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# Academy of Breastfeeding Medicine Clinical Protocol #2: Guidelines for Birth Hospitalization Discharge of Breastfeeding Dyads, Revised 2022

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## Abstract

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. The Academy of Breastfeeding Medicine recognizes that not all lactating individuals identify as women. Using gender-inclusive language, however, is not possible in all languages and all countries and for all readers. The position of the Academy of Breastfeeding Medicine (https://doi.org/10.1089/bfm.2021.29188.abm) is to interpret clinical protocols within the framework of inclusivity of all breastfeeding, chestfeeding, and human milk-feeding individuals.

## Introduction

REPARATION FOR DISCHARGE AND CLEAR TRANSITION Planning during the birth hospitalization are recommended as a part of best practices in postpartum and neonatal care and are essential components of a comprehensive program to improve breastfeeding outcomes and reduce mortality.<sup>1,2</sup> Globally,  $\sim$  300,000 women die during childbirth or in the weeks after delivery each year (211 per 100,000), and the risk of mortality during childbirth is estimated at 1 in 190 persons.<sup>3</sup> For newborns <28 days of age, global mortality rates are 17 per 1000 live births (1,700 per 100,000) and account for the vast majority of deaths under the age of 5 years.<sup>4</sup> Newborns are at great risk of early adverse outcomes; globally 75% of newborn deaths occur in the first week after birth.2

Exclusive breastfeeding is associated with improvements in neonatal mortality rates, in particular in low- and middle-income countries.<sup>6–8</sup> Breastfeeding initiatives including skin-skin care do not increase the rate of infant death during the first week. However, there is controversy about whether to advise against mothers falling asleep while holding their newborns in skin-to-skin care.9 In many high-resource countries, health inequities driven by structural racism and other forms of discrimination contribute greatly to poor maternal and newborn outcomes. There are higher neonatal and maternal mortality rates among U.S. Black persons and Aboriginal persons of Australia.<sup>10–12</sup> Appropriate assessment of the newborn and mother during and after birth is important to reduce adverse outcomes and ensure successful long-term breastfeeding.13

Across the world, births occur both in and out of the hospital setting. Some of the considerations in this protocol may be relevant (e.g., risk factors for lactation difficulties, weight loss, and jaundice) in all birth settings, but others may not be relevant for out-of-hospital births. Although this protocol focuses on discharge readiness from the perspective of newborn safety and breastfeeding ability, one must also carefully consider the physical and mental health of the mother with the goal of minimizing maternal-infant separation. More information regarding safe hospital discharge of the mother can be found through the World Health

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Organization (WHO) and National Institute for Health and Care Excellence U.K. guidelines.<sup>1,14</sup>

The guidelines herein apply to discharge of healthy term breastfeeding newborns. Information about discharge for newborns cared for in the neonatal intensive care unit setting is available in ABM Protocol #12, about care for late preterm and early term infants in ABM Protocol #10, and about maternity policies in ABM Protocol #7.<sup>15–17</sup>

## Recommendations

For each recommendation, the quality of evidence (levels of evidence 1, 2, and 3) and the strength of recommendation (A, B, and C) are noted as defined by the strength of recommendation taxonomy criteria.<sup>18</sup> Recommendations are summarized in Table 1.

#### In-hospital support of breastfeeding

1. Breastfeeding support should continue throughout the birth hospitalization and dyads should be connected to additional support after the hospitalization.<sup>2,19–24</sup>

The Academy of Breastfeeding Medicine supports birth hospital policies and procedures outlined by the WHO and UNICEF Baby Friendly Hospital Initiative (BFHI) Ten-Steps to Successful Breastfeeding.<sup>2</sup> Support during hospitalization should be obtained from a health professional trained in breastfeeding care.<sup>25,26</sup>

Formal assessments can include evaluation of positioning and attachment to the breast with careful attention to audible swallowing as a sign of milk transfer, newborn weight, presence of jaundice, and elimination patterns (including notation of frequency, color, and size of stools, and presence of urate crystals). Counseling should include practical demonstration of attachment to the breast and how to express breast milk.<sup>27,28</sup> In situations wherein the hospital stay may last up to a week, breastfeeding assessments can continue until breastfeeding is successfully established and then may decrease in frequency.

Levels of evidence: 1–3. Strength of recommendation: A.

#### Risks for early breastfeeding cessation

2. All concerns such as nipple pain, inability to express milk, perception of inadequate production, and any perceived need to supplement should be promptly evaluated and addressed.<sup>19,28,29</sup>

In countries where discharge after birth hospitalization typically occurs by 1.5–2 days after a vaginal birth and 2–4 days after a cesarean section, there are important considerations.<sup>30</sup> Newborn weight and weight loss percentiles or percentages should be assessed; the frequency of assessment will depend on anticipated timing of discharge and national recommendations.<sup>30</sup> Discharge may need to be delayed if the newborn's weight loss is higher than expected and a safe and sustainable feeding and follow-up plan is not feasible.

Levels of evidence: 2, 3. Strength of recommendation: B.

3. The breastfeeding dyad benefits from a familycentered approach to breastfeeding education that focuses on improvement of maternal, paternal/partner, and extended family support of breastfeeding. This approach has been demonstrated to improve breastfeeding outcomes at 6 months.<sup>31–35</sup> Anticipation of breastfeeding problems should be assessed based on maternal and newborn risk factors, addressed in ABM Protocol #7 Model Maternity Policy and ABM Protocol #3 Supplementary Feeding.<sup>17,36</sup>

Levels of evidence: 1, 2. Strength of recommendation: B.

4. In communities with suboptimal breastfeeding rates affected by health inequities, including structural racism and bigotry, it is important to intervene at multiple levels using integrative methods to better support maternal and infant health with breastfeeding.<sup>11,12,37,38</sup>

Integrative methods include culturally appropriate communication, improved access to care, continuity of care, and incorporation of maternal health when counseling about breastfeeding intention, exclusivity, and duration.

People facing complex barriers to breastfeeding will benefit from an integrative approach in which comprehensive strategies replace current disjointed interventions that fail to meet social and psychological needs. These strategies should function seamlessly throughout society and across institutions at the individual, interpersonal, community, policy, and macrosystem level while also considering the sociohistorical context.<sup>34</sup>

Level of evidence: 2. Strength of recommendation: B.

5. All concerns with breastfeeding, whether observed by hospital staff or raised by the mother, should be addressed by a lactation consultant, counselor, or health care provider knowledgeable about clinical lactation care before discharge of the mother and newborn.<sup>39,40</sup>

There are multiple risk factors for early cessation of breastfeeding, some of which include perceived insufficient milk production, separation of the dyad after delivery, assisted vaginal delivery, cesarean delivery, maternal smoking, maternal drug use, lack of support from family or medical staff, intimate partner violence, young maternal age, low level of maternal education, lack of paid maternity leave, and maternal return to work.<sup>41–46</sup>

There are numerous risk factors for delayed lactogenesis (onset of lactogenesis II >72 hours postpartum) including maternal diabetes, alcohol use during pregnancy, Edinburgh Postnatal Depression Score ≥10, and advanced maternal age.<sup>47,48</sup> Breastfeeding women who experience (or who are at risk for) delayed lactogenesis II are at higher risk of discontinuing breastfeeding early.<sup>49</sup> Women with overweight (BMI ≥25 kg/m<sup>2</sup>) or obesity (BMI ≥30 kg/m<sup>2</sup>) are less likely to initiate breastfeeding, less likely to exclusively breastfeed, and are at greater risk of early breastfeeding cessation.<sup>19,50–56</sup>

Infant-related risk factors for breastfeeding problems, including ankyloglossia, anatomic abnormalities of the oropharynx, hypotonia, prematurity, and other conditions should be addressed, and specific support plans should be developed before discharge. Ankyloglossia is discussed further in the related ABM Position Statement.<sup>57</sup>

Levels of evidence: 1–3. Strength of recommendation: B.

#### Risks of early discharge

6. Early discharge should be carefully considered in exclusively breastfed newborns, as there is risk of readmission secondary to neonatal hyperbilirubinemia and dehydration.<sup>58–61</sup>

Recommendation	SORT			SC	DRT
	LOE	SOR	Recommendation	LOE	SOF
In-hospital support of breastfeeding Breastfeeding support should continue throughout the birth hospitalization and connection to breastfeeding support after hospitalization should be established.	1–3	А	Discharge packs containing infant formula, pacifiers, or commercial advertising materials specifically referring to infant formula and foods should not be distributed. These products may encourage	1, 2	А
Risks for early breastfeeding cessation All concerns such as nipple pain, inability to hand express, perception of inadequate milk production, and any perceived need to supplement should be promptly evaluated	2, 3	В	<ul><li>poor breastfeeding practices, which may lead to premature weaning.</li><li>Suggested anticipatory guidance</li><li>Use a family-centered culturally relevant approach to what to expect in the</li></ul>	1–3	В
and addressed. The breastfeeding dyad benefits from a family centered approach to breastfeeding education that focuses on improvement of maternal, paternal/partner, and extended family support of breastfeeding.	1, 2 2	B B	<ul> <li>postpartum period and how to support the breastfeeding mother.</li> <li>Every breastfeeding mother should receive support and coaching on the technique of expressing milk to alleviate engorgement and obtain milk for feeding to the newborn</li> </ul>	2	В
In communities with suboptimal breastfeeding rates that are affected by health inequities including racism both within and outside the health care setting, it is important to use integrative methods to better support maternal and infant health with breastfeeding.	1-3	в	should separation occur or if the newborn is unable to feed directly from the breast. Continuity of and transitions in breastfeeding care Coordinated guidance and referral for breastfeeding problems that can occur after birth hospitalization discharge is important	3	С
All concerns with breastfeeding should be addressed and documented by a lactation consultant, counselor, or health care provider knowledgeable about clinical lactation care before discharge of the mother and newborn.	1-5	В	to best support the breastfeeding dyad. Type and timing of hospitalization follow-up Postpartum care of the newborn and birthing person by medical providers and/or community health workers is recommended after birth/birth	1–3	A
Risks of early discharge Early discharge should be carefully considered in exclusively breastfed newborns, as there is risk of readmission secondary to neonatal hyperbilirubinemia and dehydration.	1–3	В	hospitalization discharge. Care for the breastfeeding dyad after birth/birth hospitalization can occur in the medical office or in the home as there is no difference in health outcomes in office versus home-based visits.	1, 2	В
Consideration of weight loss in the newborn When supplemental feeds are clinically indicated, providing supplemental feeds with alternative feeding methods (e.g.,	1, 2	A	Newborns who are discharged before 48 hours of life should be evaluated within 24–48 hours after discharge.	2, 3	С
syringe, cup, etcetera, versus bottle) is protective of any and exclusive breastfeeding for preterm infants and may be used for term infants.			Follow-up to support breastfeeding after birth hospitalization Families should be connected at discharge with community-based breastfeeding support that can be in-person or through	2–3	В
The importance of dyad-based care The breastfeeding dyad should not be separated if possible, and should regularly breastfeed, practice kangaroo mother care, and learn techniques to express breast milk when separated.	1, 2	В	telemedicine. Office, home-based, telephone, and video visits with a lactation professional and peer-led breastfeeding support groups should be part of regular follow-up and have been variably shown to increase	1–3	В
Discharge bags/hospital-provided gifts Families benefit from appropriate evidence- based breastfeeding educational materials that are free of commercial bias during hospitalization, discharge, and postdischarge. Products with commercial bias can encourage poor breastfeeding practices and may lead to premature weaning.	2	В	breastfeeding exclusivity, duration, and to be cost-effective. Educational materials, including those delivered through the internet or mobile device, can also contribute to breastfeeding success and may be most effective when delivered in settings with low baseline rates of breastfeeding.	1–3	В

LOE, level of evidence; SOR, strength of recommendation; SORT, strength of recommendation taxonomy.

Longer birth hospitalization stays and medicalization of newborn feeding are not necessarily associated with improved breastfeeding outcomes.<sup>62–64</sup> The minimum length of hospitalization of newborn and mother should be 24 hours after delivery.<sup>13,65,66</sup> For facilities that discharge home earlier than this, arrangements should be made to ensure adequate follow-up.

Before discharge, it is important to ensure that both mother and infant are stable. The infant should receive recommended interventions and screening as per local or national protocol (e.g., vitamin K, hepatitis B immunization, erythromycin ophthalmic ointment, newborn screening, and initiation of vitamin D). Other considerations are that maternal pain is managed, breastfeeding is successfully initiated, consistent and practical advice from all clinicians (e.g., physician, midwife, advanced practice provider, nurse, and lactation consultant) is provided to the family, and professional support is available after discharge.<sup>67</sup> Discharge might need to be delayed until these issues are addressed and follow-up arranged.

Levels of evidence: 1–3. Strength of recommendation: B.

#### Consideration of weight loss in the newborn

7. When supplemental feeds are clinically indicated, providing supplemental feeds with alternative feeding methods (e.g., syringe, cup, etcetera, versus bottle) is protective of any and exclusive breastfeeding in preterm infants and may be used in term infants.<sup>2,68,69</sup>

In the term newborn, excessive weight loss (e.g., >75%ile on the Newborn Early Weight Loss Tool or weight loss of >10% of birth weight), or <1 void and stool per day of life should prompt a careful breastfeeding assessment.<sup>70</sup> Many, but not all newborns, regain birth weight within 7–14 days after delivery.

The speed with which weight is regained is correlated with the mode of birth (vaginal or cesarean). Some newborns take >14 days to regain birth weight, especially if born through cesarean delivery.<sup>71,72</sup> Supplementation for medical indication is preferred in the following order: mother's own milk, if unavailable then donor human milk, if unavailable then formula as outlined in ABM Protocol #3.<sup>36</sup>

Levels of evidence: 1, 2. Strength of recommendation: A.

#### The importance of dyad-based care

8. If the mother is medically ready for hospital discharge but the newborn is not, or vice versa, the newborn and mother should continue 24-hour rooming in to facilitate breastfeeding and optimize the health of the breastfeeding dyad. The mother should be encouraged to spend as much time as possible with the hospitalized newborn, regularly breastfeed, practice kangaroo mother care, and techniques to express breast milk should be taught so that expressed milk can be given to the hospitalized newborn if separation occurs.<sup>19–21,23</sup>

Ensure the mother has access to a breast pump or knows how to hand express if a breast pump is not available and that high-quality education regarding breast pump use is provided.<sup>73</sup> Programs should be in place for the mother to borrow a pump for use at home if she does not otherwise have access. If there are any difficulties with pumping and/or problems with milk production, early referral to a lactation consultant and/or a physician skilled in breastfeeding medical management is indicated.

All hospitals and birthing facilities should develop a policy to support hospitalized infants and lactating parents as outlined in the ABM Protocol #35.<sup>69</sup> The data regarding provision of breast pumps during or after birth hospitalization to unseparated mother–infant dyads and improvement in exclusive breastfeeding rates are inconclusive.<sup>74,75</sup>

Levels of evidence 1, 2. Strength of recommendation: B.

## Discharge bags/hospital-provided gifts

9. Families will benefit from appropriate evidence-based educational materials free of commercial bias on breastfeeding during hospitalization, discharge, and postdischarge.<sup>74,76,77</sup>

The WHO International Code of Marketing of Breast-Milk Substitutes must be followed in countries where the code has been enacted into law and in facilities with BFHI designation, and remains best practice in all settings.<sup>78</sup>

Level of evidence: 2. Strength of recommendation: B.

 Discharge packs containing infant formula, pacifiers, or commercial advertising materials specifically referring to infant formula and foods should not be distributed and are not in accordance with the International Code of Marketing of Breastmilk Substitutes.<sup>78</sup> These products undermine normal breastfeeding initiation and continuation, which may lead to premature weaning.<sup>76,79–82</sup>

Levels of evidence: 1, 2. Strength of recommendation: A.

## Suggested anticipatory guidance

11. A family-centered approach of what to expect in the postpartum period can support the breastfeeding dyad, as lack of family and social support is well described to be a risk factor for early discontinuation of breastfeeding.<sup>29,45,83–86</sup>

Culturally relevant anticipatory guidance in the family's preferred language should be discussed before discharge, with written supplemental materials provided. Online forums and mobile apps recommended or produced by health care personnel may reduce confusion and exposure to inaccurate information.<sup>87</sup>

Levels of evidence: 1–3. Strength of recommendation: B.

12. Every breastfeeding mother should receive support and coaching on the technique of expressing milk by hand to alleviate engorgement and obtain milk for feeding to the newborn should separation occur or if the newborn is unable to feed directly from the breast.<sup>2,27,87</sup>

Anticipatory guidance topics can include issues to expect and potential situations requiring immediate evaluation:

- a. Prevention and management of engorgement
- b. Interpretation of newborn hunger cues, responsive feeding based on cues, and expectation of frequency of feedings
- c. Indicators of adequate intake and hydration

- d. Signs of excessive jaundice
- e. Sleep safety and bedsharing benefits and risks, see ABM Protocol #6<sup>88</sup>

Level of evidence: 2. Strength of recommendation: B.

#### Continuity of and transitions in breastfeeding care

13. In particular, coordinated guidance and referral for breastfeeding problems that can occur after early birth hospitalization discharge is important to best support the breastfeeding dyad.<sup>89</sup>

If the delivery/maternal provider and newborn provider are not the same person, there should be coordinated communication to optimize follow-up care. See ABM Protocol #10 for more details about late preterm and early term infants.<sup>16</sup>

Level of evidence: 3. Strength of recommendation: C.

#### Type and timing of birth hospitalization follow-up

# 14. Postpartum visits for both members of the dyad are recommended regardless of birth setting.

Postdischarge visits can occur in the practitioner's office or in the patient's home. Since 2013, the WHO recommendations on postnatal care of the mother and newborn have included an evaluation of mother and newborn within 24 hours of a home-based birth. For in-hospital vaginal deliveries, the WHO recommends 24 hours of observation after delivery.<sup>90</sup> Postnatal health evaluations are recommended for the mother and infant on newborn day of life 3 (48–72 hours), 1–2 weeks, and 6 weeks after delivery for all births.<sup>90</sup>

In countries with longer birth hospitalizations, routine follow-up may be recommended at different intervals. Post-partum home-based care by medical providers and/or community health workers is associated with reduced neonatal mortality, higher rates of exclusive breastfeeding, increased maternal satisfaction with postnatal care, decreased health care utilization for the newborn, and is cost-effective, particularly in low- and middle-income countries.<sup>91–96</sup> Home visits have not been shown to be cost-effective in U.S.-based studies.<sup>97,98</sup>

Levels of evidence: 1-3. Strength of recommendation: A.

15. In many settings, office-based or home-based visits with the breastfeeding dyad can occur, as evidence points to no difference in health outcomes for officebased versus home-based care.<sup>99,100</sup>

Follow-up for the birthing person can be made with her birth attendant provider (e.g., obstetrician, family physician, or midwife) or a general practitioner who may have not attended the birth.

Levels of evidence: 1, 2. Strength of recommendation: B.

## 16. Newborns who are discharged before 48 hours of life should be evaluated within 24–48 hours after discharge.<sup>65,66,101</sup>

In countries where hospital discharge is common within 72 hours after birth, appointments where breastfeeding can be assessed should be made before discharge for the newborn and mother (either in the office or home setting). Providers should be aware that many newborns who are discharged within 48 hours of birth do not receive early follow-up as recommended.<sup>102,103</sup> Barriers to newborn postbirth hospi-

talization checkup can be maternal illness, lack of reliable transportation, and lack of understanding of the importance of follow-up in healthy newborns.<sup>102,104</sup>

Newborns who are not seen within the recommended time after birth hospitalization have higher rates of readmission to the hospital.<sup>105</sup> Innovative methods to communicate with families such as text messaging, internet-based monitoring, and phone outreach have demonstrated an increased likelihood of timely postdischarge follow-up and support of breastfeeding.<sup>106–109</sup> In countries where hospital stays are longer after birth (e.g., 5 days), newborn health and breastfeeding can be assessed over time; most newborns will have reached their nadir of weight loss and physiological peak of bilirubin before discharge. Thus, the first postdischarge visit may be scheduled at an older age (e.g., 2 weeks of age).

Levels of evidence: 2, 3. Strength of recommendation: C.

## Follow-up to support breastfeeding after birth hospitalization

17. Families should be connected at discharge with community-based breastfeeding support, which can be in the health care setting, in the home, or through telemedicine.<sup>2,110,111</sup>

The types of available support are wide ranging and vary based on location, local resources, and patient preference. Continuation of the BFHI through the Baby Friendly Community Initiative, a mother-to-mother and community-based breastfeeding support system, has been associated with a reduction of child mortality, improvement in breastfeeding rates, and reduction in prelacteal feeding.<sup>112</sup> Doula support in the home can strengthen parenting beliefs and results in more positive interaction with the health care system.<sup>113,114</sup>

Levels of evidence: 2, 3. Strength of recommendation: B.

## 18. Office or home-based visits with a lactation professional should be part of regular follow-up.

In particular, breastfeeding support that includes face-toface visits and frequent interactions can prevent early breastfeeding cessation.<sup>115–117</sup> Worldwide proactive telephone- or video-based lactation outreach after the birth hospitalization by health care providers knowledgeable in lactation has been shown to be well received by families and providers and demonstrates increases in exclusive breastfeeding rates.<sup>118–121</sup> Peer-led breastfeeding support groups, both in-person and online, have also been shown to increase breastfeeding exclusivity and duration and are cost-effective.<sup>122–132</sup>

Levels of evidence: 1–3. Strength of recommendation: B.

19. Educational materials, including those delivered through the internet or mobile device, can also contribute to breastfeeding success and may be most effective when delivered in settings with low baseline rates of breastfeeding.<sup>133</sup>

These interventions can support maternal self-efficacy, connect with health care providers, help with latch, and can support breastfeeding.<sup>134–137</sup> Lastly, online support forums and mobile applications are commonly accessed by new families, although the quality of the content, amount of educational material, and attention to diversity are variable between products.<sup>138–145</sup>

Levels of evidence 1-3. Strength of recommendation: B.

#### Areas for Future Research

Many of the clinical recommendations in this policy are evidence based, but areas for future study remain. Methods to support breastfeeding women and newborns during birth hospitalization are well described by the medical literature and by standard practices and policy set by the WHO BFHI, 10-Steps to Successful Breastfeeding. After birth hospitalization discharge, it is clear that any breastfeeding support is associated with improved any/exclusive breastfeeding rates; however, there are limits to the generalizability as there are not many well-controlled studies that examine the effect of governmental or broad system-based policies to support breastfeeding after birth hospitalization discharge.<sup>110</sup>

Furthermore, there is no global standardized method of follow-up for women and newborns after delivery. Where systems do exist, they are not universally applied; there is disparate care based on race, ethnicity, socioeconomic status, education level, and payer type (insurance versus none). We recommend further well-designed studies, as suggested by Tiruneh et al., to elucidate and standardize home-based postpartum visits and newborn care.<sup>91</sup>

Well-designed studies using telemedicine after birth hospitalization, specifically examining the safety and clinical effectiveness of providing general pediatric, obstetric, and lactation care, need to be conducted. Research and community collaboration is needed to address maternal and infant morbidity and mortality for populations who experience lack of equity in health care.<sup>10–12</sup> Lastly, studies are needed that examine the long-term impact of pandemics, epidemics, and natural disasters on birth outcomes, birth hospitalization, and discharge.

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ABM protocols expire 5 years from the date of publication. Content of this protocol is up to date at the time of publication. Evidence-based revisions are made within 5 years or sooner if there are significant changes in the evidence.

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