

Disclosures by Licensed Midwives for High-Risk Pregnancy Conditions

Virginia Board of Medicine

The Code of Virginia (Law) requires that licensed midwives “disclose to their patients, when appropriate, options for consultation and referral to a physician and evidence-based information on health risks associated with birth of a child outside of a hospital or birthing center.” Regulations for Licensed Midwives specify that:

Upon initiation of care, a midwife shall review the client's medical history in order to identify pre-existing conditions or indicators that require disclosure of risk for home birth. The midwife shall offer standard tests and screenings for evaluating risks and shall document client response to such recommendations. The midwife shall also continually assess the pregnant woman and baby in order to recognize conditions that may arise during the course of care that require disclosure of risk for birth outside of a hospital or birthing center.

The risk factors or conditions that require disclosures are listed in regulation. If any of these conditions or factors are presented, the midwife is to:

- 1) Request and review the client's medical history, including records of the current or previous pregnancies;*
- 2) Disclose to the client the risks associated with a birth outside of a hospital or birthing center; and*
- 3) Provide options for consultation and referral.*

Regulations require that if the risk factors or criteria have been identified that may indicate health risks associated with birth of a child outside a hospital or birthing center, the midwife must provide evidence-based information on such risks and must document in the client record the assessment of all health risks that pose a potential for a high risk pregnancy and, if appropriate, the provision of disclosures and evidence-based information. **The disclosure for intrapartum risk factors should be given to a client at the first prenatal visit.**

For each of the risk factors or conditions identified, this guidance document provides evidence-based information and a format to record in a client's record the disclosure of information and options for consultation and referral.

To access the evidence-based information and disclosure for a particular conditions or risk factor, click on the link in the index below. The midwife may then print the form for that condition or risk factor for presentation and discussion with the client and have the form signed for inclusion in the client record.

Intrapartum Risk Factors

1. Abnormal fetal cardiac rate or rhythm
2. Active cancer
3. Acute or chronic thrombophlebitis
4. Anemia (hematocrit less than 30 or hemoglobin less than 10 at term)
5. Any pregnancy with abnormal fetal surveillance tests
6. Blood coagulation defect
7. Body Mass Index (BMI) equal to or greater than 30
8. Cardiac disease
9. Chronic obstructive pulmonary disease or other pulmonary disorders
10. Ectopic pregnancy
11. Essential chronic hypertension over 140/90
12. Genital herpes or partner with genital herpes
13. History of hemoglobinopathies
14. HIV positive status or AIDS
15. Inappropriate fetal size for gestation – Macrosomia (Large for gestational age)
16. Inappropriate fetal size for gestation – IUGR (Small for gestational age)
17. Incomplete spontaneous abortion
18. Isoimmunization to blood factors
19. Multiple gestation
20. Persistent severe abnormal quantity of amniotic fluid
21. Platelet count less than 120,000
22. Position presentation other than cephalic at term or while in labor
23. Pre-eclampsia/eclampsia
24. Pregnancy lasting longer than 42 completed weeks with an abnormal non-stress test
25. VBAC (vaginal birth after cesarian) previous uterine incision or myomectomy
26. Mental Health Issues
27. Rupture of membranes 24 hours before the onset of labor
28. Seizure disorder requiring prescriptive medication

29. Severe liver disease -- active or chronic
30. Severe renal disease - active or chronic
31. Significant 2nd or 3rd trimester bleeding
32. Significant glucose intolerance (Preexisting diabetes, gestational diabetes, PCOS)
33. Uncontrolled hyperthyroidism
34. Uterine ablation (endometrial ablation)
35. Uterine anomaly

A Work Group comprised of members of the Board of Medicine and the Advisory Board on Midwifery has developed this information to assist licensed midwives in satisfying the requirements of Code Section 54.1-2957.9(iv), which requires midwives to disclose to their patients options for consultation and referral to a physician and evidence-based information on health risks associated with the birth of a child outside of a hospital. This information does not constitute medical advice, diagnosis, opinion or treatment. Individuals should consult a qualified health care provider for advice regarding a medical condition.

Intrapartum Risk Factors

Preamble:

The Midwives Model of Care® recognizes the client/patient as the primary decision maker in all aspects of her care and respects her autonomy. This is supported within a model of well-informed, shared decision-making in order to achieve optimal clinical outcomes. Disclosure of risks is an integral part of the informed consent process, as outlined by NARM (the *North American Registry of Midwives*).

“If a midwife supports a client’s choices that are outside of her Plan of Care, she must be prepared to give evidence of informed consent. The midwife must also be able to document the process that led to the decision and show that the client was fully informed of the potential risks and benefits of proceeding with the new care plan. It is the responsibility of the midwife to provide evidence-based information, clinical expertise, and when appropriate, consultation or referral to other providers to aid the client in the decision making process.” – NARM

Licensed midwives are trained experts in the management of low-risk pregnancy and birth outside of the hospital. Certain conditions may present increased risk to mother and/or baby. The risks listed below apply to birth in any setting, and are not all-inclusive. The condition/risk factor listed may require medications and treatments outside of the scope of practice of Virginia Licensed Midwives and, thus may necessitate consultation with a physician, additional testing, and careful consideration for the appropriateness of birth in an out-of-hospital setting. Some conditions in pregnancy should be optimally managed and supported by a multidisciplinary team that may include midwives, obstetricians, perinatologists, family physicians, psychologists, social workers, and spiritual advisors.

Conditions requiring on-going medical supervision or on-going use of medications

Clients with chronic medical conditions, on prescribed medications, or under medical care for a time-limited problem that coincides with pregnancy should be advised to consult with their treating healthcare providers regarding the impact of these conditions and medications on pregnancy, as well as any impact pregnancy may have on their other diagnosed conditions. Women who choose not to disclose information regarding any medical conditions they have or medications that they are taking may increase their risk of complications.

Current substance abuse (including alcohol and tobacco)

Obstetrical complications of cigarette smoking include:

- Growth restriction (IUGR)
- Spontaneous abortion (miscarriage)
- Sudden infant death syndrome (SIDS)

Alcohol abuse leads to:

- Nutritional deficiencies
- Fetal alcohol syndrome

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In addition to increased risk of preterm labor and baby being small for gestational age, complications resulting from abusing other drugs include:

- Heroin and cocaine consumption result in medical, nutritional and social neglect
- Cocaine and amphetamine cause hypertension, placental abruption
- Intravenous abuse also increases the risk of contracting infectious disease.¹
- Maternal substance use of opioids, benzodiazepines, barbiturates, and alcohol can cause NAS (Neonatal abstinence syndrome).² NAS is a set of drug withdrawal symptoms that affect the central nervous, gastrointestinal, and respiratory systems in the newborn when separated from the placenta at birth.

Documented Intrauterine growth retardation (IUGR)/small for gestational age (SGA) at term

Complications³ for the growth-restricted fetus include:

- Prematurity
- Perinatal morbidity
- Stillbirth

"IUGR is a serious problem, regardless of why the baby is small. About 20% of stillborn babies are IUGR, and perinatal mortality for growth-restricted infants may be 6 to 10 times higher than for those of normal size. Most IUGR stillbirths occur after the 36th week of pregnancy and before labor begins."⁴

Suspected uterine rupture

Consequences of uterine rupture:

- There have been no reported maternal deaths due to uterine rupture
- Overall, 14 percent to 33 percent of women will need a hysterectomy when the uterus ruptures
- Approximately 6 percent of uterine ruptures will result in perinatal death
- This is an overall risk of intrapartum fetal death of 20 per 100,000 women undergoing trial of labor after previous cesarean section
- "For term pregnancies, the reported risk of fetal death with uterine rupture is less than 3 percent. Although the risk is similarly low, there is insufficient evidence to quantify the neonatal morbidity directly related to uterinerupture."⁵

Prolapsed cord or cord presentation

Prolapsed cord is a term describing a cord that is passing through the cervix at the same time or in advance of the fetal presenting part. This occurs in approximately 1.4-6.2 per 1000 of pregnancies. Although uncommon, it is considered a true obstetrical emergency most often necessitating a caesarean delivery. Prolapsed cord is associated with other complications of pregnancy and delivery as well.

Pregnancy and substance abuse, G. Fischer, M. Bitschnau, A. Peternell, H. Eder, A. Topitz. Archives of Women's Mental Health. August 1999, Volume 2, Issue 2, pp 57-65.

Casper, Tammy, and Megan W. Arbour. "Identification of the Pregnant Woman Who Is Using Drugs: Implications for Perinatal and Neonatal Care." Journal of Midwifery & Women's Health (2013).

Lerner, Jodi P. "Fetal growth and well-being." Obstetrics and gynecology clinics of North America 31.1 (2004): 159-176.

Frye, Anne, Holistic Midwifery, Volume 1, Labrys Press, Portland, OR, 2006, p. 990

Guise, Jeanne-Marie, et al. "Vaginal birth after cesarean: new insights." (2010).

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Fetal risks:

- Hypoxia
- Stillbirth/death

Suspected complete or partial placental abruption

Placental abruption results from a cascade of pathophysiologic processes ultimately leading to the separation of the placenta prior to delivery. Pregnancies complicated by abruption result in increased frequency⁶ of:

- Low birth weight
- Preterm delivery
- Stillbirth
- Perinatal death

Suspected placental previa

Pregnancies complicated with placenta previa had significantly higher rates⁷ of

- Second-trimester bleeding
- Pathological presentations
- Placental abruption
- Congenital malformations
- Perinatal mortality
- Cesarean delivery
- Apgar scores at 5 minutes lower than 7
- Placenta accreta
- Postpartum hemorrhage
- Postpartum anemia
- Delayed maternal and infant discharge from the hospital

Suspected chorioamnionitis

Chorioamnionitis is a potentially serious complication:⁸

- Chorioamnionitis is a major risk factor in the event of preterm birth, especially at earlier gestational ages, contributing to prematurity-associated mortality and morbidity
- Increased susceptibility of the lung for postnatal injury, which predisposes for bronchopulmonary dysplasia.
- Chorioamnionitis is associated with cystic periventricular leukomalacia, intraventricular hemorrhage and cerebral palsy in preterm infants
- Prenatal inflammation/infection has been shown a risk factor for neonatal sepsis

Ananth, Cande V., et al. "Placental abruption and adverse perinatal outcomes." *JAMA: the journal of the American Medical Association* 282.17 (1999): 1646-1651.
Sheiner, E., et al. "Placenta previa: obstetric risk factors and pregnancy outcome." *Journal of Maternal-Fetal and Neonatal Medicine* 10.6 (2001): 414-419.
Thomas, Wolfgang, and Christian P. Speer. "Chorioamnionitis: important risk factor or innocent bystander for neonatal outcome?" *Neonatology* 99.3 (2010): 177-187.

Pre-eclampsia/eclampsia

Complications of preeclampsia include:

- Eclampsia
- HELLP (hemolysis, elevated liver enzymes, low platelets) syndrome
- Liver rupture
- Pulmonary edema
- Renal failure
- Disseminated intravascular coagulopathy (DIC)
- Hypertensive emergency
- Hypertensive encephalopathy
- Cortical blindness

Maternal complications occur in up to 70% of women with eclampsia and include: ⁹

- DIC
- Acute renal failure
- Hepatocellular injury
- Liver rupture
- Intracerebral hemorrhage
- Cardiopulmonary arrest
- Aspiration pneumonitis
- Acute pulmonary edema
- Postpartum hemorrhage
- Maternal death rates of 0-13.9% have been reported

Fetal complications in preeclampsia are directly related to gestational age and the severity of maternal disease and include increased rates of: ¹⁰

- Preterm delivery
- Intrauterine growth restriction
- Placental abruption
- Perinatal death

Thick meconium stained amniotic fluid without reassuring fetal heart tones and birth is not imminent

Meconium staining of the amniotic fluid is a common occurrence during labor. Although a large proportion of these pregnancies will have a normal neonatal outcome, its presence may be an indicator of fetal hypoxia and has been linked to the development of: ¹¹

- Cerebral palsy

Norwitz, Errol R., Chaur-Dong Hsu, and John T. Repke. "Acute complications of preeclampsia." *Clinical obstetrics and gynecology* 45.2 (2002): 308-329.
 de Souza Rugolo, Ligia Maria Suppo, Maria Regina Bentlin, and Cleide Enoir Petean Trindade. "Preeclampsia: effect on the fetus and newborn." *Neoreviews* 12.4 (2011): e198-e206.
 Rahman, Shimma, Jeffrey Unsworth, and Sarah Vause. "Meconium in labour." *Obstetrics, Gynaecology & Reproductive Medicine* 23.8 (2013): 247-252.

- Seizures
- Meconium aspiration syndrome

Abnormal auscultated fetal heart rate pattern unresponsive to treatment or inability to auscultate fetal heart tones

Sustained abnormal fetal heart rate patterns include bradycardia (abnormally low heart rate) and decelerations in the baby's heart rate. Additionally, tachycardia (abnormally high heart rate) is abnormal, and can also be an indication for the need for further evaluation. Historically, a 30-minute rule from decision-to-incision time for emergent cesarean delivery in the setting of abnormal FHR pattern has existed; however, the scientific evidence to support this threshold is lacking.

Excessive vomiting, dehydration, or exhaustion unresponsive to treatment

- Sufficient fluid intake during labor may prevent hemoconcentration, starvation, and activation of the thrombogenic and fibrinolytic system¹²
- With extreme exhaustion, the chances of fetal distress and non-progressive labor are greatly increased
- Bleeding during or after the placental birth, followed by shock, are much more likely to occur when the woman and her uterus are exhausted¹³
- Maternal exhaustion is diagnosed with a combination of ketonuria, elevated temperature, and elevated pulse. This condition is also known as ketoacidosis, in that the mother's blood becomes abnormally acidic and less able to carry oxygen. Unless this condition is reversed, fetal distress will result¹⁴

Blood pressure greater than 140/90 which persists or rises and birth is not imminent

Women with chronic hypertension are at increased risk of: ¹⁵

- Superimposed preeclampsia (25% risk)
- Preterm delivery
- Fetal growth restriction or demise
- Placental abruption
- Congestive heart failure
- Acute renal failure
- Seizures
- Stroke
- Death

Maternal fever equal to or greater than 100.4°

Fever can indicate infection. Fever in labor is associated with: ¹⁶

- Early neonatal and infant death
- Hypoxia

Watanabe, Takashi, et al. "Effect of labor on maternal dehydration, starvation, coagulation, and fibrinolysis." *Journal of perinatal medicine* 29.6 (2001): 528-534.

Frye, Anne, *Holistic Midwifery, Volume II*, Labrys Press, Portland, OR, 2004, p. 1055.

Davis, Elizabeth, *Heart and Hands: A Midwife's Guide to Pregnancy and Birth*, Celestial Arts, New York, NY, 2004, p. 141.

Hypertension. 2003; 41: 437-445 Published online before print February 10, 2003, doi: 10.1161/01.HYP.0000054981.03589.E9 PETROVA, Anna, et al. "Association of maternal fever during labor with neonatal and infant morbidity and mortality." *Obstetrics and gynecology* 98.1 (2001): 20-27.

- Infection-related death. These associations were stronger among term than preterm infants
- Meconium aspiration syndrome
- Hyaline membrane disease
- Neonatal seizures
- Assisted ventilation

Labor or premature rupture of membrane (PROM) less than 37 weeks according to due date

Premature rupture of membranes before 37 weeks’ gestation (and where there is at least an hour between membrane rupture and the onset of contractions and labor) can have consequences for both the mother and the baby:

Risks to Baby:

- Neurologic injury
- Infection
- Respiratory Distress
- Death
- Increased need for neonatal intensive care services

Maternal Risks:

- Infection
- Prolonged Labor
- C-Section
- Death

Because the out-of-hospital birth setting does not provide for immediate access to medications, surgery, and consultation with a physician, there may be increased risks to mother and/or baby if any of these conditions present during the birth. In some communities, the lack of availability of a seamless, cooperative hospital transfer process adds additional risk during intrapartum transfer.

I understand that the intrapartum risks may not be apparent until labor, and my opportunity for referral to a physician, should I choose that, would be limited to hospital transfer and transfer of care to the physician on call at that facility.

I have received and read this document, discussed it with my midwife, and my midwife has answered my questions to my satisfaction.

Client _____

Date _____

Midwife _____

Date _____

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