



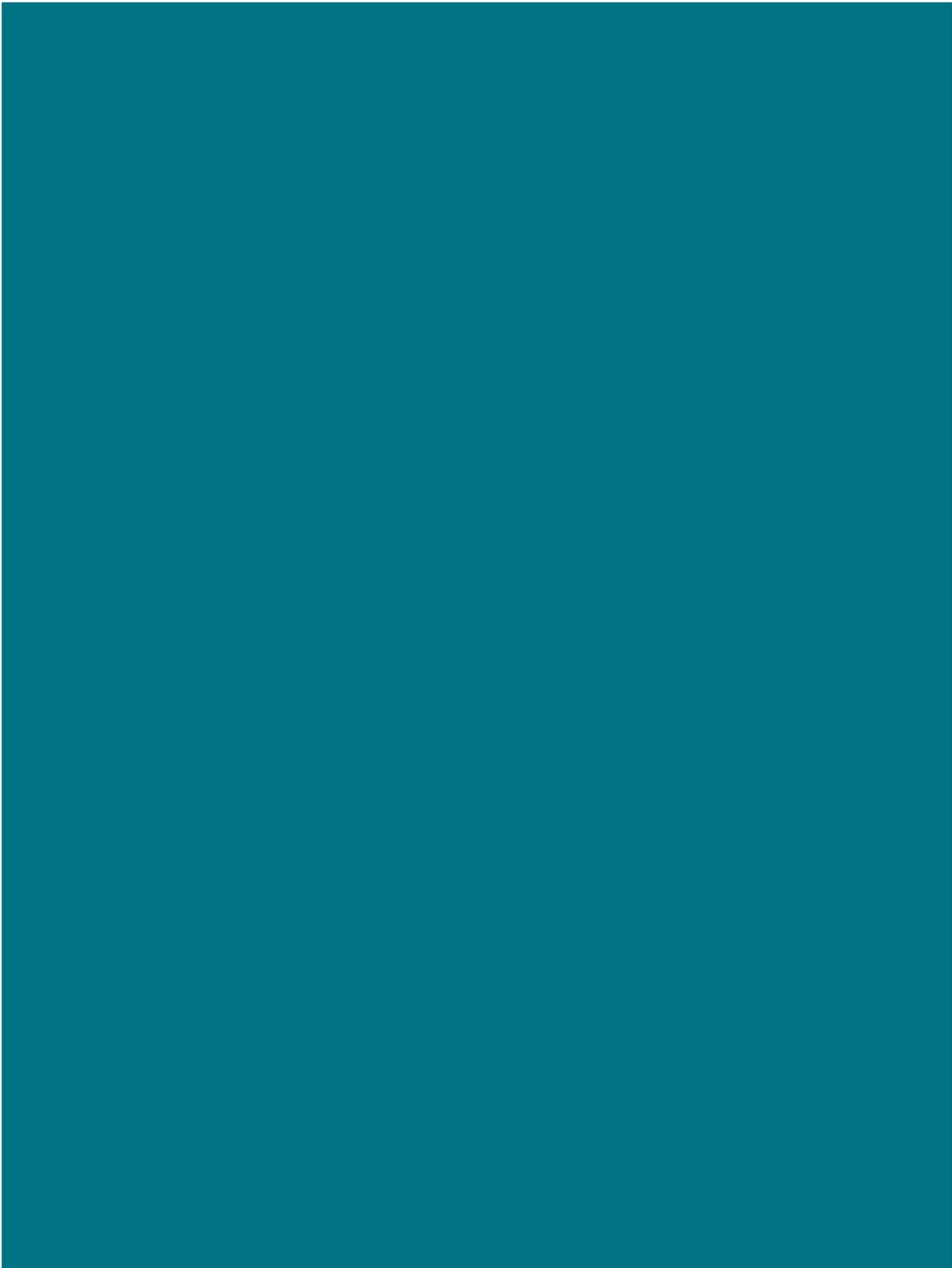
# Clinical Guidelines for Obstetrical Services

AT CRICO-INSURED INSTITUTIONS

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The entire *Clinical Guidelines for Obstetrical Services*, along with related information and links, is available at [www.rmhf.harvard.edu/guidesob](http://www.rmhf.harvard.edu/guidesob)

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# Introduction

The *Clinical Guidelines for Obstetrical Services at CRICO-insured Institutions* are intended to provide guidance for clinicians and to support optimal outcomes for patients receiving care by CRICO-insured clinicians.<sup>1</sup> The recommendations for practice included in this document were arrived at through careful consideration of the available evidence. These *Guidelines* offer a framework for provision of obstetrical care, rather than an inflexible set of mandates. Clinicians involved in obstetrical care must use their professional knowledge and judgment when applying any recommendations to the management of individual patients. These *Guidelines* are subject to revision at regular intervals as changes in clinical practice evolve.

## PRINCIPLES

Optimal care requires a collaborative process among obstetrical clinicians who respect the right of the patient to make informed decisions for themselves and their fetus.

## RESOURCES

The *Guidelines* are a codification of:

- existing best practices,
- recommendations of the American College of Obstetricians and Gynecologists (ACOG) and the American College of Nurse-Midwives,
- *Guidelines for Perinatal Care* (American Academy of Pediatrics and ACOG), and
- *Practice Guidelines for Obstetrical Anesthesia* (American Society of Anesthesiologists).

## LANGUAGE

CRICO recognizes that obstetrical care providers treat people of all gender identities. Accordingly, gender-limiting terminology has been reworded in this, the 2022 edition of *The Clinical Guidelines for Obstetrical Services at CRICO-insured Institutions* wherever possible.

The 2022 revisions to the *Clinical Guidelines for Obstetrical Services* were guided by a multi-disciplinary group of clinicians, including obstetricians, nurse leaders, nurse midwives, and anesthesiologists from several CRICO-insured institutions. The clinical leaders of the obstetrical departments of the CRICO-insured institutions have approved the current version of these guidelines. Questions regarding this document should be directed to the Patient Safety Department at CRICO, Boston, Massachusetts.

1. As of May 2022, the following institutions insured through CRICO provide obstetrical service: Anna Jacques Hospital, Atrius Health, Beth Israel Deaconess Medical Center, Beth Israel Deaconess Hospital Plymouth, Beverly Hospital, Brigham and Women's Hospital, Cambridge Health Alliance, Cooley Dickinson Health Care, Martha's Vineyard Hospital, Massachusetts General Hospital, Mount Auburn Hospital, Nantucket Cottage Hospital, Newton-Wellesley Hospital, North Shore Medical Center, Wentworth-Douglass Hospital, and Winchester Hospital.

## GUIDELINE 1

# Documentation for Patient Safety

## GENERAL PRINCIPLES OF DOCUMENTATION

The medical record is a sequential record of patient care, a storage place for diagnostic test results, a communication tool for clinicians, and a legal document.

1. Include date and time of each encounter (telephone, electronic, and face-to-face).
2. Include the diagnostic rationale in the assessment portion of the note.
3. Clearly state the plan of care.
4. Consent discussions are appropriate to include in the body of a note as well as in a signed form.
5. Proofread and correct dictated notes prior to signing.
6. Only medical information is appropriate in the medical record; references to legal action, clinical discord, or incident reports are not intended for the medical record.
7. Do not obliterate errors, remove pages, or otherwise alter a medical record.
8. Patient requests for changes in the medical record should be managed by institutionally approved procedures.

## ANTEPARTUM, INTRAPARTUM, AND POSTPARTUM MEDICAL RECORDS

Each encounter should be documented in the medical record or be retrievable electronically. The note should include, as appropriate: history, physical, vital signs, test results, assessment, plan, and instructions. Documentation of electronic fetal monitoring (EFM) pattern terminology, pattern recognition, and interpretation should be consistent with current recommendations supported by the National Institute of Child Health and Human Development and American College of Obstetricians and Gynecologists.<sup>1,2</sup>

An antenatal record shall be completed on every obstetrical patient and should be retrievable electronically or via a paper copy. Department of Public Health-licensed facilities are required by the Commonwealth of Massachusetts to have a copy of this antenatal record made available in the hospital after

24 weeks of pregnancy.<sup>3</sup> If any significant changes occur after 24 weeks, the obstetrical provider must send an update to Labor and Delivery. Periodic updates after 36 weeks are advised.

For vaginal delivery, completion of the institution's standard delivery summary is required. A short note shall be entered in the medical record. A short written note shall be entered in the medical record. In the case of all operative deliveries (i.e., non-spontaneous vaginal and cesarean), and those complicated by shoulder dystocia, a dictated operative note or its electronic equivalent should be completed. This note shall include the indications and rationale for any procedure or maneuvers selected.

A printed or electronic copy of any EFM strips and recorded ultrasound images is to be maintained as part of the patient's permanent medical record. If an electronic health record is used, then use only electronic notes (i.e., not handwritten on the paper strips).

## PRESERVATION OF EFM RECORDS

Department of Public Health-licensed facilities are required by Massachusetts law<sup>4</sup> to keep a record of EFM tracings for at least five years, although 20 years may be appropriate. The tracings should include the patient's name and hospital number; date and time at the beginning of the tracing; and—if delivery concludes the monitoring—date and time of delivery. EFM tracings need not be stored within the individual patient record, but must be readily retrievable by the hospital or institution. If electronic copies of EFM strips are kept, then preservation and storage of paper strips is not necessary.

## INSTITUTIONAL RESPONSIBILITY

The institution has a responsibility (shared with the medical staff) mandated by the Joint Commission to provide adequate resources for record processing, to support quality improvement activities, and to adhere to record keeping standards including compliance with federal regulations (e.g., HIPAA) and its mandate for a designated institutional compliance officer.

## GUIDELINE 1: DOCUMENTATION FOR PATIENT SAFETY

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 2021. American College of Obstetricians and Gynecologists.
3. Commonwealth of Massachusetts: Hospital Licensure Regulations. 105 CMR §130 Hospital Licensure, Mass.Gov Available at: <http://www.mass.gov/eohhs/docs/dph/regs/105cmr130.pdf> - section 130.627.
4. Commonwealth of Massachusetts: Hospital Licensure Regulations. 105 CMR §130 Hospital Licensure, Mass.Gov Available at: <http://www.mass.gov/eohhs/docs/dph/regs/105cmr130.pdf> - section 130.370.

## GUIDELINE 2

## Informed Consent

Informed consent is a process employing oral and written communication to convey to the patient the significant and material risks, benefits, and alternatives of medical treatments, including the risk of not pursuing any treatment. The consent form should be considered the documentation of the discussion(s), and both the discussion with the patient and the completed consent forms are necessary to ensure and verify that the patient is informed about their and their baby's care. Consent forms should be presented to patients in a language they can understand. If this is not feasible, a competent translator should be available to translate the consent form orally into the patient's primary language.

Prenatally, the clinician will initiate the informed consent process for labor and delivery care, guided by the general written obstetrical consent form. Consistent use of an institutionally approved informed consent form is expected.

Discussions involving specific obstetrical interventions, such as external version or vaginal delivery for second twin (non-vertex), use of tocolytic or uterotonic drugs, or forceps delivery, should be initiated with the patient as early as is feasible.

Informed consent during the course of antenatal care and labor management (when appropriate) should be documented in the medical record.

The person who is actually performing a procedure is responsible for reviewing and confirming the informed consent with the patient and for documenting that conversation in the medical record.

Specific and separate written consent is required for:

- trial of labor after cesarean delivery<sup>1</sup>
- cesarean delivery on birthing person request<sup>1</sup>
- delivery of twins<sup>1</sup>
- breech vaginal delivery
- external version<sup>1</sup>
- circumcision

## GUIDELINE 2: INFORMED CONSENT

If an obstetrical patient refuses to sign the consent form, then more dialogue between the clinician and the patient about the patient's preferences vis-a-vis medical judgment during labor and delivery is indicated. Issues of trust should be addressed. The obstetrical team and hospital administrators should develop a coordinated plan to address those issues and manage the patient's labor and delivery. This discussion should be documented in the patient's medical record. Documentation should include the dialogue about the pregnancy and plans for labor and delivery that have occurred and note the proposed obstetrical procedures, activities, risks, and benefits, including unexpected risks and complications. The patient's oral consent for continuing obstetrical care and refusal to sign a consent form should also be documented. The institution's printed obstetrical consent form can serve as a reference for the detailed note.

If written consent cannot be obtained in an emergency situation, then an attempt should be made to obtain oral consent. This will be sufficient, and can be documented in the record after the emergency has resolved.

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1. Sample consent forms can be found in the Appendix to these Guidelines.

## GUIDELINE 3

## Clinician Coverage and Transfer of Patient Care<sup>1</sup>

For clinicians working as a group, coverage should be formally agreed to with adequate communication within the group to ensure good follow up. Each patient should be informed early in their pregnancy about group coverage arrangements.

For non-group practice, coverage arrangements for a clinician who is unavailable must be carefully made with a qualified clinician who has adequate time and has agreed to provide coverage. A formal transfer of care should occur at the time the coverage is initiated.

When a patient is in the hospital and the clinician arranges for coverage, the transfer of care should ensure the following:

- the patient is notified and knows who will be covering;
- other members of the health care team are notified of the coverage arrangements;
- the clinician assuming the coverage is qualified and has the necessary clinical privileges;
- the covering clinician is notified in a timely manner and agrees to cover; and
- both clinicians' office staffs are informed of coverage arrangements, and know how and where to reach the clinician who has agreed to assume coverage.

### TRANSFER OF PATIENT CARE

The process for the transfer of patient information and knowledge from one clinician to another clinician should include:

- interactive communications, including the opportunity to ask questions and to clarify and confirm the information being transmitted;
- limited interruptions;
- a process for verification; and
- an opportunity to review relevant historical data.

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1. Communication strategies for patient handoffs. ACOG Committee Opinion No. 517. February 2012, Reaffirmed 2016. American College of Obstetricians and Gynecologists.

## GUIDELINE 4

# Consultation

Consultation occurs between two professionals who are both licensed and credentialed to provide patient care. One (the “requesting clinician”) requests an opinion from the other (the “consultant”). The requesting clinician considers the recommendations of the consultant and decides whether or not to follow them based on their clinical judgment.

All clinicians are encouraged to seek additional medical advice whenever they have concern about a diagnosis or course of treatment. Consultation is essential when the experience, expertise, or comfort level of the attending clinician is exceeded. Once the limits of a clinician’s privileges are exceeded, care must be transferred.

Consultations may be formal or informal.

***A formal consultation*** occurs when an opinion about a specific circumstance is requested. The requesting clinician is responsible for documenting the request.

- If the consultation is in person, the consultant shall personally evaluate the patient including a physical examination, where appropriate, and a written note will be placed in the hospital record.
- If a telephone consultation is obtained, both parties should be clear that this is a formal consultation and that a summary of the discussion and the consultant’s name will be entered into the medical record.
- If the final management plan differs from the consultant’s recommendation, then the responsible requesting clinician should document their rationale for choosing a different course of action.

When a consultation occurs, clear documentation should be made in the patient’s medical record defining the nature of the consultation and indicating whether it is a) a one-time consult, b) care that will now continue jointly, or c) a transfer of care.

***An informal consultation (curbside consult)*** occurs when the discussion between clinicians lacks details specific to one patient. An informal consultant is not named in the record. When these consultations occur, both parties should be clear that the discussion is not intended to constitute individual patient care, and does not create a clinician/patient relationship.

Absent a formal consultation, avoid entering limited statements such as “physician aware.” Such wording may imply that the indicated physician has knowledge of the case when they do not.

## GUIDELINE 5

## Resolution of Clinical Discord

Each institution shall have a formal process to resolve differences of opinion or judgment between professional staff about medical management, conduct of labor, or interpretation of tests of fetal status. The process should consider these points:

1. Priority should be given to optimizing quality patient care.
2. In cases of discord, the involved parties shall first discuss the discord and attempt to resolve it. The “two challenge rule,”<sup>1</sup> and other methods of conflict resolution may be considered to facilitate structured communication and avert medical errors.
3. If the involved parties cannot resolve the discord, they should seek assistance, initiating the chain of command<sup>2</sup> through medical, resident/fellow supervisory physician, midwifery, nursing hierarchy, and/or department leadership, as indicated.<sup>3,4</sup> A list of medical staff, supervisory physician, midwifery, and nursing hierarchy should be available in the clinical areas.
4. All discussions pertaining to differences in clinical opinion should occur among professional staff only, and out of earshot of the patient and family.
5. Differences in clinical observations and opinions should be documented in an objective, non-editorial fashion in the medical record.
6. Unexpected medical incidents should be reported to the institutional risk manager.
7. The occurrence of the discord should be reported to the Chief of Obstetrics, the Director of Nurse Midwifery, and/or the Obstetrical Nursing Director, as indicated.

1. Assertively voicing your concern(s) at least twice to ensure your concerns have been heard by your colleague.

2. A series of steps ascending the administrative and clinical lines of authority established to ensure effective conflict resolution in patient care situations.

3. Patient safety in obstetrics and gynecology. ACOG Committee Opinion No. 447. December 2009, Reaffirmed 2015. American College of Obstetricians and Gynecologists.

4. American College of Nurse-Midwives. Code of Ethics. 2005. Reviewed 2013.

## GUIDELINE 6

## Preconception Care

When feasible, the clinician should discuss pregnancy and preconception issues with a patient who is anticipating pregnancy. The patient should be encouraged to consider a preconception visit. Such a visit may include:

- lifestyle issues including tobacco, alcohol, drugs of abuse, diet, exercise, caffeine, weight, oral care;
- assessment for domestic violence and psychosocial issues;
- safety of prescribed and non-prescribed medications, including herbal remedies and alternative choices;
- dietary supplements, including recommendation for folic acid supplementation;
- review of major medical problems or risk factors, such as hypertension, diabetes, advanced age, obesity, eating disorders;
- review of risks of infectious exposure related to travel;
- review of previous pregnancy problems such as date of last birth, gestational age, prior cesarean delivery, gestational diabetes, hypertension in pregnancy;
- review of family history with specific attention to conditions that may place the patient at risk (e.g., parental thromboembolic disease, diabetes);
- ethnicity; and
- risk of genetic diseases with offer for genetic testing if appropriate (e.g., Tay Sachs, Canavan's, cystic fibrosis, hemoglobin electrophoresis, PKU, history of birth defects or intellectual disability).

Review environmental exposures such as:

- lead, pesticides, workplace hazards;
- infectious exposures, including toxoplasmosis, Zika, latent TB, malaria, HIV, STIs (with offer of HIV, STI testing); and
- evaluation of vaccine status and offer vaccines if indicated (e.g., rubella, Tdap, hepatitis B, varicella, HPV, influenza).

## GUIDELINE 7

# Pregnancy Dating/ Estimated Date of Delivery (EDD)

Accurate assessment of gestational age is of paramount importance for management of pregnancy, interpretation of test results, and timing of interventions. Pregnancy dating should be determined by a combination of the historical, clinical, and laboratory criteria listed below:

- known normal last menstrual period (LMP), corrected for cycle length;
- date(s) of HCG testing (urine or blood);
- uterine size on initial physical exam;
- date of detection of FHT with Doppler;
- first trimester ultrasound measurement of crown-rump length; and
- second trimester ultrasound measurement of multiple fetal biometrics.

If the pregnancy resulted from assisted reproductive technologic (ART) intervention, then the ART-derived gestational age should be used to assign the EDD.

Ultrasound dating should take precedence over clinical dating if:

- the LMP is uncertain or abnormal,
- there is a more than 5 day discrepancy between historical/ clinical parameters and ultrasound measurements at  $\leq 8\%$  weeks, or
- there is a more than 7 day discrepancy between historical/ clinical parameters and ultrasound measurements at  $9\% - 15\%$  weeks, or
- there is a more than 10 day discrepancy between historical/ clinical parameters and ultrasound measurements at  $16\% - 21\%$  weeks, or
- there is a more than 14 day discrepancy between historical/ clinical parameters and ultrasound measurements at  $22\% - 27\%$  weeks.<sup>1-2</sup>

Gestational age based on third trimester ultrasound should be interpreted with caution, due to the decreased accuracy of ultrasound for dating late in pregnancy.

When necessary for clinical decision making, fetal pulmonary maturity may be presumed if early reliable dating confirms that the patient is no more than seven days before the estimated date of delivery (EDD).

As soon as data from the LMP or first accurate ultrasound (or both) are obtained, the EDD should be determined, documented in the record, and discussed with the patient by the primary obstetrical provider. Use of electronic health record functionality or ACOG EDD calculator to confirm EDD is recommended.

- 
1. Ultrasound in pregnancy. ACOG Practice Bulletin No. 175. December 2016. Reaffirmed 2020. American College of Obstetricians and Gynecologists.
  2. Methods for estimating the due date. ACOG Committee Opinion No. 700. May 2017. American College of Obstetricians and Gynecologists.

## GUIDELINE 8

# Antenatal Care<sup>1</sup>

## INITIAL VISIT

The initial visit to the obstetrical provider should be scheduled in the first trimester (whenever possible). The visit should include a detailed evaluation of the patient and their history to assess and plan for the pregnancy. At a minimum, the initial assessment should encompass:

1. A detailed history, including:
  - past and current illnesses;
  - surgeries;
  - allergies;
  - family history (including genetic history and ethnicity);
  - prior pregnancies;
  - a menstrual history, with specific attention for accurate dating of the pregnancy;
  - medications and supplements currently being taken;
  - psychosocial history (mental health, depression; alcohol, tobacco, and drug use; type of work; relationship status; domestic violence); and
  - environmental and occupational exposure history.
2. Screening for current psychosocial concerns:
  - depression,
  - living situation, and
  - safety/domestic violence.
3. Counseling about:
  - normal course of pregnancy;
  - frequency of visits, office hours;
  - when and how to contact the clinician;
  - balanced nutrition, recommended weight gain based on BMI, vitamin supplementation, and foods and beverages to avoid;
  - exercise;
  - sexual activity;
  - environmental hazards;
  - health maintenance (e.g., dental health, appropriate use of seat belts);
- HIV and recommendations for testing;
- suggested readings;
- recommended vaccinations: influenza, Tdap, hepatitis A & B, and Pneumovax 23, if at risk; and
- substance abuse or abuse screening, including tobacco, alcohol, and drugs, with interventions offered, as appropriate.
4. Genetic counseling should include:
  - offering testing for cystic fibrosis with specific information about carrier frequency and sensitivity of the test;
  - offering testing as appropriate for ethnicity including:
    - Tay Sachs testing, such as for patients of Ashkenazi Jewish, French-Canadian, or Cajun descent;
    - Canavan's disease and familial dysautonomia screening, such as for patients of Ashkenazi Jewish descent;
    - hemoglobin electrophoresis for those at risk for hemoglobin disorders, such as for patients of Asian, African, Caribbean, or Mediterranean descent;
    - others as appropriate to history, family history, or ethnicity; and
  - offering counseling on methods available to screen or test for fetal aneuploidy.
5. A detailed physical examination that includes blood pressure, height, weight, and breast, heart, lung, abdominal, and pelvic examinations.
6. Establish the estimated date of delivery (*see Guideline 7*).
7. Recommended laboratory testing, including:
  - complete blood count (CBC) with indices,
  - blood group and Rh type determination,
  - antibody screen,
  - rubella immunity status (unless previously documented or adequate vaccination documented),
  - hepatitis B surface antigen,
  - hepatitis C antibody (if indicated),

## GUIDELINE 8: ANTENATAL CARE

- HIV testing (unless declined by patient),
  - syphilis screen,
  - varicella immunity status (if not known),
  - urine culture,
  - baseline urine screen,
  - genetic screening (as selected by patient),
  - cervical cytology (if appropriate), and
  - if indicated:
    - gonorrhea and chlamydia screening
    - diabetes screening
    - urine toxicology screening.
8. Identified medical problems and risk factors should be addressed and a problem list created.
9. Folic acid or prenatal vitamin containing adequate folic acid should be advised.

**SUBSEQUENT VISITS**

At every routine prenatal visit, an interval history should be obtained. Assessment should be made of the patient's weight, blood pressure, and uterine size. Urine testing for protein and glucose should be obtained if indicated. Fetal assessment should include heart sounds and movement as appropriate for gestational age. Fetal presentation should be assessed in the late third trimester.

Testing in the second and third trimesters:

- fetal survey ultrasound may be performed at 17–20 weeks;
- TB testing should be performed in the early second trimester if indicated;
- CBC and glucose screening, if appropriate, at 24–28 weeks;
- antibody testing should be performed in Rh negative patients at 28–30 weeks and as indicated;
- STD testing should be repeated at 32–36 weeks for patients at risk;

- Group B Streptococcus screening should be done, if appropriate, at 35–38 weeks (*see Guideline 12*); and
- HIV testing should be re-offered if declined at first visit or patient at high risk.

Counseling in the second and third trimester may include:

- offering a fetal survey ultrasound;
- reviewing instructions on when/how to call the clinician;
- reviewing and discussing informed consent for labor and delivery;
- reviewing and discussing the health care proxy;
- reviewing warning signs of preterm labor;
- reviewing expected fetal movements;
- preparation for childbirth including availability of childbirth classes, analgesic options, and expectations during labor and birth;
- discussing and encouraging breastfeeding including availability of community supports;
- selecting a pediatrician;
- newborn issues, including circumcision, infant care classes, infant CPR classes, car seats; and
- postpartum recovery including postpartum appointments, parental leave, depression, and contraception.

Additional interventions:

- during flu season, influenza vaccine should be recommended to pregnant patients;
- Tdap vaccine should be recommended in the third trimester;
- other vaccinations may be considered in pregnancy as indicated (e.g., hepatitis B vaccination for patients at risk); and
- Rh immunoglobulin should be provided for Rh negative birthing person at approximately 28–30 weeks gestation, or as indicated (bleeding, trauma, or amniocentesis, external version); and postpartum as indicated.

## GUIDELINE 9

# Second Trimester Pregnancy Termination

Patients who require a second trimester pregnancy termination should be offered the full range of management options, including referral if necessary and a plan for care should be documented. Medical-Surgical consents and Massachusetts Department of Public Health consents appropriate for the procedure should be obtained and documented. Patient preference for disposition of fetal remains should be documented.

Eligibility for second trimester termination should be determined by the best estimate of gestational age. The calculation of gestational age should be consistently applied and transparently obtained by all available dating criteria. Ultrasound verification of gestational age including determination of biparietal diameter is preferred. Gestational age limits should be in accordance with state law.

## PRIOR TO SECOND TRIMESTER PREGNANCY TERMINATION

For eligible patients:

- obtain medical and obstetrical history;
- confirm the gestational age;
- conduct a physical exam; and
- counsel the patient regarding potential risks, agents, and methods for the chosen procedure.

The plan of care should take into consideration:

- the patient's wishes for an intact fetus;
- the patient's wishes to avoid labor and delivery;
- availability of care providers experienced in second trimester pregnancy termination procedures;
- medical or obstetrical co-morbidities.

Plan of care may include, but not be limited to:

- discussion of the appropriate location for the proposed procedure;
- anesthesia consultation as indicated; and
- consultation with Social Work, Chaplaincy, or both as desired.

## INSTITUTIONAL GUIDELINES

Each facility shall develop guidelines for second trimester pregnancy termination to include, at a minimum, details regarding:

- standards for documenting gestational age
- procedures,
- medications,
- use of cervical ripening agents,
- role of intra-operative ultrasound,
- potential role of feticidal agents,
- adherence to local and federal laws and regulations, and
- strategy/plan in the event of a live birth.

## METHODS OF SECOND TRIMESTER PREGNANCY TERMINATION

Methods of second trimester termination include dilation and evacuation, and induction of labor. Hysterectomy and hysterotomy are not considered primary methods for terminating a second trimester pregnancy.

## DOCUMENTATION

Documentation should include, but not be limited to:

- discussion of procedures or methods, and their risks and benefits;
- consents for medical-surgical procedures, and the Massachusetts Department of Public Health consents and disposition of fetal remains form, if applicable;
- administration of medications: time, date, dose;
- placement of osmotic dilators (e.g., laminaria, dilapan), including date, time, and number placed, as needed for cervical preparation;
- patient's clinical course;
- delivery or removal of fetal and placental tissues and completeness; and
- complications and need for additional procedures.<sup>1,2</sup>

1. Second-trimester abortion. ACOG Practice Bulletin No. 135. June 2013. Reaffirmed 2021. American College of Obstetricians and Gynecologists.

2. Abortion Policy. College Statement of Policy. As issued by the College Executive Board. American College of Obstetricians and Gynecologists. November 2014. Reaffirmed 2020.

## GUIDELINE 10

## Antenatal Tests of Fetal Well-being

Tests of fetal well-being may be indicated for patients who are at increased risk of adverse fetal outcome.

Tests available include fetal kick counts, non-stress tests, oxytocin challenge tests, biophysical profiles, and Doppler studies.

Timing of initiation of testing should be based on:

- underlying medical issues and their severity,
- birthing person age,
- gestational age,
- obstetrical history, and
- plurality.

Antenatal testing should only be initiated at a gestational age and fetal weight at which, when necessary, delivery for an abnormal test result would be reasonable. The frequency and duration of testing should be determined by the obstetrical provider; testing should usually be continued until the pregnancy is delivered, unless the clinical scenario improves.

When regular antenatal testing is considered at very early gestational ages (< 28 weeks), an MFM and NICU consultation may be considered.

If regular antenatal fetal surveillance is indicated, then non-stress tests and/or biophysical profiles are recommended.

## GUIDELINE 11

## Use of Antenatal Corticosteroids for Fetal Maturation

All birthing people between 24 and 34 weeks gestation who are at risk for delivery within seven days, should receive corticosteroids. This includes patients with rupture of membranes, unless individual circumstances affect this decision. Steroids may be considered between 22 weeks 0 days, and 23 weeks 6 days gestational age in a shared decision making approach. Consultation with neonatology and/or maternal-fetal medicine should be considered if steroids are to be administered prior to 24 weeks.

Steroids between 34<sup>0%</sup> and 36<sup>6%</sup> weeks should be offered to patients at high risk of preterm birth within the next 7 days in a shared decision-making approach, weighing immediate benefits against uncertain long-term risks.<sup>1</sup>

Tocolysis beyond 34 weeks gestation to complete steroid administration is not recommended.<sup>2</sup>

Treatment options include:

- two doses of betamethasone 12 mg IM 24 hours apart, or
- four doses of dexamethasone 6 mg IM 12 hours apart.

The 2000 NIH Consensus panel did not find significant evidence to support using one drug preferentially over the other.

A second course of antenatal corticosteroids may be considered if clinically appropriate.<sup>3</sup> Further repeat courses (more than 2) are not currently recommended.

1. Society for Maternal-Fetal Medicine. SMFM Consult Series #58: Antenatal corticosteroids for late preterm delivery. *Am J Obstet Gynecol.* 2021.
2. Gyamfi-Bannerman, et al. Antenatal betamethasone for women at risk for late preterm delivery. *New England Journal of Medicine.* 2016;374(14):1311–20.
3. Management of preterm labor. ACOG Practice Bulletin No.171. October 2016. Reaffirmed 2020. American College of Obstetricians and Gynecologists.

## GUIDELINE 12

# Prevention of Group B Streptococcal Early-onset Disease in Newborns

All obstetrical clinicians should adhere to a screening culture-based obstetrical protocol for prevention of early-onset neonatal disease due to Group B streptococcus (GBS).<sup>1</sup> This protocol requires that GBS-specific cultures be performed during the antepartum period and that intrapartum antibiotics be administered to obstetrical patients based on culture data. If culture results are not available, intrapartum antibiotics should be administered according to defined risk factors.

Adherence to this culture-based protocol requires the following:

1. Antepartum GBS-specific vaginal-rectal cultures are performed between 36<sup>wk</sup> and 37<sup>wk</sup> gestations—or <5 weeks prior to a planned delivery—on all birthing people except those who require intrapartum antibiotics for prevention of neonatal GBS disease.
  - Patients with a prior infant who developed GBS neonatal disease and/or urine cultures positive for GBS in any amount during the pregnancy should receive intrapartum antibiotics and do not need GBS cultures performed.
  - Patients with positive screening cultures during a previous pregnancy should be recultured during subsequent pregnancies and managed on the basis of the current culture.
  - Patients who have had GBS cultures performed more than 5 weeks prior to anticipated delivery (whether positive or negative) should have a repeat screening culture performed.
  - Patients who have had a culture obtained as part of management for possible early delivery do not need to have the culture repeated for recurrent episodes of potential preterm delivery if initial culture performed within 5 weeks was positive. If initial culture was negative, culture for GBS should be repeated.
2. Cultures are obtained with a swab from the lower vagina (near the introitus) and rectum (through the anal sphincter). Intrapartum antibiotics are administered according to results of these cultures.
  - With appropriate instruction, culture swab may be self-obtained by patient.
  - Swab should be incubated in selective broth media prior to performing standard culture
  - All specimens should be labeled as from a pregnant patient.
  - If penicillin allergy has been documented, the specimen should be labeled as such and sensitivity to clindamycin determined.
  - Samples for urine culture should also be labeled as from a pregnant patient to facilitate identification of GBS in any amount and to facilitate antimicrobial sensitivity testing in the case of penicillin allergy. NOTE: GBS in the urine does not need to be treated antepartum unless a quantitative culture shows  $\geq 100,000$  CFU of GBS as a single organism
3. If results of GBS cultures are not available, intrapartum antibiotics should be administered to all patients with any of the following risk factors:
  - preterm labor (< 37 weeks gestation)
  - rupture of membranes  $\geq 18$  hours, or
  - intrapartum temperature  $\geq 100.4^\circ$  F orally ( $100^\circ$  F axillary).

If intra-amniotic infection is suspected, broad-spectrum antibiotic therapy that includes an agent known to be active against GBS should replace GBS prophylaxis
4. Special circumstances for administration of intrapartum antibiotics to patients whose culture results are not available:
  - If available, point-of-care (POC) Nucleic Acid Amplification Testing (NAAT) can be performed provided that enrichment of swab in selective broth media is utilized. If NAAT is positive, antibiotics should be administered. If NAAT result is negative, antibiotics should be administered according to risk factors.
  - If the patient has a history of positive GBS testing in an immediately previous pregnancy, they may choose to have antibiotics administered after discussion with their health care provider.

## GUIDELINE 12: PREVENTION OF GROUP B STREPTOCOCCAL EARLY-ONSET DISEASE IN NEWBORNS

5. Intrapartum antibiotics should be administered to patients with either of the following (regardless of culture results):
  - previous GBS infected neonate, or
  - GBS bacteriuria (of any magnitude of colony count) at any time during the current pregnancy.
6. If a birthing person at term with a positive GBS culture ruptures their membranes without signs of labor, no more than 12 hours should pass prior to consideration of steps to effect delivery and antibiotic administration. Results of GBS culture should not affect route of delivery.
7. Obstetrical procedures should not be delayed solely in order to achieve at least 4 hours of antibiotic administration but rather timing should be individualized.
8. Patients with negative cultures within five weeks of delivery do not require intrapartum antibiotic prophylaxis for GBS even if obstetrical risk factors develop. Intrapartum temperature  $\geq 100.4^{\circ}$  F orally ( $100^{\circ}$  F axillary) should prompt consideration for use of intrapartum antibiotics regardless of concerns regarding GBS prophylaxis.
9. At more than five weeks after Group B Strep testing if repeat testing has not been done, intrapartum management should be as for GBS status unknown.
10. Patients undergoing a planned cesarean delivery prior to the onset of labor and membrane rupture do not require intrapartum antibiotic prophylaxis for GBS, regardless of GBS culture results.
11. Penicillin is the preferred antibiotic for this purpose; ampicillin is alternative management but may result in an increased rate of ampicillin resistance of *E.coli* in the neonate. For penicillin-allergic individuals, acceptable antibiotics include:
  - cefazolin: (preferred alternative except for patients at high risk for anaphylaxis);
  - clindamycin: (for patients at high risk for anaphylaxis, and if susceptibility is known); and
  - vancomycin: (for patients at high risk for anaphylaxis, and whose GBS is not susceptible to clindamycin or if susceptibility is unknown).
    - Vancomycin should be administered according to weight-based guidelines and should take renal function into consideration. Administration should be every 8 hours, not to exceed 2g per dose, and the length of administration time will vary according to dose.
12. Antepartum skin testing for penicillin allergy can be considered. The majority of patients who have a report of penicillin allergy will tolerate penicillin. If type I hypersensitivity is not suggested by skin testing, intrapartum antibiotic treatment alternatives to penicillin will not be needed and the results may impact future health care.

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1. ACOG Committee on Obstetric Practice. Prevention of Group B Streptococcal Early-Onset Disease in Newborns. Committee Opinion Number 797 February 2020, published on-line January 23, 2020.

## GUIDELINE 13

## Availability of Clinician and Case Load in Labor and Delivery

### IN LABOR

Once active labor has begun, the responsible clinician should be immediately available to return to Labor and Delivery if needed.

Immediately available assistance by a qualified clinician from the obstetrical service is mandatory when a clinician's case load exceeds three low-risk patients in active labor; or when the intensity of the care for the case load exceeds the clinician's capacity to provide safe patient care.

The patients and the nurses caring for them should be notified about any change in status of the responsible clinician. If a clinician becomes unavailable for reasons that would not permit timely return to labor and delivery (such as surgery or involvement in a complex medical case), then that clinician must provide the nursing staff with the name of an alternate clinician who has agreed to assume responsibility and be immediately available for that clinician's laboring patients.

At all times when there is an actively laboring patient on the labor floor, a physician credentialed to perform emergency operative delivery must be readily available.

### ALTERNATIVE COVERAGE

When a clinician cannot be contacted or, if after being appropriately notified, a clinician does not see a patient in a timely fashion, and/or if a clinician has made no arrangements for alternative coverage, the nursing staff or another involved party shall report this occurrence through appropriate institutional procedures. Each institution shall devise a system by which alternative clinician coverage is provided in such situations; and the system of clinician coverage should be clearly communicated and available to all members of the labor and delivery staff.

## GUIDELINE 14

## Scheduled and Elective Delivery

**Elective Delivery** refers to delivery of a normal pregnancy without a recognized birthing person or fetal indication.<sup>1</sup>

**Scheduled Delivery** refers to a purposely timed delivery for either induction of labor or for cesarean birth.

Delivery occurring more than seven days prior to the EDD is associated with an increased risk of adverse neonatal outcomes and may be associated with an increased risk of cesarean delivery in nulliparous patients. Therefore:

***Elective delivery of singleton gestations should not be planned to occur before seven days prior to the EDD, i.e., prior to 39 weeks gestation.***

***When scheduled for birthing person or fetal indications, referred to as a "scheduled indicated delivery," the timing of delivery is determined by the medical situation.***

***Confirmation of term gestation is dependent on satisfying at least one of the following gestational age criteria:<sup>2</sup>***

- known date of assisted reproductive technologic intervention,
- an ultrasound measurement of the fetus obtained at < 20 weeks gestation supports gestational age of 39 weeks or greater,
- fetal heart tones have been documented as present for 30 weeks by Doppler, and
- it has been 36 weeks since a serum or urine human chorionic gonadotropin pregnancy test has been positive.

A test indicating fetal lung maturity does not itself meet the criteria for elective delivery.

1. Avoidance of non-medically indicated early term deliveries and associated neonatal morbidities. ACOG Committee Opinion No. 765. February 2019. Reaffirmed 2021. American College of Obstetricians and Gynecologists.

2. Induction of labor. ACOG Practice Bulletin No. 107. August 2009, Reaffirmed 2020. American College of Obstetricians and Gynecologists.

## 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.:

- 37–41<sup>6</sup>/<sub>7</sub> 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, membrane status, 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.”<sup>1</sup>

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.<sup>2,3</sup> 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,

## GUIDELINE 15: ASSESSMENT AND MONITORING IN LABOR AND DELIVERY

- significant birthing person illness,
- use of oxytocin,
- abnormality of active or second stage labor,
- meconium,
- heavy vaginal bleeding, or
- > 42 weeks.

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 their 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.<sup>2</sup>

An amnioinfusion may be considered when persistent variable decelerations are seen on the FHR tracing.<sup>2</sup>

#### 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 birthing person 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 birthing person 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 birthing person 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.<sup>2-3</sup>

In the event of a Category III FHR tracing, the attending clinician or their designee shall promptly evaluate the fetal status and promptly initiate efforts to resolve the abnormal FHR pattern. They 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.

## GUIDELINE 15: ASSESSMENT AND MONITORING IN LABOR AND DELIVERY

**DELIVERY**

If a patient is moved to another room for delivery, fetal 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,<sup>4</sup> 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.

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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 2021. 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. Reaffirmed 2021. American College of Obstetricians and Gynecologists.

## GUIDELINE 16

# Induction of Labor<sup>1,2</sup>

Indications for the induction of labor should take into account birthing person and fetal conditions, gestational age, cervical status, and other factors. Criteria for confirmation of fetal lung maturity should be met in these circumstances (*see Guideline 14*). Labor may be induced for non-medical reasons after 39 weeks gestation.

The risks and benefits of induction should be discussed and documented in the patient's medical record. In general, the contraindications to induction are the same as those for spontaneous labor and vaginal delivery. For patients with a previous cesarean birth, see Guideline 25.

## PRIOR TO THE INDUCTION OF LABOR

1. Assess the pelvis; and fetal size, position, and presentation.
 

The clinical rationale for the induction should always be documented in the patient's medical record.
2. Confirm gestational age. (*See Guideline 7.*)
3. Counsel the patient regarding potential risks to them or the fetus, agents and methods of cervical ripening, and labor stimulation.
4. Evaluate fetal status with a non-stress test.
5. Select the method of induction based on the indications and assessment.
6. Documentation in the patient's medical record should include the following:
  - the risks and benefits of induction, and the risks of continuing the pregnancy without induction, that have been discussed with the patient and the patient's stated understanding;
  - the reason for indicated or elective induction, and the clinical rationale;
  - the patient's gestational age and fetal status;
  - the method of induction planned; and
  - the method of cervical ripening when the cervix is unfavorable.

## METHODS OF INDUCTION

1. Amniotomy
2. Oxytocin (e.g., Pitocin): Each obstetrical unit shall develop guidelines for the administration of oxytocin which, at a minimum, should include:
  - preparation and administration via a controlled infusion device,
  - monitoring of the birthing person and fetus,
  - management of uterine tachysystole,
  - description of training and competency of personnel administering oxytocin, and
  - readily available physician who has privileges to perform cesarean births.

Adequate documentation of clinical reasoning is required when oxytocin infusion rates rise above 20 mu/min.

3. Synthetic prostaglandin E<sub>1</sub> or E<sub>2</sub> (e.g., misoprostol/Cytotec; or dinoprostone/Cervidil, Prepidil or Prostin E<sub>2</sub>): Each obstetrical unit shall develop guidelines for the administration of prostaglandin, which, at a minimum, should include:
  - indications and contraindications;
  - procedure, including dosage, frequency of administration, maximum number of doses, and the duration of fetal monitoring; and
  - options for treatment of uterine tachysystole.
4. Mechanical methods of cervical ripening: if the status of the cervix is unfavorable, mechanical cervical dilators may be used. Each obstetrical unit shall develop guidelines for the use of mechanical or osmotic dilators, such as: hygroscopic dilators, osmotic dilators (e.g., laminaria), and Foley catheter bulb.

## GUIDELINE 16: INDUCTION OF LABOR

**INSTITUTIONAL RESPONSIBILITY**

Each obstetrical institution is responsible for establishing standard policies and procedures for scheduling elective induction of labor, gestational age, and the indication and method for induction of labor, including the preparation and use of oxytocin and use of cervical ripening agents.

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1. Induction of labor. ACOG Practice Bulletin No. 107. August 2009, Reaffirmed 2020. American College of Obstetricians and Gynecologists.
  2. ACOG/ACP Guidelines for Perinatal Care, Seventh Edition. Washington DC, October 2012.

## GUIDELINE 17

# Augmentation of Labor

Labor may be augmented with the use of oxytocin, amniotomy, or both.

**PRIOR TO THE AUGMENTATION OF LABOR**

The following criteria should apply:

- patient was evaluated and the pelvic exam documented;
- an indication for augmentation of labor, e.g., arrest or protraction of labor, prolonged latent phase of labor, hypotonic uterine contraction pattern;
- no contraindications to augmentation of labor;
- the fetal presentation is cephalic; and
- the absence of a Category III FHR tracing.

Explain to the patient the planned procedures and/or medications, including risks, benefits, and alternatives, and document the patient's agreement in the medical record.

**AFTER THE INITIATION OF OXYTOCIN**

(See *Guideline 16*.)

The patient should be monitored for effect, including:

- contractions either electronically or by palpation, with a goal of avoiding uterine tachysystole (hyperstimulation);
- fetal status (continuous electronic fetal monitoring is mandated, brief interruptions are acceptable);
- the progress of the patient's labor;
- monitoring the dose of oxytocin (adequate documentation of clinical reasoning is required and intrauterine pressure (IUPC) may be considered when oxytocin infusion rates rise above 20 mu/min); and
- when external monitoring is problematic, consider applying the IUPC for monitoring uterine contractions.

All of these monitoring activities should be recorded in the medical record.

**INSTITUTIONAL RESPONSIBILITY**

Each obstetrical unit shall develop guidelines for the use of oxytocin (*see Guideline 16*). The institution is responsible for ensuring that enough controlled infusion devices for administration of oxytocin are maintained and available to meet the needs of the patient population.

## GUIDELINE 18

## Operative Vaginal Birth<sup>1,2</sup>

The vacuum extractor or forceps should only be used if all of the following conditions are met:

1. The delivering clinician has clinical privileges to use a vacuum extractor or forceps.
2. Capability to perform an emergency cesarean birth is available if unexpected difficulties are encountered.
3. Informed consent has been obtained and the patient agrees to the procedure.
4. The fetal head (exclusive of any caput) has reached at least +2 cm (scale: -5 to +5) and clinical pelvimetry indicates that birth without fetal or maternal trauma can reasonably be expected.
5. The cervix is completely dilated and the membranes ruptured.
6. The delivering clinician has assessed the station, position, and attitude of the fetal head as appropriate to permit an accurate cephalic application of the forceps blades, or vacuum cup.
7. Adequate analgesia is provided.
8. Urinary bladder is empty.

For use of the vacuum extractor:

1. Gestational age must be 34 weeks or greater.
2. Careful pelvic examination to rule out any birthing person tissue trapped between the vacuum cup and fetal head.
3. Vacuum extraction and commitment to vaginal birth should be reevaluated in the event of:
  - failure of descent of the vertex with the first traction effort,
  - birth that is not imminent after four traction efforts, or
  - vacuum cup detachment that occurs three times.

If the vacuum extractor or forceps fails to accomplish birth despite proper application and technique, then a subsequent trial with the alternate instrument is appropriate only in carefully selected cases. If possible, a second opinion from another physician is recommended if a trial with the alternate instrument is planned. The consultant shall document their obstetrical evaluation and recommendation in the patient's medical record (*see Guideline 4*).

Sequential use of vacuum extractor and forceps has been associated with an increased risk of neonatal complications and should not be routinely used. A trial of operative vaginal birth should be attempted only when the likelihood of success is high, with the operator prepared to abandon the attempt if appropriate descent does not occur. If a trial of vacuum or forceps is unsuccessful, prompt cesarean birth is indicated unless vaginal delivery is imminent.

The clinician shall record a detailed operative note which should include:

- the station and position of the fetal head,
- the fetal status at the time of application of vacuum extractor or forceps,
- indications, and
- clinical rationale and substantive risks discussed with the patient.

For vacuum extractions, the note must also include:

- the instrument used and pressure settings,
- number of attempts, and
- duration of the procedure.

For forceps delivery, the note must also include:

- confirmation of fetal position after the placement of the forceps blades, and
- the number of pulls applied (with a qualitative assessment of the degree of effort).

If the operative note is dictated, then the delivering clinician should document the operative procedure in the patient's medical record immediately following the birth.

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1. Operative vaginal birth. ACOG Practice Bulletin No 219. April 2020. Reaffirmed 2022. American College of Obstetricians and Gynecologists.

2. ACOG/ACP Guidelines for Perinatal Care, Eighth Edition, Washington DC, September 2017.

## GUIDELINE 19

# Prevention of Retained Sponges and Needles Following Vaginal Delivery

Retained foreign objects after surgeries or procedures are considered serious reportable events, one of the 28 events identified in the Commonwealth of Massachusetts' uniform non-payment policy.<sup>1</sup> Retained foreign objects following vaginal delivery and obstetrical surgery procedures are events that can usually be prevented by implementing the following steps:

- Two qualified personnel, including the primary nurse, will perform sponge and needle counts before and after each delivery. The counts should be documented in the medical record. If a pre-delivery sponge count is not possible, as with a precipitous delivery, then sponges shall not be utilized until after the delivery, when a count can be systematically performed prior to their use.
- All sponges used in deliveries should be radio-opaque.
- If there is a discrepancy in the sponge count at the completion of the delivery, then manual search of the vagina should be performed and findings documented by the delivering obstetrical provider. If the discrepancy persists, then the further search of the delivery area should be performed and findings documented in the medical record. A diagnostic X-ray of the patient may be considered to ensure missing sponges are not retained in the vagina.
- If there is a discrepancy in the needle count and careful inspection of the vagina and search of the delivery area do not locate the needle, then diagnostic X-ray is expected to ensure that the missing needle is not retained in the patient.
- The nurse should record the final status of the sponge and needle counts on the Labor and Delivery patient flow record and the obstetrical provider should similarly document in the delivery note.
- Purposeful placement and retention of vaginal sponges or packing in the vagina, as in the setting of postpartum hemorrhage, necessitates a reliable method of tracking and communicating such with members of the obstetrical care team.

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1. HealthyMass Serious Reportable Events Task Force, Policy Guidelines. Available at: <http://www.mass.gov/eohhs/docs/eohhs/healthymass/sre-guidelines.pdf>. Accessed June 20, 2013.

## GUIDELINE 20

# Management of Breech Presentations<sup>1,2</sup>

## EXTERNAL CEPHALIC VERSION

External cephalic version should be discussed with all birthing people who are carrying a breech presenting singleton fetus as early as the clinician feels is suitable. The discussion and its conclusion should be documented in the prenatal record.

### 1. Patient Selection

External cephalic version is precluded in anyone with a contraindication to vaginal delivery or evidence of fetal compromise.

### 2. Education/Consent

A discussion with the patient should precede the performance of the procedure and include:

- pregnancy management after a successful or unsuccessful version,
- success rate of attempted version,
- risks and benefits of the procedure, and
- when to call following the procedure.

See *Appendix E* for a sample consent form for this procedure. This, or a reasonable facsimile, should be reviewed with and signed by the patient prior to the procedure.

### 3. Prior to the Procedure

- arrange a location in close proximity to the delivery unit;
- confirm that an immediate pre-procedure non-stress test is reactive;
- perform an immediate pre-procedure sonogram to confirm presentation and that there is normal amniotic fluid volume;
- perform a formal fetal anatomy survey (if one has not been performed previously) to evaluate the possibility of significant congenital anomalies;

- consider a tocolytic agent (tocolytics are relatively contraindicated in patients with heart disease); and
- consider regional anesthesia if the procedure is to be performed in the operating room.

### 4. During the Procedure

Monitor the fetal heart rate, at minimum, every 30 seconds during the procedure.

### 5. Following the Procedure

- observe the patient for at least one hour;
- continuously monitor the fetal heart rate and pattern via electronic fetal monitor apparatus for a minimum of one hour;
- confirm a Category I fetal heart rate tracing post-procedure, prior to discharge;
- administer RhoGAM if indicated;
- instruct the patient about follow-up plans, and advise whom to call in the event of any issues;
- give the patient a written discharge instruction sheet.

### 6. Documentation of the Procedure

The details on the procedure should be recorded in the patient's medical record, including:

- gestational age;
- Rh blood type;
- results of pre-procedure testing;
- medication administered;
- details on the version attempt, whether it was successful or unsuccessful;
- post-procedure testing; and
- future plans.

## GUIDELINE 20: MANAGEMENT OF BREECH PRESENTATIONS

**DELIVERY OPTIONS: BREECH SINGLETON**

Cesarean delivery is the most usual method for delivery of a breech singleton living fetus without any significant congenital anomalies. Assessment of the fetal presentation should be performed immediately prior to a scheduled cesarean.

Planned vaginal delivery of a term singleton breech may be reasonable under hospital-specific protocol for both eligibility and management of labor (including use of oxytocin).<sup>1,2</sup> If the patient opts for a vaginal breech delivery, a detailed written informed consent shall be obtained and placed in the medical record. Patients should be informed that the risk of perinatal or neonatal mortality or short-term serious morbidity may be higher than for cesarean delivery.

In this circumstance:

- the obstetrician must be skilled in vaginal breech delivery or have adequate back-up consultants available;
- the adequacy of the pelvis must be assessed; the estimated fetal weight, type of breech, and fetal attitude shall be determined;
- labor dysfunction of any type warrants delivery by cesarean; and
- breech delivery should be permitted to occur spontaneously, or by assisted breech delivery maneuvers as indicated.

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1. Mode of term singleton breech delivery. ACOG Committee Opinion No. 745. August 2018. American College of Obstetricians and Gynecologists.

2. External cephalic version. ACOG Practice Bulletin No. 221. May 2020. American College of Obstetricians and Gynecologists.

## GUIDELINE 21

# Management of Twins

The clinician and the patient should discuss the delivery options during the antenatal period and that discussion should be documented in the medical record. An example of a specific written consent is available in *Appendix G*.

## TIMING OF DELIVERY

Uncomplicated dichorionic twin pregnancies should usually be delivered between 37 and 38 weeks gestational age.

Uncomplicated monochorionic diamniotic twins may be delivered between 34 and 37 weeks gestational age. Prior assessment of fetal lung maturity is not required for such cases.<sup>1</sup>

## INTRAPARTUM CONSIDERATIONS

1. The obstetrical care provider should evaluate and document fetal lie and presentations.
2. Continuously monitor (via EFM) both fetuses throughout active labor and delivery.
3. Intravenous access should be established.
4. Pain relief remains the patient's choice.
5. Sufficient personnel should be available to care for the birthing person and each baby.
6. An ultrasound should be available throughout the delivery to confirm lie and presentation and, if necessary, to document the fetal heart rate.
7. Cesarean delivery is indicated for twin pregnancies with a non-vertex presenting twin unless vaginal delivery is imminent.

## AFTER VAGINAL DELIVERY OF THE FIRST TWIN

1. When monitoring indicates a Category I or II intrapartum fetal heart rate, there is no urgency to deliver the second twin (delivery interval does not appear to affect perinatal outcome). However, if there is a monochorionic placentation, attention should be paid to the length of the intertwin delivery interval (increasing interval increasing the chance of acute intrapartum twin to twin transfusion).
2. If the second twin is not in a vertex presentation, an obstetrician skilled in external cephalic version or internal podalic version should be available.
3. Total breech extraction, assisted breech delivery, cesarean delivery, and attempted external cephalic version are all acceptable approaches to the delivery of a breech second twin. Vaginal breech delivery is not recommended in significantly preterm twins or in the presence of significant discordance (i.e., second twin larger than first). Previous ultrasound (within 2–4 weeks of labor) can be valuable in determining discordance.

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1. Multifetal gestations twins triplet and higher-order multifetal pregnancies. ACOG Practice Bulletin No. 231. June 2021. American College of Obstetricians and Gynecologists.

## GUIDELINE 22

# Prolonged Pregnancy

Many descriptive labels are applied to pregnancies that go beyond the expected date of delivery (EDD). CRICO Guidelines supports ACOG's classifications.<sup>1</sup>

**Late-term:** 41<sup>07</sup> weeks of gestation through 41<sup>67</sup> weeks of gestation.

**Post-term:** 42<sup>07</sup> weeks of gestation and beyond.

## RISKS OF PROLONGED PREGNANCY

**Fetal/Neonatal:** Increased perinatal morbidity and mortality, including seizures, meconium aspiration, macrosomia, oligohydramnios, post maturity syndrome, low 5-minute Apgar scores, intrauterine fetal demise, neonatal intensive care unit admission and neonatal mortality.<sup>2</sup>

**Birthing Person:** Increased risk for meconium-stained fluid, shoulder dystocia, severe perineal laceration, infection, postpartum hemorrhage, assisted operative delivery and cesarean delivery.<sup>2</sup>

Accurate assessment of gestational age is of paramount importance for management of pregnancy, interpretation of test results, and timing of interventions. (See *Guideline 7.*)

## RISKS OF INDUCTION VS. EXPECTANT MANAGEMENT

Clinicians should be familiar with the acceptable alternative methods of management of late-term and post-term pregnancies. Whichever method is chosen (membrane sweep, cervical ripening agent, cervical dilator, oxytocin or amniotomy), the prenatal record must indicate that a discussion regarding management of pregnancy exceeding 41 weeks gestation occurred between the obstetrical provider and the patient and risks and benefits were reviewed. Of note, membrane sweeping after 39 weeks gestation is associated with a decreased risk of late-term and post term pregnancies.<sup>2,3</sup>

**Induction risks** include failed induction, complications related to the use of oxytocin or prostaglandin administration, such as uterine tachysystole (hyperstimulation) and fetal intolerance of contractions.<sup>4</sup>

**Expectant management risks** include but are not limited to: intrauterine fetal demise, perinatal death, meconium aspiration syndrome and dysmaturity syndrome.<sup>2</sup>

## MANAGEMENT OF LATE-TERM PREGNANCY

The following approach to managing pregnancies that go beyond the completion of the 41<sup>st</sup> gestational week is recommended.

If the nullipara or multipara patient's cervix is:

1. favorable for oxytocin induction, then oxytocin induction or amniotomy is preferred; fetal surveillance is an acceptable alternative;
2. not favorable for oxytocin induction, then cervical ripening followed by oxytocin induction or fetal surveillance are acceptable alternatives;

If fetal surveillance is chosen, then initiate twice-weekly fetal testing at 41<sup>07</sup>. This should include an initial ultrasonographic assessment of amniotic fluid volume to detect oligohydramnios.

## MANAGEMENT OF POST-TERM PREGNANCY

Steps should be initiated to obtain consent and proceed to deliver the patient as soon as is feasible.

- 
1. Definition of term pregnancy. ACOG Committee Opinion No. 579. November 2013, Reaffirmed 2017. American College of Obstetricians and Gynecologists.
  2. Management of late-term and post-term pregnancies. ACOG Practice Bulletin No. 146. August 2014, Reaffirmed 2020. American College of Obstetricians and Gynecologists.
  3. Boulvain, M., Stan, C.M., Iron, O. 2005. Membrane sweeping for induction of labour. Cochrane Database of Systematic Reviews, Metaanalysis, 1, CD000451. DOI: 10.1002/14651858.CD000451.pub2
  4. Induction of labor. ACOG Practice Bulletin No. 107. August 2009, Reaffirmed 2020. American College of Obstetricians and Gynecologists.

## GUIDELINE 23

# Macrosomia<sup>1</sup>

For the purposes of these *Guidelines*, fetal macrosomia implies growth beyond 4,500 grams (approximately 1 percent of live born infants achieve this birth weight). Risks for morbidity for birthing person and baby increase significantly beyond this weight compared to the general population. Clinical palpation and sonography are similar in their ability to estimate the presence of macrosomia.

## PRENATAL COUNSELING

When macrosomia is clinically suspected, patients should be informed of the potential risks and such discussion should be documented in the prenatal record.

Birthing person risks include:

- increased likelihood of cesarean delivery,
- vaginal lacerations, and
- postpartum hemorrhage.

Fetal risks include:

- shoulder dystocia,
- fractured clavicle, and
- injury to the nerves of the brachial plexus producing symptoms ranging from temporary upper extremity weakness to permanent paralysis. Most infants delivered vaginally with birth weight > 4,000 grams and a brachial plexus nerve injury do not have a permanent paralysis.

## INTRAPARTUM COUNSELING

The responsible intrapartum clinician should confirm that the patient understands the risks and document this in the intrapartum record.

## DELIVERY OPTIONS

If the estimated fetal weight is 5,000 grams or greater (4,500 grams or greater for infants of diabetic birthing people), then prophylactic cesarean delivery may be considered.

Induction of labor for macrosomia before 39<sup>07</sup> weeks is not recommended because it does not improve outcomes. Current evidence is unclear as to whether induction of labor for macrosomia after 39 weeks prevents shoulder dystocia.

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1. Macrosomia. ACOG Practice Bulletin No.216. January 2020. American College of Obstetricians and Gynecologists.

## GUIDELINE 24

## Management of Shoulder Dystocia

Diagnosis of shoulder dystocia is made when the practice of gentle downward guidance of the fetal head fails to accomplish delivery of the anterior shoulder requiring the need for additional obstetrical maneuvers for the delivery of the fetal shoulders.<sup>1</sup>

A plan for the use of maneuvers to alleviate the shoulder dystocia and obtaining assistance by additional members of the obstetrical team should be in place since shoulder dystocia is most often an unpredictable and unpreventable obstetrical emergency.

### DOCUMENTATION

If a shoulder dystocia occurs, this event and the details used to resolve it must be entered into the medical record as an operative report and dictated (or the electronic equivalent completed) immediately after the delivery.

This information should include:

- time of delivery of the fetal head and the time of complete expulsion of the body,
- maneuvers used,
- Apgars of the newborn,
- complications, and
- names of staff in attendance at the delivery.

The clinician's hospital risk management unit should be notified of all cases of infant complications.

### INSTITUTIONAL RESPONSIBILITY

Each obstetrical institution is responsible for developing a plan for obstetrical safety drills to prepare staff in the event of high acuity, low frequency emergent events such as shoulder dystocia.

1. Shoulder dystocia. ACOG Practice Bulletin No. 178. May 2017. American College of Obstetricians and Gynecologists.

## GUIDELINE 25

## Patients with Previous Cesarean Delivery<sup>1,2</sup>

### EVALUATION

Make an effort during the pregnancy to document the type of prior incision made in the uterus, and the indication(s) for the prior cesarean delivery. The birthing pelvis should be clinically evaluated.

Contraindications to a trial of labor after cesarean:

- prior cesarean delivery involving the upper contractile portion of the uterus (classical uterine incision),
- prior T incisions on the uterus,
- prior uterine surgery involving the upper contractile portion of the uterus with significant disruption of the uterine wall or entering of the uterine cavity,
- prior uterine rupture or dehiscence,
- more than two consecutive cesarean deliveries and no prior or interval vaginal deliveries,
- a too small or "contracted" pelvis, and
- other contraindication to vaginal delivery.

If the previous operative note cannot be located, an unknown scar is not a contraindication to trial of labor.

### COUNSELING

Discuss with eligible patients the risks and benefits of a trial of labor after cesarean versus a scheduled repeat cesarean delivery. This discussion should occur after all past obstetrical history is obtained and should, ideally, occur early in the pregnancy. Issues that may be important in this decision include:

- success rates of a trial of labor;
- perinatal morbidity and mortality;
- birthing person morbidity, including infection, operative injury, hysterectomy, transfusion;
- uterine rupture;
- recovery and hospital stay; and
- risk of additional cesarean deliveries.

A consent form should be used as documentation of this discussion in the medical record (*see Appendix F*).

## GUIDELINE 25: PATIENTS WITH PREVIOUS CESAREAN DELIVERY

**SCHEDULED REPEAT CESAREAN DELIVERY**

Patients for whom labor is contraindicated, such as those with previous classical uterine incision or myomectomy in the upper contractile portion of the uterus, should be delivered by a scheduled repeat cesarean delivery. Timing of delivery will be determined by clinical circumstances.

Patients with lower uterine segment incisions, who decline a trial of labor, can be scheduled for a repeat cesarean delivery by or after seven days prior to the EDD. Alternately, the patient and the clinician may choose to await the onset of labor.

**TRIAL OF LABOR AFTER CESAREAN DELIVERY**

1. A physician who has credentials to perform an emergent cesarean delivery should be immediately available throughout active labor.
2. Anesthesia and nursing/operating room personnel should be available for emergent performance of a cesarean delivery.
3. Continuous electronic fetal monitoring should be instituted no later than the institution of the use of epidural or oxytocin. According to ACOG, most authorities recommend continuous electronic monitoring during labor.
4. Intravenous access should be obtained in all patients with a prior cesarean delivery.
5. Oxytocin may be used for augmentation of labor in the absence of disproportion.
6. Oxytocin may be used for cervical ripening or induction after a discussion with the patient of the increased risk of uterine rupture associated with its use.
7. Prostaglandins (including misoprostol) should not be used for third trimester cervical ripening or the induction of labor after a prior cesarean delivery or major uterine surgery.

After a successful vaginal delivery, exploration of the prior uterine scar is not necessary in the absence of symptoms of uterine rupture, such as bleeding.

1. Vaginal birth after previous cesarean delivery. ACOG Practice Bulletin No. 205 Feb. 2019. American College of Obstetricians and Gynecologists.

2. Induction of labor. ACOG Practice Bulletin No. 107. August 2009, Reaffirmed 2020. American College of Obstetricians and Gynecologists.

## GUIDELINE 26

## Cesarean Delivery on Patient Request<sup>1</sup>

Cesarean delivery on patient request is defined as a primary cesarean performed at patient request without medical indication. Each physician may decide to support the patient request or not on a case-by-case basis. Primary cesarean delivery on maternal request without medical indication should not be scheduled before seven days prior to the EDD (*see Guideline 14*). If a physician agrees to perform a primary cesarean delivery upon patient request, then detailed written informed consent should be obtained.

Given the high repeat cesarean delivery rate, patients should be informed that the risks of placenta previa, placenta accreta and gravid hysterectomy increase with each subsequent cesarean delivery.

A sample consent form for this procedure is available (*see Appendix H*).

1. Cesarean Delivery on Maternal Request. ACOG Committee Opinion 761. January 2019.

## GUIDELINE 27

# Obstetrical Surgery Safety Communication

Each institution will develop guidelines for communication prior to, during, and immediately after obstetrical surgery.<sup>1-3</sup> Guidelines should include specific items to be communicated by the surgical team, which may include the obstetrician, surgical assistant, scrub nurse or scrub tech, circulating nurse, and the anesthesiologist. Learners should also be included. Communication should be ongoing and may include a preoperative briefing of the surgical team in addition to the formal time-out (surgical pause) and post-operative sign out/debrief.

## BRIEFING

The purpose of a briefing is to gather the care team together prior to moving to the operating room in order to introduce members of the team, confirm that the correct documentation is present (e.g., history and physical, consents) and to ensure that the team has a shared mental model regarding the planned procedure and the names of those participating in care. All team members should introduce themselves by name and role. The briefing should be scripted, in an interactive question-and-answer format.

## TIME-OUT

The purpose of a time-out is to confirm correct patient and procedure immediately prior to initiation of the procedure/surgery. A standardized, scripted, interactive time-out should be performed before each obstetrical procedure, including but not limited to: cesarean delivery, external cephalic version, peripartum hysterectomy, and dilation and evacuation. The time-out should be documented in the patient's record. Content and timing of the time-out should be addressed in the institutional guidelines.

Items that should be considered for inclusion for communication during the briefing and the time-out:

- confirmation of patient identity from two sources;
- confirmation of need for language interpreter
- identification of trainees or learners and learning objectives
- confirmation of patient knowledge of physicians and learners participating in procedure
- confirmation of planned procedure(s) and anticipated technical challenges (e.g., history of adhesions, BMI, large fibroids)
- confirmation of patient allergies;
- confirmation of completed consent;
- confirmation of antibiotic request or administration: prophylactic, otherwise, or none needed;
- confirmation of plan for vaginal preparation
- anticipated need for pediatric providers for the birth;
- anticipated need for blood products;
- anticipated need for special or additional equipment;
- other existing pathology that should be evaluated at the time of the procedure (such as a previously noted ovarian cyst).

In an emergency, when any delay is inadvisable, the staff should cover as many of these items as possible while preparing or in the initial phases of the case.

In general, surgical marking is seldom required in obstetrical procedures. If unilaterality in approach and planned procedure exists, institutional guidelines should be followed in order to standardize surgical marking.

## SIGN OUT/DEBRIEF

The purpose of a sign out/debrief is to confirm the procedure, specimens, counts, and plans for post-operative care.

Debrief checklist items to consider, include:

1. name of procedure verified;
2. appropriate labeling of specimens confirmed;
3. estimated blood loss and fluid management;
4. team concerns discussed;
5. pain management plan;
6. sponge, needle, and instrument counts correct; and
7. equipment issues/problems addressed.

1. Obstetrical surgery includes, but may not be limited to, cesarean delivery, cerclage placement, postpartum tubal ligation, hysterectomy and dilation and evacuation (D&E).

2. Patient safety in the surgical environment. ACOG Committee Opinion No. 464. September 2010, Reaffirmed 2014. American College of Obstetricians and Gynecologists.

3. WHO Surgical Safety Checklist. [www.who.int](http://www.who.int)

## GUIDELINE 28

# Anesthesia in Obstetrics

This guideline has been adapted from the *Practice Guidelines for Obstetrical Anesthesia* and the *Guidelines for Regional Anesthesia in Obstetrics* as approved by the American Society of Anesthesiologists.<sup>1</sup> It applies to obstetrical patients receiving major neuraxial anesthesia (spinal, epidural, combined spinal-epidural); general anesthesia; or monitored anesthesia care (MAC) for labor analgesia or operative procedures.

1. Regional anesthesia should be initiated and maintained only in locations in which appropriate resuscitation equipment and drugs are immediately available to manage procedure-related problems. Resuscitation equipment should include, but is not limited to:
  - sources of oxygen and suction;
  - equipment to maintain an airway and perform endotracheal intubation;
  - a means to provide positive pressure ventilation;
  - drugs and equipment for cardiopulmonary resuscitation;
  - a protocol for the management of failed endotracheal intubation;
  - adjunctive devices for the management of failed intubation such as LMA, video-laryngoscope, and/or fiberoptic intubation devices, bougie, or stylets;<sup>2-4</sup> and
  - lipid rescue therapy.<sup>5</sup>
2. Surgical airway management must be available.
3. Anesthesia should be initiated and maintained by, or under the medical supervision of, a physician with appropriate privileges. Other anesthesia care providers should be credentialed to manage obstetrical anesthesia under the medical direction of a physician as appropriate.
4. Prior to the initiation of anesthesia for labor or operative obstetrical procedures:
  - The patient must be examined by an appropriate obstetrical care provider.
  - An anesthesia care provider must perform a focused pre-anesthesia evaluation which should include, but is not limited to, birthing person health history, anesthesia-related history, an airway exam, and baseline vital signs. Examination of other organ systems should be performed as indicated. Laboratory testing should be performed when appropriate indications exist.
  - A physician credentialed to perform an operative vaginal or cesarean delivery must be available.
  - An intravenous infusion should be established and maintained throughout the duration of the regional anesthetic. Whenever possible, this should be an 18 gauge canula, or larger bore if indicated.
  - A pre-procedure verification/time-out should be performed.
5. During routine regional anesthesia for labor, birthing person vital signs and the fetal heart rate should be monitored and documented. Additional monitoring of the parturient or fetus should be employed when indicated.
6. Patients who receive extensive regional block, MAC, or general anesthesia must be monitored, according to the ASA standards for anesthesia, by a qualified anesthesia personnel present in the room who is monitoring the patient's oxygenation, ventilation, and circulation, and temperature when indicated.
7. The primary responsibility of the primary anesthesiologist is to provide care to the birthing person. Qualified personnel, other than the primary anesthesiologist attending the birthing person, should be immediately available to assume responsibility for resuscitation of the newborn.

## GUIDELINE 28: ANESTHESIA IN OBSTETRICS

8. A physician with appropriate privileges to administer obstetrical anesthesia shall be available in the medical facility from the initiation of an anesthetic until the patient's post-anesthesia condition is satisfactory and stable. Should this physician become unavailable for reasons that would not permit timely return to the patient (such as surgery), they must provide the nursing staff with the name of an alternate clinician who:
- agrees to assume responsibility for the care of the patient,
  - is readily available, and
  - is capable of intervening in emergency circumstances.
9. All patients recovering from routine regional anesthesia for labor should receive appropriate post-anesthesia care. Following extensive regional blockade, MAC, or general anesthesia, the ASA standards for post-anesthesia care should be applied:
- A post-anesthesia care recovery area (PACU) should be available to receive patients. The design, equipment, and staffing should meet requirements of the facility's accrediting and licensing agencies.
  - Obstetric units must develop a policy for the management of patients in the PACU. This policy should describe who is responsible for the care of patients in the PACU, how they will be monitored, and the process for discharge. Specifically, it must address whether patients will be discharged by a nurse according to protocols, or signed out by an independent licensed practitioner. The protocol for discharge must be delineated.
  - When a site other than the PACU is used, equivalent post-anesthesia care should be provided.
10. Whenever possible, pregnant patients with comorbid conditions that may pose an increased peripartum risk should be seen by an anesthesia care provider prior to labor to facilitate interdisciplinary planning. Such patient conditions may include, but are not limited to:
- cardiac lesions that compromise function,
  - intracranial or spinal lesions,
  - a personal or family history of major adverse reaction to anesthesia (such as malignant hyperthermia),
  - underlying disorder of hemostasis [coagulation factor deficiency, Von Willebrand's Disease except corrected type I, gestational or idiopathic thrombocytopenia with platelet count < 70,000 x 10<sup>6</sup>],
  - history of difficult intubation, and
  - lumbar spine hardware (post-surgical) or appliances (e.g., spinal cord stimulator).
- 
1. Practice Guidelines for Obstetric Anesthesia: An Updated Report by the American Society of Anesthesiologists; *Anesthesiology*. 2016;124(2):1–31.
  2. Maassen R, et al. A comparison of three videolaryngoscopes: the Macintosh laryngoscope blade reduces, but does not replace, routine stylet use for intubation in morbidly obese patients. *Anesthesia and Analgesia*. 2009;109:1560–65.
  3. Mushambi M, et al. Obstetric Anaesthetists' Association and Difficult Airway Society guidelines for the management of difficult and failed tracheal intubation in obstetrics. *Anaesthesia*. 2015;70:1286–1306.
  4. Aziz M, et al. A retrospective study of the performance of video laryngoscopy in an obstetric unit; *Anesthesia and Analgesia*. 2012; 115 (4).
  5. Bern S, Weinberg G. Local anesthetic toxicity and lipid resuscitation in pregnancy. *Current Opinion in Anesthesiology*. 2011;24:262–267.

## GUIDELINE 29

# Placental Pathology Evaluation

The decision to submit the placenta to the hospital's Department of Pathology for gross and microscopic examination should be based upon a reasonable likelihood that such an examination will:

- facilitate the diagnosis of birthing person-fetal conditions associated with adverse outcomes; and
- provide information salient to, or allow prognosis for, future pregnancies and their outcomes.

The American College of Obstetricians and Gynecologists (ACOG) offers no formal guidelines recommending placental examination based on specific clinical conditions with the exception of stillbirth.<sup>1</sup> ACOG regards placental examination as “an essential component” of stillbirth evaluation. Some clinicians have advised that all placentas be submitted to pathology for examination;<sup>2,3</sup> however, there is a lack of consensus for routine examination.

## CONDITIONS FOR PLACENTAL EXAMINATION

Individual judgment is warranted concerning the appropriateness of submitting the placenta, with as much umbilical cord as is feasible, for pathologic evaluation. Consider submitting the tissue for any level of concern. Consider placental examination under the following non-exclusive list of birthing person or fetal clinical conditions:

### I. Birthing Person Conditions

- diabetes
- hypertension
- substance abuse
- prematurity (less than completion of 37<sup>th</sup> gestational week)
- post-maturity (greater than the completion of the 42<sup>nd</sup> gestational week)

### 2. Peripartum Conditions

- temperature greater than 100.4° F (intrapartum)
- suspected or proven infection
- bleeding, of magnitude beyond “show” (e.g., suspected abruption placenta, placenta previa, vasa previa)
- oligohydramnios or polyhydramnios

### 3. Fetal/Neonatal Conditions

- still birth (antenatal, or intrapartum) or neonatal death in the delivery or operating room
- multiple births
- all major or minor congenital anomalies
- fetal growth restriction
- hydrops fetalis or an edematous placenta
- meconium (thin or thick), noted on admission or occurring in labor

### 4. Immediate Neonatal Course

- Apgar scores of 5 or less at 5 minutes
- suspected neonatal infection
- suspected encephalopathy
- cord pH < 7.1

### 5. Gross Placental Anomalies

- 
1. Management of stillbirth. ACOG Obstetric Care Consensus No.10, March 2020. Reaffirmed 2022. American College of Obstetricians and Gynecologists.
  2. Salafia CM, Vintzileos AM. Why all placentas should be examined by a pathologist in 1990. *American Journal of Obstetrics and Gynecology*. 1990;163:1282–93.
  3. Langston C, et al. Guideline for examination of the placenta: developed by the Placental Pathology Practice Guideline Development Task Force of the College of American Pathologists. *Archives of Pathology and Laboratory Medicine*. 1997;121(5):449–76.

## GUIDELINE 30

# Early Warning System<sup>1,2</sup>

Obstetrical patients may exhibit physiological changes that signify deterioration.

## TRIGGERS

- Systolic BP (< 80 or > 160 mm Hg)
- Diastolic BP (> 105 mm Hg)
- Heart rate (< 50 or > 120 beats per min)
- Respiratory rate (< 10 or > 30 breaths per min)
- Oxygen saturation % (< 95 room air, at sea level)
- Oliguria (< 30 mL for > 2 hours): for catheterized patients
- Agitation, confusion, unresponsiveness (if any present)
- Preeclampsia, with patient reporting non-remitting headache or shortness of breath (if any present)

An effective early warning system, with prompt bedside evaluation may facilitate timely recognition, evaluation, and treatment for obstetrical patients developing critical conditions such as hemorrhage, hypertensive crisis, and sepsis.

The initial OB provider for patient assessment should be credentialed in obstetrics and may be a physician, certified nurse midwife, nurse practitioner, or physician assistant. If no credentialed obstetrics provider is available, each institution should specify an appropriate initial bedside responder, while simultaneously contacting the obstetrical attending physician. At a minimum, a Rapid Response Team (obstetrical attending physician, anesthesiologist covering obstetrics, and charge nurse) should be readily available to assist in stabilizing the patient and determining when transfer to a higher level of care is indicated.

## INSTITUTIONAL RESPONSIBILITY

Each institution should develop an early warning system (*see Appendix C*). Institutional leadership should provide necessary resources for implementation, including staffing, education, a quality improvement process, and leadership from senior medical and nursing personnel.

- 
1. Preparing for clinical emergencies in Obstetrics and Gynecology. ACOG Committee Opinion No. 590, March 2014, Reaffirmed 2018. American College of Obstetricians and Gynecologists.
  2. Mhyre JM. The maternal warning criteria. *Obstetrics and Gynecology*. 2014;124:782–86.

## GUIDELINE 31

# Postpartum Care

## IN-HOSPITAL CARE

Patients should be seen each day of their hospitalization by an obstetrical provider. This person assesses for medical complications and psychosocial issues, addresses any questions or concerns, and arranges for discharge.

Each institution shall have a process or program to instruct each patient regarding normal postpartum events. These instructions should include care of the breasts, perineum, bladder, the incision (if appropriate) and signs of complications. Instruction about infant care, infant feeding (including the benefits of breastfeeding), and subsequent birthing person and newborn medical examinations should also be included. Verbal instructions should be supplemented with written instructions and reinforced by providers. The need for and timing of follow up should be clearly communicated to the patient.

Plans for management or referral of ongoing problems should be instituted when appropriate, including evaluation of problems identified during the pregnancy. Vaccine status should be assessed and vaccination for Tdap, influenza, rubella, and varicella should be initiated if indicated. Contraception should be discussed and a plan established with the patient.

## AFTER DISCHARGE

Consideration should be given to an early follow-up postpartum visit for birthing people with medical complications or those at risk for postpartum depression, such as:

- past episodes of depression,
- family history of mood disorder, or
- unusually stressful life events.<sup>1</sup>

All birthing people, including those with an earlier visit (as above), should be advised to have a visit four to eight weeks postpartum. That visit should include a complete review of the pregnancy and events that occurred during labor, delivery, and the immediate postpartum period for the outpatient medical record if not already completed. The patient should be asked about their recent history and current symptoms. All postpartum patients should be assessed for and counseled about postpartum depression and domestic violence and should be informed about support services offered through the institution or community.<sup>2</sup> Use of one of the validated screening tools for postpartum depression may be helpful. All appropriate contraceptive methods should be discussed and an initiation plan established. An appropriate physical exam should be performed including, at a minimum, vital signs and examination of the breasts, abdomen, pelvis, perineum, and extremities.

All pregnancy and post-partum problems needing follow up should be addressed (e.g., hypertension, diabetes, incomplete vaccination series).

1. Wisner KL, et al. Postpartum depression. *New England Journal of Medicine*. 2002;347(3):194–99.

2. Screening for perinatal depression. ACOG Committee Opinion No. 757. November 2018. American College of Obstetricians and Gynecologists.

## GUIDELINE 32

# Therapeutic Hypothermia for Neonates

*Each institution shall adopt a process and standardized tool to trigger therapeutic hypothermia when that is determined by a licensed independent provider to be the appropriate treatment for any neonate at or past 34 weeks gestation with findings of neonatal encephalopathy—or considered at risk for encephalopathy or a seizure event (per screening criteria). If the neonate is being considered for therapeutic hypothermia and a definitive decision has not yet been reached, a repeat exam, ideally by the same licensed independent provider, should be performed within the first hour to evaluate evolution of neonatal encephalopathy.*

When the delivery 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, 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.

## SCREENING CRITERIA

1. Neonates  $\geq 34$  weeks gestational age; and
2. Concern for encephalopathy or seizure event; and
3. Any one of the following:
  - sentinel event prior to delivery such as uterine rupture, profound bradycardia, or cord prolapse
  - low Apgar scores  $\leq 5$  at 10 minutes of life

- prolonged resuscitation at birth, and/or intubation, and/or mask ventilation at 10 minutes
- pH  $< 7.1$  from cord or patient blood gas within 60 minutes of birth
- $\leq -10$  mEq/L from cord gas or patient blood gas within 60 minutes of birth

### *Absolute Exclusion Criteria:*

- gestational age  $< 34$  weeks

### *Relative Exclusion Criteria:*

(at the discretion of the accepting attending physician at the Level III facility)

- IUGR  $< 1,750$  grams
- severe congenital anomalies/genetic syndromes/established metabolic disorders
- major intracranial hemorrhage
- overwhelming septicemia
- uncorrectable, clinically relevant coagulopathy

## RECOMMENDATIONS

For neonates meeting the eligibility criteria for therapeutic hypothermia, contact the closest Level III NICU with hypothermia capabilities. Document the discussion and rationale for the decision to offer or not to offer therapeutic hypothermia.

## GUIDELINE 33

# Newborn Male Circumcision

Circumcision is the surgical removal of the foreskin of the penis. In the neonatal period, this is an elective procedure performed at the request of the parent(s).

Each institution will develop guidelines for circumcision, including:

- contraindications (e.g., abnormal genital structure, prematurity);
- requirements for ascertaining normal physical examination of the infant prior to procedure;
- preparation for procedure, including obtaining consent (using a form specifically for circumcision);
- time-out (surgical pause) is required prior to the procedure to confirm the patient and the presence of completed consent;

- pain relief: injection anesthetic, such as dorsal penile nerve block or subcutaneous ring block, is expected unless the parent declines; should the parent decline injection then use of a topical anesthetic agent may be considered; swaddling, oral sucrose and acetaminophen administration may be considered for comfort of the newborn during the procedure but are not sufficient as a sole method of analgesia;<sup>1</sup>
- documentation; and
- qualifications of performing clinicians.

Pediatric providers, obstetrical providers, and nurses should all be involved in the development/approval of guidelines.

Each institution will track short-term complications of the procedure, including the type of complication, the method of circumcision, and the performing clinician.

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1. Guidelines for Perinatal Care. 8th ed. American Academy of Pediatrics and American College of Obstetricians and Gynecologists; 2017.

## GUIDELINE 34

# Reporting of Adverse Outcomes

Routine screening for adverse outcomes shall be conducted at each institution for the purpose of capturing untoward outcomes, determining trends, developing corrective action, and providing timely information. The following patient outcomes should be reported to the institution's risk management and quality assurance personnel as soon as possible.

## INFANT CONDITION OR COMPLICATION

- Apgar score of 5 or less at five minutes
- Brachial plexus palsy
- Congenital deformity or birth injury leading to incapacity or disability<sup>1</sup>
- Cord pH less than 7.0
- Fracture of any long bone (excluding clavicle)
- Fractured skull
- Infant abduction
- Intracranial bleed unrelated to prematurity
- Meconium aspiration
- Neonatal seizures within the first 48 hours
- Respiratory distress syndrome after elective induction or elective repeat cesarean delivery
- Stillbirth or neonatal death in fetuses > 24 weeks or > 500 grams
- Surgical injury, including laceration of infant
- Term infant (> 36 weeks) > 2,500 grams admitted for > 24 hours to Level II or Level III nursery
- Unconsented circumcision
- Admission/transfer to NICU of a newborn for therapeutic hypothermia (*see Guideline 32*)

## BIRTHING PERSON COMPLICATIONS

- Death
- Eclampsia
- Failure to perform planned procedure
- Hysterectomy
- Birthing person readmission within two weeks of discharge
- Need for return to delivery room or operating room for unplanned procedure
- Retained sponge, instrument, or needle
- Surgery done on the wrong person or the wrong organ
- Surgical or delivery injuries, including burns and nerve injuries
- Symptomatic uterine rupture
- Unconsented procedure
- Unplanned transfer to intensive care

Peer review of adverse fetal or birthing person outcomes conducted pursuant to an institution's bylaws is, by law, confidential.

## INSTITUTIONAL RESPONSIBILITY

Events identified as being serious reportable events (SREs) must be reported by the institution to the Commonwealth of Massachusetts Executive Office of Health and Human Services Department of Public Health.<sup>1</sup>

Each obstetrical institution is responsible for developing policies and procedures for disclosure to patients of adverse events and outcomes involving their care.<sup>2</sup>

1. Massachusetts Department of Public Health website for reportable incidents. Available at: <http://www.mass.gov/dph>

2. If an adverse event occurs. CRICO. Available at: <https://www.rm.harvard.edu/Clinician-Resources/Article/2009/What-to-do-After-an-Adverse-Event>

## GUIDELINE 35

# Institutional Responsibilities

When obstetrical services are provided in a CRICO-insured institution, the following support services, staff training, and arrangements are the responsibility of the institution.

## FOR EMERGENCY SUPPORT

1. Blood products should be available at all times.
2. Personnel capable of performing an emergent surgical airway must always be immediately available.
3. Obstetrical (birthing person) resuscitation guidelines should be readily available by each institution and include:
  - a designated response team for birthing person emergencies in Labor and Delivery that includes members familiar with the physiologic changes of pregnancy and the procedures for notification of the response team; and
  - a designated response team for obstetrical patients who experience emergencies anywhere in the hospital other than Labor and Delivery.
4. Consultants from other services should be readily available as needed.

## FOR INFANT IDENTIFICATION AND PROTECTION

1. Each institution should affirm the identity of the newborn prior to any procedure, testing, and prior to being released to the birthing person and/or their designee(s) while in the hospital.
2. Each institution should establish clear protocols to prevent infant abduction.

## FOR GENERAL SUPPORT

These responsibilities are imbedded in specific guidelines. They are repeated here for clarity. CRICO-insured institutions are responsible for:

1. Adequate resources for record processing and adhering to record keeping standards including compliance with federal regulations (e.g., HIPAA) and its mandate for a designated institutional compliance officer (*Guideline 1*).

2. Accommodations for preserving all electronic fetal monitoring tracings (*Guideline 1*).
3. Support for quality improvement activities (*Guideline 1*).
4. A formal process to resolve disagreements between professional staff about medical management, conduct of labor, or interpretation of tests of fetal status (*Guideline 5*).
5. A standard policy and procedure for establishing gestational age (*Guideline 7*).
6. Guidelines for second trimester pregnancy termination (*Guideline 9*).
7. Ensuring that, whenever there is an actively laboring patient on the labor floor, a physician credentialed to perform an emergency operative delivery is readily available (*Guideline 13*).
8. A system by which alternative clinician coverage (as needed) is clearly communicated and available to all members of the labor and delivery staff (*Guideline 13*).
9. Providing and maintaining appropriate fetal monitoring apparatus to meet the needs of its patients (*Guideline 15*).
10. Convening at least daily multidisciplinary meetings held on the Labor and Delivery unit to discuss all patients' relevant clinical issues and have appropriate clinical and administrative plans agreed upon by the team caring for the patients (*Guideline 15*).
11. A standard policy and procedure for scheduling induction of labor (*Guideline 16*).
12. A standard policy and procedure for establishing the indication and method for induction of labor, including the preparation and use of oxytocin and use of cervical ripening agents (*Guideline 16*).
13. Guidelines for the use of oxytocin (*Guideline 17*).
14. Ensuring that enough controlled infusion devices for administration of oxytocin are maintained and available to meet the needs of the patient population (*Guideline 17*).

## GUIDELINE 35: INSTITUTIONAL RESPONSIBILITIES

15. Guidelines for communication prior to, during, and immediately after obstetrical surgery (*Guideline 27*).
16. Ensuring that a physician with appropriate privileges to administer obstetrical anesthesia (or a designee) will be available in the medical facility from the initiation of an anesthetic until the patient's post-anesthesia condition is satisfactory and stable (*Guideline 28*).
17. A policy for the management of patients in the PACU that describes who is responsible for the care of patients in the PACU, how they will be monitored, and the process for discharge (*Guideline 28*).
18. An early warning system and provide necessary resources for implementation, including staffing, education, a quality improvement process, and leadership from senior medical and nursing personnel (*Guideline 30*).
19. A process or program to instruct each patient regarding normal postpartum events. These instructions should include care of the breasts, perineum, bladder, the incision (if appropriate), and signs of complications (*Guideline 31*).
20. A process or program to instruct each patient regarding infant care, infant feeding (including the benefits of breastfeeding), and subsequent birthing person and newborn medical examinations (*Guideline 31*).
21. Adopting a standardized neonatal encephalopathy assessment tool—mutually agreeable to both referring and accepting neonatal units— that meets the needs of the providers and patient population served. (*Guideline 32*).
22. Each institution will develop guidelines for circumcision (*Guideline 33*).
23. Tracking short-term complications of circumcision, including the type of complication, the method of circumcision, and the performing clinician (*Guideline 33*).
24. Identifying and reporting serious reportable events (SREs) to the Commonwealth of Massachusetts Executive Office of Health and Human Services Department of Public Health (*Guideline 34*).
25. Policies and procedures for disclosure to patients of adverse events and outcomes involving their care (*Guideline 34*).

#### FOR STAFF COMMUNICATION, EDUCATION, AND TRAINING

1. A program to evaluate and document staff competence.
2. Continuing education for all obstetrical personnel including: FHR monitoring, emergency measures for the treatment of shoulder dystocia and eclampsia, and forceps or vacuum application.
3. Developing a plan for obstetrical safety drills to prepare staff in the event of high acuity, low frequency emergent events such as shoulder dystocia.
4. All existing and future CRICO-insured institutions and/or Departments of Obstetrics/Gynecology will endorse individualized institutional guidelines that define the roles and responsibilities and collaborative relationship of Certified Nurse Midwives and Obstetrician/Gynecologists.

## APPENDIX A

# Sample Documentation of Delivery with Shoulder Dystocia

*Patient identifiers here or upper right hand corner, depending on institution.*

**Shoulder Dystocia Duration:** minutes from delivery of head to expulsion of baby: \_\_\_\_\_

**Maneuvers Performed** (check all that apply)

- |  |   |
|--|---|
| <input type="checkbox"/> McRoberts             | <input type="checkbox"/> Fetal rotation (Woods Maneuver, Rubin) |
| <input type="checkbox"/> Suprapubic pressure   | <input type="checkbox"/> Gaskin (hands and knees)               |
| <input type="checkbox"/> Episiotomy            | <input type="checkbox"/> Zavanelli                              |
| <input type="checkbox"/> Deliver posterior arm | <input type="checkbox"/> Other (describe): _____                |

Fetal vertex position:  OA  LOA  ROA |  OT  LOT  ROT |  OP  LOP  ROP

Shoulder anterior at time of diagnosis of shoulder dystocia:  Left  Right

Pain relief (check all that apply):  None  Local  Epidural  Spinal  CSE  General  Other: \_\_\_\_\_

Anesthesiology Team alerted:  NO  YES

Pediatric Team alerted:  NO  YES

**Birth Person Status**

Complication:  NO  YES

If YES, describe: \_\_\_\_\_

Birth person blood transfusion:  NO  YES | If YES, # units transfused: \_\_\_\_\_

**Newborn Status**

MALE  FEMALE

Birth weight: \_\_\_\_\_ lbs \_\_\_\_\_ oz, or \_\_\_\_\_ grams

Apgar: 1 min \_\_\_\_\_ | 5 min \_\_\_\_\_

If 5 min is less than 7, document Apgar score at: 10 min \_\_\_\_\_ | 15 min \_\_\_\_\_ | 20 min \_\_\_\_\_

Arterial and venous cord blood gasses, if 5 min Apgar is 5 or less: \_\_\_\_\_

Newborn complication known or suspected:  NO  YES

If YES, describe: \_\_\_\_\_

Dictated delivery note or its electronic equivalent completed:  NO  YES

Patient and family informed of complication and given opportunity to ask questions:  NO  YES

\_\_\_\_\_  
Clinician Name (print)

\_\_\_\_\_  
Clinician Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Time

## APPENDIX B

# Sample Documentation of Operative Vaginal Delivery

*Patient identifiers here or upper right hand corner, depending on institution*

## Indication(s) for OVD (check all that apply)

- Fetal intolerance of labor  
 Arrest of descent  
 Birthing person exhaustion  
 Prolonged 2nd stage  
 Elective  
 Other (specify): \_\_\_\_\_

## Patient Counseling (check all that apply)

Discussed with patient: Risks:  NO  YES | Benefits:  NO  YES | Alternatives:  NO  YES

Patient consent obtained prior to procedure:  NO  YES

If NO, state why: \_\_\_\_\_

## Birthing Person-Fetal Assessment Prior to Operative Delivery

Birthing person bladder empty:  NO  YES

Fetal vertex position:  OA  LOA  ROA |  OT  LOT  ROT |  OP  LOP  ROP

Fetal station immediately prior to application of instrument:  +2/+5  +3/+5  +4/+5  +5/+5

Fetal heart rate:  Category 1  Category 2  Category 3

Estimated fetal weight: \_\_\_\_\_ grams

Anesthesia (check all that apply):  None  Local  Epidural  Spinal  Pudendal  Other: \_\_\_\_\_

Anesthesiology Team alerted:  NO  YES

Pediatric Team alerted:  NO  YES

## Details of Procedure

Forceps instrument applied

Forceps (name): \_\_\_\_\_ | # of pulls: \_\_\_\_\_

Rotation of fetal head:  None  0-45°  45-90°  >90°

Total time instrument applied (minutes): \_\_\_\_\_

Vacuum instrument applied

Vacuum cup:  Hard cup  Soft cup  Other: \_\_\_\_\_

Pressure setting: \_\_\_\_\_ | # of pulls: \_\_\_\_\_ | # of pop offs: \_\_\_\_\_

Total duration of instrument application (minutes): \_\_\_\_\_

Was instrument-assisted delivery successful:  NO  YES

If NO, please describe: please describe: \_\_\_\_\_

Was instrument-assisted delivery accompanied by shoulder dystocia?  NO  YES | If YES, *also complete shoulder dystocia form.*

SAMPLE DOCUMENTATION OF OPERATIVE VAGINAL DELIVERY

**Birth Person Status**

Episiotomy:  NO  YES | If YES:  Median  Mediolateral, right  Mediolateral, left

Lacerations:  NO  YES | If YES:  1<sup>st</sup> degree  2<sup>nd</sup> degree  3<sup>rd</sup> degree  4<sup>th</sup> degree

Other birthing person complications:  NO  YES

If YES, describe: \_\_\_\_\_

Estimated birthing person blood loss: \_\_\_\_\_

Placenta:  Spontaneous  Manual extraction

Blood transfusion:  NO  YES | If YES, # units of blood transfused: \_\_\_\_\_

**Newborn Status**

MALE  FEMALE

Birth weight: \_\_\_\_\_ lbs \_\_\_\_\_ oz, or \_\_\_\_\_ grams

Apgar: 1 min \_\_\_\_\_ | 5 min \_\_\_\_\_

If 5 min is less than 7, document Apgar score at: 10 min \_\_\_\_\_ | 15 min \_\_\_\_\_ | 20 min \_\_\_\_\_

Arterial and venous cord blood gasses, if 5 min Apgar is 5 or less: \_\_\_\_\_

Newborn injury:  NO  YES

If YES, check all that apply:  Scalp laceration  Scalp hematoma  Other (describe): \_\_\_\_\_

Operative vaginal delivery note and dictation/electronic equivalent entered into chart:  NO  YES

\_\_\_\_\_  
Clinician Name (print)

\_\_\_\_\_  
Clinician Signature

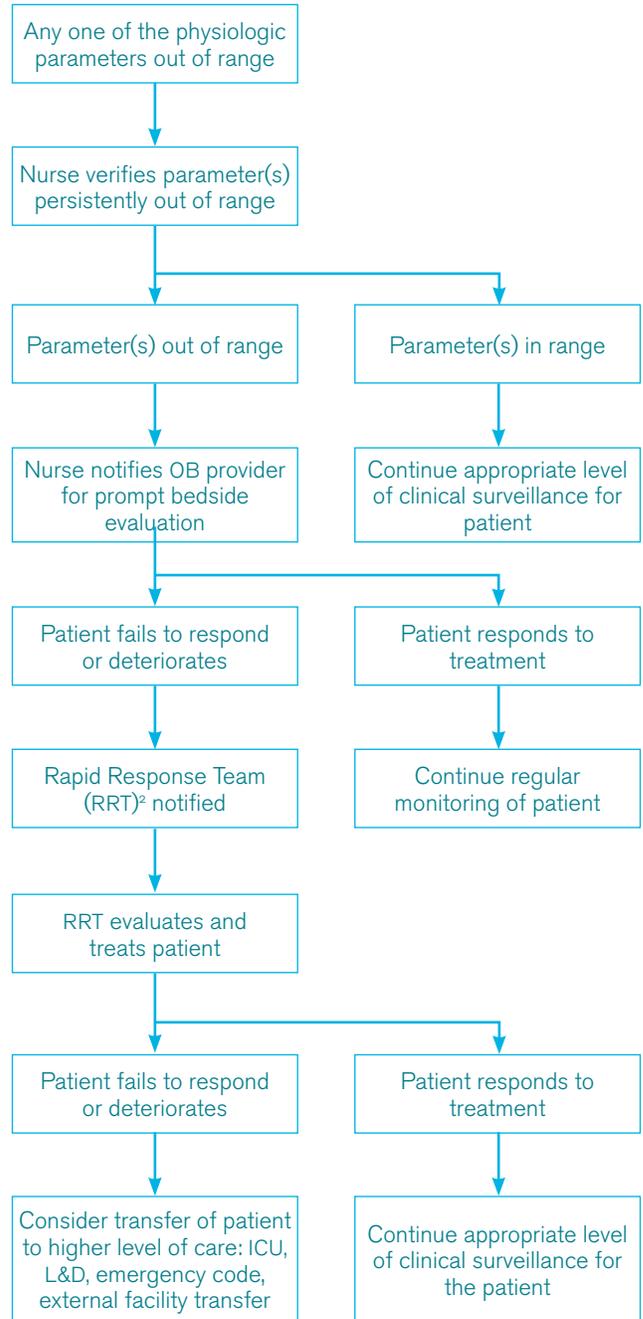
\_\_\_\_\_  
Date

\_\_\_\_\_  
Time

## APPENDIX C

# Early Warning System Algorithm

The Early Warning System algorithm identifies prompts for bedside assessment by providers with the ability to activate resources required for diagnostic and therapeutic interventions. Escalation of concern may be initiated by any team member at any point in the patient's care.



## APPENDIX D

# About Your Care During Labor and Birth

Having a baby is natural. Most birthing people and babies go through it without serious problems. Even so, some situations may arise near the end of your pregnancy, or during labor. These can affect the care you or your baby may need.

Many of those situations are described below. Some common practices you might experience at the hospital are also described. Ask your doctor, midwife, or nurse if you have questions.

## LABOR

1. A nurse will work with your doctor or midwife to take care of you. In some hospitals, doctors who are in training (residents) may also help care for you.
2. Other trainees may be involved in caring for you. Students are always supervised by your doctor, midwife, or a nurse.
3. You may have a blood test during labor.
4. A nurse may put a monitor on your belly to check your baby's heartbeat. If it is normal, the monitor may be removed. The baby's heartbeat will be checked again during your labor.
5. If your baby's heartbeat needs to be checked more closely, you might wear a monitor for longer. This monitor may be placed on your skin, or sometimes it is placed on top of the baby's head. Sometimes the baby's heartbeat patterns cause concern, even when the baby is fine. These patterns can be hard to understand. Your chance of a cesarean or vaginal delivery with vacuum or forceps increases when your baby's pattern raises a concern. Checking your baby's heartbeat does not prevent cerebral palsy or birth defects.
6. Sometimes it is possible to change the baby's heartbeat pattern. Your doctor or midwife can place a tube inside your womb and add fluid around the baby. This added fluid may take pressure off the umbilical cord during your labor.
7. You may have an intravenous line (IV) in your arm during labor. This is used to give you extra fluids, pain relief drugs, or antibiotics.
8. Pain you feel during labor can be relieved many ways. You might choose walking, a bath or shower, breathing, massage, special pillows, or a combination. Your doctor or midwife can offer you other, safe choices:

**Medication:** You get pain relief medication by needle (a “shot”) or through an IV line. You may get sleepy. Allergic reactions are rare.

**Epidural:** A doctor places a thin tube in your back. This takes about 20 minutes. You can then get drugs through the tube that will relieve most of your labor pain.

**Nitrous oxide:** Where available.

9. If your labor slows down, your doctor or midwife might give you oxytocin through an IV to make your contractions stronger and closer together.
10. Your doctor or midwife may try to help you start (induce) labor. Some reasons for this are:
  - your baby is overdue by more than a week or two,
  - your baby has not grown well,
  - infection,
  - high blood pressure,
  - diabetes, or
  - your water breaks.

If your cervix is soft and stretchy, you may be given oxytocin through an IV. If your cervix is not ready, you may get a prostaglandin medication, or a special balloon inserted, to soften the cervix before using oxytocin.
11. Sometimes, your labor may be induced for non-medical reasons before your due date. Generally, this cannot be done before 39 weeks gestation because babies who deliver before then can have trouble breathing room air.
12. The risks of inducing labor include creating contractions that are too strong or frequent. This can cause changes in the baby's heart rate. This risk is usually manageable and the contractions can be decreased. It is best to speak with your own provider regarding advice for induction; each hospital or institution will have its own rules regarding the scheduling of inductions.

## APPENDIX D: ABOUT YOUR CARE DURING LABOR AND BIRTH

**VAGINAL BIRTH**

1. Labor contractions slowly open your cervix. When your cervix is completely open, contractions, along with your help, push the baby through the birth canal (vagina). Usually, the baby's head comes out first, then the shoulders.
2. About 10–15 percent of birthing people need some help getting the baby through the birth canal. A doctor or midwife may apply a special vacuum cup or forceps (tongs) to your baby's head. The doctor will then pull while you push the baby out.
3. In approximately one percent of births, the shoulders do not come out easily. This is called shoulder dystocia. If this happens, your doctor or midwife will try to free the baby's shoulders. Shoulder dystocia may cause a broken bone or nerve damage to the baby's arm. Most often, these problems heal quickly. Shoulder dystocia may cause tears around your vaginal opening, and bleeding after birth.
4. Many birthing people get small tears around their vaginal opening. Sometimes a doctor or midwife will cut some vaginal tissue to make the opening bigger. This is called an episiotomy.
5. Most birthing people with tears or an episiotomy will need stitches. Your stitches will dissolve over a few weeks during healing. The area may be swollen and sore for a few days. Rarely, infection may occur. Infrequently, a tear or cut may extend to the rectum. Most often this heals with no problem.
6. Normally, the placenta will come out soon after birth. If not, then the doctor or midwife must reach into the womb and remove the placenta. You may need anesthesia, medicine that takes away pain and might make you sleepy.
7. Everyone loses some blood during childbirth. Some reasons you might lose a lot are listed.
  - The placenta doesn't pass on its own,
  - You are having more than one baby, such as twins or triplets.
  - Your labor lasts a very long time.

8. Oxytocin in a shot or IV can help reduce bleeding after birth. If your bleeding is very heavy, you may be given other medications to help contract your uterus. Very few people need a blood transfusion after vaginal birth.

**CESAREAN (ABDOMINAL) DELIVERY**

1. About one third of births are by cesarean. Some are planned; some are not.
2. During cesarean birth, a doctor delivers the baby through an incision (cut) in your abdomen (belly).
3. Here are some common reasons you might need an abdominal birth:
  - Your cervix doesn't open completely,
  - Your baby doesn't move down the birth canal,
  - Your baby needs to be delivered quickly because of a problem for you or the baby,
  - Your baby is not in a position that allows for a vaginal delivery, or
  - You gave birth by cesarean delivery before.
4. Anesthesia is always used for a cesarean. Most cesareans are performed using regional anesthesia (spinal, epidural, or combined spinal-epidural) so that the birthing person is awake during the delivery. Some are performed using general anesthesia and the birthing person is not awake during the delivery.
5. You will lose more blood during a cesarean birth than during a vaginal birth. About 12 out of 1,000 birthing people who have cesareans need a blood transfusion.
6. Infection is more common after an abdominal birth. Your doctors will give you medication to help prevent infection.
7. A thin tube (catheter) will drain your bladder during a cesarean. It may remain in place for 12–24 hours afterwards.
8. In less than one percent of cesareans, the birthing person's bowel or urinary system is injured. Most of the time these problems are fixed during the surgery.
9. In less than one percent of cesareans, the baby might be injured. Such injuries are usually minor.

## APPENDIX D: ABOUT YOUR CARE DURING LABOR AND BIRTH

**AFTER BIRTH**

1. Infection of the uterus (womb)
  - After a vaginal birth = 2–3 percent
  - After a cesarean birth = 5–15 percent.
  - Drugs (antibiotics) can lower the risk, but don't guarantee you won't get an infection.
2. You will have cramps as your womb returns to its normal size. Cramping gets stronger with each birth. You may notice it more when breastfeeding.
3. After a vaginal birth, you will probably have discomfort around your vaginal opening. After a cesarean birth, you will have pain from the incision. Ask your doctor or midwife for pain relief.
4. Vaginal bleeding is normal after birth. It will lessen over 1–2 weeks. About one percent of birthing people will need treatment for heavy bleeding. Sometimes, heavy bleeding can happen weeks after birth.
5. Most people feel tired and may feel sad after birth. For about 10 percent of new birthing people, these feelings of sadness linger or get worse. This may be postpartum depression. If this happens, ask your doctor or midwife for help.
6. When you can leave the hospital will depend on your health, your baby's health, and the help you have at home.

**NEWBORN**

1. At one minute, and again at five minutes after birth, your baby will be given Apgar scores. The scores are based on heart rate, breathing, skin and muscle tone, and vigor. Apgar scores help your pediatrician and the hospital staff care for your baby.
2. About 3 to 4 percent of babies are born with birth defects. Many (for example, extra fingers or toes) do not hurt the baby. Some, such as some heart abnormalities, can be serious.
3. Approximately 7 to 10 percent of babies are born prematurely, that is before 37 completed weeks of pregnancy. Premature babies may require treatment in a special nursery or an intensive care unit. Some babies born after 37 weeks also may need special care.
4. About 12 to 16 percent of babies pass meconium (the first bowel movement) into the amniotic fluid before delivery. If your baby is born with meconium-stained fluid, and is not crying at birth, the pediatrician will suction the meconium from the nose and mouth.
5. After birth, your baby will be given eye ointment to prevent eye infections. Your baby will also get a Vitamin K shot to prevent bleeding. A few drops of blood from one heel are taken to screen your baby for some diseases. The results are sent to your pediatrician. Your baby's hearing will be checked while in the hospital. Your baby will get the first shot to prevent hepatitis B before going home.
6. Three to four of every 1,000 newborns have serious infections of their blood, lungs, and—in more rare cases—the brain and spine. You may be given antibiotics to protect your baby if:
  - you carry Group B Strep,
  - you had a previous baby who had a Group B Strep infection shortly after birth,
  - you develop a fever during labor, or
  - your membranes (bag of waters) are ruptured for a long time.
7. If your baby is at risk, your pediatrician may order testing for infection. Your baby may also receive drugs to prevent infection.

## APPENDIX D: ABOUT YOUR CARE DURING LABOR AND BIRTH

**INFREQUENT OR RARE EVENTS**

The following problems occur infrequently or rarely during pregnancy:

1. A baby is born too early to survive, or with serious medical problems. A baby may die inside the womb (stillbirth or fetal death); or a baby may die shortly after or within one month of birth.
2. The birthing person develops blood clots in their legs after giving birth. This is more likely to occur after a cesarean (abdominal) delivery than after a vaginal birth.
3. The doctor must remove the birthing person's uterus (womb) to stop heavy, uncontrollable bleeding. The birthing person cannot become pregnant again after this operation.
4. The birthing person has a problem after a blood transfusion such as an allergic reaction, fever, or infection. The chance of contracting hepatitis (from a transfusion) is 1 in 100,000; the chance of contracting HIV is less than 1 in 1,000,000.
5. The birthing person dies during childbirth (less than 1 in 10,000). Causes might include very heavy bleeding, high blood pressure, blood clots in the lungs, and other medical problems.
6. Birthing people who have a higher body weight ("body mass index") may be at risk for additional complications related to childbirth (infection, blood clots, cesarean delivery). Your obstetrician or midwife may recommend preventive medications or other therapy to reduce your risk of complications.

**SUMMARY**

Most babies are born healthy. Most birthing people go through labor and birth without serious problems. But pregnancy and childbirth do have some risks. Many of the possible problems are frightening, but most are uncommon. The most serious events are very rare.

Your health care team will do its best to identify any problems early and offer you treatment. Your team looks forward to caring for you and delivering a healthy baby.

APPENDIX D: ABOUT YOUR CARE DURING LABOR AND BIRTH

# Authorization for Obstetrical Care

- I have read *About Your Care During Labor and Birth*.
- I understand what has been discussed with me, including this form. I have been given the chance to ask questions and have received satisfactory answers.
- No guarantees or promises have been made to me about expected results of this pregnancy.
- I am aware that other risks and complications may occur. I also understand that during the remainder of my pregnancy, or during labor, unforeseen conditions may be revealed that require additional procedures.
- I know that anesthesiologists, pediatricians, resident doctors, and other clinical students/staff may help my doctor or midwife.
- I retain the right to refuse any specific treatment.
- All of my questions have been answered.

I consent to obstetrical care during my birthing experience. I understand that some of the procedures described above may occur. I retain the right to refuse any specific treatment. Ongoing discussion(s) about my current status and the recommended steps will be a part of my care.

Patient Name (print)	DOB or Patient ID#	
Patient Signature	Date	Time
Clinician Name (print)		
Clinician Signature	Date	Time

- I accept blood transfusions in the case of a life-threatening medical emergency.
- I refuse blood transfusion under any circumstances and have signed a separate form specifically for the refusal of blood products.

Patient Signature	Date	Time
-------------------	------	------

## APPENDIX E

## Breech Version or External Cephalic Version

If your baby is in the breech (buttocks down) position late in your pregnancy, the following explains a procedure your doctor or midwife may try to turn the baby to a head down position.

About 4 out of 100 babies are in the breech position after 37 weeks. This increases some risks for the baby. Breech babies have a slightly higher than average chance of birth injury. The birthing person has a high chance of cesarean delivery. For these reasons, you and your doctor or midwife may try to turn your baby.

This procedure is carried out in the hospital. An ultrasound is used to see the baby's position. This helps the doctor or midwife decide how to push on your belly. Your baby's heartbeat is checked during the procedure. A drug may be given to help your uterine muscles relax (it may make your heart beat faster). Then, the doctor or midwife will push on the baby through your abdominal wall in an attempt to turn it.

After the procedure, your baby's heartbeat is checked again. If you are Rh negative, then Rh immune globulin is usually given at this time.

About half the time, the baby can be turned into the head down position. Usually, once turned, the baby will stay head down.

Sometimes, the baby turns back to breech.

If successful, turning your baby head down reduces the chance of a cesarean. But it is associated with a number of risks.

- During the turning, your baby's heart rate may fall. This is not uncommon. The heart rate usually returns to normal quickly.
- The procedure may start your labor or cause your water to break. For this reason, the attempt to turn the baby is usually done within a few weeks of the due date. By then, the baby should be mature.
- In less than 1 out of 100 cases, the baby can be entangled in the umbilical cord during the turning.
- In less than 1 out of 200 of cases, the placenta may separate from the wall of the uterus. If this happens, the blood flow to the baby is reduced. That can be dangerous for the baby.
- If a problem does occur, an emergency cesarean delivery may be needed. Rarely, a problem will happen hours or days after the version.
- In very rare instances, the baby can die.

APPENDIX E: BREECH VERSION OR EXTERNAL CEPHALIC VERSION

# Authorization for Breech Version or External Cephalic Version

- I have read *Breech Version or External Cephalic Version*.
- I understand what has been discussed with me, including this form. I have been given the chance to ask questions and have received satisfactory answers.
- No guarantees or promises have been made to me about expected results of this pregnancy.
- I know that anesthesiologists, pediatricians, resident doctors, and other clinical students/staff may help my doctor or midwife.
- I retain the right to refuse any specific treatment.
- All of my questions have been answered.

I consent to breech version (external cephalic version). Ongoing discussion(s) about my current status and the recommended steps will be a part of my care.

_____ Patient Name (print)	_____ DOB or Patient ID#	
_____ Patient Signature	_____ Date	_____ Time
_____ Clinician Name (print)		
_____ Clinician Signature	_____ Date	_____ Time

## APPENDIX F

# Delivery Following a Previous Cesarean Delivery

If you have had one baby by cesarean delivery, you may have some questions about what happens in the next pregnancy. First, you must discuss the situation with your doctor or midwife. You will have to plan for another cesarean, or to try for a “trial of labor” and a vaginal delivery. If you want to try for a vaginal delivery, the following explains the risks and benefits.

## IS A TRIAL OF LABOR RIGHT FOR YOU?

1. During your previous cesarean(s), a cut was made in your belly and uterus (womb). If the cut was in the lower part of your uterus—and sideways—then it is usually strong. The risk of the scar tearing during labor is low.
2. If you had a low, sideways cut, then you can safely attempt labor and a vaginal delivery. If you have had more than one cesarean, you can consider vaginal delivery, but the risk of rupture of the scar during labor goes up with each previous cesarean.
3. If your cesarean cut was in the lower part of your uterus—but up and down—then the risk of your scar tearing is higher than if it was sideways.
4. If your cesarean cut was in the upper part of your uterus and up and down (a classical cesarean delivery), then a vaginal birth is not recommended.
5. Your doctor or midwife will need to know the type of cut you had in your previous cesarean(s). If your records are not available, the two of you will have to talk and decide if a trial of labor is right for you without having the information about your previous cesarean(s).

## WHAT ELSE IS NEEDED FOR A TRIAL OF LABOR?

1. Your pelvis should be judged adequate.
2. You should have no other uterine scars.
3. An obstetrician and other medical team members must be immediately available if you need an emergency cesarean.

## HOW SUCCESSFUL IS A TRIAL OF LABOR?

1. From 60 to 80 percent of birthing people who try labor give birth vaginally. Even after two cesareans, the success rate is relatively high.
2. Birthing people with bigger babies have a lower success rate. So do birthing people whose previous cesarean was done because their labor slowed or stopped.

## WHAT ARE THE BENEFITS AND RISKS OF A VAGINAL BIRTH?

1. The birthing person usually has a faster recovery time, shorter hospital stay, and less discomfort. You have less chance of blood transfusion and postpartum infection. You avoid the risks of surgery (cesarean). Vaginal birth also lowers your baby’s risk of breathing difficulty in the first few hours of life.
2. If your trial of labor is not successful, you will need an “unplanned” cesarean. An unplanned cesarean has more risk for you and your baby than a planned cesarean. This includes a higher chance of infection, blood transfusion, and a uterine tear.
3. After a previous cesarean, a uterine rupture (tear) can occur during a future pregnancy or labor. If you have a low, sideways cut, the risk is less than one percent. If your uterus does tear, you will need an emergency cesarean. Your baby may be injured or die from a uterine rupture. Occasionally, the uterus cannot be repaired and a hysterectomy (removal of the uterus) may be needed. Rarely, other organs such as the bladder or bowel may be injured from a uterine rupture or emergency cesarean.
4. The risk for rupture of the scar also goes up if your labor is induced, especially if your cervix is not ready for labor.
5. The safety of a vaginal birth (after cesarean) with twins, breech babies, or after more than one previous cesarean, is less well studied.

## APPENDIX F: DELIVERY FOLLOWING A PREVIOUS CESAREAN DELIVERY

**WHAT ARE THE BENEFITS AND RISKS OF A SCHEDULED REPEAT CESAREAN DELIVERY?**

1. A repeat cesarean can be planned and the date chosen. You avoid any chance of a long labor. The risks of attempting vaginal delivery are avoided.
2. If a repeat cesarean is planned more than seven days prior to your due date, then your baby has more risk for problems.
3. The infection rate is higher in patients who deliver by cesarean than for those who have vaginal births.
4. Blood loss is usually more with a cesarean than with a vaginal delivery. Approximately 12 in 1,000 of all patients who have cesareans require blood transfusion.
5. Injury to the urinary system occurs in less than 1 in 200 cesarean births. These problems are usually identified and fixed at the time of birth.
6. Injury to the bowel (the intestines, colon, or rectum) is very rare, occurring in fewer than 1 in 1,000 cesareans. If an injury to the bowel occurs, it will usually be recognized and fixed at the time of birth.
7. Occasionally, the placenta in a future pregnancy can implant over the old scar. This increases the risk of bleeding and premature delivery in that pregnancy. The chance of the placenta implanting in the wrong place increases with each cesarean.
8. Having one baby delivered by cesarean increases the chance of a cesarean for your next pregnancy. Each cesarean increases the risk of scarring and may increase the difficulty of the next cesarean surgery. There is also an increased risk for rupture of the uterus in future pregnancies if labor is tried.
9. Rarely, infertility may result from internal scar tissue.
10. Rarely, a hysterectomy (removal of the uterus) can be required.

**WHO SHOULD NOT TRY LABOR AND VAGINAL DELIVERY?**

Trying labor and a vaginal delivery following a previous cesarean is not recommended when the risks are greater than the benefits.

1. You've had a previous cesarean delivery with an up and down cut in the upper part of your uterus (a classical cesarean delivery).
2. You've had some previous uterine surgery, including some myomectomies (fibroid removal).
3. You've had more than two consecutive (back to back) cesareans and no prior or interval vaginal deliveries.
4. You've had a prior uterine rupture or tear.
5. Your pelvis too small.
6. Medical or obstetrical problems prevent vaginal delivery.

## APPENDIX F: DELIVERY FOLLOWING A PREVIOUS CESAREAN DELIVERY

## Authorization for Delivery Following a Previous Cesarean Delivery

- I have read *Delivery Following a Previous Cesarean Delivery*.
- I understand what has been discussed with me, including this form. I have been given the chance to ask questions and have received satisfactory answers.
- No guarantees or promises have been made to me about expected results of this pregnancy.
- I know that anesthesiologists, pediatricians, resident doctors, and other clinical students/staff may help my doctor or midwife.
- I retain the right to refuse any specific treatment.
- All of my questions have been answered.

I have chosen to attempt a trial of labor and vaginal delivery. Ongoing discussion(s) about my current status and the recommended steps will be a part of my care.

_____		_____	
Patient Name (print)		DOB or Patient ID#	
_____		_____	_____
Patient Signature		Date	Time
_____		_____	
Clinician Name (print)			
_____		_____	_____
Clinician Signature		Date	Time

## APPENDIX G

# The Delivery of Twins

If you are having twins, the following explains possible events and risks related to your labor and delivery.

## TIMING OF DELIVERY

- About 40 percent of twin pregnancies begin labor early.
- Sometimes, medical problems require an early delivery.
- Almost all patients with twins give birth before or by their due dates.

## ROUTE OF DELIVERY

The recommended route of delivery depends in large part on how the babies are presenting.

- Both heads are down: vaginal delivery for both babies.
- The first baby is not head down: cesarean is most often recommended.
- The first baby is head down, the second baby is buttocks down or sideways, the options are:
  - cesarean delivery of both twins;
  - vaginal delivery of the first baby, attempt to turn the second baby for vaginal delivery;

- vaginal delivery of the first baby, breech vaginal delivery of the second baby; or
- vaginal delivery of the first baby, cesarean delivery of the second baby (uncommon).

Each option has risks.

- Vaginal delivery poses risks for the second baby, including birth trauma (rare).
- A cesarean includes the risk of bleeding, infection, and surgical injury to the bowel or bladder.

Vaginal breech delivery of the second twin is not recommended when:

- the second baby is estimated to be much larger than the first,
- the birthing person's pelvis is judged to be too small to allow the baby to deliver safely, or
- the baby is very small (less than 4 pounds) or very early (less than 32 weeks).

## APPENDIX G: DELIVERY OF TWINS

## Authorization for the Delivery of Twins

- I have read *The Delivery of Twins*.
- I understand what has been discussed with me, including this form. I have been given the chance to ask questions and have received satisfactory answers.
- No guarantees or promises have been made to me about expected results of this pregnancy.
- I know that anesthesiologists, pediatricians, resident doctors, and other clinical students/staff may help my doctor or midwife.
- I retain the right to refuse any specific treatment.
- All of my questions have been answered.

I understand that some of the procedures described above may occur. I retain the right to refuse any specific treatment. Ongoing discussion(s) about my current status and the recommended steps will be a part of my care.

\_\_\_\_\_  
Patient Name (print)

\_\_\_\_\_  
DOB or Patient ID#

\_\_\_\_\_  
Patient Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Time

\_\_\_\_\_  
Clinician Name (print)

\_\_\_\_\_  
Clinician Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Time

## APPENDIX H

# Primary Cesarean Delivery on Patient Request

## THE BENEFITS AND RISKS OF A SCHEDULED ELECTIVE PRIMARY CESAREAN DELIVERY

1. A cesarean delivery can be planned; the date can be chosen.
2. You may not experience labor.
3. The most common problems with cesarean delivery are hemorrhage (uncontrolled bleeding) and infection. Both are higher risk for cesarean deliveries than for vaginal births.
4. For the birthing person, blood loss is usually greater with a cesarean than with a vaginal delivery. Approximately 12 in 1,000 of all patients having a cesarean need a blood transfusion.
5. Injury to the urinary system (the bladder and drainage to and from the bladder) occurs in less than 1 in 200 patients who deliver by cesarean. These problems are usually identified and repaired at the time of the cesarean. Vaginal delivery does not eliminate risk of injury to the urinary system.
6. Injury to the birthing person's bowel (intestines, colon, or rectum) is rare at the time of cesarean. It occurs in less than 1 in 1,000 cesareans. Such an injury will usually be recognized and fixed at the time of the cesarean. Injury to the birthing person's bowel almost never happens after a vaginal delivery.
7. A cesarean delivery can result in serious problems in subsequent pregnancies. Occasionally, the placenta in a future pregnancy implants over the old cesarean scar, which is usually near the cervix (the opening of the womb to the birth canal). This increases the risk of bleeding and premature delivery. The chance of the placenta implanting in the wrong place increases with each additional cesarean.
8. Having had one cesarean increases the chance of having another one. Each cesarean increases the risk of scarring afterwards and may increase the difficulty of future surgeries. There is also a small but increased risk for rupture of the uterus during labor for patients who have had a previous cesarean.
9. Rarely, the inability to get pregnant, or chronic pelvic pain, may result from scar tissue (adhesions) that may form after cesarean delivery.
10. Rarely, a hysterectomy (removal of the uterus) may be needed for the treatment of uncontrollable bleeding.

## APPENDIX H: PRIMARY CESAREAN DELIVERY ON PATIENT REQUEST

# Authorization for Primary Cesarean Delivery on Patient Request

- I have read *Primary Cesarean Delivery on Patient Request*.
- I understand that I have the option for vaginal delivery and that I do not have specific medical indications for cesarean delivery.
- I understand the risks and benefits of an elective primary cesarean delivery as explained above and as explained by my clinician. I am aware that other risks and complications may occur.
- I understand what has been discussed with me, including this form. I have been given the chance to ask questions and have received satisfactory answers.
- No guarantees or promises have been made to me about expected results of this pregnancy.
- I am aware that other risks and complications may occur. I also understand that during the remainder of my pregnancy, or during labor, unforeseen conditions may be revealed that require additional procedures.
- I know that anesthesiologists, pediatricians, resident doctors, and other clinical students/staff may help my doctor or midwife.
- I retain the right to refuse any specific treatment.
- All of my questions have been answered.

I request and consent to elective primary cesarean delivery. Ongoing discussion(s) about my current status and the recommended steps will be a part of my care.

\_\_\_\_\_  
Patient Name (print)

\_\_\_\_\_  
DOB or Patient ID#

\_\_\_\_\_  
Patient Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Time

\_\_\_\_\_  
Clinician Name (print)

\_\_\_\_\_  
Clinician Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Time

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# Acronyms and Definitions

Below is a list of words, phrases, and acronyms used throughout the Guidelines that may be ambiguous or unfamiliar to some providers of obstetrical service.

## ACOG

American College of Obstetricians and Gynecologists

## ACTIVE LABOR

The second part of first stage labor, when the cervical dilation rate is maximal.

## CATEGORY I

### FETAL HEART RATE (FHR)

A pattern defined as:

- baseline FHR: 110–160 beats per minute,
- baseline FHR variability: moderate,
- late or variable decelerations: absent, and
- early decelerations: present or absent, and
- accelerations: present or absent.

## CATEGORY II FHR

Includes all FHR tracings not categorized as Category I or Category III such as:

- baseline FHR
  - bradycardia not accompanied by absent baseline variability
  - tachycardia
- baseline FHR variability
  - minimal
  - absent with no recurrent decelerations
  - marked

- accelerations: absence of induced accelerations after fetal stimulation
- periodic or episodic decelerations
- recurrent variable decelerations accompanied by minimal or moderate baseline variability
- prolonged decelerations more than 2 minutes but less than 10 minutes
- recurrent late decelerations with moderate baseline variability
- variable decelerations with other characteristics such as slow return to baseline, overshoots, or “shoulders”

## CATEGORY III FHR

Includes either:

- absent baseline FHR variability and any of the following:
  - recurrent late decelerations
  - recurrent variable decelerations
  - bradycardia
- sinusoidal pattern

## CRICO

Controlled Risk Insurance Company, the provider of medical professional liability insurance for Harvard-affiliated physicians, hospitals, and their employees.

## EDD

Estimated date of delivery determined by a combination of historical, clinical, and laboratory criteria.

## FETAL DEMISE

In utero deaths occurring at 20 or more weeks gestation, or when the fetal weight is 350 grams or greater.

## FETAL LUNG MATURITY

Fetal lungs have developed to the point that respiratory distress syndrome is not expected.

## INFORMED CONSENT

A process for informing patients of the risks, benefits, and alternatives involved in the provision of specific medical care.

## MIDWIFE

For these Guidelines, the term refers to a certified nurse midwife working in a collaborative relationship with an attending obstetrician.

## OPERATIVE DELIVERY

Non-spontaneous vaginal and cesarean deliveries.