POLICY STATEMENT Organizational Principles to Guide and Define the Child Health Care System and/or Improve the Health of all Children

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Hospital Stay for Healthy Term Newborn Infants

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abstract

The hospital stay of the mother and her healthy term newborn infant should be long enough to allow identification of problems and to ensure that the mother is sufficiently recovered and prepared to care for herself and her newborn at home. The length of stay should be based on the unique characteristics of each mother-infant dyad, including the health of the mother, the health and stability of the newborn, the ability and confidence of the mother to care for herself and her newborn, the adequacy of support systems at home, and access to appropriate follow-up care in a medical home. Input from the mother and her obstetrical care provider should be considered before a decision to discharge a newborn is made, and all efforts should be made to keep a mother and her newborn together to ensure simultaneous discharge.

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PURPOSE

The purpose of this policy statement is to review issues related to length of stay and readmission of healthy term newborns and to identify specific criteria that should be met to ensure that discharge and subsequent follow-up are appropriate.

BACKGROUND

The hospital stay of the mother and her healthy term newborn infant (mother-infant dyad) should be long enough to allow identification of problems and to ensure that the mother is sufficiently recovered and prepared to care for herself and her newborn at home. Many neonatal cardiopulmonary problems related to the transition from the intrauterine to the extrauterine environment usually become apparent during the first 12 hours after birth.[1] Other neonatal problems, such as jaundice,[2,3] ductal-dependent cardiac lesions,[4,5] and gastrointestinal obstruction,[6] may require a longer period of observation by skilled health care professionals.[7] Likewise, significant maternal complications, such as endometritis, may not become apparent during the first day after delivery.

The average length of stay of the mother-infant dyad after delivery declined steadily from 1970 until the mid-1990s.[8] Early newborn

discharge was implemented in the 1990s, but in response to the ensuing debate on the care and safety of mothers and their infants, most states and the US Congress enacted legislation that ensured hospital stay for up to 48 hours for a vaginal delivery and up to 96 hours after birth by cesarean delivery. Several subsequent studies have reported that the postpartum length-of-stay legislation has led to an increase in postpartum length of stay, but the impact of this increase in length of stay on the rate of neonatal readmissions has been inconsistent.[8–11]

Risk of Readmission

Criteria for newborn discharge include physiologic stability, family preparedness and competence to provide newborn care at home, availability of social support, and access to the health care system and resources. An inadequate assessment by health care providers in any of these areas before discharge can place an infant at risk and may result in readmission. In several large epidemiologic studies, readmission rates were used to assess the adequacy of the newborn hospital length of stay. In these reports, readmissions after an early discharge varied from no increase to a significant increase.[8,12–15] However, the differences in the definition of early discharge, postdischarge follow-up and support, and the timing of readmissions make it difficult to compare the results. In some of these studies, the risk factors for readmission to identify infants who may benefit from either a longer hospital stay or close postdischarge follow-up also were evaluated. These studies identified jaundice, dehydration, and feeding difficulties as the most common reasons for readmission.[16,17] Other frequently reported risk factors for readmission were Asian race, primiparity, associated maternal morbidities, shorter gestation or lower birth weight, instrumented vaginal delivery, and small size for gestational age.[13,15–18] Close follow-up and better coordination of postdischarge care were important factors in decreasing the readmission rates.[13,17]

Readiness for Discharge

Readiness for discharge of a healthy term infant is traditionally determined by pediatric care providers after a review of the mother's and family members' ability to provide care to a newborn infant at home. However, perceptions about the degree of readiness at the time of discharge often differ among pediatric care providers, obstetrical care providers, and mothers.[18] Factors associated with perceived unreadiness for maternal or neonatal discharge, primarily as reported by mothers themselves, include first live birth, maternal history of chronic disease or illness after birth, in-hospital neonatal illness, intent to breastfeed, mothers with inadequate prenatal care and poor social support, and black non-Hispanic maternal race.[13,18] Although no specific clinical tool is currently available to evaluate mothers' or families' perception of readiness for discharge after delivery, the American Academy of Pediatrics Safe and Healthy Beginnings toolkit contains a discharge-readiness checklist that can aid clinicians with preparation of a newborn for discharge. This tool was tested by 22 clinical practice teams during the Safe and Healthy Beginnings improvement project and focuses on risk for severe hyperbilirubinemia, availability of breastfeeding support, and coordination of newborn care.[19] All efforts should be made to keep mothers and infants together to promote simultaneous discharge. To accomplish this, a pediatric care provider's decision to discharge a newborn should be made jointly with input from the mother, her obstetrical care provider, and other health care providers, such as nursing staff and social workers, who are involved in the care of the mother and her infant.

RECOMMENDATIONS

The length of stay of a healthy term newborn should be based on the unique characteristics of each mother-infant dyad, including the health of the mother, the health and stability of the infant, the ability and confidence of the mother to care for her infant, the adequacy of support systems at home, and access to appropriate follow-up care. Input from the mother and her obstetrical care provider and nursing staff should be considered before a decision to discharge a newborn is made, and all efforts should be made to keep a mother and her newborn together to encourage on-demand breastfeeding and to ensure simultaneous discharge. It is recommended that the following minimum criteria be met before discharge of a term newborn, defined as an infant born between 37-0/7 and 41-6/7 weeks of gestation[20] after an uncomplicated pregnancy, labor, and delivery.

1. Clinical course and physical examination reveal no abnormalities that require continued hospitalization.
2. The infant's vital signs are documented as being within normal ranges, with appropriate variations based on physiologic state, and stable for the 12 hours preceding discharge. These ranges include an axillary temperature of 36.5°C to 37.4°C (97.7–99.3°F, measured properly in an open crib with appropriate clothing),[21] a respiratory rate below 60 per minute[22] and no other signs of respiratory distress, and an awake heart rate of 100 to 190 beats per minute.[23] Heart rates as low as 70 beats per minute while sleeping quietly, without signs of circulatory compromise and responding appropriately to activity, also are acceptable. Sustained heart rates near or above the upper end of this range may require further evaluation.

3. The infant has urinated regularly and passed at least 1 stool spontaneously.
4. The infant has completed at least 2 successful feedings. If the infant is breastfeeding, a caregiver knowledgeable in breastfeeding, latch, swallowing, and infant satiety should observe an actual feeding and document successful performance of these tasks in the medical record.[24] If the infant is bottle-feeding, it is documented that the newborn is able to coordinate sucking, swallowing, and breathing while feeding.
5. There is no evidence of excessive bleeding at the circumcision site for at least 2 hours.
6. The clinical significance of jaundice, if present before discharge, has been determined, and appropriate management and/or follow-up plans have been instituted as recommended in American Academy of Pediatrics clinical practice guidelines for management of hyperbilirubinemia.[2]
7. The infant has been adequately evaluated and monitored for sepsis on the basis of maternal risk factors and in accordance with current guidelines for management of neonates with suspected or proven early-onset sepsis.[25]
8. Maternal and infant laboratory tests are available and have been reviewed, including the following:
   - maternal syphilis, hepatitis B surface antigen, and HIV status; and
   - umbilical cord or newborn blood type and direct Coombs test result, if clinically indicated.[2]
9. Initial hepatitis B vaccine has been administered as indicated by the infant's risk status and according to the current immunization schedule.[26]
10. If the mother has not previously been vaccinated, she should receive tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis, adsorbed (Tdap) vaccine immediately after the infant is born. Other adolescents and adults who will have or anticipate having close contact with the infant should be encouraged to receive a single dose of Tdap if they have not previously received Tdap.[27] If a mother who delivers during the flu season has not been previously immunized, she also should receive an influenza vaccination.[28]
11. Newborn metabolic,[29] hearing,[30,31] and pulse oximetry[32–34] screenings have been completed per hospital protocol and state regulations. If screening metabolic tests were performed before 24 hours of milk feeding, a system for repeating the test during the follow-up visit must be in place in accordance with local or state policy.
12. The mother's knowledge, ability, and confidence to provide adequate care for her infant are documented by the fact that training and information has been received in the following areas:
    - the importance and benefits of breastfeeding for both mother and infant;
    - appropriate urination and stooling frequency for the infant;
    - umbilical cord, skin, and newborn genital care, as well as temperature assessment and measurement with a thermometer;
    - signs of illness and common infant problems, particularly jaundice;
    - infant safety, such as use of an appropriate car safety seat, supine positioning for sleeping, maintaining a smoke-free environment, and sleeping in proximity but not bed-sharing[35,36]; and
    - hand hygiene, especially as a way to reduce infection.
13. A car safety seat appropriate for the infant's maturity and medical condition that meets Federal Motor Vehicle Safety Standard 213 has been obtained and is available before hospital discharge, and the mother has demonstrated to trained hospital personnel appropriate infant positioning and use.
14. Family members or other support persons, including health care providers who are familiar with newborn care and are knowledgeable about lactation and the recognition of jaundice and dehydration, are available to the mother and infant after discharge.
15. A physician-directed source of continuing health care (medical home) for the mother and infant has been identified. Instructions to follow in the event of a complication or emergency have been provided. The mother should know how to reach the medical home and should have scheduled the infant's first visit, if possible, or know how to do so.
16. Family, environmental, and social risk factors have been assessed, and the mother and her other family members have been educated about safe home environment. When the following or other risk factors are present, discharge should be delayed until they are resolved or a plan to safeguard the newborn is in place. This plan may involve discussions with social services and/or state agencies, such as child protective services. These risk factors may include, but are not limited to the following:
    - untreated parental use of illicit substances or positive urine

toxicology results in the mother or newborn consistent with maternal abuse or misuse of drugs;

- history of child abuse or neglect by any anticipated care provider;
- mental illness in a parent or another person in the home;
- lack of social support, particularly for single, first-time mothers;
- no fixed home;
- history of domestic violence, particularly during this pregnancy;
- adolescent mother, particularly if other previously listed conditions apply; or
- barriers to adequate follow-up care for the newborn, such as lack of transportation to medical care services, lack of easy access to telephone communication, and non–English-speaking parents.

17. For newborns discharged before 48 hours after delivery, an appointment should be made for the infant to be examined by a health care practitioner within 48 hours of discharge.[10,12,16,37,38] If this cannot be ensured, discharge should be deferred until a mechanism for follow-up is identified. The follow-up visit can take place in a home, clinic, or hospital outpatient setting as long as the health care professional who examines the infant is competent in newborn assessment and the results of the follow-up visit are reported to the infant's primary care provider or his or her designee on the day of the visit. The purpose of the follow-up visit is to
    - promote establishment of a relationship with the medical home by verifying the plan for health care maintenance, including a method for obtaining emergency services, preventive care and immunizations, periodic evaluations and physical examinations, and necessary screenings;
    - weigh the infant and assess the infant's general health, hydration, and degree of jaundice, and identify any new problems;
    - review feeding patterns and technique, and encourage and support breastfeeding by observation of the adequacy of position, latch, and swallowing;
    - obtain historical evidence of adequate stool and urine patterns;
    - provide or make a referral for lactation support if the foregoing evaluations are not reassuring;
    - assess quality of mother-infant attachment and details of infant behavior;
    - reinforce maternal or family education in infant care, particularly regarding feeding and sleep position, avoidance of cosleeping, and appropriate use of car safety seats, which should be used only for travel and not for positioning in the home;
    - review results of outstanding laboratory tests, such as newborn metabolic screens, performed before discharge;
    - perform screenings in accordance with state regulations and other tests that are clinically indicated, such as serum bilirubin; and
    - assess for parental well-being with focus on screening for maternal postpartum depression.

CONCLUSIONS

The timing of discharge from the hospital should be the decision of the health care provider caring for the mother and her newborn. This decision should be made in consultation with the family and should not be based on arbitrary policies established by third-party payers. A shortened hospital stay (less than 48 hours after delivery) for healthy, term newborns can be accommodated but is not appropriate for every mother and newborn. If possible, institutions are encouraged to develop processes to prevent the necessity for early discharge of uninsured or underinsured newborn infants for purely financial reasons, however. Institutions should develop guidelines through their professional staff in collaboration with appropriate community agencies, including third-party payers, to establish hospital-stay programs for mothers and their healthy newborns. State and local public health agencies also should be involved in the oversight of existing hospital-stay programs for quality assurance and monitoring. Obstetrical care, newborn nursery care, and follow-up care should be considered independent services to be paid as separate packages and not as part of a global fee for maternity-newborn labor and delivery services. Adoption of standardized processes, such as predischarge checklists, may facilitate more uniform implementation of these recommendations across the full spectrum of health care settings where care for newborn infants is provided.

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