



POLICY STATEMENT

Planned Home Birth

abstract

FREE

The American Academy of Pediatrics concurs with the recent statement of the American College of Obstetricians and Gynecologists affirming that hospitals and birthing centers are the safest settings for birth in the United States while respecting the right of women to make a medically informed decision about delivery. This statement is intended to help pediatricians provide supportive, informed counsel to women considering home birth while retaining their role as child advocates and to summarize the standards of care for newborn infants born at home, which are consistent with standards for infants born in a medical care facility. Regardless of the circumstances of his or her birth, including location, every newborn infant deserves health care that adheres to the standards highlighted in this statement, more completely described in other publications from the American Academy of Pediatrics, including *Guidelines for Perinatal Care*. The goal of providing high-quality care to all newborn infants can best be achieved through continuing efforts by all participating health care providers and institutions to develop and sustain communications and understanding on the basis of professional interaction and mutual respect throughout the health care system. *Pediatrics* 2013;131:1016–1020

INTRODUCTION

Women and their families may desire a home birth for a variety of reasons, including hopes for a more family-friendly setting, increased control of the process, decreased obstetric intervention, and lower cost. Although the incidence of home birth remains below 1% of all births in the United States, the rate of home birth has increased during the past several years for white, non-Hispanic women.¹ However, a woman's choice to plan a home birth is not well supported in the United States. Obstacles are pervasive and systemic and include wide variation in state laws and regulations, lack of appropriately trained and willing providers, and lack of supporting systems to ensure the availability of specialty consultation and timely transport to a hospital. Geography also may adversely affect the safety of planned home birth, because travel times >20 minutes have been associated with increased risk of adverse neonatal outcomes, including mortality.² Whether for these reasons or others, planned home birth in the United States appears to be associated with a two- to threefold increase in neonatal mortality or an absolute risk increase of approximately 1 neonatal death per 1000 nonanomalous live births.^{3–5} Evidence also suggests that infants born at home in the United States

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KEY WORDS

birth, delivery, newborn infant, home birth, midwife, obstetrician, pediatrician

ABBREVIATIONS

ACOG—American College of Obstetricians and Gynecologists

AAP—American Academy of Pediatrics

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The recommendations in this statement do not indicate an exclusive course of treatment or serve as a standard of medical care. Variations, taking into account individual circumstances, may be appropriate.

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have an increased incidence of low Apgar scores and neonatal seizures.^{3,4} In contrast, a smaller study of all planned home births attended by midwives in British Columbia, Canada, from 2000 to 2004 revealed no increase in neonatal mortality over planned hospital births attended by either midwives or physicians.⁶ Registered midwives in British Columbia are mandated to offer women the choice to deliver in a hospital or at home if they meet the eligibility criteria for home birth defined by the College of Midwifery of British Columbia (Table 1).

In a recent position statement, the Committee on Obstetric Practice of the American College of Obstetricians and Gynecologists (ACOG) stated, “although the Committee on Obstetric Practice believes that hospitals and birthing centers are the safest setting for birth, it respects the right of a woman to make a medically informed decision about delivery. Women inquiring about planned home birth should be informed of its risks and benefits based on recent evidence.”⁷ The statement reviewed appropriate candidates for home delivery and outlined the health care system components “critical to reducing perinatal mortality rates and achieving favorable home birth outcomes” (Table 1).

Pediatricians must be prepared to provide supportive, informed counsel to women considering home birth while retaining their role as child advocates in assessing whether the situation is appropriate to support a planned home birth (Table 1). In addition to apprising the expectant mother of the increase in neonatal mortality and other neonatal complications with planned home birth, the pediatrician should advise her that the American Academy of Pediatrics (AAP) and ACOG support provision of care only by midwives who are certified by the American Midwifery Certification Board and should make her aware that some women who plan to deliver at home will need transfer to a hospital before delivery because of unanticipated complications. This percentage varies widely among reports, from approximately 10% to 40%, with a higher transfer rate for primiparous women.^{8,9} The mother should be encouraged to see successful transfer not as a failure of the home birth but rather as a success of the system.

Care of the newborn infant born at home is a particularly important topic, because infants born at home are cared for outside the safeguards of the systems-based protocols required of

hospitals and birthing centers. This situation places a larger burden on individual health care providers to remember and carry out all components of assessment and care of the newborn infant. To assist providers, this policy statement addresses 2 specific areas: resuscitation and evaluation of the newborn infant immediately after birth and essential elements of care and follow-up for the healthy term newborn infant.

ASSESSMENT, RESUSCITATION, AND CARE OF THE NEWBORN INFANT IMMEDIATELY AFTER BIRTH

As recommended by the AAP and the American Heart Association, there should be at least 1 person present at every delivery whose primary responsibility is the care of the newborn infant.¹⁰ Situations in which both the mother and the newborn infant simultaneously require urgent attention are infrequent but will nonetheless occur. Thus, each delivery should be attended by 2 individuals, at least 1 of whom has the appropriate training, skills, and equipment to perform a full resuscitation of the infant in accordance of the principles of the Neonatal Resuscitation Program.¹⁰ To facilitate obtaining emergency assistance when needed, the operational integrity of the telephone or other communication system should be tested before the delivery (as should every other piece of medical equipment), and the weather should be monitored. In addition, a previous arrangement with a medical facility needs to be in place to ensure a safe and timely transport in the event of an emergency.

Care of the newborn infant immediately after delivery should adhere to standards of practice as described in *Guidelines for Perinatal Care*¹¹ and include provision of warmth, initiation of appropriate resuscitation measures,

TABLE 1 Recommendations When Considering Planned Home Birth

Candidate for home delivery^a

- Absence of preexisting maternal disease
- Absence of significant disease occurring during the pregnancy
- A singleton fetus estimated to be appropriate for gestational age
- A cephalic presentation
- A gestation of 37 to <41 completed weeks of pregnancy
- Labor that is spontaneous or induced as an outpatient
- A mother who has not been referred from another hospital

Systems needed to support planned home birth

- The availability of a certified nurse-midwife, certified midwife, or physician practicing within an integrated and regulated health system
- Attendance by at least 1 appropriately trained individual (see text) whose primary responsibility is the care of the newborn infant
- Ready access to consultation
- Assurance of safe and timely transport to a nearby hospital with a preexisting arrangement for such transfers

Data are from refs 6, 7, 10, 11, and 13.

^a ACOG considers previous cesarean delivery to be an absolute contraindication to planned home birth.⁷

and assignment of Apgar scores. Although skin-to-skin contact with mother is the most effective way to provide warmth, portable warming pads should be available in case a newborn infant requires resuscitation and cannot be placed on the mother's chest. A newborn infant who requires any resuscitation should be monitored frequently during the immediate post-natal period, and infants who receive extensive resuscitation (eg, positive-pressure ventilation for more than 30–60 seconds) should be transferred to a medical facility for close monitoring and evaluation. In addition, any infant who has respiratory distress, continued cyanosis, or other signs of illness should be immediately transferred to a medical facility.

CARE OF THE NEWBORN

Subsequent newborn care should adhere to the AAP standards as described in *Guidelines for Perinatal Care* as well as to the AAP statement regarding care of the well newborn infant.^{11–13} Although a detailed review of these standards would be far too lengthy to include in this statement, a few practice points are worthy of specific mention:

- **Transitional care (first 4–8 hours):** The infant should be kept warm and undergo a detailed physical examination that includes an assessment of gestational age and intrauterine growth status (weight, length, and head circumference), as well as a comprehensive risk assessment for neonatal conditions that require additional monitoring or intervention. Temperature, heart and respiratory rates, skin color, peripheral circulation, respiration, level of consciousness, tone, and activity should be monitored and recorded at least once every 30 minutes until the newborn's condition is considered normal and has remained stable for 2 hours. An infant who is thought to be <37 weeks' gestational age should be transferred to a medical facility for continuing observation for conditions associated with prematurity, including respiratory distress, poor feeding, hypoglycemia, and hyperbilirubinemia, as well as for a car safety seat study.
- **Monitoring for group B streptococcal disease:** As recommended by the Centers for Disease Control and Prevention and the AAP, all pregnant women should be screened for group B streptococcal colonization at 35 to 37 weeks of gestation.¹⁴ Women who are colonized should receive ≥ 4 hours of intravenous penicillin, ampicillin, or cefazolin. If the mother has received this intrapartum treatment and both she and her newborn infant remain asymptomatic, they can remain at home if the infant can be observed frequently by an experienced and knowledgeable health care provider. If the mother shows signs of chorioamnionitis or if the infant does not appear completely well, the infant should be transferred rapidly to a medical facility for additional evaluation and treatment.¹⁴
- **Glucose screening:** Infants who have abnormal fetal growth (estimated to be small or large for gestational age) or whose mothers have diabetes should be delivered in a hospital or birthing center because of the increased risk of hypoglycemia and other neonatal complications. If, after delivery, an infant is discovered to be small or large for gestational age or has required resuscitation, he or she should be screened for hypoglycemia as outlined in the AAP statement.¹⁵ If hypoglycemia is identified and persists after feeding (glucose <45 mg/dL), the infant should be transferred promptly to a medical facility for continuing evaluation and treatment.
- **Eye prophylaxis:** Every newborn infant should receive prophylaxis against gonococcal ophthalmia neonatorum.
- **Vitamin K:** Every newborn infant should receive a single parenteral dose of natural vitamin K₁ oxide (phytonadione [0.5–1 mg]) to prevent vitamin K–dependent hemorrhagic disease of the newborn. Oral administration of vitamin K has not been shown to be as efficacious as parenteral administration for the prevention of late hemorrhagic disease. This dose should be administered shortly after birth but may be delayed until after the first breastfeeding.
- **Hepatitis B vaccination:** Early hepatitis B immunization is recommended for all medically stable infants with a birth weight >2 kg.
- **Assessment of feeding:** Breastfeeding, including observation of position, latch, and milk transfer, should be evaluated by a trained caregiver. The mother should be encouraged to record the time and duration of each feeding, as well as urine and stool output, during the early days of breastfeeding.
- **Screening for hyperbilirubinemia:** Infants whose mothers are Rh negative should have cord blood sent for a Coombs direct antibody test; if the mother's blood type is O, the cord blood may be tested for the infant's blood type and direct antibody test, but it is not required provided that there is appropriate surveillance, risk assessment, and follow-up.¹⁶ All newborn infants should be assessed for risk of hyperbilirubinemia and undergo bilirubin screening between 24 and 48 hours. The bilirubin value should be plotted on the

hour-specific nomogram to determine the risk of severe hyperbilirubinemia and the need for repeat determinations.¹³

- **Universal newborn screening:** Every newborn infant should undergo universal newborn screening in accordance with individual state mandates, with the first blood specimen ideally collected between 24 and 48 hours of age. (A list of conditions for which screening is performed in each state is maintained online by the National Newborn Screening and Genetic Resource Center, available at <http://genes-r-us.uthscsa.edu/resources/consumer/statemap.htm>.)
- **Hearing screening:** The newborn infant's initial caregiver should ensure that the hearing of any infant born outside the hospital setting is screened by 1 month of age, in accordance with AAP recommendations.
- **Provision of follow-up care:** Comprehensive documentation and communication with the follow-up provider are essential. Written records should describe prenatal care, delivery, and immediate postnatal course, clearly documenting which screenings and medications have been provided by the birth attendant, and which remain to be performed. All newborn infants should be evaluated by a health care professional who is knowledgeable and experienced in pediatrics within 24 hours of birth and subsequently within 48 hours of

that first evaluation. The initial follow-up visit should include infant weight and physical examination, especially for jaundice and hydration. If the mother is breastfeeding, the visit should include evaluation of any maternal history of breast problems (eg, pain or engorgement), infant elimination patterns, and a formal observed evaluation of breastfeeding, including position, latch, and milk transfer. The results of maternal and neonatal laboratory tests should be reviewed; clinically indicated tests, such as serum bilirubin, should be performed; and screening tests should be completed in accordance with state regulations. Screening for congenital heart disease should be performed by using oxygen saturation testing as recommended by the AAP.¹⁷

CONCLUSIONS

The AAP concurs with the recent position statement of the ACOG, affirming that hospitals and birthing centers are the safest settings for birth in the United States, while respecting the right of women to make a medically informed decision about delivery.⁷ In addition, the AAP in concert with the ACOG does not support the provision of care by lay midwives or other midwives who are not certified by the American Midwifery Certification Board.⁷

Regardless of the circumstances of his or her birth, including location, every newborn infant deserves health care

that adheres to the standards highlighted in this statement and more completely described in other AAP publications.^{11–16} The goal of providing high-quality care to all newborn infants can best be achieved through continuing efforts by all participating providers and institutions to develop and sustain communications and understanding on the basis of professional interaction and mutual respect throughout the health care system.

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REFERENCES

1. MacDorman MF, Mathews TJ, Declercq E. Home births in the United States, 1990–2009. *NCHS Data Brief*. 2012;Jan(84):1–8
2. Ravelli AC, Jäger KJ, de Groot MH, et al. Travel time from home to hospital and adverse perinatal outcomes in women at term in the Netherlands. *BJOG*. 2011;118(4):457–465
3. Malloy MH. Infant outcomes of certified nurse midwife attended home births: United States 2000 to 2004. *J Perinatol*. 2010;30(9):622–627
4. Chang JJ, Macones GA. Birth outcomes of planned home births in Missouri: a population-based study. *Am J Perinatol*. 2011;28(7):529–536
5. Wax JR, Lucas FL, Lamont M, Pinette MG, Cartin A, Blackstone J. Maternal and newborn

- outcomes in planned home birth vs planned hospital births: a meta-analysis [published correction appears in *Am J Obstet Gynecol*. 2011;204(4):e7–e13]. *Am J Obstet Gynecol*. 2010;203(3):243.e1–243.e8
6. Janssen PA, Saxell L, Page LA, Klein MC, Liston RM, Lee SK. Outcomes of planned home birth with registered midwife versus planned hospital birth with midwife or physician [published correction appears in *CMAJ*. 2009;181(9):617]. *CMAJ*. 2009;181(6–7):377–383
 7. ACOG Committee on Obstetric Practice. ACOG Committee opinion no. 476: planned home birth [published correction appears in *Obstet Gynecol*. 2011;117(5):1232]. *Obstet Gynecol*. 2011;117(2 pt 1):425–428
 8. Lindgren HE, Rådestad IJ, Hildingsson IM. Transfer in planned home births in Sweden—effects on the experience of birth: a nationwide population-based study. *Sex Reprod Healthc*. 2011;2(3):101–105
 9. Symon A, Winter C, Inkster M, Donnan PT. Outcomes for births booked under an independent midwife and births in NHS maternity units: matched comparison study. *BMJ*. 2009;Jun 11(338):b2060
 10. Kattwinkel J, Perlman JM, Aziz K, et al; American Heart Association. Neonatal resuscitation: 2010 American Heart Association guidelines for cardiopulmonary resuscitation and emergency cardiovascular care. *Pediatrics*. 2010;126(5). Available at: www.pediatrics.org/cgi/content/full/126/5/e1400
 11. American Academy of Pediatrics; American College of Obstetricians and Gynecologists. Care of the newborn. In: Riley LE, Stark AR, Kilpatrick SJ, Papile L-A, eds. *Guidelines for Perinatal Care*. 7th ed. Elk Grove Village, IL: American Academy of Pediatrics; 2012:265–320
 12. American Academy of Pediatrics Committee on Fetus and Newborn. Hospital stay for healthy term newborns. *Pediatrics*. 2010;125(2):405–409
 13. American Academy of Pediatrics; American College of Obstetricians and Gynecologists. Neonatal complications and management of high-risk infants. In: Riley LE, Stark AR, Kilpatrick SJ, Papile L-A, eds. *Guidelines for Perinatal Care*. 7th ed. Elk Grove Village, IL: American Academy of Pediatrics; 2012:321–382
 14. Baker CJ, Byington CL, Polin RA; Committee on Infectious Diseases; Committee on Fetus and Newborn. Policy statement—recommendations for the prevention of perinatal group B streptococcal (GBS) disease. *Pediatrics*. 2011;128(3):611–616
 15. Adamkin DH; Committee on Fetus and Newborn. Postnatal glucose homeostasis in late-preterm and term infants. *Pediatrics*. 2011;127(3):575–579
 16. American Academy of Pediatrics Subcommittee on Hyperbilirubinemia. Management of hyperbilirubinemia in the newborn infant 35 or more weeks of gestation [published correction appears in *Pediatrics*. 2004;114(4):1138]. *Pediatrics*. 2004;114(1):297–316
 17. Kemper AR, Mahle WT, Martin GR, et al. Strategies for implementing screening for critical congenital heart disease. *Pediatrics*. 2011;128(5). Available at: www.pediatrics.org/cgi/content/full/128/5/e1259

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