GUIDELINE 15

Assessment and Monitoring in Labor and Delivery

PATIENT EDUCATION

During prenatal care, the clinician and patient will discuss common events and procedures in labor, including methods of assessing fetal well-being.

ADMISSION TO LABOR AND DELIVERY

The responsible clinician or designee shall evaluate the patient, enter a note, and provide orders within two hours of his or her patient arriving at the Labor and Delivery unit.

The clinician or designee shall examine the patient before prescribing initial therapy with tocolytic agents in the second or third trimester. Documentation should include presumptive diagnosis, possible causes, and that informed consent has been obtained.

If the patient is not in active labor, and is low risk, i.e.:

- 37–41⁶⁄₇ weeks gestation,
- estimated fetal weight appropriate for gestational age,
- has a Category I electronic fetal monitoring strip on admission or a reassuring auscultation,
- absence of meconium,
- vertex presentation, and
- absence of any medical or obstetrical complications,

Then, initial assessment can be delayed until:

- a risk factor is identified,
- the patient enters active labor, or
- the patient requests pain medication.

INITIAL EVALUATION BY CLINICIAN IN LABOR AND DELIVERY

The clinician's initial evaluation and documentation in Labor and Delivery shall include, at a minimum:

- reviewing the patient's prior pregnancy(s)
- reviewing and summarizing the antenatal course;
- physical exam (including an estimated fetal weight);
- evaluation of status of labor, including a description of uterine activity, cervical dilation and effacement, and fetal station and presentation, unless vaginal exam deferred;
- evaluation of fetal status, including interpretation of auscultation or electronic fetal monitoring strips, if generated; and
- the plan for delivery.

Fetal status must be assessed on every patient who is evaluated or admitted in a triage unit. This should be performed without delay for any fetus of 24 or more weeks. A recording of fetal heart rate (FHR) and uterine contractions is advised until categorization of the FHR tracing is determined. If a Category I pattern cannot be obtained in a reasonable time frame, continued evaluation should proceed.

FIRST STAGE OF LABOR AFTER INITIAL EVALUATION

For a patient without complications, continuous FHR monitoring is not required if the initial FHR tracing exhibits a Category I tracing.

"Categorization of the FHR tracing evaluates the fetus at that point in time; tracing patterns can and will change. An FHR tracing may move back and forth between categories depending on the clinical situation and management strategies employed." [1]

Fetal heart rate (and variability—if electronically monitored) should be evaluated and recorded at least every 15–30 minutes, depending on the risk status of the patient, during the active phase of labor).[2,3] The FHR should be evaluated as soon as is feasible after spontaneous rupture, or immediately after artificial rupture of the membranes.

Continuous fetal heart rate monitoring should be done for patients with any of these indicators:

- history of an abnormal antepartum FHR or rhythm,
- breech presentation,
- history of prior cesarean delivery,
- multiple gestation,

- nonreassuring fetal assessment,
- significant maternal illness,
- use of oxytocin,
- abnormality of active or second stage labor,
- thick meconium, or
- heavy vaginal bleeding.

Electronic fetal monitoring is also preferred when auscultation is not feasible. Once continuous electronic fetal monitoring is chosen and initiated, a technically satisfactory and continuous tracing should be achieved. If this cannot be accomplished, the reasons must be documented and an alternative plan for fetal assessment must be developed.

In the event of a Category III FHR tracing, the attending clinician or his or her designee shall promptly evaluate the fetal status and initiate efforts to resolve the abnormal FHR pattern. If corrective measures are not successful, preparations for delivery will be initiated.[2]

An amnioinfusion may be considered when persistent variable decelerations are seen on the FHR tracing.[2]

EVALUATION DURING FIRST STAGE LABOR

The patient shall be evaluated by the responsible clinician or designee during labor at appropriate intervals. Each evaluation should include:

- assessment of maternal status;
- description of uterine activity;
- assessment of fetal status;
- description of findings on vaginal exam, if performed, including cervical dilation and effacement, fetal station, change in status of membranes, and progress since last exam;
- summary of maternal and fetal status; and
- plan, including plans for or performance of clinical interventions and pain management.

Each evaluation should be recorded in the medical record.

EVALUATION DURING SECOND STAGE LABOR

The monitoring clinician should document in the medical record at the time of identification of second stage, after two hours of second stage, and hourly thereafter. This documentation, which should be dated and timed, should include, at a minimum:

- assessment of maternal status;
- assessment of fetal status;
- description of uterine activity;
- fetal station and, if known, position; and
- assessment of progression and a plan for delivery.

Fetal heart rate should be evaluated and recorded at least every 5–15 minutes, depending on the risk status of the patient.[2-3]

In the event of a Category III FHR tracing, the attending clinician or his or her designee shall promptly evaluate the fetal status and promptly initiate efforts to resolve the abnormal FHR pattern. He or she may consider obtaining another opinion about the fetal status.

No later than the end of the second hour of the second stage of labor, and every hour thereafter, the attending physician or midwife should personally evaluate the patient and document in the medical record the minimum as noted above. Additionally, the providers involved (which may include the attending physician, resident, nurse midwife, RN, and/or charge nurse) shall discuss the patient's progress and plan of care at each hourly interval.

By the end of the third hour of the second stage of labor, the attending obstetrician should personally evaluate and examine the patient, immediately document details of this evaluation, and be involved in continued planning.

DELIVERY

If a patient is moved to another room for delivery, fetal

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monitoring should be established in that room unless delivery is reasonably expected to occur imminently. For patients about to undergo cesarean delivery, monitoring should continue as is feasible until abdominal preparation for surgery is begun.

When the delivering clinician is concerned about the fetal status at delivery, a double-clamped segment of the umbilical cord should be set aside for possible arterial blood gas assessment. If the neonatal 5-minute Apgar score is 5 or less,[4] or if requested by the delivering or newborn provider, umbilical artery blood should be sent for analysis whenever possible. Blood can be drawn from the clamped segment of cord at any time within an hour of delivery.

AFTER DELIVERY

Following delivery, the clinician must record in the medical record all the events relating to the delivery in a reasonable period of time after the patient's needs have been fully attended to, using forms, notation, and/or dictation as appropriate to the case. The clinician should be readily available to return to the unit until the immediate (30 minute) postpartum period is complete and the patient is stable.

INSTITUTIONAL RESPONSIBILITY

Each institution shall provide and maintain appropriate fetal monitoring apparatus to meet the needs of its patients. Accommodations for preserving all electronic fetal monitoring tracings *(see Guideline 1)* is also the responsibility of the institution, with special consideration and allocation of resources to assure permanent and secure preservation of fetal monitor tracings (antenatal and intrapartum) for all babies born with five minute Apgar scores of 5 or less. If copies of electronic fetal monitor strips are kept, then preservation and storage of paper fetal monitor strips is not necessary.

Each hospital shall have at least daily multidisciplinary meetings held on the Labor and Delivery unit, at which time all patients' relevant clinical issues shall be discussed and appropriate clinical and administrative plans agreed upon by the team caring for the patients.

CLINICIAN EDUCATION

Ongoing continuing education should be provided by each institution for all obstetrical personnel. Subjects to be reviewed may include FHR monitoring, emergency measures for the treatment of shoulder dystocia and eclampsia, forceps or vacuum application, and management of therapeutic hypothermia. Each institution shall develop a program to evaluate and document staff competence.

1. Macones GA, et al. The 2008 National Institute of Child Health and Human Development Workshop Report on Electronic Fetal Monitoring Update on Definitions, Interpretation, and Research Guidelines. *Obstetrics and Gynecology.* 2008;112:661–66.

2. Intrapartum fetal heart rate monitoring: nomenclature, interpretation, and general management principles. ACOG Practice Bulletin No. 106. July 2009. Reaffirmed 2017. American College of Obstetricians and Gynecologists.

3. Intermittent auscultation for intrapartum fetal heart rate surveillance. American College of Nurse-Midwives. Clinical Bulletin No. 11. *Journal of Midwifery and Women's Health.* 2010;55:397–403.

4. The Apgar Score. ACOG Committee Opinion No. 644. October 2015. American College of Obstetricians and Gynecologists.