

Expansion of the Baby-Friendly Hospital Initiative Ten Steps to Successful Breastfeeding into Neonatal Intensive Care: Expert Group Recommendations

Journal of Human Lactation

29(3) 300–309

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DOI: 10.1177/0890334413489775

jhl.sagepub.com



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Abstract

In the World Health Organization/United Nations Children's Fund document *Baby-Friendly Hospital Initiative: Revised, Updated and Expanded for Integrated Care*, neonatal care is mentioned as 1 area that would benefit from expansion of the original Ten Steps to Successful Breastfeeding. The different situations faced by preterm and sick infants and their mothers, compared to healthy infants and their mothers, necessitate a specific breastfeeding policy for neonatal intensive care and require that health care professionals have knowledge and skills in lactation and breastfeeding support, including provision of antenatal information, that are specific to neonatal care. Facilitation of early, continuous, and prolonged skin-to-skin contact (kangaroo mother care), early initiation of breastfeeding, and mothers' access to breastfeeding support during the infants' whole hospital stay are important. Mother's own milk or donor milk (when available) is the optimal nutrition. Efforts should be made to minimize parent–infant separation and facilitate parents' unrestricted presence with their infants. The initiation and continuation of breastfeeding should be guided only by infant competence and stability, using a semi-demand feeding regimen during the transition to exclusive breastfeeding. Pacifiers are appropriate during tube-feeding, for pain relief, and for calming infants. Nipple shields can be used for facilitating establishment of breastfeeding, but only after qualified support and attempts at the breast. Alternatives to bottles should be used until breastfeeding is well established. The discharge program should include adequate preparation of parents, information about access to lactation and breastfeeding support, both professional and peer support, and a plan for continued follow-up.

Keywords

Baby-Friendly Hospital Initiative, breastfeeding, breastfeeding promotion, neonatal intensive care unit, preterm infants

Background

The Baby-Friendly Hospital Initiative (BFHI) was launched by the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) as a global effort to implement practices that protect, promote, and support breastfeeding. The Ten Steps to Successful Breastfeeding have been accepted as minimum global criteria for designation of a hospital as Baby-Friendly.¹ The assessments for designating a hospital as Baby-Friendly are based on a definition of minimal level of achievement. However, in response to the recognition that breastfeeding was an endangered practice in both rich and poor countries, to a renewed call in the *Global Strategy for Infant and Young Child Feeding*² for implementation of the BFHI, and to the HIV pandemic, the *Baby-Friendly Hospital Initiative: Revised, Updated and Expanded for Integrated Care* was published in 2009.³ This document states that the issue of mother- and baby-friendly neonatal intensive care units (NICUs) has been raised in some countries, as the BFHI standards and criteria are not

Date submitted: February 18, 2013; Date accepted: April 18, 2013.

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adapted to the special situation of preterm infants (born at a gestational age of less than 37 weeks), sick infants, and their mothers.⁴ A wide gap in breastfeeding rates at discharge has been noted in preterm infants compared to healthy term infants,^{5,6} and a shorter breastfeeding duration has been noted,⁷ especially in very preterm infants.⁸

Designation of a hospital as Baby-Friendly can also have positive effects on the NICU. In one unit in the United States, 4 years after the Baby-Friendly designation, NICU breastfeeding initiation rates had increased from 35% to 74%, the proportion of infants at the postnatal age of 2 weeks receiving any breast milk had increased from 28% to 66%, and the proportion receiving breast milk exclusively increased from 9% to 39%.⁹ In Brazil, implementation of guidelines associated with the BFHI program increased the breastfeeding rate and exclusivity at discharge among very preterm infants.¹⁰ Another study in Brazil after implementation of the BFHI found a higher rate of exclusive breastfeeding in preterm infants at the postnatal age of 6 months compared to before.¹¹

Because of these discrepancies in breastfeeding initiation rates and duration between healthy term infants and preterm and sick infants who require neonatal intensive care, a multidisciplinary team of breastfeeding experts from Norway, Denmark, Sweden, Finland, and Quebec, Canada, decided to expand the BFHI program to meet the special needs of these infants and mothers. The expert group, which has been meeting twice a year since 2009, prepared a draft of an expanded BFHI program, which was discussed by international experts at a conference in Sweden in 2011. The participants were invited to send additional suggestions after the conference. All these comments were considered in the process of compiling the document, which includes standards and criteria for Three Guiding Principles and Ten Steps to Successful Breastfeeding. An expanded version of the BFHI's External Assessment Tool was prepared for pilot tests in 2013. The goal is to have the documents, including the Hospital Self-Appraisal Tool, the External Assessment Tool, and the Hospital Monitoring Tool, available in 2014. The dissemination of the document and availability of the External Assessment Tool are being prepared in consultations with the WHO, UNICEF, and the International Lactation Consultant Association (ILCA). Standards for lactation and breastfeeding support have also been established by UNICEF UK.¹² Regarding infants with certain medical conditions requiring neonatal intensive care, a special adaptation of the Ten Steps for "vulnerable infants" has been suggested by Spatz.¹³

Scientific reports from various settings have described mothers' experiences of having a baby in a NICU and how they perceived the staff and the physical environment.¹⁴⁻¹⁷ Because of their traumatic experiences, these mothers should be considered vulnerable and be offered adequate lactation and breastfeeding counseling and sensitive emotional support. A model for family-integrated care in a

Canadian NICU resulted in higher breastfeeding incidence, higher infant weight gain, and lower maternal stress at discharge.¹⁸ Parents have identified the NICU environment as a barrier to their presence and to opportunities for "becoming parents" and they appreciate continuity of care.¹⁹ As these aspects of care have relevance for all Ten Steps, they were formulated as Three Guiding Principles: (1) The staff attitude to the mother must focus on the individual mother and her situation. (2) The facility must provide family-centered care, supported by the environment. (3) The health care system must ensure continuity of care, that is, continuity of pre-, peri-, and postnatal care and postdischarge care. In 2012, this expert group published these Three Guiding Principles in the document, *Expansion of the Ten Steps to Successful Breastfeeding into Neonatal Intensive Care: Expert Group Recommendations for Three Guiding Principles*.²⁰ The current publication represents a follow-up document to that paper. The expanded Ten Steps for neonatal wards are presented below. Table 1 shows the differences between the original Ten Steps to Successful Breastfeeding and the expanded version, including the Three Guiding Principles.

Step 1: Have a written breastfeeding policy that is routinely communicated to all health care staff

A wide range of practices contributes to increasing breastfeeding initiation, exclusivity, and duration in neonatal intensive care units.²¹ Naturally, standards in NICU breastfeeding policies must allow variations in practices depending on local differences in challenges to infants' and mothers' health, and availability of health care services. They should also include adherence to the International Code of Marketing of Breast-milk Substitutes (Code)²² and the WHO guidelines for acceptable medical reasons for use of breast milk substitutes²³; the more vulnerable the infant-mother dyad, the more important that breastfeeding is protected.

Besides the Code, a NICU breastfeeding policy will share many components of a policy addressing the maternity unit; hence, a hospital may reasonably decide to integrate both into 1 policy. Some mothers may be advised not to breastfeed for medical reasons, such as being HIV positive in certain settings.²³ Other mothers may decide not to breastfeed for various reasons. The breastfeeding/infant feeding policy must state that all mothers, irrespective of method of feeding, receive appropriate counseling on infant feeding and guidance on selecting options they find acceptable and suitable for their situations. AFASS guidelines (Acceptable, Feasible, Affordable, Sustainable, and Safe) are used when applicable.²⁴ The policy should include guidance for the implementation of the Three Guiding Principles and Ten Steps for Neonatal Intensive Care Units, the Code, and subsequent WHO resolutions.^{2,3,23,24} It should be available to all clinical staff members involved in lactation and

Table 1. Three Guiding Principles and Ten Steps to Successful Breastfeeding Expanded for Neonatal Wards

Guiding Principles	
<ol style="list-style-type: none"> 1. The staff attitude toward the mother must focus on the individual mother and her situation. 2. The facility must provide family-centered care, supported by the environment. 3. The health care system must ensure continuity of care, that is, continuity of pre-, peri-, and postnatal and postdischarge care. 	
Ten Steps	
Expanded	Original
<ol style="list-style-type: none"> 1. Have a written breastfeeding policy that is routinely communicated to all health care staff. 2. Educate and train all staff in the specific knowledge and skills necessary to implement this policy. 3. Inform all hospitalized pregnant women at risk for preterm delivery or birth of a sick infant about the management of lactation and breastfeeding and benefits of breastfeeding. 4. Encourage early, continuous, and prolonged mother–infant skin-to-skin contact (kangaroo mother care) without unjustified restrictions. Place babies in skin-to-skin contact with their mothers immediately following birth for at least an hour. Encourage mothers to recognize when their babies are ready to breastfeed and offer help if needed.³ 5. Show mothers how to initiate and maintain lactation and establish early breastfeeding with infant stability as the only criterion. 6. Give newborn infants no food or drink other than breast milk, unless medically indicated. 7. Enable mothers and infants to remain together 24 hours a day. 8. Encourage demand feeding or, when needed, semi-demand feeding as a transitional strategy for preterm and sick infants. 9. Use alternatives to bottle-feeding at least until breastfeeding is well established and use pacifiers and nipple shields only for justifiable reasons. 10. Prepare parents for continued breastfeeding and ensure access to support services/groups after hospital discharge. 	<ol style="list-style-type: none"> 1. Have a written breastfeeding policy that is routinely communicated to all health care staff. 2. Train all health care staff in skills necessary to implement this policy. 3. Inform all pregnant women about the benefits and management of breastfeeding. 4. Help mothers initiate breastfeeding within a half hour of birth. 5. Show mothers how to breastfeed and how to maintain lactation even if they should be separated from their infants. 6. Give newborn infants no food or drink other than breast milk, unless medically indicated. 7. Practice rooming-in—that is, allow mothers and infants to remain together—24 hours a day. 8. Encourage breastfeeding on demand. 9. Give no artificial teats or dummies to breastfeeding infants. 10. Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or clinic.

breastfeeding support and to mothers. Summaries of the policy should be visibly posted or available as written and visual information in the neonatal (intensive and intermediate care) unit and be displayed in the language(s) and written with wording most commonly understood by families and clinical staff.

Step 2: Educate and train all staff in the specific knowledge and skills necessary to implement this policy

Training of staff in connection with implementation of a program based on the BFHI Ten Steps in a NICU resulted in increased breastfeeding initiation rates and duration.^{9,25} Educational interventions have shown a potential for increasing nurses' knowledge about and attitudes to breastfeeding in the NICU.^{26,27} However, skills must also be promoted in order to enhance the quality of lactation and breastfeeding

counseling.²⁸ Specific knowledge and skills are needed for breastfeeding counseling targeted at these vulnerable mothers. Needless to say, educational and practical interventions must be based on recent research on preterm/sick infants' capacity for feeding at the breast and on systematic evaluation of different lactation support strategies.

Multidisciplinary training on the regular maternity ward has been shown to be effective in increasing staff knowledge and improving documentation of mothers' progress in breastfeeding.²⁸ An evaluation of training of NICU staff demonstrated positive effects, evidenced by mothers' attainment of a higher milk production and a higher breastfeeding initiation rate.²⁹ The NICU should have a plan for education and training of all new staff members, irrespective of profession, and for regular continuing education. This training should cover the Three Guiding Principles²⁰ and the Ten Steps expanded for NICUs. The standard to be attained by all clinical staff members set by the original

WHO requirements for BFHI certification is a curriculum corresponding to at least 20 hours, including at least 3 hours of supervised training.²

Step 3: Inform hospitalized pregnant women at risk for preterm delivery or birth of a sick infant about the management of lactation and breastfeeding and benefits of breastfeeding

The transition to becoming a mother is one of the most overwhelming events in a woman's life, for which she needs to be adequately prepared.³⁰ Giving birth to a preterm or sick infant is even more challenging, as this event is often totally unexpected.³¹ It can be assumed that most women who are confronted with preterm delivery doubt their ability to produce breast milk and breastfeed. The initial immature sucking pattern, often described as "disorganized" by researchers, may incorrectly be interpreted by mothers (and staff) as inability to handle nutritive sucking, although this early suckling pattern does not predict later feeding development; preterm infants seem to learn the various feeding skills at the same corrected ages as full-term infants.³² In many settings, mothers are physically separated from their infants, a predicament that requires special interventions for enabling them to eventually breastfeed their infants. Furthermore, an infant's degree of prematurity and severity of illness may affect his or her development of nutritive sucking capacity. For the mother to be adequately prepared for this, adequate and timely information is crucial. Mothers' suggestions regarding adaptation of the BFHI for neonatal intensive care included that breastfeeding information given to pregnant women in antenatal classes should address the possibility of successful establishment of lactation after preterm birth, using milk expression (by hand, or pump when available),³³ and preterm infants' early capacity for nutritive sucking at the breast, but that it may take some time before breastfeeding is possible.³⁴ Prenatal information about the benefits of breast milk and practical aspects of breast milk expression has been associated with longer breast milk feeding in preterm infants.²⁵ Interventions for supporting breastfeeding that commence during pregnancy and continue throughout the intrapartum and postnatal period are most effective, compared with interventions occurring during a shorter period.²⁸

Thus, women who are hospitalized because of impending preterm delivery or birth of a sick infant should be offered standardized information about establishment of lactation and breast milk feeding/breastfeeding, related to the unborn infant's expected medical condition. Sensitivity to the woman's knowledge and previous experience of breastfeeding, if any, is essential. For the staff, a written outline of information to be given renders this task easier and more efficient.

Step 4: Encourage early, continuous, and prolonged mother–infant skin-to-skin contact (kangaroo mother care) without unjustified restrictions

This step includes all infants requiring neonatal intensive care, not just those with mothers who breastfeed. The core concepts in kangaroo mother care (KMC) are warmth, breast milk, and love.³⁵ Studies in different types of settings have confirmed that mother–infant skin-to-skin contact promotes maternal milk volume³⁶ and breastfeeding initiation rates, exclusivity, and duration.^{21,37-41} In low-income settings, improved physical growth has been reported in low birth weight infants who received KMC, compared to conventional care.⁴²⁻⁴⁴ For settings with optimal health and medical care resources, the WHO guidelines recommend initiation of KMC for stable infants from 28 postmenstrual weeks or from a birth weight of 600 g.⁴⁵ Practical guidelines for KMC have also been published by the Kangaroo Foundation in Bogotá, Colombia.⁴⁶

Based on the overwhelming evidence of benefits with KMC, universal promotion of KMC in both high-tech and low-income settings has been recommended.^{47,48} The NICU should have a written KMC protocol. Parents should be informed and encouraged to commence provision of KMC as early as possible, ideally from birth, for as long a period per day as they want, also continuously, around the clock, without unjustified restrictions. Ideally, KMC is continued as long as needed by the infant for thermal control, in hospital and at home, provided that a program for safe early discharge and adequate follow-up is in place.

Step 5: Show mothers how to initiate and maintain lactation and establish early breastfeeding with infant stability as the only criterion

Mothers whose infants receive a high proportion of breast milk feeds in hospital are more likely to attain successful breastfeeding.⁴⁹ Early (within 6 hours) and frequent stimulation of lactation is associated with higher milk production later on.^{50,51} A Cochrane review found no evidence of difference in volume with simultaneous or sequential pumping, or between manual and electric pumps studied,⁵² but recent research supports the use of simultaneous expression.⁵³ A combination of hand expression and pumping has been found to be particularly efficient.⁵⁴ Breastfeeding support should be offered using a hands-off technique (unless the mother explicitly asks for hands-on assistance⁵⁵) to position and attach the infant for breastfeeding and as guidance in observing the infant's behavior at the breast.⁵⁶ Mothers of late preterm infants (born at a GA of 34–36 weeks) require the same lactation and breastfeeding support as mothers of infants born at a lower gestational age.⁵⁷ Information can be given orally or in writing/pictures.

Infant stability should be the only criterion for initiation of nutritive sucking at the breast, not gestational, postnatal, or postmenstrual age or current weight.³⁴ All mothers with difficulties in establishing and maintaining milk production should be offered focused individualized support and access to breastfeeding support during the infant's whole hospital stay. Lactation counseling should be provided by staff with adequate education and training in the specific needs of mothers and infants in neonatal intensive care units and should include demonstration of milk expression by hand or pump.

Step 6: Give newborn infants no food or drink other than breast milk, unless medically indicated

Breast milk is uniquely superior to all substitute feeding preparations. Preterm and sick infants receive particular benefits from breast milk with respect to host protection and developmental outcomes.^{58,59} When mothers' own milk is not available, pasteurized screened human donor milk is the best option,^{60,61} or nonpasteurized when other methods are used to ensure the milk is safe, with preterm formula as the next best option for infants with a weight of less than 2000 g, followed by formula, in this order of priority. Acceptable medical reasons for use of breast milk substitutes have been issued by the WHO/UNICEF.²³

The use of protein or multicomponent enrichment of breast milk to support growth in preterm infants varies and indications remain controversial.^{62,63} In extremely preterm infants, a combination of high volumes of mother's milk and individualized fortification has been associated with improved growth.⁶⁴ A fortifier is a medication; thus, an infant receiving fortification can be considered exclusively breastfed. However, a powdered fortifier, when compared to liquid fortifier, may be preferred by parents and does not seem to have any negative effects on the duration of breastfeeding.⁶⁵ In order to protect a mother's intention to continue lactation/breastfeeding, she should be informed about the reason for fortification of her milk before it is prescribed and be assured that her milk remains her baby's optimal nutrition.³³ After discharge, fortifying breast milk for infants fed directly from the breast is difficult and may interfere with breastfeeding.⁶⁶

One main challenge in NICU policy is to not interrupt the normal breastfeeding pattern: newborns feeding directly at the breast. Infants are given something other than breast milk only when there are justifiable medical reasons, when parents do not accept the use of donor milk, or when the mother has made an informed decision not to express milk/feed directly at the breast. AFASS guidelines are used when appropriate.²⁴ Strategies for increasing infants' total daily milk intake, such as rapid enteral feeding advancement,^{67,68} decreasing milk volume per feed combined with an increase of the feeding frequency, implementing individualized developmental care,⁶⁹ and adapting the pace of feeding according to the infant's tolerance, should be applied before

introduction of fortifier. A proactive feeding strategy, increasing milk intake in low birth weight infants to volumes above 200 mL/kg/day, has been proven feasible.^{68,70} In accordance with the International Code for Marketing of Breast-milk Substitutes, distribution to mothers of materials that recommend use of breast milk substitutes and inappropriate feeding practices should not be permitted, and the hospital should not accept free or low-cost infant breast milk substitutes; mothers of infants who receive breast milk substitutes should be offered individual counseling, away from breastfeeding mothers, about correct preparation and use of breast milk substitutes and appropriate feeding strategies.²²

Step 7: Enable mothers and infants to remain together 24 hours a day

The United Nations Convention on the Rights of the Child⁷¹ states that infants shall not be separated from their parents against their will and have the right to be cared for by their parents. It has become more common that infants and children in pediatric wards are together with a parent day and night, but this trend is not yet common in neonatal intensive care. However, single-room care with parents rooming-in is increasingly being introduced to NICUs and has been associated with shorter infant hospital stay.⁷² Rooming-in is beneficial for mother-infant bonding/attachment, parent empowerment, and breastfeeding.⁷³⁻⁷⁵ Preterm infants cared for by their mothers gained significantly more weight and significantly more infants were breastfed exclusively at discharge.¹⁹ Opportunity for rooming-in helps the parents feel like a family and not just visitors to their own baby.⁷⁶ Mothers separated from their newborn infants experience emotional strain and anxiety, feel like outsiders, and experience lack of control.⁷⁷ The unit policy should be based on respect for infants' and parents' right to nonseparation. Mothers should have the opportunity for rooming-in, immediately after the birth, irrespective of how their infants are fed. All possible efforts should be made to enable mothers/parents to be together with their infants day and night unless there are justifiable reasons. When rooming-in is not possible, mothers should be offered the opportunity to sleep in another room on the unit, or at least in a room at a short walking distance from the NICU.

Step 8: Encourage demand feeding or, when needed, semi-demand feeding as a transitional strategy for preterm and sick infants

Demand feeding (also called baby-led or ad libitum feeding) means that the infant is breastfed based on the mother's observation of the infant's behavioral signs of interest in suckling (rooting). However, this strategy is appropriate only once the infant has reached sufficient neurological maturity, evidenced

by coordination between hunger/satiety and sleep-awake states. Nutritive suckling at the breast has been noted in very preterm (GA 28-31 weeks) and extremely preterm infants (GA 27 weeks or less) from about 28 weeks, and exclusive breastfeeding from 32 weeks.³⁴ Feeding preterm infants in response to their hunger and satiation cues, rather than at scheduled intervals, might help in the establishment of oral feeding, increase nutrient intake and growth rates, and allow earlier hospital discharge.⁷⁸ However, during the transition period to feeding exclusively at breast, preterm/sick infants require supplementation by another feeding method in order to take the milk needed for adequate growth, and in the mother's absence. When the mother is present, she should be encouraged to place the infant at the breast at any discrete sign of waking up or wanting to suck, but also be guided in protecting the infant's deep sleep by observation of behavioral signs. Strategies for ensuring that the infant's nutritional needs are met are (a) assessment of milk intake at the breast by test-weighing before and after nursing, combined with feeding a prescribed volume of expressed breast milk over 24 hours,⁷⁹ (b) gradual reduction of a prescribed total daily breast milk volume for supplementation (no test-weighing), or (c) having a schedule for a number of days specifying decreasing daily total volumes to be given as supplementation. Mothers may appreciate the opportunity to select type of strategy, as decisions about feeding belong to the maternal role.³³ Irrespective of strategy, the infant's weight gain should guide the pace of reduction of supplementation.

The breastfeeding policy should state that the breastfeeding process is guided by the preterm and sick infant's competence and stability, not a certain postmenstrual or postnatal age, or weight. Nor is any routine intervention for "suck training" necessary before introduction of breastfeeding in infants without serious illness. The policy should describe strategies for the transition to exclusive breastfeeding, and from scheduled (set volumes and frequencies) to demand feeding. During this transition, semi-demand feeding should commence as soon as the infant shows some milk intake at the breast and there is no medical indication for scheduled feeding or routine administration of milk after each breastfeeding episode. Mothers should be supported in selecting their preferred strategy for reduction of supplementation given by other feeding methods. To facilitate their infants' breastfeeding progress, mothers should be guided in observing their infants' signs of feeding cues and behavioral state shifts. Medications should be administered and procedures scheduled so as to cause the least possible disturbance of breastfeeding.

Step 9: Use alternatives to bottle-feeding at least until breastfeeding is well established and use pacifiers and nipple shields only for justifiable reasons

Bottle-feeding has been shown to negatively impact breastfeeding success in both full-term⁸⁰ and preterm infants.⁸¹ In

contrast, cup feeding has been associated with higher breastfeeding rates at discharge,⁸² does not cause physiological instability,⁸³ and can be introduced from around 29 weeks.⁸⁴ Tube-feeding has also been used successfully during the transition from full enteral feeding to exclusive breastfeeding.⁸⁵ Pacifier sucking may encourage the development of sucking behavior and improve digestion, has a calming effect, reduces infant stress and anxiety, and gives pain relief during procedures.^{86,87} Therefore, pacifier sucking can be offered in hospital when breastfeeding is not possible and in the mother's absence. It has been found that an ultra-thin nipple shield can facilitate latching-on and milk transfer in preterm and sick infants, as it compensates for a weak intra-oral pressure and stimulates nutritive sucking.⁸⁸ It may be helpful when the infant has problems with latching on, does not stay fixed at the breast, or shows minimal sucking, but only after the mother has received qualified breastfeeding support and after ample trying.

Bottles should not be introduced to breastfed infants unless the mother explicitly requests them and has been informed of the risks. For infants of mothers who intend to breastfeed, the first nutritive sucking experience should be at the breast. When the mother intends to feed exclusively at breast, alternative oral feeding methods, instead of bottles, should be used until exclusive breastfeeding is well established. Information to parents should include justifiable reasons for pacifier use in hospital, alternate ways of soothing the infant, and recommendation to minimize pacifier use.

Step 10: Prepare parents for continued breastfeeding and ensure access to support services/groups after hospital discharge

All mothers who initiate breastfeeding or are expressing their milk after discharge require appropriate follow-up. The NICU staff have a responsibility to ensure that parents are confident in feeding issues before discharge, to prepare mothers for common challenges in breastfeeding, and to inform them about where to find a professional or lay peer counselor after discharge with adequate education and training in the specific needs of NICU infants and their mothers. A positive association has been found between mothers' milk production at discharge and putting their infants directly to breast before discharge from the NICU.⁸⁹ The breastfeeding rates 4 and 6 months after discharge were higher in infants who came home with early discharge and partial tube-feeding than in infants discharged after attainment of full oral feeding (only breast milk) in hospital; the early discharge group was closely supervised by pediatric nurse specialists.⁹⁰ Thus, when mothers intending to feed exclusively at breast are discharged before they reach this goal, support by an experienced professional increases the likelihood of a longer duration of breast milk feeding/breastfeeding. Cooperation between professionals and lay peer counselors in preparing

mothers for breastfeeding after discharge has enhanced mothers' choice to breastfeed and to continue breastfeeding.⁹¹⁻⁹³ The unit management is responsible for the establishment and coordination of activities with breastfeeding support groups or networks for parents of NICU graduates.

Planning of infant discharge from the unit should occur in collaboration with the family and the community health services and include a plan for the transition to full oral feeding, promoting/protecting breastfeeding/breast milk feeding, to which all professionals should adhere.¹⁶ There should also be a plan for follow-up soon after the discharge, individualized according to the infant's condition, at the facility or in the community. Efforts should be made to ensure continuity of care, so the plan for the infant's care and follow-up is shared by all of the infant's caregivers and the parents do not have to repeat this information to caregivers, especially when the infant is transferred to another hospital.²⁰

Interventions continuing throughout infancy are more effective than interventions conducted during 1 period. Use of various intervention packages for education and support from well-trained professionals and peer supporters is more effective than 1 single method.²¹ Peer support after discharge has reduced the risk of not breastfeeding, increased the amount of breast milk provided by mothers, and contributed to longer duration of breastfeeding.⁹⁴ Telephone lactation counseling⁹⁵ and new technologies, such as video conferencing, facilitate early discharge, lactation/breastfeeding support, and follow-up.⁹⁶

The International Code of Marketing of Breast-milk Substitutes

For Baby-Friendly designation, no employees of manufacturers or distributors of breast milk substitutes, bottles, teats, or pacifiers are allowed any direct or indirect contact with mothers.²² The hospital does not receive free gifts, materials or equipment, money, or support for in-service education or events from such manufacturers or distributors, and mothers or families are not given any marketing material or gifts that include breast milk substitutes, bottles/teats, pacifiers, other infant feeding equipment, or coupons. The display of posters or other materials provided by manufacturers is not allowed, and the hospital keeps infant formula cans and pre-prepared bottles of formula out of view unless in use.

Conclusion

The authors' goal was to be as true as possible to the original BFHI steps. However, there are wide differences between preterm and sick infants and their mothers related to lactation, breastfeeding, and feeding, as well as between settings in levels of medical-technical neonatal care and families' access to care. This renders it difficult to specify standards for high-quality lactation and breastfeeding support in neonatal intensive care units that are equally applicable everywhere. In the spirit and applicability of the original Ten

Steps, this expanded version of the BFHI for neonatal intensive care units was formulated with the aim of rendering it applicable irrespective of such differences.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

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