 minutes but not necessarily a contiguous 2 minutes or baseline is indeterminate. May refer to previous 10 minute segment for baseline.)
Bradycardia	Baseline rate of < 110 bpm
Tachycardia	Baseline rate of > 160 bpm
Baseline Variability	Fluctuations in the baseline FHR of ≥ 2 cycles per minute that are irregular in amplitude and frequency.
Absent Variability	Amplitude range undetectable
Minimal Variability	Amplitude range > undetectable but ≤ 5 bpm
Moderate Variability	Amplitude range 6-25 bpm
Marked Variability	Amplitude range > 25 bpm
Sinusoidal Pattern	Differs from variability in that it has a smooth, sine wave-like pattern of regular frequency and amplitude (uniform undulations generally with a wave frequency of 2-5 cycles/minute) and is excluded in the definition of FHR variability.
Acceleration	A visually apparent *abrupt* increase (defined as onset of acceleration to peak in < 30 seconds) in FHR above FHR baseline. The acme is ≥ 15 bpm above baseline and lasts ≥ 15 seconds and < 2 minutes from onset to return to baseline. Before 32 weeks gestation, accelerations are defined as having an acme ≥ 10 bpm above baseline and a duration of ≥ 10 seconds.
Prolonged Acceleration	A FHR acceleration that is ≥ 2 minutes and < 10 minutes in duration. Acceleration of ≥ 10 minutes duration is a baseline change.
Late Deceleration	A visually apparent *gradual* (defined as onset of deceleration to nadir in ≥ 30 seconds) decrease and return to baseline FHR associated with a contraction. Delayed in timing with the nadir of the deceleration occurring after the peak of the contraction. In most cases, the onset, nadir, and recovery of the deceleration occur after the beginning, peak,

	and ending of the contraction, respectively.
Early Deceleration	A visually apparent *gradual* decrease (defined as onset of deceleration to nadir ≥ 30 seconds) and return to baseline FHR associated with a contraction. It is coincident in timing, with the nadir of the deceleration occurring simultaneously to the peak of the contraction. In most cases, the onset, nadir, and recovery of the deceleration are coincident with the beginning, peak and ending of the contraction, respectively.
Variable Deceleration	A visually apparent *abrupt* decrease in FHR below the baseline, reaching the nadir in < 30 seconds. The decrease from the baseline is ≥ 15 bpm, lasting ≥ 15 seconds and < 2 minutes from onset to return to baseline.
Prolonged Deceleration	A visually apparent decrease in FHR below the baseline. The decrease is ≥ 15 bpm, lasting ≥ 2 minutes but < 10 minutes from onset to return to baseline. If the duration is ≥ 10 minutes it is a baseline change.
Recurrent Decelerations	Decelerations that occur with ≥ 50% of uterine contractions in any 20 minute window.
Tachysystole	More than 5 contractions in 10 minutes, averaged over a 30 minute window.
Category I Tracing	Normal tracings, which are strongly predictive of normal fetal acid-base status at the time of observation and can be followed in a routine manner without any specific action required. Includes ***all*** of the following: • Baseline rate 110-160 bpm • Moderate variability • Absence of any late or variable decelerations • Early decelerations may or may not be present • Accelerations may or may not be present
Category II Tracing	Indeterminate tracings, although not predictive of abnormal fetal acid-base status, cannot be classified as Category I or III and thus require evaluation and continued surveillance and reevaluation. These tracings are not infrequently encountered in clinical care, and include *any* of the following: • Baseline rate ▪ Tachycardia

	▪ Bradycardia not accompanied by absent baseline variability • Baseline variability ▪ Minimal baseline variability ▪ Absent baseline variability not accompanied by recurrent decelerations ▪ Marked baseline variability • Absence of induced accelerations after fetal stimulation, (scalp stimulation, vibroacoustic stimulation, direct fetal scalp sampling, transabdominal halogen light). • Periodic or episodic decelerations ▪ Recurrent variable decelerations accompanied by minimal or moderate baseline variability ▪ Prolonged deceleration ▪ Recurrent late decelerations with moderate baseline variability ▪ Variable decelerations with other characteristics, such as slow return to baseline or 'overshoots'
Category III Tracing	Abnormal tracings, which are predictive of abnormal fetal acid-base status at the time of observation, require prompt evaluation and initiation of expeditious attempts to resolve the abnormal FHR pattern, such as provision of maternal oxygen, change in maternal position, discontinuation of labor stimulation, treatment of maternal hypotension, or additional efforts. These tracings include *either:* • Absent baseline FHR variability along with *any* of the following: ▪ Recurrent late decelerations ▪ Recurrent variable decelerations ▪ Bradycardia • Sinusoidal pattern

3.3. **Indications for Use.**

3.3.1. Indications for the external mode of EFM may include, but are not limited to:

- Low risk status.
- Intact membranes.
- Adequate monitor tracing.
- Disease process contraindicating internal monitoring.

3.3.2. Indications for the internal mode of EFM may include, but are not limited to:

- High risk status.

- Excessive maternal or fetal activity.
- Inability to obtain a clear tracing from external EFM with which to interpret data.
- Identification of suspicious or nonreassuring FHR patterns.
- Identification of abnormal uterine activity patterns.
- The fetus has a prenatally identified problem that might be adversely affected by labor.

3.3.3. Indications for the use of an intrauterine pressure catheter (IUPC) may include, but are not limited to:

- Oxytocin use for induction/augmentation of labor.
- Labor abnormalities including prolonged labor or arrested labor.
- Suspected cephalopelvic disproportion (CPD).
- The need to accurately define the relationship between FHR patterns and uterine contractions (UCs).
- Previous cesarean section attempting vaginal birth.
- Prior uterine surgery.

4. Standards of Practice/Guidelines for Care:

4.1. Validate functioning equipment. Press the test button on the fetal monitor prior to use, or whenever the monitor has been turned from off to on.

4.2. Upon arrival to the unit obtain height and weight of the patient and have her empty her bladder.

4.3. Admit the patient into Fetalink and associate her to the appropriate bedside fetal monitor using the appropriate barcodes. Apply a patient label to the paper strip. (Be sure the automatically printed date and time are correct. If not, then correct per manufacturer's instructions).

4.4. Place the patient in a comfortable lateral or semi-lateral position, avoiding supine position.

4.5. Explain to the patient and their significant other (SO):

- The purpose of EFM.
- All allowable movement/position changes.
- Nursing care and assessment frequency to be expected.

4.6. Ensure patient privacy by drawing the curtain or closing the door.

4.7. For **external EFM**, validate that the liberally gelled ultrasound transducer is placed over the most audible fetal heart tone (FHT) location, usually the fetal back. Plug the transducer cable into the monitor.

4.7.1. Place the tocotransducer over the uterine fundus or point on the abdomen where uterine contractions are best monitored depending on patient position. Secure with straps or Fetaband. Between contractions adjust baseline uterine resting tone to 5-20 mmHg. Palpate to ensure uterus is actually at rest.

4.8. For **internal EFM**, assist the MD or CNM with sterile vaginal exam (SVE) and placement of the fetal scalp electrode (FSE). (An appropriately certified RN may also apply the FSE)

4.8.1. Insert the FSE wire into the internal monitor leg plate, connect the leg plate to the leg-securing sticker and secure the sticker to the patient's thigh. Insert the FSE cable into the monitor.

4.8.2. Document FSE placement in the electronic health record (EHR).

4.9. For placement of the **intrauterine pressure catheter (IUPC)**, assist the MD/CNM with aseptic insertion.

4.9.1. After the provider completes insertion, connect the IUPC to the appropriate end of the reusable cable and then insert the cable into the fetal monitor.

4.9.2. Zero the system by momentarily pressing the re-zero button on the cable. The green light on the cable will flash for five seconds. During this time, adjust the monitor to zero.

4.9.3. Document IUPC placement in EHR.

4.10. The EFM is used to permanently record and archive FHR data. Assessment and documentation of the EFM tracing should occur at the following intervals:

4.10.1. **Low-risk patients** (including, but not limited to: no maternal/fetal complications, as well as postdates, well-controlled diabetes, mild hypertensive disease, Intrahepatic Cholestasis of Pregnancy (IHCP):

4.10.1.1. **Assess, evaluate, and document (*)** FHR and uterine activity every hour during the latent stage of labor (0-3cm).

4.10.1.2. **Assess, evaluate and document (*)** FHR and uterine activity every 30 minutes during the active stage of labor (4-10cm).

4.10.1.3. **Assess and evaluate** FHR and uterine activity every 15 minutes during the second stage of labor (active pushing). **Documentation (*)** of FHR and uterine activity may occur every 30 minutes during the 2nd stage if there is continuous bedside nursing attendance; **documentation** of continuous bedside nursing attendance must also occur within the EHR every 30 minutes.

4.10.2. **High-risk patients** (including but not limited to, those with uncontrolled or insulin dependent diabetes, unstable hypertensive disease, magnesium sulfate therapy, previous cesarean or other uterine incision, oxytocin induction/augmentation, known or suspected IUGR, oligohydramnios, multiple gestation in active labor, Rh Iso-immunization, known or suspected drug abuse in 2nd or 3rd trimester, no documented prenatal care, or epidural anesthesia:

4.10.2.1. **Assess, evaluate, and document** (*) FHR and uterine activity every 30 minutes during the latent stage of labor (0-3cm).

4.10.2.2. **Assess** FHR and uterine activity every 15 minutes during active stage of labor (4-10cm). **Documentation (*)** of FHR and uterine activity may occur every 30 minutes.

4.10.2.3. **Assess** the FHR every 5 minutes during the active pushing phase of labor. **Documentation (*)** of FHR and uterine activity may occur every 15 minutes **if** there is continuous bedside nursing attendance; **documentation** of continuous bedside nursing attendance during 2nd stage must also occur within the EHR every 30 minutes.

4.10.2.4. During oxytocin induction or augmentation, the FHR should be **determined, evaluated, and documented (*)** at the same intervals as the high-risk patient. In addition, the FHR should be **determined, evaluated and documented (*)** before each dose increase.

4.10.2.5. For a woman with an epidural who is otherwise low-risk, fetal/maternal **assessment** is to occur at every 15 minute intervals throughout labor with the exception of initiation, bolus, or rebolus where **assessment** must occur every 5 minutes for 15 minutes for all patients. **Documentation (*)** may occur at the same intervals as the high-risk patient.

4.11. **Intermittent EFM** may be used for the patient not requiring continuous EFM. A reactive NST and/or negative CST should be obtained at the following intervals:

4.11.1. Latent labor (0-3cm): at least every 2 hours.

4.11.2. Active labor (4-10cm): at least every 1 hour.

4.11.3. Second stage (active pushing): at least every 15 minutes.

4.11.4. A FHR tracing should be obtained after SROM/AROM.

***Documentation: Each entry in the Cerner labor flow sheet will include the nurse's assessment of FHR pattern and contraction pattern from the end of the previous entry to the time of the current entry, regardless of the ranges noted when holding the cursor over the time at the top of the column. On admission and after ambulating, the first entry will include the assessment from the time the fetal monitor is applied to the time of the first entry.**

4.12. **Intermittent auscultation** may be ordered by the physician or midwife in the patient with a low-risk pregnancy. Auscultation may be performed by external EFM, Doppler, or fetoscope during a uterine contraction and for 30 seconds following a uterine contraction at the following intervals (document length of time auscultated):

4.12.1. Latent labor (0-3cm): at least every 2 hours.

4.12.2. Active labor: (4-10cm) at least every 30 minutes.

4.12.3. Second stage (active pushing): at least every 15 minutes.

4.12.4. FHR should be assessed after SROM/AROM.

4.13. **Assessment of Uterine Contractions**:

4.13.1. Frequency: The length of time from the beginning of one contraction to the beginning of the next (usually every 2-3 minutes in active labor).

4.13.2. Duration: The interval of time between the beginning and the end of the contraction (normally shouldn't last more than 2 minutes).

4.13.3. Intensity:

4.13.3.1. **External EFM:** Manual assessment of intensity must be done by palpating the fundus with the fingertips at the peak of the contraction. In general, if the fundus is easily indented the contraction is termed "mild". If more pressure is needed to indent, the contraction is termed "moderate". If the uterus cannot be indented the contraction is termed "firm" or "strong". Uterine resting tone should

be assessed in the same manner between contractions, with a relaxed uterus termed “soft”.

4.13.3.2. **IUPC**: Intensity is measured in mmHg. It is the pressure at the peak, or acme, of the contraction. The strength of a mild contraction is approximately 15-30mmHg, moderate is approximately 30-50mmHg, and strong is approximately 50-70mmHg.

4.13.2. **Baseline Uterine Tonus:** (IUPC) The resting tone between contractions measured in mmHg and is normally **5-15mmHg**. Persistently elevated uterine tone represents a significant decrease in placental perfusion and fetal oxygenation.

4.13.2.1. Uterine tone should not exceed 20mmHg; blood flow to the placenta at this level is significantly decreased (approximately 30-40%).

4.13.2.2. **A uterine pressure of 40mmHg results in the complete cessation of blood flow through the uterus to the placenta.** Increased tone can indicate complications such as placenta abruption or uterine tachysystole.

4.13.3. **Montevideo Units (MVUs):** A method of uterine monitoring using an IUPC that may be employed to assess adequacy of labor. MVUs are measured by adding the difference between the resting tone and peak contraction pressure for each contraction over a period of 10 minutes. The sum equals the MVUs.

4.13.3.1. **Less the 150 MVUs indicates that the contraction pattern might be inadequate to affect labor progress.**

4.13.3.2. **180-250 MVUs are usually sufficient to affect normal labor progress.**

4.13.3.3. **More than 300 MVUs indicates increased uterine activity**; assessment of the fetal heart rate response to this level of activity should be carefully monitored. If oxytocin is infusing, the dose may need to be decreased or discontinued.

4.14. **Complication Management**: Initiate the following actions in an effort to correct the possible underlying cause of an altered FHR pattern:

4.14.1 **Late Decelerations**: The classically described cause of late decelerations is

uteroplacental insufficiency. More ominous when associated with decreased or absent variability.

4.14.1.1**.** Position patient in the lateral position to improve blood flow and placental perfusion.

4.14.1.2. Turn off oxytocin if in use to decrease uterine activity.

4.14.1.3. Begin oxygen therapy at 10-12 L/min via non-rebreather mask.

4.14.1.4. IV fluid bolus to correct dehydration or volume depletion.

4.14.1.5. Assess BP to rule out hypotension, especially after epidural placement.

4.14.1.6. Notify provider of FHR pattern, as well as interventions/fetal response.

4.14.1.7. If late decelerations do not resolve after interventions the nurse should request a bedside assessment by the provider.

4.14.2. **Variable Decelerations**: Caused by **cord compression**. The most frequently seen deceleration pattern in labor and varies in timing, shape, depth, and duration. Not associated with fetal acidosis unless severe or prolonged and/or associated with other non-reassuring features (i.e., decreased or absent variability).

4.14.2.1. Change patient position (left side, right side, knee-chest).

4.14.2.2. Perform a vaginal exam to palpate for a prolapsed cord.

4.14.2.3. If persistent or associated with non-reassuring features such as decreased variability, begin oxygen therapy at 10-12 L/min via non-rebreather mask.

4.14.2.4. Administer IV fluid bolus.

4.14.2.5. Turn off oxytocin if in use with persistent or non-reassuring fetal heart rate pattern.

4.14.2.6. If recurrent with pushing, modify coached pushing efforts (push every other or every third contraction) based on fetal response.

4.14.2.7. Notify the provider of FHR pattern, as well as interventions/fetal response.

4.14.2.8. If variable decelerations do not resolve after interventions the nurse should request a bedside assessment by the provider.

4.14.3. **Prolonged Decelerations**: May be caused by an isolated episode of cord compression, maternal hypotension, excessive uterine activity, vagal stimulation, uterine rupture, vasa previa rupture. In the first stage of labor, transient prolonged decelerations with moderate variability are frequently associated with occiput posterior and transverse positions. Occasionally seen after regional anesthesia with patient in supine position. Non-recurrent prolonged decelerations that are preceded and followed by normal FHR baseline and moderate variability are not associated with fetal hypoxemia of clinical significance. Interventions are the same as for variable decelerations.

4.14.4. **Decreased Variability**: Can be caused by hypoxia/acidosis, drugs, fetal sleep, congenital anomalies, extreme prematurity, fetal tachycardia or other dysrhythmias. It is especially ominous if seen with late, prolonged, or repetitive variable decelerations.

4.14.4.1. Attempt to stimulate fetus to determine if it is a true problem with variability or fetal sleep (scalp stimulation during a vaginal exam, or by acoustic stimulation). **This should only ever be attempted between uterine contractions when the uterus is at rest**. Fetal scalp stimulation should also be avoided during fetal heart rate decelerations.

4.14.4.2. Turn the patient on her side to optimize placental perfusion/fetal oxygenation.

4.14.4.3. Begin oxygen therapy at 10-12 L/min via non-rebreather mask.

4.14.4.4. Notify the provider of FHR pattern, as well as interventions/fetal response.

4.14.4.5. If the variability does not improve after interventions the nurse should request a bedside assessment by the provider.

4.14.5. **Marked Variability**: Can be caused by increased fetal movement, hypoxia, vaginal examinations, and/or second stage pushing. An extended period of marked variability is called a saltatory pattern. This has the appearance of a picket fence. It is a response to hypoxia in a fetus that has adequate reserves.

4.14.6. **Sinusoidal Pattern**: Can be caused by severe fetal anemia or fetal asphyxia. Higher amplitude undulations (>25 cycles/min) can be more ominous than lower amplitude oscillations. When this pattern is seen in association with drug use it is termed pseudosinusoidal pattern and does not seem to adversely affect fetal condition.

4.14.6.1. Position patient in the lateral position.

4.14.6.2. Begin oxygen therapy at 10-12 L/min via non-breather mask.

4.14.6.3. Request a bedside assessment by the provider.

4.14.7. **Bradycardia**: A FHR baseline that is only slightly below normal range (100-110 bpm) is usually well tolerated for prolonged periods if normal variability is present, and in the absence of non-reassuring changes is not considered indicative of fetal compromise. Can be caused by fetal hypoxia, drugs, hypothermia, fetal cardiac dysrhythmias, reflex events (prolonged cord compression) and sometimes there is no apparent cause. A sudden, profound Bradycardia is a medical emergency that may signal uterine rupture, prolapsed umbilical cord, rupture of a vasa previa, or placental abruption.

4.14.7.1. Begin oxygen therapy by mask at 10-12 L/min via non-rebreather mask.

4.14.7.2. Perform a vaginal exam to check for cord prolapse.

4.14.7.3. Change maternal position.

4.14.7.4. Administer an IV fluid bolus.

4.14.7.5. Notify the provider.

4.14.8. **Tachysystole**: Use of oxytocin is perhaps the most frequently identified cause. Abruptio placenta is also a cause. Tachysystole should always be qualified as to the presence or absence of associated FHR decelerations.

4.14.8.1. Turn the patient on her side for uterine displacement.

4.14.8.2. Administer an IV fluid bolus.

4.14.8.3. First reduce the amount of oxytocin infusing if in use, if no improvement, turn off oxytocin. Refer to Oxytocin for Induction of Labor, Augmentation of Labor, and Cervical Ripening Guideline.pdf

4.14.8.4. Notify the provider of FHR status, contraction pattern, and interventions/response.

5. Documentation: Documentation is done in FetaLink and EHR and should include:

5.1. Baseline FHR, variability, presence of accelerations, presence of decelerations and whether they are recurrent and changes in trends over time (how long has this pattern been evolving?).

5.1.1. For documentation purposes it is sufficient to report the type of decelerations observed and the clinician's overall assessment of fetal status without a written description of depth or duration of decelerations when this information is already recorded by an EFM tracing.

5.2. Interventions and outcomes (maternal/fetal responses).

5.3. Uterine contractions, frequency, duration, intensity by palpation, intensity and resting tone in mmHg with IUPC use (also use palpation to validate IUPC readings).

5.4. Notification of the provider (include understanding from provider regarding report).

5.5. Understanding of the patient regarding procedures/interventions.

5.6. Use hospital approved abbreviations.

6.0. **Alarms:** The manufacturer's default settings are the baseline settings used for the fetal monitors on OB. The RN may adjust the parameters to accommodate baselines that are outside of the default settings and causing frequent alarms using the following guidelines:

6.1. The fetal heart rate setting can be adjusted by 10 beats above or below the fetal heart rate baseline. The RN must inform the provider of the change and must document both the report to the provider and the new parameters in the EHR. Any further changes from the new parameters must follow this same process.

6.2. Maternal heart rate and blood pressure alarm parameters can be changed up to 20% from the baseline. The RN must inform the provider of the change and must document both the report to the provider and the new parameters in the EHR. Any further changes from the new parameters must follow this same process.

6.3. Any adjustments in the maternal pulse oximetry alarm parameters must be ordered by the provider and documented in the EHR along with any interventions required, such as oxygen administration or CPAP usage.