# Complete Summary

## GUIDELINE TITLE

Clinical guidelines for the establishment of exclusive breastfeeding.

## BIBLIOGRAPHIC SOURCE(S)

International Lactation Consultant Association (ILCA). Clinical guideline for the establishment of exclusive breastfeeding. Raleigh (NC): International Lactation Consultant Association (ILCA); 2005 Jun. 28 p. [258 references]

## GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: International Lactation Consultant Association. Evidence-based guidelines for breastfeeding management during the first fourteen days. Raleigh (NC): International Lactation Consultant Association; 1999 Apr. 31 p.

## COMPLETE SUMMARY CONTENT

SCOPE
METHODOLOGY - including Rating Scheme and Cost Analysis
RECOMMENDATIONS
EVIDENCE SUPPORTING THE RECOMMENDATIONS
BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS
CONTRAINDICATIONS
QUALIFYING STATEMENTS
IMPLEMENTATION OF THE GUIDELINE
INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES
IDENTIFYING INFORMATION AND AVAILABILITY
DISCLAIMER

## SCOPE

### DISEASE/CONDITION(S)

- Infant health
- Maternal health

### GUIDELINE CATEGORY

Counseling
Evaluation
Management

## CLINICAL SPECIALTY

Family Practice
Nursing
Nutrition
Obstetrics and Gynecology
Pediatrics

## INTENDED USERS

Advanced Practice Nurses
Allied Health Personnel
Dietitians
Health Care Providers
Hospitals
Nurses
Physician Assistants
Physicians
Public Health Departments

## GUIDELINE OBJECTIVE(S)

To give form to evidence-based guidelines for the establishment of exclusive breastfeeding in healthy, full-term infants and to advocate for women and children by giving health care professionals, entrusted with their care, an operational framework for assisting in the establishment of exclusive breastfeeding

## TARGET POPULATION

Health care professionals entrusted with the care of new mothers and their healthy, term infants

## INTERVENTIONS AND PRACTICES CONSIDERED

Breastfeeding management:

1. Facilitating early breastfeeding within the first hour after birth and providing for continuous skin-to-skin contact between mother and infant
2. Assisting the mother and infant in achieving a comfortable position and effective latch (attachment)
3. Keeping the mother and infant together during the entire postpartum stay
4. Teaching mothers to recognize and respond to early infant feeding cues; confirming that the baby is being fed at least 8 times in each 24 hours
5. Confirming mothers' understanding of the basis for milk production
6. Confirming mothers' knowledge of measures for waking a sleepy infant
7. Avoiding pacifier, artificial nipples, and supplement use, unless medically indicated

8. Observing and documenting of at least one breastfeeding in each eight-hour period during the immediate postpartum period
9. Assessing mother and infant for signs of ineffective breastfeeding and intervening if transfer of milk is ineffective
10. Identifying maternal and infant risk factors that may impact breastfeeding and providing appropriate assistance and follow-up
11. Identifying any maternal and infant contraindications to breastfeeding
12. Providing supplementation, if medically indicated
13. Confirming follow-up visit with primary care provider within 5 to 7 days after birth
14. Providing appropriate breastfeeding education materials
15. Supporting exclusive breastfeeding during any illness or hospitalization of the mother or infant
16. Avoiding distribution of infant feeding product samples of advertisements for such products
17. Including family members or significant others in education
18. Providing anticipatory guidance for common problems
19. Confirming that mothers understand normal breastfed infant behaviors and have normal expectations
20. Discussing contraceptive options and their possible effects on milk production

### MAJOR OUTCOMES CONSIDERED

Not stated

## METHODOLOGY

### METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

### DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Databases searched include PubMed, MedLine, and Cochrane. Keywords used were specific to each strategy.

### NUMBER OF SOURCE DOCUMENTS

Nearly 700 source documents were reviewed and evaluated.

### METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

### RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

#### Evaluation Criteria for Type of Evidence

**I**: Evidence obtained from at least one properly randomized study

**II-1**: Evidence obtained from well-organized, controlled trials without randomization

**II-2**: Evidence obtained from well-designed cohort or case control analytic studies preferably from more than one center or research program

**II-3**: Evidence obtained from multiple time series with or without the intervention. Dramatic results in uncontrolled experiments (such as the results of the introduction of penicillin treatment in the 1940s) could also be regarded as this type of evidence.

**III**: Opinions of respected authorities, based on clinical experience, descriptive studies, and case reports, or reports of expert committees

## METHODS USED TO ANALYZE THE EVIDENCE

Review

## DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

## METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus
Informal Consensus

## DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

## RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

## COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

## METHOD OF GUIDELINE VALIDATION

Comparison with Guidelines from Other Groups

## DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Not stated

## RECOMMENDATIONS

### MAJOR RECOMMENDATIONS

The levels of evidence (I, II-1, II-2, II-3, and III) are defined at the end of the "Major Recommendations" field.

#### Management Strategies

1. Facilitate breastfeeding within the first hour after birth and provide for continuous skin-to-skin contact between mother and infant until after the first feeding (**I, II-2, II-3, III**).
    - Avoid routine procedures until after the first breastfeeding
2. Assist the mother in achieving a comfortable position and effective latch (attachment) (**I, II-2, II-3, III**).
    - Observe infant for signs of effective positioning:
        - Infant well supported and placed at the level of the mother's breast (mother-led attachment)
        - Infant well supported and placed between the mother's breasts (baby-led attachment)
    - Observe infants for signs of effective latch:
        - Wide opened mouth
        - Flared lips
        - Chin touching the breast
        - Asymmetric latch (more areola visible above the baby's mouth)
    - Observe infant for signs of milk transfer:
        - Sustained rhythmic suckle/swallow/breathe pattern with periodic pauses
        - Audible swallowing
        - Relaxed arms and hands
        - Moist mouth
    - Observe mother for signs of milk transfer:
        - Breast softening while feeding
        - Relaxation or drowsiness
        - Thirst
        - Uterine contractions or increased lochia flow during or after feeding
        - Milk leaking from the opposite breast while feeding
        - Nipple elongated but not pinched or abraded after feeding

3. Keep the mother and infant together during the entire postpartum stay (**I, II-1, II-2, II-3, III**).
    - Conduct examinations and routine tests of the infant while the infant is in the mother's room, in the mother's arms, or on the breast.

4. Teach mothers to recognize and respond to early infant feeding cues and confirm that the baby is being fed at least 8 times in each 24 hours (I, II-2, II-3, III).

    Early infant cues include:

- Sucking movements
- Sucking sounds
- Hand-to-mouth movements
- Rapid eye movements
- Soft cooing or sighing sounds
- Restlessness

Crying is a late feeding cue and may interfere with effective breastfeeding.

5. Confirm that mothers understand the physiology of milk production, especially the role of milk removal (**I, II-1, II-2, II-3, III**).

   To facilitate milk production:

   - Breastfeed when the infant exhibits early feeding cues or approximately every 1 to 3 hours.
   - Breastfeed on the first breast until the infant seems satisfied (on average 15 to 20 minutes) before offering the second breast.

   Note: Some infants are satisfied with one breast, while others will breastfeed on both breasts at every feeding.

6. Confirm that mothers know how to wake a sleepy infant (III).
   - Wake when early feeding cues are exhibited (See management strategy #4 above) or at least 8 times in each 24 hours.

   Strategies to wake the infant include:

   - Remove any blankets.
   - Change the infant's diaper.
   - Place the infant skin-to-skin.
   - Massage the infant's back, abdomen, arms, and legs.

7. Avoid using pacifiers, artificial nipples, and supplements, unless medically indicated (**I, II-2, II-3, III**).
8. Observe and document at least one breastfeeding in each eight-hour period during the immediate postpartum period (**II-2, III**).

   Document the following to assess effective latch:

   - Comfort of mother
   - Condition of both breasts and nipples
   - Shape of nipple on release
   - Signs of milk transfer
   - Number of feedings
   - Number of urinations
   - Number and character of bowel movements
   - Daily weight gain/loss

9. Assess the mother and infant for signs of effective breastfeeding and intervene if transfer of milk is inadequate (**I, II-1, II-2, II-3, III**).

Signs of effective breastfeeding in the infant include:

- Weight loss less than 7 percent
- At least 3 bowel movements in each 24 hours after day 1* (*Note: The first 24 hours after birth is day 1)
- Seedy, yellow bowel movements by day 5
- At least 6 urinations a day by day 4 with urine that is clear or pale yellow
- Satisfied and content after feedings
- Audible swallowing during feedings
- No weight loss after day 3
- Weight gain by day 5
- Back to birth weight by day 10

Signs of effective breastfeeding in the mother include:

- Noticeable increase in firmness, weight, and size of breasts and noticeable increase in milk volume and composition by day 5
- Nipples show no evidence of damage
- Breast fullness relieved by breastfeeding

If effective breastfeeding, as indicated by milk transfer, is not observed within the first 12 hours:

- Re-evaluate breastfeeding techniques (see Management Strategy #2 above).
- Initiate milk expression using manual expression or a breast pump.
- If medically indicated, initiate supplementation (see Management Strategy #12 below).
- Delay discharge from care until effective breastfeeding has been observed.
- Refer to a health care professional with breastfeeding expertise, such as an International Board Certified Lactation Consultant (IBCLC), physician, midwife, nurse, or dietician.
- Coordinate care with the infant's health care provider.

10. Identify maternal and infant risk factors that may impact the mother's or infant's ability to breastfeed effectively and provide appropriate assistance and follow-up (**II-2, II-3, III**).

    Infant risk factors include but are not limited to:

    - Birth interventions and/or trauma
    - Less than 38 weeks gestation
    - Inconsistent ability to maintain an effective latch
    - Ineffective suck
    - Persistent sleepiness or irritability
    - Long intervals between feedings
    - Hyperbilirubinemia or hypoglycemia
    - Small (SGA) or large (LGA) for gestational age or intrauterine growth restriction (IUGR)
    - Tight frenulum

- Multiple birth
- Neuromotor deficits
- Chromosomal abnormalities (e.g., Down syndrome)
- Oral anomalies (e.g., cleft lip/palate)
- Acute or chronic illness (e.g., cardiac disease)
- Use of pacifier or artificial (bottle) nipple

Maternal risk factors include but are not limited to:

- Previous breastfeeding difficulty
- Birth interventions
- Separation from infant
- Absence of prenatal breast changes
- Damaged, cracked, or bleeding nipples
- Unrelieved fullness or engorgement
- Persistent breast pain
- Mother's perception of insufficient milk
- Acute or chronic disease
- Medication use
- Breast or nipple abnormality
- Breast surgery or trauma
- Hormonal disorders (e.g., polycystic ovarian syndrome)

11. Identify any maternal and infant contraindications to breastfeeding (**III**).

Maternal contraindications include:

- Human immunodeficiency virus (HIV) seropositivity (provided safe and sufficient quantities of human milk substitutes are available) (**II-1, II-3, III**)
- Human T-cell Leukemia Virus-1 (HTLV-1) seropositivity (**II-3**)
- Substance abuse (**III**)
- Chemotherapy (**III**)
- Radioactive isotope therapy (interrupt breastfeeding only until the isotope has been eliminated from the mother's body) (**III**)
- Active tuberculosis (if only the mother is infected, isolate the mother until treatment is initiated and the mother is no longer contagious; the mother's expressed milk can be fed to her infant; if mother and infant are infected, isolate them together) (**III**)
- Active varicella (if maternal rash develops within 5 days prior to birth or 2 days after birth, isolate the mother until she is no longer contagious; expressed milk can be fed to her infant; if both mother and infant are infected, isolate them together)
- Active herpes lesion(s) on breast (breastfeed on unaffected breast or interrupt breastfeeding only until lesion[s] heal)
- Chagas' disease caused by a South American parasite (interrupt breastfeeding during the acute phase only; the mother's expressed, pasteurized milk can be fed to the infant) (**III**)

Infant contraindications include:

- Galactosemia (**III**)

Note: Some conditions are incorrectly identified as contraindications. These include:

- Maternal fever in the absence of a contraindication listed above
- Hepatitis B or C infection
- Exposure to low-level environmental contaminants (**II-2, III**)
- Alcohol use (advise mothers to limit intake to an occasional drink) (**II-2, III**)
- Tobacco use (advise mothers to stop smoking or if unable to stop make every effort to avoid exposing infant to second-hand smoke) (**II-2**)
- Cytomegalovirus (CMV) infection (**II-3**)

12. If medically indicated, provide additional nutrition using a method of supplementation that is least likely to compromise the transition to exclusive breastfeeding (**I, II-2, III**).

    Guidelines for supplementation:

    - Use mother's own milk first.
    - Pasteurize the mother's milk if she is HIV positive.
    - Pasteurized donor milk is the next best alternative to the mother's own milk.
    - Human milk substitute (formula) is the last choice.
    - Reassure mother that her infant will benefit from any amount of her milk provided.
    - The selection of a human milk substitute should take into account any family history of allergic disease.

13. Confirm that the infant has a scheduled appointment with a primary care provider or health worker within five to seven days after birth.

    Schedule additional visits as needed until a consistent weight gain pattern has been established (**III**).

    Identify breastfeeding support resources within the community such as:

    - International Board Certified Lactation Consultants (IBCLCs)
    - Community health workers and home visitors trained to provide breastfeeding support
    - Breastfeeding clinic staff
    - Health department staff
    - Volunteer breastfeeding support groups
    - Breastfeeding peer counselors
    - Telephone center for breastfeeding advice
    - Breast pump rental and sales outlets

    (**I, II-1, II-2, II-3, III**)

14. Provide appropriate breastfeeding education materials (**I, II-2, II-3, III**).

Appropriate materials are:

- Clinically accurate
- Consistent
- Positive
- Reading-level appropriate
- Culturally sensitive
- Free of commercial advertising
- Compliant with the *International Code of Marketing of Breast-milk Substitutes* and subsequent World Health Assembly (WHA) resolutions

15. Support exclusive breastfeeding during any illness or hospitalization of the mother or the infant (**II-2, III**).
16. Comply with the *International Code of Marketing of Breast-milk Substitutes* and subsequent World Health Assembly resolutions, and avoid distribution of infant feeding product samples and advertisements for such products (**I, III**).
17. Include family members or significant others in breastfeeding education (**I, II-1, II-2**).
18. Provide anticipatory guidance for common problems that can interfere with exclusive breastfeeding (**I, II-2, II-3**).

Nipple pain:

- Many mothers report mild discomfort at the beginning of a feeding when the infant latches onto the breast (**II-3**).
- All pain should be evaluated.
- Pain is often the result of ineffective positioning and latch.
- Consider other causes such as bacterial or fungal infection (**II-2**).

Engorgement (as opposed to normal fullness) (**II-3**):

- Normal fullness is relieved with frequent, effective breastfeeding.
- Engorgement occurs in some mothers approximately 3 to 5 days after birth (breasts can be painful and swollen).
- Unrelieved swelling (engorgement) requires treatment.
- Focus treatment on measures to reduce swelling and relieve pain, including breast massage, hand expression or pumping, intermittent compression (reverse pressure softening), application of cold, and anti-inflammatory medication (**I, II-2, II-3, III**).
- Avoid the use of heat unless the breasts are leaking freely.

Perceived insufficient milk supply:

- A mother may think that she has insufficient milk because her breasts are soft after birth (**II-3**).
- Milk volume increases within several days and is usually accompanied by breast fullness (**II-2**).
- In the second week of life, initial breast fullness decreases but this does not signal a decrease in milk production.
- Infants have recurring growth or appetite spurts, during which more frequent feedings increase milk production and thus caloric intake.

- If a fussy infant is having normal output and is gaining weight, low milk supply is not the cause of fussiness.

Infant crying:

- No crying should go unattended.
- Crying may be a sign of hunger or a sign of distress - if the infant is not exhibiting feeding cues, parents can try other comfort measures before offering the breast (**I, II-2, II-3**).

Maternal diet:

- Dietary restrictions are seldom necessary; few infants are affected by foods eaten by the mother (**II-2, III**)
- The mother should eat a variety of foods and drink to satisfy thirst (**I**)

Breastfeeding does not preclude leaving home with or without the baby.

It is possible to maintain exclusive breastfeeding by:

- Planning feedings around the mother's or family's activities
- Breastfeeding any time and in any place
- Expressing, collecting, and storing milk to leave with the child care provider (**II-3, III**)

19. Confirm that mothers understand normal breastfed newborn/infant behaviors and have realistic expectations regarding infant care and breastfeeding (**II-2, III**).

    Frequency and duration of feedings:

    - 8 to 12 feedings in each 24 hours is typical; however, feeding frequency can vary.
    - Some infants will cluster-feed (feed every hour for 2 to 6 hours and then sleep for a longer period) and others will breastfeed every 2 to 3 hours day and night.
    - On average, infants will feed 15 to 20 minutes on each breast at a feeding; some will feed longer and some are satisfied with only one breast.
    - Sleepy infants need to be awakened for feedings until an appropriate weight gain pattern is established.

    Infant output:

    - At least 3 bowel movements each day with age appropriate color changes (first bowel movement typically occurs within 8 hours of birth)
    - At least 6 urinations each 24 hours by day 4 with urine that is clear or pale yellow (first urination typically occurs within 8 hours of birth)
    - Bowel movements change from black and sticky to yellow, soft, and watery by day 4.

Infant weight loss/gain

- Expect less than 7 percent weight loss the first week.
- Expect return to birth weight by 10 days of age.
- Expect weight gain of approximately 20 to 35 grams or 2/3 to 1 ounce each day for the first 3 months.

20. Discuss contraceptive options and their possible effect on milk production.

    Contraceptive options include:

    - Lactational amenorrhea method (LAM) (**II-1, II-2**)
    - Barrier devices (**II-2**)
    - Hormonal methods (**II-2, II-3, III**)
    - Surgical procedures (**II-2**)
    - Fertility awareness
    - Abstinence

**Definitions:**

**Evaluation Criteria for Type of Evidence**

**I**: Evidence obtained from at least one properly randomized study

**II-1**: Evidence obtained from well-organized, controlled trials without randomization

**II-2**: Evidence obtained from well-designed cohort or case control analytic studies preferably from more than one center or research program

**II-3**: Evidence obtained from multiple time series with or without the intervention. Dramatic results in uncontrolled experiments (such as the results of the introduction of penicillin treatment in the 1940s) could also be regarded as this type of evidence.

**III**: Opinions of respected authorities, based on clinical experience, descriptive studies, and case reports, or reports of expert committees

## CLINICAL ALGORITHM(S)

None provided

## EVIDENCE SUPPORTING THE RECOMMENDATIONS

### TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is identified and graded for selected recommendations (see "Major Recommendations").

Some aspects of breastfeeding management are not amenable to the control and randomization of true experimental design, but are based on clinical experience and logical deductions from known scientific facts. The supporting references for the strategies contained in this document range from original research to works based on years of clinical experience.

## BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

### POTENTIAL BENEFITS

Improved breastfeeding rates and improved maternal and child health

### POTENTIAL HARMS

Not stated

## CONTRAINDICATIONS

### CONTRAINDICATIONS

Maternal and infant contraindications to breastfeeding (Please refer to management strategy #11 above in the "Major Recommendations" field.)

## QUALIFYING STATEMENTS

### QUALIFYING STATEMENTS

Exclusive breastfeeding is promoted for healthy, full-term infants, with the understanding that some high-risk infants and mothers or infants with special conditions may not be able to establish exclusive breastfeeding.

## IMPLEMENTATION OF THE GUIDELINE

### DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

## INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

### IOM CARE NEED

Staying Healthy

### IOM DOMAIN

Effectiveness
Patient-centeredness

## IDENTIFYING INFORMATION AND AVAILABILITY

### BIBLIOGRAPHIC SOURCE(S)

International Lactation Consultant Association (ILCA). Clinical guideline for the establishment of exclusive breastfeeding. Raleigh (NC): International Lactation Consultant Association (ILCA); 2005 Jun. 28 p. [258 references]

### ADAPTATION

Not applicable: The guideline was not adapted from another source.

### DATE RELEASED

1999 Apr (revised 2005 Jun)

### GUIDELINE DEVELOPER(S)

International Lactation Consultant Association - Professional Association

### SOURCE(S) OF FUNDING

United States Maternal and Child Health Bureau

### GUIDELINE COMMITTEE

Revision Task Force

### COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

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### FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

### GUIDELINE STATUS

This is the current release of the guideline.

This guideline updates a previous version: International Lactation Consultant Association. Evidence-based guidelines for breastfeeding management during the first fourteen days. Raleigh (NC): International Lactation Consultant Association; 1999 Apr. 31 p.

## GUIDELINE AVAILABILITY

Electronic copies: Not available at this time.

Print copies: Available from the International Lactation Consultant Association, 1500 Sunday Dr, Suite 102, Raleigh, NC 27607; Web site: www.ilca.org.

## AVAILABILITY OF COMPANION DOCUMENTS

The following are available:

- Standards of practice for IBCLC lactation consultants. Raleigh (NC): International Lactation Consultant Association; 1999.
- Position paper on infant feeding. Raleigh (NC): International Lactation Consultant Association; 2000.

Print copies: Available from the International Lactation Consultant Association, 1500 Sunday Dr, Suite 102, Raleigh, NC 27607; Web site: www.ilca.org.

## PATIENT RESOURCES

None available

## NGC STATUS

This summary was completed by ECRI on October 28, 1999. The information was verified by the guideline developer as of December 27, 1999. This NGC summary was updated by ECRI on September 27, 2005. The updated information was verified by the guideline developer on October 7, 2005.

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