

Promoting Optimal Breastfeeding in Children's Wards and Departments

Guidance for good practice

CLINICAL PROFESSIONAL RESOURCE



Acknowledgements

The Royal College of Nursing would like to acknowledge the team led by Professor Alison Twycross who developed the original document and thank all of those who were involved in updating this guidance in 2019:

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Special thanks to Fiona Smith RCN Professional Lead for Children and Young People's Nursing

Review Date June 2023. To provide feedback on its contents or on your experience of using the publication, please email publications.feedback@rcn.org.uk

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Published by the Royal College of Nursing, 20 Cavendish Square, London, W1G 0RN

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Foreword

The RCN unequivocally endorses the recommendations from the World Health Organization (WHO, 2003) that exclusive breastfeeding is the optimal means of infant feeding for the first six months of an infant's life. After this, to meet their evolving nutritional requirements, infants should receive nutritionally adequate and safe complementary foods while breastfeeding continues for up to two years of age or beyond. This and subsequent WHO guidance recognises the health benefits of breastfeeding for mother and infant (WHO, 2013). This RCN guidance aims to improve the care of mothers and their infants by providing information which supports breastfeeding in neonatal units, children's wards and other hospital departments. The original guidance, published in 1998, came about following a demand from nurses for information and was developed by a working party set up by the Royal College of Nursing (RCN) Society of Paediatric Nursing. This fourth edition updates the 2013 guidance. The guidance provides nurses with the information they need to promote breastfeeding and to support breastfeeding mothers and their infants in hospital.

Introduction

An increasingly strong body of research demonstrates that breastfeeding is the healthiest way that a woman can feed her infant (WHO, 2013). These physical and mental health benefits extend to the infant, mother and society. This is an important public health message given the backdrop and societal impact of milk marketing and packaging. The following are examples only and not intended to be an exhaustive review of the literature.

The Lullaby Trust have made it clear that breastfeeding should be recommended as a protective measure against Sudden Infant Death Syndrome (SIDS), in conjunction with other practices to reduce the risk (NHS choices, 2018, Lullaby Trust, Hauck, Thompson Tanabe et al. 2011). Infants who are not breastfed are more likely to develop a range of diseases and conditions across their life course (Robinson and Fall, 2012; Stuebe, 2009). Breastfed infants have fewer infections, this includes lower respiratory tract infection, gastrointestinal infection, urinary tract infections, otitis media, increased effectiveness of immunisations. Further, a reduced risk of obesity with co-morbidities of diabetes and cardiovascular disease, with diabetes becoming an increasing burden on the NHS (Oddy, 2012; Fisk, Crozier, Inskip, et al., 2011; Horta, Bahl, Martines et al., 2007; Quigley, Kelly and Sacker, 2007; Owen, Marin, Whincup et al. 2005; Kramer, Chalmers, Hodnett et al., 2001). There are also epigenic (non-genetic influences on gene expression) effects of breast milk which include: a lower risk of Necrotising Enterocolitis (NEC), infectious diseases, later obesity, and related disorders, and breastfeeding mothers have a lower risk of breast cancer, even if a genetic predisposition for the development of these diseases is present (Verduci et al., 2014).

Pre-term infants who are not breastfed or who do not receive breastmilk are ten times more likely to develop necrotising enterocolitis and subsequently die (Morgan, Young and McGuire 2011; Henderson, Craig, Brocklehurst et al., 2009). NEC is not only a potentially devastating condition in the neonate but has significant childhood morbidity (Pike Brocklehurst Jones et al., 2012). The act of breastfeeding positively influences a child's cognitive development in pre-term and term infants (Kramer, Aboud, Mironoova, 2008; Nyaradi, Jianghong, Hickling et al., 2013).

The benefits are not only for infants, mothers who breastfeed are less likely to develop breast cancer (do Carmo Franca-Botelho, Ferreira, Franca et al., 2012; Ip, Chung, Raman et al., 2007) which is correlated with length of breastfeeding exposure. Mothers who do not breastfeed are also at greater risk of ovarian cancer (Jordan, Cushing-Haugen, Wicklund, 2012). Breastfeeding reduces the risk of osteoporosis (Kalkwarf, 1999) and can protect against post-natal depression (Borra et al., 2015). Breastfeeding is such an important indicator of health that it has been included in the Public Health Outcomes Framework for England (Department of Health, 2016). Low breastfeeding rates in the United Kingdom (UK) have led to a progressive increase in the incidence of illness that has a significant cost to the National Health Service (NHS). Recent calculations from a mere handful of illnesses (where breastfeeding is thought to have a protective effect and enough data existed to determine total cost of care expected for each episode of a particular disease) revealed potential annual savings to the NHS from a moderate increase in breastfeeding rates of about £40 million per year (Renfrew et al., 2012).

With a large body of evidence demonstrating the benefits of breastfeeding, all health care professionals working with infants need to promote, protect, and support breastfeeding to actively encourage women to continue breastfeeding their infant for as long as they wish to.

Although this guidance focuses on inpatient children's services and aims to ensure that mothers are supported in breastfeeding while they or their infant are in hospital, the principles endorsed in this guidance applies equally in other hospital and care environments. This publication will consider the rare circumstances where breastfeeding is contraindicated, consider the implications of weighing infants and plotting the infant's weight on the infant growth chart and will justify using breastfeeding as a pain relieving, distracting, intervention during painful procedures.

Key steps to encourage breastfeeding in children's wards and departments

The measures which children's inpatient units can adopt to help mothers breastfeed while their infant is in hospital remain as pertinent and as valuable as ever. These are expanded in the **Guidance for supporting breastfeeding** section in this document and reflect the steps to successful breastfeeding outlined by the UNICEF Baby Friendly Initiative 'Ten Steps' to successful breastfeeding (www.babyfriendly.org.uk).

Every children's inpatient unit should:

Critical management procedures
<ol style="list-style-type: none"> 1a. Comply fully with the International Code of Marketing of Breast-milk Substitutes and relevant World Health Assembly resolutions. 1b. Have a written infant feeding policy that is routinely communicated to staff and parents. 1c. Establish ongoing monitoring and data-management systems. 2. Ensure that staff have sufficient knowledge, competence and skills to support breastfeeding.
Key clinical practices
<ol style="list-style-type: none"> 3. Discuss the importance and management of breastfeeding with pregnant women and their families. 4. Facilitate immediate and uninterrupted skin-to-skin contact and support mothers to initiate breastfeeding as soon as possible after birth. 5. Support mothers to initiate and maintain breastfeeding and manage common difficulties. 6. Do not provide breastfed newborns any food or fluids other than breast milk, unless medically indicated. 7. Enable mothers and their infants to remain together and to practise rooming-in 24 hours a day. 8. Support mothers to recognize and respond to their infants' cues for feeding. 9. Counsel mothers on the use and risks of feeding bottles, teats and pacifiers. 10. Coordinate discharge so that parents and their infants have timely access to ongoing support and care.

(UNICEF, 2018)

Guidance for supporting breastfeeding

Step 1 (a, b, c): An up-to-date written breastfeeding policy which is routinely communicated to all health care staff, and provide health care staff with training to acquire the skills necessary to implement this policy.

To help units, wards and departments adhere to the 10 steps each hospital /care setting where infants are cared for should ensure that they have an updated written breastfeeding policy. To avoid disparity and confusion the breastfeeding policy should be formulated by the children's units in conjunction with the hospital's maternity services (where relevant) to ensure continuity of advice and practice. This policy should be displayed together with any supporting guidance (for example, this publication) in appropriate areas of the hospital and where required, the policy translated into the other languages which are spoken locally.

All staff should have their own copy of the policy and the expectation of compliance with the policy must be routinely communicated to all health care staff within the care setting. New staff must have the appropriate induction to this policy with training to acquire the skills necessary to implement this policy within three months of their start date. Existing staff should be updated as part of annual mandatory training for nursing staff within the children's unit. There should be regular auditing of compliance with the breastfeeding policy.

Step 2: Staff training programmes must emphasise:

- i. the importance and benefits of breastfeeding and breastmilk feeding for the mother and her baby.
- ii. all aspects of lactation management, positioning and attachment, at a level relevant for each professional group i.e. registered nurse, health care support worker.
- iii. methods of and equipment for expressing milk. All mothers should be shown how to hand express as demonstrated by NHS Choices (2016). Useful videos demonstrating milk expression techniques can be found at Best Beginnings: web.bestbeginnings.org.uk/web/videos/breastfeeding/expressing-breast-milk

The attitude of staff in supporting breastfeeding is absolutely critical. It must be clearly understood that there is no equivalence between breastmilk and formula milk and the vulnerability of women is huge on admission to hospital therefore facilitative not coercive support mechanisms need to be addressed (DiGirolamo, 2008).

Breastfeeding champions should link with Higher Education Institutions providing health programmes and promote the organisation policy on breastfeeding, especially in nursing education programmes. This is important to ensure that all nursing students, from all fields of practice, are fully informed and equipped to promote and support breastfeeding.

Step 3: Sustaining and supporting choice - support mothers in their choice of feeding method, and assist them in establishing and maintaining breastfeeding

Health care staff need to support mothers in their choice of feeding method and assist them in establishing and maintaining breastfeeding. This includes upon the mother's or her infant's admission to hospital, staff having a discussion with the parents regarding their chosen method of feeding and the current feeding history. This detail needs to be recorded in the infants or mothers care plan commensurate with the NMC Code (NMC, 2018).

During admission, the breastfeeding mother should have information to support breastfeeding and access to trained staff (throughout the hospital and community services) or to counsellors with specialist knowledge in breastfeeding management (NICE, 2008). The National Childbirth Trust, La Lèche League and the Association of Breastfeeding Mothers provide trained breastfeeding counsellors. Combined support was particularly effective in areas where initiation and continuation of breastfeeding were not high (Britton, McCormick, Renfrew et al., 2007). The Breastfeeding Network (www.breastfeedingnetwork.org.uk) offers peer support from trained volunteers to support breastfeeding.

Where an infant's parents have chosen not to breastfeed or when breastfeeding is contra-indicated, healthcare professionals can refer to First Steps Nutrition, an independent charity offering nutrition advice (www.firststepsnutrition.org).

Quality information - provide parents with written and verbal information about the benefits of breastfeeding and breast milk:

Trained staff, provided by the hospital or community services, should be available to breastfeeding mothers to discuss the benefits of breastfeeding and good breastfeeding management. All written information describing the benefits of breastfeeding and good breastfeeding management practices should be readily available and translated as necessary (NICE, 2008). A designated person within the children's unit will need to ensure that these materials are updated each year. Staff providing this advice should have knowledge of the wide range of breastfeeding benefits outlined earlier in this guidance, including: nutritional benefits; comfort; pain relief; protection against infection.

All staff need to be aware of and adhere to the *International Code of Marketing Breastmilk Substitutes* (WHO, 1981) and avoid using documentation that promotes the use of breast milk substitutes. These will include the use of pens, posters, calendars, height charts and other promotional materials with recognisable logos. Health care staff may occasionally need to provide impartial information about breast milk substitutes to parents as needed (NICE, 2008 and RCN, 2013).

Step 4/5/6: The environment - provide mothers with the environment and facilities which meet their needs for privacy, information and appropriate nutrition

Mothers need to be provided with a supportive environment conducive to breastfeeding regardless of the reason for her being in a health care recommendation relates as much to out-patients departments and X ray departments as much as any other. All wards and departments need to provide breastfeeding mothers with facilities which will meet the mothers' need for privacy and maintain her dignity.

Resident mothers of sick children need to be provided with relevant information and education to sustain breastfeeding. The resident breastfeeding mother needs to be provided with appropriate drinks, snacks and wholesome nutrition to meet her and her infant's calorie requirement. The standards and provisions of the facilities and the quality of the sustenance offered should be the subject of regular audit. This should be the responsibility of senior nursing staff. An audit tool relating to the guidance in this document is provided in [Appendix 1](#).

For mothers who need to express there should be a dedicated private and comfortable area for expressing breast milk. Mothers should be told of the importance of expressing at their child's bedside or with their child nearby (as expressing within sight of the child often increases the amount of milk collected), and mothers should be supported to do so. Alternatively, a photograph, or snuggly of their infants smell, to encourage oxytocin release and therefore milk release to the infant. Double pumping is more effective and time saving. Galactogogues, such as metoclopramide, may be required for women expressing long term. Equipment should be provided for expressing breastmilk and a means to ensure the safe storage of breast milk. Neonatal Units and children's departments should provide information about where to hire breast pumps so that mothers can use at home. Many Neonatal Units have an in-house lending scheme for mothers of infants who are resident.

If a mother wishes to express breast milk they should be supported to do so and if staff are unable to teach this the Infant Feeding Lead for the hospital should be contacted. Information on breastfeeding and expressing breast milk should be translated into other languages as appropriate, so that women whose first language is not English can access it (NICE, 2008).

Breastfeeding mothers admitted to hospital should never be separated from their infants unless they are unable to care for their infants for clinical reasons. Mothers should be given the choice to express milk at their infant's bedside if they wish and appropriate screening should be available to them to maintain their privacy and dignity.

Staff handling expressed breast milk should practise good hand hygiene at all times and wear gloves. Staff should ensure that all expressed breastmilk is labelled correctly with the mothers name, the time and the date of expression. Fridge temperatures should be kept at <4°C (NHS Choices, 2016) and there will be a need to compile a daily record of temperatures and a fridge cleaning rota, there will need to be an audit process to ensure adherence. Fridges used to store expressed breast milk should be labelled as such and posters or advice leaflets on safe storage instructions provided. Fridges where expressed breast milk is stored need to be appropriately secured to prevent unwarranted access.

Breastfeeding mothers who are not on children's units will also require access to facilities for breastfeeding, as well as to equipment for expressing and storing breast milk.

In some circumstances breastmilk may need to be frozen if the anticipated storage time is more than 24 hours. In these circumstances the breastmilk should be frozen as soon as possible after expression to maintain the nutritional and microbiological quality of the milk. If a standard freezer is being used the temperature should be set at -18°C or lower (NICE, 2010). Designated staff should check and document the freezer temperature every day.

Step 7: Supporting mother and infant relationship - provide facilities that allow mothers and infants to be together 24 hours a day to promote responsive feeding

Health care settings need to provide facilities that allow mothers and infants to be together day and night to promote responsive feeding. This is also important to sustain lactation. Staff in health care settings where breastfeeding is being supported and encouraged should be able to facilitate bare skin to skin contact where there are no clinical contraindications (Moore, Anderson and Bergman, 2009). Skin to skin contact can increase an infant's physiological stability such as respiration and heart rate (Chiu and Anderson, 2009) and enhance the infant's immune system, brain development, maternal competence and facilitate earlier discharge (Flacking et al., 2012). As with all infants who are in the prone position it is important that staff and/or the mother/parent check on the infant frequently and ensure that they are not overwrapped and that their nose and mouth remain unobstructed (Poets, Urschitz, Stenfeldt et al., 2012).

Care planning and interventions - plan all care, ward rounds and other interventions to minimise disturbance to breastfeeding:

Staff should plan any non-emergency nursing care or interventions in such a way that any disturbance to breastfeeding is avoided. Staff should carry out any patient care required with minimal disturbance to the mother and breastfeeding infant. Where disturbance is unavoidable (e.g. acute clinical crisis or appropriately managed intervention), the mother should be encouraged and supported to express her milk 8 to 10 times over a 24-hour period (with one episode between midnight and 4am), to establish and/or maintain lactation until she can resume breastfeeding her infant. When available, previously expressed or frozen breastmilk should be used by the mother/family and if not available donor breastmilk should be considered.

If an infant needs to undergo surgery, the fasting time for breast milk is four hours (RCN, 2005) and following medical or surgical procedures, infants should be put to the breast as soon as they are alert and wanting to feed, unless medically contraindicated (RCN, 2005). All staff should be aware of the implications of drugs on initiating and maintaining breastfeeding (BMA and Royal Pharmaceutical Society of Great Britain, 2006). See also NICE 2008 Maternal and Child Nutrition recommendation 15. The Breastfeeding Network compiled resources to support safe medication when breastfeeding: www.breastfeedingnetwork.org.uk/detailed-information/drugs-in-breastmilk.

Step 9: Feeding techniques and use of teats and pacifiers - use alternative techniques conducive to breastfeeding if an infant is unable to feed at the breast

Health care staff need to use alternative feeding techniques conducive to breastfeeding when an infant cannot feed at the breast, these should be discussed and agreed with the parents. Bottles should never be given to breastfed infants without the explicit consent from the parents. Alternative feeding techniques should, where possible, replicate the physical and emotional feeling of breastfeeding, Techniques such as skin to skin and responsive feeding are useful and further information can be found at: <http://attachmentparenting.co.uk/responsive-bottle-feeding/>. Feeding options include bottle and teat, cup, spoon and nasal/oral gastric tube and the staff should be sufficiently skilled to either perform the feed themselves or teach and support the parents to feed their infant. Unless clinically prohibited because of maternal medication or the infants condition the use of expressed breast milk would remain the feed of choice. If expressed breastmilk is not available donor breastmilk would be the next preferred choice.

Dummies are constructed of latex or silicone and elicit a reflexive sucking action in the infant which can be distracting and soothing. They can also be called pacifiers or soothers; the terms would seem to be interchangeable. Some studies have recommended that dummies should only be given to infants if they are medically indicated and following discussion with the parents (WHO, 1989; Joanna Briggs Institute, 2006). However, dummies interfere with feeding cues and alter the feeding action. Some works have challenged that a dummy will have a detrimental effect on breastfeeding (Bu'Lock, 2004; Cinar, 2004; Haycock and Greenough, 2007). Consequently, health care staff need to be sufficiently knowledgeable to discuss the benefits and the detriments of using dummies with the parents, respect the parent's choice and obtain parents' consent before offering a dummy to an infant who is being breastfed. This should be clearly documented in the infants care plan.

Step 10: Coordinate discharge so that parents and their infants have timely access to ongoing support and care.

Parents of breastfed infants should be discharged with clear advice regarding sources of help with breastfeeding and if support is required by a Health Visitor or any other healthcare professional, this should be coordinated before discharge.

Circumstances when breastfeeding is thought to be contraindicated

Contraindications to breastfeeding are few and rare, infant factors may include: some inborn errors of metabolism; challenges to successful breastfeeding caused by sucking difficulties such as tongue tie (NICE, 2005) or cleft lip can be managed by careful positioning. Prematurity is not a contraindication to breastfeeding. NICE (2010) have made it clear in their quality statement that mothers of infants receiving specialist neonatal care are to be supported to start and continue breastfeeding, including being supported to express milk (NICE, 2010). This milk can be stored using elements from the same good practice that applies to donor milk (NICE, 2010). Kangaroo skin-to-skin contact, peer support, simultaneous breastmilk pumping, multidisciplinary staff training and the award of the Baby Friendly accreditation of the associated maternity hospital have been shown to be effective and cost effective (Renfrew, Craig, Dyson, McCormick et al., 2009). If insufficient breast milk is suspected the mother and infant should be assessed by a trained breastfeeding advisor. If it is confirmed that there is insufficient milk (which is rare) or the dietician or medical team consider that the breastmilk contains insufficient calories for growth, special 'fortifiers' can be added to expressed breast milk. It should be noted that fortifiers are derived from cows milk and may be contraindicated in some cases. This should be done in such a way that the mothers confidence in her ability is not undermined and supplementation with this fortified milk can be combined with natural breastfeeding. When used these fortifiers must be added as close to the feed times as possible and using a safe aseptic non-touch technique (GOSH clinical guideline, 2011). This way the infant can continue to receive the additional benefits of breastfeeding and breastmilk with the additional calories.

Nurses who prescribe or dispense drugs to breastfeeding mothers should consult supplementary sources to ensure the infants safety (see the Drug and Lactation Database in the links section) and should discuss the benefits and risks associated with the prescribed medication and encourage the mother to continue breastfeeding, if reasonable to do so. In most cases, it should be possible to identify an alternative and suitable medication which is safe to take during breastfeeding by analysing pharmacokinetic and study data.

Breastfeeding should never be stopped abruptly, mothers who are unwell and receiving medication contraindicated to breastfeeding should not routinely stop breastfeeding but could consider expressing their milk as lactation and breastfeeding once stopped is very difficult to recommence.

The current WHO recommendations on HIV and infant feeding stated that mothers living with HIV should exclusively breastfeed for six months and may continue breastfeeding for up to two years or longer (similar to the general population) while being fully supported for Antiretroviral Therapy (ART) adherence (WHO, 2016). This reflects the fact that there are areas in the world where the risks from formula feeding are higher than the risks to the infant from HIV transmission through breastmilk (Fawzy, Arpadi, Kankasa et al., 2011; Kafulafala, Hoover, Taha et al., 2010).

However, in 2014 the British HIV Association provided an interim review and continued to recommend that in the UK mothers known to be HIV positive, regardless of ART, should be advised to exclusively formula feed from birth. There have also been advocates for providing free formula milk to families so adverse social factors do not increase the risks of transmission (House of Lords, 2011).

The differences in guidance make advising mothers who are HIV positive and promoting breastfeeding can be problematic in the UK. On one hand, there have been studies from Africa would indicate that where women are on ART and have an undetectable viral load the risks of HIV transmission through breastfeeding is small (Thomas et al. 2011). Furthermore, women from countries where HIV rates are high who now reside in the UK can experience stigma when not seen to breastfeed. On the other, formula feeding, would obliterate any risk of transmission. It is absolutely the mother's choice and the health care professional should support her in her choice unreservedly. The greatest risk of transmission occurs when mixed feeding as the benefits incurred through the breastmilk are negated by the formula hence negatively influencing the balance of virus and antibodies (Thomas et al., 2011).

Mothers who have been infected with Ebola should refrain from breastfeeding until their breastmilk is free from viral material (Nordenstedt et al. 2015). Nurses handling Expressed Breast Milk (EBM) in these circumstances need to comply with their Trusts Personal Protective Equipment (PPE) guidance and associated waste management procedures.

Breastfeeding and COVID-19

WHO recommends that mothers with suspected or confirmed COVID-19 should be encouraged to initiate or continue to breastfeed (WHO, 2020). Mothers should be counselled that the benefits of breastfeeding substantially outweigh the potential risks for transmission.

At present, data are not sufficient to conclude vertical transmission of COVID-19 through breastfeeding. In infants, the risk of COVID-19 infection is low, the infection is typically mild or asymptomatic, while the consequences of not breastfeeding and separation between mother and child can be significant. At this point it appears that COVID-19 in infants and children represents a much lower threat to survival and health than other infections that breastfeeding is protective against. The benefits of breastfeeding and nurturing mother-infant interaction to prevent infection and promote health and development are especially important when health and other community services are themselves disrupted or limited. Adherence to infection prevention and control measures is essential to prevent contact transmission between COVID-19 suspected or confirmed mothers and their newborns and young infants.

However, as more research becomes available in regard to breastfeeding and COVID-19, it is practitioners should regularly check with WHO guidance, Public Health England and equivalents and Directors of Public Health locally to ensure they have the most relevant and up-to-date guidance.

Breastfeeding as a pain-relieving measure during painful procedures

There is good evidence confirming the effectiveness of non-pharmaceutical analgesia in infants and also on the adverse effects of poorly managed pain in infants (Ismail and Gandhi, 2011) in the short term with decreased oxygenation and haemodynamic instability for example. Pain can cause a range of detrimental long term effects (Grunau, Holsti and Peters, 2006). A series of reviews have supported the effectiveness of breastfeeding or supplemental breast milk in relieving procedural pain (Agarwal, 2011; Codipietro, Ceccarelli and Ponzone, 2008; Shah, Aliwalas and Shah, 2006). Breastfeeding is more effective than swaddling or the use of a pacifier and although results seem to be mixed, breastfeeding may have a similar efficacy to the administration of sucrose. Efe and Ozer (2007) found that breastfeeding was an effective way of relieving pain during neonatal immunisations (Efe and Ozer, 2007). Efe and Savaser (2007) found no difference in the analgesic effect of breastfeeding and the administration of sucrose during venepuncture (Efe and Savaser, 2007). Given that the long-term use of sucrose in neonates is not yet fully understood giving breastmilk and breastfeeding should be considered as an alternative (Murki and Subramanian, 2011). The release of oxytocin in the infant whilst breastfeeding activates the limbic system and relaxes the infant especially if the infant is also in skin to skin contact. This also enables full participation in care by parents.

Growth charts and breastfed infants

The UK–WHO growth chart combines World Health Organization (WHO) standards with UK preterm and birth data. The chart from 2 weeks to 4 years of age is based on the WHO growth standard, derived from measurements of healthy, non-deprived, breastfed children of mothers who did not smoke (WHO, 2006). The charts depict a healthy pattern of growth that is desirable for all children, whether breastfed or formula fed and of whatever ethnic origin (Scientific Advisory Committee on Nutrition, 2007). These charts were developed because there was evidence that the growth trajectory of a bottle-fed infant was very different from that of a breastfed infant (Dewey et al., 1992; Whitehead and Paul, 1984; Hediger et al., 2000; Cole and Whitehead, 2002). This meant that when the old format was used some breastfed infants appeared not to be gaining weight as quickly as they should. This was potentially discouraging to breastfeeding mothers and there was some anecdotal evidence that this could lead to mothers discontinuing breastfeeding. Although there is individual variation plotting an infant's weight on a chart based on data from breast fed infants is likely to be more reassuring than when the old charts were used. Overfeeding of infants should be avoided as there is evidence that overfeeding in infancy increases the risk of childhood and adult obesity (Syrad, 2016).

Under normal circumstances infants should be weighed in the first week of life as part of an assessment of feeding and subsequently as needed. Recovery of birthweight (by day 14 of life), passing of urine and stools (taking into account appropriate stool colour changes), indicates that feeding is effective and that the infant is well. Once feeding is established, infants should usually be weighed at around 8, 12 and 16 weeks and 1 year, at the time of routine immunisations.

If there are concerns, there may be a requirement to weigh more often. However, weights measured too close together are often misleading, so infants should be weighed no more than once a month up to 6 months of age, once every 2 months from 6 to 12 months of age, and once every 3 months over the age of 1 year. However, most infants do not need to be weighed this often. Infants who are admitted to hospital are going to deviate from these recommendations and if infants appear to have lost weight this can be a focus of concern to a breastfeeding mother. In these circumstances a holistic approach needs to be taken in assessing the infant's condition, the mother's lactation and general health. A full breastfeeding history needs to be undertaken as part of that assessment.

Each circumstance is different but in many cases reassurance and support as to the likely temporary nature of this weight loss should be provided and once the need for the infant to have been admitted to hospital is addressed and breastfeeding is re-established the likelihood is that the infant will continue on their own growth trajectory.

References

- Agarwal, R (2011) Breastfeeding or breast milk for procedural pain in neonates: RHL commentary, *The WHO Reproductive Health Library*; Geneva: World Health Organization. <https://extranet.who.int/rhl/topics/newborn-health/care-newborn-infant/breastfeeding-or-breast-milk-procedural-pain-neonates>. [Accessed November 2020].
- Borra, C, Iacovou, M and Sevilla, A (2015) *New Evidence on Breastfeeding and Postpartum Depression: The Importance of Understanding Women's Intentions*. *Maternal and Child Health Journal*, Apr; 19(4):897-907. doi: 10.1007/s10995-014-1591-z.
- Britton, C, McCormick, F, Renfrew, M, Wade, A and King, S (2007) *Support for breastfeeding mothers*. *Cochrane Database of Systematic Reviews*, Issue 4. DOI: 10.1002/14651858.CD001141.pub3 [Accessed November 2020].
- British HIV Association (2014) *BHIVA guidelines for the management of HIV infection in pregnant women 2012* (2014 interim review). *HIV Medicine* (2014), 15 (Suppl. 5), 1–77. <http://www.bhiva.org/pregnancy-guidelines.aspx>. [Accessed November 2020].
- Bu'Lock, F (2004) *Dummies*, *Archives of Disease in Childhood*, 89 (12), 1081-2.
- Codipietro, L, Ceccarelli M and Ponzone, A (2008) *Breastfeeding or oral sucrose solution in term neonates receiving heel lance: a randomized, controlled trial*. *Pediatrics* 122 (3):e716-21.
- Chiu, S and Anderson, C (2009) *Effect of Early Skin-to-Skin Contact on Mother-Preterm Infant Interaction Through 18 Months: Randomized Controlled Trial*. *International Journal of Nursing Stud.* 2009 Sep; 46(9): 1168.
- Cinar, D (2004) *The advantages and disadvantages of pacifier use*, *Contemporary Nurse*, 17(1-2), 109-12.
- Cole, T, Paul, A and Whitehead, R (2002) *Weight reference charts for British long-term breastfed infants*, *Acta Paediatrica*, 91: 1296–300.
- Department of Health (2016) *Public Health Outcomes Framework for England*. London: Department of Health. <https://www.gov.uk/government/publications/public-health-outcomes-framework-2016-to-2019>. [Accessed November 2020].
- DiGirolamo, AM1, Grummer-Strawn, LM and Fein, SB (2008) *Effect of maternity-care practices on breastfeeding*. *Pediatrics*. 2008 Oct;122 Suppl 2:S43-9. doi: 10.1542/peds.2008-1315e. [Accessed November 2020].
- De Carmo Franca-Botelho, A, Ferreira, M, Franca, J, Franca, E and Honorio-Franca, A (2012) *Breastfeeding and its relationship with reduction of breast cancer: a review*. *Asian Pacific Journal of Cancer Prevention*. 13 (11) 5327-32. <http://www.ncbi.nlm.nih.gov/pubmed/23317179>. [Accessed November 2020].
- Efe, E and Ozer, ZC (2007) *The use of breastfeeding for pain relief during neonatal immunization injections*, *Applied Nursing Research*, 20: 10-16.
- Efe, E and Savaser, S (2007) *The effect of two different methods used during peripheral venous blood collection on pain reduction in neonates*, *Agri Agri Dergisi*, 19 (2) 49-56.
- Fawzy, A, Arpadi, S and Kankasa, C et al. (2011) *Early weaning increases diarrhoea morbidity and mortality among uninfected children born to HIV-infected mothers in Zambia*. *J Infect Diseases* 203: 1222–1230.

- Flacking, R, Lehtonen, L, Thomson, G, Axelin, A, Ahlqvist, S, Hall Moran, V, Ewald, U and Dykes, F (2012) *Closeness and separation in neonatal intensive care*. *Acta Paediatr*. 2012 Oct; 101(10): 1032–1037. doi: [10.1111/j.1651-2227.2012.02787.x]. [Accessed November 2020].
- Fisk, C, Crozier, S, Inskip, H, Godfrey, K, Cooper, C, Roberts, G and Robinson, S (2011) Southampton Women's Survey Study Group. *Breastfeeding and reported morbidity during infancy: Findings from the Southampton Women's Survey*. *Maternal Child Nutrition* 7 (1) 61–70.
- Grunau, R, Holsti, L and Peters, J (2006) *Long-term consequences of pain in human neonates*. *Semin Fetal Neonatal Med* 11 268–75.
- GOSH clinical guideline (2014) *Expressed breast milk: fortification*. <https://www.gosh.nhs.uk/health-professionals/clinical-guidelines/breast-milk-expressed-breast-milk-fortification>. [Accessed November 2020].
- Hauck, F, Thompson, J, Tanabe, K, Moon, R and Vennemann, M (2011) *Breastfeeding and reduced risk of sudden infant death syndrome: a meta-analysis*. *Pediatrics* 128 (1) 103-10.
- Haycock, G and Greenough, A (2007) *Sudden infant death, bed-sharing and dummies: Authors' reply*, *Archives of Disease in Childhood*, 92 (6), 560.
- Hediger, M, Overpeck, M, Ruan, W and Troendle, J (2000) *Early infant feeding and growth status of US born infants and children aged 4–71 months: Analyses from the third National Health and Nutrition Examination Survey, 1988–1994*, *American Journal of Clinical Nutrition*, 72: 159–67.
- Henderson, G, Craig, S, Brocklehurst, P and McGuire, W (2009). *Enteral feeding regimens and necrotising enterocolitis in preterm infants: a multicentre case-control study*. *Arch Dis Child Fetal Neonatal Ed*, 94 (2) F120-3.
- Horta, BL, Bahl, R, Martines, JC and Victora, CG (2007). *Evidence on the long-term effects of breastfeeding*. Geneva: World Health Organization. http://whqlibdoc.who.int/publications/2007/9789241595230_eng.pdf. [Accessed November 2020].
- House of Lords Select Committee on HIV and AIDS in the United Kingdom. (2011) *No vaccine, no cure: HIV and AIDS in the United Kingdom*. Section 146 <https://www.publications.parliament.uk/pa/ld201012/ldselect/ldaids/188/18802.htm>. [Accessed November 2020].
- Ip, S, Chung, M, Raman, G, Chew, P, Magula, N, DeVine, D, Kalinos, T and Lau, J (2007). *Breastfeeding and maternal and infant health outcomes in developed countries*. Evidence Report Technology Assessment number 153 1-186 <http://www.ncbi.nlm.nih.gov/books/NBK38337/>. [Accessed November 2020].
- Ismail, A and Gandhi, A (2011) *Non-pharmacological analgesia: effective but underused*. *Arch Dis Child* 96 (8) 784-785.
- Lullaby Trust. *Safer Sleep Advice*. <https://www.lullabytrust.org.uk/safer-sleep-advice/>. [Accessed November 2020].
- Joanna Briggs Institute (2006) *Early childhood pacifier use in relation to breastfeeding, SIDS, infection and dental malocclusion*, *Nursing Standard*, 20 (38) 52-55. doi: 10.7748/ns.20.38.52.s51.

- Jordan, S, Cushing-Haugen, K, Wicklund, K, Doherty, J and Rossing, M (2012). *Breast-feeding and risk of epithelial ovarian cancer*. *Cancer Causes Control* 23 (6) 919–927.
- Kafulafala, G, Hoover, D and Taha, T et al. (2010) *Frequency of gastroenteritis and gastroenteritis-associated mortality with early weaning in HIV-1-uninfected children born to HIV-infected women in Malawi*. *Journal of Acquired Immune Deficiency Syndrome*. 53: 6–13.
- Kalkwarf, HJ (1999) *Hormonal and dietary regulation of changes in bone density during lactation and after weaning in women*. *Journal of Mammary Gland Biology Neoplasia* 4:319–29.
- Kramer, M, Aboud, F and Mironova, E et al. (2008) *Breastfeeding and Child Cognitive Development*. *JAMA Psychiatry* 65 (5) 578-584 <http://archpsyc.jamanetwork.com/article.aspx?articleid=482695>. [Accessed November 2020].
- NMC (2018) *The Code*. London: NMC. <https://www.nmc.org.uk/standards/code/>. [Accessed November 2020].
- Nyaradi, A, Jianghong, L, Hickling, S, Foster, J and Oddy, W (2013). *The role of nutrition in children's neurocognitive development, from pregnancy through childhood*. *Frontiers in Human Neuroscience* 7 97 <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3607807/>. [Accessed November 2020].
- Morgan, J, Young, L and McGuire, W (2011) *Pathogenesis and prevention of necrotizing enterocolitis* *Curr Opin Infect Dis*. 24 (3)183-9.
- Moore, ER, Anderson, GC and Bergman, N (2009) *Early skin-to-skin contact for mothers and their healthy newborn infants, (Review)* *Cochrane Database of Systematic Reviews*, Issue 1. <https://extranet.who.int/rhl/es/node/75733>. [Accessed November 2020].
- Murki, S and Subramanian, S (2011) *Sucrose for analgesia in newborn infants undergoing painful procedures: RHL commentary* *The WHO Reproductive Health Library*; Geneva: World Health Organization. http://apps.who.int/rhl/newborn/cd001069_murkis_com/en/index.html [Accessed November 2020].
- NHS Choices (2018) *Getting your baby to sleep* <http://www.nhs.uk/conditions/pregnancy-and-baby/pages/getting-baby-to-sleep.aspx>. [Accessed November 2020].
- NHS Choices (2016) *Expressing and storing Breastmilk* <http://www.nhs.uk/conditions/pregnancy-and-baby/pages/expressing-storing-breast-milk.aspx>. [Accessed November 2020].
- NICE (2008) *Improving the nutrition of pregnant and breastfeeding mothers and children in low income households*, London: NICE. <http://www.nice.org.uk/nicemedia/pdf/PH011guidance.pdf>. [Accessed November 2020].
- NICE (2005) *Division of ankyloglossia (tongue-tie) for breastfeeding* <http://www.nice.org.uk/nicemedia/live/11180/31411/31411.pdf>. [Accessed November 2020].
- NICE (2010) *Donor breast milk banks: full guideline* <http://guidance.nice.org.uk/CG93/Guidance/doc/English>. [Accessed November 2020].

- Nordenstedt, H, Bah, IE and de la Vega M-A et al. (2015) *Ebola Virus in Breast Milk in an Ebola Virus-Positive Mother with Twin Babies*. *Emerging Infectious Diseases*. 2016;22(4):759.
- Oddy, W (2012) *Infant feeding and obesity risk in the child*. *Breastfeeding Review*. 20 (2) 7-12
- Owen, C, Martin, R, Whincup, P, Smith, G and Cook, D (2005) *Effect of Infant Feeding on the Risk of Obesity Across the Life Course: A Quantitative Review of Published Evidence*. *Pediatrics* 115 (5) 1367-1377.
- Pike, K, Brocklehurst, P, Jones, D, Kenyon, S, Salt, A, Taylor, D and Marlow, N (2012) *Outcomes at 7 years for babies who developed neonatal necrotising enterocolitis: the ORACLE Children Stud*. *Arch Dis Child - Fetal Neonatal Ed* 97 (5) 318-322.
- Poets, A, Urschitz, M, Stenfeldt, R and Poets, C (2012) *Risk factors for early sudden deaths and severe apparent life-threatening events* *Arch Dis Child Fetal Neonatal Ed* 97 (6) 395-397.
- Quigley, MA, Kelly, YJ and Sacker, A (2007). *Breastfeeding and hospitalization for diarrheal and respiratory infection in the UK Millennium Cohort Study*. *Pediatrics*, 119, e837-842.
- Renfrew, M, Craig, D, Dyson, L and McCormick, F et al. (2009) *Breastfeeding promotion for infants in neonatal units: a systematic review and economic analysis*. *Health Technol Assess*. 13 (40)1-146.
- Renfrew, MJ, McCormick, FM, Wade, A, Quinn, B and Dowswell, T (2012) *Support for healthy breastfeeding mothers with healthy term babies*. *Cochrane Database Syst Rev*. 2012 May 16;(5):CD001141. doi: 10.1002/14651858.CD001141.pub4. [Accessed November 2020].
- Robinson, S and Fall, C (2012) *Infant Nutrition and Later Health: A Review of Current Evidence* *Nutrients* 4 (8) 859-874 <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3448076/>. [Accessed November 2020].
- Royal College of Nursing (2005) *Perioperative fasting in adults and children: An RCN guideline for the multidisciplinary team*, London: RCN. This document is available from the RCN library.
- Royal College of Nursing (2013) *Formula feeds: RCN guidance for nurses caring for infants and mothers*, London: RCN. This document is currently being revised. New version will be released in 2021 all being well.
- Scientific Advisory Committee on Nutrition (2007). <https://www.gov.uk/government/publications/sacn-application-of-who-growth-standards-in-the-uk>. [Accessed November 2020].
- Shah, P, Aliwalas, L and Shah, V (2006) *Breastfeeding or breast milk for procedural pain in neonates*, *Cochrane Database of Systematic Reviews*, 3: CD004950. DOI: 10.1002/14651858.CD004950.pub3. [Accessed November 2020].
- Stuebe, A (2009) *The Risks of Not Breastfeeding for Mothers and Infants*. *Reviews in Obstetrics and Gynaecology* 2 (4) 222-231. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2812877/>. [Accessed November 2020].

Syrad, H, Llewellyn, C, Johnson, L, Boniface, D, Jebb, S, van Jaarsveld, C and Wardle, J (2016) Meal size is a critical driver of weight gain in early childhood. *Sci Rep.* 2016; 6: 28368. Published online 2016 Jun 20. doi: [10.1038/srep28368]. [Accessed November 2020].

Taylor, G, Anderson, J, Claydon, P et al. (2011) *British HIV Association and Children's HIV Association position statement on infant feeding in the UK 2011.* *HIV Medicine* 12 (7) 389-393.

Thomas, TK, Masaba, R, Borkowf, CB, Ndivo, R, Zeh, C and Misore, A et al. (2011) *Triple-Antiretroviral Prophylaxis to Prevent Mother-To-Child HIV Transmission through Breastfeeding—The Kisumu Breastfeeding Study, Kenya: A Clinical Trial.* *PLoS Med* 8(3): e1001015. <https://doi.org/10.1371/journal.pmed.1001015>.

Verduci, E, Banderali, G, Barberi, S, Radaelli, G, Lops, A, Betti, F, Riva, E and Giovannini, M (2014) *Epigenetic Effects of Human Breast Milk.* *Nutrients*, 6(4): 1711–1724. doi: [10.3390/nu6041711]. [Accessed November 2020].

Whitehead, RG and Paul, AA (1984) *Growth charts and the assessment of infant feeding practices in the Western world and in developing countries,* *Early Human Development*, 9 (3) 187-207.

World Health Organisation (2020) Breastfeeding and COVID-19. *Breastfeeding and COVID-19* <https://www.who.int/news-room/commentaries/detail/breastfeeding-and-covid-19> [Accessed November 2020]

World Health Organisation (2013) *Long-term effects of breastfeeding: a systematic review.* Geneva: WHO. https://www.who.int/maternal_child_adolescent/documents/breastfeeding_long_term_effects/en/. [Accessed November 2020].

World Health Organisation (2013) *Short-term effects of breastfeeding: a systematic review on the benefits of breastfeeding on diarrhoea and pneumonia mortality.* Geneva: WHO. https://www.who.int/maternal_child_adolescent/documents/breastfeeding_short_term_effects/en/. [Accessed November 2020].

World Health Organisation and UNICEF (2003) *Global strategy for infant and young child feeding,* Geneva: WHO. http://www.who.int/nutrition/publications/gi_infant_feeding_text_eng.pdf. [Accessed November 2020].

World Health Organisation (1981) *International Code of Marketing Breast Milk Substitutes,* Geneva: WHO. Available from: www.who.int/nutrition/publications/code_english.pdf. [Accessed November 2020].

World Health Organization (1989) *Protecting, promoting and supporting breast-feeding: the special role of maternity services,* Geneva: WHO (Joint WHO/UNICEF statement). <http://www.who.int/nutrition/publications/infantfeeding/9241561300/en/>. [Accessed November 2020].

Organisations supporting breastfeeding

The Breastfeeding Network – see: www.breastfeedingnetwork.org.uk.

National Childbirth Trust – see: www.nct.org.uk.

La Lèche League – see: www.laleche.org.uk.

Association of Breastfeeding Mothers – see <http://abm.me.uk>.

Additional links and resources

Expert Group on Growth Standards of the Scientific Advisory Committee on Nutrition and Royal College of Paediatrics (2007) *Application of the new WHO growth standards to the UK*, London: RCPCH. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/338922/SACN_RCPCH_Application_of_WHO_Growth_Standards.pdf. [Accessed November 2020].

Drugs and Lactation Database LacMed <http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?LACT>

UK Drugs in Lactation Advisory <https://www.sps.nhs.uk/articles/ukdilas/>.

UNICEF baby friendly initiative: <http://www.unicef.org.uk/babyfriendly/>.

World Health Organisation (2007) *Evidence on the long term effects of breastfeeding*, Geneva: WHO. http://www.who.int/maternal_child_adolescent/documents/9241595230/en/

World Health Organisation and UNICEF (2003) *Global strategy for infant and young child feeding*, Geneva: WHO. http://www.who.int/nutrition/publications/gi_infant_feeding_text_eng.pdf

Appendix 1: Audit checklist – Breastfeeding practice

Photocopy this checklist and use these key criteria from the breastfeeding guidance to audit your unit/hospital.

Refer to the guidance to prepare an action plan if improvements are needed.

Audit Criteria	Y/N
Is your policy relating to breastfeeding mothers displayed in all areas of the hospital?	
Is your policy relating to breastfeeding mothers translated, if appropriate?	
Is your policy relating to breastfeeding mothers given to new staff?	
Are training programmes on breastfeeding available for staff?	
Is an update about the breastfeeding policy part of the annual mandatory training?	
Is there a private, comfortable area dedicated to breastfeeding?	
Can mothers express at the bedside if they want?	
Are all nursing staff trained in the use of breast pumps?	
Do you provide information to parents about how to hire a breast pump for use at home?	
Can you name your staff member (or counsellor) with specialist knowledge in breastfeeding management?	
Do nurses discuss the chosen method of feeding with parents of infants on admission and record it in the care plan?	
Do you have written information about breastfeeding and local support groups available to give to breastfeeding mothers?	
Is there any breast milk substitute promotional material (posters, calendars etc) visible?	
Are there facilities for all breastfeeding mothers to remain with their babies 24 hours a day?	
Are breastfed babies starved for no more than four hours pre-operatively?	
Is there regular monitoring of the system for collecting and storing expressed breast milk?	
Do you have a list of the contacts for your local breastfeeding support group?	
Do staff know where to find the list of the contacts for your local breastfeeding support group?	
If this audit tool identifies any defects an action plan should be devised	

RCN quality assurance

Publication

This is an RCN practice guidance. Practice guidance are evidence-based consensus documents, used to guide decisions about appropriate care of an individual, family or population in a specific context.

Description

This RCN guidance aims to improve the care of mothers and their infants by providing information which supports breastfeeding in neonatal units, children's wards and other hospital departments.

Publication date: November 2020 Review date: June 2023

The Nine Quality Standards

This publication has met the nine quality standards of the quality framework for RCN professional publications. For more information, or to request further details on how the nine quality standards have been met in relation to this particular professional publication, please contact publicationsfeedback@rcn.org.uk

Evaluation

The authors would value any feedback you have about this publication. Please contact publicationsfeedback@rcn.org.uk clearly stating which publication you are commenting on.

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Published by the Royal College of Nursing
20 Cavendish Square
London
W1G 0RN

020 7409 3333
www.rcn.org.uk

November 2020
Publication code 009 470

