

TEACHING PLAN FOR: Family Education of the Hospitalized Infant

POLICY: This teaching plan is designed to accurately document:

1. The family orientation to the NICU, the initial teaching of the baby's condition that is done; and the preparation for discharging the baby home.
2. Well born infants admitted to the Newborn Nursery will not have this Teaching Plan/Patient and Family Teaching Record initiated on admission. For these infants, parent teaching will be done by the Obstetrical Nursing staff as per the Teaching Plan for: Infant Care. In the event that the mother is discharged before the wellborn infant or the primary caretaker (someone other than the mother), the Teaching Plan and Patient and Family Teaching Record must be initiated.
3. The term "family" is used throughout this teaching plan to refer to parents primarily, but may also apply to extended family, foster parents, identified caretakers, etc. based on the specific situation and as documented on the Teaching Record.

DESIRED PATIENT

- OUTCOMES:
1. Family will verbalize/demonstrate adequate knowledge regarding the NICU environment and the support their infant requires.
 2. Family will have attachment behaviors facilitated and supported.
 3. Family will verbalize/demonstrate adequate knowledge and skills to meet infant caretaking needs.
 4. Family will learn about their baby's special needs.

- GENERAL COMMENTS:
1. Content of teaching should be adjusted based on family knowledge base, involvement and the mother's post partum course.
 2. Handouts, videos, and programs on the patient education channel can be used to reinforce teaching.

INTRODUCTION TO
INFANT AND

- NURSERY:
- A. Introduction to the infant and welcome to the unit should take place during the first few experiences in the nursery utilizing a supportive and assuring manner.

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1. Explain the scrubbing procedure to each family member and visitor and the need to scrub each time even if the infant will not be touched.
 - a. Review the parent handout on Hand washing to instruct families in the correct technique for scrubbing and have the parents sign the handout.
2. Review the need for hand washing prior to touching infant and after diaper changes. Emphasize to families of multiples that they should wash hands before handling each infant.
 - a. A parent handout explains the importance of hand washing and its indications.
3. Explain universal precautions and the rationale for using gloves and protective equipment - to protect against the spread of infection.
4. Explain the rationale for having red bag waste and regular garbage. Red bag waste is for nursing staff and medical staff use only and is for IV fluid supplies or materials saturated with blood. Regular garbage is for dirty diapers, paper towels, 4 by 4 wipes, etc.
5. Instruct families that they should not place any personal belongings on the top of any linen or trash receptacles.
6. Provide information about the nursery set-up at John Dempsey Hospital. Utilize parent handouts to provide information and reinforce verbal instruction (Spanish handouts available).
 - a. Examples of handouts include: unit brochure, general visitation guidelines, directions to UCHC, sibling visitation policy, and grandparent visit permission.
7. Introduce and explain nursing care delivery system including primary nursing team. Explain levels of medical coverage and introduce to responsible house officer, advanced practitioner and attending physician if available. Introduce other health care team members and roles: social worker, developmental specialist, chaplain and dietitian as indicated.
 - a. Explain availability of health care team, including attending, for family meetings.

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8. Explain our respect for confidentiality that allows information to be given to parents only. For the same reason, request that all visitors remain at their infant's bedside.
 - a. Give families the handout containing the infant's medical record number. Explain that parents will be requested to give this number when calling to inquire about their infant.
9. Introduce parent to infant and infant's bedside. Allow parents/family time to interact with infant prior to beginning teaching as needed.
10. Explain to parents that an electronic security sensor will be attached to the infant's name band when he/she is able to be taken to the family room. For further family teaching regarding newborn safety refer to Protocol for: Safety and Security of Newborns.
 - a. A parent handout explains the use of the security sensor.
11. Explain the monitoring equipment, respiratory support equipment and infusion pumps baby is requiring.
12. Introduce infant mailboxes, which parents should check for notices/correspondence.
13. Explain that parents/siblings may personalize each infant's bedside with photos/drawings/blankets, etc. Toys are permitted on the shelves but not in the beds.
14. Discuss their individual infant's behavior capabilities, and recommendations for interaction as the infant's behavior indicates.
15. Discuss the supportive environment available for their infant including positioning with rolls, bumpers, nesting/buntings; containment (by family or cuddler volunteers); holding (explain safety of closing isolette doors, keeping electrodes intact, etc.) or kangaroo care as indicated. Handouts include the Cuddling brochure and Kangaroo Care pamphlet. Assist the family in completing the "Parent's Tips for Caregivers" card to post on isolette.

B. Family Support

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1. Provide information regarding family support programs available. Handouts: Family Programs, Parent Newsletter, Insurance Information and Financial Counselor letter. Other programs to be mentioned are: Parent Library and chaplain service.

C. Newborn Screening

1. Explain the rationale for routine screening of each newborn, including metabolic screening (PKU, etc.), cystic fibrosis screening, and hearing screening.

D. Disease Processes/Complications: Discuss the pathophysiology, symptoms and treatment of:

1. RDS (pamphlet).
2. PDA (Handout).
3. Hyperbilirubinemia/phototherapy.
4. IVH/ultrasound (Handout).
5. Anemia/transfusion
6. ECLD/BPD (Introductory handout. The Discharge Home with BPD teaching plan should be opened when infant goes on carepath.
 - a) Respiratory assessment
 - b) BPD medications (handouts)
 - c) Chronic oxygen requirements
 - d) Other infectious complications
7. ROP
8. Apnea and bradycardia

E. In-unit and post-discharge infant care:

1. Temperature Taking: Mercury Thermometers and tympanic thermometers are not recommended for newborn infants. The digital thermometer purchased by the parents may differ from that used in the nursery. Families should follow the manufacturer's instructions for the operation of the thermometer.
 - a. Make sure armpit is dry.

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- b. Carefully place tip of thermometer high up in the infant's armpit.
- c. Hold infant's arm snugly against his/her body.
- d. Remove thermometer and read.

2. Cord care:

To facilitate drying of umbilical cord, fold over diaper underneath the umbilical cord. Leave the cord open to air dry. Notify Pediatrician if drainage observed or if there is a foul odor, redness.

3. Diapering/skin care/hygiene:

Clean and dry diaper area well after each voiding and bowel movement. For boys: be sure to clean under folds of scrotum within groin. For girls: encourage front to back wiping and between folds. Explain the appropriate size of diaper.

- a. If the diaper area is reddened, ointment such as zinc oxide, A&D, Desitin, Balmex may be used. If the rash gets worse after a couple of days, call the pediatrician.

4. Bathing:

Give sponge bath until remainder of umbilical cord has dropped off and navel is healed. Umbilical cord usually falls off in a few weeks. If circumcised, assure that the site is healed prior to tub bath.

Check water temperature with elbow before giving bath.

Hold infant securely. Never take hands off baby when bathing.

Wash face first with warm water and washcloth (no soap). Wash eyes inside to out using different parts of the washcloth.

Shampoo head, then wash front of infant. Go from front to back between legs. Wash back of infant with free hand, then rinse well. Do not retract foreskin of uncircumcised infant. Use a non-alkaline soap.

Do not use powder/oil. (Including after discharge as powder is a respiratory irritant).

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Do not use cotton-tipped swabs for ears and nose.

5. Use of bulb syringe (Handout).
 6. Other: may include linen change, weighing, etc. as appropriate.
- F. Feeding: Breast or bottle (Open Breastfeeding Teaching Plan if breastfeeding/pumping). Video on newborn care and feeding is available on the education TV channel.
1. Transition from OG/NG to oral feedings: Explain the process of this transition.
 2. Positioning during and after oral feeding.
 - a. If bottle feeding, sit comfortably when feeding infant. Support infant's head in the bend of the arm. Keep infant's head raised slightly. Always tilt the bottle so the nipple is completely filled with formula.
 - b. If breastfeeding, refer to Protocol for: Breastfeeding and Procedure for Breast Pumping and Use of Breast Milk.
 - c. After feed position: refer to section on crib safety.
 - d. The Registered Dietitian (RD) is available to speak with parents who have questions about their baby's nutrition. Business card has the dietitian's phone number.
 3. Oral readiness cues for oral feedings.
 - a. Learn infant's cues of hunger: crying, rooting, wakeful periods. Usually, infants eat every three to four hours (maybe more frequent for breastfeeding) and they are the best judges of how much formula they need.
 - b. Infants usually indicate that they have had enough by stopping sucking, turning away from the nipple, or falling asleep.
 4. Burping: Infants require burping once or twice during a feeding and once after. Wet burps are common after feeding.

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G. Transitions from the NICU to . . .

1. Introduce concept of change and probable transfer to another unit when appropriate for infant. (SCN, NBN, home hospital).
 - a. If the infant is to be transferred within John Dempsey Hospital, take family on tour of new unit and make appropriate introductions.
 - b. Discuss the expected changes in staffing and care routines of the new unit and the rationale for that.
 - c. Explain discharge planning nurse/case manager role and make introductions.

H. Discharge Preparation and Identification of Community Health Care Provider: In preparation for infant's discharge, assess needs for teaching according to family readiness.

1. Immunizations: Prior to discharge, each infant may receive one or more routine immunizations. Handouts are printed from the CDC website and this information is documented on the vaccine record. Explain the indication and obtain consent as needed (use vaccine record).
2. Car seat monitoring/fitting:
 - a. The law requires the use of car seats for all infants. Find a safety approved car seat that lets the infant sit without slumping, which permits easy breathing. Infant car seats (0-20 lbs.) that recline with straps (no lap pads or shields) to secure infant are recommended. Parent handouts and videos will reinforce education.
 - 1) The American Academy of Pediatrics web site (aap.org) contains information about car set safety for premature infants.
 - b. Inform parents that all premature infants \leq 37 weeks or \leq 2500 grams at birth, those with neurologic conditions, chronic lung disease, and oxygen requirement at discharge will be observed in their own car seat and monitored with cardio-respiratory monitor and a pulse oximeter for a minimum of 1 hour or equal to the time of his/her trip home.
 - c. Inform families of the importance of having the car seat properly installed in their vehicle. Suggest that they practice installation before discharge and that they contact their local police department for a car seat check by a trained individual.

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- 1) Families may register for on-site evaluation by the UCHC police department.
3. CPR Classes: Introduce option to attend Infant CPR classes conducted monthly. Class instructors will sign off completion of course if family attends it.

I. Infant Safety At Home:

1. Discuss what to do for a crying baby (assess need for food, diaper change, etc.) - Emphasize never to shake the infant - this can cause serious brain injury. Video: "Shaken Baby Syndrome".
2. Sleep Environment and Crib safety:
 - a. Infants should be placed for sleep in a supine position (wholly on the back) for every sleep. Side sleeping is not as safe as supine sleeping and is not advised.
 - b. Use a firm sleep surface. Soft materials or objects such as pillow, quilts, comforters, or sheepskins should not be placed under a sleeping infant. A firm crib mattress, covered by a sheet, is the recommended sleeping surface.
 - c. Keep soft objects and loose bedding out of the crib. Soft objects such as pillows, quilts, comforters, sheepskins, stuffed toys, and other soft objects should be kept out of an infant's sleeping environment. If bumper pads are used in cribs, they should be thin, firm, well secured, and not "pillow-like". In addition, loose bedding such as blankets and sheets may be hazardous. If blankets are to be used, they should be tucked in around the crib mattress so that the infant's face is less likely to be covered by bedding.
 - d. A separate but proximate sleeping environment is recommended. The risk of SIDS has been shown to be reduced when the infant sleeps in the same room as the mother. A crib, bassinet, or cradle that conforms to the safety standards of the Consumer Product Safety Commission and ASTM (formerly the American Society of Testing and Materials) is recommended. The infants crib or bassinet may be placed in the parent's bedroom which, when placed close to their bed, will allow for more convenient breastfeeding and contact. Infants should not bed share with other children or adults.

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It is very dangerous to sleep with an infant on a couch or armchair, therefore, no one should sleep with an infant on these surfaces.

- e. Consider offering a pacifier at nap time and bed time: Use throughout the first year of life according to the following procedures:
- Use only one-piece pacifiers because there is a choking hazard when pacifiers have multiple parts.
 - The pacifier should be used when placing the infant down for sleep and not be reinserted once the infant falls asleep. If the infant refuses the pacifier, he or she should not be forced to take it.
 - Pacifiers should not be coated in any sweet solution.
 - Pacifiers should be cleaned often and replaced regularly.
 - For breastfed infants, delay pacifier introduction until 1 month of age to ensure that breastfeeding is firmly established.
- f. Avoid overheating. The infant should be lightly clothed for sleep, and the bedroom temperature should be kept comfortable for a lightly clothed adult. Overbundling should be avoided, and the infant should not feel hot to the touch.
- g. Avoid commercial devices marketed to reduce the risk of SIDS: Although various devices have been developed to maintain sleep position or to reduce the risk of rebreathing, none have been tested sufficiently to show efficacy or safety.
- h. Do not use home monitors as a strategy to reduce the risk of SIDS. Electronic respiratory and cardiac monitors are available to detect cardiorespiratory arrest and may be of value for home monitoring of selected infants who are deemed to have extreme cardiorespiratory instability.
- i. Avoid development of positional plagiocephaly:
- Encourage "tummy time" when the infant is awake and observed. This will also enhance motor development.
 - Avoid having the infant spend excessive time in car seat carriers and "bouncers" in which

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pressure is applied to the occiput. Upright "cuddle time" should be encouraged.

- Alter the supine head position during sleep. Techniques for accomplishing this include placing the infant to sleep with the head to one side for a week and then changing to the other and periodically changing the orientation of the infant to outside activity (eg, the door of the room)
- Particular care should be taken to implement the aforementioned recommendations in infants with neurologic injury or suspected developmental delay.
- Consideration should be given to early referral of infants with plagiocephaly when it is evident that conservative measures have been ineffective. In some cases, orthotic devices may help avoid the need for surgery.

j. Be sure that all caregivers including day care providers, grandparents, foster parents, and babysitters are aware of and follow the back-to-sleep recommendations.

k. Health care providers in hospital nurseries will place babies on their backs for sleep as soon as possible and well before anticipated discharge.

3. Avoid exposing the infant to second-hand smoke to reduce SIDS risk and for other reasons. There should be no smoking around the infant!

4. Keep visitors to a minimum for the first few weeks. Keep people with colds or other contagious illnesses away from the infant. We recommend that parents ask visitors to wash their hands prior to touching the baby.

J. Formula preparation.

1. Formula recipe will be given to all parents whose babies are on high calorie or non-standard formula.

2. Directions for standard formula preparation are printed on the cans. Use cold water from tap after letting run 30 seconds to minimize lead concentration.

3. Ready-to-Feed formula does not need to be sterilized.

4. There is a "use before" date on the end of the formula can. Buy or use the formula before the date shown.

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5. Sterilize nipples and bottles before first use. Wash with hot soapy water between uses.
 6. Always test temperature of warmed formula on the inside of the wrist before feeding. Do not use a microwave oven to warm formula.
 7. Cover and store opened cans of Ready-to-Feed and Concentrated Liquid formula in the refrigerator. Follow the manufacturer's guidelines for safe storage after opening.
 8. Dispose of any formula remaining in the bottle that the infant does not drink.
- K. Infant Assessment After Discharge: (Videos are available to reinforce teaching).
1. Signs and symptoms of illness:
 - a. Infant does not feed as well as normal. The infant may not seem hungry and may not take as much of the feeding as he/she normally does.
 - b. Infant vomits with force all or most of the feedings.
 - c. Frequent watery stools.
 - d. Infant does not pass as much urine as usual - should have at least five to six wet diapers per day.
 - e. Infant cries more than usual or appears more irritable. Cannot be calmed and comforted easily by usual means. Infant may refuse to sleep.
 - f. Infant does not seem as active as usual - may sleep more or be difficult to wake.
 - g. Infant may have trouble breathing - breathes faster, harder, or may draw in chest muscles with each breath or may have noisy breathing.
 - h. May have fever - contact the doctor if temperature is 100°F or higher. Normal axillary temperature is 97⁶⁰ to 98⁶⁰.
 - i. Infant looks pale, blue or marbled-looking.
 2. Adequacy of feeding: Hydration - Infants should have at least five to six wet diapers per day. All infants do not stool every day. Some infants may stool with every

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diaper change. Breast fed infants have frequent loose bowel movements. Bottle fed infants usually have soft, pasty bowel movements.

a. Describe to parents their infant's bowel pattern.

3. Circumcision penis care: Refer to Protocol for:
Circumcision: Care of the Infant After. For non-circumcised infants, do not retract foreskin.

DOCUMENTATION: 1. In the case of a multiple birth, documentation of basic parent teaching (i.e., baby bath, safety, breast pumping) should be written in the chart of the oldest surviving multiple in this birth sequence. A notation should be made on the parent and family teaching record of the other infant(s) to refer to the chart of the oldest infant.

APPROVAL: Nursing Standards Committee

EFFECTIVE DATE: 11/90

REVISION DATES: 4/91, 6/92, 6/93, 6/95, 9/97, 5/99, 4/01, 10/03, 5/04, 3/06