

## Breastfeeding Complications or Potential Complications (Infants)

---

### Definition/ cut-off value

A breastfed infant with any of the following complications or potential complications for breastfeeding:

- a. jaundice
  - b. weak or ineffective suck
  - c. difficulty latching onto mother's breast
  - d. inadequate stooling (for age, as determined by a physician or other health care professional), and/or less than 6 wet diapers per day
- 

### Participant category and priority level

#### Category

Infants

#### Priority

I

---

### Justification

- a. Jaundice occurs when bilirubin accumulates in the blood because red blood cells break down too quickly, the liver does not process bilirubin as efficiently as it should, or intestinal excretion of bilirubin is impaired. The slight degree of jaundice observed in many healthy newborns is considered physiologic. Jaundice is considered pathologic if it appears before 24 hours, lasts longer than a week or two, reaches an abnormally high level, or results from a medical problem such as rapid destruction of red blood cells, excessive bruising, liver disease, or other illness. When jaundice occurs in an otherwise healthy breastfed infant, it is important to distinguish "breastmilk jaundice" from "breastfeeding jaundice" and determine the appropriate treatment.

- \* In the condition known as "breastmilk jaundice," the onset of jaundice usually begins well after the infant has left the hospital, 5 to 10 days after birth, and can persist for weeks and even months. Early visits to the WIC clinic can help identify and refer these infants to their primary health care provider. Breastmilk jaundice is a normal physiologic phenomenon in the thriving breastfed baby and is due to a human milk factor that increases intestinal absorption of bilirubin. The stooling and voiding pattern is normal. If the bilirubin level
-

approaches 18-20 mg%, the health care provider may choose to briefly interrupt breastfeeding for 24-36 hours which results in a dramatic decline in bilirubin level.

- Resumption of breastfeeding usually results in cessation of the rapid fall in serum bilirubin concentration, and in many cases a small increase may be observed, followed by the usual gradual decline to normal.
  - "Breastfeeding jaundice", is an exaggeration of physiologic jaundice, which usually peaks between 3 and 5 days of life, though it can persist longer. This type of jaundice is a common marker for inadequate breastfeeding. An infant with breastfeeding jaundice is underfed and displays the following symptoms: infrequent or ineffective breastfeeding; failure to gain appropriate weight; infrequent stooling with delayed appearance of yellow stools (i.e., prolonged passage of meconium); and scant dark urine with urate crystals. Improved nutrition usually results in a rapid decline in serum bilirubin concentration.
- b. A weak or ineffective suck may cause a baby to obtain inadequate milk with breastfeeding and result in a diminished milk supply and an underweight baby. Weak or ineffective suckling can be due to prematurity, low birth weight, a sleepy baby, or physical/medical problems such as heart disease, respiratory illness, or infection. Newborns who receive bottle feedings before beginning breastfeeding or who frequently use a pacifier may have trouble learning the proper tongue and jaw motions required for effective breastfeeding.
- c. Difficulty latching onto the mother's breast may be due to flat or inverted nipples, breast engorgement, or incorrect positioning and breastfeeding technique. Early exposure to bottle feedings can predispose infants to "nipple confusion" or difficulty learning to attach to the breast correctly and effectively extract milk. A referral for lactation counseling should be made.
- d. Inadequate stooling or less than 6 wet diapers are probable indicators that the breastfed infant is not receiving adequate milk. Not only is the baby at risk for failure to thrive, but the mother's milk is at risk for rapidly diminishing due to ineffective removal of milk. The breastfed infant with inadequate caloric intake must be identified early and the situation remedied promptly to avoid long-term consequences of dehydration or nutritional deprivation. Although failure to thrive can have many etiologies, the most common cause in the breastfed infant is
-

insufficient milk intake as a result of infrequent or ineffective nursing. Inadequate breastfeeding can be due to infant difficulties with latching on or sustaining suckling, use of a nipple shield over the mother's nipple, impaired let down of milk, a non-demanding infant, excessive use of a pacifier, or numerous other breastfeeding problems.

The literature regarding inadequate stooling varies widely in terms of quantification; this condition is best diagnosed by the pediatrician or other health care practitioner.

---

## References

1. Auerbach KG, Gartner LM. Breastfeeding and human milk: their association with jaundice in the neonate. *Clin.Perinatol.* 1987;14:89-107.
  2. Barros FC, Victora CG, Semer TC, Tonioli FS, Tomasi E, Weiderpass E. Use of pacifiers is associated with decreased breast-feeding duration. *Pediatrics* 1995;95:497-9.
  3. Bocar DL. The lactation consultant: part of the health care team. *NAACOGS.Clin.Issu.Perinat.Womens Health Nurs.* 1992;3:731-7.
  4. Cooper WO, Atherton HD, Kahana M, Kotagal UR. Increased incidence of severe breastfeeding malnutrition and hypernatremia in a metropolitan area. *Pediatrics* 1995;96:957-60. Neifert MR. The optimization of breast-feeding in the perinatal period. *Clin.Perinatol.* 1998;25:303-26.
  5. De Carvalho M, Robertson S, Friedman A, Klaus M. Effect of frequent breast-feeding on early milk production and infant weight gain. *Pediatrics* 1983;72:307-11.
  6. Kurinij N, Shiono PH. Early formula supplementation of breast-feeding. *Pediatrics* 1991;88:745-50.
  7. Lawrence RA. *Breastfeeding a guide for the medical profession.* St. Louis: Mosby, 1994.
  8. Maisels MJ, Newman TB. Kernicterus in otherwise healthy, breast-fed term newborns. *Pediatrics* 1995;96:730-3.
  9. Meier PP, Engstrom JL, Fleming BA, Streeter PL, Lawrence PB. Estimating milk intake of hospitalized preterm infants who breastfeed. *J.Hum.Lact.* 1996;12:21-6.
-

10. Neifert M. Early assessment of the breastfeeding infant. *Contemporary Pediatr.* 1996 Oct;13:142.
11. Neifert M, Lawrence R, Seacat J. Nipple confusion: toward a formal definition. *J.Pediatr.* 1995;126:S125-S129.
12. Seidman DS, Stevenson DK, Ergaz Z, Gale R. Hospital readmission due to neonatal hyperbilirubinemia. *Pediatrics* 1995;96:727-9.
13. Thullen JD. Management of hypernatremic dehydration due to insufficient lactation. *Clin.Pediatr.(Phila)* 1988;27:370-2.
14. Tudehope D, Bayley G, Munro D, Townsend S. Breastfeeding practices and severe hyperbilirubinemia. *J.Pediatr.Child Health* 1991;27:240-4.
15. Victora CG, Behague DP, Barros FC, Olinto MT, Weiderpass E. Pacifier use and short breastfeeding duration: cause, consequence, or coincidence? *Pediatrics* 1997;99:445-53.
16. Weaver LT, Ewing G, Taylor LC. The bowel habit of milk-fed infants. *J.Pediatr.Gastroenterol.Nutr.* 1988;7:568-71.
17. Wilson-Clay B. Clinical use of silicone nipple shields. *J.Hum.Lact.* 1996;12:279-85.