Guidelines for Perinatal Care, 8th ed., pp. 48-49, 198-205

ACOG Practice Bulletin, No 145, July 2014, Reaffirmed 2016

JOGNN, No. 44, pp. 683-686, 2015

Terminology and interpretation of electronic fetal monitoring tracings as defined by National Institute of Child Health and Development (NICHD)

Maternal Health Competencies - Fetal Assessment & Antenatal Fetal Surveillance

Fetal Heart Tones (Beginning at 10 Weeks Gestation with hand-held Doppler)

1. Review provider or standing order
2. Explain procedure and obtains patient's verbal consent
3. Perform hand hygiene prior to engaging with patient
4. Assist patient into semi-recumbent position, expose abdomen
5. Locate the point of loudest fetal heart tones and
    a. Palpate maternal pulse
    b. Utilize pulse oximetry (placed on maternal index finger)
6. Monitor maternal pulse and count fetal heart rate for 1 full minute
7. Record findings
8. Demonstrate knowledge of fetal heart rate ranges:
    a. Normal = 110-160 bpm
    b. Bradycardia = < 110 bpm
    c. Tachycardia = > 160 bpm
9. Demonstrate knowledge of criteria for notifying provider of concerns/findings before, during, or after assessment (per clinical policies)

Fundal Height (Beginning at 12 to 14 Weeks gestation)

1. Review provider or standing order
2. Explain procedure and obtain patient's verbal consent
3. Perform hand hygiene prior to engaging with patient
4. Assist patient to semi-recumbent position, expose abdomen
5. Ensure the abdomen is soft and palpates with 2 hands to locate the uterine fundus
6. Measure from top of fundus to top of symphysis pubis using a pliable, non-elastic tape measure, keeping the tape measure in contact with the skin, and measuring along the longitudinal axis without correcting to the abdominal midline
7. Record findings
8. Demonstrate knowledge of significance measurements:
    a. At ≥ 16 weeks, fundal height often matches weeks gestation
    b. At 38-40 weeks, the fundal height gradually drops as the fetus descends into the pelvis

9. Demonstrate knowledge of criteria for notifying provider of concerns/findings before, during, or after assessment (per clinical policies)

Fetal Position Using Leopold's Maneuvers

1. Review provider or standing order
2. Explain procedure and obtains patient's verbal consent
3. Perform hand hygiene prior to engaging with patient
4. After patient has voided assist to a supine position, expose abdomen
5. Correctly uses Leopold's Maneuvers to assess fetal position (under the observation of a trained provider)
6. Document assessment findings in the patient's record
7. Demonstrate knowledge of criteria for notifying provider of concerns/findings before, during, or after assessment (per clinical policies)

Antenatal Fetal Surveillance (AFS)*

Nonstress Test (NST) Criteria

A. Initiation of AFS is suggested no earlier than 32 0/7 weeks of gestation for most at-risk patients.
B. In pregnancies with multiples or particularly worrisome high-risk conditions (e.g., chronic hypertension with suspected fetal growth restriction), testing might begin at an earlier gestational age when delivery would be considered for perinatal benefit.

1. RNs performing this testing should only be an approved provider of this skill as evidenced by successful completion/documentation of a competency assessment
    a. Recommended use of *Association of Women's Health, Obstetric and Neonatal Nurses - Introduction to Fetal Heart Monitoring* online educational offering https://www.awhonn.org biennially
2. Opposite year, successful completion/documentation of a competency assessment that can be comprised of:
    a. Suggested use of *National Certification Corporation - Electronic Fetal Monitoring* assessment successful completion https://ncc-efm.org/game/efmgame.cfm
    b. And/or in combination with an agency developed written examination
3. Review provider or standing order
4. Explain procedure
5. Suggest patient to void prior to testing
6. Perform hand hygiene prior to engaging with patient
7. Assist patient in a semi-fowler or lateral-tilt position (with pillow/wedge under the hip)

8. Expose abdomen, apply conductive gel and elastic belts/transducers to transmit & record fetal heart rate and movement
9. Instruct patient to depress the monitor's mark/test button when she feels the fetus move
10. Remove the belts/transducers and provider tissue to wipe conductive gel from abdomen
11. Provider to either co-sign test findings of RN or independently interpret results (on premises or remotely) and document in the patient's record prior to patient leaving the clinic appointment
12. Demonstrate knowledge of criteria for notifying provider of concerns/findings before, during, or after assessment (per clinical policies)

Use of Fetal Vibroacoustic Stimulation*

Intervention used while NST is occurring

1. Review provider and/or standing order
2. Fetal vibroacoustic stimulation should only be facilitated when patient is on continuous fetal monitoring and a baseline fetal heart tracing has been confirmed to be in the normal range and the gestational age is >32 weeks
3. Confirm patient position in semi-fowler or lateral-tilt position (with pillow/wedge under the hip)
4. Indication: NST is non-reactive for at least 20 minutes but otherwise reassuring
5. Contraindications include:
    a. If NST is non-reassuring, gestational age < 32 weeks
    b. Oligohydramnios
    c. Biophysical profile (score ≤ 4, or ≤ 6 if oligohydramnios present) raising concern for fetal well-being (sinusoidal pattern, absent baseline variability, recurrent late or variable decelerations, bradycardia)
    d. Reactive fetal heart rate
    e. Biophysical score ≥ 8
6. Device is positioned on the maternal abdomen just above the location of the fetal head
7. Stimulation of 80-110 decibels is applied for 1-2 seconds
8. Review the fetal heart tracing for 15-30 seconds for results
9. If vibroacoustic stimulation fails to elicit a response, it may be repeated up to three times for progressively longer durations of up to 5 seconds
10. Document tracing before acoustic stimulation, duration and position of stimulus and response of fetus
11. Apprise provider of findings

* assessment only to be performed by specialty trained RN

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