Infant Feeding - Full Clinical Guideline

Reference No.: Mat/07:23/B5

Contents

1. Introduction

University Hospitals of Derby and Burton NHS Foundation Trust (UHDB) is committed to providing the highest standard of care to support expectant and new mothers and their partners to feed their infant and build strong and loving parent-infant relationships.

UHDB is also committed to working together across disciplines and organisations to improve mothers'/parents' experiences of care. Ensuring that all care is mother, and family centred, non-judgemental and those mothers' decisions are supported and respected. All mothers have the right to make a fully informed choice as to how they feed and care for their infants. The provision of clear and impartial information to all mothers at an appropriate time and in an appropriate format is therefore essential.

2. Aim and Purpose

The aim of the guideline is to ensure that the care provided upholds and builds on the current UNICEF UK Baby Friendly Initiative (BFI) standards (2019), supports the UHDB Infant Feeding Policy's strategic objectives to embed high quality care for the short and long term, improving outcomes for children and families and adheres to the 'International Code for the Marketing of Breastmilk Substitutes (World Health Organisation (WHO), 1981) (appendix A).

3. Definitions

National Health Service (NHS), 2019 recommends that infants are breastfed exclusively for the first 6 months (26 weeks) of life after which breastfeeding should continue beyond the first year along with appropriate types and amounts of solid foods.

- Unless otherwise stated, this guideline applies to healthy term infants.
- Where expressed colostrum and/or expressed breast milk is mentioned, it refers to mothers own.

4. Abbreviations

AHE	-	Antenatal Hand Expression
BFI	-	UNICEF UK Baby Friendly Initiative
BG	-	Blood Glucose
BW	-	Birth Weight
CW	-	Current Weight
EBM	-	Maternal expressed breast milk and/or expressed colostrum.
ePR	-	Electronic Patient Records
HCA	-	Health Care Assistant
HTB	-	Healthy Term Infant
HSIB	-	Healthcare Safety Investigations Branch
IF	-	Infant Feeding
LSCS	-	Lower segment caesarean section
MSW	-	Midwifery Support Worker
MW	-	Midwife
NHS FT	-	National Health Service Foundation Trust
NN	-	Neonatal Nurse
NNU	-	Neonatal Unit
OPC	-	Oropharyngeal Colostrum
PHR	-	Patient Health Records
SACN	-	Scientific Advisory Committee on Nutrition
SIDs	-	Sudden infant death syndrome
UHDB	-	University Hospitals Derby & Burton
UNICEF	-	United Nations Children's Fund
WL	-	Weight Loss

5. Main Body of Guidelines – Care Pathways

5.1 Pregnancy

By 36-weeks' gestation all pregnant women will have had the opportunity to discuss infant feeding and caring for their infant with a health professional (or other suitably trained designated person). The discussion can take place as part of routine antenatal care, antenatal education class(es) – health professional or voluntary support group led or as part of peer support programmes.

The conversation, however, must not question a pregnant woman about her choice of feeding method, which can limit further discussion and does not allow for a change of mind.

The discussion needs to include (**appendix B**):

- The value of connecting with their growing infant in utero.
- The value of skin-to-skin contact.
- The importance of responding to infant's needs for comfort, closeness and feeding after birth and the role that keeping infant close has supporting this.

The discussion about infant feeding must include:

- An exploration of what parents already know about breastfeeding.
- The value of breastfeeding as protection, comfort, and food.
- Getting breastfeeding off to a good start.
- Health Zone App – feeding your infant.

Important note: Relevant and factual information from First Steps Nutrition about formula milk/feeding may be given on an individual basis only. No routine group instruction on or demonstration of formula milk preparations can be given in the antenatal period.

Antenatal discussions must be documented, on a minimum of three occasions in the antenatal patient held records (PHR).

5.1.1 Expressing colostrum during the antenatal period can provide an additional postnatal supply of colostrum to compliment or replace a new-born infant's feeds. Pregnant women may therefore be encouraged to express their colostrum/breastmilk from 36 to 37 weeks gestation onwards. Antenatal hand expression (AHE) is especially relevant when.

- A pregnant woman has pre-existing or gestational diabetes.
- The infant is diagnosed with a cleft lip and/or palate.
- Planned Elective Lower Segment Caesarean Section.

AHE information leaflet - download.cfm (uhdb.nhs.uk)

5.1.2 Formula milk preparations are not routinely provided by UHDB therefore mothers who intend to formula feed their new-born infant must be informed that they are required to supply their own ready-to-feed **first** formula milk preparation (70ml bottles with 6 in one pack) (**appendix B).**

5.2 Birth

- All mothers will be offered the opportunity to have uninterrupted skin contact with their baby at least until after the first feed and/or for as long as they want (preferably **≥**two(2)-hours). Skin contact provides an opportunity and facilitates the instinctive behaviour of breastfeeding (infant) and nurturing to emerge. Staff should not interrupt skin contact to carry out routine procedures.

- All mothers will be encouraged and clinically supported to offer the first breastfeed in skin contact. The aim is not to rush baby to the breast but to be sensitive to baby's instinctive process and readiness to self-attach.

- Mothers who choose to formula feed will be encouraged to offer the first and subsequent feeds in skin contact. The PACE feeding technique will be introduced from the first feed.

- Mothers who are unable (or do not wish) to have skin contact immediately after birth will be encouraged to do so as soon as they are able or wish to.

- All mothers should be encouraged to hold their baby in skin contact during transfer to the postnatal ward.

- Ongoing skin contact may also be used at any time to

    - Boost hormonal responses.
    - Reduce stress/cortisol levels by calming and comforting a distressed mother and/or baby.
    - Support thermoregulation and blood glucose control.
    - Regulate heart and respiration rates.
    - Improve lactation.
    - Encourage breastfeeding.
    - Colonise baby with familial microbes.

NB: If a first feed has not been achieved within six hours of birth, initiate pro-active feeding plan (Appendix E1 - healthy term baby who is reluctant to feed)

5.2.1 Skin contact, in the operating theatre (caesarean section, instrumental birth, manual removal of the placenta) - although implementing skin contact in an operating theatre may be challenging it does promote positive maternal and infant outcomes. Therefore, skin contact in the operating theatre should be initiated as soon as medically possible.

A proactive theatre team approach is essential to facilitate skin contact effectively and safely.

Elective LSCS - discussion and preparations for skin contact maybe facilitated beforehand for example,

- Offer antenatal hand expression of colostrum, whilst waiting for theatre
- Keep one of the mothers' arms out of her theatre gown and tuck it under her arm (halter neck style). This provides space for the new-born.
- Place the stickers for the ECG connectors on the mother's back.
- Explain to parents' safe positioning (HSIB recommendations) for skin-to-skin cuddles.
- If the mother is unable/does not wish, offer skin to skin to the father/birth partner.

Emergency LSCS, instrumental birth and/or manual removal -

- Skin contact should be initiated as soon as possible, taking into consideration the mother's original wishes.

If skin contact is interrupted for transfer from theatre to recovery should be reinitiated as soon as possible

Safety considerations (skin-to-skin) - **appendix C**
Vigilance of the baby's well-being is a fundamental part of postnatal care immediately following and in the first few hours after birth. For this reason, normal observations of the baby's temperature, breathing, colour and tone should continue throughout the period of skin-to-skin contact in the same way as would occur if the baby were in a cot (this includes calculation of the Apgar score at 1-, 5- and 10-minutes following birth). Care should always be taken to ensure that the baby is kept warm. Observations should also be made of the mother, with prompt removal of the baby if the health of either gives rise to concern.

Staff should have a conversation with the mother and her companion about the importance of recognising changes in the baby's colour or tone and the need to alert staff immediately if they are concerned.

It is important to ensure that the baby cannot fall onto the floor or become trapped in bedding or by the mother's body. Mothers should be encouraged to be in a semi-recumbent position to hold and feed their baby. Care should be taken with the position of the baby, ensuring the head is supported so the infant's airway does not become obstructed.
Notes – Mothers

- Observations of the mother's vital signs and level of consciousness should be continued throughout the period of skin-to-skin contact. Mothers may be very tired following birth, and so may need constant support and supervision to observe changes in their baby's condition or to reposition their baby when needed.
- Many mothers can continue to hold their baby in skin-to-skin contact during perineal suturing, providing they have adequate pain relief. However, a mother who is in pain may not be able to hold her baby safely. Babies should not be in skin-to-skin contact with their mothers when they are receiving Entonox or other analgesics that impact consciousness.

Notes – Babies
All babies should be routinely monitored whilst in skin-to-skin contact with mother or father. Observation to include:

- Checking that the baby's position is such that a clear airway is maintained: Observe respiratory rate and chest movement and listen for unusual breathing sounds or absence of noise from the baby.
- Colour: The baby should be assessed by looking at the whole of the baby's body, as the limbs can often be discoloured at first. Subtle changes to colour indicate changes in the baby's condition.
- Tone: The baby should have a good tone and not be limp or unresponsive.
- Temperature: Ensure the baby is kept warm during skin contact.

Always listen to parents and respond immediately to any concerns raised.

5.2.2 Modified feeding plans must be initiated ≤ 1 hour following birth for any infant who requires enhanced postnatal monitoring for the prevention, early detection, and management of common neonatal conditions, for example hypoglycaemia, hypothermia, jaundice, respiratory distress and/or feeding difficulties (for guidance, section 5.6 and 5.6.1 and **appendix D**)

5.3 Maternal / Infant Separation

Infants should not be routinely separated from their mothers, (including overnight) irrespective of feeding method. Separation of mother and baby will only occur when clinical/health reasons prevent care from being provided in the postnatal areas.

Mothers, who are separated for any reason from their baby, for example when baby is cared for on the neonatal unit, will then receive appropriate help and support to initiate and continue lactation (**appendix E**) by being:

- Enabled to express colostrum as soon as possible after birth; ideally within 2 hours. The administration of buccal colostrum is a practice used to provide the benefits of colostrum to all infants who cannot access oral breast feeds. Neonatal services | z UHDB Intranet - documents

- Supported to continue to express their breast milk as effectively as possible. A suitable environment conducive of effective expression is created on both maternity and neonatal sites.

- Taught how to express by both hand and breast pump. This includes how to clean and assemble breast pump equipment and how to safely store mEBM.

- Encouraged to express their breast milk at least 10 times in 24 hours including at least once during the night (12 midnight and 6 am).

- Provided with access to effective breast pump equipment (breast pump loan is arranged by the neonatal unit).

Mothers who are expressing breast milk require a formal review of expressing *at least four times in the first 2 weeks* following birth (appendix F - expression form).

Any break in frequent expressing can seriously compromise mothers' potential to maximise breast milk production. It is, therefore, **the joint responsibility of midwifery and neonatal unit staff** to ensure that mothers who are separated from their baby receive appropriate information and ongoing physical and psychological support.

In addition, staff should appreciate the positive impact that love and nurture will have on the baby's physical and emotional development not only in the here and now but throughout their life. A positive parent/baby relationship is recognised as being crucial to the wellbeing and development of babies. Parents will therefore be:

- given a bonding/OPC/buccal colostrum kit – the kit includes knitted squares, colostrum collectors and an information leaflet.
- encouraged to be with their baby for as long as, and as often as, they wish.
- actively supported to comfort and respond to their baby's needs by communicating with and touching their baby as appropriate to their condition.
- supported to have frequent and prolonged skin-to-skin contact/kangaroo care when the baby's condition allows.

5.4 Support for Breastfeeding (getting breastfeeding off to a good start)

- Mothers will have the opportunity to discuss breastfeeding in the first few hours after birth or when transitioning to breastfeeding at any time; as appropriate to their own needs and those of their baby. This discussion will include information on **responsive feeding, feeding cues** and the use of **skin contact** to encourage instinctive new-born behaviours.

- Mothers will be enabled to achieve effective breast feeding according to their needs including appropriate support with

  - Positioning and attachment
  - Hand expression
  - Understanding and/recognising signs of effective feeding
  - Understanding normal infant feeding behaviour.

  This will continue until the mother and baby are feeding confidently.

- To determine effective feeding is taking place and if further feeding support is required the routine assessment of feeding will be carried out as part of the normal postnatal routines.

  The focus of each assessment should be on supportive care to reduce anxiety and unnecessary supplements of formula milk. A plan of care to address any feeding issues will be developed if necessary.

  A formal feeding assessment of breastfeeding and/or formula feeding (as applicable) will be carried out using the appropriate feeding assessment tools provided in the postnatal PHR's on a minimum of three occasions (suggested before discharge from inpatient services, primary community visit and day 5 postnatal visits) or using an alternative BFI/Trust authorised assessment form (appendix F).

  Documentation of all feeding assessments is a mandatory requirement.

  Appendix G explains how to monitor new-born infant growth and development. Weighing infants is a component of an appropriate feeding assessment. Infants should be weighed at birth (classified as Day 0) and day 5. However, an infant may be reweighed at any time if there are concerns for its well-being. The normal range of weight loss in new-born infants is 3% to 7.9% therefore a weight loss of >8% may be an indication of ineffective feeding.

  Appendix G1 is a weight loss management flow chart.

- A daily feeding assessment including weighing infants on day 3 and day 5 should be considered (see PHR's infant/postnatal) when/if maternal or neonatal risk factors are identified and/or the infant is on a modified feeding plan.

  Risk factors include (but are not restricted to) <37 weeks gestation, small for gestational age/intra-uterine growth restrictions, a tongue tie accompanied by a full feeding assessment, post-partum haemorrhage (PPH) and/or a Hb<90g/L (the reduced blood volume associated with a PPH affects the highly vascular pituitary gland. The result can be reduced prolactin release from the anterior pituitary gland. Prolactin is the hormone responsible for lactation, breast tissue development and breastmilk production) or maternal breast surgery.

Day 3 weights are a safety net to identify and manage weight loss as early as possible. Therefore, in addition to risk factors infants should be weighed on day 3 (72 hours) in the following situations:

- Infant remains an inpatient.
- An infant who has been on a modified feeding plan

Or at any time if

- the midwife has identified feeding problems and/or there are concerns about the infant.

- Before discharge from inpatient maternity care all mothers will be given information both verbally and in writing about recognising effective feeding and where to call for additional help if they have any concerns. UHDB's health zone videos may be used to reinforce this information.

- To facilitate on-going access to breastfeeding support UHDB will work in collaboration with other services and ensure all breastfeeding mothers are informed about local services. This support includes employed and voluntary breastfeeding counsellors, local support groups, national breastfeeding helplines and internet resources. The mother can then exercise her personal preference when seeking infant feeding support.

- For those mothers who require additional support for more complex breastfeeding challenges there is an option to be referred to specialist services. Specialist services include (not exhaustive) community maternity support, Derby and Derbyshire Primary Care Breastfeeding Support Services and Midlands Partnership NHS Foundation Trust Health Visitor Hub.

  Information on available feeding support is listed in **appendix H**.

- Responsive feeding should be encouraged for all babies unless clinically unwell with no restrictions on the frequency and duration of feeding.

- Mothers who formula feed will discuss the importance of responsive formula feeding.

Responsive feeding

The term responsive feeding is used to describe a feeding relationship which is sensitive, reciprocal, and about more than nutrition. Staff should ensure that mothers can discuss this aspect of feeding and reassure mothers that:

- breastfeeding can be used to feed, comfort and calm babies.
- breastfeeds can be long or short,
- breastfed babies cannot be overfed or 'spoiled' by too much feeding. It is therefore acceptable to wake a baby for feeding if breast become overfull including overnight.
- breastfeeding will not, in and of itself, tire mothers any more than caring for a new baby without breastfeeding.

Find out more in UNICEF UK's responsive feeding info sheet: http://unicef.uk/responsivefeeding.

For responsive formula feeding see section 5.7

5.5 Exclusive Breastfeeding

- Mothers who breastfeed will be provided with information about why exclusive breastfeeding leads to the best outcomes for their baby and why it is particularly important during the establishment of breastfeeding (exceptions to exclusive breastfeeding are drops/syrups of additional vitamins/minerals and/or medicines, for example the addition of Vitamin D (Scientific Advisory Committee on Nutrition (SACN), 2016). The Department of Health and Social Care recommend:

  > 'Infants from birth to 1 year of age who are being breastfed should be given a daily supplement containing 8.5 to 10 micrograms of vitamin D to make sure they get enough. This is whether you're taking a supplement containing vitamin D yourself.
  > Breastfeeding mothers should also take a daily vitamin D supplement of 10 micrograms a day.
  > Infants fed infant formula should not be given a vitamin D supplement if they're having more than 500ml (about a pint) of infant formula a day, because infant formula is fortified with vitamin D'.
  >
  > https://www.breastfeedingnetwork.org.uk/factsheet/vitamind/

- When exclusive breastfeeding is not possible the value of continuing partial breastfeeding will be emphasised, and mothers will be supported to maximise the amount of breast milk their baby receives. Before introducing formula milk preparations to breastfed babies encourage mother to express breast milk

- Mothers who give other feeds in conjunction with breastfeeding will be enabled to do so as safely as possible and with a proactive approach that minimises the disruption to breastfeeding and helps support the mother's lactation. This will include appropriate information and a discussion regarding the potential impact of introducing a teat when a baby is learning to breastfeed. Mothers should be encouraged to express their breast milk and alternative methods of feeding e.g., syringe or cup should be discussed.

- Relactation - is the process by which the mother reestablishes lactation after having stopped breastfeeding for some time. Support while establishing a breastmilk supply is therefore important to ensure the infant is adequately fed (**appendix I**)

- A full record will be made of all supplements given, including to the rationale for supplementation and discussion held with parents. When clinically indicated, for the short-term, UHDB will provide ready-to-feed formula milk. Mothers do not need instruction on how to reconstitute formula milk preparation unless they intend to extend their use.

- Supplementation rates will be audited continuously by all staff using the relevant audit tool. Continuous audits of formula milk supplementation are intended to identify and then decrease inappropriate supplementation, specifically formula milk given for non-clinical reasons and without fully informed maternal choice.

Auditing supplementation rates on maternity wards is a mandatory BFI requirement.

5.6 Feeding Plans

5.6.1 Healthy Term Infant (HTB) who is reluctant to feed (**appendix D1**)

Following birth, HTB's will adapt from a constant supply of nutrients via the placenta, to extra-uterine life by the counter-regulatory response. This complex process involves the infant:

- Inhibiting the secretion of insulin to help sustain blood glucose levels.
- Breaking down glycogen reserves in the liver
- Synthesizing glucose from stores in the liver
- Generating alternative fuels such as ketone bodies to provide protection for the brain and other vital organs.

HTB's are therefore designed to cope well with their initial adaptation and the adjustment to intermittent feeding. They do not develop symptomatic hypoglycaemia because of simply under feeding (British Association of Perinatal Medicine (BAPM), 2017).

If/when a HTB is slow to initiate feeding within the first day of life, staff should use the 'HTB ≥37 weeks gestation, reluctant to feed ≤24 hours after birth' flowchart to ensure their disinterest is not because the infant is unwell.

NB: it is a warning sign if an infant who has previously been feeding well becomes a slow or reluctant feeder. The infant should be reviewed by a neonatologist/ paediatrician and blood glucose measurement should be considered.

5.6.2 Modified Feeding (**appendix D2**)

There are several clinical indications for a short-term modified feeding regime in the early days after birth, for example,

- Preterm or small for gestational age infants (BAPM, 2023)
- Infants at increased risk of or showing clinical signs consistent with hypoglycaemia.
- Early or excessive jaundice
- Concern about weight gain.
- Newborn Early Warning Trigger and Track 2 (NEWTT2) observations - not feeding NEWTTS score 2.
  Reluctant to feed >1 occasion - primary escalation and response is to repeat observations in less than 1 hour, escalate as you would with a NEWTTS score 2-3 if repeat score remains 1.
  Infants on NEWTTS for raised lactate do not need to be on a modified feeding plan as long as the infant remains well.
- Maternal conditions that may affect the infant's transition to extra-uterine life.

Infants

To ensure safety, an active modified feeding intervention involving a minimum of 8 feeds in 24-hours should be offered. 3 hourly feeding is a safety net while the infant is on a modified plan. When the infant is feeding effectively, we should promote a return to responsive feeding (BAPM, 2017).

5.7 Formula Feeding

To maximise the well-being of formula fed infants mothers who use formula milk preparations will:

- Be enabled to use formula milk as safely as possible through a discussion and/or demonstration about how to prepare infant formula milk in line with Department of Health and Food Standard Agency guidance. UHDB maternity community health care practitioners will check and reinforce learning following the mothers discharge from in-patient services.

- Be encouraged to formula feed responsively by
  - Responding to cues that their infant is hungry.
  - Inviting infant to draw in the teat rather than forcing the teat into their infant's mouth.
  - Pacing the feed so that their infant is not forced to feed more than they want to
  - Elevated side-lying position for sick, and/or preterm infants or term infants who are reluctant to bottle feed.
  - Recognising their infant's cues that they have had enough milk and to avoid overfeeding by forcing their infant to take more milk than it wants to
  - Holding their infant close during feeds and enhancing their mother-infant relationship by offering most feeds themselves.
- Advised to **only** use a first (1st) or new-born formula milk preparation until their infant is twelve months old.

NB: Staff must not recommend brands of formula milk preparations to parents. Staff should use First Steps Nutrition (https://www.firststepsnutrition.org/) for accurate, up to date, evidence-based information on formula milk preparations (**appendix J**).

- The safe preparation of formula milk preparation is demonstrated on UHDB's health zone app (postnatal – bottle feeding).

5.8 Support parents to have a close loving relationship with their baby.

Parents are vital to ensuring the best possible short and long-term outcomes for babies and should be considered as the primary care givers or partners in care. Parents will therefore:

- Have unrestricted access to their baby unless individual restrictions are justified in the baby's best interest.
- Be encouraged to have skin to skin contact throughout the postnatal period.
- Supported to understand their new-born baby's needs, including encouraging frequent touch and sensitive verbal/visual communication, keeping baby close, responsive feeding and safe sleep practices.
- Have full information on their baby's condition and treatment to enable informed decision-making.

5.8.1 Parents will be given information about on-going local parenting support that is available. UHDB supports co-operation between health care professionals and voluntary support groups (**appendix H**).

5.8.2 Recommendations for health care professionals on discussing where a baby sleeps and bed-sharing with parents.

Current research evidence overwhelming supports:

- Avoiding simplistic messages and neither blanket prohibitions nor blanket permissions in relation to where a baby sleeps.
- Following key messages promoted by the department health and the lullaby trust (https://www.lullabytrust.org.uk/safer-sleep-advice/) whose advice is based on strong scientific evidence and should be followed for all sleep periods, not just at night.

All parents will be informed that:

- The safest place for their baby to sleep is in a cot by their bed.
- Sleeping with their baby on a sofa puts baby at greatest risk.
- Their baby must not share a bed with anyone who is a smoker, has consumed alcohol or has taken drugs (legal or illegal) that make them sleepy.

The incidence of SIDS (also referred to as Cot Death) is higher in the following groups.

- Parents of low socio-economic groups
- Parents who currently abuse alcohol and drugs
- Young mothers with more than one child
- Premature infants and those of low birth weight

Parents within these groups will need more face-to-face discussion to ensure that these key messages are explored and understood. They may need some practical help, possibly from other agencies, to enable them to put them into practice.

5.9 Ankyloglossia (Tongue Tie)

Anatomical studies (2019) have found that the lingual frenulum is made of fascia (fibrous and elastic fibres) and that this fascia creates the whole floor of the mouth. When the tongue lifts this fascia lifts the floor of the mouth like a skirt. Infant studies suggest a kind of see-saw balance of the frenulum between stability and mobility.

Officially, Ankyloglossia, also known as Tongue-Tie, is essentially a congenital anomaly where an infant has too much stability and not enough mobility.

Many restricted frenula are asymptomatic and cause no problems. However, in some cases a tight lingual frenulum that restricts the mobility of the tongue can affect the sucking mechanism required for effective milk transfer. A frenulotomy is the medical term for tongue-tie division.

Referrals for a frenulotomy must not be offered until a reasonable assessment of the impact of the frenulum on feeding has been made. An assessment cannot be done by just looking it requires:

- A detailed feeding history
- An observation of how infant is feeding.
- An assessment of the function of the tongue using the Bristol tongue assessment tool (BTAT/Tabby Tool) (**appendix K**)

5.10 Breastfeeding and Medication

Information to enable mothers to breastfeed their babies for as long as they wish and to provide information on the safety of medicines for each mother and baby pair may be accessed via:

- The ward pharmacy bleep
- Maternity infant feeding team.

Useful websites
Breastfeeding Medicines Advice service - https://www.sps.nhs.uk/
Breastfeeding Network - https://www.breastfeedingnetwork.org.uk/drugs-factsheets/
Breastfeeding and medication - https://breastfeeding-and-medication.co.uk/

6 Monitoring Implementation of Standards

UHDB requires that compliance with this guideline is audited at least annually using the UNICEF UK Baby Friendly Initiative audit tool as stated in the Infant Feeding Policy (Mat/06:23/B5).
Outcomes will also be monitored by:

- Monthly midwifery collation of breastfeeding initiation rates and breastfeeding rates on day 5 and day 10 postnatal (where available) respectively
- Readmissions for feeding problems within the first 28-days reported via the UHDB's business information service.
- Multidisciplinary compliance for mandatory training as indicated by the training compliance matrix.
- Audit parent's experience surveys for example friend and family reports and the Care Quality Commissions/Picker Institute surveys.

Outcome's data will be reported to: Women's and Children's Directorate business unit.

Accountability for ensuring that areas requiring improvement are addressed requires collaboration between the specialist midwife and neonatal lead nurses – infant feeding, head of midwifery, matrons, senior midwives, senior neonatal and paediatric sisters within the women's and children's business unit.

7 References

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UNICEF UK Infant Friendly Initiative (2019) UNICEF UK Infant Friendly Initiative Standards [online]. Available from http:// https://www.unicef.org.uk/infantfriendly/wp-content/uploads/sites/2/2014/02/Guide-to-the-Unicef-UK-Infant-Friendly-Initiative-Standards.pdf (last accessed 1st December 2023)

World Health Organisation (1981) International code of marketing of breast-milk substitutes: World Health Organisation: Geneva

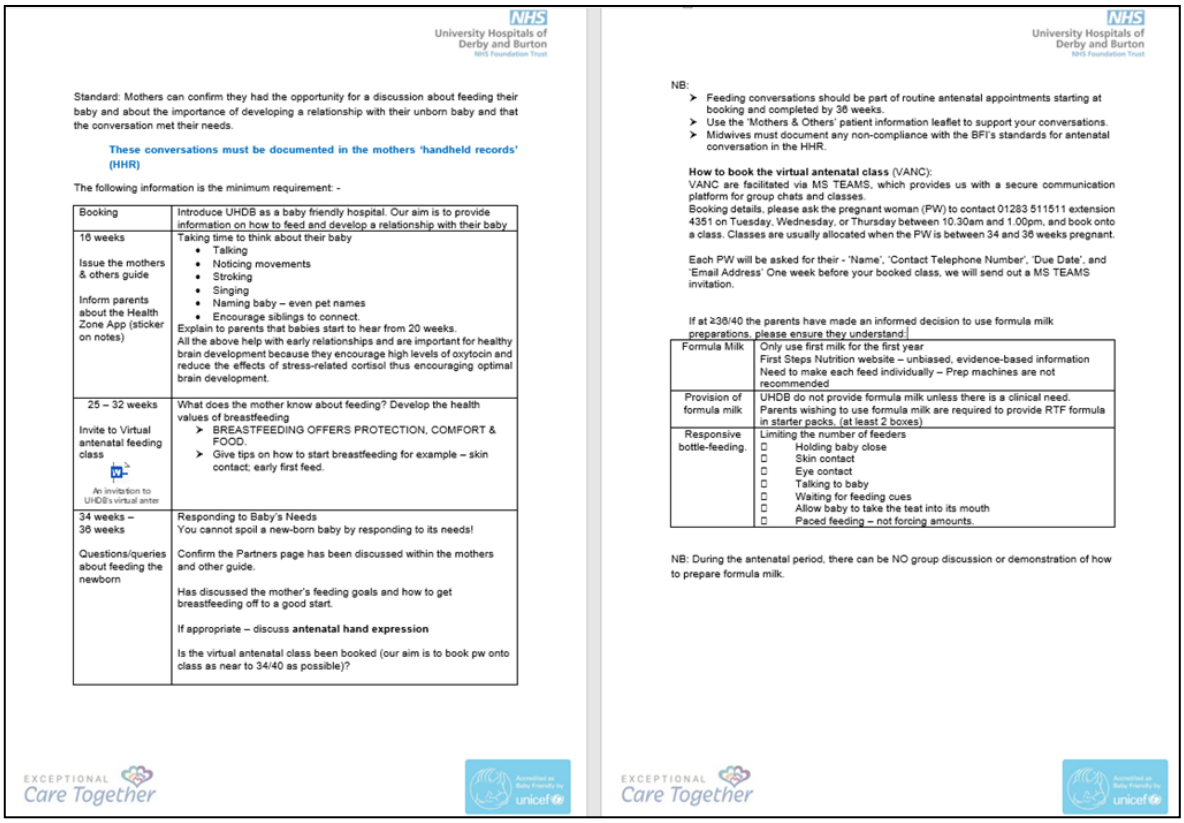
International Code of Marketing Breast Milk Substitutes

The International Code of Marketing of Breastmilk Substitutes (the Code) is an international health policy framework to regulate the marketing of breastmilk substitutes in order to protect breastfeeding. It was published by the World Health Organisation in 1981 and is an internationally agreed voluntary code of practice.

UHDB NHS Foundation Trust must guarantee.

- No breast milk substitutes, feeding bottles, teats or dummies will be advertised.
- Images of bottles and teats will only be used to re-enforce technical information.
- Information (including displays of logos, leaflets, posters, stationary, DVD's websites, teaching aids, gestation/age calculators) of manufactures from the above products, even if free from company branding, will be prohibited.
- Contact with representatives from manufacturers of breast milk substitutes will be via the Specialist Midwife – Infant Feeding. For non-standard milk formula that requires prescription contact will be regulated by an identified member of the dietetic team or a senior member of the neonatal/paediatric team. No literature provided by any infant formula manufacturers will be permitted.
- Sale of any breast milk substitutes by health care staff and on health care premises will be prohibited.
- All Trust employees will not distribute literature, receive gifts, lunches or attend training provided by or sponsored by manufacturers of breast milk substitutes.
- All information about formula milk preparations and/or formula companies is obtained via First Steps Nutrition (https://www.firststepsnutrition.org/)

Antenatal Conversations



NHS University Hospitals of Derby and Burton NHS Foundation Trust

Standard: Mothers can confirm they had the opportunity for a discussion about feeding their baby and about the importance of developing a relationship with their unborn baby and that the conversation met their needs.

These conversations must be documented in the mothers 'handheld records' (HHR)

The following information is the minimum requirement: -

Booking	Introduce UHDB as a baby friendly hospital. Our aim is to provide information on how to feed and develop a relationship with their baby
16 weeks Issue the mothers & others guide Inform parents about the Health Zone App (sticker on notes)	Taking time to think about their baby • Talking • Noticing movements • Stroking • Singing • Naming baby – even pet names • Encourage siblings to connect. Explain to parents that babies start to hear from 20 weeks. All the above help with early relationships and are important for healthy brain development because they encourage high levels of oxytocin and reduce the effects of stress-related cortisol thus encouraging optimal brain development.
25 – 32 weeks Invite to Virtual antenatal feeding class An invitation to UHDB's virtual ante	What does the mother know about feeding? Develop the health values of breastfeeding ➢ BREASTFEEDING OFFERS PROTECTION, COMFORT & FOOD. ➢ Give tips on how to start breastfeeding for example – skin contact; early first feed.
34 weeks – 36 weeks Questions/queries about feeding the newborn	Responding to Baby's Needs You cannot spoil a new-born baby by responding to its needs! Confirm the Partners page has been discussed within the mothers and other guide. Has discussed the mother's feeding goals and how to get breastfeeding off to a good start. If appropriate – discuss **antenatal hand expression** Is the virtual antenatal class been booked (our aim is to book pw onto class as near to 34/40 as possible)?

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NB:

- Feeding conversations should be part of routine antenatal appointments starting at booking and completed by 36 weeks.
- Use the 'Mothers & Others' patient information leaflet to support your conversations.
- Midwives must document any non-compliance with the BFI's standards for antenatal conversation in the HHR.

How to book the virtual antenatal class (VANC):
VANC are facilitated via MS TEAMS, which provides us with a secure communication platform for group chats and classes.
Booking details, please ask the pregnant woman (PW) to contact 01283 511511 extension 4351 on Tuesday, Wednesday, or Thursday between 10.30am and 1.00pm, and book onto a class. Classes are usually allocated when the PW is between 34 and 36 weeks pregnant.

Each PW will be asked for their - 'Name', 'Contact Telephone Number', 'Due Date', and 'Email Address' One week before your booked class, we will send out a MS TEAMS invitation.

If at ≥36/40 the parents have made an informed decision to use formula milk preparations, please ensure they understand:

Formula Milk	Only use first milk for the first year First Steps Nutrition website – unbiased, evidence-based information Need to make each feed individually – Prep machines are not recommended
Provision of formula milk	UHDB do not provide formula milk unless there is a clinical need. Parents wishing to use formula milk are required to provide RTF formula in starter packs. (at least 2 boxes)
Responsive bottle-feeding.	Limiting the number of feeders ☐ Holding baby close ☐ Skin contact ☐ Eye contact ☐ Talking to baby ☐ Waiting for feeding cues ☐ Allow baby to take the teat into its mouth ☐ Paced feeding – not forcing amounts.

NB: During the antenatal period, there can be NO group discussion or demonstration of how to prepare formula milk.

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Formula Feeding your infant at UHDB.

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Feeding your baby whilst in Hospital

University Hospitals of Derby and Burton NHS Foundation Trust is committed to providing the highest standard of care to support expectant and new mothers and their partners to feed their baby and build strong and loving parent-infant relationship.

Breastfeeding is the healthiest choice of feeding for both you and your baby.
We will therefore, encourage and support you to become confident in how to breastfeed.
You do not need to bring anything in addition for feeding your baby –
Your breast milk is all your baby needs.

If you, however decide to use formula preparations you also need to feed confidently and safely. We will therefore discuss with you how to safely offer a formula feed.

You will need to bring **Ready-to-Feed Formula** Milk Starter Packs into hospital with you. Starter packs contain pre-prepared bottles with teats. The formula you choose must be **'first'** or **'new-born'** and you will need enough bottles to be able to feed baby at least 6-10 feeds within a 24hour period.
Please speak to your Community Midwife if you have any queries.

In preparation for post birth feeding UHDB maternity request parents who have made an informed choice to use formula milk preparations bring a minimum of 2 boxes of first/newborn ready to feed formula milk starters packs into hospital with them.

Safety Considerations in whilst in skin-to-skin

Safe Positioning

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NHS Foundation Trust

for SKIN-TO-SKIN Cuddles

Position yourself in a semi-reclined position – NOT LYING FLAT.

Position your baby so that their:

- ✓ Face can be seen
- ✓ Head can move freely at all times
- ✓ Nose and mouth are not covered
- ✓ Head is turned to one side
- ✓ Neck is straight and not bent
- ✓ Shoulders are flat against you, chest to chest
- ✓ Back is covered with a blanket

Always return your baby to their cot if you are feeling sleepy & no one can help or watch over you.

NB: A new born baby will not pull away from the breast if their nostrils & mouth are covered

FIRST FEW DAYS

In the first few days after birth when holding in skin to skin, watch your baby's face. See that their colour remains normal, breathing regular & your baby reacts to your touch, even when baby is asleep.

EXCEPTIONAL Care Together

DON'T FOGET... Babies like Dad's skin too!

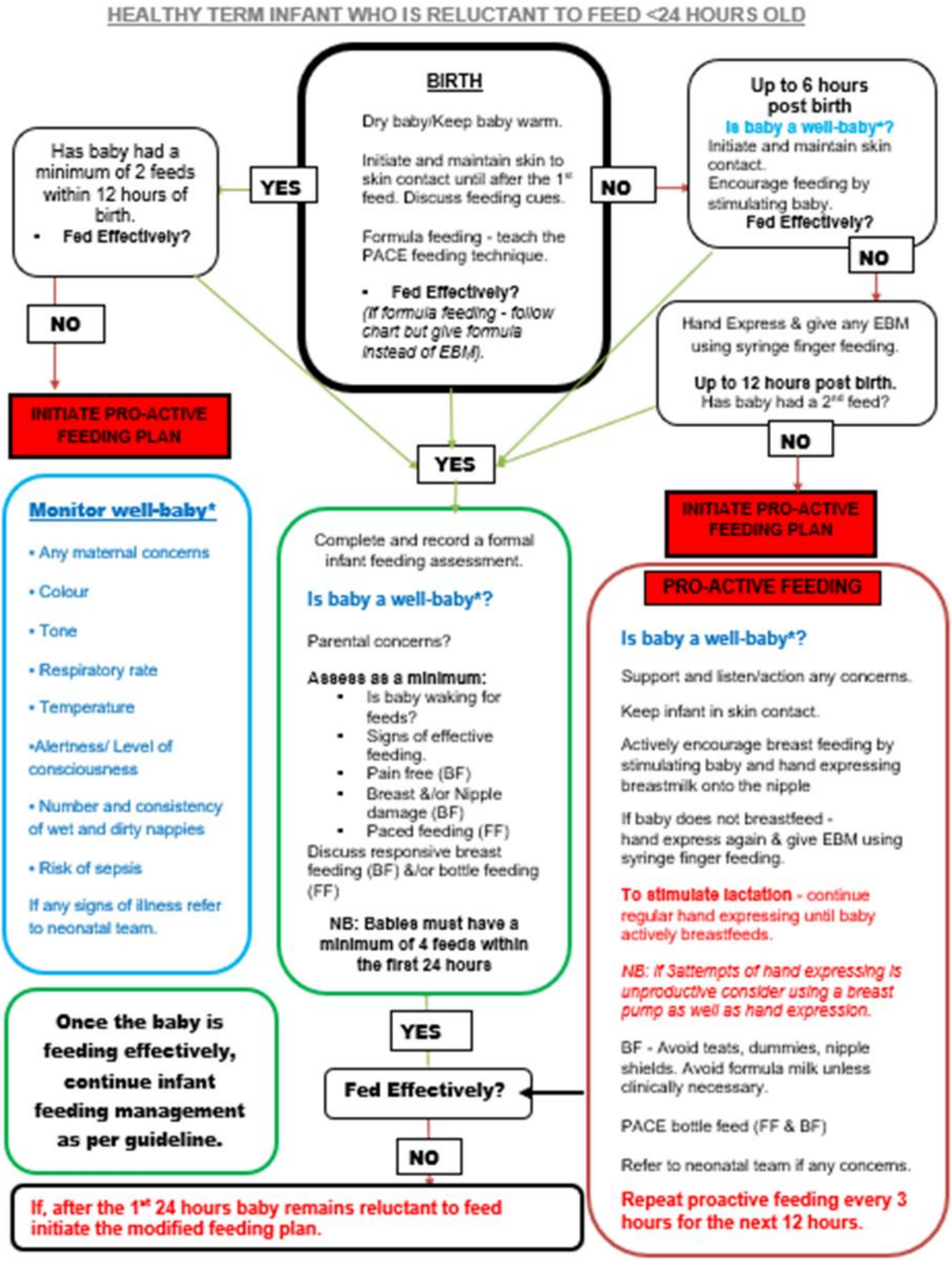
Feeding Plans - reluctant feeding (D1) and modified feeding (D2)

Healthy Term Infant (HTB) who is Reluctant to Feed

- Hypoglycaemia is unlikely to be problematic in healthy, term, well-grown infants. These infants are low risk and routine blood glucose (BG) monitoring is unnecessary.
- There is no evidence that long intervals between feeds in the first 24-hours will adversely affect healthy term new-borns. At least 4 feeds are expected during this period increasing to a minimum of 8-12 times thereafter in any 24-hour period.
- Ensure there are no anatomical reasons preventing feeding e.g., cleft palate.
- Monitor the infant's well-being.
- Encourage HTB to feed within the first 2 hours after birth, preferably on delivery suite through continued skin to skin contact.
- Keep infant close to the mother, where possible in skin-to-skin contact to maintain infant’s normal temperature.
- Encourage responsive feeding from birth and assist the mother to initiate breastfeeding.
- Assess a full breastfeed, offering support and reassurance where necessary.
- Express breast milk and syringe/cup feed colostrum/breast milk to encourage active breastfeeding.
- A 'proactive feeding plan' should be commenced if the infant has not fed within the first 12 hours of birth.
- If there are any deviations from normal infant well-being, commence a modified feeding plan and inform neonatal services if/when appropriate.
- Ensure formula fed infants receive their first feed whilst in skin-to-skin contact.
- Discuss responsive feeding with formula feeding parents and demonstrate PACE feeding.
- Observe wet and dirty nappies.
- Record and update feeding plan in PHR.

Supplementation/complementary feeds – colostrum should be given to the infant first with other fluids only given if colostrum is not sufficient to satisfy clinical needs. Formula Milk Supplementation Audit forms **must** be completed when a breastfed infant is given formula milk preparations.

Appendix D1 - Healthy Term Infant (HTB) ≥37 weeks gestation, reluctant to feed ≤24 hours after birth.



Any EBM should be fed to the baby immediately, using a method best suited to the baby's capabilities and parent's preferences.

Appendix D2 - Modified feeding plan for infants at higher risk of hypoglycaemia and not feeding effectively (NB: always use with reference to UHDB Joint Maternity and Children's Guidelines Hypoglycaemia in the Newborn Infant and Newborn – Care following Birth)
https://derby.koha-ptfs.co.uk/cgi-bin/koha/opac-detail.pl?biblionumber=1296&query_desc=kw%2Cwrdl%3A%20hypoglycaemia

Step 1	
Breastfeeding (At birth then continue to step 2)	Feed infant within the **first (1st) hour** and then, do not allow **>3 hours** between feeds (an absolute minimum of 8 feeds per 24 hours is required). If the infant is not effectively breastfeeding encourage continuous skin-to-skin, contact, and ask the mother to hand express. Feed expressed breast milk (EBM) immediately to the infant. Give antenatal EBM (if available)
If no EBM is available and after discussion with the mother, consider supplementing with formula milk (10 mls/kg per feed) until EBM is available***.**	
Formula Feeding (At birth then continue until effective feeding)	Feed infant with a minimum of 10 mls/kg of formula milk within the **first (1st) hour** and then repeat. Do not allow >3 hours.
Blood Glucose (BG) Monitoring	Prior to 2nd feed (between 2-4 hours of age) unless the infant has clinical signs (symptoms) before this time

Step 2 - maximise breastfeeding, with the modified feeding plan - BASE.

BASE Acronym	
B (breast)	Put infant to the breast
A (assess)	Assess breastfeed for up to 10 minutes. At 10 minutes – use the A - F assessment to assess the quality of the breastfeed. If the - Infant is actively breastfeeding (F) – continue with the feed. Infant is not actively breastfeeding (A-E) then …
S (supplement)	Supplement the infant with EBM using a method that is best suited to the infant's capabilities and parent's preferences. *Breastfed infants do not require formula milk supplementation if EBM amounts are increasing & the EBM maintains the infants BG.* If EBM is not available formula milk may be used (maternal consent required) ***** Formula Calculations – initially 10mls/kg per feed increasing with infant's age *****
E (express)	Express breast milk in preparation for the next feed. See initiation and continuation of lactation – appendix F Infant Feeding Guideline

Consider supplementing with 10 ml/kg formula milk until EBM is available (after discussion with mother) if:

- *Infant is not feeding effectively and there is no EBM available (unsuccessful expressing regime or mum chooses not to express breastmilk)*
- *Breastfeeding/expressing has been insufficient to increase BG to acceptable level.*
- *Volumes of EBM have NOT increased throughout a 24-hour period.*

NB: Formula milk will be required in larger volumes than EBM as an infant's ability to utilise ketone bodies may be limited using infant formula.

Formula supplementation initially starts at 10mls/kg. If further supplementation with formula is required, this should be increased with baby's age:

Age	Mls/kg/per day	Calculation
24 hours old	40-60mls/kg/per day	Volume x birthweight (bw) ÷ Number of feeds in 24 hours (Minimum of 8) e.g., 24-48 hours old 70mls per kg per day 70mls x 3.230 bw ÷ 8 (3hourly amount) = 28.3mls every 3 hours
24-48 hours old	70-90mls/kg/per day	
48-72 hours old	100-120mls/kg/per day	
Beyond 72 hours old	150mls/kg/per day	

Once supplementing is started:

- *Support a return to responsive breastfeeding as soon as possible, e.g., when the infant is maintaining temperature, not sleepy and waking for feeds, has the appropriate urine and stool output, weight loss within 8% of birth weight/no further weight loss from day 5 post birth/regained by day 21 post birth.*
- *Supplementation should use EBM. If there is an amount shortfall use formula milk to make up the difference.*

A-F breastfeeding assessment supplementation chart

Score	Category that best describes infant's behaviour at the breast during the first 10 minutes	ACTION
A	Offered breast – infant not interested, remained sleepy	Full top up (EBM first, formula to make up the shortfall). Wake infant at least every 3 hours if they don't show feeding cues before.
B	Interested in feeding – licking & nuzzling however does to latch. No active feeding*	Full top up (EBM first, formula to make up the shortfall)
C	Latches** onto the breast, has a few sucks, comes off the breast, repeats this pattern for several minutes or falls asleep within a few minutes of latching. No active feeding*	Full top up (EBM first, formula to make up the shortfall)
D	Latches** & starts sucking and swallowing but …. • Sucking is shallow for most of the feed. • Sucking bursts are short. • Pauses are long – infant must be encouraged to start sucking.	Half to Full top up (EBM first, formula to make up the shortfall) depending on • weight (gain or loss), wet & dirty nappies are appropriate for infant's age. • Maternal breast milk supply. Infants who are receiving phototherapy &/or have excessive weight loss (>8% of birth weight) should receive a full top up
E	Latches** well with regular bursts of active feeding*, interspersed with short pauses and feed duration is typically between 5 – 10 minutes	Half to Full top up (EBM first, formula to make up the shortfall) Infants who are receiving phototherapy &/or have excessive weight loss should receive a full top up
F	Latches** well, with regular bursts of active feeding* interspersed with short pauses and feed duration is within range of 10 – 40 minutes.	No top up is required provided infant – • Wakes spontaneously to feed at least 10 times in 24 hours. • Is having the expected number & colour of wet and dirty nappies. • No further weight loss • Maternal breast milk supply in increasing.

*Active feeding - Rapid sucks at first, slowing down then to regular bursts of rhythmic, deep jaw drops before a brief pause, for most of the feed; Infant's eyes open at the start of the feed and infant remains calm and relaxed as the feed progresses; Infant removes itself when infant no longer wants milk, looking relaxed & sleepy.

** Latches well -

- Latches within a few seconds of trying with a wide-open mouth.
- No nipple pain after first 10 -20 seconds.
- Infant's chin is pressed against the breast; Infant's head is tipped back slightly; Some areola seen above infant's top lip but not below the bottom lip; Infant has rounded cheeks (not sucked in even when sucking); Remains attached throughout the feed; Nipple looks rounded, not pinched, at end of the feed.

For example – Infant scores a 'B' on the A-F chart which means they were interested in feeding, licking, nuzzling but did not latch. The infant would therefore require a full top up.

Document in the PHR, ePR as appropriate and complete a mandatory supplementation audit form (yellow form)

It is unacceptable to discharge an infant from hospital care whilst it is still reluctant or unable to breastfeed without a plan of care. Consider one to one discharge from inpatient to community service when extra breastfeeding support has been and/or continues to be necessary.

In addition –

- Abnormal feeding behaviour, for example not waking for feeds, not sucking effectively, appearing distressed, **especially after a period of feeding well** can be a sign of an ill infant and potentially suggestive to hypoglycaemia, BG measurement should therefore be undertaken.
- Cold stress is associated with poor/reluctant feeding and hypoglycaemia. Warming measures are indicated in an infant with temperature below 36º5c. BG measurement is required if the temperature does not recover with warming measures and/or the temperature is below 36ºc.
- Lethargy is defined as excessive sleepiness with or without good tone and justifies BG measurement.

Initiating and Continuing Lactation when Mothers and Baby are Separated.

Mothers who are unable to feed their babies require support and information on how to express their breast milk safely and effectively to maintain their baby's well-being.

Following Birth
Skin to skin contact (if possible)

≤2hours after birth
Liaison between maternity & neonatal unit
Facilitate buccal colostrum harvesting for at least.
48 hours following birth.
Issue 'developing a relationship' pack including bonding squares.

Documentation
PHR & ePR

↓

HDU &/or Postnatal Ward/Paediatric Ward

Ongoing liaison between maternity & neonatal unit

Support *breast milk expression at least 10 times in 24 hours including ≥ between 1.00am and 6.00am (Daytime: ≤4 hours between expression; Night-time ≤6 hours between expression).
EBM is stored on NNU.

As soon as the mother is able.
Encourage mother to express at baby's cot side.

Facilitate attachment.
Swap bonding squares
Photographs of baby
Regular updates

Documentation
Complete an expressing assessment form.
at least four times in the first 2 weeks following birth.
ePR
Postnatal PHR

*Breast Milk Expression

1. Start with hand expression to remove colostrum using disposable colostrum storage container and 1ml colostrum collector syringe (please see safety instructions.

2. To stimulate lactation, follow hand expression with the hospital grade electric breast pump. If using a medela breast pump use the 'initiation' cycle.

3. Encourage mothers to express a minimum of 8-12 times in 24 hours. There should be less than 4 hours (daytime) and 6 hours (nighttime) between each attempt.

Maternal Expressed Breast Milk - Storage, Checking and Handling of - Trust Clinical Guideline - see NIC NN PP 13/ Mat/02:2016/B2

Breast Milk Expression Assessment Form

Expressing assessment form

If any responses in the right hand column are ticked refer to specialist practitioner. Any additional concerns should be followed up as needed. Please date and sign when you have completed the assessments.

Mother's name:	*Baby's name:* *Date of birth:*	*Date of assessment:*				*Birth weight:* *Gestation:*				
What to observe/ask about	**Answer indicating effective expressing**	✓	✓	✓	✓	**Answer suggestive of a problem**	✓	✓	✓	✓
Frequency of expression	At least 8 times in 24 hours including once during the night.					Fewer than 8 times. Leaving out the night expression.				
Timings of expressions	Timings work around her lifestyle with no gaps of longer than 4 hours (daytime) and 6 hours (night time)					Frequent long gaps between expressions. Difficulty 'fitting in' 8 expressions in 24 hours.				
Stimulating milk ejection	Uses breast massage, relaxation, skin contact and/or being close to baby. Photos or items of baby clothing to help stimulate oxytocin.					Difficulty eliciting a milk ejection reflex. Stressed and anxious.				
*Hand expression	*Confident with technique. Appropriate leaflet/DVD provided.					*Poor technique observed. Mother not confident.				
Using a breast pump	Access to electric pump. Effective technique including suction settings, correct breast shield fit. Switching breasts (or double pumping) to ensure good breast drainage. Uses massage and/or breast compression to increase flow.					Concern about technique. Suction setting too high/low, restricting expression length, breast shield too small/large.				
Breast condition	Mother reports breast fullness prior to expression which softens following expression. No red areas or nipple trauma.					Breasts hard and painful to touch. Evidence of friction or trauma to nipple.				
Milk flow	Good milk flow. Breasts feel soft after expression.					Milk flow delayed and slow. Breasts remain full after expression.				
Mill volumes	Gradual increases in 24 hr volume at each assessment.					Milk volumes slow to increase or are decreasing at each assessment.				

Hand expression may not need to be reviewed every time

The Baby Friendly Initiative
For all babies

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Safety Alert - Actions required for using the Sterifeed colostrum collecting devices.

Actions for healthcare professionals

- Instruct parents to always remove the 'cap' from the tip of the syringe prior to use
- Demonstrate how to remove the cap before using the device.
- Advise parents on how to feed the collected colostrum to the baby (we recommend finger syringe feeding)

Actions for users - all users (mothers & their families): -

- Remove the cap from the top end of the syringe before using the device.
- Seek advice from a healthcare professional for guidance on how to feed the harvested colostrum to your baby.

Always document your instruction to parents in the infant's 'Baby Notes', V6, Lorenzo &/or Badger Net as appropriate.

Formal Feeding Assessments

Breastfeeding Assessment Tool (maternity)

Breastfeeding assessment tool: Neonatal

How you and your nurse/midwife can recognise that your baby is feeding well								*please see reverse of form for guidance on top-ups post-breastfeed
What to look for/ask about	✓	✓	✓	✓	✓	✓	✓	**Wet nappies:** Day 1-2 = 1-2 or more in 24 hours; Day 3-4 = 3-4 or more in 24 hours, heavier; Day 6 plus = 6 or more in 24 hours, heavy
Your baby: Is not interested, when offered breast, sleepy (*A)								
Is showing feeding cues but not attaching (*B)								
Attaches at the breast but quickly falls asleep (*C)								
Attaches for short bursts with long pauses (*D)								
Attaches well with long rhythmical sucking and swallowing for a short feed (requiring stimulation) (*E)								**Stools/dirty nappies:** Day 1-2 = 1 or more in 24 hours, meconium; Day 3-4 = 2 (preferably more) in 24 hours changing stools; By day 10-14 babies should pass frequent soft, runny stools everyday; 2 dirty nappies in 24 hours being the minimum you would expect. Exclusively breastfed babies should not have a day when they do not pass stool within the first 4-6 weeks. If they do then a full breastfeed should be observed to check for effective feeding. However, it is recognised that very preterm babies who transition to breastfeeding later may have developed their individual stooling pattern before beginning to breastfeed, and therefore this may be used as a guide to what is normal for each baby.
Attaches well for a sustained period with long rhythmical sucking and swallowing (*F)								
Normal skin colour and tone								
Gaining weight appropriately								
Your baby's nappies: At least 5-6 heavy, wet nappies in 24 hours								
At least 2 dirty nappies in 24hrs, at least £2 coin size, yellow and runny								
Your breasts: Breasts and nipples are comfortable								**Feed frequency:** Babies who are born preterm/sick may not be able to feed responsively in the way a term baby does. It is important that they have 8-10 feeds in 24 hours and they may need to be wakened if they don't show feeding cues after 3 hours. During this time it is important that you protect your milk supply by continuing to express. Being responsive to your baby's need to breastfeed for food, drink, comfort and security will ensure you have a good milk supply and a secure, happy baby.
Nipples are the same shape at the end of the feed as at the start								
Referred for additional breastfeeding support								
Date								
Midwife/nurse initials								
Midwife/nurse: If any responses not ticked: watch a full breastfeed, develop a care plan including revisiting positioning and attachment and/or refer for additional support. Consider specialist support if needed.								

Bottle Feeding Assessment Tool

UNICEF UK BABY FRIENDLY INITIATIVE
BOTTLE FEEDING ASSESSMENT TOOL

How parents and midwives/health visitors can recognise that bottle feeding is going well				
What to look for/ask about	✓	✓	✓	✓
General health and wellbeing of the baby				
Around six heavy, wet nappies a day by day five				
At least one soft stool a day				
Appropriate weight gain/growth				
Is generally calm and relaxed when feeding and is content after most feeds				
Has a normal skin colour and is alert and waking for feeds				
Feed preparation				
Equipment washed and sterilised appropriately				
Parents know how to make up feeds as per manufacturer's guidelines				
Responsive bottle feeding				
Parents are giving most of the feeds and limiting the number of caregivers				
Parents recognise early feeding cues				
Parents hold their baby close and semi-upright and maintain eye contact				
Pacing the feed				
Bottle held horizontally allowing just enough milk to cover the teat				
Baby invited to take the teat				
Baby observed for signs of needing a break and teat removed or bottle lowered to cut off flow				
Finishing the feed				
Parents recognise signs when baby has had enough milk (turning away, splaying hands, spitting out milk)				
Baby not encouraged to finish a feed inappropriately				
Expressed breastmilk				
Mother is expressing her breastmilk effectively and storing it safely				
Mother is maximising her breastmilk if that is her goal				
Infant formula				
First stage milk is used				
Leftover milk is discarded after two hours				
Date:				
Midwife/health visitor's initials:				

Monitoring Infant Growth and Development

The World Health Organization growth standards (2006) are the best reference for growth in the first 2 years as they reflect the growth of healthy breastfed infants.

Physiological weight loss between birth and day 5 is a normal adjustment for newborn infants, mainly caused by fluid reduction. Weight loss in newborns is expressed as a percentage of the birth weight. Normal loss is anything up to 8% for breast-fed infants and between 3-5% for formula fed infants. This weight loss usually stops after 3 or 4 days of life and most infants regain their birth weight by 3 weeks of age (NICE, 2017). A minimum weight gain of 20g per day up to 2-weeks of age is required. After 2 weeks of age, the expected weight gain is 20-30g per day.

Exclusively breastfed infants are perfectly adapted to survive on the small volumes of colostrum they receive in the first few days. After this, their mothers begin to make larger volumes of breastmilk which continues to provide all the fluids, energy, and nutrients they need (Bertini et al, 2015).

Regardless of the percentage of weight loss, what's most important is for health care providers to determine what the overall clinical picture of the breastfeeding mother and infant is. For example, there is a significant difference between a 3-day old infant who has lost 10% of its birthweight and who is sleepy and not latching well and a 3-day old infant who has lost 10% and is feeding frequently and well (Grossman et al, 2012).

High amounts of IV fluids (e.g., with induction of labour or an epidural) given to the mother in labour/birth has also been associated with excessive weight loss in healthy, term, exclusively breastfed, new-born (Eltonsy et al, 2017; Watson et al, 2012).

Reliable signs of adequate milk intake in a healthy infant:

- Weight gain after the initial weight loss soon after birth and some growth in length and head circumference.
- Good skin colour and muscle tone (infant 'fits' into its skin).
- Infant is alert and active when awake and meeting their developmental milestones.
- Stool transition from black meconium to yellow with a loose and seedy texture by day five. An increase in pale coloured urine production appropriate to the age of the infant.
- At least 8-12 feeds in 24 hours (including some feeds at night) of varying times with periods of rapid sucking, obvious gulping of milk, and a rise and fall in infant's chin as swallowing occurs.

If an infant loses more than 8% of their birth weight, the health care practitioner must perform a clinical assessment, look for evidence of dehydration, &/or of an illness or disorder that might account for the weight loss. This clinical assessment must include a detailed feeding history and direct observation of the infant feeding.

Managing excessive weight loss –

Use a Trust recommended assessment form to evaluate infant feeding. Abnormal findings trigger further actions. Concerning clinical signs include:

- reduced nappy (urine and stool) output (urates and <2- stools for 24 hours or more always requires assessment).
- high suck to swallow ratio (more than 2 sucks:1swallow).
- drowsy infant who does not wake to feed.
- infant with jaundice or birth injury which is preventing effective feeding.
- pain or soreness experienced by feeding parent.

G1 - weight loss management flow chart

Plan	Weight Loss	Management details
1.	**8%-10%**	***Management plan 1*** ❖ Recheck weights & percentage calculations. ❖ Observe a full breastfeed – ensure effective positioning and attachment & ❖ Carry out a full feeding assessment (Trust recommended assessment form) ❖ Minimum of 8 -12 breast feeds in 24 hours (ideally at least 10 feeds in 24hours). If infant is not achieving the minimum number of feeds, use hand expression. Give increasing amounts of EBM via using a method that is best suited to the infant's capabilities and parent's preferences. ❖ Skin contacts to encourage breastfeeding. ❖ Observe for change in frequency/amount of urine and stools. ❖ Arrange feeding support visit(s) ❖ Reweigh in 48 hours. If weight increasing (minimum weight gain is 20g a day up for the first 2 weeks of age), continue to monitor closely and provide support until weight loss is <8% & the infant is feeding effectively. **If no or minimal weight increase, move to management plan 2.**
2.	**10.1% - 12.4%**	***Follow Management Plan 1****, plus.* ❖ Exclude illness and/or infection – if either are suspected refer to the family's GP or paediatric assessment unit. ❖ Provide ongoing feeding support visits including additional support (where available) e.g., non-midwifery community feeding teams. ❖ Use breast compression* ❖ Express breastmilk after each feed and offer to infant by cup. ❖ Weigh again in 24-48 hours (continue feeding support during this period) **If no or minimal weight increase, move to management plan 3.**
3.	**12.5%-14.9%**	***Follow Management Plan 1& 2***, plus. ❖ Refer to local children's ward for review by paediatrician to exclude/manage underlying illness. *plus.* ❖ Ensure a minimum of 10 feeds in 24 hours plus top ups after each feed ideally with EBM. ❖ If breastfeeding is ineffective &/or insufficient EBM consider formula milk preparations using a method that is best suited to the infant's capabilities and parent's preferences. Pace feeding must be used with all bottle feeds. ❖ Support breast milk expression at least 10 times in 24 hours (appendix F infant feeding guideline). Inpatient use a hospital grade electric breast pump – especially where there is insufficient EBM. ❖ Consider power pumping. ❖ Use infant formula to offset insufficient breast milk. As breast milk supply increases reduce infant formula and encourage the return of full breastfeeding ❖ Weigh again in 24 hours and then continue to monitor weight every 48 hours until a clear trend towards birth weight is demonstrated.
4	**≥15%**	❖ Weight loss ≥15% is significant and will require readmission.

*Breast compressions encourage the let-down reflex to stimulate a sleepy infant and encourage them to suck.

Managing excessive weight loss continued:

- Infant weight loss is a late indicator of ineffective feeding.
- A Datix must be completed for readmissions to the Children's ward <28 days postnatal.
- In the first few days after birth urates may be normal bladder discharges. However, a feeding assessment will be necessary. Persistent urates indicate insufficient milk intake.
- Hypernatraemic dehydration is a rare but potentially fatal condition associated with feeding problems. Infant may present with reduced stools and urine output, prolonged or worsening jaundice, lethargy, and significant weight loss >12.5%.

Calculating weight loss:

Birth Weight – Current Weight = Weight Loss

Weight Loss X 100 = % weight loss
Birth Weight

For example:

3430 (BW) – 3120 (CW) = 310 (WL)

310 (WL) X 100 = 9%
3430 (BW)

Weight loss should be documented in grams (g)

Formula supplementation initially starts at 10mls/kg. If further supplementation with formula is required, this should be increased with infant's age:

Age	Mls/kg/per day	Calculation
24 hours old	40-60mls/kg/per day	Volume x birthweight (bw) ÷ Number of feeds in 24 hours (Minimum of 8) e.g., 24-48 hours old 70mls per kg per day 70mls x 3.230 bw ÷ 8 (3hourly amount) = 28.3mls every 3 hours
24-48 hours old	70-90mls/kg/per day	
48-72 hours old	100-120mls/kg/per day	
Beyond 72 hours old	150mls/kg/per day	

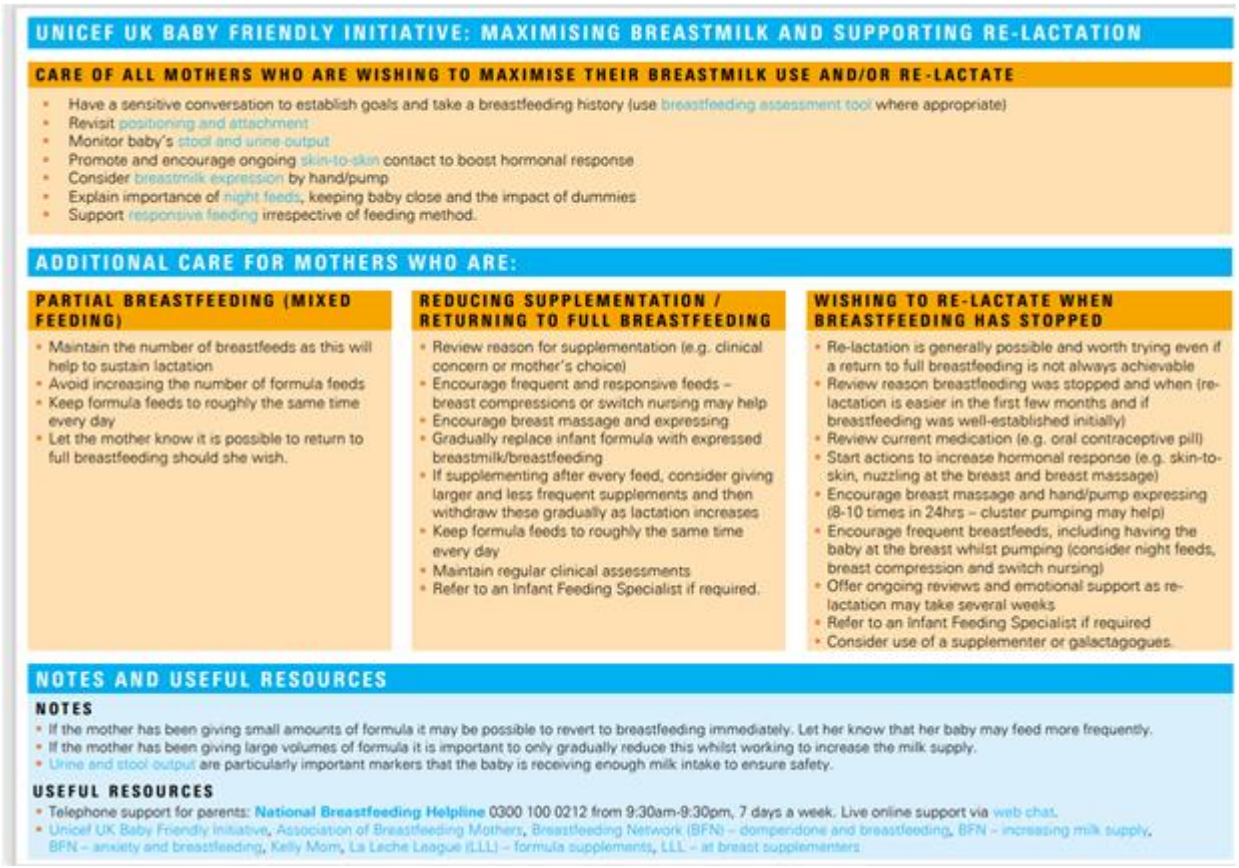
Appendix H

Feeding Support Services (additional to maternity support)

Local		National	Written
Derby	Burton		
Derbyshire Community Health Service (DCHS) (County) 0300 1234586 option 3 Derbyshire Healthcare NHS FT (City) O1246 515100 (single point of access) Breastfeeding Network Derbyshire - derbyshire@breastfeedingnetwork.org.uk Breastfeeding support and volunteer training	MPFT Health Visitor Hub East - 0300 3033924 West - 0300 3033923 Breast Milk Mummies - breastmilkmummies@hotmail.com	National Breastfeeding support (Breastfeeding Network) 0300 100 0212 National Childbirth Trust 0300 330 0700 La Leche League 0345 120 2918 Association of Breastfeeding Mothers 0300 330 5453	NETI - maternity → Breastfeeding (BFI) leaflets Mothers and Others Guide Department of Health - Off to the Best start Department of Health - Bottle feeding your Baby

Health Zone App - download the app - enter UHDB scroll down to maternity - breastfeeding support and relationship building = Feeding your Baby. Formula feeding, PACE bottle feeding and First Steps Nutrition = Postnatal

Association of Tongue Tie Practitioners - https://www.tongue-tie.org.uk/



UNICEF UK BABY FRIENDLY INITIATIVE: MAXIMISING BREASTMILK AND SUPPORTING RE-LACTATION

CARE OF ALL MOTHERS WHO ARE WISHING TO MAXIMISE THEIR BREASTMILK USE AND/OR RE-LACTATE

- Have a sensitive conversation to establish goals and take a breastfeeding history (use breastfeeding assessment tool where appropriate)
- Revisit positioning and attachment
- Monitor baby's stool and urine output
- Promote and encourage ongoing skin-to-skin contact to boost hormonal response
- Consider breastmilk expression by hand/pump
- Explain importance of night feeds, keeping baby close and the impact of dummies
- Support responsive feeding irrespective of feeding method.

ADDITIONAL CARE FOR MOTHERS WHO ARE:

PARTIAL BREASTFEEDING (MIXED FEEDING)

- Maintain the number of breastfeeds as this will help to sustain lactation
- Avoid increasing the number of formula feeds
- Keep formula feeds to roughly the same time every day
- Let the mother know it is possible to return to full breastfeeding should she wish.

REDUCING SUPPLEMENTATION / RETURNING TO FULL BREASTFEEDING

- Review reason for supplementation (e.g. clinical concern or mother's choice)
- Encourage frequent and responsive feeds – breast compressions or switch nursing may help
- Encourage breast massage and expressing
- Gradually replace infant formula with expressed breastmilk/breastfeeding
- If supplementing after every feed, consider giving larger and less frequent supplements and then withdraw these gradually as lactation increases
- Keep formula feeds to roughly the same time every day
- Maintain regular clinical assessments
- Refer to an Infant Feeding Specialist if required.

WISHING TO RE-LACTATE WHEN BREASTFEEDING HAS STOPPED

- Re-lactation is generally possible and worth trying even if a return to full breastfeeding is not always achievable
- Review reason breastfeeding was stopped and when (re-lactation is easier in the first few months and if breastfeeding was well-established initially)
- Review current medication (e.g. oral contraceptive pill)
- Start actions to increase hormonal response (e.g. skin-to-skin, nuzzling at the breast and breast massage)
- Encourage breast massage and hand/pump expressing (8-10 times in 24hrs – cluster pumping may help)
- Encourage frequent breastfeeds, including having the baby at the breast whilst pumping (consider night feeds, breast compression and switch nursing)
- Offer ongoing reviews and emotional support as re-lactation may take several weeks
- Refer to an Infant Feeding Specialist if required
- Consider use of a supplementer or galactagogues.

NOTES AND USEFUL RESOURCES

NOTES

- If the mother has been giving small amounts of formula it may be possible to revert to breastfeeding immediately. Let her know that her baby may feed more frequently.
- If the mother has been giving large volumes of formula it is important to only gradually reduce this whilst working to increase the milk supply.
- Urine and stool output are particularly important markers that the baby is receiving enough milk intake to ensure safety.

USEFUL RESOURCES

- Telephone support for parents: **National Breastfeeding Helpline** 0300 100 0212 from 9:30am-9:30pm, 7 days a week. Live online support via web chat.
- Unicef UK Baby Friendly Initiative, Association of Breastfeeding Mothers, Breastfeeding Network (BFN) – domperidone and breastfeeding, BFN – increasing milk supply, BFN – anxiety and breastfeeding, Kelly Mom, La Leche League (LLL) – formula supplements, LLL – at breast supplementers

https://www.unicef.org.uk/babyfriendly/wp-content/uploads/sites/2/2020/03/Unicef-UK-Baby-Friendly-Initiative-Maximising-breastmilk-and-re-lactation-guidance-2.pdf

Formula Milk Feeding

- The first bottle feed should be given while the mother holds her infant close in skin-to-skin and thereafter parents can be supported to recognise their infant's cues for food, love, comfort and communication. Supporting parents to hold their infant close during feeds, to look into their eyes and to make feeding an opportunity for bonding will encourage optimum development in their infant.

- Bottle fed infants are very vulnerable to infection because they do not have access to the anti-infective properties in breastmilk, and because bottles and formula milk are a source of potential infection.

- Choosing an infant formula - The food that infants are given has a profound effect on their present and future health. They are using the food to grow and develop their bodies and brains at a rate faster than at any other time in their lives and they are doing this with only one type of food – milk. Exclusive breastfeeding gives a infant the best possible start; if a infant is not being exclusively breastfed, maximising the amount of breastmilk they receive is the next best option.

- When a mother is 'mixed' feeding by breast and formula, or exclusively formula feeding, the most appropriate milk to use is **'first' stage milk**, suitable from birth and sometimes called stage 1 or newborn milk. These formulas are required by law to provide sufficient macro and micro nutrients to support adequate growth, and they must all meet the same infant formula compositional standards.

- Preterm and/or low birth weight infants may require a nutrient-enriched, low birth weight formula to ensure they are growing adequately and getting the right amount and type of milk.

- Formula feeding is associated with obesity, and we know that it is quite possible to over feed a infant who is bottle feeding. Keeping the teat in a infant's mouth and pushing it against their palate forces them to suck and swallow and is a practice so common we give it little thought. Taking a prescribed amount of formula and finishing the bottle are considered positives that will help the infant to grow. However, such practices can easily lead to overweight infants who in turn become overweight children. Given the opportunity to control the amount of food they take, healthy infants know when they are full and have very good appetite control.

- The UNICEF UK BFI standards require that parents who are formula feeding their infant be taught to notice their infant's signals that they are hungry and full and when they need to pause during a feed. This helps parents to learn to pace feeds appropriately, to avoid over feeding and to make feeding a much more pleasant experience for their infant.

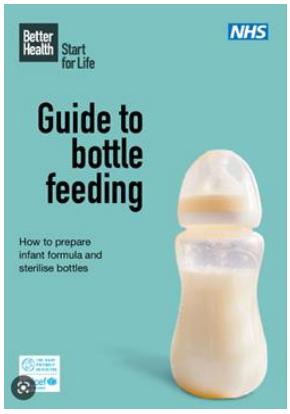
Responsive Bottle Feeding

Parents who are bottle feeding should be given information on using first infant formula (whey-based) for the first year of life. All brands have a similar nutritional makeup to comply with legislation, so there is no need to spend extra on expensive brands and it is fine to swap brands of first infant formula.

Parents should be shown how to clean, sterilise and make up feeds correctly. Washing infant feeding equipment in hot, soapy water prior to sterilisation is key as sterilisation won't work effectively if the bottles are not clean. Feeding equipment should be thoroughly cleaned and sterilised before and after each use.

UHDB maternity have a video recording on how to prepare formula milk available on the UHDB health zone app (postnatal – bottle feeding).

NHS step-by-step guide to preparing a formula feed.



Responsive bottle feeding is important because it:

- supports a closer bond between the infant and the parent or main caregiver.
- helps infant feel safe and secure as he is not being fed by many different people.
- encourages natural appetite control and prevents overfeeding reduces the risk of obesity particularly when using infant formula.

How to bottle feed responsively

- Hold infant close and in a semi-upright position so the parent/main caregiver can connect with the infant throughout the feed.
- Show parent/main caregiver how to invite the infant to open their mouth by gently rubbing the teat above the top lip.
- Gently insert the teat into the infant's mouth and watch for active sucking.
- PACE feed - Show parent/main caregiver how to hold the bottle horizontally with just enough milk to cover the hole in the teat - this will prevent the milk from flowing too fast, which could make it difficult for the infant to control his suck/swallow/breathe reflex.
- Talk to the parent/main caregiver about observable signs that infant may need a break, such as splaying hands, turning his head or spitting out milk (the bottle may then be dropped to cut off the supply to allow the infant to have a break)
- Remind the parent/main caregiver not to force a full feed if he is showing signs of having had enough, as this overrides his natural appetite control and risks overfeeding which can result in reflux, vomiting and discomfort.

For infants who may need additional support when establishing bottle feeding, implementing supportive measures such as elevated side-lying feeding with support from speech and language therapists should be considered.

UNICEF UK Responsive bottle feeding leaflet - https://www.unicef.org.uk/infantfriendly/wp-content/uploads/sites/2/2019/04/Infant-formula-and-responsive-bottle-feeding.pdf.

J1. Tongue Tie Referral form - Royal Derby Hospital

NHS
University Hospitals of Derby and Burton
NHS Foundation Trust

Urgent REFERRAL FOR TONGUE TIE ASSESSMENT

A mandatory **full feeding** assessment including the restrictions of the infant's tongue movement (see page 2) must be undertaken and documented before a referral is made.

Baby Name:	**Parental/Guardian Name:**
Baby Unit Number:	**Baby's Gender-** **IM Vitamin K –**
Baby Date of Birth:	**Baby's Ethnicity:**
Baby's Address: **Telephone Number:**	**Name of Baby's General Practitioner/Address:**
Baby's Expected Date of Delivery (EDD)	**Baby's age at referral-**

Information/reason for decision:

Referral made by:

Email this referral to: dhft.paedsappointmentrequest@nhs.net and UHDB.babyfriendly@nhs.net

The consultant will review the referral, and if appropriate, will send an appointment c/o the infant's parent. Please ensure the parents know the wait for an appointment may be up to 6 weeks and that the frenulotomy is only performed if it is clinically appropriate.

Author: UHDB Infant Feeding Team Date of approval/implementation Approved by: 12.02.2021
Document version number 3

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University Hospitals of Derby and Burton
NHS Foundation Trust

Baby's Name &/or Unit Number: **DOB:**

Bristol Tongue Assessment Tool (BTAT) provides an objective, clear and simple measure of the severity of a tongue-tie, to inform selection of infants for frenulotomy (tongue-tie division)

TABBY Tongue Assessment Tool

	0	1	2	SCORE
What does the tongue-tip look like?				
Where it is fixed to the gum?				
How high can it lift (wide open mouth)?				
How far can it stick out?				

A low score e.g., 0 (zero) - <5 may indicate a frenulotomy would help infant feeding.

Comments:

Staff Name:
Date:
(Please secure this form into the maternal patient held records for community midwife follow up)

Author: UHDB Infant Feeding Team Date of approval/implementation Approved by: 12.02.2021
Document version number 3

Documentation Control

Reference Number: **Mat/07:23/B5**	**Version: 7**		**Status: FINAL**	
Version / Amendment	Version	Date	Author	Reason
	1	February 2000	Infant Feeding advisors	To support Baby Friendly Initiative
	2	January 2006	K Payne R McLean Infant Feeding advisors	Due for review
	3	March 2010	K Payne R McLean Infant Feeding advisors	Due for review
	4	Sept 2014	K Payne Infant Feeding advisor	Review
	5	March 2015	K Payne Infant Feeding advisor	Merge of Newborn Feeding (B8) guideline with Policy
	6	July 2019	K. Thompson - Specialist MW Infant Feeding Advisor	Review & merge with Burton guideline
	7	Jan 2023	K. Thompson - Specialist MW Infant Feeding Advisor	Review / update
	7.1	Feb 2024	K. Thompson - Specialist MW Infant Feeding Advisor	Amendments made by Neonatal Team for BFI accreditation

Intended Recipients: All staff with responsibility for supporting women regarding infant feeding	
Training and Dissemination: Cascaded through lead midwives; Published on Intranet; NHS email circulation list; Training provided by infant feeding advisor	
To be read in conjunction with: Managing Hypoglycaemia in the Newborn Baby (H7) / Neonatal Jaundice (N6) Care of the Newborn (N5) / Babies Sharing their Mothers' Bed / Co-Sleeping (B7)	
Consultation with:	Maternity Guideline Group
Business Unit sign off::	02/05/2023: Maternity Guidelines Group: Miss S Rajendran – Chair 02/02/2024: V7.1 Maternity Guidelines Group: Miss A Joshi 19/06/2023: Maternity Governance Group - Mr R Deveraj 15/02/2024: V7.1 Maternity Governance Group - Mr R Deveraj
Notification Overview sent to TIER 3 Divisional Quality Governance Operations & Performance: 20/06/2023 20/02/2024 V7.1	
Implementation date:	10/07/2023 V7.1 03/04/2024
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Key Contact:	Joanna Harrison