Clinical Guideline



Oscar Clinical Guideline: Home Births and Birth Centers (CG038 Ver. 10)

Home Births and Birth Centers

Disclaimer

Clinical guidelines are developed and adopted to establish evidence-based clinical criteria for utilization management decisions. Clinical guidelines are applicable according to policy and plan type. The Plan may delegate utilization management decisions of certain services to third parties who may develop and adopt their own clinical criteria.

Coverage of services is subject to the terms, conditions, and limitations of a member's policy, as well as applicable state and federal law. Clinical guidelines are also subject to in-force criteria such as the Centers for Medicare & Medicaid Services (CMS) national coverage determination (NCD) or local coverage determination (LCD) for Medicare Advantage plans. Please refer to the member's policy documents (e.g., Certificate/Evidence of Coverage, Schedule of Benefits, Plan Formulary) or contact the Plan to confirm coverage.

Summary

The Plan members who chose to have a home birth may be eligible for provider services. An expectant mother has options as to where she may plan to give birth including at home, at a birthing center, or at a hospital. The American College of Obstetricians and Gynecologists (ACOG) states that a home birth has a twofold increased risk of perinatal death when compared to a hospital birth and a threefold increased risk of neonatal seizures or serious neurologic dysfunction for the newborn. An accredited birthing center is safer than home birth. However, ACOG respects the right to make one's own medically informed decision. A planned home birth is not appropriate for all pregnancies, and a screening should be done with an in-network provider (unless the member has out-of-network benefits) to evaluate if a pregnancy is deemed medically appropriate for a home birth. Screening may include evaluating medical, obstetric, nutritional, environmental and psychosocial factors. Appropriate planning should also include arrangements for care at an in-network hospital (unless the member has out-of-network benefits) should an emergent situation arise.

Birth centers provide peripartum care for low-risk women with uncomplicated, singleton, term, vertex pregnancies who are expected to have an uncomplicated vaginal delivery and postpartum recovery. While birth centers do not provide an acute level of care, the center has arrangements in place for emergent transfer of members to a hospital for higher level of care when needed. The reported risk of needing an intrapartum transport to a hospital is 23-37% for nulliparous and 4-9% for multiparous women (ACOG, Reaffirmed 2023).

Definitions

"Certified Nurse-Midwife (CNM)" is a registered nurse who has completed education in a midwife program. All CNMs must pass a national certification examination by the American Midwifery Certification Board.

"Certified Midwife (CM)" is an individual who has completed education in a midwife program but is not a registered nurse. CMs must also pass a national certification examination by the American Midwifery Certification Board.

"Normal Pregnancy and childbirth" is defined by the California Business and Profession Code section 2507(b)(1) as a singleton fetus with cephalic presentation and the absence of any preexisting maternal disease or condition likely to affect the pregnancy or significant disease arising from the pregnancy.

"High Risk Pregnancy" describes a pregnancy in which the mother, fetus, or newborn is or will be at increased risk for morbidity or mortality before, after, or during delivery

"Perinatal Risk" is risk specifically relating to the time around birth, including both before and after.

"Placenta Previa" is a condition where the placenta covers the internal cervical os or the opening of the cervix.

Clinical Indications

Requirements Prior to Delivery

Women who are deemed at low risk for home births must meet ALL the following criteria to meet medical necessity:

- 1. Evaluated and classified as a normal pregnancy by a licensed CNM, DO, MD, or NP who is trained in obstetrics and gynecology or family practice with obstetrical expertise; *and*
- 2. Absence of preexisting conditions that may affect delivery, including:
 - a. Medical conditions, such as high blood pressure or diabetes (e.g., gestational, pre-gestational, or insulin dependent); *or*
 - b. A previous c-section or other uterine surgery (e.g., myomectomy); or
 - c. Pregnancy complications, such as premature labor, fetal intolerance of labor, preeclampsia, prolonged pre-labor rupture of membranes, intrauterine growth restriction, macrosomia, fetal anomaly, history of a previous postpartum hemorrhage, multiple gestation, or a baby in the breech or other malposition at 37 weeks and beyond; or
 - d. Contraindication to a vaginal birth (e.g., placenta previa or accreta, active genital herpes, previous hysterotomy in the upper uterine segment); or

- e. Current history of substance abuse; or
- f. High risk pregnancy, as defined in the exclusions below; and
- 3. Pre-existing arrangement for transfer to a nearby in-network hospital (unless the member has out-of-network benefits) should an emergent situation arise.

Requirements at Time of Delivery

- 1. Have the state licensed and certified nurse-midwife, midwife, or physician practicing within an integrated and regulated health system in attendance; *and*
- 2. Have ready access to consultation at an in-network facility (unless the member has out-of-network benefits) at which the treating nurse-midwife or provider of choice is affiliated or practicing. Examples of which include, but are not limited to, electronic, telephone or personal consultation, collaborative management, shared management, referral or transfer of care; and
- 3. Plan for transfer to a nearby in-network hospital (unless the member has out-of-network benefits) should an emergent situation arise; *and*
- 4. Pregnancy is between 37 weeks and 0/7 days and 42 weeks and 0/7 days at time of delivery; and
- 5. Spontaneous labor or labor induced as an outpatient.

Freestanding Birth Centers (not within hospital systems)

For requests at accredited freestanding birthing centers, the above requirements prior to delivery and at the time of delivery will apply.

Experimental or Investigational / Not Medically Necessary

Duplicate Services

Duplicative services by health care providers are not medically necessary such as services of both a midwife and a physician concurrently in attendance at a home birth.

Home Births Further than 30-Minutes from an Emergency Facility

While access to emergency facilities is an important component of safety, it is hard to judge how close is required to be safest. Bastian et al. followed 7002 planned home births from 1985 to 1990 in Australia. For one of the authors' measurements, asphyxia deaths, there had been warning signs during most of the labors. The authors noted that these often occurred early enough to have allowed timely transfer. From a more recent systematic review by Blix et al, the reported risk of needing intrapartum transport to a hospital varied from 9.9% to 31.9%. Common reasons for transport are labor not progressing, concerning fetal status or positioning, and maternal pain relief. In general, an increased distance to emergency services is positively correlated with increased risk of adverse outcomes. ^{3,4}

Doula Services

ACOG and a Cochrane Review confirm that "continuous one-to-one emotional support" is associated with improved outcomes including lower rates of cesarean delivery. However, at this time, doulas are

non-licensed, have no medical training, and are considered supportive. They have no official guidelines or standards, and professional certification is not required. Therefore, doula services are considered not medically necessary.

Changes in Condition or Risk Factor

If at any time the member presents with a maternal disease or condition which has arisen from the pregnancy, in order for the midwife to continue care, the midwife must provide the member with a referral for an examination by an in-network physician (unless the member has out-of-network benefits) trained in obstetrics. Following the examination, if the physician determines that the risk factors presented by the member's disease or condition are not likely to significantly affect the course of pregnancy and childbirth, care can be resumed by the midwife. If the physician determines that the member's condition or concern has not been resolved, the midwife may not resume primary care of the member.

High Risk Pregnancies

The Plan does not consider home births as medically necessary for all pregnancies. Recent studies have shown that mortality rates among planned home and hospital births may be comparable, but only when using strict exclusion criteria. When women who met these exclusion criteria are included, planned home births have a clear association with a higher risk of perinatal death. A pregnancy may be classified as high risk for many reasons, as outlined below and as defined by applicable State midwifery practice guidelines. A current limitation is that not every risk factor has been separately studied to see associated mortality for a home birth versus a hospital birth, but as stated above, the safety of a planned home birth has been demonstrated only in the absence of these risk factors. Indications not meeting medical necessity include, but are not limited to, the following:

- Breech or other fetal malpresentation
- Gestational Diabetes Mellitus (GDM)
- Gestational age <37 weeks and 0/7 days or >42 weeks and 0/7 days
- History of previous uterine surgery
- Multiple pregnancies (>1 fetus)
- Preeclampsia
- Prior cesarean delivery
- Age <17 years of age or >40 years of age
- Oligohydramnios or polyhydramnios
- Placental problems
- Intrauterine growth restriction / fetal growth restriction
- Pre-pregnancy weight issues: <100 lbs or BMI ≥35
- Presence of any medical or surgical condition that may put the mother and/or fetus at increased risk including but not limited to organ disease
- Presence of any psychiatric condition that may put the mother and/or fetus at increased risk
- Presence or suspected fetal abnormality

- Presence of fibroids with characteristics associated with increased risk for pregnancy complications
- Substance abuse disorder
- Suspected fetal birth weight greater than or equal to 4500 grams (i.e., macrosomia)

Evidence for the Above Indications

Breech or Other Fetal Malpresentation

According to ACOG Committee Opinion Number 697, fetal malpresentation is an absolute contraindication to planned home birth. Cheyney et al. performed a retrospective analysis of mothers receiving midwife care in the United States with a planned home birth or birth center. They included 16,924 pregnancies in between the years of 2004 and 2009. For breech presentations, the risk of intrapartum death compared to vertex presentations was significantly elevated (13.51/1000 breach to 1.09/1000 vertex, p<0.0004).

Gestational Diabetes Mellitus (GDM)

Cheyney et al. found that the rates for intrapartum mortality were significantly elevated in a pregnancy complicated by gestational diabetes mellitus (15.15 per 1000 pregnancies with GDM vs 1.19 per 1000 pregnancies without GDM, p<0.013).

Gestational Age <37 weeks and 0/7 days or >42 weeks and 0/7 days

Many studies include gestational age <37 weeks and 0/7 days or >42 weeks and 0/7 days a risk factor for perinatal mortality, and the ACOG finds it as one of the contradictions for home birth. As one example, Greenbaum et al studied births from 2006 to 2009 and found that the total neonatal mortality was significantly higher.

Multiple Pregnancies (>1 fetus)

According to ACOG Committee Opinion Number 697, multiple gestation is an absolute contraindication to planned home birth. The ACOG finds that multiple gestations carry a significantly increased risk in rates of perinatal mortality. Due to this risk, multiple gestation pregnancies are considered an absolute contraindication to planned home births.

Preeclampsia

Cheyney et al. found that the rates for intrapartum mortality were significantly elevated in a pregnancy complicated by preeclampsia as compared to a pregnancy not complicated by preeclampsia (34.48 per 1000 pregnancies with preeclampsia vs 1.24 per 1000 pregnancies without preeclampsia, p <0.037).

Prior Cesarean Delivery

According to ACOG Committee Opinion Number 697, prior cesarean delivery is an absolute contraindication to planned home birth. Landon et al. in a prospective four-year observational study followed 45,988 women with singleton gestations and a history of cesarean delivery. The authors found that women with a history of cesarean delivery had a greater perinatal risk. While the authors did note that the absolute risks were low, the relative increase risk for mothers who undergo a trial of labor is significant. ACOG supports vaginal birth attempts after cesarean, but due to the increased risk, the attempt should be in a healthcare setting capable of providing emergency cesarean services.

Age ≤17 years of age or >40 years

Maternal age 17 years and younger and over 40 years has been linked to increased perinatal mortality. Fraser et al. conducted a retrospective analysis of 134,088 births that occurred from 1970 to 1990 in Utah. Maternal age ≤17 had a higher risk of adverse outcomes, these results held when controlling for prenatal care. The authors concluded that a younger maternal age was correlated with an increased risk of adverse outcomes. Maternal age above 40 years of age has been shown by numerous authors as linked to increased perinatal mortality. One such study is by Jacobsson et al. who conducted a national prospective cohort study following 1,566,313 deliveries over a 15 year period. They saw a positive correlation between maternal age and increased risks. Cleary-Goldman et al. similarly found that with maternal ages above 40, there were increased risks for placental abruption and perinatal mortality.

Oligohydramnios and polyhydramnios

Oligohydramnios and polyhydramnios are both indications of a high-risk pregnancy. Oligohydramnios has been studied to see if the amniotic fluid index can be used to predict adverse outcomes in pregnancies. Three recent studies over the past decade have found that oligohydramnios amniotic fluid volumes are insufficient to predict adverse outcomes. Recommendations for pregnancies complicated by oligohydramnios includes fetal monitoring during labor. Due to the unpredictability of oligohydramnios on outcomes and the recommendation for fetal monitoring during labor, oligohydramnios is a contraindication for home birth. Polyhydramnios were found by Khan and Donnelly in a retrospective case control study to be linked with adverse neonatal outcomes. The authors followed 288 women and found increased risk for cesarean delivery, fetal distress, and NICU admissions. In practice, pregnancies complicated by polyhydramnios are monitored for spontaneous membrane rupture, and for fetal abnormalities. As studied by Wiegand et al. who found an association between the severity of polyhydramnios and the risk for perinatal morbidity.

Placental problems

Placental problems can be varied, but many have been linked to increased perinatal risk. One example is placenta previa. In a systematic review by Vanhanian et al., it was found that the rates of NICU admissions, neonatal death, and perinatal death were significantly increased in patients with placenta previa.

Intrauterine Growth Restriction/Fetal Growth Restriction

Infants with intrauterine growth restriction are defined as estimated fetal weight of <10th percentile (Mandy, 2020). This is caused by a genetic or environmental factor; some conditions associated are maternal hypertension, preeclampsia, and congenital infection). Infants with fetal growth restriction are at risk for preterm delivery, perinatal asphyxia, impaired thermoregulation, hypoglycemia, impaired immune function and other risks (Mandy, 2020).

Pre-pregnancy weight issues: <100 lbs or BMI ≥35

In a retrospective study, Ehrenberg et al. studied perinatal complication rates for low maternal weight. They found that when compared to a normal BMI, these mothers had increased risk for maternal delivery complications. An increased BMI has also been associated with increased risk for maternal and fetal outcomes across a variety of measures including: increased length of labor, increased risk of cesarean delivery, increased risk of postpartum infection, and increased risk for asphyxia and death.

Presence of any medical or surgical condition that may put the mother and/or fetus at increased risk

There are numerous medical or surgical conditions that can increase the perinatal risk. One such example is an expectant mother with chronic hypertension. In a systematic review and meta-analysis, Brahman et al. examined the adverse outcomes for pregnancies complicated by chronic hypertension and concluded that there were higher risks for many outcomes.

Presence of severe fetal abnormalities or abnormalities for which full workup has not been performed to determine the extent

Home births in cases where the fetus has a known abnormality have not been extensively studied, but a recent case study discusses the ethical concerns of a home birth in this setting. The authors found that in the setting of fetal abnormalities, the pregnancy is not classified as a low risk pregnancy and delivery needs to be in a facility prepared for emergency intervention for the fetus. In this line, if the extent of the fetal abnormality is unknown or if the abnormality is known to require intervention, a planned home birth is not suitable.

Presence of fibroids with characteristics associated with increased risk for pregnancy complications. The presence of fibroids of large size, certain location, distortion of uterine cavity, or multiple fibroids has been linked in multiple studies, reviewed by Lee et al, to adverse perinatal outcomes such as placenta abruption, cesarean delivery, and postpartum hemorrhage. These outcomes have been reported to occur in as many as 10 to 30% of pregnancies.

Substance abuse disorder

Substance abuse disorder including alcoholism and drug addiction during pregnancy is associated with adverse pregnancy outcomes. One example is opioid abuse, as explored by Maeda et al., who found increased perinatal morbidity and mortality with opioid use.

Applicable Billing Codes

Table 1 CPT/HCPCS Codes considered medically necessary for home birth services if criteria are met:		
59400	Routine obstetric care including antepartum care, vaginal delivery (with or without episiotomy, and/or forceps) and postpartum care	
99461	Initial care, per day, for evaluation and management of normal newborn infant seen in other than hospital or birthing center	
CPT/HCPCS Code	es considered medically necessary for birth centers if criteria are met:	
59400	Routine obstetric care including antepartum care, vaginal delivery (with or without episiotomy, and/or forceps) and postpartum care	
99460	Initial hospital or birthing center care, per day, for evaluation and management of normal newborn infant	
99462	Subsequent hospital care, per day, for evaluation and management of normal newborn	
99463	Initial hospital or birthing center care, per day, for evaluation and management of normal newborn infant admitted and discharged on the same date	
ICD-10 codes cons	idered medically necessary if criteria are met:	
Code	Description	
O80	Encounter for full-term uncomplicated delivery	
ICD-10 codes not o	considered medically necessary:	
Code	Description	
D25.0 - D25.9	Leiomyoma of uterus	
E08.00 - E13.9	Diabetes mellitus	
F10.10 - F19.99	Mental and behavioral disorders due to psychoactive substance use	
l10 - l16.9	Hypertensive diseases	

O09.00 - O09.93	Supervision of high risk pregnancy
O24.011 - O24.93	Diabetes mellitus in pregnancy, childbirth, and the puerperium
O26.00 - O26.93	Maternal care for other conditions predominantly related to pregnancy
O29.01 - O29.93	Complications of anesthesia during pregnancy
O30.001 - O48.1	Maternal care related to the fetus and amniotic cavity and possible delivery problems
O60.00 - O60.23	Preterm labor
O61.0 - O61.9	Failed induction of labor
O62.0 - O62.9	Abnormality of forces of labor, unspecified
O63.0 - O63.9	Long labor
O64.0XX0 - O64.9XX9	Obstructed labor due to malposition and malpresentation of fetus
O65.0 - O65.9	Obstructed labor due to maternal pelvic abnormality
O66.0 - O66.9	Other obstructed labor
O67.0 - O67.9	Labor and delivery complicated by intrapartum hemorrhage, not elsewhere classified
O68	Labor and delivery complicated by abnormality of fetal acid-base balance
O69.0XX0 - O69.9XX9	Labor and delivery complicated by umbilical cord complications
O71.00 - O71.9	Other obstetric trauma
O75.0 - O75.89	Other complications of obstetric surgery and procedures
O76	Abnormality in fetal heart rate and rhythm complicating labor and delivery
077.0 - 077.9	Other fetal stress complicating labor and delivery

O82	Encounter for cesarean delivery without indication
094	Sequelae of complication of pregnancy, childbirth, and the puerperium
O98.01 - O98.93	Maternal infectious and parasitic diseases classifiable elsewhere but complicating pregnancy, childbirth and the puerperium
O9A.111 - O9A.53	Maternal malignant neoplasms, traumatic injuries and abuse classifiable elsewhere but complicating pregnancy, childbirth and the puerperium
Z37.2	Twins, both liveborn
Z37.3	Twins, one liveborn and one stillborn
Z37.4	Twins, both stillborn
Z37.50 - Z37.59	Other multiple births, all liveborn
Z37.60 - Z37.69	Other multiple births, some liveborn
Z37.7	Other multiple births, all stillborn
Z37.9	Outcome of delivery, unspecified
Z39.0 - Z39.2	Encounter for maternal postpartum care and examination
Z79.4	Long term (current) use of insulin
Z98.890	Other specified postprocedural states
Z98.891	History of uterine scar from previous surgery

Table 2		
CPT/HCPCS codes not considered medically necessary in the home:		
Code	Description	
59412	External cephalic version, with or without tocolysis	
59510	Routine obstetric care including antepartum care, cesarean delivery, and postpartum care	

59514	Cesarean delivery only
59515	Cesarean delivery only; including postpartum care
59525	Subtotal or total hysterectomy after cesarean delivery (List separately in addition to code for primary procedure)
59610	Routine obstetric care including antepartum care, vaginal delivery (with or without episiotomy, and/or forceps) and postpartum care, after previous cesarean delivery
59612	Vaginal delivery only, after previous cesarean delivery (with or without episiotomy and/or forceps)
59618	Routine obstetric care including antepartum care, cesarean delivery, and postpartum care, following attempted vaginal delivery after previous cesarean delivery
59620	Cesarean delivery only, following attempted vaginal delivery after previous cesarean delivery
59622	Cesarean delivery only, following attempted vaginal delivery after previous cesarean delivery; including postpartum care

References

- The American College of Obstetricians and Gynecologists Committee Opinion on Obstetric Practice. Planned Home Birth. Number 697. (April 2017). Reaffirmed 2023. Available at: https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2017/04/planned-home-birth
- The American College of Obstetricians and Gynecologists Committee Opinion on Obstetric Practice. Approaches to Limit Intervention During Labor and Birth. Number 766. (Feb 2019). Reaffirmed 2021. Available at: https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2019/02/approaches-to-limit-intervention-during-labor-and-birth
- 3. The American College of Obstetricians and Gynecologists Obstetric Care Consensus. Levels of Maternal Care. Number 9. (August 2019). Reaffirmed 2021. Available at: https://www.acog.org/clinical/clinical-guidance/obstetric-care-consensus/articles/2019/08/levels-of-maternal-care
- 4. The American College of Obstetricians and Gynecologists. Joint Statement of Practice Relations Between Obstetrician-Gynecologists and Certified Nurse-Midwives/Certified Midwives.

- Statement of Policy. (Reaffirmed Nov 2022).
- https://www.acog.org/clinical-information/policy-and-position-statements/statements-of-policy/2 018/joint-statement-of-practice-relations-between-ob-gyns-and-cnms
- The American College of Nurse-Midwives. (2022). Comparison of Certified Nurse Midwives, Certified Midwives, and Certified Professional Midwives. Accessed Aug 8, 2024 from https://www.midwife.org/acnm/files/cclibraryfiles/filename/000000008495/20220418_CNM-CM-CPM%20Comparison%20Chart FINAL.pdf
- 6. Bastian H, K. M. Perinatal death associated with planned home birth in Australia: population based study. *British Medical Journal*. *1998;3177*: 384-8.
- 7. Blix E, K. M. (2014, May 29). Transfer to hospital in planned home births: a systematic review. *MC Pregnancy and Childbirth*, 14, 179.
- 8. Bohren M, Hofmeyr GJ, Sakala C, et al.Continuous Support for women during childbirth. Cochrane Database Of Systematic Review. 2017;7(7). doi: 10.1002/14651858.CD003766.pub6.
- 9. Rowe, R., Townend, J., Brocklehurst, P., Knight, M., Macfarlane, A., McCourt, C., . . . Hollowell, J. (2013). Duration and urgency of transfer in births planned at home and in freestanding midwifery units in England: secondary analysis of the Birthplace national prospective cohort study. *BMC Pregnancy and Childbirth*, 13, 244.
- 10. Paranjothy, S., Watkins, W., Rolfe, K., Adappa, R., Gong, Y., Dunstan, F., & Kotecha, S. (2014). Perinatal outcomes and travel time from home to hospital: Welsh data from 1995 to 2009. *103*, e522-7.
- 11. Cheyney, M., Bovbjerg, M., Everson, C., Gordon, W., Hannibal, D., & Vedam, S. (2014, January 30). Outcomes of Care for 16,924 Planned Home Births in the United States: The Midwives Alliance of North America Statistics Project, 2004 to 2009. *Journal of Midwifery & Women's Health*, 59, 17-27.
- 12. Declercq E, Stotland NE. Planned home birth. UpToDate.com. Last updated: March 13, 2024, 2022. Retrieved 8/8/24 from https://www.uptodate.com/contents/planned-home-birth?search=home%20births&source=search_result&selectedTitle=1~39&usage_type=default&display_rank=1
- 13. Grünebaum, A., McCullough, L., Sapra, K., Brent, R., Levene, M., Arabin, B., & Chervenak, F. (2014, October). Early and total neonatal mortality in relation to birth setting in the United States, 2006-2009. *American Journal of Obstetrics and Gynecology, 211*(4), 390.e1-7.
- 14. Grünebaum, A., McCullough, L., Sapra, K., Arabin, B., & Chervenak, F. (2017, April). Planned home births: the need for additional contraindications. *Medline*, *216*(4), 401.e1-8.
- 15. Kozhimannil KB, Hardeman RR, Alarid-Escudero F, et al. Modeling the Cost-Effectiveness of Doula Care Associated with Reductions in Preterm Birth and Cesarean Delivery. *Birth.* 2016; 43(1):20-7. doi: 10.1111/birt.12218.
- 16. Landon, M., Hauth, J., Leveno, K., Spong, C., Leindecker, S., Varner, M., . . . Gabbe, S. (2004, December 16). Maternal and Perinatal Outcomes Associated with a Trial of Labor after Prior Cesarean Delivery. *New England Journal of Medicine, 351*, 2581-9.
- 17. Cunningham FG, W. C. (2017, March 31). *Patient Education: Vaginal birth after cesarean delivery (VBAC)*. Retrieved September 8/8/24 from Uptodate.com:

- https://www.uptodate.com/contents/vaginal-birth-after-cesarean-delivery-vbac-beyond-the-basic s#H1
- AAP. (2013, April). Planned Home Births. Retrieved September 6, 2017 from Pediatrics.aappublications.org: http://pediatrics.aappublications.org/content/pediatrics/early/2013/04/24/peds.2013-0575.full.pdf
- 19. Fraser AM, B. J. (1995, April 27). Association of Young Maternal Age with Adverse Reproductive Outcomes. *The New England Journal of Medicine*, *332*, 1113-8.
- 20. Jacobsson B, L. L. (2005, October). Advanced Maternal Age and Adverse Perinatal Outcome. *Obstetrics & Gynecology, 104*, 727-33.
- 21. Cleary-Goldman, J., Malone, F., Vidaver, J., Ball, R., Nyberg, D., Comstock, C., . . . D'Alton, M. (2005, May). Impact of Maternal Age on Obstetric Outcome. *Obstetrics & Gynecology, 105*, 983-90.
- 22. Chauhan SP, H. N. (1997, June). Intrapartum oligohydramnios does not predict adverse peripartum outcome among high-risk parturients. *American Journal of Obstetric Gynecology,* 176(6), 1130-8.
- 23. Mandy GT. Fetal growth restriction (FGR) and small for gestational age (SGA) newborns. .

 UpToDate.com.Last updated: Feb 5, 2024.

 https://www.uptodate.com/contents/fetal-growth-restriction-fgr-and-small-for-gestational-age-sg
 <a href="mailto:a-newborns?search=Infants%20with%20fetal%20%28intrauterine%29%20growth%20restriction&source=search_result&selectedTitle=1%7E150&usage_type=default&display_rank=1
- 24. Moses J, D. D. (2004, June). A randomized clinical trial of the intrapartum assessment of amniotic fluid volume: amniotic fluid index versus the single deepest pocket technique. *American Journal of Obstetric Gynecology, 190*(6), 1564-70.
- 25. Johnson JM, C. S. (2007, August). A comparison of 3 criteria of oligohydramnios in identifying peripartum complications: a secondary analysis. *American Journal of Obstetric Gynecology*, 197(2), 207.e1-8.
- 26. Beloosesky R, R. M. (2017, May 2). *Oligohydramnios: Etiology, diagnosis, and management in singleton gestations*. Last updated: Jul 23, 2024. Retrieved September 11, 2017 from Uptodate.com.
 - https://www.uptodate.com/contents/oligohydramnios-etiology-diagnosis-and-management-in-si ngleton-gestations?search=Oligohydramnios.&source=search_result&selectedTitle=1%7E148&u sage_type=default&display_rank=1
- 27. Khan S, D. J. (2017, February). Outcome of pregnancy in women diagnosed with idiopathic polyhydramnios. *Aust N Z J Obstet Gynaecol*, *57*(1), 57-62.
- 28. Beloosesky R, R. M. (2017, March 3). *Polyhydramnios: Etiology, diagnosis, and management in singleton gestations*. Last updated: May 2, 2024. Retrieved September 11, 2017 from Uptodate.com.
 - $https://www.uptodate.com/contents/polyhydramnios-etiology-diagnosis-and-management-in-singleton-gestations?search=Polyhydramnios.%20\&source=search_result\&selectedTitle=1\%7E125\&usage_type=default\&display_rank=1$

- 29. Wiegand SL, B. C. (2016). Idiopathic Polyhydramnios: Severity and Perinatal Morbidity. *American Journal of Perinatology*, *33*(7), 658-64.
- 30. Vanhanian SA, L. J. (2015, October). Placental implantation abnormalities and risk of preterm delivery: a systematic review and metaanalysis. *American Journal of Obstetrics and Gynecology*, 213(4), S78-S90.
- 31. Ehrenberg HM, D. L. (2003, December). Low maternal weight, failure to thrive in pregnancy, and adverse pregnancy outcomes. *American Journal of Obstetrics and Gynecology, 189*(6), 1725-1730.
- 32. Ramsey PS, S. R.-S. *Obesity in pregnancy: Complications and maternal management*. Last updated: July 10, 2024. Uptodate.com. https://www.uptodate.com/contents/obesity-in-pregnancy-complications-and-maternal-management?search=Obesity%20in%20pregnancy%3A%20Complications%20and%20maternal%20management.&source=search_result&selectedTitle=1%7E150&usage_type=default&display_rank=1
- 33. Bramham K, P. B.-P. (2014, April 15). Chronic hypertension and pregnancy outcomes: systematic review and meta-analysis. *British Medical Journal*, *348*, g2301.
- 34. Jankowski, J., & Burcher, P. (2015). Home Births of Infants with Anticipated Congenital Anomalies: A Case Study and Ethical Analysis of Careproviders' Obligations. *The Journal of Clinical Ethics*, *26*(1), 27-35.
- 35. Lee JF, N. E. (2010). Contemporary Management of Fibroids in Pregnancy. *Reviews in Obstetrics and Gynecology, 3*(1), 20-7.
- 36. Maeda A, B. B. (2014, December). Opioid abuse and dependence during pregnancy: temporal trends and obstetrical outcomes. *Anesthesiology*, 121(6), 1158.
- 37. *The Credentials CNM and CM*. (2017, September 6). From Midwife.org: http://www.midwife.org/The-Credential-CNM-and-CM.
- 38. de Jonge A, Geerts CC, van der Goes BY, et al. Perinatal mortality and morbidity up to 28 days after birth among 743,070 low-risk planned home and hospital births: A cohort study based on three merged national perinatal databases. BJOG. 2015;122(5):720-728.
- 39. Medical Board of California. Practice Guidelines for California Licensed Midwives. May 2014. Available at: http://www.mbc.ca.gov/Licensees/Midwives/midwives practice guidelines.pdf.

Clinical Guideline Revision / History Information

Original Date: 10/11/2017

Reviewed/Revised: 1/18/2018, 11/6/2018, 10/21/2019, 10/21/2020, 10/21/2021, 12/01/2021,

10/20/2022, 10/19/2023, 11/1/2024