Midwifery Provision of Home Birth Services

American College of Nurse-Midwives



The number of women in the United States choosing to give birth at home has risen substantially in the past decade, creating an increased need for understanding of the evidence regarding the provision of midwifery care to women and families considering this option. The safety of home birth has been evaluated in observational studies in several industrialized nations, including the United States. Most studies find that women who are essentially healthy at term with a singleton fetus and give birth at home have positive outcomes and a lower rate of interventions during labor. Although some studies have found increased neonatal morbidity and mortality in newborns born at home when compared to newborns born in a hospital, the absolute numbers reported in both birth sites are very low. The purpose of this clinical bulletin is to review the evidence on provision of care to women and families who plan to give birth at home, including roles and responsibilities, shared decision making, informed consent, and ongoing assessment for birth site selection.

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The American College of Nurse-Midwives (ACNM) supports the right of every family to experience childbirth in a safe environment where human dignity and self-determination are respected.¹ Every woman has the right to make an informed choice regarding the place of birth that best meets her and her newborn's health needs.¹⁻³ Midwives provide maternity care in all settings in the United States, including hospitals, birth centers, and homes. ACNM supports the choice of families to give birth at home and the role of certified nurse-midwives (CNMs) and certified midwives (CMs) to provide care in all birth settings.³ This Clinical Bulletin provides information about factors to be examined when women, families, and midwives consider home as a planned choice for the site of birth.

In the United States, the number of women who had births at home increased by 41% between 2004 and 2012.⁴ However, home births (N = 35,184) still accounted for fewer than 1.4% of all births during those years.⁴ Access to care for birth at home varies greatly in the United States depending on state and local regulations, availability of qualified health care providers,^{5,6} and systems for transport from home to hospital should a transport be needed.⁷ Despite the recent increase in the number of women planning to give birth at home, home birth has been controversial in the United States,^{2,8,9} and the level of support for planned home birth varies across professional organizations.^{2,8,9}

RESEARCH ON MATERNAL AND NEWBORN OUTCOMES FOLLOWING HOME BIRTH

The ultimate goal of all maternity care professionals and parents is a safe birth and healthy outcome for women and their newborns regardless of setting. Increasingly, women choose to

give birth at home because they believe a home setting is the safest option. 10 In population-based studies from The Netherlands, Canada, and England, researchers have not found differences in perinatal outcomes between planned home and hospital births. $^{11-14}$ However, most of these countries have integrated systems of care, and it is not clear how much the integration of care across different birth settings affects perinatal outcomes. $^{11-14}$

In December 2014 in the United Kingdom, the National Institute for Health and Care Excellence (NICE) issued guidelines entitled Intrapartum Care: Care for Healthy Women and Their Babies during Childbirth. 15 These guidelines are based on an extensive review of available scientific evidence regarding maternity care, and one of the key recommendations is that clinicians discuss planned place of birth with all pregnant women. Maternity care providers are advised to inform low-risk multiparous women that midwife-led care at home and in birth centers is recommended because the rate of intervention is less in these settings, and infant outcomes are similar when compared to outcomes of hospital birth. For low-risk nulliparous women, home birth is associated with a small increased risk of adverse neonatal outcomes (9/1000 newborns at home vs 4/1000 newborns in hospital settings). The NICE guidelines recommend that home birth be offered to low-risk nulliparous women as one of the choices for site of birth, after discussing the increased risks, in the context of informed, shared decision making.¹⁵

In studies of women who had home births in the United States, investigators have primarily used birth certificate data to compare outcomes. In these studies, women who gave birth at home had lower rates of chorioamnionitis,

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meconium staining, fetal intolerance to labor, assisted ventilation, and neonatal intensive care unit admission. ^{16–18} However, women who gave birth at home had a 2-fold to 3-fold increased risk in neonatal morbidity and mortality when compared to women who gave birth in hospitals, although the absolute risk was low. ^{16–19} Studies based on birth certificate data have limitations that confound the results, such as no differentiation between planned and unplanned home birth or type of provider. ²⁰ Using birth certificate data wherein type of provider was available, investigators who analyzed outcomes of care provided by midwives certified by the American Midwifery Certification Board found either similar outcomes between home and hospital birth or a small variance in neonatal outcomes and/or intrapartum fetal death between home and hospital birth favoring hospital birth. ^{16,19}

Other US-based studies have small sample sizes for some outcomes, limited ability to conduct intention-to-treat analysis for women who experience transfer of care, inability to control for certification status of the provider, and variable definitions of midwives within a single study. 21-24 In contrast, Cheyney et al conducted an intention-to-treat analysis with a large sample of 16,924 women who gave birth at home between 2004 and 2010.²⁵ The majority of these births (94%) were attended by certified professional midwives (CPMs), licensed midwives (LMs), licensed direct midwives (LDMs), or CNMs/CMs. Similar to the authors of other studies that analyzed birth certificate data, Cheney et al found that women who plan home births have higher rates of vaginal birth and a lower incidence of several labor complications. With regard to neonatal outcomes, after excluding lethal anomalies, the intrapartum death rate was 1.3 per 1000 births, the early neonatal mortality rate was 0.41 per 1000 births, and the late neonatal mortality rate was 0.35 per 1000 births.²⁵ In a sub-analysis, the authors analyzed high-risk conditions and found the rates of intrapartum, early neonatal, and late neonatal death in this group were higher than in the overall cohort. In addition, nulliparous women had a higher risk of intrapartum fetal death compared to multiparous women (2.92/1000 vs 0.84/1000) but no increased risk of early or late neonatal death.²⁵

PLANNING A HOME BIRTH: INFORMED CHOICE AND SHARED RESPONSIBILITY

The goal in selecting a birth setting is to identify the environment that best meets the health and social needs of the woman and her newborn. A woman with a favorable prognosis for a normal, healthy labor, birth, and postpartum course may desire the documented health benefits associated with a planned home birth attended by a midwife with appropriate education and skills. ¹⁰

Midwives provide care independently in the home for healthy women during pregnancy, labor, and birth within the parameters of setting-specific, clinical practice guidelines. Midwifery care in any setting includes ongoing clinical assessments that inform risk evaluation and clinical decision making throughout pregnancy, labor, birth, and the initial newborn and postpartum period. Consistent with the ACNM Standards for the Practice of Midwifery, Cach midwifery practice develops comprehensive clinical guidelines that address access to consultation, collaboration, and

referral that includes a process to facilitate transfer of care if necessary. $^{\!\!\!\!\!\!\!^{26}}$

ACNM recommends the use of the midwife's clinical practice guidelines as a key component of the discussion and shared decision-making process between a woman and the midwife and between the midwife and consultant physician when considering birth setting. The decision to give birth at home is made within the context of the woman's philosophy, culture, and family.¹⁰ The midwife contributes skills, experience, educational preparation, professional accountability, clinical judgment, professional ethics, relationships with other health care professionals, and knowledge of community and professional standards. Clear, transparent, and ongoing shared decision making between the midwife and the woman and her family is an essential component of care throughout the pregnancy, labor, and birth.²⁸

The availability of resources for transport and the time and distance to the nearest hospital are factors unique to the home birth setting that must be considered in birth site selection.²⁹ Planning for a home birth should be done with the understanding that choices and outcomes may depend on the resources available in any birth setting (eg, home, birth center, community hospital, tertiary care hospital)³⁰ and the proximity to those resources should a transfer of care to hospital-based personnel and equipment become necessary.^{7,29}

When meeting with a woman who is exploring the option of a planned home birth, the midwife reviews the midwife's responsibilities and the woman's role in preparing for a birth at home.³¹ Responsibilities of the midwife, which are similar in all birth settings, include the following:

- Supporting normal physiologic processes of pregnancy, birth, initial postpartum transition, mother-newborn bonding, and initiation of breastfeeding;
- Supporting a low-intervention model of care;
- Maintaining knowledge of current research and evidence about risk assessment for birth site selection;
- Providing accurate, evidence-based information to support women in making informed decisions about their care options and sites for birth;
- Ongoing monitoring for indications of potential or emergent maternal and/or fetal/neonatal complications;
- Providing necessary equipment and medications³²;
- Offering evidence-based interventions when indicated to maintain the health of the woman or newborn;
- Referring or transferring to in-hospital care when indicated^{7,29};
- Ensuring that a minimum of 2 health care professionals, who have current Neonatal Resuscitation Program (NRP) training and cardiopulmonary resuscitation (CPR) certification, are present at birth and have the necessary knowledge and skills to independently make assessments and implement needed interventions as indicated;
- Transmitting readily available, legible, pertinent maternal and newborn care information from home to hospital when a transfer is necessary⁷;
- Maintaining current certification by the American Midwifery Certification Board (AMCB) and state licensure;
- Participating in data collection, benchmarking, and peer review;

- Practicing according to the ACNM Standards for the Practice of Midwifery²⁷; and
- Adhering to the Best Practice Guidelines: Transfer from Planned Home to Hospital issued by the Home Birth

The woman planning a home birth participates as a partner in her care. Her responsibilities include the following:

- Planning for a normal, healthy, physiologic pregnancy, birth, and initial postpartum transition;
- Arranging a network of support persons to provide emotional, social, and culturally-appropriate support throughout the pregnancy, labor, birth, and postpartum;
- Acknowledging her responsibility for herself and her newborn related to her informed choice of birth site;
- Understanding and agreeing to the scope of care defined within the midwife's clinical practice guidelines for a planned birth at home;
- Preparing all family members or support persons who will be in attendance during the labor, birth, and immediate postpartum period;
- Preparing the birthing environment, including obtaining necessary supplies;
- Ensuring access to the home for the birth team with consideration for parking, weather, neighborhood, and safety; and
- Committing to open, honest, and clear communication with the midwife, including ongoing shared decision making as the events of pregnancy, labor, and birth unfold.

During pregnancy, preexisting conditions or changes in the woman's health status may require consultation, collaboration, or referral with other health care professionals to determine the potential for a spontaneous vaginal birth and a healthy newborn, in order to identify the optimal site for birth.²⁶ Similarly, during labor or after the birth, changes in the health status of the woman, fetus, or newborn may require transfer of care to a hospital to access resources that may optimize health outcomes. 7,29,30,32 The midwife's clinical practice guidelines outline the process by which consultation, collaboration, and referral occur. 26,27,32 Based on a review of the available scientific evidence, considerations for assessing optimal place of birth from ACNM are provided in Table 1 and Table 2. The needs of an individual woman, resources and limitations of a particular setting, or type of practice may appropriately lead to variations in clinical care.

ELEMENTS TO CONSIDER IN PLANNING A HOME

If a woman has a condition that increases the potential for an adverse outcome, but the available evidence is conflicting, the midwife and woman will refer to the midwife's clinical practice guidelines and use a process of shared decision making to determine the optimal plan of care. 28,34 Factors to be considered include but are not limited to the woman's complete obstetric and health history, and her current clinical condition; resources for hospital transfer; availability of consultation and/or referral; the midwife's scope of practice, experience, and skill; and access to other sites for birth.²⁷

For some conditions, conflicting evidence makes the evaluation of the harms, benefits, safety, and risks associated with

Table 1. Conditions Indicating Increased Risk Suggesting Planned Birth in a Hospital Setting^{a, l}

Prior pregnancy conditions

Previous stillbirth or neonatal death related to intrapartum

Primary postpartum hemorrhage requiring additional proceduresc

Prior cesarean birth

Shoulder dystocia with resulting injury

Current pregnancy conditions

Active preterm labor (before 37 0/7 weeks' gestation) or preterm, prelabor rupture of membranes

Essential or gestational hypertension^d

Evidence of congenital fetal anomalies requiring immediate assessment and/or management by a neonatal specialist

Fetal growth restriction <5th percentile

Insulin dependent diabetes or gestational diabetes requiring pharmacologic management

Malpresentation: breech, transverse lie

Need for pharmacologic induction of labor

Postterm pregnancy more than 41 6/7 weeks' gestation

Multiple gestation

Oligohydramnios with additional complicating factors

Polyhydramnios

Placenta previa in the third trimester

Placental abruption

Preeclampsia^e

Rh isoimmunization

Medical conditions

Evidence of active infection with hepatitis, HIV, genital herpes, syphilis, or tuberculosis

Psychiatric conditions that may affect intrapartum care management or maternal or neonatal transition following

Substantial medical conditions that have required acute medical supervision during the pregnancy and that could impact the birth such as cardiac disease, epilepsy, thromboembolic disease, hemoglobinopathy

Substance abuse/dependence

^aThis list is not exhaustive.
^bOther obstetric or medical conditions may occur during pregnancy that warrant consultation, collaboration, or referral to determine the optimal site for the birth. Risk assessment for an individual woman may vary based on her prior medical, surgical, and obstetric history as well as resources available for hospital access within her community. Individual midwifery practice guidelines and/or client and/or midwife discretion will affect informed, shared decision making about the selection of site of birth, and this process will be documented.

^cSuch as Bakri-balloon, dilation and curettage, transfusion, and manual removal of

placenta. $^{\rm d}$ Diagnosis of gestational hypertension is made following 2 blood pressure recordings 4 hours apart of >140/90 mmHg after 20 weeks' gestation in a woman who was previously normotensive.33

Foliagnosis of preeclampsia is made following 2 blood pressure recordings 4 hours apart of >140/90 mmHg after 20 weeks' gestation in a woman who was previously normotensive and has proteinuria. Dipstick reading of 1+ can be used if other techniques for detecting proteinuria are not available. Diagnosis can be made in minutes if blood pressure is ≥160/110 mmHg. Hypertension and thrombocytopenia, renal insufficiency, impaired liver function, pulmonary edema, and/or cerebral or visual symptoms may be used for the diagnosis in the absence of proteinuria.33

Table 2. Intrapartum, Postpartum, and Newborn Conditions that are Indications for Transfer from Home to a Hospital^a

Intrapartum indications^b

Malpresentation: breech, transverse lie identified during labor Development of signs or symptoms of gestational hypertension^c or preeclampsia^d

Evidence of chorioamnionitise

Evidence of fetal intolerance of labor or persistent Category II fetal heart tones^f that are unresponsive to intrauterine resuscitation when birth is not imminent or in the presence of meconium

Need for pharmacologic augmentation of labor Signs of placental abruption or unexplained increased vaginal bleeding

Postpartum indications

Management of lacerations beyond the expertise of the attending midwife

Postpartum hemorrhage unresponsive to initial treatments

Retained placenta

Unexplained vaginal bleeding

Newborn indications

Unstable health status

^aOther obstetric or medical conditions may occur during pregnancy that warrant consultation, collaboration, or referral to determine the optimal site for the birth. Risk assessment for an individual woman may vary based on her prior medical, surgical, and obstetric history as well as resources available for hospital access within her community. Individual midwifery practice guidelines and/or client and/or midwife discretion will affect informed, shared decision making about the selection of site of birth, and this process will be documented. bWhen birth is imminent, careful consideration of the potential effect of transport

on best practice management must be a priority consideration.

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**Chorioamnionitis is defined clinically as maternal fever of > 38°C or >100.4°F with maternal tachycardia (>100 bpm) and/or fetal tachycardia (>160 bpm).

Guidelines for intermittent auscultation are detailed in: American College of Nurse-Midwives, Clinical bulletin no. 13. Intermittent auscultation for intrapartum fetal heart rate surveillance. J Midwifery Womens Health. 2015;60(5):626-632.

home birth challenging. For example, lack of access to planned vaginal birth after cesarean (VBAC) in hospitals has been a leading reason why some women who have had a cesarean birth pursue home births.35 The primary concern for women with a prior cesarean birth is the risk of uterine rupture.³⁶ It has been argued that labor management in a woman's home does not include care practices that increase the risk of uterine rupture, such as induction or augmentation of labor. 37,38 Practices commonly used at home births, such as freedom of movement and continuous labor support, are independently associated with increased success for vaginal birth in general and may also contribute to the increased success of VBAC documented in home birth studies. 39-41

In the process of informed consent and shared decision making regarding place of birth, risk stratification in response to a woman's individual risk factors is important. 39,42 The aggregate incidence of uterine rupture after one prior cesarean birth is 4 to 8 per 1000 for women at term who enter labor spontaneously. 36,43 Of the women who have a uterine rupture, approximately 2 per 100 will result in a perinatal death.³⁶ This means that approximately 2 perinatal deaths will occur per 10,000 women who undergo labor after a prior cesarean at term.³⁶ The uterine rupture rate for women with a prior cesarean who give birth at home is similar to that of women who give birth in the hospital, 39,44 yet the neonatal morbidity and mortality is higher for women who give birth at home. 25,39 In addition, the risk of neonatal morbidity or mortality for a woman who had a previous cesarean varies based on whether she had a subsequent vaginal birth after the cesarean or if she had ever had a vaginal birth. 39 Work needs to be done to make care for women who desire a planned VBAC accessible and supported in hospital settings, including access to midwives for this care. 45 In addition, implementation of evidence-based labor care practices in hospital settings will further support women who undergo a trial of labor after cesarean (TOLAC) to have a successful VBAC.46

TRANSFER FROM THE HOME TO A HOSPITAL **SETTING**

Midwifery management during home birth includes planning for unexpected contingencies in order to provide timely interventions and seamless access to consultation, interprofessional collaboration, and respectful hospital-based health care providers when needed.^{7,29} In the United States, approximately 9 to 13 of every 100 women planning a home birth will transfer to a hospital setting after the onset of labor at home. 11-13,25 The majority of maternal and newborn transfers are not urgent.²⁹ The most common reasons for transfer among nulliparous women are the need or request for pharmacologic pain management and failure to progress or labor dystocia. 25,29 ACNM endorses the Best Practice Guidelines: Transfer from Planned Home Birth to Hospital.⁷ Variations in guidelines may occur based on local standards, regulations, available transportation, access to integrated systems of care, and/or the skill and experience of the midwife, hospital-based consultants, and other health care professionals as needed. Integration of care across birth sites, access to interprofessional collaboration, and respectful care are key components for the provision of high-quality services.7

In the rare circumstance of a serious condition that develops quickly, the midwife stabilizes the woman and/or newborn while hospital transport is arranged. During transport, the midwife works within local standards for emergency medical services and provides skilled urgent care. On arrival at the hospital, the midwife reports the condition of the woman and/or newborn to the appropriate hospital staff who may assume care. When possible, the midwife should accompany the woman during transport to the hospital and bring the woman's and/or the newborn's medical records. If the midwife does not accompany the woman during transfer, this may be considered client abandonment.⁴⁷ When emergency medical service standards do not permit the midwife to accompany the woman directly, other transportation to the hospital should be arranged for the midwife to facilitate the transfer of care and provide access to the woman's and/or the newborn's medical records.⁷

ETHICAL PRACTICE

The midwife's ongoing relationship with the woman is informed by the ethical principles of autonomy, beneficence, nonmaleficence, and justice. Midwives are ethically responsible to provide information to a woman and her family when making decisions about the choice of birth setting. Home, birth center, and hospital settings have different resources that can benefit a woman or her newborn.^{2,30} It is the midwife's ethical responsibility to provide information about the services the midwife can provide to the woman and her fetus or newborn as the clinical condition evolves. The midwife acknowledges the woman's autonomy in making decisions about her health care that may or may not align with the midwife's recommendations. If a woman makes a decision that calls for care that is outside of the midwife's scope of practice or clinical guidelines, the midwife and woman must discuss what continuing role the midwife will or will not play in her care.

Optimally, the need to change the plan of care or site of birth is identified early in a woman's pregnancy or early in labor so that time is available for exchanging and processing information. This provides greater opportunity to identify the best options to meet the needs of the woman and her fetus/newborn, including other providers or locations for care as needed. Clear communication and a strong relationship between the woman and midwife reduce the likelihood that the woman will decline the midwife's recommendation for consultation, referral, or transfer to another provider or a hospital.²⁸ If a woman declines the midwife's recommendation for transfer of care in urgent situations, the midwife has an ethical obligation to maintain safe standards of care, potentially including continued provision of care until other resources, providers, or transport can be agreed upon.⁴⁷

Peer Review in Home Birth Practice

Standard VII of the ACNM Standards for the Practice of Midwifery²⁷ stipulates that all midwives participate in peer review. In the United States, laws and regulations regarding protection of the peer review process for home birth providers vary by state. Many states do not protect peer review for practitioners who are not part of an organized health system. Midwives in those states should refer to the ACNM Home Birth Practice Handbook,³² the ACNM Affiliate Peer Review Program sample,⁴⁸ and the ACNM Administrative Manual for Midwifery Practices⁴⁹ to consider alternative options for quality management and peer review approaches. ACNM continues to advocate for mechanisms that ensure protection of peer review for providers who care for women in all birth sites in all states.

CONCLUSION

Home birth provides an unequaled opportunity to investigate physiologic birth, examine the importance of criteria currently used to select birth settings, establish an evidence base for the essential components of midwifery care, and document long-term consequences of birth experiences and

birth outcomes in relation to place of birth.^{50–53} An annotated bibliography of home birth literature is updated regularly and provides reviews of the available evidence.⁵³ International and US research results support the conclusion that planned home birth with an educated, skilled attendant can be a safe, satisfying, cost-effective care option for healthy, low-risk women who want to give birth at home.

DISCLAIMER

This document is specific to considerations regarding home birth. This Clinical Bulletin is not intended to dictate an exclusive course of management or to substitute for individual professional judgment. It presents recognized methods and techniques of clinical practice that midwives may consider incorporating into their practices. The needs of an individual woman or the resources and limitations of a particular setting or type of practice may appropriately lead to variations in clinical care.

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