

ANTEPARTUM TESTING

NONSTRESS TEST (NST):

Indications:

| | |
|---|---------------------|
| Suspicion of IUGR, placental insufficiency, fetal hypoxia | Multiple gestation |
| Gestational DM A2: 30 weeks, A1: 40 weeks | Heavy cigarette use |
| History of stillbirth, decreased fetal movement | Prolonged/postdates |
| Chemical abuse (crack, cocaine, opiate) | |
| Hypertensive disease of pregnancy | |
| Third trimester bleeding | |

Reactive (normal): ≥ 2 accelerations of ≥ 15 beats per minute (bpm) above baseline FHR, sustained for at least 15 seconds in a 20 minute time span

Nonreactive (abnormal): Does not meet above criteria of reactive NST if < 2 such accelerations in a 45 minute period. Send to Labor and Delivery. Consider longer NST or CST.

- NST is usually reactive after 28-32 weeks
- If NST done 24-32 wks, consider longer observation time (60 mins) and accept amplitude of 10 bpm
- A reactive NST correctly identifies a healthy fetus 98% of the time (immediate, not future health)
- Overall testing time is usually 30 minutes, but may be extended to 60-90 minutes
- Predictive of fetal well being for 3 days

CONTRACTION STRESS TEST (CST):

- Done at HCMC OBTU
- Indications: Nonreactive NST where fetal compromise is suspected
- Contraindications: High risk for preterm labor, previous classical C/Section, PROM, placenta previa

Negative CST (normal): Three contractions of good quality in 10 minutes lasting ≥ 40 seconds without late decelerations

Positive CST (abnormal): $> 50\%$ of contractions are followed by late decelerations. Uterine hyperstimulation, contractions occurring more often than every 2 minutes or lasting longer than 90 seconds, should not be present.

Note: The CST can be done with low dose pitocin administration or nipple stimulation.

AMNIOTIC FLUID INDEX (AFI)

- Measure depth of amniotic fluid in quadrants with ultrasound (normal 5-24 cm total)
- Done weekly starting at 41 weeks to check for oligohydramnios
- Order on EPIC using OB ultrasound – in comments write “AFI only”

BIOPHYSICAL PROFILE (BPP):

- Done in HCMC OB Testing Unit
- Five components, each given a score of 0 (absent, insufficient or abnormal) or 2 (normal or present)
 1. NST
 2. Fetal breathing 1 or more episodes lasting \geq 30 seconds in 30 minutes
 3. Fetal movement 3 or more discrete body or limb movements in 30 minutes
 4. Fetal tone \geq 1 episode of extension of fetal extremity with return to flexion or opening or closing of hand
 5. Amniotic fluid single vertical pocket >2 cm

Normal score 8-10

6 is equivocal

4 or less is abnormal

REFERENCES:

ACOG Practice Bulletin, October 1999

Up To Date 2007