
Guidelines for Perinatal Care

Fourth
Edition

American Academy
of Pediatrics



The American College
of Obstetricians
and Gynecologists



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Guidelines for Perinatal Care was developed through the cooperative efforts of the American Academy of Pediatrics (AAP) Committee on Fetus and Newborn and the American College of Obstetricians and Gynecologists (ACOG) Committee on Obstetric Practice. The guidelines should not be viewed as a body of rigid rules. They are general and intended to be adapted to many different situations, taking into account the needs and resources particular to the locality, the institution, or type of practice. Variations and innovations that improve the quality of patient care are to be encouraged rather than restricted. The purpose of these guidelines will be well served if they provide a firm basis on which local norms may be built.

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on her chart, and make an effort to ensure her understanding of the events taking place. The provider responsible for the patient's care should be kept informed of her progress and notified promptly of any abnormality. When the patient is in active labor, the provider should be readily available to provide care.

Patients in active labor should avoid oral ingestion of anything except sips of clear liquids, occasional ice chips, or preparations for moistening the mouth and lips. When significant amounts of hydration and energy substrate are needed because of a long labor, they should be given by intravenous infusion.

The progress of labor should be evaluated by periodic vaginal examinations. Attention to perineal hygiene may help reduce infection of the upper genital tract. If the membranes are ruptured, attention to clean technique is important. Sterile, water-soluble lubricants may be used to reduce discomfort during vaginal examinations. Antiseptics such as povidone-iodine and hexachlorophene have not been shown to decrease infections acquired during the intrapartum period. Furthermore, these agents may produce local irritation and are absorbed through maternal mucous membranes. Thus, lubricants containing these agents, and sprays or liquids delivering them directly to the introitus, are not recommended for use during labor.

For women who are at no increased risk of complications, evaluation of the quality of the uterine contractions and pelvic examinations should be sufficient to detect abnormalities in the progress of labor. Vital signs should be recorded at regular intervals, at least every 4 hours. This frequency may be increased, particularly as active labor progresses according to clinical signs and symptoms. Documentation of the course of a woman's labor may include, but need not be limited to, the presence of physicians or nurses, position changes, cervical status, oxygen and drug administration, blood pressure, temperature, amniotomy or spontaneous rupture of membranes, color of amniotic fluid, and Valsalva efforts.

Fetal Heart Rate Monitoring

Fetal heart rate monitoring to reflect fetal status during labor can be done by intermittent auscultation or continuous electronic means.

Guidelines should clearly delineate the procedures to be followed for using these techniques and for interpreting the observations.

The intensity of fetal heart rate monitoring and the method used for fetal surveillance during labor may vary, depending on both the risk assessment at admission and the preference of the obstetric staff, which will be influenced by departmental policy and experience. If risk factors are present at admission or appear during the course of labor, there is no difference in perinatal outcome between intermittent auscultation and continuous fetal monitoring if one of the following methods for fetal heart rate monitoring is used:

- During active labor in stage I, the fetal heart rate should be determined and recorded at least every 15 minutes, preferably just after a uterine contraction, when intermittent auscultation is used. If continuous fetal heart rate monitoring is used, the heart rate tracing should be evaluated at least every 15 minutes.
- During stage II labor, the fetal heart rate should be determined and recorded at least every 5 minutes if auscultation is used. If continuous fetal heart rate monitoring is used, the tracing should be evaluated at least every 5 minutes.

If no risk factors are present at the time of the patient's admission, a standard approach to fetal surveillance is to determine and record the fetal heart rate at least every 30 minutes just after a contraction in active stage I labor and at least every 15 minutes in stage II labor.

The appropriate use of fetal monitoring includes recording and interpreting the tracings. Nonreassuring findings should be noted and communicated to the physician or nurse-midwife so that appropriate intervention can occur. When a change in the rate has been noted, it is also important to document a subsequent return to reassuring findings. Terms that describe the fetal heart rate patterns (eg, *early*, *late*, or *variable decelerations*; *accelerations*; and *beat-to-beat variability*) should be used in both chart entries and verbal communication between obstetric personnel.

Internal fetal heart rate monitoring and internal uterine pressure monitoring may be used to gain further information about fetal status and uterine contractility, respectively. Relative contraindications to internal fetal monitoring include maternal human immunodeficiency

virus infection and other high-risk factors for fetal infection, including herpes simplex virus and hepatitis B virus.

A fetal scalp blood sample may be used to obtain information about fetal acid-base status during labor if the fetal heart rate pattern is nonreassuring or uninterpretable. Fetal scalp or acoustic stimulation that results in acceleration of the fetal heart rate is also reassuring if the fetal heart rate pattern is difficult to interpret.

If fetal monitoring is used, all fetal heart rate tracings should be identified with the patient's name, hospital number, and the date and time of admission. All fetal heart rate tracings should be easily retrievable from storage so that the events of labor can be studied in proper relationship to the tracings.

Induction and Augmentation of Labor

Each hospital's department of obstetrics and gynecology should develop written protocols for preparing and administering oxytocin solution. Indications for induction and augmentation of labor should be stated. The qualifications of personnel authorized to administer oxytocin for this purpose should be described. Methods for assessment of mother and fetus before and during oxytocin infusion should be specified. It is recommended that fetal heart rate monitoring be performed as delineated for high-risk patients in active labor.

Oxytocin is used to induce labor when the benefits to either the mother or the fetus outweigh those of continuing the pregnancy. The infusion should be administered by a device that permits precise control of the flow rate to ensure accurate, minute-to-minute control. Oxytocin is also used to augment labor and enhance inadequate uterine contractions in women in whom an assessment of the relationship between the maternal pelvis and fetal size is otherwise normal. Buccal or intramuscular administration of oxytocin should not be used to induce or augment labor.

Various regimens exist for the intravenous infusion of oxytocin to stimulate uterine contractions. These regimens vary in initial dose, amount of incremental dose increase, and interval between dose increases. Each hospital's department of obstetrics and gynecology should determine which regimen will be standard for that hospital so