JBI EVIDENCE SUMMARY

Preterm Neonates (Discharge): Family Readiness Facilitation

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Question

What is the best available evidence regarding strategies for facilitating the family's readiness for discharge of preterm neonates from neonatal units?

Clinical Bottom Line

Preterm neonates and their families experience an unfamiliar and often overwhelming journey through the neonatal intensive care unit (NICU). At the time of discharge, parents may question their ability to care for their baby without the support of medical staff and technology. Supporting and involving parents in the discharge process provides them with confidence in caring for their preterm neonate at home.[1]

- A position statement on planning discharge of infants born before 34 weeks gestational age from NICU or special care nursery of a tertiary or community center recommends:[1](Level 5)
  - Family involvement in infant care while in hospital
  - Determining the family's caregiving and psychosocial readiness including assessment of the home environment. Parents must be able to independently and confidently:
    - Provide basic infant care such as feeding, bathing and temperature-taking
    - Administer medications and nutritional supplements
    - Meet any specific medical needs of the infant
    - Recognize signs and symptoms of illness and respond appropriately especially in emergency situations
    - Understand the importance of infection control measures.
  - The family should receive pre-discharge education that includes safe sleep practices and Sudden Infant Death Syndrome (SIDS) prevention. Infant cardiopulmonary resuscitation training should be provided where possible.
- A policy statement for discharge planning for high-risk neonates including preterm infants recommends:[2](Level 5)
  - Parental contact and involvement in the care of the infant, in whatever way possible, should be encouraged from the time of admission.
  - To determine family and home environmental readiness, an assessment of the family's caregiving capabilities, resource availability and home physical facilities is completed as follows:
    - Identification of at least 2 family caregivers and assessment of their ability, availability and

commitment

- Psychosocial assessment for parenting strengths and risks
- A home environmental assessment that may include on-site evaluation
- Review of available financial resources and identification of adequate financial support

- The development of an individualized teaching plan helps parents to acquire the skills and judgment needed to care for their infant. A written checklist or outline of the specific areas and tasks to be mastered, including a rationale for each item, increases the likelihood that parents and other caregivers will receive complete instructions and experience. Requesting return demonstrations by the parents of their new knowledge, parent rooming-in and telephone follow-up by hospital staff facilitate parental education and adaptation to their infants care.
  - Necessary capabilities of parents and caregivers include: feeding, basic infant care (bathing; skin, cord and genital care; temperature measurement; dressing; comforting), cardiopulmonary resuscitation and emergency intervention, assessment of clinical status (detecting early signs and symptoms of illness), safety precautions (proper positioning during sleep; proper use of car seats), specific safety precautions (eg feeding tubes, intestinal stoma, use of other mechanical devices), administration of medications, equipment operation, appropriate techniques for special care procedures (eg special dressings, healing wounds, suctioning)

- A systematic review evaluated studies that focused on the transition of premature infants from NICU to home. Five important components of successful transition programs were identified:[3](Level 1)
  - Communication between health care provider and family at home: Telephone support, videoconferencing and 14 hours per day, 5 days per week pager availability were used to allow the family to reach the health care providers when needed.
  - Home visits: The number of home visits ranged from one visit up to 20; even one home visit by a nurse who assessed and treated the infant resulted to positive outcomes, however, greater number of visits led to more extensive benefits. The first visit should occur very early after discharge, at least within the first 10 days. The number and hours of home visits may be based on the specific needs of the patient. The primary nurse caring for the preterm infant throughout the hospitalization is ideally placed to carry out the home visit.
  - Assessment of the infant and home situation: In addition to the infant's status, maternal health, parenting skills and home environment factors were part of successful programs.
  - Education: audiotaped and written information at 3 points in time during the stay at NICU, and one session at home showed more positive parent-infant interaction and less maternal anxiety and depression after hospitalization. Educational groups which also served as support groups provided guidance to parents and allowed exchange of valuable information and served as a venue for learning. The frequency and duration of an educational program can depend on the hospital's capacity and the needs and possibilities of the parents.
  - Role of nurse: Nurse involvement was a key element in all transitional programs. Nurses' role involved assessment and direct care of the infant, educating parents, assessing the home environment, assessing maternal health, providing support for parents and making referral to community resources.
- A qualitative cross-sectional study aimed to describe parents' facilitators and inhibitors of preparation for preterm infant discharge and suggest recommendations to increase discharge readiness from parents' and healthcare providers' perspective. The study identified a number of common themes as barriers to discharge readiness for both parents and healthcare providers, including short notice before discharge and lack of knowledge/confidence and skills to care for a preterm infant or in the event of an emergency. Lack of access to the NICU for the parents limited communication between healthcare providers and

parents and also limited opportunities to be involved in care. Parent education level and health literacy were identified by healthcare providers as potential barriers. The ability to tailor discharge education (discharge checklist) to each infant and provide education by a multidisciplinary team (eg nutritionist, nurses, physiotherapist) using multiple teaching formats (written, verbal and practical) and a designated discharge preparation nurse were recommended as ways to facilitate discharge.[4] (Level 3)

- A descriptive cross-sectional study examined the extent to which parental readiness for hospital discharge mediates the relationship between quality of discharge teaching and parental self-efficacy in parents of preterm infants. The study concluded that parental readiness for discharge, particularly in the knowledge dimension of the scale, partially mediated the relationship between the quality of discharge teaching and parental self-efficacy. The study also stated that the quality of discharge teaching prepared parents of preterm infants transition to home care and gain confidence in caring for their infants after discharge.[5] (Level 4)
- A qualitative cross-sectional study examined the influence of hospital experience factors on parental readiness. The study showed that parental perceptions of the family-centeredness of the hospital experience, anxiety, and parenting self-efficacy accounted for a substantial proportion of the variance in readiness for discharge scores among parents of preterm neonate. These influential perceptions are potentially modifiable by nursing-led interventions.[6] (Level 3)
- A randomized controlled trial (RCT) was conducted to determine the effect of the Family Integrated Care (FICare) model on the readiness of parents whose infants were hospitalized in the NICU for discharge and home care of the neonates. The 4 basic components of the FICare model are the education of parents, the education of the NICU personnel, physical arrangements in the NICU, and providing psychosocial support to parents. The FICare model was observed to enhance the readiness of mothers and fathers for discharge and home care and positively affect the infant's weight gain, the status of breastfeeding and the continuation of nutrition.[7] (Level 1)

Characteristics Of The Evidence

This evidence summary is based on a structured search of the literature and selected evidence-based health care databases. The evidence in this summary comes from:

- A position statement based on Level 2 and 3 evidence, and reviewed by the Canadian Pediatric Society – Community Pediatrics Committee and by the College of Family Physicians for Canada.[1]
- A policy statement based on published and scientifically derived information and published by the American Academy of Pediatrics.[2]
- A systematic review of 7 studies of various research designs.[3]
- A qualitative cross-sectional study that included a purposive sample of 17 parents (9 fathers and 8 mothers) and 13 healthcare providers (10 nurses and 3 clinicians).[4]
- A descriptive cross-sectional study of 202 parents with preterm infants in a tertiary hospital.[5]
- A qualitative cross-sectional study among 139 parents.[6]
- An RCT including 68 families.[7]

Best Practice Recommendations

1. If possible, parents should receive infant cardiopulmonary resuscitation training. (Grade B)
2. Discharge planning (involving the family) should commence at the time of admission. (Grade A)
3. At least 2 family members (caregivers) that will be involved in the care of the infant should be identified.

(Grade A)

4. Parents (caregivers) should be encouraged to participate in their infants' care while in hospital. (Grade A)
5. A formal assessment of a family's readiness to discharge should be conducted prior to discharge. A checklist that can be tailored to the needs of each infant and their family may be beneficial. (Grade A)
6. Families should receive pre-discharge education from a multidisciplinary team using multiple teaching formats including written, verbal and practical that is specific to the needs of the infant and family. (Grade A)
7. Families should be provided with the ability to contact healthcare providers as needed (eg telephone number). (Grade B)
8. Families should be visited by a nurse at least once after discharge in their home. (Grade A)
9. A designated discharge preparation nurse in the NICU may facilitate discharge. (Grade B)

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Archived Publications

1. JBI-ES-3337-5 (Published at 8 May 2024)
2. JBI-ES-3337-4 (Published at 7 May 2024)
3. JBI-ES-3337-3 (Published at 3 September 2021)
4. JBI-ES-3337-2 (Published at 5 May 2021)
5. JBI-ES-3337-1 (Published at 13 April 2021)

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For details on the method for development see Munn Z, Lockwood C, Moola S. The development and use of evidence summaries for point of care information systems: A streamlined rapid review approach. Worldviews Evid Based Nurs. 2015;12(3):131-8.