









Model Hospital Policy Resource Guide 2010









Arizona Baby Steps to Breastfeeding Success Model Hospital Policy Resource Guide

The Arizona Department of Health Services (ADHS) has compiled this resource of model hospital policies to assist hospitals and health care providers in implementation of the *Arizona Baby Steps to Breastfeeding Success* recommendations. This document includes evidence-based best practices that have been demonstrated to significantly increase duration and exclusivity of breastfeeding.

This document illustrates policies in support of each of the five *Arizona Baby Steps to Breastfeeding Success*. Supportive practices for each step are represented by the following color coding throughout this entire document. For example, all model policies containing an explanation of the first step; "Initiate breasfeeding withing the first hour after birth" are represented by yellow highlighting, the second step in orange, the third step in green and so on.

- 1. Initiate breastfeeding within the first hour after birth.
- 2. Avoid giving infants fluids or solids other than breast milk unless medically necessary.
- Promote 24-hour rooming-in, encouraging the family to recognize and respond to infant's cues.
- 4. Do not use a pacifier or artificial nipple with infants during the hospital stay.
- 5. Give mothers a telephone number to call for help with breastfeeding.

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Thank you for joining Arizona Department of Health Services as we move forward together with this important and exciting program. We are confident Az Baby Steps to Breastfeeding Success will prove to make great strides in the health and well-being of Arizona's mothers and babies.

Upon receiving and reviewing this AzBSBS Model Hospital Policy Resource Guide, feel free to contact your AzBSBS Coordinator for technical assistance.

Please submit your finalized and approved Breastfeeding Policy to your coordinator at least two (2) weeks prior to your hospital's first scheduled staff training date.

The AzBSBS Coordinator and your designated contact person will then discuss tailoring the AzBSBS staff curriculum specific to your facility's policy revisions as related to AZBSBS.

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SAMPLE POLICIES

















BABY-FRIENDLY USA SAMPLE HOSPITAL POLICY

http://www.babyfriendly.org.uk/pdfs/sample_maternity_policy.pdf









Sample hospital breastfeeding policy

Principles

This Trust believes that breastfeeding is the healthiest way for a woman to feed her baby and recognises the important health benefits now known to exist for both the mother and her child.

All mothers have the right to receive clear and impartial information to enable them to make a fully informed choice as to how they feed and care for their babies. Health-care staff will not discriminate against any woman in her chosen method of infant feeding and will fully support her when she has made that choice.

Aims

To ensure that the health benefits of breastfeeding and the potential health risks of formula feeding are discussed with all women so that they can make an informed choice about how they will feed their baby.

To enable health-care staff to create an environment where more women choose to breastfeed their babies, confident in the knowledge that they will be given support and information to enable them to continue breastfeeding exclusively for six months, and then as part of their infant's diet to the end of the first year and beyond.

In support of this policy

- In order to avoid conflicting advice it is mandatory that all staff involved with the care of breastfeeding women adhere to this policy. Any deviation from the policy must be justified and recorded in the mother's and baby's notes.
- The policy should be implemented in conjunction with both the Trust's breastfeeding guidelines* and the mothers' guide to the policy*. (* where these exist)
- It is the individual midwife's responsibility to liaise with the baby's medical attendants (paediatrician, general practitioner) should concerns arise about the baby's health.
- No advertising of breastmilk substitutes, feeding bottles, teats or dummies is permissible in any part of this Trust. The display of manufacturers' logos on items such as calendars and stationery is also prohibited.
- No literature provided by infant formula manufacturers is permitted. Educational material for distribution to women and their families must be approved by the senior midwifery manager*. (* amend the post if appropriate)

 Parents who have made a fully informed choice to artificially feed their babies should be shown how to prepare formula feeds correctly, either individually or in small groups, in the postnatal period. No routine group instruction on the preparation of artificial feeds will be given in the antenatal period as evidence suggests that information given at this time is less well retained and may serve to undermine confidence in breastfeeding.

The policy

Communicating the breastfeeding policy

- 1.1 This policy is to be communicated to all health care staff who have any contact with pregnant women and mothers. All staff will have access to a copy of this policy.
- 1.2 All new staff will be orientated to the policy as soon as their employment begins.
- 1.3 The policy will be effectively communicated to all pregnant women with the aim of ensuring that they understand the standard of information and care expected from this facility. Where a mothers' guide is used in place of the full policy, the full version should be available in each ward area on request. A statement to this effect will be included on the mothers' guide. The policy will also be available on audio tape and in the following languages: (*). (* add language names, amend or delete this statement according to local needs)

Training health-care staff

- 2.1 Midwives have the primary responsibility for supporting breastfeeding women and for helping them to overcome related problems.
- 2.2 All professional and support staff who have contact with pregnant women and mothers will receive training in breastfeeding management at a level appropriate to their professional group. New staff will receive training within six months of taking up their posts.
- 2.3 Professional and support staff will receive training in the skills needed to assist mothers who have chosen to formula feed including in the reconstitution of infant formula and sterilisation techniques, at a level appropriate to their role and responsibilities within the maternity. (Each maternity service will be required to make an individual decision regarding which grades of staff will be required to teach mothers how to reconstitute infant formula)

- 2.4 All clerical and ancillary staff will be orientated to the policy and receive training to enable them to refer breastfeeding queries appropriately.
- 2.5 New staff will receive training within six months of taking up their posts.

<u>Informing pregnant women of the benefits and management of breastfeeding</u>

- 3.1 Staff involved with the provision of antenatal care should ensure that all pregnant women are informed of the benefits of breastfeeding and the potential health risks of formula feeding.
- 3.2 All pregnant women should be given an opportunity to discuss infant feeding on a one-to-one basis with a midwife. Such discussion should not solely be attempted during a group parentcraft class. This should be achieved by 34 completed weeks of pregnancy.
- 3.3 The physiological basis of breastfeeding should be clearly and simply explained to all pregnant women, together with good management practices which have been proven to protect breastfeeding and reduce common problems. The aim should be to give women confidence in their ability to breastfeed.
- 3.4 Parent Education classes, where they exist should reinforce the above.

Initiation of breastfeeding

- 4.1 All mothers should be encouraged to hold their babies in skin-to-skin contact as soon as possible after delivery in an unhurried environment, regardless of their feeding method. Skin-to-skin contact should last for at least one hour or until after the first breastfeed (whichever is sooner).
- 4.2 Skin-to-skin contact should never be interrupted at staff's instigation to carry out routine procedures.
- 4.3 If skin-to-skin contact is interrupted for clinical indication or maternal choice it should be re-instigated as soon as mother and baby are able.
- 4.4 All mothers should be encouraged to offer the first breastfeed when mother and baby are ready. Help must be available from a midwife if needed.

Showing women how to breastfeed and how to maintain lactation

- 5.1 All breastfeeding mothers should be offered further help with breastfeeding within six hours of delivery. A midwife should be available to assist a mother at all breastfeeds during her hospital stay.
- 5.2 Midwives should ensure that mothers are offered the support necessary to acquire the skills of positioning and attachment. They should be able to explain the necessary techniques to a mother, thereby helping her to acquire this skill for herself.
- 5.3 All breastfeeding mothers should be shown how to hand express their milk. A leaflet should be provided for women to use for reference.
- 5.4 Prior to transfer home, all breastfeeding mothers will receive information, both verbally and in writing, about how to recognise effective feeding to include:
 - The signs which indicate that their baby is receiving sufficient milk, and what to do if they suspect this is not the case;
 - How to recognise signs that breastfeeding is not progressing normally (e.g. sore nipples, breast inflammation).
- 5.5 An assessment of breastfeeding will be carried out at around day five to determine whether effective milk transfer is taking place and whether further support with breastfeeding is required.
- 5.6 When a mother and her baby are separated for medical reasons, it is the responsibility of all health professionals caring for both mother and baby to ensure that the mother is given help and encouragement to express her milk and maintain her lactation during periods of separation.
- 5.7 Mothers who are separated from their babies should be encouraged to begin expressing as soon as possible after delivery as early initiation has long-term benefits for milk production.
- 5.8 Mothers who are separated from their babies should be encouraged to express milk at least eight times in a 24-hour period. They should be shown how to express breastmilk both by hand and by pump.

Supporting exclusive breastfeeding

6.1 No water or artificial feed should be given to a breastfed baby except in cases of clinical indication or fully informed parental choice. The decision to offer supplementary feeds for clinical reasons should be made by an appropriately trained midwife or paediatrician. Reasons for supplementation should be fully discussed with parents and recorded in the baby's notes.

- 6.2 Prior to introducing artificial milk to breastfed babies, every effort should be made to encourage the mother to express breastmilk to be given to the baby via cup or syringe. This proactive approach will reduce the need to offer artificial feeds.
- Parents who request supplementation should be made aware of the possible health implications and the harmful impact such action may have on breastfeeding to enable them to make a fully informed choice. A full record of this discussion should be made in the baby's notes.

Rooming-in

- 7.1 Mothers will normally assume primary responsibility for the care of their babies.
- 7.2 Separation of mother and baby will normally only occur where the health of either mother or baby prevents care being offered in the postnatal areas.
- 7.3 There is no designated nursery space in the postnatal areas.
- 7.4 Babies should not be routinely separated from their mothers at night. This applies to babies who are being formula-fed as well as those being breastfed. Mothers recovering from caesarean section should be given appropriate care, but the policy of keeping mothers and babies together should normally apply.

Baby-led feeding

- 8.1 Demand feeding should be encouraged for all babies unless clinically indicated. Hospital procedures should not interfere with this principle. Staff will ensure that mothers understand the nature of feeding cues and the importance of responding to them and that they have an awareness of normal feeding patterns, including cluster feeding and 'growth spurts'.
- 8.2 Mothers should be informed that it is acceptable to wake their baby for feeding if their breasts become overfull. The importance of night-time feeding for milk production should be explained.

Use of Artificial Teats, Dummies and Nipple Shields

9.1 Health care staff should not recommend the use of artificial teats and dummies during the establishment of breastfeeding. Parents wishing to use them should be advised of the possible detrimental effects such use may have on breastfeeding to enable them to make a fully informed choice. A record of the discussion and parents' decision should be recorded in the baby's notes.

9.2 Nipple shields will not be recommended except in extreme circumstances and then only for as short a time as possible. Any mother considering the use of a nipple shield must have the disadvantages fully explained to her prior to commencing use. She should remain under the care of a skilled practitioner whilst using the shield and should be helped to discontinue its use as soon as possible.

Breastfeeding support groups

- 10.1 This Trust supports co-operation between health care professionals and voluntary support groups whilst recognising that health care facilities have their own responsibility to promote breastfeeding.
- 10.2 Sources of national and local support should be identified and mothers given verbal and written information about these prior to transfer home from hospital, to include:
 - Telephone numbers of midwives, infant feeding advisors* and other professional support
 - Contact details for voluntary breastfeeding counsellors* and support groups* and national breastfeeding helpline numbers (*amend or delete according to local availability)
- 10.3 Breastfeeding support groups will be invited to contribute to further development of the breastfeeding policy through involvement in appropriate meetings.

<u>Care for mothers who have chosen to feed their newborn with infant formula</u>

- 11.1 Staff should ensure that all mothers who have chosen to feed their newborn with infant formula are able to correctly sterilise equipment and make up a bottle of infant formula during the early postnatal period and before discharge from hospital.
- 11.2 Staff should ensure that mothers are aware of effective techniques for formula feeding their baby.
- 11.3 Community midwives will check and reinforce learning following the mothers transfer home.
- 11.4 All information given should follow guidance from the Department of Health. Information should be reinforced by offering the Department of Health Bottle Feeding leaflet *(or local equivalent)*.
- 11.5 Mothers should be given contact details of health professional support available for feeding issues once they have left hospital.









ACADEMY OF BREASTFEEDING MEDICINE

http://www.bfmed.org/Resources/Protocols.aspx









ACADEMY OF BREASTFEEDING MEDICINE

Clinical Protocols

These protocols serve only as guidelines for the care of breastfeeding mothers and infants and do not delineate an exclusive course of treatment or serve as standards of medical care. Variations in treatment may be appropriate according to the needs of an individual patient.

Translated protocols that appear here [on the ABM website] have undergone a rigorous two-way translation to provide complete accuracy. Please be aware that translations that appear elsewhere, such as on other websites, are not 'official' ABM translations and ABM cannot assure their accuracy.

ABM Clinical Protocols are now readily available through the National Guideline Clearinghouse website. Visit www.guideline.gov

Model Hospital Policy English

Supplementation English

BREASTFEEDING MEDICINE Volume 5, Number 4, 2010 © Mary Ann Liebert, Inc.

DOI: 10.1089/bfm.2010.9986

ABM Clinical Protocol #7: Model Breastfeeding Policy (Revision 2010)

The Academy of Breastfeeding Medicine Protocol Committee

A central goal of The Academy of Breastfeeding Medicine is the development of clinical protocols for managing common medical problems that may impact breastfeeding success. These protocols serve only as guidelines for the care of breastfeeding mothers and infants and do not delineate an exclusive course of treatment or serve as standards of medical care. Variations in treatment may be appropriate according to the needs of an individual patient.

Purpose

T HE PURPOSE OF THIS PROTOCOL is to promote a philosophy and practice of maternal—infant care that advocates breastfeeding. Care should support the normal physiologic functions involved in the establishment of this maternal—infant process and assist families choosing to breastfeed with initiating and developing a successful and satisfying experience.

This policy is based on recommendations from the most recent breastfeeding policy statements published by the Office on Women's Health of the U.S. Department of Health and Human Services, ¹ the American Academy of Pediatrics, ² the American College of Obstetricians and Gynecologists, ³ the American Academy of Family Physicians, ⁴ the World Health Organization, ⁵ the Academy of Breastfeeding Medicine, ⁶ and the UNICEF/World Health Organization evidence-based Ten Steps to Successful Breastfeeding. ^{5,7–10}

In addition to evidence supporting each of the Ten Steps improving breastfeeding exclusivity or duration, there is also documentation of a dose-responsive effect: Women at hospitals implementing six of seven studied steps in one report were six times more likely to meet their exclusive breastfeeding goals than those from hospitals implementing no or only one of the steps. ¹¹ The degree of compliance is also important: Breastfeeding duration is longer when hospitals' self-reported compliance with the steps is better. ¹²

Policy Statements

1. The "name of institution" staff will actively support breastfeeding as the preferred method of providing nutrition to infants. A multidisciplinary, culturally appropriate team comprising hospital administrators, physician and nursing staff, lactation consultants and specialists, nutrition staff, other appropriate staff, and parents shall be established and maintained to identify and eliminate institutional barriers to breastfeeding. On a yearly basis, this group will compile and evaluate

- data relevant to breastfeeding support services and formulate a plan of action to implement needed changes.
- A written breastfeeding policy will be developed and communicated to all healthcare staff. The "name of institution" breastfeeding policy will be reviewed and updated biannually using current research as an evidence-based guide.
- All pregnant women and their support people as appropriate will be provided with information on breastfeeding and counseled on the benefits of breastfeeding, contraindications to breastfeeding, and risk of formula feeding.¹³
- 4. The woman's desire to breastfeed will be documented in her medical record.
- 5. Mothers will be encouraged to exclusively breastfeed unless medically contraindicated. The method of feeding will be documented in the medical record of every infant. (Exclusive breastfeeding is defined as providing breastmilk as the sole source of nutrition. Exclusively breastfed babies receive no other liquids or solids with the exception of oral medications prescribed by a medical care provider for the infant.)
- 6. At birth or soon thereafter all newborns, if baby and mother are stable, will be placed skin-to-skin with the mother. Skin-to-skin contact involves placing the naked baby prone on the mother's bare chest. The infant and mother can then be dried and remain together in this position with warm blankets covering them as appropriate. Mother—infant couples will be given the opportunity to initiate breastfeeding within 1 hour of birth. Post-cesarean-birth babies will be encouraged to breastfeed as soon as possible, potentially in the operating room or recovery area (Table 1). The administration of vitamin K and prophylactic antibiotics to prevent ophthalmia neonatorum should be delayed for the first hour after birth to allow uninterrupted mother—infant contact and breastfeeding. 14-16
- Breastfeeding mother-infant couples will be encouraged to remain together throughout their hospital stay,

Table 1. Best Practices for Breastfeeding Support Following Cesarean Delivery

Early mother-infant contact. Avoidance of separation unless dictated by medical indications

Early breastfeeding <1 hour after delivery. Can occur in delivery suite or recovery room

Regional anesthesia for cesarean delivery

Infant positioning to minimize incision discomfort. Use of side-lying, football breastfeeding position. Use of pillow to protect incision site

Use of regional medication after cord clamping to decrease the need for postoperative narcotics

Preferential use of narcotics with less adverse effects on neonatal behavior

Frequent breastfeeding and rooming-in such as would be routine for vaginal delivery

Protocols for early breast pumping and expression if infant separation is dictated because of medical indication such as prematurity. Should be initiated day of delivery

Easy availability of lactation expert for further support and assistance if needed

Monitoring for delayed onset of lactation in mother and excessive weight loss in the newborn

Education and encouragement of family members in methods of supporting breastfeeding in the new family

including at night (rooming-in). Skin-to-skin contact will be encouraged as much as possible.

- 8. Breastfeeding assessment, teaching, and documentation will be done on each shift and whenever possible with each staff contact with the mother. Each feeding will be documented, including latch, position, and any problems encountered in the infant's medical record. For feedings not directly observed, maternal report may be used. Every shift, a direct observation of the baby's position and latch-on during feeding will be performed and documented.
- 9. Mothers will be encouraged to utilize available breast-feeding resources, including classes, written materials, and video presentations, as appropriate. If clinically indicated, the healthcare professional or nurse will make a referral to a lactation consultant or specialist for additional education and assistance.
- 10. Breastfeeding mothers will be instructed about:
 - a. Proper positioning and latch-on
 - b. Nutritive suckling and swallowing
 - c. Milk production and release
 - d. Frequency of feeding/feeding cues
 - Hand expression of breastmilk and use of a pump if indicated
 - f. How to assess if infant is adequately nourished and
 - g. Reasons for contacting the healthcare professional

These skills will be taught to primiparous and multiparous women, provided in written form, ¹⁷ and reviewed before the mother goes home.

- 11. Parents will be taught that breastfeeding infants, including cesarean-birth babies, should be put to breast a minimum of eight to 12 times each 24 hours, with some infants needing to be fed more frequently. Infant feeding cues (e.g., increased alertness or activity, mouthing, or rooting) will be used as indicators of the baby's readiness for feeding. *Breastfeeding babies will be breastfed at night*.
- 12. Time limits for breastfeeding on each side will be avoided. Infants can be offered both breasts at each feeding but may be interested in feeding only on one side at a feeding during the early days.
- No supplemental water, glucose water, or formula will be given unless specifically ordered by a healthcare professional (e.g., physician, certified nurse midwife, or

- nurse practitioner) or by the mother's documented and informed request. Prior to non-medically indicated supplementation, mothers will be informed of the risks of supplementing. The supplement should be fed to the baby by cup if possible and will be no more than 10–15 mL (per feeding) in a term baby (during the first 1–2 days of life). Alternative feeding methods such as syringe or spoon feeding may also be used; however, these methods have not been shown to be effective in preserving breastfeeding. Bottles will not be placed in or around the breastfeeding infant's bassinet. ^{18–20}
- 14. This institution does not give group instruction in the use of formula. Those parents who, after appropriate counseling, choose to formula feed their infants will be provided individual instruction.
- 15. Pacifiers will not be given to normal full-term breast-feeding infants. The pacifier guidelines at "name of institution" state that preterm infants in the Neonatal Intensive Care or Special Care Unit or infants with specific medical conditions (e.g., neonatal abstinence syndrome) may be given pacifiers for non-nutritive sucking. Newborns undergoing painful procedures (e.g., circumcision) may be given a pacifier as a method of pain management during the procedure. The infant will not return to the mother with the pacifier. "Name of institution" encourages "pain-free newborn care," which may include breastfeeding during the heel stick procedure for the newborn metabolic screening tests.²¹
- 16. Routine blood glucose monitoring of full-term healthy appropriate-for-gestational-age infants is not indicated. Assessment for clinical signs of hypoglycemia and dehydration will be ongoing.²²
- 17. Antilactation drugs will not be given to any postpartum mother.
- 18. Routine use of nipple creams, ointments, or other topical preparations will be avoided unless such therapy has been indicated for a dermatologic problem. Mothers with sore nipples will be observed for latch-on techniques and will be instructed to apply expressed colostrum or breastmilk to the areola/nipple after each feeding.
- 19. Nipple shields or bottle nipples will *not* be routinely used to cover a mother's nipples, to treat latch-on problems, or to prevent or manage sore or cracked nipples or used when a mother has flat or inverted nipples. Nipple shields will be used only in conjunction

- with a lactation consultation and after other attempts to correct the difficulty have failed.
- 20. After 24 hours of life, if the infant has not latched-on or fed effectively, the mother will be instructed to begin to massage her breasts and hand express colostrum into the baby's mouth during feeding attempts. Skin-to-skin contact will be encouraged. Parents will be instructed to watch closely for feeding cues and whenever these are observed to awaken and feed the infant. If the baby continues to feed poorly, hand expression by the mother or a double set-up electric breast pump will be initiated and maintained approximately every 3 hours or a minimum of eight times per day. Any expressed colostrum or mother's milk will be fed to the baby by an alternative method. The mother will be reminded that she may not obtain much milk or even any milk the first few times she expresses her breasts. Until the mother's milk is available, a collaborative decision should be made among the mother, nurse, and healthcare professional (e.g., physician/nurse practitioner/certified nurse midwife) regarding the need to supplement the baby. Each day the responsible healthcare professional will be consulted regarding the volume and type of supplement. Pacifiers will be avoided. In cases of problem feeding, the lactation consultant or specialist will be consulted.14
- 21. If the baby is still not latching on well or feeding well when discharged to home, the feeding/expression/supplementing plan will be reviewed in addition to routine breastfeeding instructions. A follow-up visit or contact will be scheduled within 24 hours. Depending on the clinical situation it may be appropriate to delay discharge of the couplet to provide further breastfeeding intervention, support, and education.
- 22. All babies should be seen for follow-up within the first few days postpartum. This visit should be with a physician (pediatrician or family physician) or other qualified healthcare practitioner for a formal evaluation of breastfeeding performance, a weight check, assessment of jaundice, and age-appropriate elimination: (a) For infants discharged at less than 2 days of age (<48 hours), follow-up at 2–4 days of age; and (b) for infants discharged between 48 and 72 hours, follow-up at 4–5 days of age. Infants discharged after 5–6 days may be seen 1 week later.
- 23. Mothers who are separated from their sick or premature infants will be:
 - a. Instructed on how to use skilled hand expression or the double set-up electric breast pump. Instructions will include expression at least eight times per day or approximately every 3 hours for 15 minutes (or until milk flow stops, whichever is greater) around the clock and the importance of not missing an expression session during the night.
 - Encouraged to breastfeed on demand as soon as the infant's condition permits
 - Taught proper storage and labeling of human milk and
 - d. Assisted in learning skilled hand expression or obtaining a double set-up electric breast pump prior to going home

- 24. Before leaving the hospital²³ breastfeeding mothers should be able to
 - a. Position the baby correctly at the breast with no pain during the feeding
 - b. Latch the baby to breast properly
 - c. State when the baby is swallowing milk
 - d. State that the baby should be nursed a minimum of eight to 12 times a day until satiety, with some infants needing to be fed more frequently
 - e. State age-appropriate elimination patterns (at least six urinations per day and three to four stools per day by the fourth day of life)
 - f. List indications for calling a healthcare professional
 - g. Manually express milk from their breasts
- 25. Prior to going home, mothers will be given the names and telephone numbers of community resources to contact for help with breastfeeding, including (the support group or resource recommended by "name of institution").
- 26. "Name of institution" does not accept free formula or free breastmilk substitutes. Nursery or Neonatal Intensive Care Unit discharge bags offered to all mothers will not contain infant formula, coupons for formula, logos of formula companies, or literature with formula company logos.
- 27. "Name of institution" health professionals will attend educational sessions on lactation management and breastfeeding promotion to ensure that correct, current, and consistent information is provided to all mothers wishing to breastfeed.²⁴

Application

All breastfeeding patients.

Exceptions

Breastfeeding is contraindicated^{2,25} in the following situations:

- Mothers who are human immunodeficiency viruspositive in locations where artificial feeding is acceptable, feasible, affordable, sustainable, and safe²⁶
- Mothers currently using illicit drugs (e.g., cocaine, heroin) unless specifically approved by the infant's healthcare provider on a case-by-case basis
- Mothers taking certain medications. Most prescribed and over-the-counter drugs are safe for the breastfeeding infant. Some medications may make it necessary to interrupt breastfeeding, such as radioactive isotopes, antimetabolites, cancer chemotherapy, some psychotropic medications, and a small number of other medications. The references used at "name of institution" are Medications and Mothers' Milk by T. Hale, 27 the drugs and lactation database of the U.S. National Library of Medicine, TOXNET: Toxicology Data Network (LactMed),²⁸ Breastfeeding: A Guide for the Medical Profession by R.A. Lawrence and R.M. Lawrence, 29 Drugs in Pregnancy and Lactation by G.G. Briggs, R.K. Freeman, and S.J. Yaffe, 30 and the American Academy of Pediatrics Statement on the Transfer of Drugs into Human Milk.31 (NB: Alternative local references and resources may be substituted if available.)

- Mothers with active, untreated tuberculosis. A mother can express her milk until she is no longer contagious.
- · Infants with galactosemia
- Mothers with active herpetic lesions on the breast(s). Breastfeeding can be recommended on the unaffected breast. (The Infectious Disease Service will be consulted for problematic infectious disease issues.)
- Mothers with onset of varicella within 5 days before or up to 48 hours after delivery, until she is no longer infectious
- Mothers with human T-cell lymphotropic virus type I or type II

The Ten Steps to Successful Breastfeeding

- Have a written breastfeeding policy that is routinely communicated to all healthcare staff.
- 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 1 hour of birth.
- 5. Show mothers how to breastfeed and how to maintain lactation, even if they are separated from their infants.
- 6. Give newborn infants no food or drink other than breastmilk, unless medically indicated. (A hospital must pay fair market price for all formula and infant feeding supplies that it uses and cannot accept free or heavily discounted formula and supplies.)
- 7. Practice rooming-in—allow mothers and infants to remain together—24 hours a day.
- 8. Encourage breastfeeding on demand.
- Give no artificial teats or pacifiers to breastfeeding infants.
- 10. Foster the establishment of breastfeeding support groups and refer mothers to them, on discharge from the hospital or clinic.

Other Related Policies

- Policy #
- Other references/resources^{32–35}

Initiated by

List appropriate names, departments.

Contributing Departments

List all departments involved in developing policy.

Research Needs

Change in the hospital setting is hard. A comprehensive hospital breastfeeding policy that is clearly communicated to maternity staff may be a key step in the change process to support breastfeeding dyads. Rosenberg et al.³⁶ reported that the presence of a written breastfeeding policy was independently associated with a statistically significant increase in the rate of breastfeeding.

Certain maternity care practices like The Ten Steps to Successful Breastfeeding (Table 2), the framework of the WHO-UNICEF Baby-Friendly Hospital Initiative, have been shown

to influence breastfeeding outcomes. An analysis of the Infant Feeding Practices Study II (IFPS II) found that breastfeeding women who did not experience any of the Steps were 13 times more likely to stop breastfeeding early compared to those who experienced at least six Steps. In addition, the more steps practiced, the higher the duration and exclusivity of breastfeeding at 2 months.³⁷ As only 8% of women surveyed in the IFPS II reported experiencing all six of the Baby-Friendly efforts measured, a great deal of work remains to be done.

Recommendations for further research include:

- 1. What are effective strategies to increase implementation of Baby-Friendly practices in the hospital setting?
- 2. How best to monitor staff adherence to a hospital's breastfeeding policy?
- 3. What are the effects of additional practices, not included in the original Ten Steps, on breastfeeding initiation and duration?

Acknowledgments

This work was supported in part by a grant from the Maternal and Child Health Bureau, U.S. Department of Health and Human Services.

References

- U.S. Department of Health and Human Services. HHS Blueprint for Action on Breastfeeding. Office on Women's Health, U.S. Department of Health and Human Services, Washington, DC, 2000.
- 2. Gartner LM, Morton J, Lawrence RA, et al. Breastfeeding and the use of human milk. *Pediatrics* 2005;115:496–506.
- 3. Queenan JT, ed. ACOG Educational Bulletin Number 258. Breastfeeding: Maternal and Infant Aspects. Committees on Health Care for Underserved Women and Obstetric Practice, American College of Obstetricians and Gynecologists, Washington, DC, July 2000, pp. 1–16.
- AAFP Breastfeeding Advisory Committee. Family Physicians Supporting Breastfeeding: Breastfeeding Position Paper 2008. www.aafp.org/online/en/home/policy/policies/b/breastfeedingpositionpaper.html (accessed January 27, 2010).
- World Health Organization, United Nations Children's Fund. Protecting, promoting and supporting breastfeeding: The special role of maternity services (a joint WHO/ UNICEF statement). Int J Gynecol Obstet 1990; 31(Suppl 1): 171–183.
- Academy of Breastfeeding Medicine Board of Directors. Position on breastfeeding. Breastfeed Med 2008;3:267–270.
- 7. WHO/UNICEF meeting on infant and young child feeding. *J Nurse Midwifery* 1980;25:31–38.
- 8. Innocenti Declaration on the Protection, Promotion and Support of Breastfeeding. UNICEF, New York, 1990.
- World Health Organization, United Nations Children's Fund, Academy of Breastfeeding Medicine Board of Directors. Celebrating Innocenti 1990–2005: Achievements, Challenges and Future Imperatives. World Alliance for Breastfeeding Action. www.innocenti15.net/index.htm (accessed March 24, 2010).
- United Nations Children's Fund, World Health Organization. Section 1. In: Baby Friendly Hospital Initiative: Revised, Updated and Expanded for Integrated Care. World Health Organization, UNICEF and Wellstart International, Geneva, 2009.

 Declercq E, Labbok MH, Sakala C, et al. Hospital practices and women's likelihood of fulfilling their intention to exclusively breastfeed. Am J Public Health 2009;99:929–935.

- 12. Merten S, Dratva J, Ackermann-Liebrich U. Do babyfriendly hospitals influence breastfeeding duration on a national level? *Pediatrics* 2005;116:e702–e708.
- 13. Academy of Breastfeeding Medicine Protocol Committee. Clinical protocol number #19: Breastfeeding promotion in the prenatal setting. *Breastfeed Med* 2009;4:43–45.
- Academy of Breastfeeding Medicine Protocol Committee. ABM clinical protocol #3: Hospital guidelines for the use of supplementary feedings in the healthy term breastfed neonate, revised 2009. Breastfeed Med 2009;4:175–182.
- Mikiel-Kostyra K, Mazur J, Boltruszko I. Effect of early skinto-skin contact after delivery on duration of breastfeeding: A prospective cohort study. Acta Paediatr 2002;91:1301–1306.
- Righard L, Alade MO. Effect of delivery room routines on success of first breast-feed. Lancet 1990;336:1105–1107.
- 17. Eidelman AI, Hoffmann NW, Kaitz M. Cognitive deficits in women after childbirth. *Obstet Gynecol* 1993;81:764–767.
- Howard CR, Howard FM, Lanphear B, et al. Randomized clinical trial of pacifier use and bottle-feeding or cupfeeding and their effect on breastfeeding. *Pediatrics* 2003;111:511–518.
- Howard CR, de Blieck EA, ten Hoopen CB, et al. Physiologic stability of newborns during cup- and bottle-feeding. *Pediatrics* 1999;104:1204–1207.
- Marinelli KA, Burke GS, Dodd VL. A comparison of the safety of cup feedings and bottle feedings in premature infants whose mothers intend to breastfeed. *J Perinatol* 2001; 21:350–355.
- Gray L, Miller LW, Philipp BL, et al. Breastfeeding is analgesic in healthy newborns. *Pediatrics* 2002;109:590–593.
- Wight N, Marinelli KA, Academy of Breastfeeding Medicine Protocol Committee. ABM clinical protocol #1: Guidelines for glucose monitoring and treatment of hypoglycemia in breastfed neonates revision June, 2006. Breastfeed Med 2006;1:178–184.
- Academy of Breastfeeding Medicine Protocol Committee. ABM clinical protocol #2 (2007 revision): Guidelines for hospital discharge of the breastfeeding term newborn and mother: "The going home protocol." Breastfeed Med 2007; 2:158–165.
- American Academy of Pediatrics, American College of Obstetricians and Gynecologists. Breastfeeding Handbook for Physicians. American Academy of Pediatrics, Elk Grove Village, IL, 2006.
- World Health Organization, UNICEF. Acceptable Medical Reasons for the Use of Breast-Milk Substitutes. World Health Organization, Geneva, 2009.
- World Health Organization. HIV and Infant Feeding. 2007 http://www.who.int/hiv/pub/mtct/infant_feeding/en/index.html (accessed June 8, 2010).
- Hale TW. Medications and Mothers' Milk, 13th ed. Hale Publishing, Amarillo, TX, 2008.

 US National Library of Medicine. TOXNET: Toxicology Data Network. Drugs and Data Base (LactMed). toxnet.nlm.nih. gov/cgi-bin/sis/htmlgen?LACT (accessed January 27, 2010).

- 29. Lawrence RA, Lawrence RM. *Breastfeeding: A Guide for the Medical Profession*, 6th ed. Mosby, Philadelphia, 2005.
- 30. Briggs GG, Freeman RK, Yaffe SJ. *Drugs in Pregnancy and Lactation*, 8th ed. Williams and Wilkins, Baltimore, 2009.
- 31. Committee on Drugs, The American Academy of Pediatrics. The transfer of drugs and other chemicals into human milk. *Pediatrics* 2001;108:776–789.
- 32. American Academy of Pediatrics Section on Breastfeeding. Sample Hospital Breastfeeding Policy for Newborns, 2009. www.aap.org/bookstore (accessed January 27, 2010).
- 33. Academy of Breastfeeding Medicine Protocol Committee. ABM clinical protocol #5: Peripartum breastfeeding management for the healthy mother and infant at term revision, June 2008. *Breastfeed Med* 2008;3:129–132.
- 34. Ip S, Chung M, Raman G, et al. Breastfeeding and Maternal and Infant Health Outcomes in Developed Countries. Evidence Report/Technology Assessment No. 153 (prepared by Tufts-New England Medical Center Evidence-Based Practice Center, under contract no. 290-02-0022). AHRQ Publication number 07-E007. Agency for Healthcare Research and Quality, Rockville, MD, 2007.
- American Academy of Pediatrics. Redbook: 2009 Report of the Committee on Infectious Diseases, 28th ed. American Academy of Pediatrics, Elk Grove, IL, 2009.
- Rosenberg KD, Stull JD, Adler MR, et al. Impact of hospital policies on breastfeeding outcomes. *Breastfeed Med* 2008; 3:110–116.
- DiGirolamo AM, Grummer-Strawn LM, Fein SB. Effect of maternity-care practices on breastfeeding. *Pediatrics* 2008; 122(Suppl 2):S43–S49.

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BREASTFEEDING MEDICINE Volume 4, Number 3, 2009 © Mary Ann Liebert, Inc. DOI: 10.1089/bfm.2009.9991

ABM Clinical Protocol #3: Hospital Guidelines for the Use of Supplementary Feedings in the Healthy Term Breastfed Neonate, Revised 2009

The Academy of Breastfeeding Medicine Protocol Committee

A central goal of The Academy of Breastfeeding Medicine is the development of clinical protocols for managing common medical problems that may impact breastfeeding success. These protocols serve only as guidelines for the care of breastfeeding mothers and infants and do not delineate an exclusive course of treatment or serve as standards of medical care. Variations in treatment may be appropriate according to the needs of an individual patient.

Definitions

- Supplementary feedings: Feedings provided in place of breastfeeding. This may include expressed or banked breastmilk and/or breastmilk substitutes/formula. Any foods given prior to 6 months, the recommended duration of exclusive breastfeeding, are thus defined as supplementary.
- Complementary feedings: Feedings provided in addition to breastfeeding when breastmilk alone is no longer sufficient. This term is used to describe foods or liquids given in addition to breastfeeding after 6 months, a "complement" to breastfeeding needed for adequate nutrition.

Background

Given early opportunities to breastfeed, breastfeeding assistance, and instruction, the vast majority of mothers and babies will successfully establish breastfeeding. Although some infants may not successfully latch and feed during the first day (24 hours) of life, they will successfully establish breastfeeding with time, appropriate evaluation, and minimal intervention. Unfortunately, formula supplementation of healthy newborn infants in hospital is commonplace, despite widespread recommendations to the contrary. The most recent scientific evidence indicates that *exclusive breastfeeding* (only breastmilk, no food or water except vitamins and medications) for the first 6 months is associated with the greatest protection against major health problems for both mothers and infants. 3–5

Newborn physiology

Small colostrum feedings are appropriate for the size of the newborn's stomach,^{6–8} are sufficient to prevent hypoglycemia in the healthy, term, appropriate for gestational age infant,^{9–11} and easy to manage as the infant learns to coor-

dinate sucking, swallowing, and breathing. Healthy term infants also have sufficient body water to meet their metabolic needs, even in hot climates. ^{12–18} Fluid necessary to replace insensible fluid loss is adequately provided by breastmilk alone. ^{18–20} Newborns lose weight because of a physiologic diuresis of extracellular fluid following transition to extrauterine life. The normal maximal weight loss is 5.5–6.6% of birth weight in optimally exclusively breastfed infants ^{14,15,21,22} and occurs between days 2 and 3 of life (4872 hours after birth). ^{14,15,21} Optimally breastfed infants regain birth weight at an average (95% confidence interval) of 8.3 days (7.7–8.9) with 97.5% having regained their birth weight by 21 days. ²¹ Percentage weight loss should be followed closely for outliers in this regard, but the majority of breastfed infants will not require supplementation.

Early management of the new breastfeeding mother

Because some breastfeeding mothers question the adequacy of colostrum feedings and may receive conflicting advice, they may benefit from reassurance, assistance with breastfeeding technique, and education about the normal physiology of breastfeeding. Inappropriate supplementation may undermine a mother's confidence about her ability to meet her infant's nutritional needs²³ and give inappropriate messages that may result in continued supplementation of the breastfed infant at home.²⁴

Postpartum mothers with low confidence levels are very vulnerable to external influences, such as advice to offer breastfeeding infants supplemention such as glucose water or artificial baby milk.²³ Well-meaning healthcare professionals often offer supplementation as a means of protecting mothers from tiredness or distress, although this at times conflicts with their role in promoting breastfeeding.^{25,26}

Inappropriate reasons for supplementation and associated risks are multiple (see Appendix for quick reference).

There are common clinical situations where evaluation

and breastfeeding management may be necessary, but supplementation is NOT INDICATED, including:

- 1. The sleepy infant with fewer than eight to 12 feedings in the first 24–48 hours with less than 7% weight loss and no signs of illness
 - Newborns are normally sleepy after an initial approximately 2-hour alert period after birth.^{27,28} They then have variable sleep—wake cycles, with an additional one or two wakeful periods in the next 10 hours whether fed or not.²⁷
 - Careful attention to an infant's early feeding cues, and gently rousing the infant to attempt breastfeeding every 2–3 hours is more appropriate than automatic supplement after 6, 8, 12, or even 24 hours.
 - The general rule in the first week is: "an awake baby is a hungry baby!"
 - Increased skin-on-skin time can encourage more frequent feeding.
- 2. The healthy, term, appropriate for gestational age infant with bilirubin levels less than 18 mg/dL (mol/L) after 72 hours of age when the baby is feeding well and stooling adequately and weight loss is less than 7%²⁹
- The infant who is fussy at night or constantly feeding for several hours
- 4. The tired or sleeping mother

For both points 3 and 4 above, breastfeeding management that optimizes infant feeding at the breast may make for a more satisfied infant AND allow the mother to get more rest.

Before any supplementary feedings are begun, it is important that a formal evaluation of each mother–baby dyad, including a direct observation of breastfeeding, is completed. The following guidelines address indications for and methods of supplementation for the healthy, term (37–42-week), breastfed infant. Indications for supplementation in term, healthy infants are few^{30,31} (Table 1).

Table 2 lists possible indications for the administration of such feedings. The physician must decide if the clinical benefits outweigh the potential negative consequences of such feedings.

Recommendations

- 1. Healthy infants should be put skin-to-skin with the mother immediately after birth to facilitate breastfeeding, ^{19,31,37} because the delay in time between birth and initiation of the first breastfeed is a strong predictor of formula use. ^{26,38}
- 2. Antenatal education and in-hospital support can significantly improve rates of exclusive breastfeeding.³⁹ Both mothers and healthcare providers should be aware of the risks of unnecessary supplementation.
- 3. Healthy newborns do not need supplemental feedings for poor feeding for the first 24–48 hours, but babies who are too sick to breastfeed or whose mothers are too sick to allow breastfeeding are likely to require supplemental feedings.³⁰
- 4. Hospitals should strongly consider instituting policy regarding supplemental feedings to require a physician's order when supplements are medically indicated and informed consent of the mother when supplements are not

medically indicated. It is the responsibility of the health professional to provide information, document parental decisions, and support the mother after she has made the decision. ⁴⁰ When the decision is not medically indicated, efforts to educate the mother ought to be documented by the nursing and/or medical staff.

- 5. All supplemental feedings should be documented, including the content, volume, method, and medical indication or reason.
- 6. If mother–baby separation is unavoidable, established milk supply is poor or questionable, or milk transfer is inadequate, the mother needs instruction and encouragement to pump or manually express her milk to stimulate production and provide expressed breastmilk as necessary for the infant. ^{19,30,31,35}
- 7. When supplementary feeding is necessary, the primary goals are to feed the baby and also to optimize the maternal milk supply while determining the cause of poor feeding or inadequate milk transfer.
- 8. Whenever possible, it is ideal to have the mother and infant room-in 24 hours per day to enhance opportunities for breastfeeding and hence lactogenesis. ^{19,30,31,35}
- 9. Optimally, mothers need to express milk each time the baby receives a supplemental feeding, or about every 2–3 hours. Mothers should be encouraged to start expressing on the first day (within the first 24 hours) or as soon as possible. Maternal breast engorgement should be avoided as it will further compromise the milk supply and may lead to other complications.^{30,31}
- 10. All infants must be formally evaluated for position, latch, and milk transfer prior to the provision of supplemental feedings. 19,35 Most babies who remain with their mothers and breastfeed adequately lose less than 7% of their birth weight. Weight loss in excess of 7% may be an indication of inadequate milk transfer or low milk production. 4 Although weight loss in the range of 8–10% may be within normal limits, if all else is going well and the physical exam is normal, it is an indication for careful assessment and possible breast-feeding assistance.
- 11. The infant's physician should be notified if:
 - a. The infant exhibits other signs of illness in addition to poor feeding.
 - b. The mother–infant dyad meets the clinical criteria in Table 1.
 - c. The infant's weight loss is greater than 7%.

Table 1. Indications for Supplemental Feeding in Term, Healthy Infants (Situations Where Breastfeeding Is Not Possible)

- 1. Separation
 - Maternal illness resulting in separation of infant and mother (e.g., shock or psychosis)
 - Mother not at the same hospital
- Infant with inborn error of metabolism (e.g., galactosemia)
- 3. Infant who is unable to feed at the breast (e.g., congenital malformation, illness)
- Maternal medications (those contraindicated in breastfeeding)³²

1. Infant indications

- a. Asymptomatic hypoglycemia documented by laboratory blood glucose measurement (not bedside screening methods) that is unresponsive to appropriate frequent breastfeeding. Symptomatic infants should be treated with intravenous glucose. (Please see ABM Hypoglycemia Protocol for more details.^{9,10})
- b. Clinical and laboratory evidence of significant dehydration (e.g., >10% weight loss, high sodium, poor feeding, lethargy, etc.) that is not improved after skilled assessment and proper management of breastfeeding^{33,34}
- c. Weight loss of 8-10% accompanied by delayed lactogenesis II (day 5 [120 hours] or later)
- d. Delayed bowel movements or continued meconium stools on day 5 (120 hours)34,35
- e. Insufficient intake despite an adequate milk supply (poor milk transfer)³⁴
- f. Hyperbilirubinemia
 - i. "Neonatal" jaundice associated with starvation where breastmilk intake is poor despite appropriate intervention (please see ABM Jaundice in the Breastfed Infant Protocol)
 - ii. Breastmilk jaundice when levels reach >20–25 mg/dL (μ mol/L) in an otherwise thriving infant and where a diagnostic and/or therapeutic interruption of breastfeeding may be helpful
- g. When macronutrient supplementation is indicated

2. Maternal indications

- a. Delayed lactogenesis II (day 3-5 or later [72-120 hours] and inadequate intake by the infant34
 - i. Retained placenta (lactogenesis probably will occur after placental fragments are removed)
 - ii. Sheehan's syndrome (postpartum hemorrhage followed by absence of lactogenesis)
 - iii. Primary glandular insufficiency, occurs in less than 5% of women (primary lactation failure), as evidenced by poor breast growth during pregnancy and minimal indications of lactogenesis
- b. Breast pathology or prior breast surgery resulting in poor milk production³⁶
- c. Intolerable pain during feedings unrelieved by interventions

Adapted with permission from Powers and Slusser.³⁰

Choice of Supplemental Feeding

- 1. Expressed human milk is the first choice for supplemental feeding, 19,41 but sufficient colostrum in the first few days (0–72 hours) may not be available. The mother may need reassurance and education if such difficulties occur. Hand expression may elicit larger volumes than a pump in the first few days and may increase overall milk supply. 42 Breast massage along with expressing with a mechanical pump may also increase available milk. 43
- If the volume of the mother's own colostrum does not meet her infant's feeding requirements, pasteurized donor human milk is preferable to other supplements.⁴¹
- 3. Protein hydrolysate formulas are preferable to standard artificial milks as they avoid exposure to cow's milk proteins, reduce bilirubin levels more rapidly,⁴⁴ and may convey the psychological message that the supplement is a temporary therapy, not a permanent inclusion of artificial feedings. Supplementation with glucose water is not appropriate.
- 4. The physician must weigh the potential risks and benefits of other supplemental fluids, such as standard formulas, soy formulas, or protein hydrolysate formula, with consideration given to available resources, the family's history for risk factors such as atopy, the infant's age, the amounts needed, and the potential impact on the establishment of breastfeeding.

Volume of Supplemental Feeding

Several studies give us an idea of intakes at the breast over time. In one study the mean yield of colostrum (using infant test-weighing) for over the first 24 hours after birth

was 37.1 g (range, 7-122.5 g) with an average intake of 6 g per feed and six feedings in the first 24 hours. 45 A similar study also using test-weighing revealed a mean intake of 13 g/kg/24 hours (range, 3–32 g/kg/24 hours) for the first 24 hours, increasing to a mean of 98 g/kg/24 hours (range, 50-163 g/kg/24 hours) on day 3 (by 72 hours).46 Yet another study⁴⁷ noted breastmilk transfer of 6 mL/kg/24 hours for day 1 (24 hours), 25 mL/kg/24 hours for day 2 (48 hours), 66 mL/kg/24 hours for day 3 (72 hours), and 106 mL/kg/24 hours for day 4 (96 hours) in healthy, vaginally delivered infants allowed on-demand breastfeeding. Interestingly, the intake of infants delivered by cesarean section was significantly less during days 2-4 (within 48-96 hours).⁴⁷ In a study where there was no rooming in and infants were fed every 4 hours, the average intake was 9.6 mL/kg/24 hours on day 1 and 13 mL/kg/24 hours on day 2 (48 hours). 48 In most studies, the range of intake is wide, with formula-fed infants usually taking in larger volumes than breastfed infants.

- Infants fed artificial milks ad libitum commonly have higher intakes than breastfed infants.⁴⁸ Acknowledging that ad libitum breastfeeding recapitulates evolutionary feeding and considering recent data on obesity in artificially fed infants, it can be concluded that such artificially fed infants may well be overfed.
- As there is no definitive research available, the amount of supplement given should reflect the normal amounts of colostrum available, the size of the infant's stomach (which changes over time), and the age and size of the infant.
- 3. Based on the limited research available, suggested intakes for term healthy infants are given in Table 3, although feeding should be by infant cue to satiation.

Table 3. Average Reported Intakes of Colostrum by Healthy Breastfed Infants^{45–48}

Time	Intake (mL/feed)
1st 24 hours	2–10
24–28 hours	5–15
48–72 hours	15–30
72–96 hours	30–60

Methods of Providing Supplementary Feedings

- When supplementary feedings are needed there are many methods from which to choose: a supplemental nursing device at the breast, cup feeding, spoon or dropper feeding, finger-feeding, syringe feeding, or bottle feeding.⁴⁹
- 2. There is little evidence about the safety or efficacy of most alternative feeding methods and their effect on breast-feeding; however, when cleanliness is suboptimal, cup feeding is the recommended choice.⁴¹ Cup feeding has been shown safe for both term and preterm infants and may help preserve breastfeeding duration among those who require multiple supplemental feedings.^{50–55}
- 3. Supplemental nursing systems have the advantage of supplying appropriate supplement while simultaneously stimulating the breast to produce more milk and reinforcing the infant's feeding at the breast. Unfortunately, most systems are awkward to use, difficult to clean, and expensive and require moderately complex learning. ⁴⁹ A simpler version, supplementing with a dropper or syringe while the infant is at breast, may be effective.
- 4. Bottle feeding is the most commonly used method of supplementation in more affluent regions of the world, but is of concern because of distinct differences in tongue and jaw movements, differences in flow, and long-term developmental concerns. 49 Some experts have recommended a nipple with a wide base and slow flow to try to mimic breastfeeding, but no research has been done evaluating outcomes with different nipples.
- 5. An optimal supplemental feeding device has not yet been identified, and may vary from one infant to another. No method is without potential risk or benefit.^{49,56}
- 6. When selecting an alternative feeding method, clinicians should consider several criteria:
 - a. cost and availability
 - b. ease of use and cleaning
 - c. stress to the infant
 - d. whether adequate milk volume can be fed in 20–30 minutes
 - e. whether anticipated use is short- or long-term
 - f. maternal preference, and
 - g. whether the method enhances development of breastfeeding skills.

Research Needs

 Research is necessary to establish evidence-based guidelines on appropriate supplementation volumes for specific conditions and whether this varies for colostrum versus artificial milk. Other specific questions include: Should the volume be independent of infant weight or a

- per kg volume? Should supplementation make up for cumulative losses? Should feeding intervals be different for different supplements?
- 2. Research is also lacking on what is the optimal method of supplementation. Are some methods best for infants with certain conditions, ages, and available resources? Which methods interfere least with establishing direct breastfeeding?

Notes

This protocol addresses the term healthy newborn. For information regarding appropriate feeding and supplementation for the late preterm infant (35–37 weeks), see "ABM Protocol #10: Breastfeeding the Near-Term Infant" and "Care and Management of the Late Preterm Infant Toolkit." 58

The World Health Organization is currently updating its annex to the Global Criteria for the Baby Friendly Hospital Initiative: "Acceptable Medical Reasons for Supplementation." The annex has been broadened to acceptable reasons for use of breastmilk substitutes in all infants. The handout (#4.5) is available at: http://www.who.int/nutrition/publications/infantfeeding/WHO_NMH_NHD_09.01/en/.

Acknowledgments

This work was supported in part by a grant to the Academy of Breastfeeding Medicine from the Maternal and Child Health Bureau, U.S. Department of Health and Human Services.

References

- California WIC Association, UC Davis Human Lactation Center. A Fair Start for Better Health: California Hospitals Must Close the Gap in Exclusive Breastfeeding Rates. http://www.calwic.org (accessed November 2007).
- Gagnon AJ, Leduc G, Waghorn K, et al. In-hospital formula supplementation of healthy breastfeeding newborns. *J Hum Lact* 2005;21:397–405.
- Heinig M. Host defense benefits of breastfeeding for the infant. Effect of breastfeeding duration and exclusivity. *Pedi*atr Clin North Am 2001;48:105–123.
- Kramer MS, Kakuma R. The optimal duration of exclusive breastfeeding: a systematic review. Adv Exp Med Biol 2004;554:63–77.
- Mihrshahi S, Ichikawa N, Shuaib M, et al. Prevalence of exclusive breastfeeding in Bangladesh and its association with diarrhoea and acute respiratory infection: results of the multiple indicator cluster survey 2003. J Health Popul Nutr 2007;25:195–204.
- Naveed M, Manjunath C, Sreenivas V. An autopsy study of relationship between perinatal stomach capacity and birth weight. *Indian J Gastroenterol* 1992;11:156–158.
- Scammon R, Doyle L. Observations on the capacity of the stomach in the first ten days of postnatal life. Am J Dis Child 1920;20:516–538.
- 8. Zangen S, DiLorenzo C, Zangen T, et al. Rapid maturation of gastric relaxation in newborn infants. *Pediatr Res* 2001;50:629–632.
- 9. Wight N. Hypoglycemia in breastfed neonates. *Breastfeed Med* 2006;1:253–262.
- 10. Wight N, Marinelli K, ABM Protocol Committee. ABM Clinical Protocol #1: Guidelines for glucose monitoring and

- treatment of hypoglycemia in breastfed neonates. *Breastfeed Med* 2006;1:178–184.
- 11. Williams A. *Hypoglycemia of the Newborn: Review of the Literature*. World Health Organization, Geneva, 1997.
- Cohen RJ, Brown K, Rivera L, et al. Exclusively breastfed, low birth weight term infants do not need supplemental water. Acta Paediatr 2000;89:550–552.
- 13. Goldberg N, Adams E. Supplementary water for breast-fed babies in a hot and dry climate—not really a necessity. *Arch Dis Child* 1983;58:73–74.
- Marchini G, Stock S. Thirst and vasopressin secretion counteract dehydration in newborn infants. *J Pediatr* 1997;130: 736–739.
- Rodriquez G, Ventura P, Samper M, et al. Changes in body composition during the initial hours of life in breast-fed healthy term newborns. *Biol Neonate* 2000;77:12–16.
- Sachdev H, Krishna J, Puri R. Do exclusively breast fed infants need fluid supplementation? *Indian Pediatr* 1992;29: 535–540.
- 17. Shrago L. Glucose water supplementation of the breastfed infant during the first three days of life. *J Hum Lact* 1987;3:82–86.
- Sachdev H, Krishna J, Puri R, et al. Water supplementation in exclusively breastfed infants during summer in the tropics. *Lancet* 1991;337:929–933.
- American Academy of Pediatrics, Section on Breastfeeding. Policy statement: Breastfeeding and the use of human milk. Pediatrics 2005;115:496–506.
- Scariati P, Grummer-Strawn L, Fein S. Water supplementation of infants in the first month of life. *Arch Pediatr Adolesc Med* 1997;151:830–832.
- 21. MacDonald P, Ross S, Grant L, et al. Neonatal weight loss in breast and formula fed infants. *Arch Dis Child Fetal Neonatal Ed* 2003;88:F472–F476.
- 22. Martens PJ, Phillips SJ, Cheang MS, et al. How babyfriendly are Manitoba hospitals? The Provincial Infant Feeding Study. Breastfeeding Promotion Steering Committee of Manitoba. *Can J Public Health* 2000;91:51–57.
- 23. Blyth R, Creedy D, Dennis C, et al. Effect of maternal confidence on breastfeeding duration: An application of breastfeeding self-efficacy theory. *Birth* 2002;29:278–284.
- 24. Reiff MI, Essock-Vitale SM. Hospital influences on early infant-feeding practices. *Pediatrics* 1985;76:872–879.
- Cloherty M, Alexander J, Holloway I. Supplementing breast-fed babies in the UK to protect their mothers from tiredness or distress. *Midwifery* 2004;20:194–204.
- 26. Kurinij N, Shiono P. Early formula supplementation of breastfeeding. *Pediatrics* 1991;88:745–750.
- 27. Emde R, Swedberg J, Suzuki B. Human wakefulness and biological rhythms after birth. *Arch Gen Psychiatry* 1975;32: 780–783.
- 28. Stern E, Parmalee A, Akiyama Y, et al. Sleep cycle characteristics in infants. *Pediatrics* 1969;43:67–70.
- 29. American Academy of Pediatrics. Management of hyperbilirubinemia in the newborn infant 35 or more weeks of gestation. *Pediatrics* 2004;114:297–316.
- 30. Powers NG, Slusser W. Breastfeeding update. 2: Clinical lactation management. *Pediatr Rev* 1997;18:147–161.
- Division of Child Health and Development, World Health Organization. Evidence for the Ten Steps to Successful Breastfeeding. Publication WHO/CHD/98.9. World Health Organization, Geneva, 1998.
- Committee on Drugs, The American Academy of Pediatrics. The transfer of drugs and other chemicals into human milk. *Pediatrics* 2001;108:776–789.

 Yaseen H, Salem M, Darwich M. Clinical presentation of hypernatremic dehydration in exclusively breast-fed neonates. *Indian J Pediatr* 2004;71:1059–1062.

- 34. Neifert MR. Prevention of breastfeeding tragedies. *Pediatr Clin North Am* 2001;48:273–97.
- International Lactation Consultant Association. Clinical Guidelines for the Establishment of Exclusive Breastfeeding. June 2005. http://www.ilca.org/files/resources/ClinicalGuidelines2005.pdf (accessed July 30, 2009).
- Neifert MR, Seacat JM, Jobe WE. Lactation failure due to insufficient glandular development of the breast. *Pediatrics* 1985;76:823–828.
- 37. Saadeh R, Akre J. Ten steps to successful breastfeeding: a summary of the rationale and scientific evidence. *Birth* 1996;23:154–160.
- Smale M. Working with breastfeeding mothers: The psychosocial context. In: *Psychological Perspectives on Pregnancy* and Childbirth (Clement S, ed.). Churchill Livingstone, Edinburgh, 1998, pp. 183–204.
- Su LL, Chong YS, Chan YH, et al. Antenatal education and postnatal support strategies for improving rates of exclusive breast feeding: Randomised controlled trial. *BMJ* 2007;335:596.
- Henrikson M. A policy for supplementary/complementary feedings for breastfed newborn infants. *J Hum Lact* 1990;6: 11–14.
- 41. Global Strategy for Infant and Young Child Feeding. World Health Organization/UNICEF, Geneva, 2003.
- 42. Morton J, et al. Early hand expression affects breastmilk production in pump-dependent mothers of preterm infants [abstract 7720.9]. In: Pediatric Academic Societies Scientific Program. Pediatric Academic Societies, Toronto, 2007.
- Morton J, et al. Breast massage maximizes milk volumes of pump-dependent mothers [abstract 444]. In: Pediatric Academic Societies Scientific Program. Pediatric Academic Societies, Toronto, 2007.
- 44. Gourley GR, Kreamer B, Cohnen M, et al. Neonatal jaundice and diet. *Arch Pediatr Adolesc Med* 1999;153:184–188.
- 45. Saint L, Smith M, Hartmann PE. The yield and nutrient content of colostrum and milk of women from giving birth to 1 month post-partum. *Br J Nutr* 1984;52:87–95.
- Casey CE, Neifert MR, Seacat JM, et al. Nutrient intake by breast-fed infants during the first five days after birth. Am J Dis Child 1986;140:933–936.
- 47. Evans KC, Evans RG, Royal R, et al. Effect of caesarean section on breast milk transfer to the normal term newborn over the first week of life. *Arch Dis Child Fetal Neonatal Ed* 2003;88:F380–F382.
- Dollberg S, Lahav S, Mimouni FB. A comparison of intakes of breast-fed and bottle-fed infants during the first two days of life. J Am Coll Nutr 2001;20:209–211.
- 49. Wight NE. Management of common breastfeeding issues. *Pediatr Clin North Am* 2001;48:321–344.
- 50. Howard CR, de Blieck EA, ten Hoopen CB, et al. Physiologic stability of newborns during cup- and bottle-feeding. *Pediatrics* 1999;104:1204–1207.
- 51. Howard CR, Howard FM, Lanphear B, et al. Randomized clinical trial of pacifier use and bottle-feeding or cupfeeding and their effect on breastfeeding. *Pediatrics* 2003;111: 511–518.
- 52. Kramer MS, Chalmers B, Hodnett ED, et al. Promotion of Breastfeeding Intervention Trial (PROBIT): a randomized trial in the Republic of Belarus. *JAMA* 2001;285: 413–420.

- 53. Marinelli KA, Burke GS, Dodd VL. A comparison of the safety of cupfeedings and bottlefeedings in premature infants whose mothers intend to breastfeed. *J Perinatol* 2001; 21:350–355.
- Malhotra N, Vishwambaran L, Sundaram KR, et al. A controlled trial of alternative methods of oral feeding in neonates. *Early Hum Dev* 1999;54:29–38.
- 55. Lang S, Lawrence CJ, Orme RL. Cup feeding: an alternative method of infant feeding. *Arch Dis Child* 1994;71: 365–369.
- Cloherty M, Alexander J, Holloway I, et al. The cup-versus-bottle debate: a theme from an ethnographic study of the supplementation of breastfed infants in hospital in the United Kingdom. J Hum Lact 2005;21:151–162; quiz 63–66.
- 57. ABM Protocol #10: Breastfeeding the Near-Term Infant. http://www.bfmed.org (accessed July 30, 2009).
- California Perinatal Care Collaborative. Care and Mana gement of the Late Preterm Infant Toolkit. http://www. cpqcc.org (accessed July 30, 2009).
- 59. Annex to the Global Criteria for the Baby Friendly Hospital Initiative (A39/8 Add.1). World Health Organization, Geneva, 1992, pp. 122–135.
- Bullen C, Tearle P, Stewart M. The effect of "humanized" milks and supplemented breast feeding on the faecal flora of infants. J Med Microbiol 1977;10:403–413.
- Rubaltelli F, Biadaioli R, Pecile P, et al. Intestinal flora in breast- and bottle-fed infants. *J Perinatal Med* 1998;26: 186–191.
- 62. Saarinen K, Juntunen-Backman K, Jarvenpaa A, et al. Supplementary feeding in maternity hospitals and the risk of cow's milk allergy: A prospective study of 6209 infants. *J Allergy Clin Immunol* 1999;104:457–461.
- 63. Saarinen U, Kajosaari M. Breastfeeding as prophylaxis against atopic disease: prospective follow-up study until 17 years old. *Lancet* 1995;346:1065–1069.
- Vaarala O, Knip M, Paronen J, et al. Cow's milk formula feeding induces primary immunization to insulin in infants at genetic risk for Type 1 diabetes. *Diabetes* 1999;48:1389–1394.
- 65. Host A. Importance of the first meal on the development of cow's milk allergy and intolerance. *Allergy Proc* 1991;12: 227–232.
- Chen A, Rogan WJ. Breastfeeding and the risk of postneonatal death in the United States. *Pediatrics* 2004;113: e435–e439.
- 67. Howie PW, Forsyth JS, Ogston SA, et al. Protective effect of breast feeding against infection. *BMJ* 1990;300:11–16.
- 68. Ip S, Chung M, Raman G, et al. Breastfeeding and Maternal and Infant Health Outcomes in Developed Countries. Evidence Report/Technology Assessment No. 153. AHRQ Publication 07-E007. Agency for Healthcare Research and Quality, Rockville, MD, 2007.
- Paricio Talayero JM, Lizan-Garcia M, Otero Puime A, et al. Full breastfeeding and hospitalization as a result of infections in the first year of life. *Pediatrics* 2006;118:e92–e99.
- 70. Edmond KM, Kirkwood BR, Amenga-Etego S, et al. Effect of early infant feeding practices on infection-specific neonatal mortality: An investigation of the causal links with observational data from rural Ghana. *Am J Clin Nutr* 2007;86: 1126–1131.
- 71. Victora CG, Smith PG, Vaughan JP, et al. Evidence for protection by breast-feeding against infant deaths from infectious diseases in Brazil. *Lancet* 1987;2:319–322.
- 72. Stettler N, Stallings VA, Troxel AB, et al. Weight gain in the first week of life and overweight in adulthood: A co-

- hort study of European American subjects fed infant formula. *Circulation* 2005;111:1897–1903.
- 73. Kuhr M, Paneth N. Feeding practices and early neonatal jaundice. *J Pediatr Gastroenterol Nutr* 1982;1:485–488.
- 74. de Carvalho M, Hall M, Harvey D. Effects of water supplementation on physiological jaundice in breast-fed babies. *Arch Dis Child* 1981;56:568–569.
- 75. Nicoll A, Ginsburg R, Tripp JH. Supplementary feeding and jaundice in newborns. *Acta Paediatr Scand* 1982;71: 759–761.
- Nylander G, Lindemann R, Helsing E, et al. Unsupplemented breastfeeding in the maternity ward. Positive long-term effects. *Acta Obstet Gynecol Scand* 1991;70:205–209.
- Verronen P, Visakorpi JK, Lammi A, et al. Promotion of breast feeding: Effect on neonates of change of feeding routine at a maternity unit. *Acta Paediatr Scand* 1980;69:279–282.
- Glover J, Sandilands M. Supplementation of breastfeeding infants and weight loss in hospital. J Hum Lact 1990;6: 163–166.
- Yamauchi Y, Yamanouchi I. Breast-feeding frequency during the first 24 hours after birth in full-term neonates. *Pediatrics* 1990;86:171–175.
- 80. De Carvalho M, Klaus MH, Merkatz RB. Frequency of breast-feeding and serum bilirubin concentration. *Am J Dis Child* 1982;136:737–738.
- 81. Kumar A, Pant P, Basu S, et al. Oxidative stress in neonatal hyperbilirubinemia. *J Trop Pediatr* 2007;53:69–71.
- 82. Cavell B. Gastric emptying in infants fed human milk or infant formula. *Acta Paediatr Scand* 1981;70:639–641.
- 83. Van Den Driessche M, Peeters K, Marien P, et al. Gastric emptying in formula-fed and breast-fed infants measured with the ¹³C-octanoic acid breath test. J Pediatr Gastroenterol Nutr 1999;29:46–51.
- Matheny RJ, Birch LL, Picciano MF. Control of intake by human-milk-fed infants: relationships between feeding size and interval. *Dev Psychobiol* 1990;23:511–518.
- 85. Wight NE. Management of common breastfeeding issues. *Pediatr Clin North Am* 2001;48:321–344.
- 86. Neifert M, Lawrence R, Seacat J. Nipple confusion: Toward a formal definition. *J Pediatr* 1995;126:S125–S129.
- 87. Howard CR, Howard FM, Lanphear B, et al. Randomized clinical trial of pacifier use and bottle-feeding or cupfeeding and their effect on breastfeeding. *Pediatrics* 2003;111: 511–518.
- 88. Feinstein JM, Berkelhamer JE, Gruszka ME, et al. Factors related to early termination of breast-feeding in an urban population. *Pediatrics* 1986;78:210–215.
- 89. Bunik M, Beaty B, Dickinson M, et al. Early formula supplementation in breastfeeding mothers: How much is too much for breastfeeding success? [abstract 18]. *Breastfeed Med* 2007;1:184.
- Perez-Escamilla R, Segura-Millan S, Canahuati J, et al. Prelacteal feeds are negatively associated with breast-feeding outcomes in Honduras. J Nutr 1996;126:2765–2773.
- 91. National Library of Medicine. TOXNET, LactMed. http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?LACT (accessed July 30, 2009).
- American Academy of Pediatrics Committee on Drugs. Transfer of drugs and other chemicals into human milk. *Pediatrics* 2001;108:776–789.
- 93. Hale TW. *Medications and Mothers' Milk*. Hale Publishing, Amarillo, TX, 2008.
- 94. Williams HG. 'And not a drop to drink'—why water is harmful for newborns. *Breastfeed Rev* 2006;14:5–9.

- 95. Akuse R, Obinya E. Why healthcare workers give prelacteal feeds. Eur J Clin Nutr 2002;56:729-734.
- 96. Blyth R, Creedy D, Dennis C, et al. Effect of maternal confidence on breastfeeding duration: An application of breastfeeding self-efficacy theory. Birth 2002;29:278-284.
- 97. Cloherty M, Alexander J, Holloway I. Supplementing breast-fed babies in the UK to protect their mothers from tiredness or distress. Midwifery 2004;20:194-204.
- 98. Kurinij N, Shiono P. Early formula supplementation of breastfeeding. Pediatrics 1991;88:745-750.
- Blomquist HK, Jonsbo F, Serenius F, et al. Supplementary feeding in the maternity ward shortens the duration of breast feeding. Acta Paediatr 1994;83:1122-1126.
- 100. Bystrova K, Matthiesen AS, Widstrîm AM, et al. The effect of Russian Maternity Home routines on breastfeeding and neonatal weight loss with special reference to swaddling. Early Hum Dev 2007;83:29-39.
- 101. Slaven S, Harvey D. Unlimited suckling time improves breastfeeding. Lancet 1981;1:392-393.

ABM protocols expire 5 years from the date of publication. Evidence-based revisions are made within 5 years or sooner if there are significant changes in the evidence.

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Appendix

Inappropriate Reasons for Supplementation, Responses, and Risks

Concerns Responses Risks of supplementation

is insufficient, until the milk "comes in"

- There is no milk, or colostrum Mother and family should be educated about the benefits of colostrum (e.g., liquid gold) including dispelling myths about the yellow substance. Small amounts of colostrum are normal, physiologic, and appropriate for the term healthy newborn (refer to Table 3).
- Concern about weight loss and dehydration in the postpartum period
- A certain amount of weight loss is normal in the first week of life and is due to both a diuresis of extracellular fluid received from the placenta and passage of meconium.
- There is now evidence that too *little* weight loss in the newborn period is associated with an increased risk of obesity later in life.72
- Concern about infant becoming hypoglycemic
- Concern about jaundice
- Healthy, full-term infants do not develop symptomatic hypoglycemia simply as a result of suboptimal breastfeeding.¹
- The more frequent the breastfeeding, the lower the bilirubin level. 29,79,80
- Bilirubin is a potent antioxidant.81 The appropriately breastfed infant has normal levels of bilirubin unless affected by another pathologic process such as hemolysis (e.g., ABO or Rh incompatability)
- Colostrum acts as a natural laxative helping to eliminate the retained pool of bilirubin contained in meconium.

- Can alter infant bowel flora^{60,61}
- Potentially sensitizes the infant to foreign proteins^{62–65}
- Increases the risk of diarrhea and other infections, 66–69 especially where hygiene is poor 31,72
- Potentially disrupts the "supplydemand" cycle, leading to inadequate milk supply and long-term supplementation
- Supplementation in the first few days interferes with the normal frequency of breast feedings. 31,71
- If the supplement is water or glucose water, the infant is at risk for increased bilirubin,73-77 excess weight loss,⁷⁸ longer hospital stay,²² and potential water intoxication.²⁰
- Risk as for weight loss/dehydration
- Risk as for weight loss/dehydration

Not enough time to counsel mother about exclusive breastfeeding, mothers may request supplement

• Training all staff in how to assist mothers with breastfeeding is important.

• Mothers may also benefit from education about artificial feeds and/or how supplements may adversely affect subsequent breastfeeding.^{25,38}

- Help healthcare professionals understand that time spent on passive activities interactions such as listening to and talking with mothers is of critical importance as opposed to other more active interventions (which may be viewed more as "real work" to them). 25,38
- If the supplement is artificial milk, which is slow to empty from the stomach^{82,83} and often fed in larger amounts,⁴⁸ the infant will breastfeed less frequently.48
- Depending on the method of supplementation, 49,84 or the number of supplements, 51,85,86 an infant may have difficulty returning to the breast.
- Prelacteal feeds (as opposed to supplementation) are associated with delayed initiation of breastfeeding and negatively associated with exclusivity and duration of breastfeeding.87-90

- Medications that may be contraindicated with breastfeeding
- Accurate references are easily available to providers (e.g., Lactmed on Toxnet) website, AAP policy, Medications and Mothers' Milk⁹³)

 Risk of decreasing breastfeeding duration or exclusivity

Mother too malnourished or sick to breastfeed

- Even malnourished mothers can breastfeed.
- Reasons for supplementation with maternal illness that are listed in text
- Risk of decreasing breastfeeding duration or exclusivity

Risk of decreasing breastfeeding

duration or exclusivity^{52,75,84,94}

lactogenesis II (also known as

"secretory activation" or "milk"

Studies have noted delayed

Need to quiet a fussy or unsettled baby

- Infants can be unsettled for many reasons. They may wish to "cluster feed" (several) short feeds in a short period of time) or simply need additional skin-to-skin time or holding.49
- Filling (and often *overfilling*) the stomach with artificial milk may make the infant sleep longer, 83 missing important opportunities to breastfeed, and solution which may generate long-term
- demonstrating to the mother a short-term health risks.
- coming in)³⁸
 Maternal engorgement due to decreased frequency of breastfeeding in the immediate postpartum period.^{24,99}
- Teaching other soothing techniques to new mothers such as breastfeeding, swaddling, swaying, side lying techniques, encouraging father or other relatives to assist. Again, caution should be taken to not ignore early feeding cues. 100

Accommodate growth or appetite spurts or periods of cluster feeds

- Periods when infants demand to nurse more and/or excrete less stool are sometimes interpreted by mothers as insufficient milk. This may happen in later weeks but also in the second or third night (48–72 hours) at home, in the immediate postpartum period.
- Anticipatory guidance may be helpful.

 Risk of decreasing breastfeeding duration or exclusivity

Mother needs to rest or sleep

- Postpartum mother has been shown to be restless when separated from her infant and actually gets less rest.⁹⁷
- Mothers lose the opportunity to learn their infant's normal behavior and early feeding
- The highest risk time of day for an infant to receive a supplement is between 7 p.m. and 9 a.m.²
- Risk of decreasing breastfeeding duration or exclusivity

Taking a break will help with sore nipples

- Sore nipples are a function of latch, positioning, and sometimes individual anatomic variation, like ankyloglossia, not length of time nursing. 101
- There is no evidence that limiting time at the breast will prevent sore nipples.
- Problem with latch not addressed
- Risk of shortening breastfeeding duration or cessation of breastfeeding

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http://aappolicy.aappublications.org/cgi/reprint/pediatrics;115/2/496.pdf











Sample Hospital Breastfeeding Policy for Newborns

American Academy of Pediatrics Section on Breastfeeding

I. Purpose

To establish and promote a philosophy and policy on breastfeeding that is congruent with the recommendations and breastfeeding policy statements published by the American Academy of Pediatrics (AAP), American College of Obstetricians and Gynecologists, and American Academy of Family Physicians.

II. Policy

A. Responsibility

The perinatal program leadership will assign a director to chair a multi-specialty task force that will be responsible for the implementation of the written breastfeeding policy. The task force will meet quarterly to develop and revise breastfeeding policies and procedures as needed and develop strategies for their implementation. This written policy will be regularly communicated to all health care staff who provide care for mothers and their newborns.

B. Staff Training for Policy Implementation

All providers for the mother-baby dyad will be responsible for acquainting themselves with the breastfeeding policy statement and acquiring the knowledge and skills to support the policy. Nursing staff will take responsibility for completing continuing education related to breastfeeding and should be capable of passing an annual competency evaluation. Identifiable members of the professional staff of the hospital (such as physicians, nurses, and licensed certified lactation consultants) will assume primary responsibility for supervising this continuous educational process.

III. Process

III-a. Process for Pregnant Mothers and Mothers With Healthy Newborns

A. Maternal Education

The decision whether to breastfeed or provide breast milk for her newborn should be an informed choice made by the mother. The obstetric, pediatric, and family physician staff shall recommend human milk for all babies in whom breastfeeding is not specifically contraindicated and provide parents with complete, up-to-date information to ensure that their feeding decision is a fully informed one. Exclusive breastfeeding will be recommended as the ideal nutrition for newborns. When appropriate, mothers who plan to combine breastfeeding and formula feeding should be educated about the advantages of beginning with full breastfeeding to establish milk supply. Mothers who choose not to breastfeed for medical or personal reasons shall be treated with respect and support.

The Hospital will not provide formula marketing materials to mothers and will discourage promotional paraphernalia and marketing efforts in all areas accessible to patients.

Clear contraindications to breastfeeding include maternal HIV, human T-lymphotropic virus (HTLV)-1 and HTLV-2 infection, herpes simplex virus infection (when a lesion is present on the breast), active tuberculosis (milk can be pumped and given to baby by another care provider), mothers on medications that contraindicate breastfeeding (eg, antimetabolites, therapeutic doses of radiopharmaceuticals, penicillamine), and a newborn with galactosemia. In the face of any situation where the presence or level of risk is unclear, the benefits should be weighed against the theoretic risk for the hazard involved and a decision made on an individual basis. When the risk is temporary, the mother should be taught methods to maintain her milk production.

B. Initiation of Breastfeeding

Except under unusual circumstances, the recommendations of the AAP to promote successful breastfeeding will be followed.

- Healthy term newborns with no evidence of respiratory compromise will be placed and remain in direct skin-to-skin contact with their mothers immediately after delivery until the first feeding is accomplished, unless medically contraindicated. Babies for whom an immediate pediatric assessment should take precedence over skin-to-skin contact include those who are preterm (born before 37 weeks') gestation), exhibit respiratory distress or cyanosis, have major congenital anomalies that might lead to cardiorespiratory compromise, are born through meconium-stained amniotic fluid and exhibit hypotonia or weak cry, are born in the context of markedly elevated infection risk (maternal temperature ≥101°F), or have evidence of perinatal depression (eg, decreased muscle tone, apnea, bradycardia).
- The alert, healthy newborn is capable of latching onto a breast without specific assistance within the first hour after birth. Dry the baby, assign Apgar scores, provide identification bracelets to mother and baby, and perform initial physical assessment while the newborn is with the mother. The mother is an optimal heat source for the neonate. Normal newborn care such as weighing, measuring, bathing, needlesticks, vitamin K, and eye prophylaxis should not delay early initiation of breastfeeding. Newborns affected by maternal medication and primiparous mothers may require assistance for effective latch—on and initiation of breastfeeding. Except under special circumstances, the newborn should remain with the mother throughout the recovery period.

Tools for Clinicians

C. Management of Lactation

Staff Assistance and Maternal Education

Nursing staff will offer each mother further assistance with breastfeeding within 6 hours of delivery. The mother should be guided so that she can help the newborn latch onto the breast properly. During the course of her hospitalization, she shall receive instruction on and be evaluated for

- Nutritional guidelines and expectations
 - a. Normalcy of weight loss (average of 7%, not to exceed 10% in term newborns)
 - b. Normal timing to regain birth weight (by day 10)
 - c. Expected feeding volumes in first 2 days (1–2 tsp or 5–10 mL/feed; 1–2 oz/d, term newborn)
 - d. Indicators of adequate hydration and nutrition (bright yellow bowel movements by day 4–5)
- Positioning and latch-on
- Hand expression and (if indicated) use of breast pump

Trained caregivers will undertake daily formal evaluation of the breastfeeding process in each mother-baby dyad, including observation of position, latch, and suckling. Each nursing shift will document these evaluations in the medical record.

Breastfeeding babies will be weighed each day. Weight loss in the first 72 hours of 7% or more from birth weight indicates a possible breastfeeding problem and requires more intensive evaluation of breastfeeding and possible intervention to correct problems and improve milk production and transfer.

Supplementation

It is uncommon for breastfeeding newborns to need any supplementation during the first week; thus, routine) supplements (water, glucose water, formula, and other fluids) should not be given to breastfeeding newborns unless ordered by a physician. For mothers who choose partial breastfeeding, the request for formula for their babies should be respected by the staff and their preference should be documented in the chart.

For mothers who intend to breastfeed, distribution of formula on discharge will be discouraged, unless medically indicated. For breastfeeding mothers who intend to feed their newborns with formula, the distribution of formula on discharge will be consistent with the physician's written order. Newborns with hyperbilirubinemia may continue breastfeeding unless there are specific orders from the physician to the contrary.

Rooming-in

The establishment of successful breastfeeding is facilitated by continuous rooming-in, both day and night. Therefore, the newborn will remain with the mother throughout the postpartum period, except under unusual circumstances.

Frequency of Feeds

Mothers will be encouraged to offer a minimum of 8 feedings at the breast every 24 hours and to nurse whenever the newborn shows early signs of hunger, such as increased alertness, physical activity, mouthing, or rooting. Crying is a late sign of hunger. Nondemanding babies should be aroused to feed if 4 hours have elapsed since the beginning of the last nursing. Mothers separated from their healthy newborns will be encouraged and provided appropriate assistance with the same feeding frequency. Time limits for breastfeeding will be avoided. After 24 hours of life, if the baby has not latched onto the breast or latches on but feeds poorly, the mother will be instructed to initiate hand expression and electric pumping every 3 hours. Any collected colostrum will be fed to the newborn by an alternative method. Skin-to-skin contact will be encouraged. Until the mother's milk is available, a collaborative decision should be made among the mother, nurse, and clinician about the need to supplement the baby, the type of formula, the volume, and the mode of delivery. (If available, advice from a lactation consultant will be requested.)

Selective Use of Pacifiers and Assurance of Adequate Breastfeeding Assessment and Education

A series of observational studies and 2 limited clinical trials have investigated the relationship between pacifier use and breastfeeding. All but one study detected an association between pacifier use and earlier termination of breastfeeding. There are at least 2 possible explanations for these findings. Inadequate knowledge of breastfeeding principles and techniques or other problems with breastfeeding might contribute to pacifier use in association with early weaning. It is also possible that pacifier use interferes with breastfeeding by reinforcing maladaptive maternal breastfeeding practices, by disrupting suck mechanics, or through another mechanism. Pacifier use appears to be most strongly associated with termination of breastfeeding when it occurs in combination with improper newborn feeding or dysfunctional maternal styles of breastfeeding. Because existing data do not differentiate whether pacifier use causes disruption of breastfeeding or simply is a marker of breastfeeding difficulties, it is reasonable to advise parents to use pacifiers only when necessary.

More important than the focus on pacifier use, however, is provision of resources and support services that maximizes the number of mothers who choose to breastfeed and ensures their success. We recommend that each institution implement a formal assessment structure and individualized educational program to enhance breastfeeding success. To optimize breastfeeding success, each mother-baby dyad should undergo at least 2 formal, individualized, structured breastfeeding assessments by qualified personnel as well as expert individualized breastfeeding guidance before postpartum discharge to home. Examples of instruments that can be used for such an assessment are included in the AAP Safe & Health Beginnings: A Resource Toolkit for Hospitals and Physicians' Offices (Infant Breastfeeding Assessment Tool [IBFAT], LATCH: A Breastfeeding Charting System and Documentation Tool, Mother-Baby Assessment Tool). In addition, each mother

Tools for Clinicians

should receive a detailed education and counseling session that teaches the complexities of breastfeeding, including the importance of frequent on-demand breastfeeding, especially in the first weeks when breast milk supply is being regulated by baby demand and a healthy mother-baby dyad is established. Mothers should be counseled to routinely offer breastfeeding rather than a pacifier, reinforcing that a pacifier should not be used to diminish the frequency or duration of breastfeeding. Scheduled breastfeeding should be discouraged.

Although we recommend a conservative approach regarding pacifier use, we do not endorse a complete ban on the use of pacifiers, nor do we support an approach that induces parental guilt concerning their choices about the use of pacifiers. Five meta-analyses have shown an association between pacifier use and reduced risk of sudden infant death syndrome (SIDS). The AAP Task Force on Infant Positioning and SIDS recommends pacifier use at nap and bedtime as a SIDS reduction strategy (for breastfed newborns, after breastfeeding has been firmly established). Further, there are medical situations in which pacifier use is appropriate, including the use of pacifiers to provide comfort via oral stimulation for babies undergoing painful procedures or who are medically permitted no enteral intake and among whom developmentally supportive interventions have proven inadequate. Breastfeeding has been shown to have analgesic properties and also is an effective comfort strategy before or after a painful intervention.

D. Preparation for Discharge

An educational checklist designed to complement each mother's lactation needs is recommended for the nursing staff to help address any outstanding questions or concerns. Prior to discharge, mothers will be given the names and telephone numbers of community resources to contact for help with breastfeeding. According to the recommendations of the AAP, all breastfeeding newborns will be referred to a physician or other knowledgeable and experienced health care professional for a visit on the third to fifth day of age or within 24 to 72 hours. The newborn should be assessed for jaundice, adequate hydration, and age-appropriate elimination patterns.

If a newborn is not latching on or feeding well by the time of discharge, the feeding/pumping/supplementing plan will be reviewed and arrangements made for follow-up within 24 to 72 hours of discharge. Prior to discharge, arrangements will be made to secure an appropriate pump for home use, if needed.

III-b. Process for Mothers Who Deliver Prematurely or Are Separated From Their Newborns for Medical Reasons

A. Maternal Education

Mothers who deliver prematurely may not be aware of the benefits of human milk for their preterm newborns and commonly base their decisions on health-related issues. Staff (physicians and nurses) will therefore stress the protective properties of breast milk and recommend mothers provide breast milk without necessarily making the commitment to breastfeed.

B. Initiating Pumping

When direct breastfeeding is not possible, expressed human milk, fortified when necessary for the premature baby, is the preferred diet. Banked human milk may be a suitable feeding alternative for newborns whose mothers are unable or unwilling to provide their own milk. Human milk banks in North America adhere to national guidelines for quality control of screening and testing of donors and pasteurize all milk before distribution. Fresh human milk from unscreened donors is not recommended because of the risk of transmitting infectious agents.

The first postdelivery encounter with the physician, or as soon as it is appropriate, should include discussion of human milk, its role in the preterm newborn's care, and the urgency to begin expressing or pumping. The responsibility for initiating and maintaining an expressing or pumping routine (at least 6 times/day with a hospital-grade pump) will belong to the nursing staff and should begin within the first 6 hours postpartum, or as soon after delivery as the mother is stable (not "recovered"). The aim is to mimic the optimal breastfeeding stimulation provided by a healthy full-term newborn.

C. Management of Lactation

Mothers who are separated from their newborns for more than 8 hours will be

- Assisted with and instructed on how to hand-express colostrum.
- Assisted with and instructed on how to use the double electric pump every 3 hours (or 6–8 times per day, with no period >5 hours between 2 sessions).
- Encouraged and taught how to provide small volumes of fresh colostrum for their newborn.
- Provided a pumping diary/log to record their pumping history.
- Encouraged to practice skin-to-skin care as soon as the baby is stable.
- Encouraged to initiate nonnutritive suckling as soon as mother's and baby's condition permits. Initiating oral feedings at the breast is preferred over bottle feeding.
- Encouraged to initiate breastfeeding on demand as soon as mother's and baby's condition permits.
- Taught proper collection, storage, and labeling of human milk.
- Instructed on how to hand express and, if needed, use effective techniques with pumps once milk "comes in."
- Provided anticipatory guidance, when appropriate, on management of engorgement.
- Assisted with obtaining electric pump (hospital grade) for home usage prior to discharge.

Tools for Clinicians

References

I. Purpose

American Academy of Pediatrics, American College of Obstetricians and Gynecologists. *Breastfeeding Handbook for Physicians*. Elk Grove Village, IL: American Academy of Pediatrics; 2006

III-a. Process for Pregnant Mothers and Mothers With Healthy Newborns

American Academy of Pediatrics. *New Mother's Guide to Breastfeeding.* Meeks JY, Tippins S, eds. New York, NY: Bantam Books; 2002

American Academy of Pediatrics. Red Book: 2006 Report of the Committee on Infectious Diseases. Pickering LK, ed. 27th ed. Elk Grove Village, IL: American Academy of Pediatrics; 2006

American Academy of Pediatrics, American College of Obstetricians and Gynecologists. *Guidelines for Perinatal Care*. 6th ed. Elk Grove Village, IL: American Academy of Pediatrics; 2007

American Academy of Pediatrics Committee on Drugs. The transfer of drugs and other chemicals into human milk. *Pediatrics*. 2001;108:776–789

American Academy of Pediatrics Committee on Nutrition. Nutritional needs of the preterm infant. In: Kleinman RE, ed. *Pediatric Nutrition Handbook*. 5th ed. Elk Grove Village, IL: American Academy of Pediatrics; 2004:23–54

American Academy of Pediatrics Section on Breastfeeding. Breastfeeding and the use of human milk. *Pediatrics*. 2005;115:496–506

Academy of Breastfeeding Medicine. Clinical protocols. Available at: http://www.bfmed.org/index.asp?menuID=139&firstlevelmenuID=139. Accessed April 22, 2008

American College of Obstetricians and Gynecologists. Breastfeeding: maternal and infant aspects. *ACOG Educational Bulletin No. 258*. Washington, DC: American College of Obstetricians and Gynecologists; 2000

American Dietetic Association. Position of the American Dietetic Association: breaking the barriers to breastfeeding. *J Am Diet Assoc.* 2001;101:1213–1220

Gartner LM. Introduction. Semin Perinatol. 1994;18:475

Hale TW. Medications and Mothers' Milk. 13th ed. Amarillo, TX: Pharmasoft; 2008

Lawrence R.A., Lawrence R.M. Breastfeeding: A Guide for the Medical Profession. 6th ed. St. Louis, MO: Mosby; 2005

US Department of Health and Human Services. *HHS Blueprint* for Action on Breastfeeding. Washington, DC: US Department of Health and Human Services, Office on Women's Health; 2000

US National Library of Medicine, TOXNET: Toxicology Data Network. Drugs and lactation database (LactMed). Available at: http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?LACT. Accessed April 22, 2008

B. Initiation of Breastfeeding

Christensson K, Siles C, Moreno L, et al. Temperature, metabolic adaptation and crying in healthy, full-term newborns cared for skin-to-skin or in a cot. *Acta Paediatr.* 1992;81:488–493

Mikiel-Kostyra K, Mazur J, Boltruszko I. Effect of early skinto-skin contact after delivery on duration of breastfeeding: a prospective cohort study. *Acta Paediatr.* 2002;91:1301–1306

Righard L, Alade MO. Effect of delivery room routine on success of first breast-feed. *Lancet*. 1990;336:1105–1107

Van Den Bosch CA, Bullough CH. Effect of early suckling on term neonates' core body temperature. *Ann Trop Paediatr.* 1990;10:347–353

Wiberg B, Humble K, de Château P. Long-term effect on mother-infant behaviour of extra contact during the first hour post partum. V. Follow-up at three years. *Scand J Soc Med.* 1989;17:181–191

C. Management of Lactation

Staff Assistance and Maternal Education

Hall RT, Mercer AM, Teasley SL, et al. A breast-feeding assessment score to evaluate the risk for cessation of breast-feeding by 7 to 10 days of age. *J Pediatr.* 2002;141:659–664

Riordan J, Bibb D, Miller M, Rawlins T. Predicting breastfeeding duration using the LATCH breastfeeding assessment tool. *J Hum Lact.* 2001;17:20–23

Supplementation

American Academy of Pediatrics, American College of Obstetricians and Gynecologists. Care of the neonate. In: Lockwood CJ, Lemons JA, eds. *Guidelines for Perinatal Care*. 6th ed. Elk Grove Village, IL: American Academy of Pediatrics; 2007:205–249

American Academy of Pediatrics Committee on Nutrition. Breastfeeding. In: Kleinman R.E., ed. *Pediatric Nutrition Handbook*. 5th ed. Elk Grove Village, IL: American Academy of Pediatrics; 2004:55–85

Casey CE, Neifert MR, Seacat JM, Neville MC. Nutrient intake by breast-fed infants during the first five days after birth. *Am J Dis Child.* 1986;140:933–936

Dewey KG, Nommsen-Rivers LA, Heinig MJ, Cohen RJ. Risk factors for suboptimal infant breastfeeding behavior, delayed onset of lactation, and excessive neonatal weight loss. *Pediatrics*. 2003;112:607–619

Dollberg S, Lahav S, Mimouni FB. A comparison of intakes of breast-fed and bottle-fed infants during the first two days of life. *J Am Coll Nutr.* 2001;20:209–211

Eidelman AI. Hypoglycemia in the breastfed neonate. *Pediatr Clin North Am.* 2001;48:377–387

Ekström A, Widström AM, Nissen E. Duration of breastfeeding in Swedish primiparous and multiparous women. *J Hum Lact*. 2003;19:172–178

Goldberg NM, Adams E. Supplementary water for breast-fed babies in a hot and dry climate—not really a necessity. *Arch Dis Child.* 1983;58:73–74

Howard CR, Howard FM, Lanphear B, et al. Randomized clinical trial of pacifier use and bottle-feeding or cupfeeding and their effect on breastfeeding. *Pediatrics*. 2003;111:511–518

Riordan J, Gill-Hopple K, Angeron J. Indicators of effective breastfeeding and estimates of breast milk intake. *J Hum Lact*. 2005;21:406–412

Shrago L. Glucose water supplementation of the breastfed infant during the first three days of life. *J Hum Lact.* 1987;3:82–86

Wight N, Marinelli KA, and the Academy of Breastfeeding Medicine Protocol Committee. ABM clinical protocol #1: guidelines for glucose monitoring and treatment of hypoglycemia in breastfed neonates. *Breastfeed Med.* 2006;1:178–184. Available at: http://www.bfmed.org/ace-files/protocol/hypoglycemia.pdf. Accessed April 22, 2008

Rooming-in

Procianoy RS, Fernandes-Filho PH, Lazaro L, Sartori NC, Drebes S. The influence of rooming-in on breastfeeding. *J Trop Pediatr.* 1983;29:112–114

Frequency of Feeds

De Carvalho M, Robertson S, Friedman A, Klaus M. Effect of frequent breast-feeding on early milk production and infant weight gain. *Pediatrics*. 1983;72:307–311

Klaus MH. The frequency of suckling. A neglected but essential ingredient of breast-feeding. *Obstet Gynecol Clin North Am*. 1987;14:623–633

Selective Use of Pacifiers and Assurance of Adequate Breastfeeding Assessment and Education

American Academy of Pediatrics Task Force on Sudden Infant Death Syndrome. The changing concept of sudden infant death syndrome: diagnostic coding shifts, controversies regarding the sleeping environment, and new variables to consider in reducing risk. *Pediatrics*. 2005;116:1245–1255

Barros FC, Victora CG, Semer TC, Tonioli Filho S, Tomasi E, Weiderpass E. Use of pacifiers is associated with decreased breast-feeding duration. *Pediatrics*. 1995;95:497–499

Bolling K. Infant feeding survey 2005: early results. The Information Centre: NHS; 2006. Available at: http://www.ic.nhs.uk/pubs/breastfeed2005. Accessed April 28, 2008

Cignacco E, Hamers JP, Stoffel L, et al. The efficacy of non-pharmacological interventions in the management of procedural pain in preterm and term neonates. A systematic literature review. *Eur J Pain*. 2007;11:139–152

Dewey KG, Nommsen-Rivers LA, Heinig MJ, Cohen RJ. Risk factors for suboptimal infant breastfeeding behavior, delayed onset of lactation, and excessive neonatal weight loss. *Pediatrics*. 2003;112:607–619

Howard CR, Howard FM, Lamphear B, deBlieck EA, Eberly S, Lawrence RA. The effects of early pacifier use on breastfeeding duration. *Pediatrics*. 1999;103:e33. Available at: http://pediatrics.aappublications.org/cgi/content/full/103/3/e33. Accessed April 22, 2008

Howard CR, Howard FM, Lamphear B, et al. Randomized clinical trial of pacifier use and bottle-feeding or cupfeeding and their effect on breastfeeding. *Pediatrics*. 2003;111:511–518

Ip S, Chung M, Raman G, et al. Breastfeeding and maternal and infant health outcomes in developed countries. *Evid Rep Technol Assess (Full Rep)*. 2007;153:1–186. Available at: http://www.ahrq.gov/downloads/pub/evidence/pdf/brfout/brfout.pdf. Accessed April 28, 2008

Joanna Briggs Institute. Early childhood pacifier use in relation to breastfeeding, SIDS, infection and dental malocclusion. *Nurs Stand.* 2006;20:52–55

Kramer MS, Barr RG, Dagenais S, et al. Pacifier use, early weaning, and cry/fuss behavior: a randomized controlled trial. *JAMA*. 2001;286:322–326

Phillips RM, Chantry CJ, Gallagher MP. Analgesic effects of breast-feeding or pacifier use with maternal holding in term infants. *Ambul Pediatr.* 2005;5:359–364

Righard L, Alade MO. Breastfeeding and the use of pacifiers. *Birth.* 1997;24:116–120

Schubiger G, Schwarz U, Tönz O. UNICEF/WHO babyfriendly hospital initiative: does the use of bottles and pacifiers in the neonatal nursery prevent successful breastfeeding? Neonatal Study Group. *Eur J Pediatr.* 1997;156:874–877

D. Preparation for Discharge

American Academy of Pediatrics Committee on Fetus and Newborn. Hospital stay for healthy term newborns. *Pediatrics*. 2004;113:1434–1436

American Academy of Pediatrics Committee on Practice and Ambulatory Medicine and Bright Futures Steering Committee. Recommendations for preventive pediatric health care. *Pediatrics*. 2007;120:1376

American Academy of Pediatrics Subcommittee on Hyperbilirubinemia. Management of hyperbilirubinemia in the newborn infant 35 or more weeks of gestation. *Pediatrics*. 2004;114:297–316

Hall RT, Mercer AM, Teasley SL, et al. A breast-feeding assessment score to evaluate the risk for cessation of breast-feeding by 7 to 10 days of age. *J Pediatr.* 2002;141:659–664

Riordan J, Bibb D, Miller M, Rawlins T. Predicting breastfeeding duration using the LATCH breastfeeding assessment tool. *J Hum Lact.* 2001;17:20–23

III-b. Process for Mothers Who Deliver Prematurely or Are Separated From Their Newborns for Medical Reasons

A. Maternal Education

Kavanaugh K, Meier P, Zimmermann B, Mead L. The rewards outweigh the efforts: breastfeeding outcomes for mothers of preterm infants. *J Hum Lact*. 1997;13:15–21

Meier P, Engstrom J, Spanier-Mingolelli S, Kiesling S. Dose of own mothers' milk provided by low-income and non-low income mothers of very low birthweight infants [abstract]. *Pediatr Res.* 2000;47:292A. Abstract 1721

Miracle DJ, Meier PP, Bennett PA. Making my baby healthy: changing the decision from formula to human milk feedings for very-low-birth-weight infants. *Adv Exp Med Biol*. 2004;554:317–319

B. Initiating Pumping

C. Management of Lactation

Baker BJ, Rasmussen TW. Organizing and documenting lactation support of NICU families. *J Obstet Gynecol Neonatal Nurs.* 1997;26:515–521

Bier JA, Oliver T, Ferguson AE, Vohr BR. Human milk improves cognitive and motor development of premature infants during infancy. *J Hum Lact.* 2002;18:361–367

Bystrova K, Matthiesen AS, Widström AM, et al. The effect of Russian Maternity Home routines on breastfeeding and neonatal weight loss with special reference to swaddling. *Early Hum Dev.* 2007;83:29–39

Flacking R, Nyqvist KH, Ewald U, Wallin L. Long-term duration of breastfeeding in Swedish low birth weight infants. *J Hum Lact.* 2003;19:157–165

Furman L, Minich N, Hack M. Correlates of lactation in mothers of very low birth weight infants. *Pediatrics*. 2002;109:e57. Available at: http://pediatrics.aappublications.org/cgi/content/full/109/4/e57. Accessed April 22, 2008

Furman L, Taylor G, Minich N, Hack M. The effect of maternal milk on neonatal morbidity of very low-birth-weight infants. *Arch Pediatr Adolesc Med.* 2003;157:66–71

Gómez Papí A, Baiges Nogués MT, Batiste Fernández MT, Marca Gutiérrez MM, Nieto Jurado A, Closa Monasterolo R. Kangaroo method in delivery room for full-term babies. *An Esp Pediatr.* 1998;48:631–633

Hill PD, Aldag JC, Chatterton RT. Effects of pumping style on milk production in mothers of non-nursing preterm infants. *J Human Lact.* 1999;15:209–216

Hill PD, Aldag JC, Chatterton RT. The effect of sequential and simultaneous breast pumping on milk volume and prolactin levels: a pilot study. *J Hum Lact.* 1996;12:193–199

Howard CR, Howard FM, Lanphear B, et al. Randomized clinical trial of pacifier use and bottle-feeding or cupfeeding and their effect on breastfeeding. *Pediatrics*. 2003;111:511–518

Human Milk Banking Association of North America. Guidelines for Establishment and Operation of a Donor Human Milk Bank. 7th ed. Raleigh, NC: Human Milk Banking Association of North America Inc; 1998 Hurst NM, Valentine CJ, Renfro L, Burns P, Ferlic L. Skinto-skin holding in the neonatal intensive care unit influences maternal milk volume. *J Perinatol.* 1997;17:213–217

Jones E, Dimmock PW, Spencer SA. A randomised controlled trial to compare methods of milk expression after preterm delivery. *Arch Dis Child Fetal Neonatal Ed.* 2001;85:F91–F95

Kirsten GF, Bergman NJ, Hann FM. Kangaroo mother care in the nursery. *Pediatr Clin North Am.* 2001;48:443–452

Kramer MS, Barr RG, Dagenais S, et al. Pacifier use, early weaning, and cry/fuss behavior: a randomized controlled trial. *JAMA*. 2001;286:322–326

Moore ER, Anderson GC, Bergman N. Early skin-to-skin contact for mothers and their healthy newborn infants. *Cochrane Database Syst Rev.* 2007;3:CD003519

Neville MC, Allen JC, Archer PC, et al. Studies in human lactation: milk volume and nutrient composition during weaning and lactogenesis. *Am J Clin Nutr.* 1991;54:81–92

Nyqvist KH. The development of preterm infants' milk intake during breastfeeding. *J Neonatal Nurs*. 2001;7:48–52

Pinelli J, Symington A. Non-nutritive sucking for promoting physiologic stability and nutrition in preterm infants. *Cochrane Database Syst Rev.* 2005;4:CD001071

Powers NG, Bloom B, Peabody J, Clark R. Site of care influences breastmilk feedings at NICU discharge. *J Perinatol.* 2003:23:10–13

Schanler RJ, Shulman RJ, Lau C, Smith E, Heitkemper MM. Feeding strategies for premature infants: randomized trial of gastrointestinal priming and tube-feeding method. *Pediatrics*. 1999;103:434–439

Smith MM, Durkin M, Hinton VJ, Bellinger D, Kuhn L. Initiation of breastfeeding among mothers of very low birth weight infants. *Pediatrics*. 2003;111:1337–1342

Victora CG, Behague DP, Barros FC, Olinto MT, Weiderpass E. Pacifier use and short breastfeeding duration: cause, consequence, or coincidence? *Pediatrics*. 1997;99:445–453

Wooldridge J, Hall WA. Posthospitalization breastfeeding patterns of moderately preterm infants. *J Perinat Neonat Nurs*. 2003;17:50–64



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http://www.cdph.ca.gov/healthinfo/ healthyliving/childfamily/Pages/ MainPageofBreastfeedingToolkit.aspx









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Model Hospital Policy Recommendations On-Line Toolkit

- Introduction to the Model Hospital Policy Recommendations On-Line Toolkit

 Based on the Model Hospital Policy Recommendations, the On-Line Toolkit provides additional references as well as resources and web links to assist hospitals in addressing the policies.
- <u>Providing Breastfeeding Support: Model Hospital Policy Recommendations (PDF)</u>

 These evidence-based recommendations were developed to provide information and resources to hospitals to improve their breastfeeding rates.
- <u>Hospital Self-Appraisal for Model Hospital Policy Recommendations (Word)</u>

 This tool can be used to assist hospital staff and quality assurance team in assessing their own hospital to identify which policy/policies they want to currently address.
- <u>Birth and Beyond California (BBC): Hospital Training & Quality Improvement Project</u>
 BBC is an approach created by the state Maternal Child and Adolescent Health (MCAH) Program to offer technical assistance and collaborate with hospitals to improve their exclusive breastfeeding rates by establishing hospital policies and a continuous quality improvement plan.

Individual Model Hospital Policy Recommendations & Toolkit Links

PURPOSE: These policy recommendations are designed to give basic information and guidance to prenatal professionals who wish to revise policies that affect the breastfeeding mother. Rationale and references are included as education for those unfamiliar with current breastfeeding recommendations. When no reference is available, the interventions recommended are considered to be best practice as determined by consensus of the Inland Empire Breastfeeding Coalition.

- Policy #1: Hospitals should promote and support breastfeeding.
- Policy #2: Nurses, certified nurse midwives, physicians and other health professionals with expertise
 regarding the benefits and management of breastfeeding should educate pregnant and
 postpartum women when the opportunity for education exists, for example, during prenatal
 classes, in clinical settings, and at discharge teaching.
- Policy #3: The hospital will encourage medical staff to perform a breast exam on all pregnant women
 and provide anticipatory guidance for conditions that could affect breastfeeding.

 Breastfeeding mothers will have an assessment of the breast prior to discharge and will
 receive anticipatory guidance regarding conditions that might affect breastfeeding.
- Policy #4: Hospital prenatal staff should support the mother's choice to breastfeed and encourage exclusive breastfeeding for the first 6 months.

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Model Hospital Policy Recommendations On-Line Toolkit (con't)

- Policy #5: Nurses, certified nurse midwives, and physicians should encourage new mothers to hold their newborns skin to skin during the first two hours following birth and as much as possible thereafter, unless contraindicated.
- Policy #6: Mothers and infants should be assessed for effective breastfeeding. Mothers should be
 offered instruction in breastfeeding as indicated.
- Policy #7: Artificial nipples and pacifiers should be discouraged for healthy, breastfeeding infants.
- (Policy #8: Sterile water, glucose water, and artificial milk should not be given to a breastfeeding infant without the mother's informed consent and/or physician's specific order.
- (Policy #9: Mothers and infants should be encouraged to remain together during the hospital stay.)
- Policy #10: At discharge, mothers should be given information regarding community resources for breastfeeding support.
- Comments/Feedback on Toolkit
- Toolkit evaluation (Word)

EXPANDED HOSPITAL POLICY #5:

MO-07-0036 BFP

Nurses, certified nurse midwives, and physicians should encourage new mothers to hold their newborns skin to skin during the first two hours following birth and as much as possible thereafter, unless contraindicated.

INTERVENTION / MANAGEMENT **RATIONALE RESOURCES** 5.1 Assuming baby and mother are 5.1 Mothers should be permitted to Sample Policies: stable, the mother and baby should engage in this normal physiological · Academy of Breastfeeding be skin-to-skin during the first process, regardless of birth Medicine: Clinical Protocol #5: several hours following birth. This method, as long as medically Peripartum Breastfeeding includes the post-cesarean mother stable. Post-cesarean mothers can Management for the Healthy and baby, when alert and stable. still engage in breastfeeding. Mother and Infant at Term; Temperature stabilization will Revision, June 2008 (PDF) almost always occur best with the English 🖳 baby in skin-to-skin contact on the 5.1.1 Babies are mother's chest, with a blanket • Childbirth Center Policy (PDF) usually most ready covering the infant and mother. to breastfeed during 1,2,4,5,8,9 the first hour following birth. For 5.1.1 The normal 'Golden Hour" Sample Patient the normal newborn infant has a strong Information this should occur suck reflex during prior to such the first 20-30 • "Golden Hour" Patient Room interventions as: the Sign, (English) (Spanish) minutes post-birth. newborn bath, Disturbing the "Golden Hour" Patient Information, English (PDF) glucose sticks, foot mother and infant printing, and eye during this time can ...Spanish make it difficult for treatments. the infant to learn 5.1.2 During the first the suckling process. Ferber SG, Makhoul R; The Effect of day of life, skin-to-7,11,12 Skin-to-Skin Contact (Kangaroo skin time and Care) Shortly After Birth on the breastfeeding should Neurobehavioral Responses of the take priority over 5.1.2 Separation of Term Newborn: A Randomized, mother and baby for other routine events Controlled Trial PEDIATRICS Vol. such as infant routine procedures 113 No. 4 April 2004, pp. 858-865 may be distracting bathing, pictures, (Full Text) and visitors. and interfere with breastfeeding Christensson K, Siles C, Moreno L, initiation et al. Temperature, metabolic unnecessarily. adaptation and crying in healthy, fullterm newborns cared for skinto-skin Organizing nursing or in a cot. Acta Paediatr. care to focus on 1992;81:488-493 (Abstract) keeping the mother and newborn • Sample Chart Review Tool together will (Excel) increase the opportunities for the newborn to demonstrate feeding readiness. 3,10,13

- 5.1.3 If breastfeeding is delayed due to medical condition(s) of mother or baby, the baby should be put skin-to-skin and allowed to approach the breast as soon as possible after they are stable.
- 5.1.4 The baby should be encouraged to breastfeed without restriction.
- 5.1.5 Nursing policies and practices should support care of the mother and infant together and should be documented in nursing charting.

(Refer to Policy #9 for safety considerations)

- 5.1.3 Early suckling allows the infant to receive the immunologic benefits of colostrum. Colostrum also stimulates digestive peristalsis of the infant. Suckling stimulates uterine involution and inhibits bleeding for the mother. 6,7
- 5.1.4 Restricting breastfeeding may increase the degree of physiological breast engorgement that occurs during the transitional milk phase.

Hanson,L; Immunobiology of Human Milk: How Breastfeeding Protects Infants, 2004, <u>Hale Publishing</u>

Resources on Medications and Breastfeeding:

- Drugs and Lactation Database (<u>LactMed</u>)
- "Safety of Commonly Used Drugs in Nursing Mothers": <u>Drug Information Service</u> -Philip O. Anderson, PharmD, FASHP, FCSHP – University of California San Diego Campus.
- Medications and Mothers' Milk

 Thomas Hale, RPh Book,
 Palm and Internet access can
 be purchased through Hale
 Publishing.

Example of a program Evaluation Tool:

Nursing (PDF) Best
 Practice Guidelines Evaluation

 Tools

Policy #5 References:

- 1. American Academy of Pediatrics Policy Statement (2005). Breastfeeding and the use of Human Milk, Pediatrics, 115, 496-506. (2005 Version)
- 2. American College of Obstetrics and Gynecology Educational Bulletin. (July 2000). Breastfeeding: Maternal and infant aspects, No. 258, p.5.
- 3. DiGirolamo, A. M., Grummer-Strawn, L. M., & Fein, S. (2001). Maternity care practices: Implications for breastfeeding. Birth, 28(2), 1523-1536. [Abstract]
- 4. Durand, R., Hodges, S., LaRock, S., Lund, L., Schmid, S., Swick, D., et al. (1997, March/April). The effect of skin-to-skin breastfeeding in the immediate recovery period on newborn thermoregulation and blood glucose. Neonatal Intensive Care, 23-29. [Abstract]
- 5. Kennell, J. & Klaus, M. (1998). Bonding: Recent observations that alter perinatal care. Pediatrics in Review. 19(1), 4-12.
- 6. Lawrence, R. (1987). The management of lactation as a physiologic process. Clinics in Perinatology, 14(1), 1-10.
- 7. Lawrence, R. A., & Lawrence, R. M. (2005). Breastfeeding: A guide for the medical professional (6th ed.). St. Louis, MO: Mosby (pp. 217, 272, 80, 275)
- 8. Mikiel-Kostyra, K., Mazur, J., & Boltruszko, I. (2002). Effect of early skin-to-skin contact after delivery on duration of breastfeeding: A prospective cohort study. Acta Paediatrica, 91(12), 1288-1289. (Abstract)
- 9. Rapley, G. (2002). Keeping mothers and babies together—breastfeeding and bonding. Royal College of Midwives, 5(10), 332-224. (Abstract)
- 10. Righard, L. & Alade, M. (1990). Effect of delivery room routines on success of first breast-feed. The Lancet, 336, 1105-1107.
- 11. Salariya, E. M., Easton, P. M., Cater, J. I. (1978, November 25). Duration of breastfeeding after early initiation and frequent feeding. The Lancet, 1141-1143.
- 12. Taylor, P. M., Maloni, J. A., & Brown, D. R. (1986). Early suckling and prolonged breast-feeding. American Journal of Diseases of Children, 140, 151-154.
- 13. Winikoff, B., Laukaran, V. H., Myers, D., & Stone, R. (1986). Dynamics of infant feeding: Mothers, professionals, and the institutional context in a large urban hospital. Pediatrics, 77(3), 357-365.

Additional References:

ACOG Update: Committee Opinion #361, "Breastfeeding: Maternal and Infant Aspects," Obstetrics & Gynecology, February 2007. More detailed information on breastfeeding can be found in ACOG Clinical Review (Vol. 12, Issue 1 (supplement), Jan-Feb 2007) "Special Report from ACOG, Breastfeeding: Maternal and Infant Aspects" available to Fellows online at www.acog.org and to nonmembers by emailing jbrenner@acog.org.

Bramson L, Lee JW, Moore E, Montgomery S, Neish C, Bahjri K, Lopez-Melcher C; Effect of Skin-to-Skin Mother-Infant Contact During the First 3 Hours Following Birth on Exclusive Breastfeeding During the Maternity Hospital Stay, Journal of Human Lactation, Vol. 26, No. 2, 130-137 (2010) [Abstract]

Chiu S-H, Anderson GC, Burkhammer MD; Newborn Temperature During Skin-to-Skin Breastfeeding in Couples Having Breastfeeding Difficulties, <u>Birth</u>, Volume 32, Number 2, June 2005, pp. 115-121(7) [Abstract]

Handlin L, Jonas W, Petersson M, Ejdebäck M, Ransjö-Arvidson A-B, Nissen E, Uvnäs-Moberg K. Effects of Sucking and Skin-to-Skin Contact on Maternal ACTH and Cortisol Levels During the Second Day Postpartum—Influence of Epidural Analgesia and Oxytocin in the Perinatal Period Breastfeeding Medicine. December 2009, 4(4): 207-220. doi:10.1089/bfm.2009.0001.

Hanson,L; Immunobiology of Human Milk: How Breastfeeding Protects Infants, 2004, Hale Publishing

Conference Sessions that can be used for staff education: Go to <u>ILCA</u> for previous conference sessions. Some sessions that may be useful from the 2005 Conference:

Skin-to-skin Contact and Perinatal Neuroscience – Nils Bergman
Kangaroo Mother Care: Restoring the original paradigm for newborn care – Nils Bergman
Rational Use of Supplements: The journey towards best practice – Marina Green
The Almost Term Premature Baby: Caring for babies born between 25-39 weeks gestation – Molly Pessl
The Relational Teaching Model: A new approach to training resistant hospital staff – Carol Melcher

Literature:

Bier JA, Ferguson AE, Morales Y, Liebling JA, Archer D, Oh W et al. Comparison of skin-to-skin contact with standard contact in low-birth-weight infants who are breast-fed. Arch.Pediatr.Adolesc.Med. 1996;150 (12):1265-9. [Abstract]

Christensson K, Siles C, Moreno L, et al. Temperature, metabolic adaptation and crying in healthy, full-term newborns cared for skinto-skin or in a cot. Acta Paediatr. 1992;81:488–493 (Abstract)

Ferber SG, Makhoul R; The Effect of Skin-to-Skin Contact (Kangaroo Care) Shortly After Birth on the Neurobehavioral Responses of the Term Newborn: A Randomized, Controlled Trial PEDIATRICS Vol. 113 No. 4 April 2004, pp. 858-865 (Full Text)

Hurst NM, Valentine CJ, Renfro L, Burns P, Ferlic L. Skin-to-skin holding in the neonatal intensive care unit influences maternal milk volume. J.Perinatol. 1997;17(3):213-7. [Abstract]

Klaus MH. Kennell JH, Klaus PH. Bonding: Building the Foundations of Secure Attachment and Independence. Reading, Mass: Addision-Wesley; 1995

Klaus MH. Klaus PH. 77te Amazing Newborn. Reading, Mass: Addison-Wesley/Lawrence: 1985

Ludington SM. Energy conservation during skin-to-skin contact between premature infants and their mothers. Heart Lung 1990;19(5 Pt 1):445-51. [Abstract]

Mooncey S, Giannakoulopoulos X, Glover V, Acolet D, Modi N. The effect of Mother-Infant skin-to-skin cobtact on plasma cortisol and beta-endorphin concentrations in Preterm Newborns. Infant Behaviour and Development 1997;20(4):553-7. [Abstract]

Wahlberg V, Affonso D, Persson B. A retrospective, comparative study using the Kangaroo method as a complement to the Standard Incubator care. European Journal of Public Health 1992;2:34-7. [Abstract]

Video or audio presentation of:

Melcher, CL; <u>The Relational Teaching Model: A new approach to training resistant hospital staff</u> - Presentation to the International Lactation Consultant Association, 2005: — Carol Lopez Melcher, RNC, MPH <u>Perinatal Services Network</u> Project Director Loma Linda University Medical Center/Children's Hospital, Loma Linda, CA

Hospital Self-Appraisal Questionnaire (Word)

Back to Main Page of Breastfeeding Toolkit

EXPANDED HOSPITAL POLICY #7:

MO-07-0038 BFP

Artificial nipples and pacifiers should be discouraged for healthy breastfeeding infants.

INTERVENTION / MANAGEMENT	RATIONALE	RESOURCES
7.1 Pacifiers should not be given to breastfeeding infants. Mothers should be encouraged to breastfeed frequently in response to hunger cues.	7.1 Breast stimulation is critical to milk production. When an infant needs to suck, in the first days of life, the breast should be offered. The use of pacifiers may shorten the duration of breastfeeding. 1,4,5,6,7,11,12,13 Introducing artificial nipples • is associated with decreased duration of breastfeeding. 1,4,5,14 • may prevent establishing of milk supply. • may prevent optimal tooth, jaw and speech development. 10 • may encourage the infant to suck incorrectly, since on an artificial nipple the baby will be rewarded even for a physiologically incorrect suck. This is sometimes referred to as "nipple preference." 3,8 • is associated with increased risk of otitis media. 9,10	Permission forms may be used to educate mothers about the use of pacifiers. What should i know about giving my breastfed baby a pacifier? Primarily mothers need to be aware of the importance of breastfeeding to meet newborn's sucking needs instead of delaying feedings with pacifiers. Information and references on the use of pacifiers from the UK website, which addresses the use of "teats" (artificial nipples) and "dummies' (pacifiers) as well as nipple shields. Recent recommendations by the American Academy of Pediatrics to use pacifiers to avoid SIDS do not conflict with this policy. In its policy, the AAP recommends that: "For breastfed infants, delay pacifier introduction until 1 month of age to ensure that breastfeeding is firmly established." [full policy] In order to avoid artificial nipples, some agencies use alternative ways of feeding infants who require supplementation such as: Spoon feeding colostrum hand-expressed into a plastic spoon Dropper feeding colostrum hand-expressed into a spoon or cup Cup-feeding hand-expressed, pumped, or banked human milk Finger Feeding using a syringe of feeding device such as a Hazelbaker FingerFeeder system. Use of a feeding-tube device such as the Supplemental Nursing System, Lact-Aid one created by using an NG tube slipped into a bottle of expressed breast milk, banked human milk or formula (see "Using a Lactation Aid" by and video link by Dr. Jack Newman.

		When using bottles to supplement, utilizing the "paced bottle feeding technique" helps reduce the risk of infants' refusing the breast due to establishing a pattern of immediate and continuous feeding from non-paced bottle feeding.* (See Policy and Procedures for alternate feeding methods of Very Low Birth Weight Infants from the California Perinatal Quality Care Collaborative) Pacifiers may be used in full-term babies during painful procedures such as circumcisions, however, they should not remain in the crib, which would give the parents the impression that it is a tool to be used to comfort the newborn, which may delay the next breastfeeding experience.
7.2 Mothers can be encouraged to hold and breastfeed their infants during routine painful procedures such as heel sticks and intramuscular injections. If the mother chooses not to breastfeed during the painful procedure, a pacifier may be used and discarded after the procedure.	7.2 Infants breastfeeding during painful procedures demonstrate greatly diminished or zero response to pain.2	See Reference #2 below:

Policy #7 References:

- 1. Barros, F. C., Victoria, C. G., Semer, T. C., Filho, S. T., Tomasi, E., & Weiderpass, E. (1995). Use of pacifiers is associated with decreased breastfeeding duration. Pediatrics, 95(4), 497-499. [Abstract]
- 2. Gray, L., Miller, L. W., Philipp, B. L., & Blass, E. M. (2002). Breastfeeding is analgesic in healthy newborns. Pediatrics ,109(4), 590-593. [Abstract]
- 3. Hill, P. D., & Humenick, S. S. (1997). Does early supplementation affect long-term breastfeeding? Clinical Pediatrics, 36(6), 345-350. [Abstract]
- 4. Howard, C. R., Howard, F. M., Lanphear, B., deBlieck, E. A., Eberly, S., & Lawrence, R. A. (1999). The effects of early pacifier use on breastfeeding duration. Pediatrics, 103(3), 33-38. [Abstract (PDF)]
- 5. Howard, C. R., Howard, F. M., Lanphear, B., Eberly, S., deBlieck, E. A., Oakes, D., & Lawrence, R. (2003). Randomized clinical trial of pacifier use and bottle-feeding or cup feeding and their effect on breastfeeding. Pediatrics, 111(3), 511-518. [Abstract]
- 6. Kramer M. S., Barr, R. G., Dagenais, S., Yang, H., Jones, P., Ciofani, L. & Jane F. (2001). Pacifier use, early weaning, and cry/fuss behavior: A randomized controlled trial. Journal of the American Medical Association, 286 (3), 322-326. [Abstract]
- 7. Lawrence, R. (1987). The management of lactation as a physiologic process. Clinics in Perinatology, 14(1), 1-10. [Abstract]
- 8. Lawrence, R. A., & Lawrence, R. M. (2005). Breastfeeding: A guide for the medical professional (6th ed.). St. Louis, MO: Mosby (pp. 223-224, 309-310).
- 9. Newman, J. (1990). Breastfeeding problems associated with the early introduction of bottles and pacifiers. Journal of Human Lactation, 6(2), 59-63. (Abstract).
- 10. Niemela, M. Uhar, M. & Hannuksela, A. (1994). Pacifiers and dental structure as risk factors for otitis media. International Journal of Pediatric Otorhinolaryngology, 29(2), 121-127. (Abstract)
- 11. Niemela, M., Uhari, M., & Mottonen, M. (1995). A pacifier increases the risk of recurrent acute otitis media in children in day care centers. Pediatrics, 96(5), 884-888. (Abstract)
- 12. Righard, L. & Alade, M. (1997). Breastfeeding and the use of pacifiers. Birth, 24(2), 116-120. (Abstract)

13. Victora, C. G., Behague, D. P., Barros, F. C., Olinto, M. T. A., & Weiderpass, E. (1997). Pacifier use and short breastfeeding duration: Cause, consequence, or coincidence? Pediatrics, 99(3), 445-453. (Abstract)
14. Victora, C. G., Tomasi, E., Olinto, M. T. A., & Barros, F. C. (1993). Use of pacifiers and breastfeeding duration. Lancet, 341, 404-406. (Abstract)

Additional References:

Merewood A., Mehta S, Chamberlain, LB, Philipp BL, and Bauchner H.; Breastfeeding Rates in US Baby-Friendly Hospitals: Results of a National Survey, PEDIATRICS Vol. 116 No. 3 September 2005, pp. 628-634 (Abstract)

Binns CW, Scott JA. "Using pacifiers: what are breastfeeding mothers doing?" Breastfeed Rev. 2002 Jul;10 (2):21-5. (Abstract)

Howard CR, Howard FM, Lanphear B, Eberly S, deBlieck EA, Oakes D, Lawrence RA., "Randomized clinical trial of pacifier use and bottle-feeding or cupfeeding and their effect on breastfeeding". Pediatrics. 2003 Mar;111 (3):511-8.

(Abstract) (PDF)

Mizuno K, Ueda A: Changes in Sucking Performance from Nonnutritive Sucking to Nutritive Sucking during Breast- and Bottle-Feeding; Pediatric Research 59:728-731 (2006) (Abstract)

Nelson EA, Yu LM, Williams S; International Child Care Practices Study Group Members. International Child Care Practices study: breastfeeding and pacifier use; J Hum Lact. 2005 Aug;21(3):289-95. (Abstract) Soares ME, Giugliani ER, Braun ML, Salgado AC, de Oliveira AP, de Aguiar PR. "Pacifier use and its relationship with early weaning in infants born at a Child-Friendly Hospital; J Pediatr (Rio J). 2003 Jul-Aug;79 (4):309-16. (Abstract) (PDF)

*Kassing,D; "Bottle-feeding as a tool to reinforce breastfeeding" <u>J Hum Lact</u>. 2002 Feb;18(1):56-60 Pacifiers may be used in full-term babies during painful procedures such as circumcisions, however, they should not remain in the crib, which would give the parents the impression that it is a tool to be used to comfort the newborn, which may delay the next breastfeeding experience.

Fern R. Hauck, MD, MS*,, Olanrewaju O. Omojokun, MD and Mir S. Siadaty, MD, MS; "Do Pacifiers Reduce the Risk of Sudden Infant Death Syndrome? A Meta-analysis" REVIEW PEDIATRICS (doi:10.1542/peds.2004-2631)

CONCLUSIONS.: ... In consideration of potential adverse effects, we recommend pacifier use for infants up to 1 year of age, which includes the peak ages for SIDS risk and the period in which the infant's need for sucking is highest. For breastfed infants, pacifiers should be introduced after breastfeeding has been well established.

Responses to the above article:

- Academy of Breastfeeding Medicine: <u>Breastfeeding Is Associated with a Lower Risk of SIDS According to The Academy of Breastfeeding Medicine</u>
- International Lactation Consultant Association: <u>ILCA Responds to Policy Statement by AAP Task Force</u> on SIDS (PDF) 28 November 2005
- Massachusetts Breastfeeding Coalition: <u>Massachusetts Breastfeeding Coalition's Response to AAP SIDS</u> Recommendations

From the: POLICY STATEMENT by the Section on Breastfeeding of the American Academy of Pediatrics: "Breastfeeding and the Use of Human Milk" (PDF)

"5. Pacifier use is best avoided during the initiation of breastfeeding and used only after breastfeeding is well established.166–168

- In some infants early pacifier use may interfere with establishment of good breastfeeding practices, whereas in others it may indicate the presence of a breastfeeding problem that requires intervention.169
- This recommendation does not contraindicate pacifier use for nonnutritive sucking and oral training of premature infants and other special care infants."

References:

166. Howard CR, Howard FM, Lamphear B, de Blieck EA, Eberly S, Lawrence RA. The effects of early pacifier

use on breastfeeding duration. Pediatrics. 1999;103(3). [Full Article]

167. Howard CR, Howard FM, Lanphear B, et al. Randomized clinical trial of pacifier use and bottle-feeding or cupfeeding and their effect on breastfeeding. Pediatrics. 2003;111:511-518 [Full Article]

168. Schubiger G, Schwarz U, Tonz O. UNICEF/WHO Baby-Friendly Hospital Initiative: does the use of bottles and pacifiers in the neonatal nursery prevent successful breastfeeding? Neonatal Study Group. Eur J Pediatr. 1997;156:874-877 [Abstract]

169. Kramer MS, Barr RG, Dagenais S, et al. Pacifier use, early weaning, and cry/fuss behavior: a randomized controlled trial. JAMA. 2001;286: 322-326 [Abstract]

Hospital Self-Appraisal Questionnaire (Word)



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EXPANDED HOSPITAL POLICY #8:

MO-07-0039 BFP

Sterile water, glucose water, and artificial milk should not be given to a breastfeeding infant without the mother's informed consent and/or physician's specific order.)

INTERVENTION / MANAGEMENT	RATIONALE	RESOURCES
8.1 Breastfeeding infants should be given only breastmilk, unless specifically ordered for a clinical condition by the physician or with the mother's informed consent.	8.1 Colostrum and breastmilk completely meet the normal newborn's nutritional and fluid needs (provides 17-20 kcal/oz).5 Colostrum is the least noxious substance if aspirated.4,5 8.1.1Water interferes with breastfeeding and fills the baby with non-nutritive fluid so that the baby is not hungry. There is no medical or nutritional value to water. Water decreases the frequency of breastfeeding, which in turn decreases the mother's milk supply. 4)	Sample patient handouts explaining why babies should be exclusively breastfed • Southwest Healthcare System: English (PDF, 1.1MB)Spanish, 1.1MB Example of a Consent to Supplement • Consent 1 (Word) • Consent 2 (Word) • Consent 3: English and Spanish (Word) • Consent 3: English and Spanish (Word) • Kaiser (Word) See the Academy of Breastfeeding Medicine Protocol on • Hypoglycemia (PDF) • Supplementation (PDF) • Peripartum Breastfeeding Management (Revised, June 2008) (PDF)
8.2 When supplementation is medically indicated, an alternate feeding method should be utilized to maintain mother-infant breastfeeding skills. Alternate feeding methods include cup, dropper, gavage, finger or syringe. 8.2.1 Artificial feeding should not exceed the physiologic capacity of the newborn stomach.	8.2 Some infants may have difficulty transitioning between an artificial nipple and the breast. Alternate feeding methods may be helpful in maintaining breastfeeding skills.2,3,6 8.2.1 Care should be taken not to exceed the physiologic capacity of the newborn stomach. In	References and summary of the studies(PDF) on the capacity of the infant's stomach Information on "Paced Bottle feeding": A Caregivers Guide to the Breastfed Baby (PDF) Resources for programs used to teach staff about supplementation: Birth and Beyond – Perinatal Services Network

	the first few days of life, volumes of less than 20cc should be given at each feeding.	Professional Education Distance Learning Courses See resources in policy #4
8.3 Education regarding supplementation should be presented prior to obtaining consent for supplementation Risks of introducing artificial infant milk and/or water to the newborn should be discussed with the mother prior to supplementation.	8.3 Mothers should be made aware of potential risks to the infant who receives artificial infant milk, or water, or is fed by artificial feeding methods. 1,5	The Health Risks of Not Breastfeeding

Policy #8 References

- 1. Hill, P. D., & Humenick, S. S. (1997). Does early supplementation affect long-term breastfeeding? Abstract. Clinical Pediatrics, 36(6), 345-350.
- 2. King, Colin (Director). (1994). The Ameda Egnell baby cup [videotape]. (Available from Ameda/Egnell, 755 Industrial Drive, Cary, Illinois 60013).
- 3. Lang, S., Lawrence, C. J., & Orme, R. L'E. (1994). Cup feeding: an alternative method of infant feeding. Archives of Disease in Childhood, 71, 365-369.
- 4. Lawrence, R. (1987). The management of lactation as a physiologic process. Clinics in Perinatology, 14(1), 1-
- 5. Lawrence, R. A., & Lawrence. R. M. (2005). Breastfeeding: A Guide for the Medical Profession (6th ed.). St. Louis, MO: Mosby (pp. 110, 272, 249-249).
- 6. Newman, J. (1990). Breastfeeding problems associated with the early introduction of bottles and pacifiers. Journal of Human Lactation, 6(2), 59-63.
- 7. Zangen, S., Di Lorenzo, C., Zangen, T., Mertz, H. Schwankovsky, L., & Hyman, P. E. (2001). Rapid maturation of gastric relaxation in newborn infants. (Abstract) (Full Text) Pediatric Research, 50(5), 629-632.

Additional References:

Academy of Breastfeeding Medicine. Clinical Protocol #1, 3 and 7: Hospital Guidelines for the Use of Supplementary Feedings in the Healthy Term Breastfed Neonate, (see http://www.bfmed.org/Resources/Protocols.aspx)

American Academy of Pediatrics. Work Group on Breastfeeding. Breastfeeding and the Use of Human Milk, Pediatrics Feb. 2005 http://aappolicy.aappublications.org/cgi/content/abstract/pediatrics:115/2/496

Almroth S, Bidinger PD.: No need for water supplementation for exclusively breast-fed infants under hot and arid conditions. Trans R Soc Trop Med Hyg 1990 Jul;84(4):602-604 [Abstract]

Breastfeeding Committee for Canada, Guidelines for WHO UNICEF Baby-Friendly TM Initiative (BFI) in Canada, October 14, 2003. www.breastfeedingcanada.ca

Breastfeeding Management for the Clinician By Marsha Walker, RN, IBCLC (2006) (www.ilca.org).

College of Family Physicians of Canada, Infant Feeding Policy Statement, 2004 (PDF)



Continuity of Care in Breastfeeding: Best Practices in the Maternity Setting, Copyright: 2009 By: Karin Cadwell, PhD, RN, FAAN, IBCLC, RLC, and Cynthia Turner-Maffei, MA, IBCLC, RLC.

Core Curriculum for Lactation Consultant Practice, 2nd Ed. - Editors: Rebecca Mannel, Patricia J. Martens and Marsha Walker (2007).

Dollberg, S et al (2001) A Comparison of Intakes of Breast-Fed and Bottle-Fed Infants During the First Few Days of Life, J Am College of Nutrition 20(3):209-211, 2001.

Evans, KC et al (2003) Effect of caesarean section on breast milk transfer to the normal term newborn over the first week of life, Arch. Dis. Child. Fetal Neonatal Ed. 2003;88;380-38220.

Gartner, LM, Herschel, M. Jaundice and Breastfeeding. Pediatric Clinics of North America, 2001: 389-400.

Hale & Hartmann Textbook of Human Lactation By: Thomas W. Hale, Ph.D. and Peter Hartmann, Ph.D.(2007)

Health Canada (2004) Exclusive Breastfeeding Duration, Health Canada's Recommendation (PDF) 2004.

Neuberger Z: <u>WIC FOOD PACKAGE SHOULD BE BASED ON SCIENCE: Foods with New Functional Ingredients Should Be Provided Only If They Deliver Health or Nutritional Benefits (PDF)</u>; Report to the Center on Budget and Policy Priorities, June 4, 2010.

UNICEF (1992) Acceptable Medical Reasons for Supplementation, Annex to the Global Criteria for Baby Friendly Hospitals, 1992. (see #4 above - BCC - BFI Hospital Indicators, page 19, March 2004).

Hospital Self-Appraisal Questionnaire (Word)

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EXPANDED HOSPITAL POLICY #9:

MO-07-0040 BFP

Mothers and infants should be encouraged to remain together during the hospital stay.

INTERVENTION / MANAGEMENT	RATIONALE	RESOURCES
(9.1 Babies should be cared for at their mothers' bedside. Both the (mother and family should be) (encouraged to assist with infant care.)	9.1 Bonding, adaptation to extrauterine life, and attachment are facilitated by the infant being with the mother. 9.1.1 If mother and infant are separated there is increased potential for supplementation with artificial milk. 9.1.2 Caring for mother and baby together provides the opportunity for individualized teaching and enhances the mother's ability to learn her baby's cues. 1,4,6,7,8,12	Academy of Breastfeeding Medicine: Co-sleeping and Breastfeeding Protocol (PDF) Example of a patient handout that addresses safe sleeping areas: Solano County Health and Social Services: "Your Baby Matters" (PDF) "Sharing a Bed with Your Baby" (PDF) from UNICEF in the UK
9.2 Both the mother and the family should be educated that rest and recovery for the mother and infant is vital. 9.2.1 The nurse's role is to protect the dyad from disturbances that impact their ability to recover. 9.2.2 Night feeding should be explained as a normal and healthy pattern for the infant.	9.2 Rest is an important physiologic and psychological need for all postpartum, lactating mothers. 9.2.1 With liberalized visiting hours, there may be limited time for mothers to rest unless naps are planned. 2,3,4,9,10,11 9.2.2 Often mothers anticipate their infant will "sleep through the night" long before the infant is physiologically ready. This can create conflict between the mother's beliefs and the infant's behavior.	Website resources: A website with an excellent series of pictures showing infant states and feeding cues following the first few hours and days after birth: www.breastbabyproducts.com/firstdays.html From Childbirth Graphics: Bilingual Tear pads: • How to Tell if Your Baby is Hungry Tear Pad • Waking a Sleeping Baby Tear Pad Feeding Cues and other educational tools and packets: Growing With Baby



bed-in with their newborn.	

Policy #9 References:

- 1. Anderson, G. (1989). Risk in mother-infant separation postbirth. Image: Journal of Nursing Scholarship, 21(4), 196-199. (Abstract) 2. Keefe, M. (1988). The impact of infant rooming-in on maternal sleep at night. Journal of Obstetric, Gynecologic, and Neonatal Nursing, 17(2), 122-126. (Abstract)
- 3. Lawrence, R. A., & Lawrence, R. M. (2005). Breastfeeding: A guide for the medical professional (6th ed.). St. Louis, MO: Mosby (pp. 275, 299, 76).
- 4. Marasco, L. (1998). Cue vs scheduled feeding: Revisiting the controversy. Mother Baby Journal, 3(4), 39-42.
- 5. McKenna, J. J., Mosko, S. S., & Richard, C. A. (1997). Bedsharing promotes breastfeeding. Pediatrics, 100(2, Pt. 1), 214-219. (Abstract)
- 6. Mosko, S., Richard, C., & McKenna, J. (1997). Infant arousals during mother-infant bed sharing: Implications for infant sleep and sudden infant death syndrome research. Pediatrics, 100(5), 841-849 (Abstract) (PDF) 7. Nurses Association of the American College of Obstetricians and Gynecologists (NAACOG) OGN Nursing Practice Resource. (March 1989). Mother-Baby Care. Author.
- 8. Rapley, G. (2002). Keeping mothers and babies together—breastfeeding and bonding. Royal College of Midwives, 5(10), 332-224. (Abstract)
- 9. Svensson, K., Mattiesen, A. S., Widström, A. M. (2005). Night rooming-in: Who decides? An example of staff influence on mother's attitude. Birth, 32(2), 99-106. (Abstract)
- 10. Title 22 Licensing and Certification of Health Facilities and Referral Agencies. Article 70547, Section (k), p. 789.
- 11. Winikoff, B., Myers, D., Laukaran, V. H., & Stone, R. (1987). Overcoming obstacles to breast-feeding in a large municipal hospital: Applications of lessons learned. Pediatrics, 80(3), 423-433.
- 12. Yamauchi, Y., & Yamanouchi, I. (1990). The relationship between rooming-in/not rooming-in and breast-feeding variables. Acta Paediatrica Scandinavica, 79 (11): 1017-1022. (Abstract)

Additional References:

Arora S, McJunkin C, Wehrer J & Kuhn P. Major Factors Influencing Breastfeeding Rates: Mother's Perception of Father's Attitude and Milk Supply Pediatrics 2000;106;67

Blair PS, Fleming PJ, Smith IJ, et al. Babies sleeping with parents: case-control study of factors influencing the risk of the sudden infant death syndrome. BMJ. 1999;319:1457–1462 [Abstract] (PDF)

Bruschweiler-Stern N. Early Emotional Care for Mothers and Infants. Pediatrics 1998; 102: 1278.

Carfoot, S Williamson, P Dickson, R (2005) A Randomized Controlled Trial in the North of England Examining the Effects of Skin-to-Skin Care on Breastfeeding, Midwifery 21(1), March 2005 [Abstract]

Cloherty M, Alexander J, Holloway I. Supplementing breast-fed babies in the UK to protect their mothers from tiredness or distress. Midwifery. 2004 Jun;20(2):194-204.

Edmond K.M. Zandoh C. Amengo-Etego S. Kirkwood B R. Delayed breastfeeding initiation increases risk of neonatal mortality. Pediatrics Vol 117 No. 3 March 2006 ppe380-e386 [Full Text (PDF)]

Epstein K. (1993). The interactions between breastfeeding mothers and their babies during the breastfeeding session. Early Child Development and Care.87:93-104.

Epstein-Gilboa K.(2000). The psychological reality of breastfeeding. IMPrint. 28:18-21.

Erlandsson K, Fagerberg I. Mothers' lived experiences of co-care and part-care after birth, and their strong desire to be close to their baby.. Midwifery. 2005 Jun;21(2):131-8. Epub 2005 Mar 28. [Abstract]

Feldman R, Eidelman AI, Sirota L. & Weller A.Outcomes and Preterm Infant Development: Comparison of Skinto-Skin (Kangaroo) and Traditional Care: Parenting Pediatrics 2002;110;16-26 [Full Text (PDF)]

Health Canada (2000) Family-Centred Maternity and Newborn Care: National Guidelines, Ch. 7, 2000. www.hcsc.gc.ca 20

Klaus M. Mother and Infant: Early Emotional Ties. Pediatrics 1998; 102: 1244

McKenna JJ, Ball HL, Gettler LT. Mother-Infant Cosleeping, Breastfeeding and Sudden Infant Death Syndrome: What Biological Anthropology Has Discovered About Normal Infant Sleep and Pediatric Sleep Medicine; AM J Phys Anthropol. 2007; Suppl 45:133-61 [Abstract]

Mizuno, K., Kani,: English Title: Sipping/lapping is a safe alternative feeding method to suckling for preterm infants: Acta Paediatrica, 2005 (Vol. 94)(No.5) 574-580 [Abstract]

Nysaether H, Baerug A, Nylander G, Klepp KI. [Rooming-in in the maternity ward--are mothers satisfied?] Tidsskr Nor Laegeforen. 2002 May 10;122(12):1206-9 [Abstract]

Ungerer RI, Miranda AT. Rooming In History. J Pediatr (rio J). 1999 Jan-Feb;75(1):5-10 [Abstract]

Wight, NK: Alternative Feeding Methods. Breastfeeding Update, Volume 5, Issue 3.

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EXPANDED HOSPITAL POLICY #10:

MO-07-0041 BFP

At discharge, mothers should be given information regarding community resources for breastfeeding support.

INTERVENTION / MANAGEMENT	RATIONALE	RESOURCES
10.1 Breastfeeding mothers should, routinely, be referred to a breastfeeding support group and given the telephone number of a lactation specialist or community resource for breastfeeding assistance.	10.1 Discharge often occurs before breastfeeding is well established. 1,4,6,7,8,9,10,11	Academy of Breastfeeding Medicine (PDF) Postnatal Checklist (PDF) (UK Baby Friendly) Telephone calling follow-up Sample "Follow-up Charting form (Word) " Examples of anticipatory guidance and questions (Solano County's Babies First Program) Contact sheet (Word) anticipatory guidance in English (Word) Spanish Pediatric Breastfeeding assessment (Word) spanish Pediatric Breastfeeding assessment (Word) following AAP Guidelines in "Breastfeeding and the Use of Human Milk" Postnatal Checklist (PDF) (UK Baby Friendly) Resources for patient referral: "Fill-in" resource list (Word)

- the mother on where to receive breast feeding information.
- d. The patient may decline this consultation or information.

Resources for Breastfeeding Education and Support

Handouts and patient information:

- Signs Baby is Getting enough milk Ontario, Canada (PDF)
- California WIC Handouts: Breastfeeding Resources
- · Breastfeeding Guides from the US Department of Health and Human Services addressing:
 - African American Woman (PDF, 1.2MB)



- · American Indian and Alaska Native (PDF, 1.2MB) **—**
- An easy Guide (PDF, 1.5MB) I ... Spanish,
- · Breastfeeding Task Force of Greater Los Angeles, **Patient Resources**
- La Leche League International Breastfeeding Information
- Massachusetts Breastfeeding Coalition: Parent handouts
- Dr. Marianne Neifert's Parent Screening Form (PDF) for parents to identify when an appointment to the Health Care Professional should to be made.
- Dealing with breast edema and engorgement: Reverse Pressure Softening - English (PDF) ...Spanish

Getting help for mothers and babies:

- Breastfeeding Coalitions in California: in your area
- · California Department of Public Health, Maternal, Child, and Adolescent Health Program's Breastfeeding Program Page
- Lactation Consultant: Go to www.ilca.org and click "Find a Lactation Consultant"
- · La Leche League Group: go to www.lalecheleague.org For California click here.
- Nursing Mothers Counsel
- Women, Infants and Children Nutrition Services Program (WIC): Call 1/888/WICWORKS or www.wicworks.ca.gov/resources/laSearch/search.asp

10.2 If a gift pack is provided, it should be appropriate for breastfeeding or formula feeding mothers. Many gift packs provided in the hospital contain items that discourage breastfeeding mothers. Commercial advertising of artificial infant milk or promotional packs should not be given to breastfeeding mothers.

10.2 Hospitals should carefully consider any items they give to mothers. Providing items to patients suggests hospital endorsement of these products. Giving parents artificial infant milk or advertising/ promotional packs prepared by artificial Patient Evaluation/Survey milk companies endorses supplementation and implies that breastmilk is inadequate to meet infants' needs.2,3,5

Examples of non-commercial handouts to provide anticipatory guidance and resources:

- · Signs Baby is Getting enough milk Ontario, Canada (PDF)
- Discharge Instructions and Guidelines in English and Spanish: (Massachusetts Breastfeeding Coalition)

<u>Lactation Program Survey (Word)</u>



Information, research and responses to concerns about the removal of gift bags in delivering hospitals:

Ban the Bags

Policy #10 References:

- California Health and Safety Codes § 123360 and § 123365, 1995 Cal ALS 463; 1995 Cal AB 977; Stats 1995 ch 463.
- 2. Chezem, J., Friesen, C., Montgomery, P., Fortman, T., Clark, H. (1998). Lactation duration: Influences of human milk replacements and formula samples on women planning postpartum employment. Journal of Obstetric, Gynecologic, and Neonatal Nursing, 27(6), 646-651.
- 3. Dungy, C., Christensen-Szalanski, J., Losch, M., Russell, D. (1992). Effect of discharge samples on duration of breast-feeding. Pediatrics, 90(2), 233-237.
- 4. Gartner, L., & Newton, E. (1998). Breastfeeding: Role of the Obstetrician. ACOG Clinical Review, 3(1), 1-15.
- 5. Howard, F. Howard, C., Weitzman, M. (1993). The physician as advertiser: The unintentional discouragement of breast-feeding. Obstetrics and Gynecology, 81(6), 1048-1051.
- 6. Lawrence, R. (1987). The management of lactation as a physiologic process. Clinics in Perinatology, 14(1), 1-10.
- 7. Lawrence, R. A., & Lawrence, R. M. (2005). Breastfeeding: A guide for the medical professional (6th ed.). St. Louis, MO: Mosby (p. 282)
- 8. Locklin, M., & Jansson, M. (1999). Home visits: Strategies to protect the breastfeeding newborn at risk. Journal of Obstetric, Gynecologic, and Neonatal Nursing, 28(1), 33-40. [Abstract]
- 9. Moore, E., Bianchi-Gray, M., & Stevens, L. (1991). A community hospital-based breastfeeding counseling service. Pediatric Nursing, 17(4), 383-389. (Abstract)
- 10. Page-Goertz, S. (1989). Discharge planning for the breastfeeding dyad. Pediatric Nursing, 15(5), 543-544.
- 11. Shealy, K. R., Li, R., Benton-Davis, S., & Grummer-Strawn, L. M. (2005). The CDC Guide to Breastfeeding Interventions. Maternal and Child Nutrition Branch, Division of Nutrition and Physical Activity, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention. Retrieved March 22, 2007 from: http://www.cdc.gov/breastfeeding/resources/guide.htm

Additional References:

Bruschweiler-Stern N; Early Emotional Care for Mothers and Infants. Pediatrics 1998;102;1278-81.

Labarere J, Gelbert-Baudino N, Ayral AS, Duc C, Berchotteau M, Bouchon N, Schelstraete C, Vittoz JP, Francois P, Pons JC. Efficacy of breastfeeding support provided by trained clinicians during an early, routine, preventive visit: a prospective, randomized, open trial of 226 mother-infant pairs. Pediatrics. 2005 Feb;115 (2):e139-46. [Abstract] [Full Text (PDF) | [P]

Li R, Fein SB, Chen J, and Grummer-Strawn LM Why Mothers Stop Breastfeeding: Mothers' Self-reported Reasons for Stopping During the First Year; PEDIATRICS Vol. 122 Supplement October 2008, pp. S69-S76 [Abstract]

POWERPOINT PRESENTATION ON: "	Evidence-Based Breastfeeding Promotion: 1	he Baby Friendly Hospital
	rez-Escamilla, Ph.D.; Professor of Nutrition,	
Health Disparities NIH EXPORT Center.	E-mail: rafael.perez-escamilla@uconn.edu	

Hospital Self-Appraisal Questionnaire (Word)

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COALITION OF OKLAHOMA BREASTFEEDING ADVOCATES

http://www.ok.gov/health/documents/mch-prh-Model%20Breastfeeding%20Policy.pdf











Model

Hospital Policy on Breastfeeding

 $Coalition of Oklahoma \\ Breastfeeding Advocates$

Coalition of Oklahoma Breastfeeding Advocates

Model Hospital Policy on Breastfeeding

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This Model Hospital Policy on Breastfeeding has been endorsed by the following:
Oklahoma State Department of Health
Oklahoma Academy of Family Physicians
American College of Nurse-Midwives-Oklahoma Chapter
Association of Women's Health, Obstetric, and Neonatal Nurses-Oklahoma Chapter
Oklahoma Dietetic Association
Muscogee (Creek) Nation WIC Program
WCD Enterprises, Inc: Wichita, Caddo, and Delaware Tribes
Oklahoma Healthy Mothers, Healthy Babies Coalition



Purpose

To promote a philosophy of maternal infant care that advocates breastfeeding and supports the normal physiological functions involved in the establishment of this maternal-infant process. To assist families choosing to breastfeed with initiating and developing a successful and satisfying experience.

his policy is based on recommendations from the most recent breastfeeding policy statements published by the Office of Women's Health of the U.S. Department of Health and Human Services¹, American Academy of Pediatrics², American College of Obstetricians and Gynecologists³, American Academy of Family Physicians⁴, the American Dietetic Association⁶, Academy of Breastfeeding Medicine⁷, World Health Organization⁵ and the UNICEF/WHO evidence-based "Ten Steps to Successful Breastfeeding." St, 8,9

The Ten Steps to Successful Breastfeeding

- 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 1 hour of birth.
- 5) Show mothers how to breastfeed and how to maintain lactation, even if they are separated from their infants.
- 6) Give newborn infants no food or drink other than breast milk, unless medically indicated.
- 7) Practice rooming-in--allow mothers and infants to remain together--24 hours a day.
- 8) Encourage breastfeeding on demand.
- 9) Give no artificial teats or pacifiers to breastfeeding infants.
- 10) Foster the establishment of breastfeeding support groups and refer mothers to them upon discharge from the hospital or clinic.

Policy Statements for Health Care Professionals:

General

- □ Promote, support, and protect breastfeeding enthusiastically.
- Promote breastfeeding as a cultural norm and encourage family and societal support for breastfeeding.
- Recognize the effect of cultural diversity on breastfeeding attitudes and practices and encourage variations, if appropriate, that effectively promote and support breastfeeding in different cultures.

Education

- Become knowledgeable and skilled in the anatomy, physiology and the current clinical management of breastfeeding
- Encourage development of lactation education in nursing schools and dietetic programs, in medical schools, in residency and fellowship training programs, and for practicing physicians, nurses and dietitians.
- All healthcare providers involved in maternal and child health need education in human lactation.
- Use every opportunity to provide age-appropriate breastfeeding education to children and adults in the medical setting and in outreach programs for student and parent groups.

Clinical Practice

- □ Work collaboratively with the obstetric, pediatric, family practice and public health communities to ensure that women receive accurate and sufficient information throughout the perinatal period to make a fully informed decision about infant feeding.
- □ Work collaboratively with the dental community to ensure that women are encouraged to continue to breastfeed and use good oral health practices.
- Promote hospital policies and procedures that facilitate breastfeeding.
 - Work actively toward developing hospital policies and practices that encourage and support breastfeeding, including:
 - Eliminating marketing of infant formula in hospitals, including infant formula discharge packs and formula discount coupons. For more information on the elimination of infant formula in hospitals visit www.banthebags.org.
 - Keeping mother and infant together.
 - Offering appropriate infant feeding images.
 - Providing adequate encouragement and support of breastfeeding by all health care staff.
 - Encourage hospitals to provide on-going, in-depth education in human lactation for all health care staff, including physicians/clinicians.

MODEL BREASTFEEDING POLICY

- Have lactation support experts available at all times. Referral to International Board Certified
 Lactation Consultant (IBCLC) is recommended if available. To locate an IBCLC in your area
 visit the International Lactation Consultant Association website at www.ilca.org.
- Provide effective breast pumps and private lactation areas for all breastfeeding mothers (patients and staff) in ambulatory and inpatient areas of the hospital.
- Develop office practices that promote and support breastfeeding by using the guidelines and materials provided by the <u>AAP Breastfeeding Promotion in Physicians' Office practices program</u>.
- Become familiar with local breastfeeding resources (see attached resource page).
 - IBCLCs
 - Breastfeeding medical and nursing specialists such as certified nurse midwives
 - WIC Clinics and WIC Peer Counselors
 - Other breastfeeding educators including certified doulas
 - Mother-to-mother support groups such as La Leche League
 - Breast pump rental resources
 - Human Milk Banks and Local Human Milk Depots

When specialized breastfeeding services are used, the essential role of the infant's primary health care provider within the framework of the medical home needs to be clarified for parents.

- Encourage adequate, routine insurance coverage for necessary breastfeeding services and supplies, including the time required by health care providers to assess and manage breastfeeding and the cost for durable medical equipment.
- Develop and maintain effective communication and coordination with other health care professionals to ensure optimal breastfeeding education, support, and counseling.
 - Those with breastfeeding expertise, such as maternal-child professional associations (see resource page), WIC breastfeeding coordinators and local IBCLCs can facilitate collaborative relationships and develop programs in the community and in professional organizations for support of breastfeeding.
- Advise mothers to continue their breast self-examinations on a monthly basis throughout lactation and to continue to have annual clinical breast examinations by their physicians.

MODEL BREASTFEEDING POLICY

Society

- □ Encourage the media to portray breastfeeding as positive and normative.
- ☐ Encourage employers to provide appropriate facilities and adequate time in the workplace for breastfeeding and/or milk expression.
- ☐ Encourage childcare providers to support breastfeeding and the use of expressed human milk provided by the parent.
- □ Support the efforts of parents and the courts to encourage continuation of breastfeeding in separation and custody proceedings.
- □ Provide counsel to adoptive mothers who decide to breastfeed through induced lactation, and refer for professional support as needed.
- □ Encourage development and approval of governmental policies and legislation that are supportive of breastfeeding mothers and children.

Research

- Promote continued basic and clinical research in the field of breastfeeding.
 - Encourage investigators and funding agencies to pursue studies that further delineate the scientific understandings of lactation and breastfeeding that lead to improved clinical practice in this medical field.
 - Encourage investigators to adequately define breastfeeding in any studies and include a group of exclusively breastfed babies as a control to improve the quality of lactation research.

Policy Statements for Documentation, Monitoring and Continuing Education:

- A written breastfeeding policy will be developed and communicated to all health care staff. The "name of institution" breastfeeding policy will be reviewed and updated routinely using current research as an evidence-based guide.
- "Name of institution" staff will actively support breastfeeding as the preferred method of providing nutrition to infants.
 - A multidisciplinary, culturally appropriate team comprised of hospital administrators, physician
 and nursing staff, lactation consultants and specialists, nutrition staff, parents, and other
 appropriate staff shall be established and maintained to identify and eliminate institutional
 barriers to breastfeeding. On a yearly basis, this group will compile and evaluate data relevant to
 breastfeeding support services and formulate a plan of action to implement needed changes.
- The woman's desire to breastfeed will be documented in her permanent record.
- ☐ Mothers will be encouraged to exclusively breastfeed unless medically contraindicated. The method of feeding will be documented in the permanent record of every infant.

- Exclusive breastfeeding is defined as providing breast milk as the sole source of nutrition. Exclusively breastfed babies receive no other liquids or solids.
- □ Breastfeeding assessment, teaching, and documentation will be done on each shift and whenever possible with each staff contact with the mother.
 - After each feeding, staff will document information about the feeding in the infant's permanent record. This documentation may include the latch, position, and any problems encountered. For feedings not directly observed, maternal report may be used. Every shift, a direct observation of the breastfeeding session will be performed and documented.
- "Name of Institution" health professionals will attend regular educational sessions on lactation management and breastfeeding promotion to ensure that correct, current, and consistent information is provided to all mothers wishing to breastfeed.
- "Name of Institution" does not accept free or below market value formula or breast milk substitutes.
 - Discharge bags offered to all mothers will not contain free supplies from formula manufacturers such as infant formula, coupons for formula, logos of formula companies, or literature with formula company logos or gift certificates offering incentive rewards for using the certain formula for a period of time, as specified by the World Health Organization (WHO) Code of Marketing of Breastfeeding Substitutes.

Policy Statements for Breastfeeding Education:

- All pregnant women and their support persons as appropriate will be provided with information on breastfeeding and educated on the benefits of breastfeeding, contraindications to breastfeeding, and risk of formula feeding.
- Mothers will be encouraged to utilize available breastfeeding resources including classes, written materials, and video presentations, as appropriate. If clinically indicated, the clinician or nurse will make a referral to a lactation consultant or specialist.
- The following will be taught to each breastfeeding mother before the mother goes home:
 - Proper positioning and latch-on.
 - Nutritive suckling and swallowing.
 - Milk production and release.
 - Frequency of feeding/feeding cues.
 - Expression of breast milk and use of a pump if indicated.
 - How to assess if infant is adequately nourished.
 - Reasons for contacting the clinician.

- Parents will be taught that breastfeeding infants, including cesarean-birth babies, should be fed on cue.
 - By discharge, most babies are breastfed 8 to 12 times each 24 hours.
 - Infant feeding cues (such as increased alertness or activity, mouthing, or rooting), will be used as indicators of the baby's readiness for feeding.
 - Breastfeeding babies need to be breastfed at night.
- Parents who, after appropriate education, choose to formula feed their infants will be provided individual instructions.
- As soon as possible after delivery, mothers who are separated from their infants will be:
 - Instructed on how to use hand expression or a double set-up electric breast pump. Instructions will include:
 - Expression at least eight times per day around the clock.
 - Proper storage and labeling of human milk.
 - Kangaroo Care.
 - Encouragement to initiate direct breastfeeding as soon as medical conditions permit.
- Before leaving the hospital, ¹⁶ breastfeeding mothers should be able to:
 - Position the baby correctly at the breast with no pain during the feeding.
 - Latch the baby to breast properly.
 - Recognize when the baby is swallowing milk.
 - Recognize that the baby should be nursed approximately 8 to 12 times every 24 hours.
 - Recognize age-appropriate elimination patterns.
 - List indications for calling a clinician.
 - Manually express milk from their breasts.
- Prior to going home, mothers will be given the names and telephone numbers of community resources to contact for help with breastfeeding, including (the support group or resource recommended by "name of institution.") (See Resources Page 13)

Policy Statements for Clinical Care of Breastfeeding Mothers and Their Infants:

- At birth or soon thereafter all newborns, if baby and mother are stable, will be placed skin-to-skin with the mother.
 - Skin-to-skin contact involves placing the baby on the mother's bare chest.
 - Medically stable mother/infant couples will be given the opportunity to initiate breastfeeding within 1 hour of birth, including babies born by cesarean birth.
 - The administration of vitamin K and prophylactic antibiotics to prevent ophthalmia neonatorum should be delayed for the first hour after birth to allow uninterrupted mother infant contact and breastfeeding. ¹⁰
- Breastfeeding mother/infant couples will be encouraged to remain together throughout their hospital stay, including at night (rooming-in). Skin-to-skin contact will be encouraged as much as possible. Routine procedures such as but not limited to hearing screening and vital signs or physical assessment should be done with little to no separation of mother and infant.
- ☐ Time limits for breastfeeding on each side will be avoided.
 - Infants can be offered both breasts at each feeding but may be interested in feeding on only one side at a feeding during the first several days.
- No supplemental water, glucose water, or formula will be given unless specifically ordered by a physician or nurse practitioner or by the mother's documented and informed request.
 - Prior to non-medically indicated supplementation, mothers will be informed of the risks of supplementing.)
 - The supplement should be fed to the baby by cup if possible and will be approximately 5 to 15 ml per feeding during the first 48 hours. 12-14
 - Alternative feeding methods such as syringe or spoon-feeding may also be used; however, these methods have not been proven to be effective in preserving breastfeeding.
 - Bottles should not be routinely placed in a breastfeeding infant's bassinet.
- The American Academy of Pediatrics recommends avoidance of pacifier use in breastfeeding babies for the first month of life to ensure successful establishment of breastfeeding. ¹¹ Therefore, pacifiers should not be routinely given to normal full-term breastfeeding infants.
 - The pacifier guidelines at "name of institution" state that preterm infants in the Neonatal Intensive Care or Special Care Unit or infants with specific medical conditions may be given pacifiers for non-nutritive sucking. Ideally, these pacifiers should resemble the nipple at rest.¹⁴

- Newborns undergoing painful procedures (circumcision, for example) may be given a pacifier as a method of pain management during the procedure. The infant should not return to the mother with the pacifier.
- "Name of institution" encourages "pain-free newborn care," which may include breastfeeding during the heel stick procedure for the newborn metabolic screening tests.
- □ Routine blood glucose monitoring of full-term, healthy appropriate for gestational age (AGA) infants is not indicated.
 - Assessment for clinical signs of hypoglycemia and dehydration will be ongoing.
- Anti-lactation drugs are not recommended for any postpartum mother.
- □ Routine use of nipple creams, ointments, or other topical preparations should be avoided unless such therapy has been indicated.
 - Mothers with nipple pain will be observed for latch-on techniques.
- Nipple shields should not be routinely used to cover a mother's nipple to treat latch-on problems, prevent or manage sore or cracked nipples or when a mother has flat or inverted nipples.
 - Bottle nipples will not be used to cover a mother's nipple during breastfeeding.
 - Nipple shields should be used only in conjunction with a lactation consultation.
- By 12-24 hours after birth, if the infant has not latched on or fed effectively, the mother will be instructed to begin breast massage and hand expression of colostrum into the baby's mouth during feeding attempts.
 - Skin-to-skin contact will be encouraged (parents will be instructed to watch closely for feeding cues and whenever these are observed to feed the infant).
 - If the baby continues to feed poorly, hand expression or use of a double set-up electric breast pump will be initiated and maintained a minimum of eight times per day. Any expressed colostrum or mother's milk will be fed to the baby by an alternative method.
 - The mother should be educated that she may not obtain much milk or even any milk the first few times she pumps her breasts.
 - Until the mother's milk is available, a collaborative decision should be made involving the mother, nurse, and clinician regarding the need to supplement the baby.
 - Each day the clinicians will review the feeding plan.
 - Pacifiers should be avoided.
 - In cases of problem feeding, the lactation consultant or specialist will be consulted.¹⁰

- ☐ If the baby is still not latching on well or feeding well when going home, the feeding/pumping/supplementing plan will be reviewed in addition to routine breastfeeding instructions.
 - A follow-up visit or contact should occur within 24 hours.
 - Depending on the clinical situation it may be appropriate to delay discharge of the mother and baby to provide further breastfeeding intervention, support, and education.
- All babies should be seen for follow-up within the first few days after discharge.
 - This visit should be with a health care provider for an evaluation of breastfeeding, a weight check, assessment of jaundice and age-appropriate elimination.
 - * For infants discharged at less than 2 days of age (<48 hours): Follow-up at 2 to 4 days of age.
 - * For infants discharged at more than 2 days of age (> 48 hours): Follow-up at 4 to 5 days of age.
 - * All newborns should be seen by 2 weeks of age.²

Policy Statements for Exceptions to Breastfeeding:

Breastfeeding is contraindicated in the following situations:

- HIV-positive mother in developed countries.
- ☐ Mother using illicit drugs (for example, cocaine, heroin) unless specifically approved by the infant's health care provider on a case-by-case basis.
- □ A mother taking certain medications.
 - Although most prescribed and over-the-counter drugs are safe for the breastfeeding infant, some medications may make it necessary to interrupt breastfeeding. These include:
 - Radioactive Isotopes
 - Antimetabolites/Chemotherapy
 - Small number of other medications
- Mother has active, untreated tuberculosis.

Mother's expressed milk may be fed to the baby until breastfeeding can be initiated.¹²

- ☐ Infant has galactosemia.
- ☐ Mother has active herpetic lesions on her breast(s).

- Breastfeeding can continue on the unaffected breast (the Infectious Disease Service will be consulted for problematic infectious disease issues).
- □ Mother has varicella that is determined to be infectious to the infant.
- □ Mother has HTLV1 (human T-cell leukemia virus type 1).

References used by "Name of Institution":

- Medications and Mothers' Milk by Thomas Hale, (2008)¹⁷
- Breastfeeding: A Guide for the Medical Profession by R.A. Lawrence and R.M. Lawrence, (2005) 18
- American Academy of Pediatrics Statement on the Transfer of Drugs into Human Milk, (2001)

Non-Exceptions

Breastfeeding is not contraindicated in the following situations:

- ☐ Mothers who are hepatitis B surface antigen-positive.
- ☐ Mothers who are infected with hepatitis C virus (hepatitis C virus antibody or hepatitis C virus-RNA-positive blood).
- □ Mothers who are febrile (unless cause is a contraindication outlined in the previous section).
- ☐ Mothers who have been exposed to low-level environmental chemical agents.
- Mothers who are seropositive carriers of cytomegalovirus (CMV) (not recent converters if the infant is term).
 - Decisions about breastfeeding of very low birth weight infants (birth weight <1500 g) by mothers known to be CMV-seropositive should be made with consideration of the potential benefits of human milk versus the risk of CMV transmission.
 - Freezing and pasteurization can significantly decrease the CMV viral load in milk.
- For the majority of newborns with jaundice and hyperbilirubinemia breastfeeding can and should be continued without interruption.
 - In rare instances of severe hyperbilirubinemia, some clinicians may decide to interrupt breastfeeding temporarily for a brief period though this practice is controversial.¹³

Additional Considerations

- ☐ Breastfeeding mothers should avoid the use of alcoholic beverages.
 - Alcohol use can inhibit the milk release.
 - An occasional alcoholic drink is acceptable. Breastfeeding can be avoided for 2 hours after the drink to minimize any alcohol in the milk.
- □ Tobacco smoking by mothers is not a contraindication to breastfeeding. Health professionals should advise all tobacco-using mothers to avoid smoking within the home and to make every effort to wean themselves from tobacco as rapidly as possible.
 - Due to the potential for compromised milk production, additional infant weight checks may be indicated.



References

Policy adapted from: The Academy of Breastfeeding Medicine Protocol #7: Model Breastfeeding Policy

- 1. U.S. Department of Health and Human Services: HHS Blueprint for Action on Breastfeeding. 1–31. Washington, DC, U.S. Department of Health and Human Services, Office on Women's Health, 2000.
- Gartner LM, Morton J, Lawrence RA, et al. Breastfeeding and the use of human milk. *Pediatrics* 2005;115:496-506.
- 3. American College of Obstetricians and Gynecologists (ACOG). Special Report from ACOG, Breastfeeding: Maternal and Infant Aspects. *ACOG Clinical Review* 2007 Vol.12, Issue1 (supplement).
- The American Academy of Family Physicians. Family Physicians Supporting Breastfeeding: Breastfeeding
 Position Paper 2008 Available at URL:
 http://www.aafp.org/online/en/home/policy/policies/b/breastfeedingpositionpaper.html (accessed March 9, 2007).
- 5. World Health Organization, United Nations Children's Fund: Protecting, promoting and supporting breastfeeding: The special role of maternity services (A joint WHO/UNICEF statement). Int J Gynecol Obstet31:171–183, 1990.
- 6. Position of the American Dietetic Association: Promoting and Supporting Breastfeeding. J Am Diet Assoc 105:810-818, 2005.
- 7. Academy of Breastfeeding Medicine Board of Directors. ABM Mission Statement. www.bfmed.org. 2003.
- 8. WHO/UNICEF Joint Statement. Meeting on Infant and Young Child Feeding. J Nurse-Midwifery25:31–38, 1980.
- 9. World Health Organization and United Nations Children's Fund: Innocenti Declaration on the Protection, Promotion and Support of Breastfeeding. New York UNICEF, 1990.
- 10. Protocol Committee Academy of Breastfeeding Medicine, Cordes R, Howard CR: Clinical Protocol #3: Hospital Guidelines for the Use of Supplementary Feedings in the Healthy Term Breastfed Newborn. www.bfmed.org. Academy of Breastfeeding Medicine, 2002.
- 11. The Changing Concept of Sudden Infant Death Syndrome: Diagnostic Coding Shifts, Controversies Regarding the Sleeping Environment, and New Variables to Consider in Reducing Risk. Pediatrics Vol. 116 No. 5 November 2005, pp. 1245-1255 (doi:10.1542/peds.2005-1499).
- 12. Howard CR, Howard FM, Lanphear B, et al: Randomized clinical trial of pacifier use and bottle feeding or cup feeding and their effect on breastfeeding. Pediatrics 111:511-518, 2003.
- 13. Howard CR, de Blieck EA, ten Hoopen CB, et al: Physiologic stability of newborns during cup- and bottle feeding. Pediatrics 104:1-7, 1999.
- 14. Marinelli KA, Burke GS, Dodd VL: A comparison of the safety of cup feedings and bottle feedings in premature infants whose mothers intend to breastfeed. J Perinatol 21:350-355, 2001.
- 15. Protocol Committee Academy of Breastfeeding Medicine, Wright NE, Marinelli KA,:: Clinical Protocol #1: Guidelines for Glucose Monitoring and Treatment of Hypoglycemia in Breastfed Neonates. www.bfmed.org. Academy of Breastfeeding Medicine, 2006.
- 16. Protocol Committee Academy of Breastfeeding Medicine, Gartner L, Howard C R: Clinical Protocol #2: Guidelines for Hospital Discharge of the Breastfeeding Term Infant and Mother "The Going Home Protocol." www.bfmed.org. Academy of Breastfeeding Medicine, 2007.
- 17. Hale TW: Medications and Mother's Milk, 13th ed. Amarillo, TX, Pharmasoft Medical Publishing, 2008.
- 18. Lawrence RA, Lawrence RM: Breastfeeding: A guide for the medical profession, 6th ed. St. Louis, Elsevier/C.V. Mosby, 2005.

Breastfeeding Resources

Oklahoma Breastfeeding Hotline

1-877-271-MILK (6455)

Academy of Breastfeeding Medicine

http://www.bfmed.org/

Agency for Healthcare Research and Quality

http://www.ahrq.gov/clinic/tp/brfouttp.htm

American Academy of Pediatrics

http://www.aap.org/healthtopics/breastfeeding.cfm

Ban the Bag – National campaign to stop formula company marketing in maternity hospitals http://www.banthebags.org

Centers for Disease Control - Breastfeeding

http://www.cdc.gov/breastfeeding/

Find a Lactation Consultant

http://www.ilca.org/

Healthy People 2010 Objectives

http://www.healthypeople.gov/document/html/volume2/16mich.htm# Toc494699668

Human Milk Banking Association of North America, Inc.

http://www.hmbana.org/

Indian Health Services Breastfeeding Site

http://www.ihs.gov/MedicalPrograms/MCH/M/bf.cfm

International Lactation Consultant Association

http://www.ilca.org/

La Leche League International

http://www.lalecheleague.org/

Oklahoma - Healthy Mothers Healthy Babies Coalition

http://www.oica.org/projects and issues/health/hm hb/index.html

Oklahoma - Maternal and Child Health Service

http://www.ok.gov/health/Child and Family Health/Maternal and Child Health Service/

Oklahoma - Pregnancy Risk Assessment Monitoring System (PRAMS)

http://www.ok.gov/health/Child and Family Health/Maternal and Child Health Service/Data and Evaluation/Pregnancy Risk Assessment Monitoring System (PRAMS)/PRAMSGRAM Archives/

Oklahoma Turning Point - Certified Health Businesses http://www.okturningpoint.org/

Oklahoma - Oklahoma State Department of Health Breastfeeding Information and Support http://bis.health.ok.gov

Oklahoma - WIC Breastfeeding Promotion and Support

http://www.ok.gov/health/Child and Family Health/WIC/WIC Breastfeeding Promotion and Support/index.html

Strong & Healthy Oklahoma:

- Guidebook
 - http://www.ok.gov/strongandhealthy/documents/SHO%20Healthy%20ok%20Guide.pdf
- Community Resource Book http://www.ok.gov/strongandhealthy/documents/Community%20Resource%20List%20-%20final%20version2.pdf
- Breastfeeding Information http://www.ok.gov/strongandhealthy/Eat_Better/Breastfeeding.html

United States Breastfeeding Committee

http://www.usbreastfeeding.org/

World Health Organization

http://www.who.int/topics/breastfeeding/en/



Acknowledgments

The Coalition of Oklahoma Breastfeeding Advocates would like to acknowledge the following individuals for their contribution and valuable input into the development of this Model Hospital Breastfeeding Policy:

Margaret Back, RN, IBCLC, RLC

Nancy Bacon, MS, RD/LD, CDE

Bonnie Bellah, BSW

Debi Bocar, RN, PhD, IBCLC, RLC

Dana Campbell-Sternlof

Gina L. Collins, LPN, IBCLC, RLC

Diane Lay, RD/LD

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Rebecca Mannel, BS, IBCLC, RLC

Linda Miller, MEd, RN

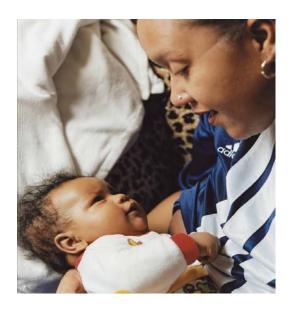
Landon Norton, MS, RD/LD

Karen Palumbo, MEd, CCE, CBE, CD (DONA)

Rosanne Smith, RD/LD, IBCLC, RLC

Crystal Stearns, RNC, IBCLC, RLC

Anne Wade, RN, IBCLC, RLC





Funding is provided by the Oklahoma State Department of Health WIC Program

AN EQUAL OPPORTUNITY EMPLOYER

This publication was printed by the Oklahoma State Department of Health as authorized by Rocky McElvany, M.S., Interim Commissioner of Health. 600 copies were printed by Docutech in February 2009 at a cost of \$870.00.









TEXAS DEPARTMENT OF STATE HEALTH SERVICES

http://www.dshs.state.tx.us/wichd/ lactate/TX10_final.shtm











WIC Nutrition

Texas Breastfeeding Promotion Activities

Texas Ten Step

Model Policy

Application

Step 1



Breastfeeding is the preferred method of newborn and infant feeding, and human milk is the optimum form of newborn and infant nutrition. All interventions and care plans directed toward the newborn, infant, or lactating woman will protect this valuable resource. The decision to interrupt breastfeeding or withhold human milk from a newborn or infant should be based on a physician's order and may include appropriate references or rationale to indicate the necessity of this action. (Currently, breastfeeding is not recommended for mothers who are HIV+, mothers who are undergoing chemotherapy, and infants with galactosemia.) The policy should be communicated to all appropriate staff upon employment, and on a regular basis.

Step 2

Employees who care for mothers, newborns and infants should receive breastfeeding training within 6 months of their employment, with updates provided on a regular basis. This training should include: the advantages of breastfeeding; anatomy and physiology of breastfeeding; how to solve common breastfeeding problems; and the impact of introducing formula and artificial nipples or pacifiers before breastfeeding is established. Training also should include supervised clinical experience, a system of referral to breastfeeding specialists after hospital discharge, and a list of community resources. The Texas Department of Health has resources, including a model curriculum, to help with the training. These resources can be accessed at http://www.tdh.state.tx.us/lactate/bf1.htm or by phoning the breastfeeding promotion staff at 512-458-7111 x-3449.

Step 3

Although most decisions about breastfeeding are made prior to admission, staff should present breastfeeding as the feeding method of choice to all mothers. Facilities offering prenatal classes should develop a policy that includes information about the benefits of breastfeeding, its management, and how to maintain lactation even if the mother is separated from her newborn or infant.

Step 4

The policy should encourage mothers and newborns to breastfeed within an hour of birth, with 30 minutes being the ideal. The policy should address alterations to this time frame for mothers delivering by cesarean

section or with complications. Early skin-to-skin contact between mother and newborn is an important factor in the initiation of breastfeeding. Mothers should be given an opportunity to remain close to their newborns regardless of type of delivery, as long as the health of the mother and newborn remain uncompromised.

Step 5

The policy should address showing mothers how to breastfeed, and how to maintain lactation even if they are separated from their newborns. Breastfeeding should be assessed within 6 hours of birth and once per shift. There should be staff with training beyond the basic level in lactation management who will assist mothers with unusual management concerns. These individuals include physicians, International Board Certified Lactation Consultants where available, or nurses with additional training. The policy should address coordination of follow-up care after hospital discharge, and the provision of appropriate community referral.

Step 6

The policy should support the decision of mothers to breastfeed. Newborns should be given supplementary formula only if specifically ordered by the physician for a clinical condition, or upon parental request. Parents should be advised of the impact of introducing formula to the newborn, prior to giving formula to breastfed newborns.

Step 7

The policy should address rooming-in. Mothers and newborns should be encouraged to remain together both day and night, except for periods of up to an hour for medical procedures or if separation is medically indicated. The nurse should help the mother and family plan for periods of rest/sleep, both day and night. If, despite encouragement to room-in, the mother requests the newborn to stay in the nursery at night, the newborn should be brought to the mother to nurse when hunger cues are evident, or every two to three hours (whichever is sooner).

Step 8

The policy should encourage mothers to breastfeed their newborns without restriction. Breastfeeding during the first day should take priority over other non-emergent events such as newborn bathing, pictures and visitors. Mothers should be instructed to recognize hunger cues, assess an adequate feed, and monitor wet and soiled diapers as signs of sufficient intake.

Step 9

The policy should discourage the use of artificial nipples for normal newborns. Pacifiers mask hunger cues. Artificial nipples may interfere with the establishment of breastfeeding. If supplementation is necessary, alternate methods such as a cup or supplemental feeding device should be explored first, using expressed milk. Breastfeeding mothers should not receive discharge packs that include formula or formula advertisements, unless requested by the mother.

Step 10

The policy should address support for breastfeeding mothers following discharge. This support may include: telephone follow-up, lactation clinics, in-home visitation, telephone hotline, space for breastfeeding mother-to-mother group meetings provided on a regular basis, and/or referral to community support groups, such as La Leche League. Other sources include local WIC agencies and the statewide toll-free breastfeeding helpline at 800-514-MOMS. The facility is encouraged to support staff that is breastfeeding by providing a place and time for them to pump. The Texas Department of Health Mother-Friendly Worksite guidelines can be obtained through the website www.dshs.state.tx.us/lactate/bf1.htm or by calling the breastfeeding promotion staff at 512-458-7111 x-6663.

Contact us

Last Updated September 14, 2005











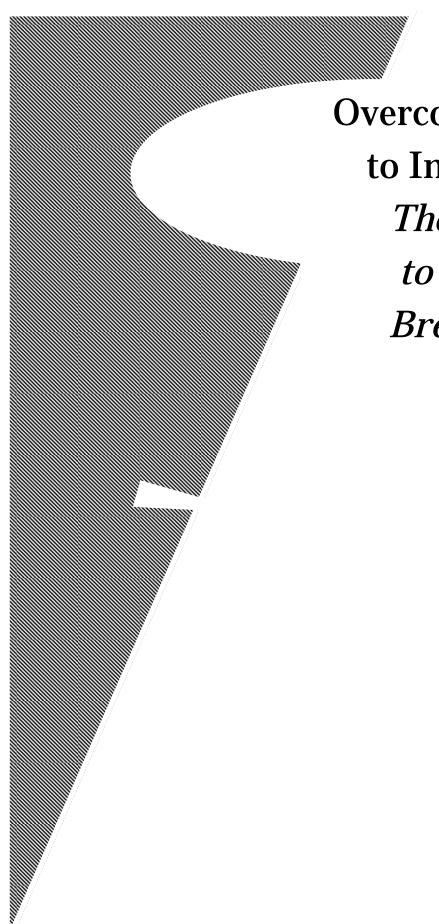
OVERCOMING BARRIERS











Overcoming Barriers to Implementing

The Ten Steps

to Successful

Breastfeeding

Final Report



MCHB 03-0232P

Baby-Friendly USA 327 Quaker Meeting House Road East Sandwich, MA 02537

Turner-Maffei C, Cadwell K, editors. Overcoming Barriers to Implementing the <i>Ten Steps to Successful Breastfeeding</i> . Sandwich, MA: Baby-Friendly USA, 2004.
This report was produced with funds from the United States Health Resources Services Administration, Maternal Child Health Bureau contract MCHB03-0232P.
The editors gratefully acknowledge the assistance and input of Anna Blair, PhD, Katina Varzos, CNM, and the community of Baby-Friendly hospitals and birth centers.

What are the Ten Steps to Successful Breastfeeding and Why Do We Need Them?

More than one million infants worldwide die every year because they are not breastfed or are given other foods too early. Millions more live in poor health, contract preventable diseases, and battle malnutrition. Although the magnitude of this death and disease is far greater in the developing world, thousands of infants in the United States suffer the ill effects of an infant formula-feeding culture. Babies who are not breastfed, or who are fed other foods too early may have an increased risk of obesity, an increased risk of diarrhea and other GI problems, respiratory and ear infections, and allergic skin disorders.

In the United States, these conditions translate into millions of dollars of costs to our health care system through increased hospitalizations and pediatric clinic visits. For diarrhea alone, approximately 200,000 US children, most of whom are young infants, are hospitalized each year at a cost of more than half a billion dollars. In a study of morbidity in an affluent US population, Dewey and colleagues found that the reduction in morbidity in breastfed babies was of sufficient magnitude to be of public significance. For example, the incidence of prolonged episodes of otitis media (ear infections) was 25% higher in non-breastfed as compared to breastfed infants. The cost savings to the health care system could be enormous if breastfeeding duration increased, given that ear infections alone cost billions of dollars a year.

It is a rare exception when a woman cannot breastfeed her baby for physical or medical reasons. Yet, a woman's ability to feel self confident and secure with her decision to breastfeed is challenged by her family and friends, the media, and health care providers. Much has been done in the past few years to strengthen the sources of support for women to breastfeed.

Although the hospital or birth center is not and should not be the only place a mother receives support for breastfeeding, maternity care facilities provide a unique and critical link between the breastfeeding support provided prior to and after delivery.

The Ten Steps to Successful Breastfeeding for Hospitals and Birth Centers, were outlined by UNICEF/WHO in the 1980's. The steps for the United States are:

- 1. Maintain 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 one hour of birth.
- 5. Show mothers how to breastfeed and how to maintain lactation, even if they are separated from their infants.
- 6. Give infants no food or drink other than breastmilk, unless medically indicated.
- 7. Practice "rooming in"-- allow mothers and infants to remain together 24 hours a day.
- 8. Encourage unrestricted breastfeeding.
- 9. Give no pacifiers or artificial nipples to breastfeeding infants.
- 10. Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or clinic.

The Baby-Friendly Hospital Initiative (BFHI) is a global program sponsored by the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) to encourage and recognize hospitals and birthing centers when they have implemented the Ten Steps to Successful Breastfeeding. In each country an organization has been designated to assist hospitals and birthing centers with the process and give them special recognition when they have implemented the Ten Steps. Baby-Friendly USA is the designated national authority in the United States.

The Ten Steps Worldwide

In many countries around the world, thousands of hospitals and birthing centers have already fully implemented the Ten Steps to Successful Breastfeeding and received Baby-Friendly Hospital designations from their national authority.

The Ten Steps in the United States

The Healthy Mothers, Healthy Babies Coalition received a grant from the US Department of Health and Human Services to convene an Expert Work Group to examine the criteria and assessment process of the Ten Steps to Successful Breastfeeding. Wellstart International, which is located in San Diego, California, developed the evaluation materials to support the assessment process. The U.S. Committee for UNICEF supported these efforts financially and with "in kind" services. In January of 1997, the Healthy Children Project, Inc. accepted responsibility for the initiative and worked to form Baby-Friendly USA as the not-for-profit corporation that is the national authority for the Baby-Friendly Hospital Initiative in the United States.

Why Participate in the US Baby-Friendly Hospital Initiative?

Participation in this initiative provides several possible benefits for maternity care facilities:

Quality improvement: many of the ten steps are easily adaptable as QI projects. **Cost containment:** increased breastfeeding rates can have impact on many health care costs from postpartum hemorrhage, to decreased incidence of ear infection. **Public relations/marketing**: families who feel adequately supported during the vulnerable postpartum days can speak powerfully for a birth facility.

Prestige: The receipt of this WHO/UNICEF international award is an achievement to celebrate!

What Can US Birth Facilities Do Now?

Birth facilities can make a commitment to improve breastfeeding policy, training and practices. They can create an environment supportive of the Ten Steps to Successful Breastfeeding.

Hospitals and birthing centers across the country are eager to work toward the implementation of the Ten Steps to Successful Breastfeeding and have signified their commitment by applying for and receiving a "Certificate of Intent" from Baby-Friendly USA. The "Certificate of Intent" indicates that a maternity care facility has decided to work on the implementation of the Ten Steps to Successful Breastfeeding, not that they have achieved full implementation of any or all of the steps. Among these institutions are both large and small hospitals, for profit and not-for-profit hospitals, teaching hospitals, and hospitals at various stages of development in their breastfeeding education and support services, as well as birthing centers. The annual deliveries range from less than 100 in a small rural hospital to over 8,000 deliveries annually in an urban hospital.

The Certificates of Intent are given out on an honor system. There is no visit to the hospital or birthing center to verify compliance. Receiving the Certificate of Intent is not equal to being awarded the Baby-Friendly designation, but rather recognizes those US hospitals and birthing centers that are working toward applying the Ten Steps in their facility.

The Baby-Friendly Award process requires an on-site survey, which is conducted after the hospital or birthing center indicates readiness for assessment. Only after the facility has had an on-site assessment and demonstrated that all ten steps of the Ten Steps to Successful Breastfeeding have been fully implemented is the designation of being a Baby-Friendly Hospital awarded.

Implementing The Ten Steps to Successful Breastfeeding

Hospitals and Birth Centers in the United States who have fully implemented the Ten Steps to Successful Breastfeeding and received the Baby-Friendly Hospital Award have described their process in an effort to smooth the path for other facilitates. Implementation of the Ten Steps requires examination, change and evaluation. Examination of ingrained, but outdated practices, policies and beliefs and replacing them with evidence-based practices, policies and beliefs is not easy. But it is worthwhile. Staff members may resist change if the leaders do not provide the education, discussion, integration and evaluation that support the change.

Strategies for Improvement of Breastfeeding Policies and Procedures

• Establish a multidisciplinary task force to review the current state of policy and practice related to breastfeeding.

Except in small facilities, individuals working alone rarely have all of the assets that are needed to overcome established practices, the status quo and inertia.

The impetus to establish a multidisciplinary task force to implement the Ten Steps to Successful Breastfeeding has come from a variety of positions in maternity care facilities including

Hospital CEO

Clinical Director

Lactation Specialist

Nurse Manager

Coordinator of Childbirth Education and Lactation Program

Pediatricians

OB team

Nurse Executive/Administrator

Former Patient

Per Diem Nurse

Nurse Practitioner

Unit Manager

Lactation Committee

Midwifery Director

- Use the Self-Appraisal Tool to examine how the current practices differ from those expected by the Ten Steps. Although one individual at the facility may be tempted to complete the appraisal tool alone, review by the entire task force provides a team building activity that will be the foundation of future work.
- Apply for a Certificate of Intent from Baby-Friendly USA if technical assistance is desired.
- Establish a working plan for meetings and leadership for the task force. Determine whether other departments and champions within the larger facility should be included on the task force. Share meeting minutes and/or up-beat newsletters/progress reports with the widest reaches of the facility including community physicians, community partners and the Board of Directors.

- Determine strategies to resolve conflicts when and if they arise. A strategy offered by successful task forces is to establish the rules of evidence early in the process.
- Collect base-line data related to breastfeeding initiation rates (first feeding), supplementation rates, transfer rates of infants to special care (if-applicable), and duration rates.
- Identify challenges and barriers to implementation of steps and sub-steps. Members of the task force should discuss which steps will be easiest to tackle, and which will be toughest along with identifying obstacles for overcoming each step and sub-step.
- Prioritize the steps and sub-steps to implement. Tackle the easiest ones first. It is tempting
 to address the steps in numerical order, however each facility should take them in the order
 that makes sense for its unique situation.
- Designate task force members to speak individually with each non-task force staff member in order to explain the process and answer their questions and concerns.
- Debunk the myths and common misunderstandings. For example, Step 6 pertains only to mothers who have already elected to breastfeed their newborns. The step does not force anyone to breastfeed. In addition, there are misconceptions about pacifiers for ill infants, premature neonates and babies in pain. The steps focus on healthy, full-term infants for whom there is no medical indication for pacifier use. Hospitals with certificates of intent may contact Baby-Friendly USA for technical assistance in fully understanding the Ten Steps.
- Protect the system from a two-tiered outcome such as one where mothers who are breast-feeding are rooming-in with their babies and babies who are being formula fed are in a nursery. Many of the steps and sub-steps apply to all mothers and full term healthy babies who receive maternity care in the facility, not just those who are breastfeeding.
- Develop quality improvement projects related to each prioritized step and sub-step. In facilities with a department devoted to quality improvement, that department should collaborate with the task force on these projects.
- Implement a communication strategy. For example, posters and displays placed near the cafeteria keep non-involved staff up-to-date on the progress of the Ten Steps.
- Generate short-term "wins" through planning for improvements in performance, and creating the "wins". Celebrate the steps and sub-steps that are in line with the Ten Steps. Visibly reward the staff members that make the "wins" possible.
- Establish files for documents related to the steps. Include the written breastfeeding policy, curriculum for any training in lactation management given to staff caring for mothers and babies, outline of the content to be covered in prenatal education about breastfeeding. Existence of such written documents provides evidence of on-going institutional commitment to breastfeeding and ensures continued promotion even with changes in staff.
- Consolidate change to produce more change. Use increasing credibility to tackle the steps and sub-steps that the task force determined were the most difficult.
- Anchor the new practices by articulating the connection between the new practices and the success of the organization. Until new behaviors are integrated into social norms and shared values they are subject to degradation.
- Conduct mock assessments and patient interviews to determine whether the Ten Steps and sub-steps have been fully implemented. Review policies and procedures to see whether they reflect the current practices and up-to-date evidence. Contact Baby-Friendly USA to arrange for a "long interview" and an on-site assessment in order to receive the Baby-Friendly designation.

Step by Step

A guide to understanding the purpose, criteria, common barriers to implementing and strategies for overcoming identified barriers.

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

Purpose:

To assure that policy exists that promotes breastfeeding and delineates standards of care for breastfeeding mothers and babies.

Criteria:

The facility will have a detailed breastfeeding policy that is inclusive of the Ten Steps to Successful Breastfeeding, and is routinely communicated to all health care staff.

Common Barriers to Implementation:

- resistance to new policies and practices
- lack of support from key sectors (e.g., administrative, managerial, medical, nursing, etc.) to create a forum for discussing and revising policy
- concern about the potential costs of policy change
- disagreement about the validity or importance of the Ten Steps
- lack of monitoring to indicate if practice is in keeping with policy

Strategies to Overcome Barriers:

- establish a multidisciplinary team (including representatives of all key sectors) to review current policy, practice, and complete self-appraisal tool
- provide documentation of the benefits of breastfeeding and of the influence of maternity care practices on breastfeeding outcomes
- examine the economic benefits of breastfeeding and the costs of artificial feeding
- review the scientific evidence behind contentious issues and steps review model hospital policies, as possible resources for amending or rewriting existing policies
- proceed slowly, in a "baby steps" manner when resistance to change is triggered
- consider a survey of mothers to examine their experience with breastfeeding practices, then compare results with policy to determine level of synchrony between policy and practice

Resources & References:

Academy of Breastfeeding Medicine. *Clinical Protocol #7: Model Breastfeeding Policy.* Princeton Junction, NJ: Author, 2004. Accessed at http://www.bfmed.org.

American Academy of Family Physicians. *AAFP Policy Statement on Breastfeeding.* Leawood, KS: Author, 2001.

American Academy of Pediatrics. Breastfeeding and the use of human milk. *Pediatrics* 100 (6):1035-39, 1997.

American College of Nurse Midwives. Clinical Practice Statement on Breastfeeding. Washington, DC: Author, 1992.

American College of Obstetricians and Gynecologists. *Breastfeeding: Maternal and Infant Aspects*. Washington, DC: Author, 2000.

American Dietetic Association. Breaking the barriers to breastfeeding. *J Am Diet Assoc* 101:123, 2001.

Association of Women's Health, Obstetric and Neonatal Nurses. *Breastfeeding: Clinical Position Statement*. Washington, DC: Author, 1999.

Baby-Friendly USA. *Mom's Survey: Every Step Counts.* (Adapted from WABA survey) Sandwich, MA: Author, 2004. Accessed at: http://www.babyfriendlyusa.org/eng/docs/MomSurvey.pdf

Ball TA, Wright A. Health care costs of formula-feeding in the first year of life. *Pediatrics* 83: 103:870-6.

DiGirolamo AM, Grummer-Strawn LM, Fein S. Maternity care practices: implications for breastfeeding. *Birth* 28:94-100, 2001.

Division of Child Health and Development: *Evidence for the Ten Steps to Successful Breastfeeding.* Geneva: World Health Organization, 1999.

International Lactation Consultant Association. *Evidence-based Guidelines for Breastfeeding Management in the First Fourteen Days.* Raleigh, NC: Author, 1999.

Perez-Escamilla R, Pollitt E, Lonnerdal B, Dewey KG. Infant feeding policies in maternity wards and their effect on breast-feeding success: an analytical overview. *Am J Public Health* 84(1):89-97, 1994.

United States Breastfeeding Committee. *Benefits of breastfeeding* [issue paper]. Raleigh, NC: Author, 2002. Accessible http://www.usbreastfeeding.org/Publications.html

United States Breastfeeding Committee. *Breastfeeding in the United States: A national agenda*. Rockville MD: U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau. Accessible http://www.usbreastfeeding.org/Publications.html

United States Breastfeeding Committee. *Economic benefits of breastfeeding* [issue paper]. Raleigh, NC: Author, 2002. Accessible at http://www.usbreastfeeding.org/Publications.html United States Department of Health and Human Services. *HHS Blueprint for Action on Breastfeeding*. Washington, DC: Author, 2000. Accessible at http://www.4women.gov/Breastfeeding.

Weimer J. *The economic benefits of breastfeeding: A review and analysis.* Economic Research Service, U.S. Department of Agriculture 2001, Report No. 13:1-20.

Wellstart International. *Model Hospital Breastfeeding Policies for Full-term Normal Newborn Infants*. San Diego, CA: Author. Revised 1996.

World Health Organization, Wellstart International. *Promoting breast-feeding in health facilities: A short course for administrators and policy makers.* Geneva: World Health Organization, 1996.

Wright A, Rice S, Wells S: Changing hospital practices to increase the duration of breast-feeding. *Pediatrics* 97:669-75, 1996.

Step 2. Train all health care staff in skills necessary to implement this policy.

Purpose:

To assure that all staff have the knowledge and skill necessary to provide quality breastfeeding care.

Criteria:

All staff with primary responsibility for the care of breastfeeding mothers and babies will have a minimum 18 hours of training inclusive of 3 or more hours of competency verification. Training for other staff members may be tailored to their job description and degree of exposure to breastfeeding.

Common Barriers to Implementation:

- finding time for training
- lack of in-house expertise for training
- financial cost of providing training
- cost of staff coverage for training hours
- high staff turnover creating continuous need for training

Strategies to Overcome Barriers:

- assess prior education offered through in-services, skills labs, conferences, etc. to determine
 where content needs have already been provided (prior training is acceptable so long as periodic research updates are provided)
- consider low-cost training modalities such as:
 - integrate breastfeeding education into existing staff meetings
 - sending key staff to "train the trainer" type programs and then offer training in-house
 - self-study training modules acquired from outside vendors, or constructed from recent journal articles
 - web-based training

Resources & References:

Best Start Social Marketing. Health Care Provider Kit. Tampa, FL: Author, 2001.

Cadwell K, ed: The Curriculum in Support of the Ten Steps to Successful Breastfeeding: an 18 hour interdisciplinary breastfeeding management course for the United States. Washington, DC: US Department of Health and Human Services, 1999.

This curriculum and supporting educational media is available from Health Education Associates. The Healthy Children Project offers a *Train the Trainer* course to accompany this curriculum.

Cadwell K & Turner-Maffei C, Eds. *Ten Steps to Successful Breastfeeding.* Sudbury, MA: Jones & Bartlett Publishers.2002. Information may be accessed at http://Tensteps.jbpub.com

Cattaneo A, Buzzetti R. Effect on rates of breast feeding of training for the baby friendly hospital initiative. *BMJ* 323(7325):1358-62, 2001.

Feldman-Winter L, Mulford C, Touger-Decker R. *Lactation for Clinicians* (CDROM and Web components). Newark, NJ: University of Medicine and Dentistry of New Jersey. http://www.umdnj.edu/lactweb/index.htm.

Martens PJ. Does breastfeeding education affect nursing staff beliefs, exclusive breastfeeding rates, and Baby-Friendly Hospital Initiative compliance? The experience of a small, rural Canadian hospital. *J Hum Lact* 16(4):309-318, 2000.

Valdes V, Pugin E, Labbok MH, Perez A, Catalan S, Aravena R, Adler MR. The effects on professional practices of a three-day course on breastfeeding. *J Hum Lact* 11(3):185-90, 1995.

Wellstart International. *Lactation Management Self-Study Modules, Level I.* San Diego, CA: Author, 2004.

Step 3. Inform all pregnant women about the benefits and management of breastfeeding.

Purpose:

To assure the integration of messages about breastfeeding in all prenatal education interchanges.

Criteria:

All women delivering in the facility will have received consistent, positive messages about breast-feeding through prenatal education. Topics to be covered include the benefits of breastfeeding, the importance of exclusive breastfeeding, and basics of breastfeeding management; as well as the possible effect of analgesia/anesthesia on infant behavior, and the rationale for care practices such as early skin-to-skin contact, rooming-in, feeding on cue. All prenatal educational media should be free of messages that promote artificial feeding.

Common Barriers to Implementation:

- fragmentation of prenatal care creating diffusion of messages about breastfeeding
- limited attendance at prenatal education programs

Strategies to Overcome Barriers:

- work as a group to revise or write a prenatal booklet about breastfeeding that can be duplicated and distributed through all affiliated prenatal care practitioners
- develop a teaching checklist for obstetric care that provides talking points about breastfeeding at each prenatal visit
- position education resources such as posters, videos, peer counselors, educators, etc. to present concise messages about infant feeding in obstetric care waiting rooms, ultrasonography, laboratories, and other locations where pregnant women may have downtime
- weave infant feeding education into regular childbirth classes, rather than providing an optional class at the end of the series
- invite other community breastfeeding resource people (e.g. La Leche League, WIC programs, lactation consultants, etc.) to provide education on-site

Resources & References:

American College of Obstetricians and Gynecologists. *Breastfeeding: Maternal and Infant Aspects*. Queenan JT, editor. 258, 1-15. 2000. Washington, DC: Author, 2000.

Howard CR, Howard FM, Lawrence RA, et al. The effect on breastfeeding of physicians' office-based prenatal formula advertising. *Obstetrics & Gynecology* 95(2):296-303, 2002.

Taveras EM, Li R, Grummer-Strawn L, et al. Mothers' and clinicians' perspectives on breastfeeding counseling during routine preventive visits. *Pediatrics*. 113(5):e405-11, 2004.

Step 4. Help all mothers initiate breastfeeding within one hour of birth.

Purpose:

To assure the early initiation of skin-to-skin contact and breastfeeding.

Criteria:

All healthy, full term babies should be placed in their mothers arms, skin-to-skin, within the first half-hour after birth, and held there for at least an hour. Staff should offer assistance during this period to help the parents learn and respond to infant's feeding cues.

In the event of cesarean birth, babies should be placed, skin-to-skin, in their mother's arms within a half-hour of mother's ability to respond to her baby. Staff should offer assistance with learning feeding cues during this time.

Common Barriers:

- routine practice of mother-baby separation in the first hour for examination and cleaning of baby
- perception that routine procedures (e.g., bathing, warming, observation) have priority over breastfeeding in the first hour of life

Strategies to Overcome Barriers:

- review recent research on the importance of early feeding on breastfeeding outcomes
- examine guidance from the American Academy of Pediatrics and the American College of Obstetricians and Gynecologists on the importance of avoiding routine mother-baby separation in the first hour of life
- undertake a small scale observational study to trial changing immediate postpartum motherbaby contact and track breastfeeding rates of those mother/baby pairs

Resources & References:

American Academy of Pediatrics. Breastfeeding and the use of human milk. *Pediatrics* 100 (6):1035-39, 1997.

American College of Obstetricians and Gynecologists. *Breastfeeding: Maternal and Infant Aspects*. Queenan JT, editor. 258, 1-15. 2000. Washington, DC: Author, 2000.

Anderson GC, Moore E, Hepworth J, Bergman N. Early skin-to-skin contact for mothers and their healthy newborn infants. *Cochrane Database Syst Rev.* 2003;(2):CD003519.

Ransjo-Arvidson AB, Matthiesen AS, Lilja G, et al. Maternal analgesia during labor disturbs newborn behavior: effects on breastfeeding, temperature, and crying. *Birth* 28(1):5-12, 2001.

Righard L, Alade MO. Effect of delivery room routines on success of first breast-feed. *Lancet* 336(8723):1105-7, 1990.

Step 5. Show mothers how to breastfeed and how to maintain lactation even if they should be separated from their infants.

Purpose:

To assure ongoing breastfeeding assessment, evaluation and support during the stay.

Criteria:

All mothers should receive additional assistance with breastfeeding in the first six hours after birth and throughout her stay. Staff should routinely assess mother/baby comfort and effectiveness of feeding and suggest changes as needed. Education should be offered regarding feeding in response to infant cues and methods of expressing breast milk. Mothers of preterm or ill babies should be educated about collecting their milk.

Common Barriers:

- Inconsistent advice and teaching among staff
- Limited staff competence in assessing and educating mothers
- Limited staff time

Strategies to Overcome Barriers:

- Establish a working group to standardize methods of breastfeeding assessment and teaching
- Create a team of staff members who are competent and comfortable with breastfeeding assessment and teaching
- Assign less confident staff to shadow members of the "expert team," eventually swap roles so that learners are observed by "experts"
- Consider creating a "feeding room" in a solarium or other open room where mothers can come
 together for feeding. This methodology can allow one or two staff members to assess and educate multiple mothers at the same time. (It also helps build mother-to-mother connection and
 learning.)
- Train peer counselors (other women who have been successful with breastfeeding) to make rounds and spend time assessing and educating breastfeeding mothers

Resources & References

Gill SL. The little things: perceptions of breastfeeding support. *J Obstet Gynecol Neonatal Nurs* 30 (4):401-9, 2001.

La Leche League International. The La Leche League Peer Counseling Program. Schaumburg, IL: Author, 2002. Accessed at http://www.lalecheleague.org/ed/PeerAbout.html

Merewood A, Philipp BL. Peer counselors for breastfeeding mothers in the hospital setting: trials, training, tributes, and tribulations. *J Hum Lact.* 19(1):72-6, 2003.

Step 6. Give newborn infants no food or drink others than breastmilk, unless medically indicated.

Purpose:

To assure that healthy breastfeeding babies are not routinely supplemented with any food or drink other than human milk (unless medical indications exist for supplementation). Furthermore, to protect parents from formula marketing.

Criteria:

All breastfed infants will be exclusively breastfed except when a) acceptable medical indications exist for supplementation; or b) parents request supplementation after receiving education regarding the possible consequences of non-indicated supplementation. Parents of breastfed infants will receive no free samples, items bearing formula company names or logos, coupons for formula, etc. This step also requires that the facility purchase infant formula and feeding devices in the same manner as is used to procure other food and supplies.

Common Barriers:

- Routine, non-indicated supplementation of breastfed infants
- Misconception regarding contraindications to breastfeeding
- Concern that parents will choose another facility if they don't receive a discharge gift
- Budgetary constraints regarding purchase of formula

Strategies to Overcome the Barriers:

- Establish a medical review team to examine recent policy statements on supplementation of breastfed babies
- Educate staff regarding the limited number of medical contraindications to breastfeeding; as well as the importance of unrestricted mother/baby contact and feeding in building an abundant milk supply
- Work with marketing to develop the facility's own discharge gift pack for mothers
- Determine the actual amount of formula needed (versus what is stocked). Lock up the formula supplies and require staff to sign it out, indicating their name, the patient's name, and medical indication for use. This will help to restrict formula usage, as well as providing information about what additional education and skill areas need to be advanced among staff. After collecting usage data for a period of time, put a bid out to vendors, including large chain pharmacies or food wholesalers to determine the fair market price of formula.

Resources & References:

Academy of Breastfeeding Medicine: Clinical Protocol #1: Guidelines for Glucose Monitoring and Treatment of Hypoglycemia in Term Breastfeeding Neonates. Lenexa, KS: Author, 1999.

Academy of Breastfeeding Medicine: Clinical Protocol #3: ABM Clinical Protocol Number 3 -- Hospital Guidelines for the Use of Supplementary Feedings in the Healthy Term Breastfed Neonate. Lenexa, KS: Author, 2002.

American Academy of Pediatrics. Breastfeeding and the use of human milk. *Pediatrics* 100 (6):1035-39, 1997.

American Academy of Pediatrics: Management of Hyperbilirubinemia in the Newborn Infant 35 or More Weeks of Gestation. *Pediatrics* 114 (1): 297-316, 2004.

Donnelly A, Snowden HM, Renfrew MJ, Woolridge MW. Commercial hospital discharge packs for breastfeeding women. *Cochrane Database Syst Rev.* 2000;(2):CD002075.

Merewood A, Philipp BL: Becoming Baby-Friendly: Overcoming the issue of accepting free formula. *J Hum Lact* 16:272-282, 2000.

Walker M. Selling Out Mothers and Babies: Marketing of breast milk substitutes in the USA. Weston, MA: National Alliance for Breastfeeding Advocacy, Research, Education and Legal Branch, 2001.

World Health Organization. *Hypoglycemia of the Newborn: Review of the Literature.* Geneva: Author WHO/CHD 97.1,1997.

Step 7. Practice rooming-in allow mothers and infants to remain together – 24 hours a day.

Purpose:

To assure that healthy mothers and babies have ample opportunities for skin-to-skin contact and early learning of baby's feeding cues.

Criteria:

Rooming-in should be practiced throughout the facility. There should be no routine delays between birth and the initiation of continuous mother/baby contact. Mothers who request separation from their babies should receive information about the rationale for rooming-in. Healthy mothers and babies should not be routinely separated during their stay, with the exception of up to one hour daily for any medically necessary procedures.

Barriers:

- Perception of staff and/or mothers that sleep quality is improved when mothers and babies are separated
- Perception that routine separation is necessary for bathing, examinations, observation and other medical procedures

Strategies to Overcome Barriers:

- Review evidence regarding the sleep and mother/baby contact
- Examine the routine procedures that "require" infant to be taken to the nursery. Determine which
 procedures could be done in mother's room, offering opportunities for more education during assessment. Many facilities have purchased portable scales, bath equipment, etc. in order to be
 conduct these procedures at the mother's bedside.
- Offer staff the opportunity to role play how to respond when mothers request that their baby be taken from their room

Resources & References:

Keefe MR. The impact of infant rooming-in on maternal sleep at night. *J Obstet Gynecol Neonatal Nurs*. 17(2):122-6, 1988.

McGrath SK, Kennell JH. Extended mother—infant skin-to-skin contact and prospect of breastfeeding. *Acta Paediatr* 91:1288-9, 2002.

Mikiel-Kostyra K, Mazur J, Boltruszko I. Effect of early skin-to-skin contact after delivery on duration of breastfeeding: a prospective cohort study. *Acta Paediatr.* 91(12):1301-6, 2002.

Step 8. Encourage breastfeeding on demand.

Purpose:

To assure that mothers are encouraged to feed their babies in response to the baby's signs of feeding readiness.

Criteria:

All mothers should be educated about the baby's ability to indicate feeding readiness and self-regulate feedings when given unlimited learning opportunities. Staff should assist families in the process of learning about feeding cues and responding to them. Mothers should not be told to feed on any particular schedule or interval, but rather to expect a minimum of10-12 feedings in 24 hours of no particular pattern of frequency. Additionally, feedings should not be limited in length.

Common Barriers to Implementation:

- Expectations on the part of mothers and staff that feeding should occur on a regular, predictable schedule
- Lack of knowledge of common feeding cues
- Lack of adequate mother/baby contact

Strategies to Overcome Barriers:

- Educate mothers during both the prenatal and postpartum regarding typical infant feeding cues
- Educate staff about typical infant feeding cues
- Offer role play opportunities for staff to respond to parent's questions such as "How often should I feed my baby?"
- Encourage unrestricted skin-to-skin contact to optimize baby's learning opportunities

Resources & References:

American Academy of Pediatrics. Breastfeeding and the use of human milk. *Pediatrics* 100 (6):1035-39, 1997.

Cadwell K. Bilirubin status as an outcome measure in monitoring adherence to baby-friendly breastfeeding policies in hospitals and birthing centers in the United States. *J Hum Lact*. 14 (3):187-9, 1998.

Marasco L, Barger J. Cue Feeding: Wisdom and Science. *Breastfeeding Abstracts*, 18(4): 28-29, 1999.

Step 9. Give no artificial teats or pacifiers.

Purpose:

To assure that breastfed babies are not deterred from learning how to suckle at the breast, and thereby from maximizing mothers' milk supply.

Criteria:

Health care staff should not offer healthy breastfed babies pacifiers or artificial nipples. (There may be a role for pacifier use in the preterm or ill baby who is not able to suckle at the breast.) When breastfed infants require supplementation, efforts should be made to limit supplementation device to cup, tube or syringe to avoid introducing artificial nipple shapes.

Common Barriers:

- Cultural expectation that pacifiers are needed to calm babies
- Staff familiarity with bottles as supplemental feeding devices and discomfort with alternative feeding methods
- Concern about the safety of cup feeding

Strategies to Overcome Barriers:

- Examine recent research regarding the impact of bottle, cup and other alternative feeding methods on breastfeeding success rates
- Examine recent research regarding the association of pacifiers and reduced breastfeeding exclusivity and duration
- Implement skin-to-skin and rooming-in protocols
- Teach staff, and help staff to teach parents soothing techniques such as skin-to-skin, walking, and rocking babies
- Offer staff hands-on training regarding alternative supplementation methods

Resources & References

Blomquist HK, Jonsbo F, Serenius F, Persson LA. Supplementary feeding in the maternity ward shortens the duration of breast feeding. *Acta Paediatr.* 83(11):1122-6, 1994.

Howard CR, de Blieck EA, ten Hoopen CB, et al. Physiologic stability of newborns during cupand bottle-feeding. *Pediatrics*. 1999 Nov;104(5 Pt 2):1204-7.

Howard CR, Howard FM, Lanphear B, et al. Randomized clinical trial of pacifier use and bottle-feeding or cupfeeding and their effect on breastfeeding. *Pediatrics*. 111(3):511-8, 2003.

Step 10. Foster the establishment of breast-feeding support groups and refer mothers to them on discharge from the hospital or clinic.

Purpose:

To assure that mothers are linked to ongoing breastfeeding support resources.

Criteria:

Facilities should assess the available community breastfeeding support resources and foster the development of breastfeeding support networks. All mothers should receive referral to appropriate resources prior to their discharge. Staff should develop individual care plans for the follow-up of mothers and babies who have identified breastfeeding risk factors.

Common Barriers to Implementation:

- Lack of awareness of existing resources (including availability and limitation of identified resources)
- Lack of proactive resources

Strategies for Overcoming Barriers:

- Partner with community breastfeeding resources to create or strengthen regional breastfeeding coalitions.
- Develop current breastfeeding resource lists and distribute them religiously to mothers
- Encourage coalitions to conduct needs assessments to identify un-served and under-served breastfeeding support needs.
- Strategize how to meet these needs through collaboration with community partners. (For example, invite La Leche League leaders or WIC breastfeeding counselors to hold support groups in facility meeting rooms; utilize marketing follow-up calls to identify if mothers are connected with postpartum resources; establish breastfeeding resources where mothers are likely to be found in the mall, at the pediatric clinic, etc.)

Resources & References

Cadwell K. Growing a Breastfeeding-Friendly Community. Sandwich, MA: Health Education Associates, nd.

Dennis CL, Hodnett E, Gallop R, Chalmers B. The effect of peer support on breast-feeding duration among primiparous women: a randomized controlled trial. *Can Med Asso J* 116(1):21-28, 2002.

McKeever P, Stevens B, Miller KL, et al. Home versus hospital breastfeeding support for newborns: a randomized controlled trial. *Birth* 29(4):258-65, 2002.

Sikorski J, Renfrew MJ, Pindoria S, Wade A. Support for breastfeeding mothers (Cochrane Review). *The Cochrane Library*. UK: John Wiley & Sons, 1:2004.

General Research about the Implementation of the Ten Steps to Successful Breastfeeding

Binns CW, Scott JA. Can we make hospitals and the community baby friendly? *Acta Paediatr* 92:646-7, 2003.

Braun MG, Giugliani ERJ, Soares ME, et al. Evaluation of the impact of the Baby-Friendly Hospital Initiative on rates of breastfeeding. *Am J Public Health* 93(8):1277-1279, 2003.

Cadwell K. Bilirubin status as an outcome measure in monitoring adherence to baby-friendly breastfeeding practices in hospitals and birthing centers in the United States. *J Hum Lact* 14(3):187-9, 1998.

Cadwell K, ed. *Reclaiming Breastfeeding for the United States* Sudbury, MA: Jones & Bartlett Publishers, Inc., 2002.

Cattaneo A, Buzzetti R. Effect on rates of breast feeding of training for the baby friendly hospital initiative. *BMJ* 323(7325):1358-62, 2001.

Chen A., Rogan WJ. Breastfeeding and the risk of postneonatal death in the United States. *Pediatrics* 113 (5):e435-9, 2004.

Clarke LL, Deutsch MJ: Becoming Baby-Friendly: one hospital's journey to total quality care. *AWHONN Lifelines* 12/97: 30-37, 1997.

Declerq ER, Sakala C, Corry MP, Applebaum S, Risher P. Listening to Mothers: Report of the First National U.S. Survey of Women's Childbearing Experiences Executive Summary and Recommendations Issued by the Maternity Center Association. New York: Maternity Center Association, 2002.

DiGirolamo AM, Grummer-Strawn LM, Fein S. Maternity care practices: implications for breastfeeding. *Birth* 28:94-100, 2001.

Division of Child Health and Development: *Evidence for the Ten Steps to Successful Breastfeeding.* Geneva: World Health Organization, 1999.

Dodgson JE, Allard-Hale CJ, Bramscher A, et al. Adherence to the ten steps of the Baby-Friendly Hospital Initiative in Minnesota hospitals. *Birth* 26(4):239-247, 1999.

Dunlon M, Kersting M, Bender R. Breastfeeding promotion in non-UNICEF-certified hospitals and long-term breastfeeding success in Germany. *Acta Paediatr* 92:653-8, 2003.

Ellis DJ: Supporting breastfeeding: how to implement agency change. *Clin Issu Perinat Womens Health Nurs* 3(4): 560-4, 1992.

Gray L, Watt L, Blass EM. Skin-to-skin contact is analgesic in healthy newborns. *Pediatrics* 105(1):e14, 2002.

Hannon PR, Ehlert-Abler P, Aberman S, Williams R, Carlos M. A multidisciplinary approach to promoting a Baby Friendly environment at an urban university medical center. *J Hum Lact* 15(4):289-96, 1999.

Helsing E, Chalmers BE, Dinekina TJ, Kondakova NI. Breastfeeding, baby friendliness and birth in transition in North Western Russia: a study of women's perceptions of the care they receive when giving birth in six maternity homes in the cities of Archangelsk and Murmansk, 1999. *Acta Paediatr.* 91(5):578-83, 2002.

Jones G, Steketee RW, Black BE, et al. How many child deaths can we prevent this year? *Lancet.* 362 (9377):65-71, 2003.

Karra MV, Auerbach KG, Olson L, Binghay EP. Hospital infant feeding practices in metropolitan Chicago: an evaluation of five of the "Ten Steps to Successful Breast-feeding." *J Am Diet Assoc* 93(12):1437-9, 1993.

Kovach AC. An assessment tool for evaluating hospital breastfeeding policies and practices. *J Hum Lact* 12:41-45, 1996.

Kovach AC: Hospital breastfeeding policies in the Philadelphia area: a comparison with the ten steps to successful breastfeeding. *Birth* 24:41-8, 1997.

Kramer MS et al. Promotion of Breastfeeding Intervention Trial (PROBIT): a randomized trial in the Republic of Belarus. *JAMA* 285(4):413-420, 2001.

Lazarov M, Feldman A, Silveus S: The Baby-Friendly Hospital Initiative: US activities. J Hum Lact 9:74-75, 1993.

Lhotska L, Armstrong H. Future directions. Ann N Y Acad Sci. 918:145-55, 2000.

Lvoff NM, Lvoff V, Klaus MH. Effect of the baby-friendly initiative on infant abandonment in a Russian hospital. *Arch Pediatr Adolesc Med.* 154(5):474-7, 2000.

Kramer MS, Chalmers B, Hodnett ED, et al. Promotion of breastfeeding intervention trial (PROBIT): a cluster-randomized trial in the Republic of Belarus. Design, follow-up, and data validation. *Adv Exp Med Biol.* 478:327-45, 2000.

Kramer MS, Chalmers B, Hodnett ED, et al. Promotion of Breastfeeding Intervention Trial (PROBIT): a randomized trial in the Republic of Belarus. *JAMA* 24-31;285(4):413-20, 2001.

Labbok MH. The Baby-Friendly Hospital Initiative: Today and tomorrow. *Breastfeeding Abstracts* 23(2):11-12, 2004.

Martens PJ. Does breastfeeding education affect nursing staff beliefs, exclusive breastfeeding rates, and Baby-Friendly Hospital Initiative compliance? The experience of a small, rural Canadian hospital. *J Hum Lact* 16(4):309-318, 2000.

Martens PJ, Phillips SJ, Cheang MS, Rosolowich V. How Baby-Friendly are Manitoba Hospitals? The Provincial Infant Feeding Study. *Can J Pub Hlth.* 91(1):51-57, 2000.

McCreath WA, Wilcox S, Laing VV, Crump D, Gilles J. Improving the number of mothers breastfeeding in the postpartum period. *Prim Care Update Ob Gyns* 3(1):40-43, 2001.

Merewood A, Philipp BL, Chawla N, Cimo S. The baby-friendly hospital initiative increases breastfeeding rates in a US neonatal intensive care unit. *J Hum Lact.* 19(2):166-71, 2003.

Merewood A, Philipp BL. Becoming Baby-Friendly: overcoming the issue of accepting free formula. *J Hum Lact*.16(4):279-82, 2000.

Merewood A, Philipp BL. Implementing change: becoming baby-friendly in an inner city hospital. *Birth.* 2001 Mar;28(1):36-40, 2001.

Merewood A, Philipp BL. Peer counselors for breastfeeding mothers in the hospital setting: trials, training, tributes and tribulations. *J Hum Lact* 19(1): 72-6, 2003.

Naylor AJ. Baby-Friendly Hospital Initiative. Protecting, promoting, and supporting breastfeeding in the twenty-first century. *Pediatr Clin North Am.* 48(2):475-83, 2001.

Owoaje ET, Oyemade A, Kolude OO. Previous BFHI training and nurses' knowledge, attitudes and practices regarding exclusive breastfeeding. *Afr J Med Med Sci.* 31(2):137-40, 2002.

Philipp BL, Malone KL, Cimo S, Merewood A. Sustained breastfeeding rates at a US baby-friendly hospital. *Pediatrics* 112(3 Pt 1):e234-6, 2003.

Philipp BL, Merewood A, Miler LW, et al. Baby-friendly hospital initiative improves breastfeeding initiation rates in a US hospital setting. *Pediatrics*. 108(3):677-81, 2001.

Prasad B, Costello AM. Impact and sustainability of a "baby friendly" health education intervention at a district hospital in Bihar, India. *BMJ* 310(6980):621-3, 1995.

Rapley G. Keeping mothers and babies together--breastfeeding and bonding. *Midwives* (Lond). 5(10):332-4, 2002.

Rowe-Murray HJ, Fisher JRW. Baby Friendly Hospital practices: Caesarean section is a persistent barrier to early initiation of breastfeeding. *Breastfeeding Review* 11(1):21-27, 2003.

Saadeh R, Akre J: Ten steps to successful breastfeeding: a summary of the rationale and scientific evidence. *Birth* 23:154-60, 1996.

Schubiger G, Schwarz U, Tonz O. UNICEF/WHO baby-friendly hospital initiative: does the use of bottles and pacifiers in the neonatal nursery prevent successful breastfeeding? Neonatal Study Group. *Eur J Pediatr.* 156(11):874-7, 1997.

Southall DP, Burr S, Smith RD, Bull DN, Radford A, Williams A, Nicholson S. The Child-Friendly Healthcare Initiative (CFHI): Healthcare provision in accordance with the UN Convention on the Rights of the Child. *Pediatrics*. 106(5):1054-64, 2000.

Turner-Maffei C. Strategies for Implementing the Baby-Friendly Hospital Initiative in the United States. Chicago, IL: La Leche League, Int., 2002.

United Nations Children's Fund: Innocenti Declaration on the Protection, Promotion and Support of Breast-feeding, Florence, Italy, 1 August, 1990. New York: UNICEF, 1990.

United Nations Children's Fund: *Baby-Friendly Hospital Initiative: Case studies and progress report.* New York: UNICEF Programme Division, 1999.

Valdes V, Pugin E, Labbok MH, Perez A, Catalan S, Aravena R, Adler MR. The effects on professional practices of a three-day course on breastfeeding. *J Hum Lact* 11(3):185-90, 1995.

Weimer J. *The economic benefits of breastfeeding: A review and analysis.* Economic Research Service, U.S. Department of Agriculture 2001, Report No. 13:1-20.

Weng DR, Hsu CS, Gau ML, Chen CH, Li CY. Analysis of the outcomes at baby-friendly hospitals: appraisal in Taiwan. *Kaohsiung J Med Sci.* 19(1):19-28, 2003.

Woodard ML, O'Neill RT. Bringing baby friendly to Rhode Island. Med Health RI 84(3):79-80, 2001.

World Health Organization: *International Code of Marketing of Breast-milk Substitutes*. Geneva: WHO, 1981.

World Health Organization: *International Code of Marketing of Breast-milk Substitutes*. Geneva: WHO, 1981.

World Health Organization & United Nations Children's Fund: *Protecting, Promoting and Supporting Breast-feeding: The Special Role of Maternity Services.* Geneva: WHO, 1989.

Wright A, Rice S, Wells S: Changing hospital practices to increase the duration of breastfeeding. *Pediatrics* 97:669-75, 1996.

Yawman D. Reflections on the Baby-Friendly Hospital Initiative. Ped Annals 32(5):360-1, 2003.

Organizational Resources

Academy of Breastfeeding Medicine

Executive Office - 191 Clarksville Road Princeton Junction, NJ 08550

Telephone: (877) 836-9947 X 25 Email: abm@bfmed.org
Web site: www.bfmed.org

American Academy of Family Physicians

11400 Tomahawk Creek Parkway Leawood, KS 66211-2672

Telephone: 800-274-2237 Web site: www.aafp.org

American Academy of Pediatrics

141 NW Point Blvd

Elk Grove, IL 60009-0927. Telephone: 847-434-4000 Web site: www.aap.org

American College of Nurse-Midwives

8403 Colesville Rd, Suite 1550

Silver Spring MD 20910

Telephone: 240-485-1800 Web: Web site: www.midwife.org

American College of Obstetricians & Gynecologists

409 12th Street SW, PO Box 96920

Washington, DC 20090 Telephone: (202) 638-5577 Web site: www.acog.org

American Dietetic Association

120 South Riverside Plaza, Suite 2000

Chicago, IL 60606-6995 Telephone: 800/877-1600 Web site: www.eatright.org

Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN)

2000 L Street, N.W. Suite 740

Washington, D.C. 20036 Telephone: 202-261-2400 Web site: www.awhonn.org

Baby-Friendly USA

327 Quaker Meeting House Road

E. Sandwich, MA 02537 Telephone: 508-888-8092 *

Web site: www.babyfriendlyusa.org

Beststart Social Marketing, Inc.

4809 E. Busch Boulevard, Suite 104

Tampa, FL 33617

Telephone: 800-277-4975 http://www.beststartinc.org/

email: beststart@beststartinc.org

Centers for Disease Control & Prevention

1600 Clifton Rd, Atlanta, GA 30333, U.S.A

Telephone: (800) 311-3435

Web site: www.cdc.gov/breastfeeding

Healthy Children Project, Inc.

327 Quaker Meeting House Road

East Sandwich, MA 02537 Telephone: 508-888-8044 Email: info@healthychildren.cc Web site: www.healthychildren.cc

Health Education Associates

327 Quaker Meeting House Road

East Sandwich, MA 02537 Telephone: 508-888-8045 Email: info@healthed.cc Web site: www.healthed.cc

International Baby Food Action Network

Web site: www.ibfan.org

International Lactation Consultant Association

1500 Sunday Drive, Suite 102 Raleigh, NC 27607 (919) 861-5577

Email: info@ilca.org Web site: www.ilca.org

La Leche League International

1400 North Meacham Road, P. O. Box 4079

Schaumburg, IL 60168-4079 Telephone: 847-519-7730

Web site: www.lalecheleague.org

Lamaze International

2025 M Street, Suite 800 Washington DC 20036-3309 Telephone: (202) 367-1128 Web site: www.lamaze.org

National Alliance for Breastfeeding Advocacy

254 Conant Road

Weston, MA 02193-1756 Telephone: 781-893-3553

Web site: www.naba-breastfeeding.org

UNICEF

3 UN Plaza New York, NY 10017 www.unicef.org

The United States Breastfeeding Committee

1500 Sunday Drive, Suite 102

Raleigh, NC 27607

Telephone: (919)787-5181

Web site: www.usbreastfeeding.org

U. S. Department of Health and Human Services - Maternal & Child Health Bureau

Health Resources Services Administration Department of Health and Human Services 5600 Fishers Lane, Room 18A-39

Rockville, MD 20857 Telephone: 301-443-6600 Web site: www.mchb.hrsa.gov

U. S. Department of Health and Human Services - Office of Women's Health, DHHS

200 Independence Avenue SW

Washington, DC 20201 Web site: www.4women.org

U.S. Department of Agriculture

1400 Independence Ave., S.W. Washington, DC 20250. www.fns.usda.gov

Wellstart International

P.O. Box 80877 San Diego, CA 92138-0877

Phone: 619-295-5192 Fax: 619-574-8159

E-mail: info@wellstart.org Web site: www.wellstart.org

World Health Organization

Avenue Appia 20, 1211 Geneva 27 1211 Geneva 27

Switzerland

Telephone: (+ 41 22) 791 21 11

Email: info@who.int. Web site: www.who.int











SELF-APPRAISAL TOOL

Baby-Friendly USA from Final Report MCHB 03-0232P









Appendix A

Using the Self-Appraisal Tool to Review Policies and Practices

The checklist that follows will permit a hospital, birthing center, or other health facility giving maternity care to make a quick initial appraisal or review of its practices in support of breastfeeding. The tool is based on the World Health Organization & United Nations Children's Fund *Ten Steps to Successful Breastfeeding.*

Facilities are encouraged to bring their key management and clinical staff together to complete the Self-Appraisal Inventory and develop a plan of action based on the results of the self-appraisal.

Every answer that appears in the shaded right hand "No" column indicates an area for improvement. See the Section "Resources for the Ten Steps" included in this packet for suggested strategies and resources to overcome identified barriers.

Data collection is also a powerful tool for change. The final page of this tool includes some of the data that is helpful for analyzing changes.

STEP 1. Have a written breastfeeding policy that is routinely communicated to all health care staff.

	YES	NO
Does the health facility have an explicit written policy for protecting, promoting, and supporting breastfeeding that addresses all <i>Ten Steps to Successful Breastfeeding</i> in maternity services?		
Does the policy protect breastfeeding by prohibiting all promotion of and group instruction for using breast milk substitutes, feeding bottles and nipples?		
Is the breastfeeding policy available so all staff who take care of mothers and babies can refer to it?		
Is the breastfeeding policy posted or displayed in all areas of the health facility that serve mothers, infants, and/or children?		
Is there a mechanism for evaluating the effectiveness of the policy?		

STEP 2. Train all health care staff in skills necessary to implement this policy.

	YES	NO
Are all staff aware of the advantages of breastfeeding and acquainted with the facility's policy and services to protect, promote, and support breastfeeding?		
Are all staff caring for women and infants oriented to the breastfeeding policy of the hospital on their arrival?		
Is training on breastfeeding and lactation management given to all staff caring for women and infants within six months of hiring?		
Does the training cover at least eight of the Ten Steps?		
Is the training on breastfeeding and lactation management at least 18 hours in total, including a minimum of 3 hours of supervised clinical experience, for those staff with primary responsibility for supporting breastfeeding mothers and babies?		
Has the health care facility arranged for specialized training in lactation management of staff members with different levels of responsibility for breastfeeding families (e.g., staff of neonatal intensive care unit emergency department, medicine/surgery, etc as appropriate)?		
Has the health care facility included skills needed to implement the ten steps in annual competency monitoring?		

STEP 3. Inform all pregnant women about the benefits and management of breastfeeding.

	YES	NO
Does the facility include a prenatal care clinic? A prenatal inpatient unit?		
If yes, are all pregnant women attending these prenatal services informed about the benefits and management of breastfeeding?		
Do prenatal records indicate whether breastfeeding has been discussed with the pregnant woman?		
Is a mother's prenatal record available at the time of delivery?		
Are all pregnant women protected from oral or written promotion or group instruction for artificial feeding?		

STEP 4. Help mothers initiate breastfeeding within an hour of birth.

Are all mothers who have had normal, vaginal deliveries given their babies to hold skin-to-skin within 30 minutes of delivery, and al-	YES	NO
lowed to remain with them for at least an hour?		
Are all mothers offered help by a staff member to initiate breastfeeding during this first hour?		
Are all mothers who have had cesarean deliveries given their babies to hold skin- to-skin contact, within a half hour after they are able to respond to their babies?		
Are all mothers who have had cesarean deliveries offered help by a staff member to initiate breastfeeding within 60 minutes of their ability to respond to their babies?		

STEP 5. Show mothers how to breastfeed and how to maintain lactation, even if they should be separated from their infants.

Does nursing staff offer all mothers further assistance with breastfeeding within six hours of delivery?	YES	NO
Are all breastfeeding mothers able to demonstrate how to correctly position and attach their babies for breastfeeding?		
Are all mothers shown how to express their milk or given information on breast milk expression and/or advised of where they can get help should they need it?		
Are staff members or counselors who have specialized training in breastfeeding and lactation management available full-time to advise mothers during their stay in health care facilities and in preparation for discharge?		
Do all women who have never breastfed or who have previously en- countered problems with breastfeeding receive special attention and support from the staff of the health care facility?		
Are all mothers of babies in special care offered help to establish and maintain lactation by frequent expression of milk?		

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

Do all staff have a clear understanding of what the few acceptable reasons are for prescribing food or drink other than breast milk for breastfeeding babies?	YES	NO
Do all breastfeeding babies receive no other food or drink (than breast milk) unless medically indicated?		
Are all breast milk substitutes, including special formulas, that are used in the facility purchased in the same way as any other foods or medicines?		
Does the health facility and staff refuse all free or low-cost supplies of breast milk substitutes, paying close to retail market price for formula?		
Is all promotion of infant foods or drinks other than breast milk absent from the facility?		

STEP 7. Practice rooming-in—allow mothers and infants to remain together—24 hours a day.

	YES	NO
Do all mothers and infants remain together (rooming-in) 24 hours		
a day, except for periods of up to an hour for hospital procedures or if		
separation is medically indicated?		
Does rooming-in start within an hour of all normal births?		
Does rooming-in start within an hour of when all cesarean mothers can respond to their baby?		

STEP 8. Encourage breastfeeding on demand.

	YES	NO
By placing no restrictions on the frequency or length of breast feedings, do all staff show they are aware of the importance of breastfeeding according to the baby's feeding cues?		
Are all mothers advised to breastfeed their babies whenever their babies are hungry and as often as their babies want to breastfeed?		

STEP 9. Give no artificial teats or pacifiers to breastfeeding infants.

	YES	NO
Are all babies who have started to breastfeed cared for without receiving supplements via bottle?		
Are all babies who have started to breastfeed cared for without using pacifiers?		
Do all breastfeeding mothers learn that they should not give any bottles or pacifiers to their babies?		
By accepting no free or low-cost feeding bottles, nipples, or pacifiers, does the facility and its staff demonstrate that these should be avoided?		

STEP 10. Foster the establishment of breastfeeding support and refer mothers to them on discharge from the facility.

	YES	NO
Does the facility give education to all key family members so that they can support the breastfeeding mother at home?		
Are all breastfeeding mothers referred to breastfeeding support groups, if any are available?		
Does the facility have a system of follow-up support for all breastfeeding mothers after they are discharged, such as early postnatal or lactation clinic check-ups, home visits, telephone calls?		
Does the facility encourage and facilitate the formation of mother-to-mother or health care worker-to-mother support groups?		
Does the facility allow breastfeeding counseling by trained mother-to-mother support group counselors in its maternity services?		

Facility Data

	were via Cesarean Section	Cesarean rate:	%
	were low birthweight babies (<2,500 g)	Low birthweight rate:	%
	were in special care during their stay	Special care rate:	%
	roomed-in with their mothers >23 of 24 hours daily	Rooming-in rate:	%
	were vaginal deliveries with no pharmacologic pain relief during labor and delivery	Unmedicated rate:	%
	_ were vaginal deliveries with anesthesia/analgesia	Medicated rate:	%
	reeding data for deliveries from records or staff remother/infant pairs discharged in time period	-	
Infant f	eeding data for deliveries from records or staff i	reports:	
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r r r	mother/infant pairs discharged in time period mother/infant pairs breastfeeding at discharge in the mother/infant pairs breastfeeding exclusively from bi in the past month (mothers breastfeeding exclusively divided by number of breastfed infants discharged in the past month who	to e past month irth to discharge mothers breastfeeding at all) had received at least medical reasons	c
rrk	mother/infant pairs discharged in time period mother/infant pairs breastfeeding at discharge in the mother/infant pairs breastfeeding exclusively from bi in the past month (mothers breastfeeding exclusively divided by number of breastfed infants discharged in the past month who cone formula feeding during their stay for acceptable breastfed infants discharged in the past month who for non-medical reasons	to e past month irth to discharge mothers breastfeeding at all) had received at least medical reasons	
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POSITION STATEMENTS











Breastfeeding (Policy Statement)

Breastfeeding is the physiological norm for both mothers and their children. Breastmilk offers medical and psychological benefits not available from human milk substitutes. The AAFP recommends that all babies, with rare exceptions, be breastfed and/or receive expressed human milk exclusively for the first six months of life. Breastfeeding should continue with the addition of complementary foods throughout the second half of the first year. Breastfeeding beyond the first year offers considerable benefits to both mother and child, and should continue as long as mutually desired. Family physicians should have the knowledge to promote, protect, and support breastfeeding. (1989) (2007)

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Breastfeeding

The American College of Obstetricians and Gynecologists strongly supports breastfeeding and calls upon its Fellows, other health professionals caring for women and their infants, hospitals and employers to support women in choosing to breastfeed their infants. All should work to facilitate the continuation of breastfeeding in the work place and public facilities. Breastfeeding is the preferred method of feeding for newborns and infants. Health professionals have a wide range of opportunities to serve as a primary resource to the public and their patients regarding the benefits of breastfeeding and the knowledge, skills and support needed for successful breastfeeding.

Approved by the Executive Board September 1994 Amended and Reaffirmed July 2003

AMERICAN ACADEMY OF PEDIATRICS

POLICY STATEMENT

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

Section on Breastfeeding

Breastfeeding and the Use of Human Milk

ABSTRACT. Considerable advances have occurred in recent years in the scientific knowledge of the benefits of breastfeeding, the mechanisms underlying these benefits, and in the clinical management of breastfeeding. This policy statement on breastfeeding replaces the 1997 policy statement of the American Academy of Pediatrics and reflects this newer knowledge and the supporting publications. The benefits of breastfeeding for the infant, the mother, and the community are summarized, and recommendations to guide the pediatrician and other health care professionals in assisting mothers in the initiation and maintenance of breastfeeding for healthy term infants and high-risk infants are presented. The policy statement delineates various ways in which pediatricians can promote, protect, and support breastfeeding not only in their individual practices but also in the hospital, medical school, community, and nation. Pediatrics 2005;115:496-506; breast, breastfeeding, breast milk, human milk, lactation.

ABBREVIATIONS. AAP, American Academy of Pediatrics; WIC, Supplemental Nutrition Program for Women, Infants, and Children; CMV, cytomegalovirus; G6PD, glucose-6-phosphate dehydrogenase.

INTRODUCTION

xtensive research using improved epidemiologic methods and modern laboratory tech- Iniques documents diverse and compelling advantages for infants, mothers, families, and society from breastfeeding and use of human milk for infant feeding.1 These advantages include health, nutritional, immunologic, developmental, psychologic, social, economic, and environmental benefits. In 1997, the American Academy of Pediatrics (AAP) published the policy statement Breastfeeding and the Use of Human Milk.2 Since then, significant advances in science and clinical medicine have occurred. This revision cites substantial new research on the importance of breastfeeding and sets forth principles to guide pediatricians and other health care professionals in assisting women and children in the initiation and maintenance of breastfeeding. The ways pediatricians can protect, promote, and support breastfeeding in their individual practices, hospitals, medical schools, and communities are delineated, and the central role of the pediatrician in coordinating breastfeeding management and providing a medical home for the child is emphasized.3 These recommenda-

doi:10.1542/peds.2004-2491 PEDIATRICS (ISSN 0031 4005). Copyright © 2005 by the American Academy of Pediatrics. tions are consistent with the goals and objectives of *Healthy People 2010,*⁴ the Department of Health and Human Services' *HHS Blueprint for Action on Breastfeeding,*⁵ and the United States Breastfeeding Committee's *Breastfeeding in the United States: A National Agenda.*⁶

This statement provides the foundation for issues related to breastfeeding and lactation management for other AAP publications including the *New Mother's Guide to Breastfeeding*⁷ and chapters dealing with breastfeeding in the AAP/American College of Obstetricians and Gynecologists *Guidelines for Perinatal Care*, the *Pediatric Nutrition Handbook*, the *Red Book*, and the *Handbook of Pediatric Environmental Health*. 11

THE NEED

Child Health Benefits

Human milk is species-specific, and all substitute feeding preparations differ markedly from it, making human milk uniquely superior for infant feeding. ¹² Exclusive breastfeeding is the reference or normative model against which all alternative feeding methods must be measured with regard to growth, health, development, and all other short- and long-term outcomes. In addition, human milk-fed premature infants receive significant benefits with respect to host protection and improved developmental outcomes compared with formula-fed premature infants. ^{13–22} From studies in preterm and term infants, the following outcomes have been documented.

Infectious Diseases

Research in developed and developing countries of the world, including middle-class populations in developed countries, provides strong evidence that human milk feeding decreases the incidence and/or severity of a wide range of infectious diseases²³ including bacterial meningitis,^{24,25} bacteremia,^{25,26} diarrhea,^{27–33} respiratory tract infection,^{22,33–40} necrotizing enterocolitis,^{20,21} otitis media,^{27,41–45} urinary tract infection,^{46,47} and late-onset sepsis in preterm infants.^{17,20} In addition, postneonatal infant mortality rates in the United States are reduced by 21% in breastfed infants.⁴⁸

Other Health Outcomes

Some studies suggest decreased rates of sudden infant death syndrome in the first year of life^{49–55} and reduction in incidence of insulin-dependent (type 1) and non–insulin-dependent (type 2) diabetes melli-

tus,^{56–59} lymphoma, leukemia, and Hodgkin disease,^{60–62} overweight and obesity,^{19,63–70} hypercholesterolemia,⁷¹ and asthma^{36–39} in older children and adults who were breastfed, compared with individuals who were not breastfed. Additional research in this area is warranted.

Neurodevelopment

Breastfeeding has been associated with slightly enhanced performance on tests of cognitive development. 14,15,72–80 Breastfeeding during a painful procedure such as a heel-stick for newborn screening provides analgesia to infants. 81,82

Maternal Health Benefits

Important health benefits of breastfeeding and lactation are also described for mothers.⁸³ The benefits include decreased postpartum bleeding and more rapid uterine involution attributable to increased concentrations of oxytocin,⁸⁴ decreased menstrual blood loss and increased child spacing attributable to lactational amenorrhea,⁸⁵ earlier return to prepregnancy weight,⁸⁶ decreased risk of breast cancer,^{87–92} decreased risk of ovarian cancer,⁹³ and possibly decreased risk of hip fractures and osteoporosis in the postmenopausal period.^{94–96}

Community Benefits

In addition to specific health advantages for infants and mothers, economic, family, and environmental benefits have been described. These benefits include the potential for decreased annual health care costs of \$3.6 billion in the United States 97,98; decreased costs for public health programs such as the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)99; decreased parental employee absenteeism and associated loss of family income; more time for attention to siblings and other family matters as a result of decreased infant illness; decreased environmental burden for disposal of formula cans and bottles; and decreased energy demands for production and transport of artificial feeding products.^{100–102} These savings for the country and for families would be offset to some unknown extent by increased costs for physician and lactation consultations, increased office-visit time, and cost of breast pumps and other equipment, all of which should be covered by insurance payments to providers and families.

CONTRAINDICATIONS TO BREASTFEEDING

Although breastfeeding is optimal for infants, there are a few conditions under which breastfeeding may not be in the best interest of the infant. Breastfeeding is contraindicated in infants with classic galactosemia (galactose 1-phosphate uridyltransferase deficiency)¹⁰³; mothers who have active untreated tuberculosis disease or are human T-cell lymphotropic virus type I– or II–positive^{104,105}; mothers who are receiving diagnostic or therapeutic radioactive isotopes or have had exposure to radioactive materials (for as long as there is radioactivity in the milk)^{106–108}; mothers who are receiving antimetabolites or chemotherapeutic agents or a small number of other medications until they clear the milk^{109,110};

mothers who are using drugs of abuse ("street drugs"); and mothers who have herpes simplex lesions on a breast (infant may feed from other breast if clear of lesions). Appropriate information about infection-control measures should be provided to mothers with infectious diseases.¹¹¹

In the United States, mothers who are infected with human immunodeficiency virus (HIV) have been advised not to breastfeed their infants. 112 In developing areas of the world with populations at increased risk of other infectious diseases and nutritional deficiencies resulting in increased infant death rates, the mortality risks associated with artificial feeding may outweigh the possible risks of acquiring HIV infection. 113,114 One study in Africa detailed in 2 reports115,116 found that exclusive breastfeeding for the first 3 to 6 months after birth by HIV-infected mothers did not increase the risk of HIV transmission to the infant, whereas infants who received mixed feedings (breastfeeding with other foods or milks) had a higher rate of HIV infection compared with infants who were exclusively formula-fed. Women in the United States who are HIV-positive should not breastfeed their offspring. Additional studies are needed before considering a change from current policy recommendations.

CONDITIONS THAT ARE NOT CONTRAINDICATIONS TO BREASTFEEDING

Certain conditions have been shown to be compatible with breastfeeding. Breastfeeding is not contraindicated for infants born to mothers who are hepatitis B surface antigen-positive,¹¹¹ mothers who are infected with hepatitis C virus (persons with hepatitis C virus antibody or hepatitis C virus-RNA-positive blood), 111 mothers who are febrile (unless cause is a contraindication outlined in the previous section),¹¹⁷ mothers who have been exposed to lowlevel environmental chemical agents,118,119 and mothers who are seropositive carriers of cytomegalovirus (CMV) (not recent converters if the infant is term).¹¹¹ Decisions about breastfeeding of very low birth weight infants (birth weight <1500 g) by mothers known to be CMV-seropositive should be made with consideration of the potential benefits of human milk versus the risk of CMV transmission. 120,121 Freezing and pasteurization can significantly decrease the CMV viral load in milk. 122

Tobacco smoking by mothers is not a contraindication to breastfeeding, but health care professionals should advise all tobacco-using mothers to avoid smoking within the home and to make every effort to wean themselves from tobacco as rapidly as possible.¹¹⁰

Breastfeeding mothers should avoid the use of alcoholic beverages, because alcohol is concentrated in breast milk and its use can inhibit milk production. An occasional celebratory single, small alcoholic drink is acceptable, but breastfeeding should be avoided for 2 hours after the drink.¹²³

For the great majority of newborns with jaundice and hyperbilirubinemia, breastfeeding can and should be continued without interruption. In rare instances of severe hyperbilirubinemia, breastfeed-

TABLE 1. Breastfeeding Rates for Infants in the United States: Any (Exclusive)

	Actual: 2001			Healthy F	Healthy People 2010 Goals ⁴		
	Initiation ¹²⁵	6 mo ¹²⁵	1 y ¹³²	Initiation	6 mo	1 y	
All women	70% (46%)	33% (17%)	18%	75%	50%	25%	
Black	53% (27%)	22% (11%)	12%				
Hispanic	73% (36%)	33% (16%)	18%				
Asian	NA	NA	NA				
White	72% (53%)	34% (19%)	18%				

NA indicates that the data are not available.

ing may need to be interrupted temporarily for a brief period. 124

THE CHALLENGE

Data indicate that the rate of initiation and duration of breastfeeding in the United States are well below the *Healthy People 2010* goals (see Table 1).^{4,125} Furthermore, many of the mothers counted as breastfeeding were supplementing their infants with formula during the first 6 months of the infant's life.^{5,126} Although breastfeeding initiation rates have increased steadily since 1990, exclusive breastfeeding initiation rates have shown little or no increase over that same period of time. Similarly, 6 months after birth, the proportion of infants who are exclusively breastfed has increased at a much slower rate than that of infants who receive mixed feedings. 125 The AAP Section on Breastfeeding, American College of Obstetricians and Gynecologists, American Academy of Family Physicians, Academy of Breastfeeding Medicine, World Health Organization, United Nations Children's Fund, and many other health organizations recommend exclusive breastfeeding for the first 6 months of life.‡^{2,127–130} Exclusive breastfeeding is defined as an infant's consumption of human milk with no supplementation of any type (no water, no juice, no nonhuman milk, and no foods) except for vitamins, minerals, and medications.¹³¹ Exclusive breastfeeding has been shown to provide improved protection against many diseases and to increase the likelihood of continued breastfeeding for at least the first year of life.

Obstacles to initiation and continuation of breast-feeding include insufficient prenatal education about breastfeeding^{132,133}; disruptive hospital policies and practices¹³⁴; inappropriate interruption of breast-feeding¹³⁵; early hospital discharge in some populations¹³⁶; lack of timely routine follow-up care and postpartum home health visits¹³⁷; maternal employment^{138,139} (especially in the absence of workplace facilities and support for breastfeeding)¹⁴⁰; lack of family and broad societal support¹⁴¹; media portrayal of bottle feeding as normative¹⁴²; commercial promotion of infant formula through distribution of hospital discharge packs, coupons for free or discounted formula, and some television and general magazine advertising^{143,144}; misinformation; and

lack of guidance and encouragement from health care professionals. 135,145,146

RECOMMENDATIONS ON BREASTFEEDING FOR HEALTHY TERM INFANTS

- 1. Pediatricians and other health care professionals should recommend human milk for all infants in whom breastfeeding is not specifically contraindicated and provide parents with complete, current information on the benefits and techniques of breastfeeding to ensure that their feeding decision is a fully informed one. 147-149
 - When direct breastfeeding is not possible, expressed human milk should be provided. 150,151 If a known contraindication to breastfeeding is identified, consider whether the contraindication may be temporary, and if so, advise pumping to maintain milk production. Before advising against breastfeeding or recommending premature weaning, weigh the benefits of breastfeeding against the risks of not receiving human milk.
- 2. Peripartum policies and practices that optimize breastfeeding initiation and maintenance should be encouraged.
 - Education of both parents before and after delivery of the infant is an essential component of successful breastfeeding. Support and encouragement by the father can greatly assist the mother during the initiation process and during subsequent periods when problems arise. Consistent with appropriate care for the mother, minimize or modify the course of maternal medications that have the potential for altering the infant's alertness and feeding behavior. 152,153 Avoid procedures that may interfere with breastfeeding or that may traumatize the infant, including unnecessary, excessive, and overvigorous suctioning of the oral cavity, esophagus, and airways to avoid oropharyngeal mucosal injury that may lead to aversive feeding behavior. 154,155
- 3. Healthy infants should be placed and remain in direct skin-to-skin contact with their mothers immediately after delivery until the first feeding is accomplished.^{156–158}
 - The alert, healthy newborn infant is capable of latching on to a breast without specific assistance within the first hour after birth. Dry the infant, assign Apgar scores, and perform the initial physical assessment while the infant

[‡] There is a difference of opinion among AAP experts on this matter. The Section on Breastfeeding acknowledges that the Committee on Nutrition supports introduction of complementary foods between 4 and 6 months of age when safe and nutritious complementary foods are available.

is with the mother. The mother is an optimal heat source for the infant. 159,160 Delay weighing, measuring, bathing, needle-sticks, and eye prophylaxis until after the first feeding is completed. Infants affected by maternal medications may require assistance for effective latch-on. 156 Except under unusual circumstances, the newborn infant should remain with the mother throughout the recovery period. 161

- 4. Supplements (water, glucose water, formula, and other fluids) should not be given to breastfeeding newborn infants unless ordered by a physician when a medical indication exists. 148,162–165
- 5. Pacifier use is best avoided during the initiation of breastfeeding and used only after breastfeeding is well established. 166–168
 - In some infants early pacifier use may interfere with establishment of good breastfeeding practices, whereas in others it may indicate the presence of a breastfeeding problem that requires intervention.¹⁶⁹
 - This recommendation does not contraindicate pacifier use for nonnutritive sucking and oral training of premature infants and other special care infants.
- 6. During the early weeks of breastfeeding, mothers should be encouraged to have 8 to 12 feedings at the breast every 24 hours, offering the breast whenever the infant shows early signs of hunger such as increased alertness, physical activity, mouthing, or rooting.¹⁷⁰
 - Crying is a late indicator of hunger.¹⁷¹ Appropriate initiation of breastfeeding is facilitated by continuous rooming-in throughout the day and night.¹⁷² The mother should offer both breasts at each feeding for as long a period as the infant remains at the breast.¹⁷³ At each feed the first breast offered should be alternated so that both breasts receive equal stimulation and draining. In the early weeks after birth, nondemanding infants should be aroused to feed if 4 hours have elapsed since the beginning of the last feeding.
 - After breastfeeding is well established, the frequency of feeding may decline to approximately 8 times per 24 hours, but the infant may increase the frequency again with growth spurts or when an increase in milk volume is desired.
- 7. Formal evaluation of breastfeeding, including observation of position, latch, and milk transfer, should be undertaken by trained caregivers at least twice daily and fully documented in the record during each day in the hospital after birth. 174,175
 - Encouraging the mother to record the time and duration of each breastfeeding, as well as urine and stool output during the early days of breastfeeding in the hospital and the first weeks at home, helps to facilitate the evaluation process. Problems identified in the hospital should be addressed at that time, and a documented plan for management should be

- clearly communicated to both parents and to the medical home.
- 8. All breastfeeding newborn infants should be seen by a pediatrician or other knowledgeable and experienced health care professional at 3 to 5 days of age as recommended by the AAP. 124,176,177
 - This visit should include infant weight; physical examination, especially for jaundice and hydration; maternal history of breast problems (painful feedings, engorgement); infant elimination patterns (expect 3–5 urines and 3–4 stools per day by 3–5 days of age; 4–6 urines and 3–6 stools per day by 5–7 days of age); and a formal, observed evaluation of breastfeeding, including position, latch, and milk transfer. Weight loss in the infant of greater than 7% from birth weight indicates possible breastfeeding problems and requires more intensive evaluation of breastfeeding and possible intervention to correct problems and improve milk production and transfer.
- 9. Breastfeeding infants should have a second ambulatory visit at 2 to 3 weeks of age so that the health care professional can monitor weight gain and provide additional support and encouragement to the mother during this critical period.
- 10. Pediatricians and parents should be aware that exclusive breastfeeding is sufficient to support optimal growth and development for approximately the first 6 months of life‡ and provides continuing protection against diarrhea and respiratory tract infection. 30,34,128,178–184 Breastfeeding should be continued for at least the first year of life and beyond for as long as mutually desired by mother and child. 185
 - Complementary foods rich in iron should be introduced gradually beginning around 6 months of age. 186–187 Preterm and low birth weight infants and infants with hematologic disorders or infants who had inadequate iron stores at birth generally require iron supplementation before 6 months of age. 148, 188–192 Iron may be administered while continuing exclusive breastfeeding.
 - Unique needs or feeding behaviors of individual infants may indicate a need for introduction of complementary foods as early as 4 months of age, whereas other infants may not be ready to accept other foods until approximately 8 months of age.¹⁹³
 - Introduction of complementary feedings before 6 months of age generally does not increase total caloric intake or rate of growth and only substitutes foods that lack the protective components of human milk.¹⁹⁴
 - During the first 6 months of age, even in hot climates, water and juice are unnecessary for breastfed infants and may introduce contaminants or allergens.¹⁹⁵
 - Increased duration of breastfeeding confers significant health and developmental benefits for the child and the mother, especially in delaying return of fertility (thereby promoting optimal intervals between births).¹⁹⁶

- There is no upper limit to the duration of breastfeeding and no evidence of psychologic or developmental harm from breastfeeding into the third year of life or longer.¹⁹⁷
- Infants weaned before 12 months of age should not receive cow's milk but should receive iron-fortified infant formula.¹⁹⁸
- 11. All breastfed infants should receive 1.0 mg of vitamin K₁ oxide intramuscularly after the first feeding is completed and within the first 6 hours of life.¹⁹⁹
 - Oral vitamin K is not recommended. It may not provide the adequate stores of vitamin K necessary to prevent hemorrhage later in infancy in breastfed infants unless repeated doses are administered during the first 4 months of life.²⁰⁰
- 12. All breastfed infants should receive 200 IU of oral vitamin D drops daily beginning during the first 2 months of life and continuing until the daily consumption of vitamin D-fortified formula or milk is 500 mL.²⁰¹
 - Although human milk contains small amounts of vitamin D, it is not enough to prevent rickets. Exposure of the skin to ultraviolet B wavelengths from sunlight is the usual mechanism for production of vitamin D. However, significant risk of sunburn (short-term) and skin cancer (long-term) attributable to sunlight exposure, especially in younger children, makes it prudent to counsel against exposure to sunlight. Furthermore, sunscreen decreases vitamin D production in skin.
- 13. Supplementary fluoride should not be provided during the first 6 months of life.²⁰²
 - From 6 months to 3 years of age, the decision whether to provide fluoride supplementation should be made on the basis of the fluoride concentration in the water supply (fluoride supplementation generally is not needed unless the concentration in the drinking water is <0.3 ppm) and in other food, fluid sources, and toothpaste.
- 14. Mother and infant should sleep in proximity to each other to facilitate breastfeeding.²⁰³
- 15. Should hospitalization of the breastfeeding mother or infant be necessary, every effort should be made to maintain breastfeeding, preferably directly, or pumping the breasts and feeding expressed milk if necessary.

ADDITIONAL RECOMMENDATIONS FOR HIGH-RISK INFANTS

• Hospitals and physicians should recommend human milk for premature and other high-risk infants either by direct breastfeeding and/or using the mother's own expressed milk.¹³ Maternal support and education on breastfeeding and milk expression should be provided from the earliest possible time. Mother-infant skin-to-skin contact and direct breastfeeding should be encouraged as early as feasible.^{204,205} Fortification of expressed human milk is indicated for many very low birth weight infants.¹³ Banked human milk may be a suitable

- feeding alternative for infants whose mothers are unable or unwilling to provide their own milk. Human milk banks in North America adhere to national guidelines for quality control of screening and testing of donors and pasteurize all milk before distribution.^{206–208} Fresh human milk from unscreened donors is not recommended because of the risk of transmission of infectious agents.
- Precautions should be followed for infants with glucose-6-phosphate dehydrogenase (G6PD) deficiency. G6PD deficiency has been associated with an increased risk of hemolysis, hyperbilirubinemia, and kernicterus.²⁰⁹ Mothers who breastfeed infants with known or suspected G6PD deficiency should not ingest fava beans or medications such as nitrofurantoin, primaquine phosphate, or phenazopyridine hydrochloride, which are known to induce hemolysis in deficient individuals.^{210,211}

ROLE OF PEDIATRICIANS AND OTHER HEALTH CARE PROFESSIONALS IN PROTECTING, PROMOTING, AND SUPPORTING BREASTFEEDING

Many pediatricians and other health care professionals have made great efforts in recent years to support and improve breastfeeding success by following the principles and guidance provided by the AAP,² the American College of Obstetricians and Gynecologists,¹²⁷ the American Academy of Family Physicians,¹²⁸ and many other organizations.^{5,6,8,130,133,142,162} The following guidelines summarize these concepts for providing an optimal breastfeeding environment.

General

- Promote, support, and protect breastfeeding enthusiastically. In consideration of the extensively published evidence for improved health and developmental outcomes in breastfed infants and their mothers, a strong position on behalf of breastfeeding is warranted.
- Promote breastfeeding as a cultural norm and encourage family and societal support for breastfeeding.
- Recognize the effect of cultural diversity on breastfeeding attitudes and practices and encourage variations, if appropriate, that effectively promote and support breastfeeding in different cultures.

Education

- Become knowledgeable and skilled in the physiology and the current clinical management of breast-feeding.
- Encourage development of formal training in breastfeeding and lactation in medical schools, in residency and fellowship training programs, and for practicing pediatricians.
- Use every opportunity to provide age-appropriate breastfeeding education to children and adults in the medical setting and in outreach programs for student and parent groups.

Clinical Practice

Work collaboratively with the obstetric community to ensure that women receive accurate and

- sufficient information throughout the perinatal period to make a fully informed decision about infant feeding.
- Work collaboratively with the dental community to ensure that women are encouraged to continue to breastfeed and use good oral health practices. Infants should receive an oral health-risk assessment by the pediatrician between 6 months and 1 year of age and/or referred to a dentist for evaluation and treatment if at risk of dental caries or other oral health problems.²¹²
- Promote hospital policies and procedures that facilitate breastfeeding. Work actively toward eliminating hospital policies and practices that discourage breastfeeding (eg, promotion of infant formula in hospitals including infant formula discharge packs and formula discount coupons, separation of mother and infant, inappropriate infant feeding images, and lack of adequate encouragement and support of breastfeeding by all health care staff). Encourage hospitals to provide in-depth training in breastfeeding for all health care staff (including physicians) and have lactation experts available at all times.
- Provide effective breast pumps and private lactation areas for all breastfeeding mothers (patients and staff) in ambulatory and inpatient areas of the hospital.²¹³
- Develop office practices that promote and support breastfeeding by using the guidelines and materials provided by the AAP Breastfeeding Promotion in Physicians' Office Practices program.²¹⁴
- Become familiar with local breastfeeding resources (eg, WIC clinics, breastfeeding medical and nursing specialists, lactation educators and consultants, lay support groups, and breast-pump rental stations) so that patients can be referred appropriately.²¹⁵ When specialized breastfeeding services are used, the essential role of the pediatrician as the infant's primary health care professional within the framework of the medical home needs to be clarified for parents.
- Encourage adequate, routine insurance coverage for necessary breastfeeding services and supplies, including the time required by pediatricians and other licensed health care professionals to assess and manage breastfeeding and the cost for the rental of breast pumps.
- Develop and maintain effective communication and coordination with other health care professionals to ensure optimal breastfeeding education, support, and counseling. AAP and WIC breastfeeding coordinators can facilitate collaborative relationships and develop programs in the community and in professional organizations for support of breastfeeding.
- Advise mothers to continue their breast self-examinations on a monthly basis throughout lactation and to continue to have annual clinical breast examinations by their physicians.

Society

 Encourage the media to portray breastfeeding as positive and normative.

- Encourage employers to provide appropriate facilities and adequate time in the workplace for breastfeeding and/or milk expression.
- Encourage child care providers to support breastfeeding and the use of expressed human milk provided by the parent.
- Support the efforts of parents and the courts to ensure continuation of breastfeeding in separation and custody proceedings.
- Provide counsel to adoptive mothers who decide to breastfeed through induced lactation, a process requiring professional support and encouragement.
- Encourage development and approval of governmental policies and legislation that are supportive
 of a mother's choice to breastfeed.

Research

 Promote continued basic and clinical research in the field of breastfeeding. Encourage investigators and funding agencies to pursue studies that further delineate the scientific understandings of lactation and breastfeeding that lead to improved clinical practice in this medical field.²¹⁶

CONCLUSIONS

Although economic, cultural, and political pressures often confound decisions about infant feeding, the AAP firmly adheres to the position that breast-feeding ensures the best possible health as well as the best developmental and psychosocial outcomes for the infant. Enthusiastic support and involvement of pediatricians in the promotion and practice of breast-feeding is essential to the achievement of optimal infant and child health, growth, and development.

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REFERENCES

- Kramer MS, Chalmers B, Hodnett ED, et al. Promotion of Breastfeeding Intervention Trial (PROBIT): a randomized trial in the Republic of Belarus. JAMA. 2001;285:413–420
- American Academy of Pediatrics, Work Group on Breastfeeding. Breastfeeding and the use of human milk. *Pediatrics*. 1997;100: 1035–1039

- American Academy of Pediatrics, Medical Home Initiatives for Children With Special Needs Project Advisory Committee. The medical home. Pediatrics. 2002;110:184–186
- US Department of Health and Human Services. Healthy People 2010: Conference Edition—Volumes I and II. Washington, DC: US Department of Health and Human Services, Public Health Service, Office of the Assistant Secretary for Health; 2000:47–48
- US Department of Health and Human Services. HHS Blueprint for Action on Breastfeeding. Washington, DC: US Department of Health and Human Services, Office on Women's Health; 2000
- United States Breastfeeding Committee. Breastfeeding in the United States: A National Agenda. Rockville, MD: US Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau; 2001
- American Academy of Pediatrics. New Mother's Guide to Breastfeeding. Meek JY, ed. New York, NY: Bantam Books; 2002
- American Academy of Pediatrics, American College of Obstetricians and Gynecologists. Guidelines for Perinatal Care. Gilstrap LC, Oh W, eds. 5th ed. Elk Grove Village, IL: American Academy of Pediatrics; 2002
- American Academy of Pediatrics, Committee on Nutrition. Pediatric Nutrition Handbook. Kleinman RE, ed. 5th ed. Elk Grove Village, IL: American Academy of Pediatrics; 2004
- American Academy of Pediatrics. Red Book: 2003 Report of the Committee on Infectious Diseases. Pickering LK, ed. 26th ed. Elk Grove Village, IL: American Academy of Pediatrics; 2003
- American Academy of Pediatrics, Committee on Environmental Health. Handbook of Pediatric Environmental Health. Etzel RA, Balk SJ, eds. 2nd ed. Elk Grove Village, IL: American Academy of Pediatrics; 2003
- Hambraeus L, Forsum E, Lönnerdal B. Nutritional aspects of breast milk and cow's milk formulas. In: Hambraeus L, Hanson L, MacFarlane H, eds. Symposium on Food and Immunology. Stockholm, Sweden: Almqvist and Wiksell; 1975
- Schanler RJ. The use of human milk for premature infants. Pediatr Clin North Am. 2001;48:207–219
- Lucas A, Morley R, Cole TJ. Randomised trial of early diet in preterm babies and later intelligence quotient. BMJ. 1998;317:1481–1487
- Horwood LJ, Darlow BA, Mogridge N. Breast milk feeding and cognitive ability at 7–8 years. Arch Dis Child Fetal Neonatal Ed. 2001;84: F23–F27
- Amin SB, Merle KS, Orlando MS, Dalzell LE, Guillet R. Brainstem maturation in premature infants as a function of enteral feeding type. *Pediatrics*. 2000:106:318–322
- Hylander MA, Strobino DM, Dhanireddy R. Human milk feedings and infection among very low birth weight infants. *Pediatrics*. 1998;102(3). Available at: www.pediatrics.org/cgi/content/full/102/3/e38
- Hylander MA, Strobino DM, Pezzullo JC, Dhanireddy R. Association of human milk feedings with a reduction in retinopathy of prematurity among very low birthweight infants. *J Perinatol*. 2001; 21:356–362
- Singhal A, Farooqi IS, O'Rahilly S, Cole TJ, Fewtrell M, Lucas A. Early nutrition and leptin concentrations in later life. Am J Clin Nutr. 2002; 75:993–999
- Schanler RJ, Shulman RJ, Lau C. Feeding strategies for premature infants: beneficial outcomes of feeding fortified human milk versus preterm formula. *Pediatrics*. 1999;103:1150–1157
- 21. Lucas A, Cole TJ. Breast milk and neonatal necrotising enterocolitis. *Lancet*. 1990;336:1519–1523
- Blaymore Bier J, Oliver T, Ferguson A, Vohr BR. Human milk reduces outpatient upper respiratory symptoms in premature infants during their first year of life. J Perinatol. 2002;22:354–359
- Heinig MJ. Host defense benefits of breastfeeding for the infant. Effect
 of breastfeeding duration and exclusivity. *Pediatr Clin North Am.* 2001;
 48:105–123, ix
- Cochi SL, Fleming DW, Hightower AW, et al. Primary invasive Haemophilus influenzae type b disease: a population-based assessment of risk factors. J Pediatr. 1986;108:887–896
- Istre GR, Conner JS, Broome CV, Hightower A, Hopkins RS. Risk factors for primary invasive *Haemophilus influenzae* disease: increased risk from day care attendance and school-aged household members. J Pediatr. 1985;106:190–195
- Takala AK, Eskola J, Palmgren J, et al. Risk factors of invasive Haemophilus influenzae type b disease among children in Finland. J Pediatr. 1989;115:694–701
- Dewey KG, Heinig MJ, Nommsen-Rivers LA. Differences in morbidity between breast-fed and formula-fed infants. J Pediatr. 1995;126:696–702

- Howie PW, Forsyth JS, Ogston SA, Clark A, Florey CD. Protective effect of breast feeding against infection. BMJ. 1990;300:11–16
- Kramer MS, Guo T, Platt RW, et al. Infant growth and health outcomes associated with 3 compared with 6 mo of exclusive breastfeeding. Am J Clin Nutr. 2003;78:291–295
- Popkin BM, Adair L, Akin JS, Black R, Briscoe J, Flieger W. Breast-feeding and diarrheal morbidity. *Pediatrics*. 1990;86:874–882
- Beaudry M, Dufour R, Marcoux S. Relation between infant feeding and infections during the first six months of life. *J Pediatr*. 1995;126: 191–197
- Bhandari N, Bahl R, Mazumdar S, Martines J, Black RE, Bhan MK. Effect of community-based promotion of exclusive breastfeeding on diarrhoeal illness and growth: a cluster randomized controlled trial. Infant Feeding Study Group. *Lancet*. 2003;361:1418–1423
- Lopez-Alarcon M, Villalpando S, Fajardo A. Breast-feeding lowers the frequency and duration of acute respiratory infection and diarrhea in infants under six months of age. J Nutr. 1997;127:436–443
- Bachrach VR, Schwarz E, Bachrach LR. Breastfeeding and the risk of hospitalization for respiratory disease in infancy: a meta-analysis. Arch Pediatr Adolesc Med. 2003;157:237–243
- Oddy WH, Sly PD, de Klerk NH, et al. Breast feeding and respiratory morbidity in infancy: a birth cohort study. Arch Dis Child. 2003;88: 224–228
- Chulada PC, Arbes SJ Jr, Dunson D, Zeldin DC. Breast-feeding and the prevalence of asthma and wheeze in children: analyses from the Third National Health and Nutrition Examination Survey, 1988–1994. J Allergy Clin Immunol. 2003;111:328–336
- Oddy WH, Peat JK, de Klerk NH. Maternal asthma, infant feeding, and the risk of asthma in childhood. J Allergy Clin Immunol. 2002;110:65–67
- 38. Gdalevich M, Mimouni D, Mimouni M. Breast-feeding and the risk of bronchial asthma in childhood: a systematic review with meta-analysis of prospective studies. *J Pediatr*. 2001;139:261–266
- Oddy WH, Holt PG, Sly PD, et al. Association between breast feeding and asthma in 6 year old children: findings of a prospective birth cohort study. BMJ. 1999;319:815–819
- Wright AL, Holberg CJ, Taussig LM, Martinez FD. Relationship of infant feeding to recurrent wheezing at age 6 years. Arch Pediatr Adolesc Med. 1995;149:758–763
- Saarinen UM. Prolonged breast feeding as prophylaxis for recurrent otitis media. Acta Paediatr Scand. 1982;71:567–571
- Duncan B, Ey J, Holberg CJ, Wright AL, Martinez FD, Taussig LM. Exclusive breast-feeding for at least 4 months protects against otitis media. *Pediatrics*. 1993;91:867–872
- 43. Owen MJ, Baldwin CD, Swank PR, Pannu AK, Johnson DL, Howie VM. Relation of infant feeding practices, cigarette smoke exposure, and group child care to the onset and duration of otitis media with effusion in the first two years of life. J Pediatr. 1993;123:702–711
- Paradise JL, Elster BA, Tan L. Evidence in infants with cleft palate that breast milk protects against otitis media. *Pediatrics*. 1994;94:853–860
- Aniansson G, Alm B, Andersson B, et al. A prospective cohort study on breast-feeding and otitis media in Swedish infants. *Pediatr Infect Dis J*. 1994;13:183–188
- Pisacane A, Graziano L, Mazzarella G, Scarpellino B, Zona G. Breastfeeding and urinary tract infection. J Pediatr. 1992;120:87–89
- Marild S, Hansson S, Jodal U, Oden A, Svedberg K. Protective effect of breastfeeding against urinary tract infection. *Acta Paediatr*. 2004;93: 164–168
- Chen A, Rogan WJ. Breastfeeding and the risk of postneonatal death in the United States. *Pediatrics*. 2004;113(5). Available at: www.pediatrics.org/cgi/content/full/113/5/e435
- Horne RS, Parslow PM, Ferens D, Watts AM, Adamson TM. Comparison of evoked arousability in breast and formula fed infants. *Arch Dis Child*. 2004;89(1):22–25
- Ford RPK, Taylor BJ, Mitchell EA, et al. Breastfeeding and the risk of sudden infant death syndrome. Int J Epidemiol. 1993;22:885–890
- Mitchell EA, Taylor BJ, Ford RPK, et al. Four modifiable and other major risk factors for cot death: the New Zealand study. J Paediatr Child Health. 1992;28(suppl 1):S3–S8
- Scragg LK, Mitchell EA, Tonkin SL, Hassall IB. Evaluation of the cot death prevention programme in South Auckland. N Z Med J. 1993;106: 8–10
- Alm B, Wennergren G, Norvenius SG, et al. Breast feeding and the sudden infant death syndrome in Scandinavia, 1992–95. Arch Dis Child. 2002;86:400–402
- McVea KL, Turner PD, Peppler DK. The role of breastfeeding in sudden infant death syndrome. J Hum Lact. 2000;16:13–20

- Mosko S, Richard C, McKenna J. Infant arousals during mother-infant bed sharing: implications for infant sleep and sudden infant death syndrome research. *Pediatrics*. 1997;100:841–849
- Gerstein HC. Cow's milk exposure and type 1 diabetes mellitus. A critical overview of the clinical literature. *Diabetes Care*. 1994;17:13–19
- Kostraba JN, Cruickshanks KJ, Lawler-Heavner J, et al. Early exposure to cow's milk and solid foods in infancy, genetic predisposition, and the risk of IDDM. *Diabetes*. 1993;42:288–295
- Pettit DJ, Forman MR, Hanson RL, Knowler WC, Bennett PH. Breastfeeding and the incidence of non-insulin-dependent diabetes mellitus in Pima Indians. *Lancet*. 1997;350:166–168
- Perez-Bravo E, Carrasco E, Guitierrez-Lopez MD, Martinez MT, Lopez G, de los Rios MG. Genetic predisposition and environmental factors leading to the development of insulin-dependent diabetes mellitus in Chilean children. J Mol Med. 1996;74:105–109
- Davis MK. Review of the evidence for an association between infant feeding and childhood cancer. Int J Cancer Suppl. 1998;11:29–33
- Smulevich VB, Solionova LG, Belyakova SV. Parental occupation and other factors and cancer risk in children: I. Study methodology and non-occupational factors. *Int J Cancer*. 1999;83:712–717
- Bener A, Denic S, Galadari S. Longer breast-feeding and protection against childhood leukaemia and lymphomas. Eur J Cancer. 2001;37: 234–238
- Armstrong J, Reilly JJ, Child Health Information Team. Breastfeeding and lowering the risk of childhood obesity. *Lancet*. 2002;359:2003–2004
- 64. Dewey KG, Heinig MJ, Nommsen LA, Peerson JM, Lonnerdal B. Breast-fed infants are leaner than formula-fed infants at 1 year of age: the DARLING study. Am J Clin Nutr. 1993;57:140–145
- Arenz S, Ruckerl R, Koletzko B, Von Kries R. Breast-feeding and childhood obesity—a systematic review. Int J Obes Relat Metab Disord. 2004;28:1247–1256
- Grummer-Strawn LM, Mei Z. Does breastfeeding protect against pediatric overweight? Analysis of longitudinal data from the Centers for Disease Control and Prevention Pediatric Nutrition Surveillance System. *Pediatrics*. 2004;113(2). Available at: www.pediatrics.org/cgi/content/full/113/2/e81
- Stettler N, Zemel BS, Kumanyika S, Stallings VA. Infant weight gain and childhood overweight status in a multicenter, cohort study. *Pediatrics*. 2002;109:194–199
- Gillman MW, Rifas-Shiman SL, Camargo CA, et al. Risk of overweight among adolescents who were breastfed as infants. *JAMA*. 2001;285: 2461–2467
- Toschke AM, Vignerova J, Lhotska L, Osancova K, Koletzko B, von Kries R. Overweight and obesity in 6- to 14-year old Czech children in 1991: protective effect of breast-feeding. *J Pediatr*. 2002;141: 764–769
- American Academy of Pediatrics, Committee on Nutrition. Prevention of pediatric overweight and obesity. *Pediatrics*. 2003;112:424–430
- Owen CG, Whincup PH, Odoki K, Gilg JA, Cook DG. Infant feeding and blood cholesterol: a study in adolescents and a systematic review. *Pediatrics*. 2002;110:597–608
- Horwood LJ, Fergusson DM. Breastfeeding and later cognitive and academic outcomes. *Pediatrics*. 1998;101(1). Available at: www.pediatrics.org/cgi/content/full/101/1/e9
- Anderson JW, Johnstone BM, Remley DT. Breast-feeding and cognitive development: a meta-analysis. Am J Clin Nutr. 1999;70:525–535
- Jacobson SW, Chiodo LM, Jacobson JL. Breastfeeding effects on intelligence quotient in 4- and 11-year-old children. *Pediatrics*. 1999;103(5).
 Available at: www.pediatrics.org/cgi/content/full/103/5/e71
- 75. Reynolds A. Breastfeeding and brain development. *Pediatr Clin North Am.* 2001;48:159–171
- Mortensen EL, Michaelsen KF, Sanders SA, Reinisch JM. The association between duration of breastfeeding and adult intelligence. *JAMA*. 2002;287:2365–2371
- Batstra L, Neeleman, Hadders-Algra M. Can breast feeding modify the adverse effects of smoking during pregnancy on the child's cognitive development? J Epidemiol Community Health. 2003;57:403–404
- Rao MR, Hediger ML, Levine RJ, Naficy AB, Vik T. Effect of breastfeeding on cognitive development of infants born small for gestational age. Acta Paediatr. 2002;91:267–274
- Bier JA, Oliver T, Ferguson AE, Vohr BR. Human milk improves cognitive and motor development of premature infants during infancy. J Hum Lact. 2002;18:361–367
- Feldman R, Eidelman AI. Direct and indirect effects of breast-milk on the neurobehavioral and cognitive development of premature infants. *Dev Psychobiol.* 2003;43:109–119
- Gray L, Miller LW, Phillip BL, Blass EM. Breastfeeding is analgesic in healthy newborns. *Pediatrics*. 2002;109:590–593

- Carbajal R, Veerapen S, Couderc S, Jugie M, Ville Y. Analgesic effect of breast feeding in term neonates: randomized controlled trial. BMJ. 2003;326:13
- Labbok MH. Effects of breastfeeding on the mother. Pediatr Clin North Am. 2001;48:143–158
- Chua S, Arulkumaran S, Lim I, Selamat N, Ratnam SS. Influence of breastfeeding and nipple stimulation on postpartum uterine activity. Br J Obstet Gynaecol. 1994;101:804–805
- Kennedy KI, Labbok MH, Van Look PF. Lactational amenorrhea method for family planning. Int J Gynaecol Obstet. 1996;54:55–57
- Dewey KG, Heinig MJ, Nommsen LA. Maternal weight-loss patterns during prolonged lactation. Am J Clin Nutr. 1993;58:162–166
- Newcomb PA, Storer BE, Longnecker MP, et al. Lactation and a reduced risk of premenopausal breast cancer. N Engl J Med. 1994;330: 81–87
- 88. Collaborative Group on Hormonal Factors in Breast Cancer. Breast cancer and breastfeeding: collaborative reanalysis of individual data from 47 epidemiological studies in 30 countries, including 50302 women with breast cancer and 96973 women without the disease. *Lancet*. 2002;360:187–195
- Lee SY, Kim MT, Kim SW, Song MS, Yoon SJ. Effect of lifetime lactation on breast cancer risk: a Korean women's cohort study. *Int J Cancer*. 2003;105:390–393
- Tryggvadottir L, Tulinius H, Eyfjord JE, Sigurvinsson T. Breastfeeding and reduced risk of breast cancer in an Icelandic cohort study. Am J Epidemiol. 2001;154:37–42
- Enger SM, Ross RK, Paganini-Hill A, Bernstein L. Breastfeeding experience and breast cancer risk among postmenopausal women. Cancer Epidemiol Biomarkers Prev. 1998;7:365–369
- Jernstrom H, Lubinski J, Lynch HT, et al. Breast-feeding and the risk of breast cancer in BRCA1 and BRCA2 mutation carriers. J Natl Cancer Inst. 2004;96:1094–1098
- Rosenblatt KA, Thomas DB. Lactation and the risk of epithelial ovarian cancer. WHO Collaborative Study of Neoplasia and Steroid contraceptives. Int J Epidemiol. 1993;22:192–197
- Cumming RG, Klineberg RJ. Breastfeeding and other reproductive factors and the risk of hip fractures in elderly women. *Int J Epidemiol*. 1993;22:684–691
- Lopez JM, Gonzalez G, Reyes V, Campino C, Diaz S. Bone turnover and density in healthy women during breastfeeding and after weaning. Osteoporos Int. 1996;6:153–159
- Paton LM, Alexander JL, Nowson CA, et al. Pregnancy and lactation have no long-term deleterious effect on measures of bone mineral in healthy women: a twin study. Am J Clin Nutr. 2003;77:707–714
- 97. Weimer J. The Economic Benefits of Breast Feeding: A Review and Analysis. Food Assistance and Nutrition Research Report No. 13. Washington, DC: Food and Rural Economics Division, Economic Research Service, US Department of Agriculture; 2001
- Ball TM, Wright AL. Health care cost of formula-feeding in the first year of life. *Pediatrics*. 1999;103:870–876
- Tuttle CR, Dewey KG. Potential cost savings for Medi-Cal, AFDC, food stamps, and WIC programs associated with increasing breast-feeding among low-income Hmong women in California. J Am Diet Assoc. 1996;96:885–890
- 100. Cohen R, Mrtek MB, Mrtek RG. Comparison of maternal absenteeism and infant illness rates among breast-feeding and formula-feeding women in two corporations. Am J Health Promot. 1995;10:148–153
- Jarosz LA. Breast-feeding versus formula: cost comparison. *Hawaii Med J.* 1993;52:14–18
- 102. Levine RE, Huffman SL, Center to Prevent Childhood Malnutrition. The Economic Value of Breastfeeding, the National, Public Sector, Hospital and Household Levels: A Review of the Literature. Washington, DC: Social Sector Analysis Project, Agency for International Development; 1990
- Chen Y-T. Defects in galactose metabolism. In: Behrman RE, Kliegman RM, Jenson HB, eds. Nelson Textbook of Pediatrics. 16th ed. Philadelphia, PA: W. B. Saunders; 2000:413–414
- Ando Y, Saito K, Nakano S, et al. Bottle-feeding can prevent transmission of HTLV-I from mothers to their babies. J Infect. 1989;19:25–29
- 105. Centers for Disease Control and Prevention and USPHS Working Group. Guidelines for counseling persons infected with human Tlymphotropic virus type I (HTLV-1) and type II (HTLV-II). Ann Intern Med. 1993;118:448–454
- Gori G, Cama G, Guerresi E, et al. Radioactivity in breastmilk and placenta after Chernobyl accident [letter]. Am J Obstet Gynecol. 1988; 158:1243–1244

- 107. Robinson PS, Barker P, Campbell A, Henson P, Surveyor I, Young PR. Iodine-131 in breast milk following therapy for thyroid carcinoma. J Nucl Med. 1994;35:1797–1801
- 108. Bakheet SM, Hammami MM. Patterns of radioiodine uptake by the lactating breast. *Eur J Nucl Med.* 1994;21:604–608
- Egan PC, Costanza ME, Dodion P, Egorin MJ, Bachur NR. Doxorubicin and cisplatin excretion into human milk. Cancer Treat Rep. 1985;69: 1387–1389
- American Academy of Pediatrics, Committee on Drugs. Transfer of drugs and other chemicals into human milk. *Pediatrics*. 2001;108: 776–789
- 111. American Academy of Pediatrics. Transmission of infectious agents via human milk. In: Pickering LK, ed. Red Book: 2003 Report of the Committee on Infectious Diseases. 26th ed. Elk Grove Village, IL: American Academy of Pediatrics; 2003:118–121
- 112. Read JS; American Academy of Pediatrics, Committee on Pediatric AIDS. Human milk, breastfeeding, and transmission of human immunodeficiency virus type 1 in the United States. *Pediatrics*. 2003;112: 1196–1205
- 113. World Health Organization. HIV and Infant Feeding: A Guide for Health Care Managers and Supervisors. Publication Nos. WHO/FRH/NUT/98.2, UNAIDS/98.4, UNICEF/PD/NUT/(J)98.2. Geneva, Switzerland: World Health Organization; 1998
- 114. Kourtis AP, Buteera S, Ibegbu C, Belec L, Duerr A. Breast milk and HIV-1: vector of transmission or vehicle of protection? *Lancet Infect Dis*. 2003;3:786–793
- 115. Coutsoudis A, Pillay K, Spooner E, Kuhn L, Coovadia HM. Influence of infant-feeding patterns on early mother-to-child transmission of HIV-I in Durban, South Africa: a prospective cohort study. South African Vitamin A Study Group. *Lancet*. 1999;354:471–476
- 116. Coutsoudis A, Rollins N. Breast-feeding and HIV transmission: the jury is still out. *J Pediatr Gastroenterol Nutr*. 2003;36:434–442
- 117. Lawrence RA, Lawrence RM. Appendix E. Precautions and breastfeeding recommendations for selected maternal infections. In: *Breastfeeding:* A Guide for the Medical Profession. 5th ed. St Louis, MO: Mosby Inc; 1999:868–885
- 118. Berlin CM Jr, LaKind JS, Sonawane BR, et al. Conclusions, research needs, and recommendations of the expert panel: Technical Workshop on Human Milk Surveillance and Research for Environmental Chemicals in the United States. J Toxicol Environ Health A. 2002;65: 1929–1935
- Ribas-Fito N, Cardo E, Sala M, et al. Breastfeeding, exposure to organochlorine compounds, and neurodevelopment in infants. *Pediatrics*.
 2003;111(5). Available at: www.pediatrics.org/cgi/content/full/111/5/psp0
- Hamprecht K, Maschmann J, Vochem M, Dietz K, Speer CP, Jahn G. Epidemiology of transmission of cytomegalovirus from mother to preterm infant by breastfeeding. *Lancet*. 2001;357:513–518
- 121. Yasuda A, Kimura H, Hayakawa M, et al. Evaluation of cytomegalovirus infections transmitted via breast milk in preterm infants with a real-time polymerase chain reaction assay. *Pediatrics*. 2003;111: 1333–1336
- 122. Friis H, Andersen HK. Rate of inactivation of cytomegalovirus in raw banked milk during storage at -20 degrees C and pasteurisation. *Br Med J (Clin Res Ed)*. 1982;285:1604-1605
- 123. Anderson PO. Alcohol and breastfeeding. J Hum Lact. 1995;11:321–323
- 124. American Academy of Pediatrics, Subcommittee on Hyperbilirubinemia. Management of hyperbilirubinemia in the newborn infant 35 or more weeks of gestation. *Pediatrics*. 2004;114:297–316
- Ryan AS, Wenjun Z, Acosta A. Breastfeeding continues to increase into the new millennium. *Pediatrics*. 2002;110:1103–1109
- Polhamus B, Dalenius K, Thompson D, et al. *Pediatric Nutrition Surveillance 2001 Report*. Atlanta, GA: US Department of Health and Human Services, Centers for Disease Control and Prevention; 2003
- 127. American College of Obstetricians and Gynecologists. Breastfeeding: maternal and infant aspects. ACOG Educational Bulletin Number 258. Washington, DC: American College of Obstetricians and Gynecologists; 2000
- American Academy of Family Physicians. AAFP Policy Statement on Breastfeeding. Leawood, KS: American Academy of Family Physicians; 2001
- 129. Fifty-Fourth World Health Assembly. Global Strategy for Infant and Young Child Feeding. The Optimal Duration of Exclusive Breastfeeding. Geneva, Switzerland: World Health Organization; 2001
- 130. United Nations Children's Fund. Breastfeeding: Foundation for a Healthy Future. New York, NY: United Nations Children's Fund; 1999

- Institute of Medicine, Committee on Nutritional Status During Pregnancy and Lactation. Nutrition During Lactation. Washington, DC: National Academy Press; 1991:24–25, 161–171, 197–200
- The Ross Mothers Survey. Breastfeeding Trends Through 2002. Abbott Park, IL: Ross Products Division, Abbot Laboratories; 2002
- World Health Organization and United Nations Children's Fund. Protecting, Promoting and Supporting Breast-Feeding: The Special Role of Maternity Services. Geneva, Switzerland: World Health Organization; 1989:13–18
- Powers NG, Naylor AJ, Wester RA. Hospital policies: crucial to breastfeeding success. Semin Perinatol. 1994;18:517–524
- Freed GL, Clark SJ, Sorenson J, Lohr JA, Cefalo R, Curtis P. National assessment of physicians' breast-feeding knowledge, attitudes, training, and experience. *JAMA*. 1995;273:472–476
- Braveman P, Egerter S, Pearl M, Marchi K, Miller C. Problems associated with early discharge of newborn infants. *Pediatrics*. 1995;96: 716–726
- Williams LR, Cooper MK. Nurse-managed postpartum home care. J Obstet Gynecol Neonatal Nurs. 1993;22:25–31
- Gielen AC, Faden RR, O'Campo P, Brown CH, Paige DM. Maternal employment during the early postpartum period: effects on initiation and continuation of breast-feeding. *Pediatrics*. 1991;87:298–305
- Ryan AS, Martinez GA. Breast-feeding and the working mother: a profile. *Pediatrics*. 1989;83:524–531
- Frederick IB, Auerback KG. Maternal-infant separation and breastfeeding. The return to work or school. J Reprod Med. 1985;30:523–526
- 141. Spisak S, Gross SS. Second Followup Report: The Surgeon General's Workshop on Breastfeeding and Human Lactation. Washington, DC: National Center for Education in Maternal and Child Health; 1991
- 142. World Health Assembly. International Code of Marketing of Breast-Milk Substitutes. Resolution of the 34th World Health Assembly. No. 34.22, Geneva, Switzerland: World Health Organization; 1981
- Howard CR, Howard FM, Weitzman ML. Infant formula distribution and advertising in pregnancy: a hospital survey. Birth. 1994;21:14–19
- 144. Howard FM, Howard CR, Weitzman M. The physician as advertiser: the unintentional discouragement of breast-feeding. Obstet Gynecol. 1993;81:1048–1051
- Freed GL, Jones TM, Fraley JK. Attitudes and education of pediatric house staff concerning breast-feeding. South Med J. 1992;85:483–485
- Williams EL, Hammer LD. Breastfeeding attitudes and knowledge of pediatricians-in-training. Am J Prev Med. 1995;11:26–33
- Gartner LM. Introduction. Breastfeeding in the hospital. Semin Perinatol. 1994;18:475
- American Academy of Pediatrics, Committee on Nutrition. Breastfeeding. In: Kleinman RE, ed. *Pediatric Nutrition Handbook*.
 Elk Grove Village, IL: American Academy of Pediatrics; 2004:55–85
- 149. American Dietetic Association. Position of the American Dietetic Association: breaking the barriers to breastfeeding. J Am Diet Assoc. 2001;101:1213–1220
- Schanler RJ, Hurst NM. Human milk for the hospitalized preterm infant. Semin Perinatol. 1994;18:476–484
- Lemons P, Stuart M, Lemons JA. Breast-feeding the premature infant. Clin Perinatol. 1986:13:111–122
- Kron RE, Stein M, Goddard KE. Newborn sucking behavior affected by obstetric sedation. *Pediatrics*. 1966;37:1012–1016
- 153. Ransjo-Arvidson AB, Matthiesen AS, Lilja G, Nissen E, Widstrom AM, Uvnas-Moberg K. Maternal analgesia during labor disturbs newborn behavior: effects on breastfeeding, temperature, and crying. *Birth*. 2001;28:5–12
- Widstrom A-M, Thingstrom-Paulsson J. The position of the tongue during rooting reflexes elicited in newborn infants before the first suckle. Acta Paediatr. 1993;82:281–283
- Wolf L, Glass RP. Feeding and Swallowing Disorders in Infancy: Assessment and Management. San Antonio, TX: Harcourt Assessment, Inc; 1992
- Righard L, Alade MO. Effect of delivery room routine on success of first breast-feed. *Lancet*. 1990;336:1105–1107
- 157. Wiberg B, Humble K, de Chateau P. Long-term effect on mother-infant behavior of extra contact during the first hour post partum. V. Follow-up at three years. Scand J Soc Med. 1989;17:181–191
- Mikiel-Kostyra K, Mazur J, Boltruszko I. Effect of early skin-to-skin contact after delivery on duration of breastfeeding: a prospective cohort study. Acta Paediatr. 2002;91:1301–1306
- 159. Christensson K, Siles C, Moreno L, et al. Temperature, metabolic adaptation and crying in healthy, full-term newborns cared for skinto-skin or in a cot. Acta Paediatr. 1992;81:488–493

- 160. Van Den Bosch CA, Bullough CH. Effect of early suckling on term neonates' core body temperature. Ann Trop Paediatr. 1990;10: 347–353
- 161. Sosa R, Kennell JH, Klaus M, Urrutia JJ. The effect of early mother-infant contact on breast feeding, infection and growth. In: Lloyd JL, ed. Breast-feeding and the Mother. Amsterdam, Netherlands: Elsevier; 1976: 179–193
- 162. American Academy of Pediatrics, American College of Obstetricians and Gynecologists. Care of the neonate. In: Gilstrap LC, Oh W, eds. *Guidelines for Perinatal Care*. 5th ed. Elk Grove Village, IL: American Academy of Pediatrics; 2002:222
- Shrago L. Glucose water supplementation of the breastfed infant during the first three days of life. J Hum Lact. 1987;3:82–86
- 164. Goldberg NM, Adams E. Supplementary water for breast-fed babies in a hot and dry climate—not really a necessity. Arch Dis Child. 1983;58: 73–74
- Eidelman AI. Hypoglycemia in the breastfed neonate. Pediatr Clin North Am. 2001;48:377–387
- 166. Howard CR, Howard FM, Lamphear B, de Blieck EA, Eberly S, Lawrence RA. The effects of early pacifier use on breastfeeding duration. Pediatrics. 1999;103(3). Available at: www.pediatrics.org/cgi/content/full/103/3/e33
- 167. Howard CR, Howard FM, Lanphear B, et al. Randomized clinical trial of pacifier use and bottle-feeding or cupfeeding and their effect on breastfeeding. *Pediatrics*. 2003;111:511–518
- 168. Schubiger G, Schwarz U, Tonz O. UNICEF/WHO Baby-Friendly Hospital Initiative: does the use of bottles and pacifiers in the neonatal nursery prevent successful breastfeeding? Neonatal Study Group. Eur J Pediatr. 1997;156:874–877
- Kramer MS, Barr RG, Dagenais S, et al. Pacifier use, early weaning, and cry/fuss behavior: a randomized controlled trial. *JAMA*. 2001;286: 322–326
- 170. Gunther M. Instinct and the nursing couple. Lancet. 1955;1:575-578
- 171. Klaus MH. The frequency of suckling. A neglected but essential ingredient of breast-feeding. Obstet Gynecol Clin North Am. 1987;14: 623-633
- 172. Procianoy RS, Fernandes-Filho PH, Lazaro L, Sartori NC, Drebes S. The influence of rooming-in on breastfeeding. J Trop Pediatr. 1983;29: 112–114
- 173. Anderson GC. Risk in mother-infant separation postbirth. *Image J Nurs Sch.* 1989;21:196–199
- Riordan J, Bibb D, Miller M, Rawlins T. Predicting breastfeeding duration using the LATCH breastfeeding assessment tool. J Hum Lact. 2001;17:20–23
- 175. Hall RT, Mercer AM, Teasley SL, et al. A breast-feeding assessment score to evaluate the risk for cessation of breast-feeding by 7 to 10 days of age. *J Pediatr*. 2002;141:659–664
- American Academy of Pediatrics, Committee on Practice and Ambulatory Medicine. Recommendations for preventive pediatric health care. *Pediatrics*. 2000;105:645–646
- 177. American Academy of Pediatrics, Committee on Fetus and Newborn. Hospital stay for healthy term newborns. *Pediatrics*. 1995;96:788–790
- 178. Ahn CH, MacLean WC Jr. Growth of the exclusively breast-fed infant. Am J Clin Nutr. 1980;33:183–192
- 179. Brown KH, Dewey KG, Allen LH. Complementary Feeding of Young Children in Developing Countries: A Review of Current Scientific Knowledge. Publication No. WHO/NUT/98.1. Geneva, Switzerland: World Health Organization; 1998
- 180. Heinig MJ, Nommsen LA, Peerson JM, Lonnerdal B, Dewey KG. Intake and growth of breast-fed and formula-fed infants in relation to the timing of introduction of complementary foods: the DARLING study. Davis Area Research on Lactation, Infant Nutrition, and Growth. Acta Paediatr. 1993;82:999–1006
- Kramer MS, Kakuma R. The Optimal Duration of Exclusive Breastfeeding. A Systematic Review. Geneva, Switzerland: World Health Organization; 2002
- Chantry CJ, Howard CR, Auinger P. Breastfeeding fully for 6 months vs. 4 months decreases risk of respiratory tract infection [abstract 1114]. Pediatr Res. 2002;51:191A
- 183. Dewey KG, Cohen RJ, Brown KH, Rivera LL. Effects of exclusive breastfeeding for four versus six months on maternal nutritional status and infant motor development: results of two randomized trials in Honduras. J Nutr. 2001;131:262–267
- 184. Butte NF, Lopez-Alarcon MG, Garza C. Nutrient Adequacy of Exclusive Breastfeeding for the Term Infant During the First Six Months of Life. Geneva, Switzerland: World Health Organization; 2002

- Sugarman M, Kendall-Tackett KA. Weaning ages in a sample of American women who practice extended breastfeeding. Clin Pediatr (Phila). 1995;34:642–647
- Dallman PR. Progress in the prevention of iron deficiency in infants. Acta Paediatr Scand Suppl. 1990;365:28–37
- Domellof M, Lonnerdal B, Abrams SA, Hernell O. Iron absorption in breast-fed infants: effects of age, iron status, iron supplements, and complementary foods. Am J Clin Nutr. 2002;76:198–204
- 188. American Academy of Pediatrics, Committee on Fetus and Newborn, and American College of Obstetricians and Gynecologists. Nutritional needs of preterm neonates. In: *Guidelines for Perinatal Care*. 5th ed. Washington, DC: American Academy of Pediatrics, American College of Obstetricians and Gynecologists; 2002:259–263
- 189. American Academy of Pediatrics, Committee on Nutrition. Nutritional needs of the preterm infant. In: Kleinman RE, ed. *Pediatric Nutrition Handbook*. 5th ed. Elk Grove Village, IL: American Academy of Pediatrics; 2004:23–54
- 190. Pisacane A, De Vizia B, Valiante A, et al. Iron status in breast-fed infants. *J Pediatr*. 1995;127:429–431
- Griffin IJ, Abrams SA. Iron and breastfeeding. Pediatr Clin North Am. 2001;48:401–413
- Dewey KG, Cohen RJ, Rivera LL, Brown KH. Effects of age of introduction of complementary foods on iron status of breastfed infants in Honduras. Am J Clin Nutr. 1998;67:878–884
- 193. Naylor AJ, Morrow AL. Developmental Readiness of Normal Full Term Infants to Progress From Exclusive Breastfeeding to the Introduction of Complementary Foods: Reviews of the Relevant Literature Concerning Infant Immunologic, Gastrointestinal, Oral Motor and Maternal Reproductive and Lactational Development. Washington, DC: Wellstart International and the LINKAGES Project/Academy of Educational Development; 2001
- 194. Cohen RJ, Brown KH, Canahuati J, Rivera LL, Dewey KG. Determinants of growth from birth to 12 months among breast-fed Honduran infants in relation to age of introduction of complementary foods. Pediatrics. 1995;96:504–510
- Ashraf RN, Jalil F, Aperia A, Lindblad BS. Additional water is not needed for healthy breast-fed babies in a hot climate. *Acta Paediatr*. 1993:82:1007–1011
- Huffman SL, Ford K, Allen H, Streble P. Nutrition and fertility in Bangladesh: breastfeeding and post partum amenorrhoea. *Popul Stud* (Camb). 1987;41:447–462
- 197. Dettwyler KA. A time to wean: the hominid blueprint for the natural age of weaning in modern human populations. In: Stuart-Macadam P, Dettwyler KA, eds. Breastfeeding: Biocultural Perspectives. Hawthorne, NY: Aldine de Gruyter; 1995:39–73
- American Academy of Pediatrics, Committee on Nutrition. Iron fortification of infant formulas. *Pediatrics*. 1999;104:119–123
- American Academy of Pediatrics, Committee on Fetus and Newborn. Controversies concerning vitamin K and the newborn. *Pediatrics*. 2003; 112:191–192
- 200. Hansen KN, Ebbesen F. Neonatal vitamin K prophylaxis in Denmark: three years' experience with oral administration during the first three months of life compared with one oral administration at birth. *Acta Paediatr*. 1996;85:1137–1139
- 201. Gartner LM, Greer FR; American Academy of Pediatrics, Section on Breastfeeding and Committee on Nutrition. Prevention of rickets and vitamin D deficiency: new guidelines for vitamin D intake. *Pediatrics*. 2003;111:908–910
- 202. Centers for Disease Control and Prevention. Recommendations for using fluoride to prevent and control dental caries in the United States. MMWR Recomm Rep. 2001;50(RR-14):1–42
- Blair PS, Fleming PJ, Smith IJ, et al. Babies sleeping with parents: case-control study of factors influencing the risk of the sudden infant death syndrome. BMJ. 1999;319:1457–1462
- 204. Charpak N, Ruiz-Pelaez JG, Figueroa de C Z, Charpak Y. Kangaroo mother versus traditional care for newborn infants ≤2000 grams: a randomized, controlled trial. *Pediatrics*. 1997;100:682–688
- Hurst N, Valentine CJ, Renfro L, Burns P, Ferlic L. Skin-to-skin holding in the neonatal intensive care influences maternal milk volume. J Perinatol. 1997;17:213–217
- 206. Hughes V. Guidelines for the establishment and operation of a human milk bank. *J Hum Lact*. 1990;6:185–186
- 207. Human Milk Banking Association of North America. Guidelines for Establishment and Operation of a Donor Human Milk Bank. Raleigh, NC: Human Milk Banking Association of North America Inc; 2003
- 208. Arnold LD. Clinical uses of donor milk. J Hum Lact. 1990;6:132-133

- Kaplan M, Hammerman C. Severe neonatal hyperbilirubinemia: a potential complication of glucose-6-phosphate dehydrogenase deficiency. Clin Perinatol. 1998;25:575–590, viii
- Kaplan M, Vreman HJ, Hammerman C, Schimmel MS, Abrahamov A, Stevenson DK. Favism by proxy in nursing glucose-6-dehydrogenasedeficient neonates. J Perinatol. 1998;18:477–479
- Gerk PM, Kuhn RJ, Desai NS, McNamara PJ. Active transport of nitrofurantoin into human milk. *Pharmacotherapy*. 2001;21:669–675
- American Academy of Pediatrics, Section on Pediatric Dentistry. Oral health risk assessment timing and establishment of the dental home. Pediatrics. 2003;111:1113–1116
- 213. Fewtrell MS, Lucas P, Collier S, Singhal A, Ahluwalia JS, Lucas A. Randomized trial comparing the efficacy of a novel manual breast pump with a standard electric breast pump in mothers who delivered preterm infants. *Pediatrics*. 2001;107:1291–1297
- American Academy of Pediatrics, Breastfeeding Promotion in Physicians' Office Practices Program. Elk Grove Village, IL: American Academy of Pediatrics; 2001, 2004
- Freed GL, Clark SJ, Lohr JA, Sorenson JR. Pediatrician involvement in breast-feeding promotion: a national study of residents and practitioners. *Pediatrics*. 1995;96:490–494
- Brown LP, Bair AH, Meier PP. Does federal funding for breastfeeding research target our national health objectives? *Pediatrics*. 2003;111(4). Available at: www.pediatrics.org/cgi/content/full/111/4/e360

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Breastfeeding

AWHONN supports breastfeeding as the optimal method of infant nutrition. AWHONN believes that women should be encouraged to breastfeed and receive instruction and support from the entire health care team to successfully initiate and sustain breastfeeding. Discussions with the woman and her significant others concerning breastfeeding should begin during the preconception period and continue through the first year of life or longer.

National Goals

AWHONN supports the promotion of breastfeeding and recognizes the importance of working in concert with national and international maternal child health and breastfeeding promotion organizations. Specifically, AWHONN supports the Healthy People 2010 initiative goal to increase the proportion of mothers who breastfeed their babies. This goal includes efforts to raise the rate of breastfeeding initiation in the early postpartum period to 75%, to increase to 50% the proportion of women who continue breastfeeding until their infants are six months of age, and to 25% the proportion of infants who are breastfed until one year of age. ⁱ

Recognizing that not all women can or will make a choice to breastfeed, AWHONN advocates for expanding federal goals related to national breastfeeding rates. AWHONN supports an exclusive breastfeeding initiation rate of 90%, a 75% six month breastfeeding rate and a 50% one year breastfeeding goal by 2025. We do so because of the research supporting substantial benefits to both infant and mother, which are summarized below.

Research

AWHONN endorses increased breastfeeding-related research in order to further document the importance of breastfeeding and breast milk to infant and maternal health. AWHONN calls for federal support for research that further elucidates:

- physiologic and health benefits of breast milk compared with infant formula;
- physiologic and health benefits of breastfeeding for mothers and infants;
- facilitators and barriers to successful breastfeeding, including consideration of cultural issues that influence breastfeeding initiation and duration;
- unique health considerations and outcomes for vulnerable and preterm infants;
- social and financial impact of breastfeeding; and
- safety and efficacy of banked breast milk.

Nursing Education

AWHONN supports the incorporation of breastfeeding education into the basic educational preparation of all providers of women and infants' health care. Nursing curriculum should include content related to:

- breast anatomy and the physiology of lactation;
- techniques and methods of breastfeeding;
- infant, maternal, and economic benefits of breastfeeding;
- importance of educating women, families and their support systems about the benefits of breastfeeding; and
- culture as an influence on breastfeeding decision-making and support.

Information on other infant feeding techniques should be presented, including alternatives to breastfeeding such as cup, spoon, syringe and bottle feeding. Specifically, this information should include the indications, special considerations, and potential complications associated with each of these methods, as well as patient teaching and support strategies.

Nurses Role

Nurses and other health care providers who care for mother-infant dyads of all ages should demonstrate minimal competencies for providing accurate information and support. This includes the preconception, prenatal and postpartum periods. Consultation and/or referral to a lactation consultant or other clinical expert should be considered for all mother-infant dyads. Research indicates that the attitudes and level of knowledge of health care providers who support women learning to breastfeed can directly impact the ability of a mother to successfully breastfeed.

Nurses and other health care professionals should relay consistent, supportive messages about breastfeeding. Nurses may often be the sole health care provider available to assist and support the initiation and maintenance of breastfeeding. It is critical that nurses caring for the mother-infant dyad provide an environment that supports non-separation of the mother and baby whenever possible. The implementation of practices developed by the Baby Friendly Hospital Initiative (BFHI) can increase initiation and duration of breastfeeding.

While breastfeeding is the optimal form of infant nutrition, it is important that health care providers recognize that not all women can or will choose to breastfeed. Some women may have clinical circumstances that preclude them from breastfeeding their infant. Other women may have had past experience or social concerns that cause them not to breastfeed. Nurses should offer referral to a lactation consultant or other breastfeeding specialist for women who have difficulty or concerns about their ability to breastfeed.

Nurses and other health care providers should support each woman's choice of infant nutrition and assist her to select and utilize the best infant nutrition available. There may be certain instances, while not routine, that a woman wants to breastfeed, but should avoid breastfeeding. A woman is encouraged to make this decision in consultation with her health care provider. Such situations include, but are not limited to: HIV infection; substance abuse; active

tuberculosis until treatment is established; and the need for medications contraindicated in breastfeeding – where the risk of morbidity outweighs the benefits of breastfeeding.

If a woman chooses to or must use formula feeding instead of breastfeeding, it is important the woman, family and support system understand the proper use of formula. Education should include information about formula preparation and storage as well as risks of contamination of the formula, feeding systems, and/or water supply. These women should be informed about how to determine if a particular feeding system and/or formula is recalled.

Due to lack of clinical research, medications, herbal and other nutritional supplements should be used with discretion by breastfeeding women. It is important to encourage women to discuss their medications, herbal and other nutritional supplements with a health care provider who has expertise in breastfeeding and is knowledgeable about prescription and over-the-counter medications' and supplements' interactions with breastfeeding.

Culture

AWHONN recognizes that cultural beliefs and values may influence the choice to breastfeed; therefore, health care providers should understand and be prepared to address cultural issues in all aspects of breastfeeding promotion. All women have the right to expect culturally-sensitive breastfeeding support. Breastfeeding has different meanings and levels of acceptance in different cultures; therefore, it is critical that providers explore the specific breastfeeding concerns of the individuals with whom they are working.

Breastfeeding Support for Vulnerable and Premature Newborns

Nurses, other health care providers and facilities should implement strategies to assist the mothers of vulnerable and preterm babies to receive breast milk whenever possible. Premature infants have additional stresses in their environment, and breast milk has been shown to decrease some of the complications associated with prematurity. There is evidence that breast milk can decrease the rate of necrotizing enterocolitis and sepsis in this population of newborns. Research has shown that these vulnerable newborns are usually physiologically more stable during the act of breastfeeding compared to infant feeding from a bottle or other source. Because the evidence points to the benefits of breast milk to decrease infant morbidity and mortality, mothers should be encouraged and supported during this vulnerable preterm period to provide breast milk for their infant if possible.

Premature infants are subdivided by gestational age into a category known as late preterm infants, those born between 34 and 36 completed weeks of gestation. These preterm infants often look and act like full-term infants; however, they have many of the same physiologic vulnerabilities as smaller preterm babies. They have immature suck and swallow reflexes and may have altered sleep-wake states, therefore they may have significant challenges to successful initiation and maintenance of breastfeeding. These mother-infant dyads may require additional support, and it is important to refer them to a lactation consultant or other breastfeeding specialist.

Public Policy

AWHONN supports the implementation of legislation and public health initiatives that would ensure the right to breastfeed; would increase the rate of breastfeeding in the U.S. population; and raise awareness of the benefits of breastfeeding. Such initiatives should include:

- Legislation that appropriately supports breastfeeding in public and/or private locations;
- Exclusion of breastfeeding from state and federal indecency legislation;
- Culturally specific public health campaigns that encourage women to breastfeed, particularly within populations at-risk for not breastfeeding such as African-American, Native American and Asian-Pacific Islander;
- Increased funding for the Women, Infants and Children (WIC) Nutrition breastfeeding program;
- Increased funding for the Title V Block Grant Program and the Healthy Start Initiative to ensure continued federal emphasis on breastfeeding;
- Reimbursement by health plans for lactation specialists and breastfeeding supplies;
- Efforts that encourage federal and private health plans to provide "hospital grade" breast pumps to women who need to express milk to support breastfeeding for their infant, whether hospitalized or in the home; and
- <u>Legislation and policies</u> that encourage employers to facilitate lactation in the workplace, including breaks for breastfeeding women and access to a private area for breastfeeding or milk expression.

Background

AWHONN supports evidence-based breastfeeding practice. AWHONN has published guidelines for evidence-based nursing practice titled, *Breastfeeding Support: Prenatal Care Through the First Year, Second Edition*. This document is a primary source for the recommendations in this position statement.

The promotion of breastfeeding is an important public health intervention with many benefits for the mother and baby. Breastfeeding is less expensive than formula feeding and can contribute to significant health care cost savings. Some of the main health benefits are:

For infants:

- Decreased incidence or severity of infections such as GI and respiratory infections, otitis media, necrotizing enterocolitis, gastroenteritis, meningitis, and urinary tract infections;
- Potential protective effect against sudden infant death syndrome (SIDS);
- Potential protective effect against childhood and adult-onset diseases such as insulindependent diabetes, allergies, asthma, lymphoma, ulcerative colitis, and adult-onset hypertension.

For women:

- Enhanced mother-infant attachment, maternal role attainment and self-esteem;
- Enhanced uterine involution resulting in less postpartum blood loss and reduced risk of infection:

 Reduced risk of osteoporosis, ovarian cancer, and premenopausal breast cancer and rheumatoid arthritis.

AWHONN is a member of the U.S. Breastfeeding Committee. This coalition of breastfeeding and health professional organizations works to increase the rate of breastfeeding across the nation. http://usbreastfeeding.org/

One initiative that has shown success in the promotion of the initiation of breastfeeding is the Baby Friendly Hospital Initiative (BFHI) in the USA. The principles of the BFHI have been shown to increase breastfeeding initiation rates among participating hospitals when compared with national averages. http://www.babyfriendlyusa.org/eng/01.html

The Healthy People 2010 mid-term review indicates that for breastfeeding in the early postpartum period, the U.S. has moved 55% toward the target goal of 75% of mothers who breastfeed their infants. For breastfeeding at 6 months, the statistics reveal the U.S. has moved 19% closer to the goal of 50% of women who continue breastfeeding until their infants are six months of age. And finally, for breastfeeding at 1 year, the data show the U.S. has moved 44% closer to the goal of 25% of infants who are breastfeed until one year of age. This indicates that breastfeeding rates for the immediate and 6-12 months postpartum are slightly increased. ii

By 2007, 32 states have passed laws that allow women to breastfeed in any public or private locations. Another 20 states have exempted breastfeeding from the states public indecency laws. A few states have implemented state breastfeeding awareness campaigns.

Breastfeeding position statement approved by the Executive Board, November 1991, 1993, 1995; withdrawn for revision 1997; approved by the AWHONN Board of Directors, June 1999.

Role of the Nurse in the Promotion of Breastfeeding position statement approved by the AWHONN Board of Directors, June 1999.

Breastfeeding and the Role of the Nurse in the Promotion of Breastfeeding position statements combined and reaffirmed by the AWHONN Board of Directors, December 1, 2007.

ⁱ Department of Health and Human Services. *Healthy People 2010*. Obtained on 9/10/2007 at: http://www.healthypeople.gov/document/html/objectives/16-19.htm

ⁱⁱ Department of Health and Human Service. *Healthy People 2010 Midcourse Review*. Obtained on 11/7/2007 at: http://www.healthypeople.gov/Data/midcourse/html/focusareas/FA16ProgressHP.htm











ONLINE RESOURCES









Online Resources

Academy of Breastfeeding Medicine www.bfmed.org
American Academy of Pediatrics www.aap.org
Arizona Breastfeeding Coalition www.azbreastfeeding.org
Baby Friendly USA www.babyfriendlyusa.org
International Baby Food Action Network www.ibfan.org
International Lactation Consultant Association www.ilca.org
La Leche League International www.llll.org
Lamaze www.lamaze.org
Los Angeles Breastfeeding Task Force http://www.breastfeedingtaskforla.org/resources/forprofessionals/phbpi.htm
National Library of Medicine on-line service regarding drugs during lactation (Lact/Med) http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?LACT
UNICEF- Baby-friendly Hospital Initiative www.unicef.org
US Breastfeeding Committee www.usbreastfeeding.org
US Center for Disease Control www.cdc.gov
US Office of Women's Health www.womenshealth.gov

World Health Organization www.who.int











ACKNOWLEDGEMENTS









Acknowledgements

Academy of Breastfeeding Medicine

http://bfmed.org/protocol/mhpolicy ABM.pdf

American Academy of Family Physicians

www.aafp.org

American Academy of Pediatrics

http://aappolicy.aappublications.org

American College of Obstetricians & Gynecologists Women's Health Care Physicians

http://www.awhonn.org

Association of Women's Health, Obstetric & Neonatal Nurses

http://www.awhonn.org

Baby-Friendly USA

http://www.babyfriendlyusa.org

Breastfeeding Coalition of the Inland Empire Model

http://www.breastfeeding.org/articles

California Department of Public Health

http://www.cdph.ca.gov

Coalition of Oklahoma Breastfeeding Advocates

http://www.ok.gov/health/documents/mch prh Model%20Breastfeeding%20Policy.pdf

Texas Ten Step Hospital Program

http://www.dshs.state.tx.us/wichd/lactate

US Department of Health & Human Services, Centers for Disease Control & Prevention

www.cdc.gov/breastfeeding









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http://azdhs.gov/phs/bnp/gobreastmilk/BFAzBabySteps

Breastfeeding Hotline 1-800-833-4642



















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