

Parent Education Prior to Discharge of the Late Preterm or Term Newborn

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LEARNING OBJECTIVES

After reading this article, the reader should be able to:

- Identify four infant safety issues to discuss with parents prior to discharge.
- Name three challenges to parent education and identify three strategies to deal with them.
- Be able to teach parents how to recognize a sick neonate.

Newborn babies do not come with instruction manuals. Professional maternal and neonatal nurses must teach parents how to care for their newborn infant prior to discharge. In the days when new mothers had longer hospital stays, there were 3-4 days in which to teach parents how to care for their babies. Today, with 48-hour hospitalization for normal vaginal births and 96 hours for C-sections, we no longer have that luxury. If families opt for early discharge and meet the American Academy of Pediatrics (AAP) and American College of Obstetrics and Gynecology (ACOG) criteria¹ we may only have 24 hours to teach parents how to care for the newborn at home.

Parental expectations and the reality of caring for a newborn rarely match. Parenting is not an instinct, it is a learned behavior. Parenting a new baby can be overwhelming. Usually it is the hardest—if most rewarding—job an adult will ever have.

So what can professionals do to make this transition to parenting successful? Maternal-newborn nursing professionals are not the primary caretakers for the newborn; our role is to care for the parents, so that they are able to care for their baby. First and foremost we empower parents with knowledge and information. Every encounter with the family is a teaching opportunity.² It is best to teach both parents, or a parent

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and supportive/significant others, together. The crisis of parenting a newborn occurs in the first 3 weeks after birth, so that seeing the family within days of discharge and in the first 2 weeks are opportunities to guide and counsel parents.

Both professionals and parents may have unrealistic expectations of the childbearing experience and the role of the maternal-newborn nurse. Some parents choose a hospital expecting a two-day stay in a luxury hotel, with nurses available as glorified maids and babysitters. Even other health professionals see the maternal-newborn nurse as someone who sits, rocks, and feeds babies all day! Indeed, what philosophy is implied in our own maternal-newborn nursing departments? Are we more concerned about “patient satisfaction scores” (i.e., meeting parental expectations of a pleasant experience) rather than preparing parents to safely care for their newborn baby?

Maternal-newborn nurses should be first and foremost teachers, coaches and supporters of new parents. As “Partners in Care” we model and role model for new parents in how to care for their infant—and themselves. As professional nurses we are patient advocates and we can empower parents to become advocates for their infants and children. We collaborate with parents in making decisions for both inpatient and outpatient care for the neonate. We ensure that parents understand and are able to comply with those plans. Because parenting is not a “spectator sport,” we facilitate, encourage and assist parents in becoming the primary caretaker for their newborn.

Challenges to Parent Education

Numerous barriers and challenges to parent education, originating from parents as well as professionals, exist. These include time, language, literacy, work design, expectations and ability to form a therapeutic relationship. Table 1 lists some challenges and potential solutions.

A cogent example of fostering parent education through participation in the newborn’s care is illustrated in the research by Medves and O’Brien³ on the baby’s first bath. These researchers wanted to examine the temperature stability of term, normal newborns given their first bath by either a nurse or the baby’s parents. Some newborns were given their first baths in the traditional way—in the nursery, by a nursery

nurse and under a radiant warmer. Others were given their first bath by the parents in the mother’s room, with a nurse teaching and supervising. In both scenarios, the full-term infant’s temperature dropped one degree after the bath. The researchers concluded that with supervision and teaching by a nurse, parents can safely give their newborns the first bath. One might expect that parents would be reluctant to give permission for their newborns to be studied. These researchers were surprised at how easily they were able to recruit newborns and parents for their study because parents actually *wanted* to give their babies the first bath.

There is no need for nursery nurses to give baths or change diapers. Parents not only need to learn and practice bathing, diapering, and caring for their babies—they want to do so. Yet many neonatal nurses persist in delivering care “the way we’ve always done it.” Some believe that parents prefer that nurses care for their baby so that parents can rest. Many feel that caring for the infant is faster and more efficient than teaching the parents how to do so. Nurses drawn to this specialty sometimes prefer to interact with babies more than with adults. Nevertheless, we need to offer parents more opportunities to care for their infants in the hospital. As the studies show, they not only need to, but actually want to participate.



Content of Parent Education

Box 1 lists major content areas for parent education of the late preterm or term newborn. The nutrition article in this issue discusses nutrition education about both breast and bottle feeding that should be taught to parents prior to discharge.

Box 1: Content of Parent Education Prior to Discharge of the Late Preterm/Term Newborn

- Nutrition (in accompanying article)
- Elimination
- Crying
- Sleeping
- Skin care
- Clothing
- How to recognize a sick baby
- Safety
- Developmental needs
- Parental needs

Elimination

After feeding, one of the most important topics of interest to new parents is elimination—“pees” and “poops.” Term neonates produce 1-3 cc/kg/hour of very dilute urine with a specific gravity of 1.002-1.012. Well-hydrated newborns have 8-10 wet diapers/day and moist mucus membranes. The frequency of normal neonatal bowel movements ranges from one every time the baby feeds to one stool/week. Newborn infants have a gastrocolic reflex that results in a stool every time the stomach is stimulated with food, but as the GI tract matures this frequency of stools decreases. The consistency of neonatal stools changes in the first days of life from: (a) thick, dark green meconium, to (b) seedy, transitional stools when milk has completely traversed the intestinal track, to (c) breastfed (liquid yellow stools) or formula fed (soft-formed yellow to light brown) stools.⁴

Crying

Babies are astute at nonverbal communication. Research has identified types of crying that reflect the infant’s state and needs: birth cry, distress call, hunger, pain, spontaneous

Table 1: Challenges and Potential Remedies for Parent Education

Challenges	Potential Remedies
What do professionals contribute?	
<ul style="list-style-type: none"> Amount of content—review discharge teaching sheets. 	When and with whom will the parents have their first follow-up visit? What basic information do parents need till the first visit, at which time the outpatient care provider continues parent teaching. Multimedia.
<ul style="list-style-type: none"> Time: Do more with less. “It is faster if I do it myself than if I teach the parent to do it?” 	Parents learn by doing, so have more than one set of parents perform “first baths” while a single RN supervises and teaches.
<ul style="list-style-type: none"> Work redesign. “We’ve always done it this way!” 	Is “What we have always done evidence-based and efficient?” Group learning, like group prenatal care such as <i>Centering Pregnancy</i> , may be just as, or more effective and efficient.
<ul style="list-style-type: none"> Difficulty with change 	Mother-baby care and primary nursing are both more consistent and patient-centered, but may be considered unnecessary to some care providers.
<ul style="list-style-type: none"> Burnout. “If I’ve said this once, I’ve said this a million times...” 	Small group learning experiences, use of media and self-paced learning as options.
<ul style="list-style-type: none"> Ability to form a therapeutic relationship...or not 	The crisis of parenting requires a minimal number of care providers for both parents and neonates. Use of mother-baby care and primary nursing ensures consistency and continuity.
<ul style="list-style-type: none"> Lack of consistency—different patient assignments daily. Ageism—older nursing workforce and young childbearing women. 	Use of peer support, peer teaching, multimedia and modeling/role modeling and mentoring from older nurses to younger mothers.
What do parents contribute?	
<ul style="list-style-type: none"> Culture/ethnicity 	Culturally competent care and communication, understanding by care providers of the values, beliefs, customs, and behaviors of the cultural and ethnic groups using maternal-newborn services. Use resources such as: Shah M: <i>Transcultural aspects of perinatal health care: A resource guide</i> , Washington, DC: <i>National Perinatal Association</i> , 2004.
<ul style="list-style-type: none"> Language 	A qualified, acceptable, bilingual and bicultural interpreter provided by the facility or the family. Do not use strangers, untrained hospital staff or children as interpreters. ⁴⁶ Telephone interpreter services.
<ul style="list-style-type: none"> Literacy/ Illiteracy—inability to read the language one speaks. US reading level is 12th grade, but comprehension level is only 6th grade. 	Do not assume that parents are able to read written materials, even if written in their spoken language. Illiterate adults will not disclose this fact because of shame. But illiterate does not mean unintelligent. Use other forms of teaching besides the written word: pictures, diagrams, videos, verbal instructions.
<ul style="list-style-type: none"> Expectations—of hospitalization, of the birth experience, of parenting 	When the birth experience deviates from parental expectations, perinatal grief is experienced and needs to be facilitated by care providers. Mothers also need to be assisted in resolving their “missing pieces” ⁴⁷ about labor/birth. These activities enable parents to be emotionally available to begin parenting their newborn. Parenting is “the working out of the discrepancy between the wished for and the actual child”. ⁴⁸
<ul style="list-style-type: none"> Ability to enter into a therapeutic relationship...or not 	Maternal cognitive dissonance within the first 24 hours after birth. ⁴⁸ Comfort measure and pharmacologic interventions for maternal pain control.

and pleasure cries.⁵⁻⁹ The loud, lusty cry of the healthy term newborn is a sign of wellness and robustness, as well as a way of communicating needs.^{6,8} Environmental stressors such as noise, cold, light, overstimulation, multiple caregivers, or lack of synchrony may precipitate crying.⁸ Tension in the environment or caregiver may potentiate or contribute to an infant's crying.

Development of a sense of trust occurs as the infant's cries are responded to by parents who are able to meet the infant's needs. More responsiveness by parents to an infant's cries has been shown to result in diminished crying behaviors—the infant associates comfort with the parent.^{9,10} Prompt parental responses prevent escalation to out-of-control crying and quickly attended babies are easier to soothe. Consistent, prompt response does not “spoil” babies. Term infants have the ability to self-quiet during a fussy state by hand-to-mouth behaviors, sucking on tongue/fists, and using visual and auditory stimuli in the environment.¹¹ Parent behaviors to help quiet a crying baby are listed in Box 2. It should be pointed out, however, that sometimes nothing helps soothe a crying baby.

Box 2: Graduated Parental Interventions to Quiet a Crying Infant⁸

- Gentle, soothing, high-pitched talking (loud enough for infant to hear over his/her crying).
- “Centering” the infant by placing the palm of the parent's hand on the infant's chest or holding baby's arms over chest with palms of hands.
- Swaddling with blankets to calm self-startles.
- Picking up, holding infant (upright on shoulder is the most soothing position), and rocking.
- Placing infant skin-to-skin on parent's chest.
- Offering a pacifier for nonnutritive sucking.
- Caregiving: feeding, burping, changing diapers, rocking, holding/carrying, massage.
- Decreasing stimuli: dim lights, decrease noise and activity.

Term infants develop a diurnal pattern of crying after birth—they cry more during the

day than at night. As babies become older and more mature their crying decreases. Persistent crying (>3 hours a day) is more common in the breast-fed infant, while early evening crying is more likely in the formula-fed infant.¹² Crying increases in the first 3 months of life, peaking at about 6-8 weeks of age, then decreasing significantly at around 3-4 months of age.¹³

Colic is irritable crying without an obvious reason. It occurs in 10-20% of all infants, developing at about 2 weeks of age, and persisting for 4-5 months. Although the cause of colic is unknown, historically it has been attributed to GI or CNS disturbances, allergies or parental stress. Newer research attributes colic to normal neurodevelopmental changes in newborn infants.¹³ How parents interpret and respond to the infant's crying is influenced by their understanding of the reason for crying and their knowledge of strategies to soothe their infant.

Sleeping

Circadian rhythms in infants are influenced by genetic factors, brain maturation, and the environment.¹⁴⁻¹⁷ Following birth and for the first several weeks after birth, term infants distribute sleep over a 24-hour period, sleeping from 16-19 hours/day. As term infants go to sleep they enter active, rather than quiet sleep and spend more time in active sleep than adults.¹⁸ Active sleep cycles vary from 10-45 minutes and quiet sleep cycles last about 20 minutes.¹⁸ While adult sleep cycles are 90-100 minutes in duration, an infant's sleep cycle lasts 50-60 minutes.

At birth, infants have their own internal clock for sleep-wake, hunger, feeding and fussy times. The clock is often a continuation of in-utero rhythms. Family disruption and conflict may result when the infant interferes with the family's schedule of wakefulness and sleep. Maturation of sleep-wake cycles to coincide with the family's rhythm occurs as a result of brain maturation and environmental influences. As the infant's brain matures and the infant is exposed to patterned caregiving by parents, organization and stabilization of sleep-wake cycles occurs. For example, at 6 weeks postnatal age, infants are awake more during the daytime than at night; by 12 weeks more sleep occurs during the night than during daytime hours.⁸ By 4-6 months of age term newborns have the brain maturation, adequate stomach capacity

and sufficiently mature circadian rhythms to sleep through the night.

Parents need to be shown how to position the baby for sleep and told the reason why the supine—on the back—is the proper position. The AAP position paper on infant sleep recommends that all healthy infants be placed only supine for sleep with a pacifier in the mouth.¹⁹ Sleeping in the same room, but *not* in the same bed with parents is also recommended.¹⁹ Side-lying for term infants is not recommended because they may spontaneously roll from side-lying to prone. Adoption of the “Back-to-Sleep” program has resulted in a 40% to 50% decrease in the rate of sudden infant death syndrome (SIDS).^{19,20} All care providers (including grandparents, childcare providers and babysitters) should sleep babies supine.

In healthy term infants, overheating, use of soft sleeping surfaces/bedding, stuffed toys, and positioning devices should also be avoided.¹⁹ Smoking is a risk factor for SIDS, as well as increasing the infant's susceptibility to respiratory infections.²¹ Parents should be encouraged to stop smoking. If they continue to smoke, they should do so only outside of the house and car. (See Gardner SL: Sudden infant death syndrome (SIDS) and the sleep environment *Nurse Currents* 2009; 3:1. (Available at www.anhi.org).

Skin Care²²

Babies only need to be bathed 2-3 times/week, in water that is 100 degrees Fahrenheit, with a mild soap. Between tub baths, sponge bathing with water on face, folds and bottoms is adequate. Products to be used on the newborn's skin should contain no/few additives such as fragrances, to reduce the incidence of contact sensitization. Minimal use of lotions and creams on newborn skin is best. Powders should not be used because of the risk of inhalation of talc into the baby's lungs. Frequent changes of wet/soiled diapers, cleansing the diaper area and using diapers that wick the moisture away from the skin are usually sufficient to prevent diaper rash. If the infant's skin becomes red and irritated with the use of disposable diapers, a change of diaper brands often solves the problem.

When diaper rash does occur, the use of protective barrier products such as zinc oxide will prevent further injury and allow skin to

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heal. With each diaper change, waste should be cleaned from the skin, but the barrier product should not be removed, as this may disturb healing skin. Diaper dermatitis caused by yeast infection requires antifungal medication. Care of the circumcised male infant includes keeping the penis clean and observing for redness, foul odor or drainage. The uncircumcised penis should be kept clean and the foreskin should not be retracted.

The umbilical cord needs to be kept clean. The diaper should be turned back away from the intact umbilical cord until it separates, dries and falls off (within 7–10 days after birth). As the cord separates there may be some spots of blood on the baby's diaper; this is normal and is similar to the slight bleeding that occurs as a scab separates from skin. If the umbilical cord becomes soiled with urine/stool it should be wiped with water. However, if a warm, red area of skin is seen around the base of the umbilical cord, or there is a foul odor or drainage from the cord, the baby's healthcare provider needs to be called immediately.

Clothing and Dressing

Overdressing and overheating are the most common problems for newborn infants. Parents should be instructed to maintain the baby's temperature between 36.5 and 37 degrees Centigrade (97.7–98.6 degrees Fahrenheit) with clothes, blankets and adequate environmental temperature.^{1,7} Prior to discharge, parents should be taught how to take an axillary (*never* a rectal) temperature. It should be explained to parents that when newborns go home, it is not necessary to raise the ambient temperature in the house because of the presence of an infant. A comfortable temperature for the family should be maintained, and the infant dressed accordingly. For instance, if the house is cool enough for adults and older children to wear sweaters, then the infant will also need more clothes to maintain his/her temperature in the normal range. Avoidance of

overdressing and overheating is also associated with decreased risk of SIDS. A recent study showed that the presence of an oscillating fan in the room of a sleeping infant decreased the incidence of SIDS.¹⁹

Late preterm infants (34 0/7 to 36 6/7 weeks of GA) present a special challenge both in the hospital and after discharge. Because of their biologic and physiologic immaturity these preterm infants may have difficulty maintaining normal axillary temperature. After discharge the parents may need to use more clothing and blankets to assist these preterms in maintaining thermal neutrality. Failure to keep these infants sufficiently warm, if they are unable to regulate their own temperatures, results in their using calories for warmth instead of for growth. However, both professionals and parents must remember that there are other reasons why these infants may not be warm enough—including hypothermia due to sepsis. (See below)

The infant's clothing, bedding and blankets should be washed in a mild detergent and rinsed twice to remove all soap residue. Dryer

sheets and detergents with fragrances should be avoided; exposure of sensitive skin to chemicals may cause contact sensitization.

How to Recognize a Sick Baby²³

Preventing infection is a vital part of parent education. Parents, siblings and all visitors must wash their hands prior to handling the baby. Contact with the infant should be restricted—no one with a “cold” or any infection should be around the baby. Crowds—large numbers of people with potential infections—should be avoided. Newly born babies should not go to shopping areas, children's parties, childcare centers or church nurseries. For parents resuming work, child care settings with 1-2 children rather than many children will decrease exposure to illness.

Vaccination against influenza is recommended for all infants at 6 months of age, as well as their contacts.²⁴ For infants at-risk for respiratory syncytial virus, the first dose of prophylaxis should be given prior to discharge, then monthly, according to published recommendations. (See Bolyard D: Respiratory syncytial virus: A seasonal occurrence requiring year-round planning *Nurse Currents* 2011; 5:2. (Available at www.anhi.org). Exposure to secondhand smoke must be avoided.

Recognizing an infected/septic newborn is difficult for professionals and even more difficult



Box 3: Signs and Symptoms Predictive of Serious Illness and the Need for Hospitalization in Infants from 0-6 days and 7-59 days of age²⁷

- History of difficulty feeding.
- Movement only when stimulated.
- Temperature <35.5 degrees Centigrade (95.9 degrees Fahrenheit).
- Temperature >37.5 degrees Centigrade (99.5 degrees Fahrenheit).
- Respiratory rate >60 breaths/minute.
- Severe chest indrawing (retractions).
- History of convulsions.

for parents. Early recognition and treatment of septic infants is critical in improving morbidity and mortality rates. Prior to discharge, parents must be taught verbally and given written materials on how to recognize a sick newborn. Signs and symptoms of illness, how the infant acts and who to notify are important for *all* parents discharged with a newborn infant. This is especially critical for newborns with risk factors, such as late preterms, who are at increased risk for infections.^{25,26}

The World Health Organization conducted a large multi-site study of the clinical features and causes of bacterial disease in 0- to 6-day-old newborns and in 7- to 59-day-old infants.²⁷ From an initial list of 20 signs and symptoms of neonatal illness, 7 were found to be independent clinical predictors of severe illness requiring hospital admission. The presence of any one sign listed in Box 3 indicates high sensitivity and specificity for severe illness. *How Will I Know My Baby is Sick?* is a useful tool that can be given to families at discharge to help them recognize



illness in their infant. (See Parent Education Materials and Resources on the right.)

Box 4 lists common symptoms of infection in the neonate. Infected neonates have temperatures that are either too low or too high. Most often, the septic newborn becomes cold (hypothermic), rather than febrile (hyperthermic). Hyperthermia in the neonate can be due to sepsis—serious infection—or environmental causes such as overdressing and overheating. Changes in behavior, especially feeding behaviors, may be caused by infection.

Box 4: Signs and Symptoms of Neonatal Infection^{25,50,51}

- Temperature instability: hypothermia or hyperthermia.
- Respiratory distress: tachypnea, apnea, grunting, flaring, retracting, cyanosis.
- Cardiovascular changes: tachycardia, bradycardia, hypotension, pallor, poor peripheral perfusion, capillary refill and weak pulses, decrease in urine output.
- Lethargy, irritability, seizures.
- Feeding abnormalities: vomiting, increased residuals, poor feeding, abdominal distention, diarrhea, GI bleeding.
- Jaundice: increase in direct and/or indirect bilirubin.
- Skin changes: purpura, petechiae, rash, erythema.
- Metabolic changes: acidosis (metabolic/respiratory or a combination), hypoglycemia, hypoxia.

Parent Education Materials and Resources

American Academy of Pediatrics:
Parent Education Materials

- *Care of the uncircumcised penis*—
Fact sheet
- *Circumcision: information for parents*
- *Diaper rash*
- *Early arrival: Information for parents of premature infants*
- *Infant sleep positioning and SIDS*—
Fact sheet

American Academy of Pediatrics Shelov S, editor: *Your Baby's First Year*, ed 2. Elk Grove Village, IL: AAP 2005.

Brazelton TB: *Baby basics* (video) and *Home before you know it* (video). Cambridge, MA: Vida Health Communications, 2004.

Gardner, SL: *How will I know if my baby is sick?* © Nurse's Professional Development and Practice Association, LLC™, 2008. Available at www.npdpa.com.

National Center for Shaken Baby Syndrome: www.dontshake.org Thirty eight handout materials such as *The Crying Card*; *Enjoy Your Baby* brochures/ book-marks; *Understanding SBS* brochure; *Stay Calm* bookmark; *Three Things every Dad should know* and *Three things every Mom should know* brochures.

Newborn Channel: www.newborn.com

US Consumer Product Safety Commission (CPSC): *Crib safety tips: Use your crib safely*, Document #5030. Available at: www.cpsc.gov. Accessed on 6/30/2011

Mothers, especially mothers of older children, should be instructed not to give a neonate any medication without calling the baby's healthcare provider first. Mothers of toddlers who are familiar with giving sick older children

anti-inflammatory medications may believe this practice is also advisable for a newborn. It must be emphasized that if a neonate is sick enough to be medicated, he/she is sick enough to be seen by a healthcare provider.

Bilirubin levels of late preterm infants peak later (at 5–7 days of life) and higher than those of term neonates.²⁸ Late preterms are at higher risk for developing significant hyperbilirubinemia and 2–3 times more likely to be readmitted for treatment of their jaundice than more mature infants.^{29,30} Since hyperbilirubinemia may be a symptom of neonatal sepsis, both AWHONN discharge teaching guidelines³¹ and the AAP late preterm discharge criteria³² require professionals to assess for developing jaundice and screen every infant with age-appropriate nomogram prior to discharge.²⁹ A follow-up appointment within 24–48 hours after discharge should be made and the importance of compliance should be stressed to the parents. They should also be taught the way to assess jaundice at home: evaluate in daylight, progress from head-to-toe, blanch skin, and, after the skin is blanched, note how far down the body the yellow coloring is visible.

Safety

Box 5 lists safety measures all parents of newborns must be taught prior to discharge.

Box 5: Safety Measures for Care of Newborn Infants

- Proper positioning for sleep: “Back-to-Sleep.”
- Proper use of car seats.
- Importance of a smoke-free environment.
- Safe nursery equipment.
- Never shake a baby!
- Written information about any medications parents will administer to infant.
- Cardiopulmonary resuscitation (CPR) instruction.

Car Seats

All states require infants to be restrained in car seats while riding in motor vehicles. Newborns may be discharged home only in a properly installed infant car seat. Demonstrate to parents

how to properly position their infant safely in the car seat. Instruct them to limit the infant’s duration of travel, to closely observe the infant while traveling and to avoid using the car seat for infant sleeping.^{35,36} (see Gardner SL: Sudden infant death syndrome (SIDS) and the sleep environment *Nurse Currents* 2009; 3:1. Available at www.anihi.org)

Standard car seats are designed for 7–8 pound term babies. When placed in a standard car seat infants <37 weeks GA may experience apnea, bradycardia, and oxygen desaturation due to head slouching and airway obstruction.³² Therefore, a car seat challenge is recommended for all infants born <37 weeks’ gestation, including late preterm infants.^{34,35} There is no standardized procedure for a car seat challenge, although certain components are common.

1. Use the infant’s car seat, purchased by parents;
2. Position the infant in the car seat while he/she is attached to cardiorespiratory and pulse oximetry monitors;
3. Monitor the infant for 30–90 minutes; and
4. Record heart/respiratory rates, oxygen saturations, apnea/bradycardia episodes and positioning devices used.

Shaken Baby Syndrome

It cannot be overemphasized to parents: *never shake a baby!* Frustrated parents who have no strategies to comfort a crying baby may shake the baby to stop the crying.^{13,37} The fragile brain of a baby bounces back and forth inside the skull causing bruising, swelling and bleeding. Of the infants who are shaken 80% suffer blindness, brain damage, developmental delays, seizures and/or paralysis; 25% of them die.³⁸ The National Center on Shaken Baby Syndrome³⁸ advocates three actions to prevent shaken baby syndrome: (1) Increase contact. Carry, walk and talk to the baby to reduce crying. (2) If crying becomes too frustrating, put the baby down in a safe place, walk away and calm down. (3) No matter what, never shake a baby.

Nursery Equipment

Newborns and infants depend on their parents and caregivers to provide them with a safe environment. Pillows, soft bedding such as quilts, comforters, sheepskins or bumper pads and soft objects like stuffed toys do not belong where the

baby sleeps. Cribs should have no more than 2 3/8 inches between slats, have firm, tight-fitting mattresses, no missing or improperly installed hardware, no corner posts >1/16th inches high, and no cutouts on the head/footboard.³⁹ According to the Consumer Protection Agency, drop-sided cribs have been associated with >30 infant deaths since 2000.³⁹ As of June 28, 2011, drop-sided infant cribs are no longer manufactured, and the sale or donation of drop-sided cribs made prior to July 23, 2010 is prohibited.

Babies should never be left unattended in a car seat, baby seat or swing. They should not sleep or spend excessive time in these devices. The seat can fall over, the infant can fall out of the seat and the baby’s breathing can be compromised because of slumping in the seats.³⁵ Infants should *never* be left unattended on a flat surface without protective rails, or while bathing. Before changing, dressing or bathing the baby, all necessities should be immediately at hand. The unbreakable rule of infant care is: *always have one hand on the baby.* If what is needed cannot be reached while keeping one hand on the infant, the infant must be picked up and taken with the parent. Making the rule a habit prevents parents from walking away to retrieve a forgotten object or to answer the doorbell or phone.

Every parent needs to know how to use a suction bulb to prevent choking and aspiration. At the hospital they can see, as well as practice its use. Most of all they should be taught when to use it, such as when the baby finishes feeding and suddenly vomits. If vomit is coming out of both nose and mouth demonstrate suctioning the baby’s mouth first, then the nose, explaining that the mouth holds a large amount of vomited milk. If the nose is cleared first, then newborns, who are nasal breathers, will take a breath immediately after their nose is cleared and aspirate all the vomit that was in their mouth.

Vaporizers used in the nursery for babies with congestion should emit cool, not warm, mist to prevent thermal burns.

The microwave should not be used to warm either breast milk or formula. Microwave warming results in hot pockets within the liquid that can result in oral burns. Slow room-temperature warming of formula or breast milk is advised.⁴³ Using room-temperature or tepid water to mix powdered formula avoids potential burns.⁴³ An



additional danger of microwaving breast milk is the destruction of heat-sensitive anti-infective agents such as lysozyme and secretory IgA, which can result in overgrowth of bacteria in the milk.⁴⁰⁻⁴²

Siblings

Siblings, especially young siblings, do not understand that babies are fragile. They need parental help to interact safely with the new baby. Parents can teach the concept of “gentle” by using the word and showing the sibling how to touch and stroke the baby. Infants should never be left unattended with a young sibling. Parents should expect sibling rivalry and prepare for it.

Medications and Cardiopulmonary Resuscitation (CPR)

Generally, late-preterm and term neonates are not discharged from the hospital with medications. However, in the event that an infant is sent home with meds, the parents must be fully informed, verbally and in writing, about each medication, including name, action, dose, route, side effects and schedule for administering.

Because of time constraints parents of healthy term babies are not taught CPR as part of discharge teaching. However parents should be encouraged to take a CPR class offered by the American Red Cross, the hospital or a healthcare provider.⁴

Developmental Needs

Development occurs in an orderly sequence influenced by readiness, maturation, genetics and environmental influences. Although the

sequence of development is the same in all children, the rate of development is individual. Therefore, within the range of normal development, differences between babies should be expected as an individual baby develops at his/her individual pace. At birth neonates are able to see within 8-10 inches of their face, recognize mother’s face and are able to follow an interesting face/ object horizontally and sometimes vertically. During the last trimester of pregnancy, the fetus is able to hear parental voices and prefers these voices after birth. In 2012, an issue of *Nurse Currents* will discuss the sensory capabilities of the newborn.

Follow-up Care

Parents need to understand the importance of follow-up care after hospital discharge, whether at a clinic, physician’s office, or a home visit.^{4,7} Follow-up care within 24-48 hours after discharge is especially important for late-preterms and newborns discharged within 12-24 hours of life.^{1,25,33,32}

Parental Needs

In order to care for an infant, parents need to care for themselves. Their needs for rest, sleep, privacy and resumption of sexual relationship is necessary to help with the transition from a couple to a family.

Ask if anyone will be coming to help in the first weeks after delivery. Take note of not only the name of the person and the relationship to the family but the tone of voice in which this information is given. Ground rules should be set for the “helper.” These should include cooking, cleaning and shopping while the new mother rests and cares for herself and the baby. Helpers should not care for the baby while the new mother cooks, cleans, shops and plays hostess.

Because everyone wants to see the new baby, many new families have too much company. They are so busy with an endless stream of visitors that the new parents do not get enough sleep or privacy and soon become exhausted. Authorize families to tell those wanting to visit that the hospital nurse ordered all potential visitors to: (a) be certain they are well, not ill, (b) be prepared to wash dishes, do laundry, or run errands, (c) bring a covered dish that can be frozen, and, (d) stay a maximum of 30 minutes. Assign the task of “enforcer” to the father or

significant other. “It is your responsibility to make sure that Mom, baby and you are getting enough rest and sleep. You may need to tell friends or family that they cannot visit because you are too exhausted.”

Since newborns and infants do not sleep through the night for the first 4-6 months, parents now have a 24 hour/day job. Exhausted, sleep-deprived parents are unable to be emotionally present for their infant. (Even adults in intensive care units can develop psychosis as a result of sleep deprivation.) Sleep deprivation may also result in depression and inadequate breast-milk supply. With both parents present affirm: “You have a 24 hour/day job. The number of hours of sleep that you missed during the night when you were awake with the baby must be recovered. So if you were up for 3 hours during the night, you need to get 3 hours of sleep sometime during the day.” This is especially important if the mother is breast feeding, and the father may not realize how much sleep she is missing.

Resumption of sexual relations after birth is now based on the woman’s comfort level and her emotional and physical readiness for intercourse. The gravid uterus involutes to a normal size by 6 weeks postpartum, so 6 weeks of abstinence was the traditional advice given to new mothers. However, this advice was never evidence-based and the latest edition of *Williams Obstetrics* states that “following an uncomplicated birth, a six-week abstinence from intercourse makes little sense. It can be safely resumed in as little as three weeks or when comfort can be maintained.⁴⁴

Breastfeeding does not provide contraception after birth. Even though monthly periods may not occur with breastfeeding, *ovulation* does occur. Without contraception a breastfeeding woman can become pregnant.⁴⁵

Conclusion

Preparing parents to care for their newborn is the responsibility of maternal and neonatal nurses. Given the short period of time that most parents spend in the hospital after giving birth, adequately covering all the information that parents needs is a challenge. Using creative strategies such as care-by-parents, small group classes, multimedia, written materials, and return demonstrations, may expedite the teaching

and learning process. Written and/or recorded materials that parents take home also provide a reference when they are in doubt about their baby's care. Discharge parents with the phone number of the nursery, and encourage them to call at anytime "because there is always a nurse here, awake, and ready to assist you if you are worried or have questions about your baby."

About the Author

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