

## **Protocol #13 – Testing and Triage University of New Mexico**

### **Antenatal Fetal Monitoring**

Lisa E. Moore, MD

The goal of antenatal fetal monitoring is to identify the fetus whose death may be prevented by intervention and to provide maternal reassurance. Fetal heart rate patterns and fetal activity are sensitive to hypoxemia and acidemia. Fetal cardiotocography (NST) can identify the fetus that is poorly oxygenated or acidemic due to placental dysfunction or other causes. However an NST will not identify the fetus at risk for an acute catastrophic event such as an abruption or cord accident. Performance of the NST is based on the premise that the fetal heart rate will accelerate with fetal movement in the noncompromised fetus.

- 1. The earliest gestation for performance of the NST is 24 weeks 0 days.**

This represents the current lower limit of viability at which intervention for nonreassuring fetal assessment will be performed.

- 2. Prior to 24 weeks 0 days the fetal heart rate should be assessed by auscultation**
- 3. After 32 weeks there must be 2 accelerations of the fetal heart beat of at least 15 bpm above baseline that last for 15 seconds in a 20 minute period.**
- 4. Prior to 32 weeks there must be 2 accelerations of the fetal heart beat of at least 10 bpm above baseline that last for 10 seconds in a 20 minute period**

#### **Prolonged Observation:**

With a normal baseline heart rate, a nonreactive NST after 20 minutes should be observed for an additional 20 minutes.

#### **Vibroacoustic Stimulation (VAS)**

VAS may be used in the nonreactive fetus with a normal baseline heart rate.

The artificial larynx is applied to the maternal abdomen and a stimulus is applied for 1-2 seconds. This may be repeated 3 times. Fetal heart rate accelerations associated with VAS are indicative of a healthy fetus.

#### **Response to a nonreactive NST**

A nonreactive NST with a normal baseline heart rate, should be followed by a biophysical profile (BPP) or a contraction stress test (CST).

Signs of fetal compromise (e.g. late or variable decelerations, bradycardia) necessitate evaluation for possible delivery.

#### **Follow Up**

Timing and frequency of repeat NST should be determined by the clinical situation.

**References:**

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