PROGENY

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New NICHD Electronic Fetal Monitoring Updates

In April of 2008, the National Institute of Child Health and Human Development (NICHD) along with the American College of Obstetricians and Gynecologists (ACOG), the Society for Maternal-Fetal Medicine, and the Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN) met for a two-day workshop to review the nomenclature, interpretation, and research recommendations for fetal monitoring. The recommendations have been jointly published in ACOG's and AWHONN's September 2008 journals. This issue of progeny will address the highlights from this workshop.

What's New?

Uterine Contractions: are quantified as the number of contractions present in a 10-minute window, averaged over 30 minutes. Besides frequency, other factors such as duration, intensity, and relaxation between contractions are equally important.

Uterine Activity Definitions:

- **Normal**: ≤5 contractions in a 10-minutes, averaged over a 30-minutes window.
- **Tachysystole**: >5 contractions in a 10-minutes, averaged over a 30-minute window. Tachysystole should be qualified as to the presence or absence of associated FHR decelerations. The term tachysystole applies to both spontaneous and stimulated labor.

IMPORTANT: The terms ***hyperstimulation*** and ***hypercontractility*** are not defined and should be abandoned.

Three Tier Fetal Heart Rate Interpretation System

Category I: NORMAL: Category I FHR tracings include <u>all</u> of the following:

- Baseline rate: 110-160 bpm
- Baseline FHR variability: moderate
- Late or variable decelerations: absent
- Early decelerations: absent or present
- Accelerations: absent or present

Category II: INDETERMINATE: Category II tracings represent the majority of FHR tracing encountered in clinical practice. Examples of Category II include <u>any</u> of the following:

Baseline Rate:

- Bradycardia not accompanied by absent baseline variability
- Tachycardia

Baseline FHR Variability:

- Minimal baseline variability
- Absent baseline variability not accompanied by recurrent decelerations
- Marked baseline variability

Accelerations:

- Absence of induced accelerations after fetal stimulation

Periodic or episodic decelerations:

- Recurrent variable decelerations accompanied by minimal or moderate baseline variability
- Prolonged deceleration ≥2 minutes but < 10 minutes
- Recurrent late decelerations with moderate variability
- Variable decelerations with other characteristics, such as slow return to baseline, "overshoots", or "shoulders"

Category III: ABNORMAL: Category III tracings include either:
Absent baseline FHR variability and any of the following:

- Recurrent late decelerations
- Recurrent variable decelerations
- Bradycardia

Sinusoidal pattern

Category I tracings are strongly predictive of normal fetal acid-base status and can be followed in a routine manner. Category II tracings are *not predictive* of abnormal fetal acid-base status but do require evaluation and continued surveillance taking into account the entire clinical picture. Category III tracings *are predictive* of abnormal fetal acid-base status at the time of observation and require prompt evaluation. Efforts to expeditiously resolve the abnormal pattern may include but are not limited to: maternal oxygen, change in maternal position, discontinuation of labor stimulation and treatment of maternal hypotension.

Remember: Categorization of the FHR tracing evaluates the fetus at that point in time; tracing patterns can and will change over time.

Macones, G et al. The 2008 National Child Institute of Child Health and Human Development Workshop Report on Electronic Fetal Monitoring. *Obstetrics & Gynecology.* 2008; 112 (3): 661-666.

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