Advisory Committee on Midwifery

Regular Meeting

May 12th, 2021, at 1:00 p.m.

All committee members appearing remotely via Microsoft Teams

Microsoft TEAMS meeting: https://teams.microsoft.com/l/meetup-join/19%3ameeting_ODdkZDBmNGUtYThjZS00NWEzLTkwN2EtZDI0ZDk3N2Y0MDYy%40thread.v2/0?context=%7b%22Tid%22%3a%229a307864-3e98-4f08-b90a-728b62cf32c5%22%2c%22Oid%22%3a%2202269027-bb17-4f90-8e92-2f68cef38ab4%22%7d

I.	**Call to Order**	Nikki Imes
II.	**Roll Call**	Travis Splawn, OSDH
III.	**Statement of Compliance with the Open Meetings Act**	Travis Splawn, OSDH
IV.	**Approval of previous meeting(s) minutes**	Nikki Imes
V.	**Program Update**	Travis Splawn, OSDH
VI.	**Discussion, review, and possible action relating to language for Informed Consent (example: Twins)**	Nikki Imes

a. Discussion and questions
b. Consideration, possible action, and vote.
   i. Possible action may include but is not limited to: taking no action; continuing the matter; approving; or deciding not to approve

VII.	**Discussion, review, and possible action on creating a Midwife Emergency Plan template**	Nikki Imes

a. Discussion and questions
b. Consideration, possible action and vote
   i. Possible action may include but is not limited to: taking no action; continuing the matter; approving; or deciding not to approve

VIII.	**Discussion, review, and possible action on creating a Hospital Transfer Plan Template**	Nikki Imes

a. Discussion and questions
b. Consideration, possible action and vote
   i. Possible action may include but is not limited to: taking no action; continuing the matter; approving; or deciding not to approve

IX.	**Discussion, review, and possible action on creating an External Cephalic Version Informed Consent Template**	Nikki Imes

X. Discussion, review, and possible action on license applications received Nikki Imes

a. Discussion and questions
b. Consideration, possible action, and vote.
   i. Possible action may include but is not limited to: taking no action; continuing the matter; approving; or deciding not to approve

XI. Review, discussion, and possible action on any complaints received Nikki Imes

a. Discussion and questions
b. Consideration, possible action, and vote.
   i. Possible action may include but is not limited to: taking no action; continuing the matter; approving; or deciding not to approve

XII. Adjournment Nikki Imes

OKLAHOMA
State Department
of Health

MINUTES OF REGULAR PUBLIC MEETING

PUBLIC BODY: ADVISORY COMMITTEE ON MIDWIFERY

DATE: WEDNESDAY, MARCH 10TH, 2021

LOCATION: 1111 W. 17TH STREET, TULSA, OK 74107

CONTACT PERSON: TRAVIS SPLAWN TELEPHONE: (405) 426-8250

I: Call to Order
Nikki Imes called the meeting to order.

II: Roll Call
Justin Neidel initiated a roll call for the meeting.

Members present: Shaun Baranowski, Lecye Doolen, Sarah Foster, Sarah Hall, Michelle Hernandez, Nikki Imes and Kate Arnold

Members absent: None

III: Statement of Compliance with the Open Meetings Act
Justin Neidel read the statement of compliance: *This reguar meeting of the Advisory Committee on Midwifery, scheduled to begin at 9:00 a.m. on this 10th day of March 2021, was convened in accordance with the Oklahoma Open Meeting Act [25 O.S., §§ 301 et seq.] Further, an advance public notice that was sent to the Secretary of State's Office of Administrative Rules by Internet, prior to this time today, specifying the time and place of the meeting here convened, preceded this meeting. Notice of this meeting was given at least twenty-four (24) hours prior here to and no one filed a written request of notice of meetings of this public body to date.*

IV: Approval of previous meeting(s) minutes
Lecye Doolen made a motion to approve the January 13, 2021 meeting minutes. Sarah Foster seconded.

Aye: Shaun Baranowski, Lecye Doolen, Sarah Foster, Sarah Hall, Michelle Hernandez, Nikki Imes, Kate Arnold.

V: Program Update
Travis Splawn gave a program updated with the following. ODSH received 487 lines of comments for Midwifery and they were all listed on an excel spreadsheet. He was able to condense then down into a 3-page document and the committee had this meeting to go through the comments and make any necessary changes.

Sam Cannella advised that 5 Midwifery licenses have been approved, 1 denied and 5 pending for consideration today.

VI: Discussion, review and possible action relating to public comment received on proposed permanent rules

A discussion about the public comments for Ultrasound section. Changes were made and Lecye Doolen made a motion to approve ultrasound section changes. Sarah Hall Seconded.

Aye: Shaun Baranowski, Sarah Foster, Sarah Hall, Michelle Hernandez, Nikki Imes, Kate Arnold.

A discussion about the public comments for the VBAC section. Nikki Imes made a motion to keep the VBAC as it is written. Michelle Hernandez Seconded.

Aye: Shaun Baranowski, Lecye Doolen, Sarah Foster, Sarah Hall, Michelle Hernandez, Nikki Imes, Kate Arnold.

A discussion about public comments for the VBAC/Breech/Multiple section. Changes were made and Nikki Imes made a motion to approve VBAC/Breech/Multiple changes. Seconded by Sarah Foster.

Aye: Shaun Baranowski, Lecye Doolen, Sarah Foster, Sarah Hall, Michelle Hernandez, Nikki Imes, Kate Arnold.

Nikki Imes suggested adjourned for lunch at 12:08 p.m. Seconded by Lecye Doolen.

Aye: Shaun Baranowski, Lecye Doolen, Sarah Foster, Sarah Hall, Michelle Hernandez, Nikki Imes, Kate Arnold.

Justin Neidel initiated a roll call for the meeting at 1:10 p.m.

Members present: Shaun Baranowski, Lecye Doolen, Sarah Foster, Sarah Hall, Michelle Hernandez, Nikki Imes, Kate Arnold.

Members absent: None

A discussion about the public comments for Laboratory Testing and changes were made. Nikki Imes made a motion to approve changes to Laboratory Testing. Seconded by Kate Arnold.

Aye: Shaun Baranowski, Lecye Doolen, Sarah Foster, Sarah Hall, Michelle Hernandez, Nikki Imes, Kate Arnold.

A discussion about the public comments for the Newborn care/referrals/consultation section and changes were made. Sarah Hall made a motion to approve changes to Newborn care/referrals/consultations. Seconded by Sarah Foster.

Aye: Shaun Baranowski, Lecye Doolen, Sarah Foster, Sarah Hall, Michelle Hernandez, Nikki Imes, Kate Arnold.

A discussion about the BMI restriction. Kate Arnold made a motion to change BMI to 50 under Referrals/Preclusions section. Seconded by Lecye Doolen.

Aye: Shaun Baranowski, Lecye Doolen, Sarah Foster, Sarah Hall, Michelle Hernandez, Nikki Imes, Kate Arnold.

No Vote: Shaun Baranowski

Nikki Imes made a motion to approve referrals/preclusions with the changes made. Seconded by Lecye Doolen.

Aye: Shaun Baranowski, Lecye Doolen, Sarah Foster, Sarah Hall, Michelle Hernandez, Nikki Imes, Kate Arnold.

A discussion about the public comments about the formulary drug list. Shaun Baranowski made a motion to remove wording of not limited to and add limited to. Seconded by Kate Arnold.

Aye: Shaun Baranowski, Lecye Doolen, Sarah Foster, Sarah Hall, Michelle Hernandez, Nikki Imes, Kate Arnold.

Lecye Doolen made a motion to approve formulary section with changes made. Seconded by Sarah Foster.

Aye: Shaun Baranowski, Lecye Doolen, Sarah Foster, Sarah Hall, Michelle Hernandez, Nikki Imes, Kate Arnold.

A discussion about the public comments for the Antepartum/Intrapartum referrals/ consult section and changes were made. Kate Arnold made a motion to approve changes to Antepartum/Intrapartum referrals/Consult. Seconded by Nikki Imes.

Aye: Shaun Baranowski, Lecye Doolen, Sarah Foster, Sarah Hall, Michelle Hernandez, Nikki Imes, Kate Arnold.

A discussion about the public comments about Insurance. Nikki Imes made a motion to leave Insurance section as written. Seconded by Michelle Hernandez.

Aye: Shaun Baranowski, Sarah Foster, Michelle Hernandez, Nikki Imes, Kate Arnold.

No Vote: Lecye Doolen,

Absent: Sarah Hall

A discussion about the public comments for licensure requirements. Lecye Doolen made a motion to add work history to application. Seconded by Shaun Baranowski.

Aye: Shaun Baranowski, Lecye Doolen, Sarah Hall, Kate Arnold.

No Vote: Michelle Hernandez, Sarah Foster, Nikki Imes

A discussion about the public comments over reporting. Lecye Doolen made a motion to add reporting to OSDH within 7 days if a death of a child/mother. Kate Arnold Seconded.

Aye: Shaun Baranowski, Lecye Doolen, Sarah Foster, Nikki Imes, Kate Arnold.

No Vote: Sarah Foster, Michelle Hernandez

Shaun Baranowski made a motion to the language of midwifery shall file a report of any severe maternal morbidity within events per CDC guidelines 30 days to the OSDH department that licenses Midwifes from their initial license until their 1st renewal. After their 1st renewal these items can be reported on the yearly report per section F. Seconded by Lecye Doolen.

Aye: Shaun Baranowski, Lecye Doolen, Sarah Hall, Kate Arnold.

Note Vote: Sarah Foster, Michelle Hernandez, Nikki Imes

Nikki Imes made a motion to approve changes made to the reporting section. Seconded by Lecye Doolen.

Aye: Shaun Baranowski, Lecye Doolen, Sarah Foster, Sarah Hall, Michelle Hernandez, Nikki Imes, Kate Arnold.

A discussion about the public comments for definitions. Sarah Foster made a motion to remove low risk language from rules & definitions. Seconded by Lecye Doolen.

Aye: Lecye Doolen, Sarah Hall, Michelle Hernandez, Nikki Imes, Kate Arnold.

No Vote: Sarah Foster

Absent: Shaun Baranowski

A discussion about the public comments and changes were made. Kate Arnold made a motion to approve changes to General Section. Seconded by Nikki Imes.

Aye: Sarah Foster, Michelle Hernandez, Nikki Imes, Kate Arnold.

No Vote: Shaun Baranowski, Sarah Hall

Absent: Lecye Doolen

VII: Discussion, review, and possible action relating to language for Informed Consent (example: Twins)

Nikki Imes made a motion to change the order of the agenda and move on to the next section due to time. Seconded by Kate Arnold.

Aye: Shaun Baranowski, Lecye Doolen, Sarah Foster, Sarah Hall, Michelle Hernandez, Nikki Imes, Kate Arnold.

VIII: Review, discussion, and possible action on any license applications received

Shaun Baranowski made a motion to deny the application of Dawn Karlin. Seconded by Kate Arnold.

Aye: Shaun Baranowski, Sarah Foster, Sarah Hall, Kate Arnold.

No Vote: Michelle Hernandez, Nikki Imes

Absent: Lecye Doolen

Sarah Hall made a motion to approve the application of Wende Silbernagel pending background check. Seconded by Kate Arnold.

Aye: Shaun Baranowski, Lecye Doolen, Sarah Foster, Sarah Hall, Michelle Hernandez, Nikki Imes, Kate Arnold.

Nikki Imes made a motion to approve the application of Chelsey Murphy pending background check. Seconded by Shaun Baranowski

Aye: Shaun Baranowski, Lecye Doolen, Sarah Foster, Sarah Hall, Michelle Hernandez, Nikki Imes, Kate Arnold.

Nikki Imes made a motion to approve the application of Hannah Hassen pending background check. Seconded by Kate Arnold.

Aye: Shaun Baranowski, Lecye Doolen, Sarah Foster, Sarah Hall, Michelle Hernandez, Nikki Imes, Kate Arnold.

Michelle Hernandez made a motion to approve the application of Kristen Grauer pending background check. Seconded by Sarah Hall

Aye: Shaun Baranowski, Lecye Doolen, Sarah Foster, Sarah Hall, Michelle Hernandez, Nikki Imes, Kate Arnold.

Michelle Hernandez made a motion to approve the application of Taryn Goodwin pending background check. Seconded by Sarah Foster.

Aye: Shaun Baranowski, Sarah Foster, Sarah Hall, Michelle Hernandez, Nikki Imes, Kate Arnold.

No Vote: Lecye Doolen

VII: Discussion, review, and possible action relating to language for Informed Consent (example: Twins)

Nikki Imes made a motion to table twins to the next meeting. Sarah Hall seconded.

Aye: Shaun Baranowski, Lecye Doolen, Sarah Foster, Sarah Hall, Michelle Hernandez, Nikki Imes.

Absent: Kate Arnold

IX: Review, discussion, and possible action on any complaints received

No complaints received.

X: Review, discussion, and possible action on next meeting (virtual option)

Nikki Imes made a motion for a virtual special meeting on April 21, 2021 from 9am – 1pm to review applications and Twins and keep the next regular scheduled meeting on May 12, 2021. Seconded by Sarah Foster.

Aye: Shaun Baranowski, Lecye Doolen, Sarah Foster, Sarah Hall, Michelle Hernandez, Nikki Imes.

Absent: Kate Arnold

XI: New Business

No new business.

XII: Adjournment

Nikki Imes made a motion to adjourn. Seconded by Sarah Hall.
Aye: Shaun Baranowski, Lecye Doolen, Sarah Foster, Sarah Hall, Michelle Hernandez, Nikki Imes.

Absent: Kate Arnold.

OKLAHOMA
State Department
of Health

MINUTES OF REGULAR PUBLIC MEETING

PUBLIC BODY: ADVISORY COMMITTEE ON MIDWIFERY

DATE: WEDNESDAY, APRIL 21ST, 2021

LOCATION: VIRTUAL VIA MICROSOFT TEAMS- https://teams.microsoft.com/l/meetup-join/19%3ameeting_ODUxZDUxMTktYjlkYi00Yjc3LWEzYjAtY2VjZTQ1NzI2MDNl%40thread.v2/0?context=%7b%22Tid%22%3a%229a307864-3e98-4f08-b90a-728b62cf32c5%22%2c%22Oid%22%3a%22bef08770-39d3-4779-b16e-42b9cd73a479%22%7d

CONTACT PERSON: TRAVIS SPLAWN TELEPHONE: (405) 426-8250

I: Call to Order
Nikki Imes called the meeting to order at 9:18 a.m.

II: Roll Call
Travis Splawn initiated a roll call for the meeting.

Members present: Sarah Foster, Michelle Hernandez, Nikki Imes and Kate Arnold

Members absent: Shaun Baranowski, Lecye Doolen, and Sarah Hall

III: Statement of Compliance with the Open Meetings Act
Travis Splawn read the statement of compliance: *This regular meeting of the Advisory Committee on Midwifery, scheduled to begin at 9:00 a.m. on this 21st day of April 2021, was convened in accordance with the Oklahoma Open Meeting Act [25 O.S., §§ 301 et seq.] Further, an advance public notice that was sent to the Secretary of State's Office of Administrative Rules by Internet, prior to this time today, specifying the time and place of the meeting here convened. Notice of this meeting was given at least twenty-four (24) hours prior here to and no one filed a written request of notice of meetings of this public body to date.*

Nikki Imes made a motion to skip the other items on the agenda and move to the approval of applicants in consideration of the reduced number of committee members and that Kate Arnold was limited on time. Michelle Hernandez seconded the motion.

Aye: Sarah Foster, Michelle Hernandez, Nikki Imes, Kate Arnold. Motion passed.

VII: Review, discussion, and possible action on any license applications received

The committee reviewed the application for Pamela Brott. Time was given to read the contents and ask questions. Nikki Imes made a motion to recommend approval for Pamela Brott and Sara Foster seconded.

Aye: Sarah Foster, Michelle Hernandez, Nikki Imes, Kate Arnold. Motion passed.

The committee reviewed the application for Annabelle Dumoss. Time was given to read the contents and ask questions. Sara Foster made a motion to recommend approval for Annabelle Dumoss and Nikki Imes seconded.

Aye: Sarah Foster, Michelle Hernandez, Nikki Imes, Kate Arnold. Motion passed.

The committee reviewed the application for Kathleen Frantz. Time was given to read the contents and ask questions. Nikki Imes made a motion to recommend approval for Kathleen Frantz and Michelle Hernandez seconded.

Aye: Sarah Foster, Michelle Hernandez, Nikki Imes, Kate Arnold. Motion passed.

The committee reviewed the application for Deanna Norris. Time was given to read the contents and ask questions. Michelle Hernandez made a motion to recommend approval for Deanna Norris and Sara Foster seconded.

Aye: Sarah Foster, Michelle Hernandez, Nikki Imes, Kate Arnold. Motion passed.

The committee reviewed the application for Jeannette Sharp. Time was given to read the contents and ask questions. Nikki Imes made a motion to recommend approval for Jeannette Sharp and Sara Foster seconded.

Aye: Sarah Foster, Michelle Hernandez, Nikki Imes, Kate Arnold. Motion passed.

Nikki Imes made a motion to table the discussion, review and possible action for Informed Consent to the next meeting. Sara Foster seconded.

Aye: Sarah Foster, Michelle Hernandez, Nikki Imes, Kate Arnold. Motion passed.

VIII: Review, discussion, and possible action on any complaints received

No complaints received.

Travis Splawn mentioned that the next meeting can be a virtual meeting, but if the Governors declaration of emergency expires, then the following meetings would need to be in person. A follow up to check on the Open Meeting act rules related to virtual meetings would be made by OSDH staff.

IX: Adjournment

Sara Foster made a motion to adjourn the meeting, Michelle Hernandez seconded.

Aye: Aye: Sarah Foster, Michelle Hernandez, Nikki Imes, Kate Arnold. Motion passed.

Meeting Adjourned at 9:37 a.m.

INTERIM UPDATE

The American College of Obstetricians and Gynecologists
WOMEN'S HEALTH CARE PHYSICIANS

Society for Maternal-Fetal Medicine

PRACTICE BULLETIN

CLINICAL MANAGEMENT GUIDELINES FOR OBSTETRICIAN—GYNECOLOGISTS

NUMBER 169, OCTOBER 2016

(Replaces Practice Bulletin Number 144, May 2014)

Reaffirmed 2016

INTERIM UPDATE: This Practice Bulletin is updated to reflect a limited, focused change in the gestational age at which to consider antenatal corticosteroids and rescue-course timing.

Multifetal Gestations: Twin, Triplet, and Higher-Order Multifetal Pregnancies

The incidence of multifetal gestations in the United States has increased dramatically over the past several decades. The rate of twin births increased 76% between 1980 and 2009, from 18.9 to 33.3 per 1,000 births (1). The rate of triplet and higher-order multifetal gestations increased more than 400% during the 1980s and 1990s, peaking at 193.5 per 100,000 births in 1998, followed by a modest decrease to 153.4 per 100,000 births by 2009 (2). The increased incidence in multifetal gestations has been attributed to two main factors: 1) a shift toward an older maternal age at conception, when multifetal gestations are more likely to occur naturally, and 2) an increased use of assisted reproductive technology (ART), which is more likely to result in a multifetal gestation (3).

The principal complication encountered with multifetal gestations is spontaneous preterm birth and the resultant infant morbidity and mortality. Although multiple interventions have been evaluated in the hope of prolonging these gestations and improving outcomes, none has been shown to be effective. The purpose of this document is to review the issues and complications associated with twin, triplet, and higher-order multifetal gestations and present an evidence-based approach to management.

Background

Fetal and Infant Morbidity and Mortality

Multifetal gestations are associated with increased risk of fetal and infant morbidity and mortality (Table 1). There is an approximate fivefold increased risk of stillbirth and a sevenfold increased risk of neonatal death, which primarily is due to complications of prematurity (4). Women with multifetal gestations are six times more likely to give birth preterm and 13 times more likely to give birth before 32 weeks of gestation than women with singleton gestations (2).

An increase in short-term and long-term neonatal and infant morbidity also is associated with multifetal gestations. Twins born preterm (less than 32 weeks of gestation) are at twice the risk of a high-grade intraventricular hemorrhage and periventricular leukomalacia when compared with singletons of the same gestational age (5). This, in part, explains the increased prevalence of cerebral palsy in multifetal gestations (6).

Multifetal gestations are associated with significantly higher costs, in the antenatal and neonatal periods, in large part because of the costs associated with prematurity (7). The average first-year medical costs, including inpatient and outpatient care, are up to 10 times greater for preterm infants than for term infants (8).

Committee on Practice Bulletins—Obstetrics and the Society for Maternal–Fetal Medicine. This Practice Bulletin was developed by the Committee on Practice Bulletins—Obstetrics and the Society for Maternal–Fetal Medicine with the assistance of Edward J. Hayes, MD, MSCP.

Table 1. Morbidity and Mortality in Multifetal Gestations ⇦

Characteristic	Singleton	Twins	Triplets	Quadruplets
Mean birth weight*	3,296 g	2,336 g	1,660 g	1,291 g
Mean gestational age*	38.7 weeks	35.3 weeks	31.9 weeks	29.5 weeks
Percentage less than 32 weeks of gestation*	1.6	11.4	36.8	64.5
Percentage less than 37 weeks of gestation*	10.4	58.8	94.4	98.3
Rate of cerebral palsy (per 1,000 live births)†	1.6	7	28	—
Infant mortality rate‡ (per 1,000 live births)	5.4	23.6	52.5	96.3§

*Martin JA, Hamilton BE, Ventura SJ, Osterman MJ, Kirmeyer S, Mathews TJ, et al. Births: final data for 2009 Natl Vital Stat Rep, 2011, 60, 1, 1–70, United States.

†Petterson B, Nelson KB, Watson L, Stanley F. Twins, triplets and cerebral palsy in births in Western Australia in the 1980s. BMJ 1993;307:1239–43.

‡Luke B, Brown M. The changing risk of infant mortality by gestation, plurality, and race: 1989-1991 versus 1999-2001. Pediatrics, 2006;118:2488–97.

§Quadruplet and quintuplet data combined.

Chorionicity

Using clinical criteria alone to diagnose multifetal gestations is unreliable. A reliable method to diagnose multifetal gestations is by ultrasound assessment. In the Routine Antenatal Diagnostic Imaging With Ultrasound (RADIUS) trial, for 37% of women who did not have a screening ultrasound examination, their twin pregnancies were not diagnosed until 26 weeks of gestation, and in 13% of women their multifetal gestations were only diagnosed during their admission for delivery (9). Ultrasonography can be used to determine fetal number, estimated gestational age, chorionicity, and amnionicity. The determination of chorionicity in multifetal gestations is clinically important. Assessment of chorionicity is most accurate early in gestation, and its determination is optimal when ultrasonography is performed in the first trimester or early second trimester.

Compared with dichorionic twins, monochorionic twins have a higher frequency of fetal and neonatal mortality, as well as morbidities, such as fetal and congenital anomalies, prematurity, and fetal growth restriction (10, 11). This trend also is seen in higher-order multifetal gestations; for example, a triplet gestation that is fully monochorionic or has a monochorionic twin pair is at higher risk of complications than a triplet gestation that is trichorionic (12, 13). Because of the increased rate of complications associated with monochorionicity, determination of chorionicity by late first trimester or early second trimester in pregnancy is important for counseling and management of women with multifetal gestations.

Maternal Morbidity and Mortality

Medical complications are more common in women with multifetal gestations than with singleton gestations. These include hyperemesis, gestational diabetes mellitus, hypertension, anemia, hemorrhage, cesarean delivery, and postpartum depression (14–20). Although these complications are more common in women with multifetal gestations, the management of these complications follows the same strategies as with a singleton gestation.

Women with multifetal gestations have an increased incidence of hypertensive conditions associated with pregnancy. The occurrence of hypertensive complications is proportional to the total fetal number, with singletons at 6.5%, twins at 12.7%, and triplets at 20.0% (21). One study found that ART pregnancies were at increased risk (relative risk [RR], 2.1) of developing mild or severe preeclampsia, even after controlling for maternal age and parity (22).

Preeclampsia occurs more frequently in women with twin pregnancies than in women with singleton gestations, with a relative risk of 2.6, and it tends to occur earlier in pregnancy. This results in a higher likelihood of complications, such as preterm delivery at less than 35 weeks of gestation (34.5% twins versus 6.3% in singletons) and abruptio placentae (4.7% twins versus 0.7% singletons) (16). Women with higher-order multifetal gestations are more likely to develop preeclampsia but also to present in an atypical manner (23). If hemolysis, elevated liver enzymes, and low platelet count (HELLP) syndrome develops before term, transfer to a tertiary care center may improve the outcome for the woman and her fetus (24).

The likelihood of a multifetal gestation increases with maternal age, even outside of ART use. The multiple birth ratio increases from 16.3 per 1,000 live births for women younger than 20 years to 71.1 per 1,000 live births for women 40 years and older (2). Older women also are more likely to have obstetric complications irrespective of fetal number, including gestational hypertension, gestational diabetes mellitus, and abruptio placentae.

Contribution of Assisted Reproductive Technology

Over the past several decades, the increased use of ART has led to a dramatic increase in the incidence of multifetal births. Only recently has there been a decrease in the higher-order multiple birth rate (1). This decrease is the result of a reduction in the number of embryos transferred

with each cycle of in vitro fertilization (IVF) and an increase in the number of multifetal pregnancy reduction procedures being performed.

The specific ART techniques that may have the most significant effect on the increase of multifetal pregnancies are IVF and controlled ovarian hyperstimulation with gonadotropins. According to the most recent data available from cycles completed in 2010, 26% of pregnancies after IVF are twin pregnancies and 1.3% are higher-order multifetal pregnancies (25).

Multifetal Reduction and Selective Fetal Termination

Multifetal reduction reduces the likelihood of spontaneous preterm delivery and other neonatal and obstetric complications by decreasing the number of fetuses. A Cochrane review found that women who underwent pregnancy reduction from triplets to twins, as compared with those who continued with triplets, were observed to have lower frequencies of pregnancy loss, antenatal complications, preterm birth, low-birth-weight infants, cesarean delivery, and neonatal deaths, with rates similar to those observed in women with spontaneously conceived twin gestations (26). Multifetal reduction may decrease the risk of preeclampsia in women with higher-order multifetal gestations. One study reported that only 14% of 59 women with twin pregnancies remaining after multifetal reduction developed preeclampsia compared with 30% of women with triplet pregnancies (27).

In multifetal pregnancy reduction, the fetus(es) to be reduced are chosen on the basis of technical considerations, such as which is most accessible to intervention and chorionicity. Monochorionicity can complicate the reduction procedure; if one fetus of a monochorionic twin pair is reduced, the negative effects on the development of the other are unknown. For this reason, it is usually recommended that both fetuses of a monochorionic pair be reduced.

Selective fetal termination is the application of the fetal reduction technique to an abnormal fetus that is part of a multifetal gestation. The risks of the procedure are higher than those associated with multifetal reduction, largely because of a later gestational age at the time of diagnosis of fetal anomaly (ie, 18–22 weeks of gestation compared with 10–12 weeks of gestation) (28). In particular, the unintended loss rate of healthy fetuses is increased when women with higher-order multifetal gestations undergo selective fetal termination in comparison with women with twin gestations who undergo the procedure (11.1 % versus 2.4%, respectively) (29). Despite the unintended loss rate, pregnancy prolongation also has been observed in women who undergo selective fetal termination (30, 31).

Clinical Considerations and Recommendations

▶ *How is chorionicity determined?*

Fetal risk is largely dependent on chorionicity. Therefore, the chorionicity of a multifetal pregnancy should be established as early in pregnancy as possible, and the optimal timing for determination of chorionicity by ultrasonography is in the late first trimester or early second trimester. In one series, the reported sensitivity, specificity, and positive and negative predictive values for prediction of chorionicity by ultrasonography at 14 weeks of gestation or less was shown to be 89.8%, 99.5%, 97.8%, and 97.5%, respectively (32). Overall, chorionicity was determined correctly in 95% of cases.

When ultrasound assessment clearly shows two placentas or differing fetal sex, the pregnancy is dichorionic. If only one placenta is visualized, the best ultrasonographic characteristic to distinguish chorionicity is the twin peak sign. The twin peak sign (also called the lambda or delta sign) is a triangular projection of tissue with the same echogenicity as the placenta that extends beyond the chorionic surface of the placenta and is indicative of a dichorionic gestation (33). The management of complications related to monochorionicity (eg, twin–twin transfusion syndrome, single fetal death, and monoamniotic gestation) and timing of delivery are discussed in "Clinical Considerations and Recommendations" later in this document.

▶ *Can adjunctive tests be used to predict spontaneous preterm birth in women with multifetal gestations?*

Asymptomatic Women

Several methods have been used in an attempt to further quantify the risk of spontaneous preterm birth when screening asymptomatic women with multifetal gestations, including transvaginal ultrasonographic cervical length, digital examination, fetal fibronectin screening, and home uterine monitoring. There are no interventions that have been shown to prevent spontaneous preterm delivery in asymptomatic women with multifetal gestations identified to be at risk based on these screening methods. The use of these screening methods in asymptomatic women with multifetal pregnancies is not recommended (34).

Symptomatic Women

In symptomatic women, the positive predictive value of a fetal fibronectin test result or of a short cervical length

alone is poor, and they should not be used exclusively to direct management in the setting of acute symptoms (35). Although several observational studies have suggested that knowledge of fetal fibronectin status or cervical length in women with singleton gestations who present with symptoms of preterm labor may help health care providers reduce the use of unnecessary resources, these findings have not been consistently confirmed by randomized trials for use in singleton or in multiple gestations (36–40).

▶ *Are there interventions that can prolong pregnancy in women with multifetal gestations?*

Interventions, such as prophylactic cerclage, routine hospitalization and bed rest, prophylactic tocolytics, and prophylactic pessary, have not been proved to decrease neonatal morbidity or mortality and, therefore, should not be used in women with multifetal gestations.

Prophylactic Cerclage

Prophylactic cerclage placement in women with a twin gestation or a triplet gestation without a history of cervical insufficiency has not been shown to be beneficial (41–43). Moreover, the placement of cerclage in women with a twin gestation with an ultrasonographically detected short cervical length has been observed to double the rate of spontaneous preterm birth (RR, 2.2; 95% confidence interval [CI], 1.2–4.0) (44, 45). Based on these findings, the placement of cerclage in women with multifetal gestations should be avoided.

Routine Hospitalization and Bed Rest

The use of bed rest with or without hospitalization has been commonly recommended to women with multifetal gestations. However, a Cochrane review demonstrated no benefit from routine hospitalization or bed rest for women with an uncomplicated twin pregnancy (46). Thus, bed rest with or without hospitalization in women with multifetal pregnancies is not recommended because of the lack of benefit and the risk of thrombosis and deconditioning associated with prolonged bed rest in pregnancy.

Prophylactic Tocolytics

There is no role for the prophylactic use of any tocolytic agent in women with multifetal gestations, including the prolonged use of betamimetics for this indication. The use of tocolytics to inhibit preterm labor in multifetal gestations has been associated with a greater risk of maternal complications, such as pulmonary edema (47, 48). In addition, prophylactic tocolytics have not been shown to reduce the risk of preterm birth or improve neonatal outcomes in women with multifetal gestations (49–51). The administration of oral betamimetics, specifically, did not reduce the incidence of preterm birth, low-birth-weight newborns, or neonatal mortality in women with multifetal gestations when compared with placebo (52). Oral betamimetics have been associated with increased maternal and fetal cardiac stress and gestational diabetes mellitus (53, 54). Recently, prolonged use of betamimetics also has been associated with increased adverse maternal cardiovascular events, including death (55). Based on the available evidence, prophylactic tocolysis in women with multifetal gestations is not recommended.

Prophylactic Pessary

There is at present no high-quality evidence that prophylactic cervical pessary use in unselected multifetal pregnancies reduces the frequency of spontaneous preterm birth or perinatal morbidity. In a recent multicenter randomized trial, 813 women with twins between 16 weeks and 20 weeks of gestation were randomized to an Arabin cervical pessary or no pessary (56). In the pessary group, at least one child of 53 women (13%) had poor perinatal outcome (defined as either stillbirth, periventricular leukomalacia, severe respiratory distress syndrome, bronchopulmonary dysplasia, intraventricular hemorrhage, necrotizing enterocolitis, proven sepsis, or neonatal death) compared with at least one child of 55 women (14%) in the control group (RR, 0.98; 95% CI, 0.69–1.39). Thus, based on available evidence, the use of prophylactic cervical pessary is not recommended in multifetal pregnancies (56).

▶ *Does progesterone treatment decrease the risk of preterm birth in women with multifetal gestations?*

Progesterone treatment does not reduce the incidence of spontaneous preterm birth in unselected women with twin or triplet gestations and, therefore, is not recommended (57–63). The administration of 17α-hydroxyprogesterone caproate to women with triplet gestations did not reduce neonatal morbidity or prolong gestation (61). In addition, another randomized trial found that its use in women with triplet gestations was associated with a significantly increased rate of midtrimester fetal loss (60). There are insufficient data to assess whether progesterone has any beneficial effect in women with multifetal gestations and short cervical length determined by transvaginal ultrasonography (64, 65). In a recent randomized trial of asymptomatic women with twin pregnancies and a short cervical length of 25 mm or less determined by transvaginal ultrasonography, no benefit was seen with the use of intramuscular 500-mg 17α-hydroxyprogesterone

caproate twice weekly in significantly prolonging gestation (66). In another recent randomized trial of women with twins, vaginal progesterone (200 mg and 400 mg) did not prolong the pregnancies (67).

▶ *How is preterm labor managed in women with multifetal gestations?*

Tocolytics

Tocolytic therapy may provide short-term prolongation of pregnancy, which enables the administration of antenatal corticosteroids as well as transport to a tertiary care facility, if indicated. The overall evidence suggests that when tocolysis is used for short-term pregnancy prolongation, calcium channel blockers or nonsteroidal antiinflammatory drugs should be first-line treatment. Although there is a dearth of large-scale randomized trials of multifetal gestations alone, data supporting these conclusions come from trials that have included singleton and multifetal gestations (68). Thus, in multifetal gestations a brief course of tocolysis may be considered for up to 48 hours in the setting of acute preterm labor, in order to allow corticosteroids to be administered. Maternal risks associated with tocolytic use include pulmonary edema.

Corticosteroids

Administration of antenatal corticosteroids to women with singleton gestations at risk of delivery between 24 weeks and 34 weeks of gestation has been shown to decrease the incidence of neonatal death, respiratory distress syndrome, intraventricular hemorrhage, and necrotizing enterocolitis (69). A Cochrane review concluded that although antenatal corticosteroids are beneficial in singleton gestations, further research is required to demonstrate an improvement in outcomes for multifetal gestations (69). However, based on the improved outcomes reported in singleton gestations, the National Institutes of Health recommends that, unless a contraindication exists, one course of antenatal corticosteroids should be administered to all patients who are between 24 weeks and 34 weeks of gestation and at risk of delivery within 7 days, irrespective of the fetal number (70). In the absence of data, it is reasonable to extend this so that antenatal corticosteroids may be administered for pregnant women starting at 23 weeks of gestation, regardless of fetal number. Administration of corticosteroids to pregnant women during the periviable period who are at risk of preterm delivery within 7 days is linked to a family's decision regarding resuscitation and should be considered in that context (71).

Regularly scheduled repeat courses or serial courses (more than two) are not recommended. A single repeat course of antenatal corticosteroids should be considered in women with a gestation of less than 34 weeks, who have an imminent risk of preterm delivery within the next 7 days, and whose prior course of antenatal corticosteroids was administered more than 14 days previously. Rescue-course corticosteroids could be provided as early as 7 days from the prior dose, if indicated by the clinical scenario.

Magnesium Sulfate for Fetal Neuroprotection

Several large studies have been performed to examine whether intravenous magnesium sulfate administered before preterm delivery would decrease the incidence of death and cerebral palsy (72–74). Although none of these studies showed improvement in the primary combined outcome, several meta-analyses of these randomized trials concluded that prenatal administration of magnesium sulfate reduced the occurrence of cerebral palsy (75–77). The accumulated available evidence suggests that magnesium sulfate reduces the severity and risk of cerebral palsy in surviving infants if administered when birth is anticipated before 32 weeks of gestation, regardless of fetal number. Hospitals that elect to use magnesium sulfate for fetal neuroprotection should develop uniform and specific guidelines for their departments regarding inclusion criteria, treatment regimens, concurrent tocolysis, and monitoring in accordance with one of the larger trials (72–74, 78).

▶ *How is prenatal screening of women with multifetal gestations different than for singleton pregnancies?*

All women with multifetal gestations, regardless of age, are candidates for routine aneuploidy screening. In the presence of multiple fetuses, the mathematical probability that one or more fetuses will be affected with a trisomy increases and, thus, results in a higher overall risk to the pregnancy than attributed to maternal age alone. For example, in dizygotic twins, the maternal age-related risk of having one of the two fetuses affected with a trisomy is doubled compared with a maternal age-matched singleton gestation (79). This equates to a similar age-related risk of Down syndrome between a 33-year-old woman carrying twins and a 35-year-old woman carrying a singleton gestation (80).

However, several limitations must be considered when screening for aneuploidy in multifetal gestations. Serum screening tests are not as sensitive in women with twin or triplet gestations compared with singleton gestations, in part because analyte levels must be estimated by mathematical modeling. In addition, analytes from the

normal and the affected fetuses enter the maternal serum and are in effect averaged together, thus potentially masking the abnormal levels of the affected fetus. In a prospective study of second-trimester maternal serum marker screening, the mean detection rate for trisomy 21 was 63% in twin gestations (71% when both twins were affected and 60% when one was affected), with a false-positive rate of 10.8% (81). Furthermore, counseling is more complex because women must consider a different set of options in the event that only one of the fetuses is affected.

Nuchal translucency screening in the first trimester with the option of chorionic villus sampling (CVS) and earlier selective reduction may be desirable for some women. In women with twin gestations, first-trimester screening that combines maternal age, nuchal translucency, and biochemistry serum analytes identifies approximately 75–85% of pregnancies with Down syndrome and 66.7% of pregnancies with trisomy 18, with a 5% false-positive rate (82–85). Experience is limited with triplet gestations, but studies suggest that nuchal translucency measurement is feasible, and screening using only maternal age and nuchal translucency has been validated for the detection of Down syndrome and trisomy 18 (85). However, in one study of monochorionic twin pregnancies, a nuchal translucency value above the 95th percentile had a 38% positive predictive value for later development of severe twin–twin transfusion syndrome, further complicating first-trimester genetic screening in monochorionic gestations (86).

Noninvasive prenatal testing that uses cell free fetal DNA from the plasma of pregnant women offers potential as a screening tool for fetal aneuploidy. However, more information is needed before use of this test can be recommended in women with multifetal gestations (87).

▶ *What issues arise in prenatal diagnosis of aneuploidy in women with multifetal gestations?*

Amniocentesis and CVS can be performed in women with a multifetal gestation who desire definitive testing for genetic anomalies. The procedure-associated pregnancy loss rates for both tests are similar (reported at 1–1.8%) and are slightly increased compared with loss rates reported in women with singleton gestations (88–90). Chorionic villus sampling has the advantage that it can be performed earlier in gestation.

However, there are technical difficulties that may be encountered when performing amniocentesis and CVS in women with multifetal gestations. There is a risk of sampling error of approximately 1% in women with multifetal gestations who undergo CVS (91). Genetic amniocentesis, which typically is performed at 15 weeks of gestation or beyond, has a lower chance of this complication. To avoid sampling error in women with multifetal gestations, an amniocentesis is performed by sampling the first sac, then injecting indigo carmine into that sac before removing the needle. A second needle is then inserted into the second sac, and a clear sample obtained from the second sac ensures that two different sacs have been sampled. A complex counseling issue arises in the presence of a monochorionic twin gestation, in which case the likelihood of discordance in the karyotype is low, and patients may opt for having a karyotype analysis performed on a single fetus. In this situation, it is important to discuss the accuracy of determining chorionicity by ultrasonography.

When aneuploidy is diagnosed, counseling should include a discussion of options for pregnancy management if only one fetus is found to be affected. These options include terminating the entire pregnancy; selective reduction of the affected fetus; and continuing the pregnancy without any intervention, reduction, or termination.

▶ *Are multifetal gestations with discordant fetal growth at risk of adverse outcomes?*

Discordant fetal growth in women with multifetal gestations is most commonly defined as a 20% difference in estimated fetal weight between the larger and smaller fetus (92, 93). This growth discordance ratio is calculated by determining the difference in the estimated fetal weight between the two fetuses, divided by the weight of the larger fetus.

Whether growth-discordant multifetal gestations—without a structural anomaly, aneuploidy, discordant infection, oligohydramnios, or fetal growth restriction—are at increased risk of adverse outcomes is debatable. Several studies that examined this population have shown that multifetal gestations with discordant but appropriate-for-gestational-age growth are not at increased risk of fetal or neonatal morbidity and mortality (94–97). However, multifetal gestations with discordant growth and pregnancies with at least one growth-restricted fetus have been observed to be associated with a 7.7-fold increased risk of major neonatal morbidity (98). Moreover, growth-restricted twins have higher perinatal mortality and morbidity rates when compared with age-matched singletons (99). Thus, although there is no clear evidence of increased neonatal morbidity or mortality with twin discordance alone, fetal growth restriction (or other abnormalities, such as fetal anomalies or oligohydramnios) in the setting of discordance may be a risk factor for adverse perinatal outcomes.

▶ *How is the death of one fetus managed?*

In the first trimester, a substantial number of women with multifetal gestations undergo spontaneous reduction of one or more fetuses, commonly referred to as the "vanishing twin" (100). The probability of this reduction increases with the number of gestational sacs: 36% for twins, 53% for triplets, and 65% for quadruplets (101).

In the second trimester and third trimester, up to 5% of twins and 17% of triplets undergo death of one or more fetuses (102). Chorionicity influences the rate of loss, predicts outcome in the survivor, and guides management. Monochorionic–diamniotic twins have an increased risk of stillbirth compared with dichorionic–diamniotic twins (103–105). Subsequent to the demise of one twin after 14 weeks of gestation, the risk of death in the co-twin is 15% in monochorionic gestations and 3% for dichorionic gestations (105). The risk of neurologic abnormality in the surviving twin is greater in monochorionic gestations (18%) versus dichorionic gestations (1%) (106, 107). Although death of a co-twin in a monochorionic pregnancy in the late second trimester or early third trimester is associated with significant morbidity and mortality in the other fetus, immediate delivery of the co-twin has not been demonstrated to be of benefit (108). Therefore, in monochorionic twin gestations in which death of one fetus is identified before 34 weeks of gestation, management should be based on the condition of the mother or surviving fetus. In the absence of another indication, delivery before 34 weeks of gestation is not recommended (109). Care should be individualized for each patient, and consultation with a physician with advanced training in maternal–fetal medicine is recommended. In the event that a twin pregnancy is diagnosed late enough that chorionicity cannot be established, management should be guided by individualized assessment of fetal growth, growth discordance, and other indicators of fetal well-being.

▶ *What is the role of antepartum fetal surveillance in dichorionic pregnancies?*

Once chorionicity has been established in the first or early second trimester, ultrasound examination between 18 weeks and 22 weeks of gestation allows for a survey of fetal anatomy, amniotic fluid, placentation, and growth. Fetal growth in uncomplicated twin pregnancies occurs at a similar rate as singletons until approximately 28–32 weeks of gestation, when the growth rate of twins slows (110). For women with dichorionic twin gestations, there are no evidence-based recommendations on the frequency of fetal growth scans after 20 weeks of gestation; however, it seems reasonable that serial ultrasonographic surveillance be performed every 4–6 weeks in the absence of evidence of fetal growth restriction or other pregnancy complications.

The use of antepartum testing or umbilical artery Doppler ultrasonography in women with uncomplicated dichorionic multifetal gestations is not associated with improved perinatal outcomes (111). Antenatal fetal surveillance generally is reserved for women with dichorionic twin gestations complicated by maternal or fetal disorders that require antepartum testing, such as fetal growth restriction.

▶ *How are the complications caused by monochorionic placentation managed?*

Women with monochorionic pregnancies are followed more closely than those with dichorionic pregnancies because of the higher risk of developing complications in pregnancy, including twin–twin transfusion syndrome (112). This disorder occurs in approximately 10–15% of monochorionic–diamniotic pregnancies and results from the presence of arteriovenous anastomoses in a monochorionic placenta. In the affected pregnancy, there is an imbalance in the fetal–placental circulations, whereby one twin transfuses the other. It usually presents in the second trimester, and serial ultrasonographic evaluation approximately every 2 weeks beginning at approximately 16 weeks of gestation should be considered (113–115).

The criterion for diagnosis of twin–twin transfusion syndrome with ultrasonography is a monochorionic–diamniotic twin gestation with oligohydramnios (maximum vertical pocket less than 2 cm) in one sac and polyhydramnios (maximum vertical pocket greater than 8 cm) in the other sac. It is essential to rule out other etiologies, such as selective fetal growth restriction or fetal discordance for structural, genetic, or infectious disorders. There is no evidence that routine assessment with umbilical artery Doppler is beneficial in the absence of growth or fluid discordance. Once the diagnosis of twin–twin transfusion syndrome has been made, the prognosis depends on gestational age and severity of the syndrome. Staging is commonly performed via the Quintero staging system (Box 1), and treatment commonly is done by laser coagulation or amnioreduction, often in collaboration with a clinician with expertise in twin–twin transfusion syndrome diagnosis and management (112, 116).

Monoamniotic Twins

The "natural" incidence of monoamniotic twins is 1 in 10,000. However, the incidence may be increased for women who undergo in vitro fertilization using zona manipulation (117). This type of twinning is at particularly high risk, with the historic perinatal mortality quoted at up to 80%, primarily related to cord entanglement (118).

Box 1. Staging for Twin–Twin Transfusion Syndrome

Stage 1	Monochorionic–diamniotic gestation with oligohydramnios (MVP less than 2 cm) and polyhydramnios (MVP greater than 8 cm)
Stage 2	Absent (empty) bladder in donor
Stage 3	Abnormal Doppler ultrasonography findings*
Stage 4	Hydrops
Stage 5	Death of one or both twins

Abbreviation: MVP, maximum vertical pocket.

*Defined as the presence of one or more of the following: umbilical artery absent or reversed diastolic flow; ductus venosus absent or reversed diastolic flow; or umbilical vein pulsatile flow.

Data from Quintero RA, Morales WJ, Allen MH, et al. Staging of twin-twin transfusion syndrome. J Perinatol 1999;19:550–5.

Although many clinicians offer early inpatient management (beginning at 24–28 weeks of gestation) with daily fetal surveillance, regular assessment of fetal growth, and delivery between 32 weeks and 34 weeks of gestation, the optimal management of these patients remains uncertain (118–120).

Rare Complications

Acardiac twin pregnancy is a complication unique to a monochorionic gestation that is characterized by a fetus lacking a normally developed heart and head. It occurs in approximately 1% of monochorionic twins (121). The acardiac fetus is able to survive in utero because of placental anastomoses shunting blood flow from the "pump twin." The pump twin can develop a high cardiac output state and subsequent cardiac failure, which results in intrauterine or neonatal demise in approximately 50% of cases (122). These rare conditions can be managed in collaboration with a clinician with expertise in complicated twin gestation management, such as a maternal–fetal medicine specialist.

Conjoined twinning is a rare anomaly, with an incidence of 1 in 50,000 to 1 in 100,000 births (123). Once the diagnosis is reached, it is imperative that a complete workup be undertaken to determine shared anatomy, which guides management and determines prognosis (124). Even with many reports in the lay press of successful separations, of those conjoined twinning cases diagnosed in utero, there is only an 18% survival rate of one twin from ultrasonographic diagnosis to successful separation (125).

▶ *Are there special considerations for timing and route of delivery in women with multifetal gestations?*

Although, on average, women with twin pregnancies give birth at approximately 36 weeks of gestation, preterm fetuses remain at significant risk of complications of prematurity (126). The risk of perinatal mortality begins to increase again in twin pregnancies at approximately 38 weeks of gestation (127). Based on these data, and in the absence of large randomized trials that demonstrate a clearly optimal time for delivery, the following recommendations for timing of delivery seem reasonable for women with uncomplicated twin gestations (108):

- Women with uncomplicated dichorionic–diamniotic twin gestations can undergo delivery at 38 weeks of gestation.
- Women with uncomplicated monochorionic–diamniotic twin gestations can undergo delivery between 34 weeks and 37 6/7 weeks of gestation.
- Women with uncomplicated monochorionic–monoamniotic twin gestations can undergo delivery at 32–34 weeks of gestation.

The optimal route of delivery in women with twin gestations depends on the type of twins, fetal presentations, gestational age, and experience of the clinician performing the delivery. A twin gestation in and of itself is not an indication for cesarean delivery. Women with monoamniotic twin gestations should undergo cesarean delivery to avoid an umbilical cord complication of the nonpresenting twin at the time of the initial twin's delivery (118).

Women with diamniotic twin gestations whose presenting fetus is in a vertex position are candidates for a vaginal birth (128). A recent randomized trial of women with uncomplicated diamniotic twin pregnancies between 32 0/7 weeks and 38 6/7 weeks of gestation with a vertex presenting fetus demonstrated that planned cesarean delivery did not significantly decrease the risk of fetal or neonatal death or serious neonatal morbidity, as compared with planned vaginal delivery (2.2% and 1.9%, respectively; OR [with planned cesarean delivery], 1.16; 95% CI, 0.77–1.74; P=.49) (129). Therefore, in diamniotic twin pregnancies at 32 0/7 weeks of gestation or later with a presenting fetus that is vertex, regardless of the presentation of the second twin, vaginal delivery is a reasonable option and should be considered, provided that an obstetrician with experience in internal podalic version and vaginal breech delivery is available (130).

The optimal route of delivery for women with higher-order multifetal gestations remains unknown. Small observational studies have suggested that similar perinatal outcomes can be obtained for women (with uncomplicated triplet pregnancies and a presenting fetus that is vertex) who undergo planned trial of labor compared with those who undergo planned cesarean delivery. Thus, in the presence of obstetricians with experience in vaginal delivery of multiple gestations, a planned vaginal delivery of triplets can be considered (131–133).

Women with one previous low transverse cesarean delivery, who are otherwise appropriate candidates for twin vaginal delivery, may be considered candidates for trial of labor after cesarean delivery (134–138). Delivery may be complicated by the need for internal fetal manipulation or emergent cesarean delivery. Women with multifetal gestations also are at increased risk of uterine atony, postpartum hemorrhage, and emergent hysterectomy (139). The administration of neuraxial analgesia in women with multifetal gestations facilitates operative vaginal delivery, external or internal cephalic version, and total breech extraction, if necessary, and can be converted to general anesthesia if the need for an emergent cesarean delivery arises (130).

Summary of Recommendations and Conclusions

The following recommendations and conclusions are based on good and consistent scientific evidence (Level A):

- There is no role for the prophylactic use of any tocolytic agent in women with multifetal gestations, including the prolonged use of betamimetics for this indication.
- Progesterone treatment does not reduce the incidence of spontaneous preterm birth in unselected women with twin or triplet gestations and, therefore, is not recommended.

The following recommendations and conclusions are based on limited or inconsistent scientific evidence (Level B):

- Because of the increased rate of complications associated with monochorionicity, determination of chorionicity by late first trimester or early second trimester in pregnancy is important for counseling and management of women with multifetal gestations.
- Interventions, such as prophylactic cerclage, prophylactic tocolytics, prophylactic pessary, routine hospitalization, and bed rest, have not been proved to decrease neonatal morbidity or mortality and, therefore, should not be used in women with multifetal gestations.
- Magnesium sulfate reduces the severity and risk of cerebral palsy in surviving infants if administered when birth is anticipated before 32 weeks of gestation, regardless of fetal number.
- Women with one previous low transverse cesarean delivery, who are otherwise appropriate candidates for twin vaginal delivery, may be considered candidates for trial of labor after cesarean delivery.
- Women who underwent pregnancy reduction from triplets to twins, as compared with those who continued with triplets, were observed to have lower frequencies of pregnancy loss, antenatal complications, preterm birth, low-birth-weight infants, cesarean delivery, and neonatal deaths, with rates similar to those observed in women with spontaneously conceived twin gestations.
- Unless a contraindication exists, one course of antenatal corticosteroids should be administered to all patients who are between 24 weeks and 34 weeks of gestation and at risk of delivery within 7 days, irrespective of the fetal number.

The following recommendations and conclusions are based primarily on consensus and expert opinion (Level C):

- Women with uncomplicated monochorionic–monoamniotic twin gestations can undergo delivery at 32–34 weeks of gestation.
- In diamniotic twin pregnancies at 32 0/7 weeks of gestation or later with a presenting fetus that is vertex, regardless of the presentation of the second twin, vaginal delivery is a reasonable option and should be considered, provided that an obstetrician with experience in internal podalic version and vaginal breech delivery is available.
- All women with multifetal gestations, regardless of age, are candidates for routine aneuploidy screening.
- The administration of neuraxial analgesia in women with multifetal gestations facilitates operative vaginal delivery, external or internal cephalic version, and total breech extraction.
- Women with monoamniotic twin gestations should be delivered via cesarean.

Performance Measure

Proportion of women with twin gestations who present for prenatal care before 16 weeks of gestation who have chorionicity determined

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138. Miller DA, Mullin P, Hou D, Paul RH. Vaginal birth after cesarean section in twin gestation. Am J Obstet Gynecol 1996;175:194–8. (Level II-3) [PubMed] [Full Text] ⇦

139. Francois K, Ortiz J, Harris C, Foley MR, Elliott JP. Is peripartum hysterectomy more common in multiple gestations? Obstet Gynecol 2005;105:1369–72. (Level II-3) [PubMed] [*Obstetrics & Gynecology*] ⇦

The MEDLINE database, the Cochrane Library, and the American College of Obstetricians and Gynecologists' own internal resources and documents were used to conduct a literature search to locate relevant articles published between January 1990–October 2013. The search was restricted to articles published in the English language. Priority was given to articles reporting results of original research, although review articles and commentaries also were consulted. Abstracts of research presented at symposia and scientific conferences were not considered adequate for inclusion in this document. Guidelines published by organizations or institutions such as the National Institutes of Health and the American College of Obstetricians and Gynecologists were reviewed, and additional studies were located by reviewing bibliographies of identified articles. When reliable research was not available, expert opinions from obstetrician–gynecologists were used.

Studies were reviewed and evaluated for quality according to the method outlined by the U.S. Preventive Services Task Force:

- I Evidence obtained from at least one properly designed randomized controlled trial.
- II-1 Evidence obtained from well-designed controlled trials without randomization.
- II-2 Evidence obtained from well-designed cohort or case–control analytic studies, preferably from more than one center or research group.
- II-3 Evidence obtained from multiple time series with or without the intervention. Dramatic results in uncontrolled experiments also could be regarded as this type of evidence.
- III Opinions of respected authorities, based on clinical experience, descriptive studies, or reports of expert committees.

Based on the highest level of evidence found in the data, recommendations are provided and graded according to the following categories:

Level A—Recommendations are based on good and consistent scientific evidence.

Level B—Recommendations are based on limited or inconsistent scientific evidence.

Level C—Recommendations are based primarily on consensus and expert opinion.

ISSN 1099-3630

The American College of Obstetricians and Gynecologists
409 12th Street, SW, PO Box 96920, Washington, DC 20090-6920

Multifetal gestations: twin, triplet, and higher-order multifetal pregnancies. Practice Bulletin No. 169. American College of Obstetricians and Gynecologists. Obstet Gynecol 2016;128:e131–46.

Twin Birth Informed Consent

This document is designed to help you make an informed decision regarding the birth of your twins. ~~Depending on the providers in your area, you may have two or three options for your birth~~ The American College of Obstetrics and Gynecologists (ACOG), the foremost professional membership organization for obstetricians and gynecologists which is dedicated to improving women's health, considers multiple gestation (twins) to be an absolute contraindication to planned home birth. This is due to a higher risk of perinatal death. Depending on the providers in your area, you may have two or three options for your birth.

~~:~~

- an elective cesarean
- a vaginal twin birth in a hospital
- a vaginal twin birth outside of a hospital

Planned Twin Vaginal Birth: Risks for the babies:

- In the event that twin B cannot be born vaginally (for any reason) and requires cesarean - research has shown outcomes for this combination vaginal/cesarean birth are worse than in a planned cesarean situation (Cranford, 2015).
- There may be a higher risk of cord prolapse, particularly if twin B is breech. This situation is an emergency, requiring cesarean and may place the baby's life in jeopardy.
- When twin A is breech, a cesarean section is recommended by ACOG. Planned home birth of a breech-presenting fetus is associated with increased risk for intrapartum death (mortality rate of 13.5 in 1,000 and neonatal mortality rate of 9.2 in 1,000).

Risks for mother:

- Increased risk of perineal damage and pain (compared to cesarean birth).
- Increased risk of postpartum hemorrhage which sometimes require blood transfusions.
- Increased risk for uterine atony.
- Increased risk for emergent hysterectomy.

Risks for future pregnancies:

- None

Birthing at home:

- Distance from an OR, medications, and available physician~~OB~~ may increase risks if ~~emergency~~ cesarean becomes indicated.
- Given increased risk for atony and for hemorrhage without resources to treat these complications, risk for severe morbidity and transfusion are increased.
- Distance from the NICU and pediatrician may increase some risk of morbidity and mortality~~s~~ to the infants.

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- Skill and experience of midwife and attendants is a factor in considerations for out of hospital birth with twins and may increase risk for poor outcomes.

- **Home birth is** associated with a more than twofold increased risk of perinatal death (1–2 in 1,000) and a threefold increased risk of neonatal seizures or serious neurologic dysfunction (0.4–0.6 in 1,000).

- I understand that the training midwives receive varies greatly. ACOG supports provision of care by midwife who have a certification by American Midwifery Certification Board or International Confederation of Midwives Global Standards for Midwifery Education. The College does not support provision of care by midwives who do not meet these standards.
- In a planned home birth, approximately 23-37% of first time moms and 4-9% of multiparous (not first baby) are transferred to the hospital during labor.
- Transportation time to the hospital may decrease the ability of the hospital to provide good outcomes. For example, if the baby is in distress and a cesarean section is delayed, this could lead to permanent morbidity and mortality. If the mother is hemorrhaging, this could lead to increased need for transfusion, hysterectomy, and severe morbidity.

Birthing at hospital:

Likelihood of successful vaginal delivery may be reduced, depending on hospital policy, provider and staff comfort with twin vaginal birth. Planned home birth is associated with fewer maternal interventions than planned hospital birth (co).

Planned Twin Cesarean Birth Risks for the baby:

- ~~Increased risk of prematurity and associated complications~~
- Transitional respiratory complications
- Increased risk of breastfeeding complications

Risks for the mother:

- Increased risk of infection, hemorrhage, deep vein thrombosis, stroke or pulmonary embolism, development of internal adhesions (scar tissue) affecting other organs, organ damage, and death.
- Complications from spinal anesthesia (short and long term possibilities)

Risks for future pregnancies:

- Increased risk of placenta previa, placenta accreta ~~a.~~(risks increase w each ~~surgical birth~~cesarean)
- Increased risk for uterine rupture if labor occurs in future pregnancy. ~~(regardless of~~

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~~future birthing choices)~~

- ~~Increased risk of ectopic pregnancy, infertility, and preterm birth or low birth weight.~~

Acknowledgment of Full Disclosure and Informed Choice:
Twin Birth

By completing the following form, you are acknowledging that you have received the information necessary to decide and that you take full responsibility for all outcomes associated with that decision. ~~Read through all the options before initialing one and signing below:~~

I understand that my midwife is certified by:
___ American Midwifery Certification Board
___ Internationalal Confederation of Midwives Global Standards for Midwifery Education
___ None of the above
Note: ACOG does not support provision of care by midwives who do not meet one of these standards.

Read through all the options before initialing one and signing below. **I choose to select:**
_____ **"Planned Twin Vaginal Birth at home with my current midwife"**

_____ **"Planned Twin Birth with an in-hospital care provider"**

Client Name (print): _____

Client Signature: _____Date: _____

Midwife Signature: _____Date: _____

References:
"Multifetal Gestations: Twin, Triplet, and Higher-Order Multifetal Pregnancies Practice Bulletin" PB Number 169, October 2016. ACOG.
"Planned Home Birth" Committee Opinion CO Number 697. April 2017. ACOG.

COMMUNITY MIDWIFERY
services

My Community Midwifery Emergency Plan

(In accordance with OAC 310:395-5-4(a)(10))

My Name: _____

My Address: _____

Phone Number(s): _____

Transport Arrangements from my Planned Delivery Site

_____

_____

_____

_____

In the event of an Emergency Transfer

Hospital: _____

Address: _____

Phone Number: _____

In the event of an Non-Emergency Transfer

Hospital: _____

Address: _____

Phone Number: _____

Additional Provider(s) Information

Name: _____

Phone Number: _____

Specialty: _____

Name: _____

Phone Number: _____

Specialty: _____

OKLAHOMA State Department of Health

Applicant: Brown, Rhonda

Case#: 4486893

MIDWIFE LICENSE PROCESSING (Initial)

CHS Program Staff Instructions: Complete this form to process initial applications and ensure this form is kept with the original application file for audit purposes.

QUALIFICATIONS CHECKLIST:

SLL ☑ Completed and signed Midwife License Application Form with Application Fee $1,000.00 (*non-refundable*)
Deficiency: Initials: Date:
Resolved: Initials: Date:

SLL ☒ Completed Affidavit of Lawful Presence Form
Deficiency: Initials: Date:
Resolved: Initials: Date:

SLL ☒ Consent for Background Check (*refer to signature block located at the bottom of this form*)
Deficiency: Initials: Date:
Resolved: Initials: Date:

SLL ☒ Proof age is at least 18 years (*legible copy of government issued photo ID such as a Driver's License*)
Deficiency: Initials: Date:
Resolved: Initials: Date:

SLL ☒ Proof of High School graduation or Graduate Education Diploma (GED)
Deficiency: HS TRANSCRIPT IS NOT LEGIBLE Initials: SLL Date: 5-3-21
Resolved: RCVD LEGIBLE COPY; VERIFIED BY PHONE W/ MOSS DISTRICT Initials: SLL Date: 5-5-21

SLL ☒ Proof of current certification from NARM or AMCB
Deficiency: Initials: Date:
Resolved: Initials: Date:

SLL ☒ Proof of current certification in neonatal resuscitation by the American Academy of Pediatrics or equivalent
Deficiency: Initials: Date:
Resolved: Initials: Date:

SLL ☒ Proof of completion of coursework or training certificate within the last 3 years in administration of medicine including injections and IV administration
Deficiency: Initials: Date:
Resolved: Initials: Date:

SLL ☒ Proof of current certification in Bloodborne Pathogen (BBP) training from the American Red Cross (ARC) or equivalent
Deficiency: Initials: Date:
Resolved: Initials: Date:

SLL ☒ Proof of current certification in CPR training for health care providers from the American Heart Association (AHA) or equivalent
Deficiency: Initials: Date:
Resolved: Initials: Date:

NA ☐ Proof of other pertinent credentials listed below
Deficiency: Initials: Date:
Resolved: Initials: Date:

ADDITIONAL INFORMATION REQUIRED CONTACT LOG:

Date	Method (circle one)	Purpose	Initials
05-03-2021	(E-mail) Voice Mail	RFI TO APPLICANT FOR HS GRAD PROOF	SLL
05-05-2021	(E-mail) Voice Mail	INFORMED APPLICANT HS GRAD PROOF RESOLVED	SLL
	E-mail Voice Mail		
	E-mail Voice Mail		
	E-mail Voice Mail		
	E-mail Voice Mail		
	E-mail Voice Mail		

BACKGROUND CHECK:

Submit Date	Initials	RCVD Date	Results	Notes	Initials
05-03-21	SLC	05-06-21	☑ Pass ☐ Fail		SLC
			☐ Pass ☐ Fail		

MIDW COMMITTEE RECOMMENDATION:

Meeting Date	Recommendation	Notes	Initials
05-12-21	☐ For ☐ Against ☐ Tabled		
	☐ For ☐ Against ☐ Tabled		
	☐ For ☐ Against ☐ Tabled		

NOTES:

OUTCOME:

Final Status	Initials	Notification Date	Notes	Initials
☐ Approved				
☐ Denied				

Scan Date/Initials: e-File Date/Initials:

Accounting Service - Central Receipting Unit

Daily Receipts for: ***Midwife Registry*** ***For:*** ***Thursday, April 29, 2021***

Date	*Receipt Number*	*First Name*	*Last Name*	*Company Name*	*Total*	*Program*
04/29/2021	4486893			COMMUNITY MIDWIFERY SERVICES LLC	1,000.00	Midwife Registry
				Daily Program Amount Receipted:	***$1,000.00***	***Midwife Registry***

Oklahoma State Department of Health
Accounting Services
Customer Receipt

Receipt Number:
4486893

For Monies Received From Mr./Ms. COMMUNITY MIDWIFERY SERV 4/29/2021

In the Sum of **One Thousand Dollars and 00/100** **$** 1,000.00

For Services Provided For:
Midwife Registry
210HEX1 002155XP0A 20001 2819900
Method of Payment: Company Check

M. Mathew
Received By:

THIS RECEIPT DOES NOT CONSTITUTE A LICENSE WITHIN THE STATE OF OKLAHOMA

OKLAHOMA State Department of Health

Oklahoma State Department of Health / Consumer Health Service
Mail: PO Box 268815, Oklahoma City, OK 73126-8815
Physical: 123 Robert S. Kerr Ave., Oklahoma City, OK 73102
Telephone: (405) 271-5243 / Fax: (405) 271-5286
E-mail: CHSLicensing@health.ok.gov
Midwife Program Website: http://chs.health.ok.gov/

MIDWIFE LICENSE APPLICATION

Instructions: Complete this application by using the checklists to ensure all required documentation is attached and mail to the address shown on this form.

Application & Documentation Checklist (ref. OAC 310:395-7-2, 310:395-7-3)

- [x] Completed and signed Midwife License Application Form with Application Fee $1,000.00 (*non-refundable*)
- [x] Completed Affidavit of Lawful Presence Form
- [x] Consent for Background Check (*refer to signature block located at the bottom of this form*)
- [x] Proof age is at least 18 years (*legible copy of government issued photo ID such as a Driver's License*)
- [x] Proof of High School graduation or Graduate Education Diploma (GED)
- [x] Proof of current certification from NARM, AMCB, or equivalent certify certification approved by the Commissioner of Health
- [x] Proof of current certification in neonatal resuscitation by the American Academy of Pediatrics or equivalent
- [x] Proof of completion of coursework or training certificate within the last 3 years in administration of medicine including injections and IV administration
- [x] Proof of current certification in Bloodborne Pathogen (BBP) training from the American Red Cross (ARC) or equivalent
- [x] Proof of current certification in CPR training for health care providers from the American Heart Association (AHA) or equivalent
- [ ] Proof of other pertinent credentials listed below

APPLICANT INFORMATION

Applicant Name: Brown (Last) Rhonda (First) Gail (Middle)

Mailing Address: 3811 N. 379 Rd (Street Address)

Holdenville (City) Okla (State) 74848 (Zip)

Phone #: 405-379-5918 Cellular #: 405-501-4672 Alternate #:

County: Hughes E-mail: okmidwife@gmail.com

BACKGROUND CHECK INFORMATION

Date of Birth: [redacted] Race: [redacted] Gender: [redacted]

Maiden Name: Morris Aliases:

CREDENTIAL INFORMATION

☐ Yes ☒ No Do you have other credentials? *If yes, list credentials:*

☐ Yes ☒ No Are you currently licensed or have been previously licensed as a Midwife in any other state?

If yes, list state(s):

☐ Yes ☒ No Have you ever been convicted of misconduct or been subject to disciplinary action?

If yes, explain:

READ CAREFULLY *The applicant signing this application being duly sworn declares that the foregoing statements are true to the best of their knowledge and that they personally signed this application. The applicant also accepts and understands all conditions of licensure as set forth in OAC 310:395 including rules pertaining to scope of work, professional standards, and required reporting to OSDH. By signing below, you also give consent for the department to perform a background check which may contain information regarding your criminal history and/or motor vehicle records, and other background information about you. Submitting this form DOES NOT give permission to provide or offer to provide midwife services as a Professional Licensed Midwife or a Licensed Midwife.* (Note: Retain a copy of form for your files.)

Signature: R. Gail Brown Date: 3-4-2021

OSDH License #: OSDH Receipt #: Receipt Date:

Oklahoma State
Department of Health
Creating a State of Health

AFFIDAVIT OF LAWFUL PRESENCE
BY PERSON MAKING APPLICATION FOR A LICENSE, PERMIT OR CERTIFICATE

I, the undersigned applicant, being of lawful age, state that one of the following statements is true and correct: (Check only ONE of the following statements that apply)

☒ I am a United States citizen.

☐ I am an approved alien under the federal Immigration and Nationality Act and am approved to be present in the United States. **I understand this approval may or may not include approval for employment. The issuance of a license, permit or certificate by the Oklahoma State Department of Health is not authorization for employment in the United States.**

Admission/Registration #_____

Authorizing Document:_____ **(Attach a copy of the authorizing document.)**

I state under penalty of perjury under the laws of Oklahoma that the foregoing is true and correct and that I have read and understand this form and completed it in my own hand.

Print Name: Rhonda Gail Brown Date: 03-04-2021

City: Holdenville State: Okla

Signature: R. Gail Brown

For RENEWAL license, permit or certificate, please write the number: _____
(Current license, permit or certificate number)

INSTRUCTIONS FOR USE OF THIS AFFIDAVIT OF LAWFUL PRESENCE FORM:
The person signing this form must read these instructions carefully.

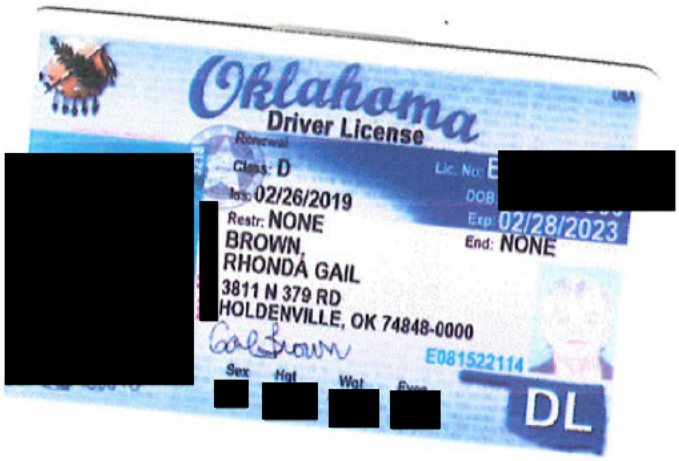
1. If the person signing this form is receiving services and not making an application for a license, permit or certificate, this form should ***not*** be used but rather, either the form titled, "*Affidavit of Lawful Presence by Parent or Guardian of Person Receiving Services*" or the form titled "*Affidavit of Lawful Presence by Person Receiving Services*" should be used.

2. If the person signing this form is a citizen of the United States then that person should check the box to the left of the statement, "*I am a citizen of the United States.*" If the person signing this form is not a citizen of the United States but is an approved alien under the federal Immigration and Nationality Act and is lawfully present in the United States then that person should check the box to the left of the statement, "*I am an approved alien under the federal Immigration and Nationality Act and am approved to be present in the United States.*"

3. If an approved alien, write the identification number in the *"Admission/Registration #" field* and write the name of the authorizing document in the *"Authorizing Document"* field. (Examples of authorizing documents are: INS Form I-551 or INS Form I-94)

4. The person signing this form should write today's date in the space provided; write the city and state where they are actually located when they sign this form print and sign their name in the space provided; and if only if applying for a renewal write the current license, permit or certificate number in the space provided.

5. Within this form, the term "penalty of perjury" means the willful assertion of the fact of either United States citizenship or lawful presence in the United States as a qualified alien, and made upon one's oath or affirmation and knowing such assertion to be false. Making such a willful assertion on this form knowing it to be false is a crime in Oklahoma and may be punishable by a term of incarceration of not more than five (5) years in prison. Additionally, one who procures another to commit perjury is guilty of the crime of subornation of perjury and may be punished in the same manner, as he would be if personally guilty of the perjury so procured.


Oklahoma
USA
Driver License
Renewal
Class: D
Iss: 02/26/2019
Restr: NONE
Lic. No: E
DOB:
Exp: 02/28/2023
End: NONE
BROWN,
RHONDA GAIL
3811 N 379 RD
HOLDENVILLE, OK 74848-0000
E081522114
Sex
Hgt
Wgt
Eyes
DL

MORRIS RHONDA GAIL | 02 | 68 | B | B | B | B

American College Testing Program

	Standard scores				
	1. Eng.	2. Math.	3. Soc. Sc.	4. Nat. Sc.	Comp.
C	13	12	16	06	12
T	13	11	22	01	07

Picture
2" x 2"

ENTRANCE STANDING

Arithmetic..... Grammar..... Geography..... History.....

Reading..... Writing..... Physiology..... Civics.....

Spelling..... Drawing.....

Grades marked X from.....High School

PUPIL'S HIGH SCHOOL RECORD

Entered from Yeager School

Date of entrance Sept 20, 1964 Age at entrance 14

Course elected..... Date of birth [redacted]

Recitation periods.....minutes. Laboratory periods.....minutes

Name Morris, Rhonda Gail

Residence Yeager

Place of Birth Stuart, Oklahoma

Birth Certificate Yes..... No.....

Parent or guardian L. J. Morris

SUBJECTS	Year	No. Days Pres.	GRADE 1st	GRADE 2nd	UNITS OF CREDIT 1st	UNITS OF CREDIT 2nd	Times per Week	No. of Weeks Study	NAME OF TEACHER	TEXT BOOK
English I	64-65		C	B	½	½	5	36	La Valley	
English II	65-66		B	A-	½	½			La Valley	
English III	66-67		B+	B+	½	½			Lindley	
English IV	67-68		A-	A-	½	½			Dedmon	
Public Speaking										
Journalism										
Grammar										
Composite Math.	64-65		B	B	½	½	5	36	Lindley	
Algebra I	65-66		B	C	½	½			Lindley	
Algebra II										
Geometry, Plane										
Geometry, Solid										
Trigonometry										
State History	65-66		B		½				Duff	
Modern History										
General History										
American History	66-67		C+	B-	½	½			Duff	
English History										
Anc. & Med. History										
Civics	65-66		B+		½				Duff	
Economics										
Sociology										
Amer. Dem.										
Latin I										
Latin II										
French I										
French II										
Spanish I										
~~Spanish II~~ Bo	67-68		S	S	½	½			Farris	
P.E.	64-65		S	S	½	½	5	36	Duff	
P.E.	65-66		S	S	½	½			Duff	
Gen. Science	64-65		B+	B	½	½	5	36	Lindley	
~~Physics~~ P.E	66-67		S	S	½	½			Duff	

SUBJECTS	Year	No. Days Pres.	GRADE 1st	GRADE 2nd	UNITS OF CREDIT 1st	UNITS OF CREDIT 2nd	Times per Week	No. of Weeks Study	NAME OF TEACHER	TEXT BOOK
Chemistry										
Phys. Geography										
Indus. Geography										
Gen. Biol.										
Physiology										
Agriculture I										
Agriculture II										
Agriculture III										
Agriculture IV										
Home Economics I	64-65		A-	B	½	½	5	36	Hutchings	
Home Economics II	65-66		C+	B	½	½			Hutchings	
Home Economics III										
Home Economics IV										
Pre-Flight Aero.										
Fund. of Machines										
Fund. of Radio										
Fund. of Electricity										
F. H. Drawing										
Mech. Drawing										
Industrial Arts I										
Industrial Arts II										
Business ~~English~~ Mathematics	66-67		B-	B-	½	½			Mrs. Lindley	
Commercial Law										
Bookkeeping	66-67		B-	B	½	½			Mrs. Lindley	
Shorthand										
Typewriting I	66-67		B-	B-	½	½			Mrs. Lindley	
Typewriting II	67-68		B	B	½	½			Mrs. Lindley	
General Business										
Office Practice										
Com. Arithmetic										
~~Theory~~ Music	64-65		S	B	½	½	5	36	Hutchings	
~~Applied~~ Music	65-66		B+	B	½	½			Hutchings	
Psychology & Sociology	67-68		B+	B-	½	½			Rhodes	

Summary of number of units of credit received each semester.

FIRST YEAR 19..19..	First Sem..... Second Sem.....	THIRD YEAR 19..19..	First Sem..... Second Sem.....
SECOND YEAR 19..19..	First Sem..... Second Sem.....	FOURTH YEAR 19..19..	First Sem..... Second Sem.....

Number in class, Boys..... Girls..... Total..... Total credits..... Passing Grade.....

GRADUATED FROM ..... COURSE ..... 19.

RECOMMENDED FOR ADMISSION TO .....

REMARKS: .....

Donna Tatum
3-4-21
Principal or High Sch.

MORRIS RHONDA GAIL | 02 | 68 | B | B | B | B |

NAME OF STUDENT | MO. YR. DATE TESTED | ENG. MATH SOC. SCI. NAT. SCI. HIGH SCHOOL GRADES | INC., OKLA. CITY

American College Testing Program
ACT

STANDARD SCORES					COLLEGE-BOUND PERCENTILES				
1. ENG.	2. MATH	3. SOC. S.	4. N. SCI.	COMP.	1. ENG.	2. MATH	3. SOC. S.	4. N. SCI.	COMP.
13	12	16	06	12	13	11	22	01	07

Picture
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PUPIL'S HIGH SCHOOL RECORD

ENTRANCE STANDING

Arithmetic........ Grammar........ Geography........ History........

Reading........ Writing........ Physiology........ Civics........

Spelling........ Drawing........

Grades marked X from........ High School

Entered from Yeager School

Date of entrance July 20, 1964 Age at entrance 14

Course elected........ Date of birth [redacted]

Recitation periods........ minutes Laboratory periods........ minutes

Name Morris, Rhonda Gail

Residence Yeager

Place of Birth Stuart, Oklahoma

Birth Certificate Yes........ No........

Parent or guardian S.J. Morris

SUBJECTS	Year	No. Days Pres.	GRADE 1st	GRADE 2nd	UNITS OF CREDIT 1st	UNITS OF CREDIT 2nd	Times per Week	No. of Weeks Study	NAME OF TEACHER	TEXT BOOK
English I	64-65		a-	B	1/2	1/2	5	36	La Valley	
English II	65-66		B	A-	1/2	1/2			La Valley	
English III	66-67		B+	B+	1/2	1/2			Giavel	
English IV	67-68		a-	A-	1/2	1/2			Dedman	
Public Speaking										
Journalism										
Grammar										
Composite Math.	64-65		B	B	1/2	1/2	5	36	Lindley	
Algebra I	65-66		B	C	1/2	1/2			Lindley	
Algebra II										
Geometry, Plane										
Geometry, Solid										
Trigonometry										
State History	65-66		B		1/2				Duff	
Modern History										
General History										
American History	66-67		C+	B-	1/2	1/2			Duff	
English History										
Anc. & Med. History										
Civics	65-6			B+		1/2			Duff	
Economics										
Sociology										
Amer. Dem.										
Latin I										
Latin II										
French I										
French II										
Spanish I										
~~Spanish~~ II P.E.	67-68		S	S	1/4	1/4			Farris	
P.E. ~~I~~	64-65		S	S	1/4	1/4	5	36	Duff	
P.E. ~~II~~	65-66		S	S	1/4	1/4			Duff	
Gen. Science	64-65		B+	B	1/2	1/2	5	36	Talley	
~~Physics~~ P.E.	66-67		S	S	1/4	1/4			Duff	

SUBJECTS	Year	No. Days Pres.	GRADE 1st	GRADE 2nd	UNITS OF CREDIT 1st	UNITS OF CREDIT 2nd	Times per Week	No. of Weeks Study	NAME OF TEACHER	TEXT BOOK
Chemistry										
Phys. Geography										
Indus. Geography										
Gen. Biol.										
Physiology										
Agriculture I										
Agriculture II										
Agriculture III										
Agriculture IV										
Home Economics I	64-65		A-	B	1/2	1/2	5	36	Hutchings	
Home Economics II	65-66		C+	B	1/2	1/2			Hutchings	
Home Economics III										
Home Economics IV										
Pre-Flight Aero.										
Fund. of Machines										
Fund. of Radio										
Fund. of Electricity										
F. H. Drawing										
Mech. Drawing										
Industrial Arts I										
Industrial Arts II										
Business ~~English~~ Machines	67-68		B-	B-	1/2	1/2			Mrs. Lindley	
Commercial Law										
Bookkeeping	66-67		B	B	1/2	1/2			Mrs. Lindley	
Shorthand										
Typewriting I	66-67		a-	a-	1/2	1/2			Mrs. Lindley	
Typewriting II	67-68		B	B	1/2	1/2			Mrs. Lindley	
General Business										
Office Practice										
Com. Arithmetic										
~~Theory~~ Music	64-65		S	S	1/2	1/2	5	36	Hutchings	
~~Applied~~ Music	65-66		B+	B	1/2	1/2			Hutchings	
Psychology & Sociology	67-68		B+	B-	1/2	1/2			Bledsoe	

Summary of number of units of credit received each semester.

FIRST YEAR 19....19.... First Sem........ Second Sem........

SECOND YEAR 19....19.... First Sem........ Second Sem........

THIRD YEAR 19....19.... First Sem........ Second Sem........

FOURTH YEAR 19....19.... First Sem........ Second Sem........

Number in class, Boys........ Girls........ Total........ Total credits........ Passing Grade........

GRADUATED FROM Moss Public School COURSE, May 1968

RECOMMENDED FOR ADMISSION TO........

REMARKS:........

.... Principal of High School

Donna Tatum
3-4-21

The North American Registry of Midwives

does hereby certify that

RHONDA BROWN

having satisfied all requirements set forth by the North American Registry of Midwives
is entitled to be known as a

NARM

Certified Professional Midwife®

with all honors, rights and privileges thereto pertaining
In witness whereof we affix our signatures and our seal

Miriam Khalsa

Chairperson

Expiration Date: 02/03/2024

NORTH AMERICAN REGISTRY OF MIDWIVES
NARM

Carol A. Nelson

Director of Applications

CPM® Number: CPM96030009

Neonatal Resuscitation Program (NRP®)
PROVIDER

The individual named below has successfully completed the national cognitive and skills evaluations in accordance with the NRP curriculum of the American Academy of Pediatrics and American Heart Association.

Gail Brown
Provider Name and Credentials

11/16/2019	11/30/2021
Course Completion Date	Recommended Renewal Date

If you have any question regarding the NRP, please contact the American Academy of Pediatrics life support staff at 800/433-9016, option 4, by e-mail at lifesupport@aap.org or online at www.aap.org/nrp.

This NRP e-card can be sent to any third party by e-mail. The cardholder must return to his or her online NRP account to designate the recipient's address.

This card signifies completion of the following lessons:

Lesson 1: Foundations of Neonatal Resuscitation
Lesson 2: Preparing for Resuscitation
Lesson 3: Initial Steps of Newborn Care
Lesson 4: Positive-Pressure Ventilation
Lesson 5: Alternative Airways: Endotracheal Tubes and Laryngeal Masks
Lesson 6: Chest Compressions
Lesson 7: Medications
Lesson 8: Post-resuscitation Care
Lesson 9: Resuscitation of Babies Born Preterm
Lesson 10: Special Considerations
Lesson 11: Ethics and Care at the End of Life

American Academy of Pediatrics

Certificate of Completion

This hereby certifies that

Gail Brown

_____(last 4 digits of SS#)

has completed the course

Pharmacology for Midwives Including GBS Treatment: 8 Contact Hours: MEAC CEU ID# M2021-08-1001DE

19-Nov 2020.

Certificate #: 86109-24619043-1569171

Mercy In Action

Certificate
OF COMPLETION

IN RECOGNITION OF SUCCESSFUL COMPLETION IN:

Bloodborne Pathogens

Infectious Disease Control

Best Practices / Precautions

THIS CERTIFICATE IS PROUDLY PRESENTED TO:

Gail Brown

The above mentioned Student is now certified in the above mentioned course by demonstrating proficiency in the subject by passing the examination in accordance with the Terms & Conditions of National CPR Foundation - Valid for 1 year. Course administered in accordance with the **2015** ECC/ILCOR and AHA® guidelines. ID#:**C5CB93**

Completion: **December 10, 2020**

Instructor: **Paul J. Scruton**

Signature:

COURSE PROVIDED BY:

NationalCPRFoundation

BASIC LIFE SUPPORT BASIC LIFE SUPPORT

BLS Provider

American Heart Association.

PEEL HERE

Gail Brown, CPM

The above individual has successfully completed the cognitive and skills evaluations in accordance with the curriculum of the American Heart Association Basic Life Support (CPR and AED) Program.

11/16/2019
Issue Date

11/2021
Recommended Renewal Date

Training Center Name: Wilson N Jones RMC

TC ID #: TX 04844

TC Info: Sherman, TX (City, State) (ZIP) 903-870-5682 (Phone)

Course Location: BOL Resource Center ~ Madill, OK

Instructor Name: Mary Friedlein

1106021 9672

Holder's Signature

 Tampering with this card will alter its appearance. 15-1805

This card contains unique security features to protect against forgery.

15-1805 11/15

OKLAHOMA STATE BUREAU OF INVESTIGATION

Criminal History Information Request Portal Response

6600 North Harvey Place • Oklahoma City, OK 73116
(405) 879-2986
CHIRP@osbi.ok.gov
http://www.ok.gov/osbi/Criminal_History/CHIRP

Type of Search(es) Requested	Request Date
[x] OSBI Name Based [x] DOC Sex Offender [ ] DOC Violent Offender	05/05/2021

The Oklahoma State Bureau of Investigation (OSBI)'s Criminal History Information Request Portal (CHIRP) allows for online search requests of OSBI's Criminal History Database and the Oklahoma Department of Corrections' Sex Offender and Violent Offender Registries. Matches identified in OSBI's database are returned with a state identification number and associated RAP sheet.

REQUESTOR INFORMATION:

ORGANIZATION _____

AUTHORIZED USER SPLAWN, JAMES

STREET ADDRESS _____

_____

PHONE NUMBER _____ E-MAIL ADDRESS CHSLICENSING@HEALTH.OK.GOV

SUBJECT INFORMATION:

NAME BROWN, RHONDA GAIL

ALIAS/MAIDEN NAME(S) MORRIS, RHONDA

DATE OF BIRTH 02/03/0950 RACE W SEX F SOCIAL SECURITY NUMBER _____

PURPOSE OF REQUEST Midwife License

SEARCH RESULTS:

OSBI Computerized Criminal History	Department of Corrections Sex Offender Registry	Department of Corrections Violent Offender Registry
NO RECORD WAS FOUND MATCHING THE SUBJECT NAME AND/OR DESCRIPTION.	**NO RECORD WAS FOUND MATCHING THE SUBJECT NAME AND/OR DESCRIPTION.**	
05/05/2021	**05/06/2021**	

Record information is furnished solely on the basis of name or description similarity with the subject of the inquiry

OKLAHOMA MIDWIFE VAGINAL BREECH BIRTH INFORMED CONSENT FORM

Instructions: Per OAC 310:395-5-5(d). Informed consent and disclosure statements on vaginal birth after caesarian (VBAC), vaginal breech birth, and vaginal multiple birth must be approved by the Advisory Committee on Midwifery. Copies of this consent form may be downloaded by visiting the OSDH Midwives Program webpage or requesting a copy by contacting the OSDH Consumer Health Service at CHSLicensing@health.ok.gov.

VAGINAL FRANK/COMPLETE BREECH BIRTH INFORMED CHOICE AND CONSENT AGREEMENT

At term, breech position is found to occur at 3-4%. Approximately 1-2% of babies remain breech at labor onset. Due to increased risks to the baby, the Midwife takes care to ensure that their skills and knowledge surrounding breech birth are current. They also take care to ensure that the birthing person is fully informed of the risks. Not all midwives and clients may want to have a vaginal breech birth out of the hospital.

It is recommended by the American College of Obstetrics and Gynecologists (ACOG), that breech babies be delivered by cesarean or in a hospital setting, and it considers breech presentation to be an absolute contraindication to planned home birth. This is due to a higher risk of perinatal death. Although there are increased risks to the baby born by vaginal breech, there are also risks to both mom and the baby associated with surgical birth.

When your baby is breech, you have three (3) options for delivery:

1. A planned hospital birth as determined by a physician.
2. An external cephalic version, which means attempting to manually turn the baby to a head down position to increase the chance for a vaginal delivery. This is most safely accomplished in a hospital.
3. A planned home birth with risks as described below.

It is important to be aware of the following risks:

- Babies with genetic anomalies have a higher rate of presenting breech
- Trauma and injury could occur to baby during labor and birth
- Cord prolapse (where the cord presents before the baby through a dilated cervix), which could interrupt the flow of oxygen to the baby resulting in brain damage and/or death
- Fetal head entrapment at delivery
- Increased need for resuscitation of the newborn
- Perineal lacerations, episiotomy (injury to the area between the vagina and the anus, surgical cut to the area between the vagina and the anus)
- Postpartum hemorrhage which may require blood transfusion or possible hysterectomy
- Overall, vaginal delivery of a breech baby may increase the risk of fetal death and/or short-term serious neonatal morbidity
- These risks may be higher in first time mothers
- The distance from a NICU and pediatrician may increase risk of morbidity and mortality to the infant

These risks may be minimized by some of the following techniques:

- Early detection of malpresentation as confirmed by ultrasound
- Close observation and monitoring throughout the labor process
- Maintain intact membranes as long as possible
- Delay pushing until completely dilated
- Client's commitment to cooperate fully with midwife's instructions
- Good communication between client and midwife
- Midwife experienced with breech deliveries present at birth and assistant present at birth

My midwife has explained all of the above. _____ *(initial)*

OKLAHOMA MIDWIFE VAGINAL BREECH BIRTH INFORMED CONSENT FORM (Continued)

CLIENT ACKNOWLEDGEMENTS

Initials *Client must read each item and initial each in the space provided below.*

( ) 1. I understand that transfer to a hospital for further evaluation of possible birth injuries to myself or newborn may be necessary.

( ) 2. Transfer of care can be initiated at any time at the discretion of the midwife or the client.

3. I have been informed that my midwife's experience of breech birth is:

- ( ) Number of attended breech births
- ( ) Number of performed breech births
- ( ) Continuing Education hours in breech births

( ) 4. I understand the importance of promptly notifying my midwife of labor symptoms.

( ) 5. My midwife has offered me the option of a second opinion.

( ) 6. I understand that if my baby is not in frank or complete breech presentation, I will be transferred to the care of a physician in a hospital for delivery.

( ) 7. I understand that during the course of care, it may be necessary or appropriate to perform additional testing and procedures outside the standard of care, for which informed consent will be offered at that time.

( ) 8. Planned home births of a breech-presenting fetus is associated with an intrapartum fetal mortality rate of 13.5 in 1,000 and neonatal mortality rate of 9.2 in 1000.

After careful consideration of the above information:

( ) I am choosing a vaginal breech out of hospital birth under the care of my midwife.

( ) I am choosing to transfer care to a physician.

REFERENCES

"Mode of term singleton breech delivery." Committee Opinion Number 745. August 2018. ACOG

Mother/Client:

Print Name	Signature	Date

Midwife:

Print Name / Lic. No.	Signature	Date

OKLAHOMA MIDWIFE VBAC INFORMED CONSENT FORM

Instructions: Per OAC 310:395-5-5(d). Informed consent and disclosure statements on vaginal birth after caesarian (VBAC), vaginal breech birth, and vaginal multiple birth must be approved by the Advisory Committee on Midwifery. Copies of this consent form may be downloaded by visiting the OSDH Midwives Program webpage or requesting a copy by contacting the OSDH Consumer Health Service at CHSLicensing@health.ok.gov.

VAGINAL BIRTH AFTER CESAREAN (VBAC) INFORMED CHOICE AND CONSENT AGREEMENT

I, _____, do hereby request the assistance of a Licensed Midwife, in the birth of our baby outside of a hospital. I make this request with a full understanding of the potential risks and potential complications of a vaginal birth following cesarean section. While I understand that these complications are rare, they cannot be eliminated. These complications and risks may include, but are not limited to:

- Uterine rupture
- Abnormal placental implantation (increased risk of abnormal adhesion to the wall of the uterus if it implants over the previous cesarean scar
- Maternal hemorrhage if uterus ruptures or if placenta is implanted over the previous cesarean scar
- Increased risk of blood transfusion or hysterectomy in the case of uterine rupture or abnormal placental implantation
- Increased risk of maternal death from hemorrhage or uterine rupture
- Increased risk of fetal distress
- Increased risk of fetal/neonatal damage due to oxygen deprivation if the uterus ruptures.
- Increased risk of fetal or neonatal death if the uterus ruptures up to 1 in 4

The American College of Obstetricians and Gynecologists considers previous cesarean an absolute contraindication to planned out-of-hospital birth. This is due to a higher risk of perinatal and maternal death. I understand that the best way to detect placental implantation problems at birth is by verifying the location of the placenta prenatally by ultrasonography. If an ultrasound shows that the placenta is implanted over the previous cesarean scar, I understand that a repeat cesarean section will be recommended.

I agree to undergo a diagnostic ultrasound. _____ *(initial)*

I understand that the following factors have been identified as risk factors or possible risk factors for increasing the likelihood of uterine rupture:

- Uterine incision other than low-transverse
- Estimated date of delivery less than 18 months from previous cesarean birth
- Induction of labor (artificially inducing labor to begin)
- Augmentation of labor (drugs, supplements, or herbs used to strengthen or speed up contractions)
- Prolonged or obstructed labor
- Use of either forceps or vacuum extraction
- Single layer closure of the previous uterine scar
- Infection of the uterine scar following surgery

The place of birth *is/is not* within twenty (20) minutes of transport to the nearest hospital with twenty-four (24) hour obstetrical and anesthesia services available. If transport is over 20 minutes, increased distance to surgical interventions, NICU, and pediatric services may increase risk of infant and maternal death.

I understand that the most common indicators of uterine rupture are fetal distress with an abnormal fetal heart rate pattern or prolonged decelerations with an arrest in progress, and that abdominal pain and/or vaginal bleeding are not reliable indicators of a possible rupture. I understand that more frequent monitoring of the fetal heartbeat, contractions, and progress during labor may be required. I understand that alternatives to a planned out-of-hospital VBAC attempt may include:

(continues on the other side)

- VBAC within a hospital with more immediate access to surgical intervention and/or intensive care facilities for both mother and baby, with a physician or Certified Nurse-Midwife in attendance
- Planned elective repeat cesarean section

I further understand that though I prefer to give birth vaginally outside of a hospital that this may not be possible. I agree to abide by the professional judgment and decisions made by my midwife as to the medical necessity for transport to a hospital. I also understand that if at any point in my labor I wish to be transported; I will be transferred at once. I attest that I have had ample opportunity to ask questions and that these questions have been answered to my satisfaction.

I have provided my midwife with surgical records for my previous cesarean(s). _____ *(Client initial)*
The client meets the criteria for VBAC listed in OAC 395 5-6.1. _____ *(Midwife initial)*

CLIENT ACKNOWLEDGEMENTS

Initials *Client must read each item and initial each in the space provided below.*

( ) 1. I understand that transfer to a hospital for further evaluation of possible birth injuries to myself or newborn may be necessary.

( ) 2. Transfer of care can be initiated at any time at the discretion of the midwife or the client.

3. I have been informed that my midwife's experience of VBAC is:
   - ( ) Number of attended VBAC births
   - ( ) Number of performed VBAC births
   - ( ) Continuing Education hours in VBAC births

( ) 4. I understand the importance of promptly notifying my midwife of labor symptoms.

( ) 5. My midwife has offered me the option of a second opinion.

( ) 6. I understand that if my previous cesarean was done due to failure to progress (arrest of dilation or descent) then my chance of having a successful vaginal delivery is lower.

( ) 7. I understand that during the course of care, it may be necessary or appropriate to perform additional testing and procedures outside the standard of care, for which informed consent will be offered at that time.

( ) 8. Trial of labor after two cesareans is thought to double the risk of uterine rupture. It is believed each additional cesarean would carry additional risk factors including, but not limited to, uterine rupture, hemorrhage and death.

After careful consideration of the above information:

( ) I am choosing a VBAC under the care of my midwife.

( ) I am choosing to transfer care to a hospital provider.

REFERENCES

1. *Uterine Rupture- https://www.ajog.org/article/S0002-9378(18)30291-6/pdf*
2. "*Vaginal Birth After Cesarean" Practice Bulletin Number 205. February 2019. American College of Obstetricians and Gynecologist*

READ CAREFULLY *By my signature below I give full, informed consent to an out-of-hospital vaginal birth after cesarean. I understand that I alone am responsible for making this decision, and accept full responsibility for the consequences of my decision.*

Mother/Client:

Print Name	Signature	Date

Midwife:

Print Name / Lic. No.	Signature	Date

Emergency Transport Plan

Name: _____ Date of Birth: _____ EDD: _____

911 Address: _____ Ph: _____

Back-up Physician: (y / n) Name: _____Ph: _____

Please Note: Unless you specify a back-up physician, you will be cared for by the physician who is on-call at the facility you are transported to.

Preferred Emergency Hospital (usually closest hospital with OB services):

Hospital name: _____ Ph: _____

Address/directions: _____

Approx. Drive time: _____minutes / _____miles NICU: (y / n)

Arrangements for transport:

In the event of an emergency transfer requiring EMS we will dial 911 and request transport to the hospital. The EMS crew will choose the appropriate hospital, but we will inform them of your choice of emergency hospital. When possible, the midwife will continue to provide care until we reach the hospital.

In the event of an urgent transfer in which we choose to drive to the hospital ourselves, we will drive to your choice of emergency hospital. When possible, the midwife will remain with you during the transfer.

In the event of a non-emergency transfer where time permits, we can plan to transfer to a different hospital of your choice.

Preferred Non-Emergency Hospital (if different than hospital listed above):

Hospital name: _____ Ph: _____

Address/directions: _____

Approx. Drive time: _____minutes / _____miles NICU: (y / n)

Client Signature: _____ Date:_____

OKLAHOMA MIDWIFE TWINS INFORMED CONSENT FORM

Instructions: Per OAC 310:395-5-5(d). Informed consent and disclosure statements on vaginal birth after caesarian (VBAC), vaginal breech birth, and vaginal multiple birth must be approved by the Advisory Committee on Midwifery. Copies of this consent form may be downloaded by visiting the OSDH Midwives Program webpage or requesting a copy by contacting the OSDH Consumer Health Service at CHSLicensing@health.ok.gov.

~~VAGINAL BIRTH AFTER CESAREAN (VBAC)~~TWINS INFORMED CHOICE AND CONSENT AGREEMENT

The American College of Obstetricians and Gynecologists considers twin birth an absolute contraindication to planned out-of-hospital birth. This is due to a higher risk of perinatal and maternal death

When you are pregnant with twins, you have three (3) options for delivery:

1. A planned vaginal hospital birth as determined by a physician.
2. A planned elective cesarean birth.
3. A planned home birth with risks as described below.

I, _____, do hereby request the assistance of a Licensed Midwife, in the birth of our babies~~y~~ outside of a hospital. I make this request with a full understanding of the potential risks and potential complications of a ~~vaginal birth following cesarean section~~ twin birth. ~~While I understand that these complications are rare, they cannot be eliminated.~~ These complications and risks may include, but are not limited to:

- Uterine atony~~rupture~~
- ~~Abnormal placental implantation (increased risk of abnormal adhesion to the wall of the uterus if it implants over the previous cesarean scar~~
- Maternal hemorrhage ~~if uterus ruptures or if placenta is implanted over the previous cesarean scar~~
- Increased risk of blood transfusion or hysterectomy in the case of uterine atony ~~in the case of uterine rupture or abnormal placental implantation~~
- Increased risk of maternal death from hemorrhage ~~or uterine rupture~~
- Increased risk of ~~-~~fetal distress in one or both babies
- Increased risk of fetal/neonatal damage due to oxygen deprivation ~~if the uterus ruptures.~~
- Increased risk of fetal or neonatal death ~~if the uterus ruptures up to 1 in 4~~
- Cord prolapse (where the cord presents before the baby through a dilated cervix), which could interrupt the flow of oxygen to the baby resulting in brain damage and/or death
- If Baby B is breech and larger than Baby A (20% discordance), then planned vaginal delivery of Baby B is not recommended and is unsafe for home birth

Breech section related to Twin B- In the event that Baby B is breech, becomes breech, or presentation is unknown, complications and risks may include, but are not limited to:

- Increased need for resuscitation of the newborn
- Overall, vaginal delivery of a breech baby may increase the risk of fetal death and/or short-term serious neonatal morbidity
- These risks may be higher in first time mothers
- The distance from a NICU and pediatrician may increase risk of morbidity and mortality to the infant
- Perineal lacerations, episiotomy (injury to the area between the vagina and the anus, surgical cut to the area between the vagina and the anus)
- Fetal head entrapment at delivery
- Increased need for resuscitation of the newborn

~~The American College of Obstetricians and Gynecologists considers previous cesarean an absolute contraindication to planned out-of-hospital birth. This is due to a higher risk of perinatal and maternal death~~.

~~I understand that the best way to detect placental implantation problems at birth is by verifying the location of the placenta prenatally by ultrasonography. If an ultrasound shows that the placenta is implanted over the previous cesarean scar, I understand that a repeat cesarean section will be recommended.~~(initial) I understand that my provider with collaboration of MFM will be better able to counsel me on the risks of a delivery and confirm that Baby A is head down if I have an ultrasound at 34-36 weeks to check the size and position of the babies.

I agree to undergo a diagnostic ultrasound in order to stay in midwifery care . _____ *(initial)*

I understand that the average gestational age for delivery of twins is 35 weeks gestational age, that I have a higher risk of preterm labor, preeclampsia, and gestational diabetes, therefore my risk of being unable to deliver at home is elevated

~~I understand that the following factors have been identified as risk factors or possible risk factors for increasing the likelihood of uterine rupture:~~

- ~~Uterine incision other than low-transverse~~
- ~~Estimated date of delivery less than 18 months from previous cesarean birth~~
- ~~Induction of labor (artificially inducing labor to begin)~~
- ~~Augmentation of labor (drugs, supplements, or herbs used to strengthen or speed up contractions)~~
- ~~Prolonged or obstructed labor~~
- ~~Use of either forceps or vacuum extraction~~
- ~~Single layer closure of the previous uterine scar~~
- ~~Infection of the uterine scar following surgery~~

The place of birth *is/is not* within twenty (20) minutes of transport to the nearest hospital with twenty-four (24) hour obstetrical and anesthesia services available. If transport is over 20 minutes, increased distance to surgical interventions, NICU, and pediatric services may increase risk of infant and maternal death.

~~I understand that the most common indicators of uterine rupture are fetal distress with an abnormal fetal heart rate pattern or prolonged decelerations with an arrest in progress, and that abdominal pain and/or vaginal bleeding are not reliable indicators of a possible rupture. I understand that more frequent monitoring of the fetal heartbeat, contractions, and progress during labor may be required. I understand that alternatives to a planned out-of-hospital VBAC attempt may include:~~

(continues on the other side)

OKLAHOMA MIDWIFE TWINS~~VBAC~~ INFORMED CONSENT FORM (Continued)

- ~~VBAC within a hospital with more immediate access to surgical intervention and/or intensive care facilities for both mother and baby, with a physician or Certified Nurse-Midwife in attendance~~
- ~~Planned elective repeat cesarean section~~

I further understand that though I prefer to give birth vaginally outside of a hospital that this may not be possible. I agree to abide by the professional judgment and decisions made by my midwife as to the medical necessity for transport to a hospital. I also understand that if at any point in my labor I wish to be transported; I will be transferred at once. I attest that I have had ample opportunity to ask questions and that these questions have been answered to my satisfaction. (initial)

~~I have provided my midwife with surgical records for my previous cesarean(s). _____ *(Client initial)*~~
The client meets the criteria for Twin birth~~VBAC~~ listed in OAC 395 5-6.1. _____ *(Midwife initial)(date)*

All applicable consent forms (i.e. VBAC, Breech, if applicable) have been completed and signed. (midwife initial and date)

CLIENT ACKNOWLEDGEMENTS

Initials *Client must read each item and initial each in the space provided below.*

( ) 1. I understand that transfer to a hospital for further evaluation of possible birth injuries to myself or newborns may be necessary.

( ) 2. Transfer of care can be initiated at any time at the discretion of the midwife or the client.

3. I understand that Baby A must be head down at term, or I will be transferred out of midwifery care.

3. I have been informed that my midwife's experience of Twin births~~VBAC~~ is:

( ) Number of attended Twin~~VBAC~~ births

( ) Number of performed Twin~~VBAC~~ births

( ) Continuing Education hours in Twin~~VBAC~~ births

( ) 4. I understand the importance of promptly notifying my midwife of labor symptoms.

( ) 5. My midwife has offered me the option of a second opinion.

( ) 6. ~~I understand that if my previous cesarean was done due to failure to progress (arrest of dilation or descent) then my chance of having a successful vaginal delivery is lower.~~ My midwife has referred me to MFM for a consultation per 395-5-6.1(e)(3)

( ) 7. I understand that during the course of care, it may be necessary or appropriate to perform additional testing and procedures outside the standard of care, for which informed consent will be offered at that time.

( ) 8. ~~Trial of labor after two cesareans is thought to double the risk of uterine rupture. It is believed each additional cesarean would carry additional risk factors including, but not limited to, uterine rupture, hemorrhage and death.~~

After careful consideration of the above information:

( ) I am choosing a Twin birth~~VBAC~~ under the care of my midwife.

( ) I am choosing to transfer care to a hospital provider.

REFERENCES

1. ~~*Uterine Rupture. https://www.ajog.org/article/S0002-9378(18)30291-6/pdf*~~
2. ~~*"Vaginal Birth After Cesarean" Practice Bulletin Number 205. February 2019. American College of Obstetricians and Gynecologist*~~

"Multifetal Gestations: Twin, Triplet, and Higher-Order Multifetal Pregnancies
Practice Bulletin" PB Number 169, October 2016. ACOG.
"Planned Home Birth" Committee Opinion CO Number 697. April 2017. ACOG.

READ CAREFULLY *By my signature below I give full, informed consent to an out-of-hospital twin ~~vaginal~~ birth ~~after cesarean~~. The risks, benefits and alternatives have been discussed and all questions have been answered. ~~I understand that I alone am responsible for making this decision, and accept full responsibility for the consequences of my decision.~~*

Commented [TS1]: Legal review of this statement. It is also on the VBAC, remove highlighted sentence from it, add "the risks benefits" sentence to all 3 forms.

Mother/Client: _____ (Print Name) _____ (Signature) _____ (Date)

I have provided the information above to the Client.

Midwife: _____ (Print Name / Lic. No.) _____ (Signature) _____ (Date)