Trust Policy	Worcestershire Acute Hospitals NHS Trust

Neonatal Infant Feeding Policy

Department / Service:	Neonatal & Transitional Care Unit	
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Accountable Director:	Dr Wasi Shinwari	Clinical Director
Approved by:	Paediatric Governance Meeting	
Date of approval:	15th January 2025	
Review Date This is the most current document and should be used until a revised version is in place**:**	15th January 2028	
Target Organisation(s)	Worcestershire Acute Hospitals NHS Trust	
Target Departments	Neonatal, Transitional Care Unit & Neonatal Outreach	
Target staff categories	Neonatal, Transitional Care Unit staff & Neonatal Outreach	

Policy Overview:
The purpose of this policy is to ensure that all staff working within Neonatal, Transitional Care & Neonatal Outreach at Worcestershire Acute NHS Trust understands their roles and responsibilities in supporting parents to feed and care for their baby in ways which support optimum health and wellbeing, including the development of close, loving relationships and ensuring that all babies get the best possible start in life.

Key amendments to this document

Date	Amendment	Approved by:
20/09/2023	Addition of PeriPrem. Addition of Neonatal Outreach Service support with feeding Updated parental support	Paediatric Governance Meeting
23/12/2024	Addition of details on facilities available to support parents to stay close to baby Amended lactation supply expected by day 10/750mls Amended first expression to within 2 hours of birth Addition of approved SOP for use of parent and carer accommodation and facilities	

Contents

1. Introduction

Worcestershire Acute Hospital NHS Trust promotes that breastfeeding is the healthiest choice for mothers and babies to feed. It recognises the important evidence that breastfeeding has on both health and emotional wellbeing for families.

As part of their role and accountability, all staff are expected to comply with this policy.

This policy should be used in conjunction with;
Worcestershire Acute Hospitals local guidelines and West Midlands Perinatal Network Guidelines:

- Infant Feeding Policy - WAHT-TP-094 2021-24
- Nutrition and Enteral Feeding – Network Guideline with amendments 2022-24
- Bottle Feeding in the Neonatal Unit – Network Guideline 2022-24
- Breastfeeding – Network Guideline with amendments 2022-24
- Progression to oral feeding in preterm babies – Network guidelines 2022-24
- Breast Milk Expression - Network Guideline with amendments 2022-24
- Breast Milk Handling and Storage - Network Guideline with amendments 2022-24
- Kangaroo Care – Network Guideline with amendments 2022-24
- Non-Nutritive sucking (NNS) – Network guideline with amendments 2022-24
- SOP for Parent and Carer accommodation and facilities (WAHT-KD-015) 2024-27

2. Purpose

This policy aims to ensure that the care provided improves outcomes for children and families, through:

- Increase number of babies receiving breastmilk
- Where possible, aim for Mother's to express colostrum within 2 hours of delivery of their baby.
- Where possible, babies to receive their own mother's breastmilk, as soon as possible after expression, ideally within six hours of birth.
- Increase breastfeeding /breastmilk initiation rates
- Increase number of babies who are discharged home breastfeeding or breastmilk feeding
- Increase proportion of mothers who have chosen to formula feed reporting that they have received proactive support to formula feed as safely as possible in line with Department of Health guidance
- Improve the parents' experiences of care
- Improve the safety of bottle feeding for parents who choose to feed their baby by bottle, supporting to progress to responsive bottle feeding

3. Scope of this document

This policy applies to all staff working within the Neonatal Unit, Transitional Care and Neonatal Outreach. The policy recognises that not all staff groups in all disciplines will have direct involvement in infant feeding, however all members of staff have a responsibility to support this policy.

4. Our commitment

Worcestershire Acute NHS Trust's Neonatal, Transitional Care and Neonatal Outreach are committed to:

- Providing the highest standard of care to support parents to feed their baby and build strong and loving parent-infant relationships. This is in recognition of the profound importance of early relationships to future health and wellbeing, and the significant contribution that breast milk & breastfeeding makes to good physical and emotional health outcomes for children and mothers.
- Ensuring that all care is family integrated, non-judgmental and that parents' decisions are supported and respected.
- Working together across disciplines and organisations' to improve parents' experiences of care.

As part of this commitment the service will ensure that:

- All new staff are familiarised with the policy on commencement of employment.
- All staff receive training to enable them to implement the policy appropriately to their role. This training should be undertaken within six months of commencement of employment. Updates should subsequently be held annually.
- The International Code of Marketing of Breastmilk Substitutes[1] is implemented throughout the service.
- All documentation fully supports the implementation of these care standards.
- Parents' experiences of care will be listened to through:
    - regular audit using the Baby Friendly Initiative audit tool
    - parent experience via Friends & Family and Quality Audits
    - the Care Quality Commission
    - Bliss Baby Charter audit tool
    - Friends and Family test
    - Patient Advisory Liaison Service
    - Maternity Neonatal Voices Partnership (MNVP)

- Debrief sessions to all families on request
- Partners in Care working relationship with the Multi-Disciplinary Team, (MDT)

- Any deviations from these standards should be documented in the baby's notes

1. *More information on the Code can be found at: http://unicef.uk/thecode*

Care Standards

5. Supporting parents to have a close and loving relationship with their baby

These services recognise the profound importance of secure parent-infant attachment for the future health and wellbeing of the infant and the challenges that the experience of having a sick or premature baby can present to the development of this relationship. Therefore, we are committed to care which actively supports parents to develop a close and loving bond with their baby. All parents will:

- Have a discussion with an appropriate member of staff as soon as possible (either before and/or after their baby's birth) about the importance of touch, comfort and communication for their baby's health and development.
- Parents are seen as partners in care for their baby and have unrestricted access to support them to care for their baby as much as they wish.
- Be actively encouraged, guided and supported to provide touch, comfort and emotional support to their baby throughout their baby's stay on our units.
- Be enabled and encouraged to have frequent and prolonged skin contact with their baby as soon as possible after birth and throughout their baby's stay. (Kangaroo Care WMNODN)
- Parents are encouraged to be with their baby as soon and for as long as possible after delivery and throughout their stay. Virtual video calling and Badgernet Baby Diary is available for parents when they are not able to be present.
- Parents to have access to the support of the unit clinical psychologist when needed
- Parents are supported to stay overnight close to their baby, for as long as they wish where possible.
- Have access to overnight accommodation and facilities to support them to stay close to their baby whilst transitioning onto breast feeding.

6. Enabling babies to receive breastmilk and to breastfeed

Our service recognises the importance of breastmilk for babies' survival and health.
In the first few hours and days of life, colostrum is essential to prime and protect the gut of premature and vulnerable babies.

Therefore, we will ensure that:

- A mother's own breastmilk is always the first choice of feed for her baby
- Where possible antenatal counselling should include a discussion about the benefits of breast milk using the PeriPrem Care Passport (Appendix C) for support
- Staff should lead a discussion with mothers regarding the importance of their breastmilk for their preterm or ill baby as soon as it is appropriate and buccal colostrum information leaflet to be given.
- Expressed colostrum to be administered to the baby as soon as available in line with the Buccal Colostrum Guideline https://www.wmnodn.org.uk/wp-content/uploads/2021/06/guideline-for-buccal-colostrumfinalmay2021.pdf
- Where mother and baby are separated it is the responsibility of both maternity and neonatal staff to ensure that the mother receives appropriate information and support to initiate lactation and provide mothers expressed breast milk (MEBM) for their baby/ies
- In situations where there is insufficient MEBM available, the use of donor expressed breast milk (DEBM) or formula milk will remain a clinical decision and should be given only with the informed consent of the parents and with on-going full support for the mother to establish her own milk supply. (See Nutrition and Enteral Feeding - Network Guideline with amendments 2022-24 (1).PDF and Donor Expressed Breast Milk information leaflet https://www.wmnodn.org.uk/guidelines/donor-breast-milk-feb2020-3/)
- The use of intravenous fluids whilst either waiting for sufficient volumes of breast milk (MEBM) or waiting for the baby to be able to breastfeed effectively remains a clinical decision that should be fully discussed with the parents.
- All discussions and advice surrounding feeding will be documented in the baby's health records.
- Mothers are supported to express breast milk for their baby

Mothers who are expected to imminently deliver or have delivered a preterm infant should be encouraged to hand express, following a discussion with the antenatal ward or delivery suite (see Breast Milk Expression Network guideline)

- Express as early as possible after birth (ideally within two hours)
- A suitable environment conducive to effective expression is created, individualised to each mother's needs; Privacy can be provided via screens at the cot side or use of a private room.
- Learn how to express effectively, including by hand and by breast pump
- Mothers have access to hospital grade breast pumps and equipment. Mothers will be provided with pumping equipment where possible for home use.
- Learn how to use breast pumping equipment and store milk safely (see Expressing and storage of breastmilk guideline). Breast Milk Expression Network Guideline. including: Express frequently (at least 8 to 10 times in 24 hours, including once at night, with no long gaps) especially in the first two to three weeks following delivery, in order to optimise long-term milk supply.

- Overcome expressing difficulties where necessary and refer to infant feeding team when problems arise.
- Stay close to their baby (when possible) when expressing milk
- Encourage regular skin-to-skin contact to improve hormonal responses to maximize and maintain mothers milk supply
- A formal review of expressing is undertaken a minimum of four times in the first two weeks to support optimum expressing and milk supply (Assessment of breast milk expression, (see appendix A)
- Use their milk for mouth care when their baby is not tolerating oral feeds, and later to tempt their baby to feed. Infant Feeding Policy WAHT-TP-094

Mothers who wish to breast feed their baby should be fully supported to:

- Use skin-to-skin contact to encourage instinctive feeding behavior
- Provide pre-feeding opportunities for their baby. See https://www.wmnodn.org.uk/guidelines/non-nutitive-sucking-v6-2020/
- Recognise and respond to feeding cues and stress cues
- Mothers receive care that supports the transition to breastfeeding https://www.wmnodn.org.uk/guidelines/progression-from-the-tube-to-oral-feeding-jan-2020/
- Provide suitable and appropriate chairs to facilitate prolonged skin to skin and feeding.
- Be able to position and attach their baby effectively for breastfeeding
- Recognise the signs that feeding is effective, becoming proficient at assessing each feed for effectiveness and observing/monitoring baby's skill development, using https://www.wmnodn.org.uk/guidelines/wmnodn-bf-assessment-jan2020wmnodn/
- Recognise and overcome challenges when needed and facilitate progression, at baby's pace. If needed, refer to Infant Feeding Team
- Mothers are provided with details of voluntary support for breastfeeding which they can choose to access at any time during their baby's stay (community breast feeding support groups)
- Mothers are offered the opportunity to stay overnight or for extended periods to support the development of their confidence and modified responsive feeding.[2]
- Mothers are supported throughout the transition to fully responsive breast feeding either within the hospital environment or under care of the Outreach Team following early discharge.
- Mothers are provided with information about all available resources of support before they are discharged home (breast feeding support groups and community breast feeding support workers).

2. 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 have the opportunity to 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 and breastfeeding will not, in and of itself, tire mothers any more than caring for a new baby without breastfeeding. Find out more in our responsive feeding info sheet: http://unicef.uk/responsivefeeding

7. Support for bottle feeding babies

Our service recognises that not all mothers want to breastfeed and therefore support will be given to parents who choose to bottle feed their babies.

The service will ensure that parents who bottle feed their baby will:

- Be encouraged to provide pre-feeding opportunities for their baby e.g. skin to skin contact, mouth care, non-nutritive sucking and positive touch.
- Understand the importance of feeding being a relationship which is sensitive, reciprocal and about more than nutrition. Staff should ensure that mothers have the opportunity to discuss this aspect of bottle feeding, understand the Bottle-Feeding Assessment Chart (see appendix 4) and learn how to safely bottle feed their baby.
- Be taught the benefits of feeding their baby in an elevated side lying position when establishing their bottle-feeding skills. This position is safe, comfortable, provides good tone and a mid-line position to support improved suck/swallow/breath co-ordination during bottle feeding. Elevated Side Lying Feeding leaflet: https://www.wmnodn.org.uk/guidelines/esl-may2020-a5-leaflet-final/
- Be given unrestricted access to their baby, as responsive feeding is essential to the establishment of successful bottle feeding and therefore in order to respond to baby's cues for feeding and/or comfort. Any deviation from normal baby led responsive feeding should be discussed with the mother.
- Be made aware that sick and preterm babies will require extra and on-going support when transitioning from tube to bottle feeding. They often have suppressed feeding cues and may need rousing for feeds and/or top up feeds given by nasogastric tube (NGT) at regular intervals in order to ensure sufficient intake – known as modified responsive feeding. See Progression to Oral Feeding: Progression-from-the-tube-to-oral-feeding-Jan-2020.pdf (wmnodn.org.uk)
- Referral for complex needs or concerns with progression of bottle feeding to speech and language therapy (SALT).
- Receive information through discussion, demonstration and written format on how to clean/sterilise equipment safely and correctly make up a bottle of formula milk.

Mothers who bottle feed with expressed breast milk are given information on how to safely store their baby's milk both in hospital and at home, Breast Milk Handling and Storage Network Guideline.
Mothers should be given information on how to access support available to maximise their lactation both in hospital and at home.

8. Valuing parents as partners in care

Our service recognises that parents are vital to ensuring the best possible short and long term outcomes for babies and therefore should be considered as the primary partners in care.

The service will ensure that parents:

- Have unrestricted access to their baby unless individual restrictions can be justified in the baby's best interest.
- Signpost parents how to access financial support where indicated. All families offered free parking permits.
- Wherever possible parents are offered the opportunity to stay overnight or for extended periods to support parent/infant attachment, reduce stress, support progression onto breast feeding and the development of parenting confidence.
- Will receive education and support from staff on how to care for their babies.
- Are listened to, including their observations, feelings and wishes regarding their baby's care
- Have full information regarding their baby's condition and treatment to enable informed decision-making. Parents are encouraged and supported to participate in parent led ward rounds.
- Are made comfortable when on the unit, with the aim of enabling them to spend as much time as is possible with their baby. Facilities are available to make drinks, store and heat own food. Mothers have access to food whilst caring for their baby.
- Are prepared for seamless discharge.

9. Monitoring implementation of the standards

Compliance with this policy will be audited at least annually using the Unicef UK Baby Friendly Initiative neonatal audit tool Audit tools - Baby Friendly Initiative: https://www.unicef.org.uk/babyfriendly/baby-friendly-resources/implementing-standards-resources/audit/
Staff involved in carrying out this audit will have received the required training on the use of the tool.
Audit results and outcomes being measured will be reported to the ward managers of the units and a report, including an action plan addressing any areas of non-compliance, will be presented at the directorate/divisional governance meetings.

10. Monitoring outcomes

The following outcomes will be monitored:

- Breastmilk feeding rates
- Breastfeeding rates
- Mother's milk at 2 days, 14 days and at time of discharge as per NNAP standard
- Badgernet Unicef data fields
- Parent feedback
- Early expression and buccal colostrum rates

Appendix A:

ASSESSMENT OF BREAST MILK EXPRESSION: STAFF INFORMATION

For sick and preterm babies the importance of breastmilk cannot be overestimated, supporting growth and providing protection from infection. In particular, evidence suggests that the use of breastmilk decreases the incidence and severity of the life threatening disease necrotising enterocolitis. By providing her breastmilk a mother can be assured that she is uniquely contributing to the wellbeing and development of her baby. However, expressing breastmilk over a long period of time is extremely demanding and if a mother is to succeed, effective support is needed from those involved with caring for her and her baby.

The Baby Friendly Initiative recommends that a formal review is carried out at least once within the first 12 hours following delivery to support early expressing and **at least four times within the first two weeks.** This will ensure that mothers are expressing effectively and will provide an opportunity to address any issues or concerns they may have. Early (within the first 2 hours), frequent (at least 8 to 10 times in 24 hours including once at night) and effective expressing (combining hand and pump expression) is crucial to ensuring a mother is able to maximise her individual milk production so that she can maintain her supply for as long as she wishes. Many women will be able to express between 700 and 900 mls per day when provided with the support to express effectively. There are many factors, however, that may impact on the amount of milk an individual woman may produce, so the focus should primarily be on enabling the woman to achieve her potential rather than on specific amounts.

Delays in starting to express or any reduction in the frequency or effectiveness of expression will compromise her long term supply. Early detection and correction of problems will help her maintain confidence in her ability to produce milk for her baby.

Tips to help mothers succeed

- Hand expressing is a good technique for obtaining small volumes of colostrum.
- Breast massage and relaxation techniques support a mother's milk flow by increasing oxytocin.
- Expressing close to her baby or having a photo or piece of baby's clothing can also help a mother's milk production and flow.
- Encouraging frequent and prolonged skin-to-skin contact or, where this is not possible, interacting with and undertaking cares for the baby will further support an emotional connection and increase milk making hormones.
- When using a pump mothers should be taught how to use this correctly and staff should ensure that the equipment fits effectively.
- Double pumping should be encouraged as this can save time and may contribute to being able to express long term. Larger volumes can often be achieved when mothers double pump.
- Support mothers to develop a plan for expressing and consider using an expressing log to help. Flexibility around when a mother expresses often helps mothers sustain expressing for prolonged periods. Emphasis on the frequency of 8-10 times (including once at night), will enable a mother to express for as long as she wishes. She does not have to stick to a strict 3-4 hourly routine (she can cluster express if she wishes i.e. expressing 2-3 times in a 4 hourly period), but should avoid long gaps (4 hours in the day and 6 hours at night) between expressions.
- The importance of the night-time expression should be emphasised to replicate normal physiology and support long term milk production.
- It is expected that milk volumes will increase in the first two weeks. Frequent evaluation of how the mother is expressing will enable staff to support the mother in increasing the effectiveness of her expressing. Referral to specialist support should be considered if, despite effective expressing, the amount the mother is able to express is not increasing as hoped.
- Emotional support is important throughout the mother's journey. This may include enabling the mother to stay with her baby as often and for as long as she wishes, frequent updates on the condition of her baby and participation in as much care as she feels comfortable with.

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 8-10 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 – if cluster expressing, 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/information provided.					*Poor technique observed. Mother not confident.				
Using a breast pump	Access to electric pump. Effective technique including suction settings, correct breast shield fit. Double pumping (or switching breasts) 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.				
Milk 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

Date	Information/support provided	Signature

Appendix B: Feeding checklist

PID:

Checklist for Milk Supply & Progress to Oral Feeding (Breast or Bottle)

Date of Birth: **Gestation:**

To be completed within 2 hours of admission	**Tick when achieved**	**Date & Signature**
1. Has the importance of colostrum/breast milk been discussed with parents? 2. Has the Mother received a hand expressing pack? Has hand expressing technique & frequency been explained? (8+ times/24hrs incl. once at night) Has the milk-log been explained to the Mother? 3. **At 2hrs**, has baby received buccal colostrum or a breastfeed? (If not, call midwife or Mother); 4. Maternal medications recorded? Medicines in breastmilk information 0121 424 7298.		
To be completed within 24 - 48 hrs post-delivery/admission	**Tick when achieved**	**Date & Signature**
1. **Can the baby have an oral feed?** (see overleaf for details); **2. Is the Mother now using a double electric breast pump?** *Have the following been explained:* - The importance of expressing 8+ times/24hrs including once during night? - Hand hygiene prior to expressing? - Cleaning, sterilising & storage of pump equipment on the NNU? 3. Has the Mother received a **pump for home use**? - Has she received information about cleaning her equipment & storing milk at home? 4. **If Donor Milk** or appropriate **formula milk** are suggested by medical team: - Have the parents given informed consent? - Has the Mother been advised to continue expressing frequently? **5. Date & sign when parents have received the following information:** - The importance of skin to skin contact /kangaroo care & Bliss leaflet; - Positive touch & containment holding; - Using expressed milk for mouth care & analgesia; - Non-nutritive sucking during tube feeds (includes nuzzling at breast, dipping dummy in EBM); - Reading baby's behavioral cues: & Bliss leaflet: "Look at me I'm talking to you" -		
Check milk volumes DAILY (see attached sheet) Complete the attached chart with the Mother DAILY for the first two weeks.		

Stable and ready to commence oral feeding Baby can commence oral feeds when the following criteria are satisfied: • Tolerating tube feeds • Physiologically stable especially when transferred into KMC – resps <70/min • Able to suckle on a dummy & swallow secretions • Showing feeding cues – rooting, gaping, searching for breast, hand to mouth • Can sustain a quiet alert state for more than just a few minutes	**Tick when achieved**	**Date & Sign**
If the Mother wishes to transition her baby to Breastfeed: **N.B. *Breastfed babies should not be offered a bottle*** for supplementary feeds or at least not until breastfeeding is more established i.e. scoring D, E or F for at least 3 breastfeeds within a 24 – 36 hr period; If bottles are used this must be with the Mother's ***informed*** consent.		**Date & Sign**
1. Have the following been explained to parents? - The impact of early bottle-use on breastfeeding; - How to recognise & respond to feeding and stress cues before, during & after feeds; - How to position & attach baby at the breast; - How to assess a breastfeed using the Assessment chart; - The importance of continued expressing & daily kangaroo care; - Normal pattern of breastfeeding as baby approaches term: frequency, duration, wet & dirty nappies, weight gain; **2. Has the opportunity to spend more time with baby to establish breastfeeding been discussed**? **3. Has a "Modified" responsive feeding** plan been explained? **4. Prior to discharge home:** - Has a breastfeeding assessment been carried out? - Has the Mother been given information to access breastfeeding support & pump hire in the community?	**Tick when achieved**	

If the Mother wishes to transition her baby to Bottle Feeding **–** baby should be at least 32 weeks GA & satisfy above criteria for commencing oral feeds;	**Tick when achieved**	**Date & Signature**
1. **Have the following been explained**? - Feed in an elevated side-lying position with pacing – leaflet given & explained? - Importance of positive oral experiences, eye contact, talking to baby; - The NG tube is left in place until baby has not required a top-up feed for 24hrs; - How to recognise & respond to feeding and stress cues before, during & after feeds; - How to assess a bottle feed using the assessment chart; - The importance of continued KMC and expressing; 2. **Has a "Modified" responsive feeding** plan been explained? **3.** **Prior to discharge home have the following been explained?** **-** How to sterilise feeding equipment at home; - How to make up powdered milk feeds safely at home; - How to hire a breast pump in the community;		

Daily Expressed Milk Volumes In MLs	**Comments**	**Action taken:** document any discussion or action suggested & sign
Day 1:	Ensure hand expressing has started;	
Day 2:	Ensure expressing x8/24hrs; Incl once at night;	
Day 3:	Ensure double pumping has started; **Check funnel size**	
Day 4:	**Inform Infant feeding nurse if volumes are not increasing every day or if c/o nipple or breast pain;**	
Day 5:	Ensure expressing x8/24hrs including once at night;	
Day 6:		
Day 7:	If daily volume is <350mls/day (<700 mls day if twins) inform infant feeding nurse;	
Day 8:		
Day 9:		
Day 10:	If daily volume is < 500 mls /day (<1000 mls/day if twins) inform infant feeding nurse;	
Day 11:		
Day 12:		
Day 13:		
Day 14:	If daily volume <750 mls/day (<1300 mls/day) inform infant feeding nurse;	

Appendix C.

PERIPrem Perinatal Passport

This checklist must be completed for all births <34/40 and must accompany the baby on transfer to NNU

NHS Worcestershire Acute Hospitals NHS Trust

Putting Patients First 4ward

Time of birth: __:__ Gestation: /40

Type of birth: Birth weight: g

Time of admission to NNU: __:__

Apgars: @1 @5 @10

Name:
DOB:
Hosp No:
NHS No:
Or patient sticker here

1. Place of Birth:

Tertiary unit if <27/40, EFW <800g or multiple pregnancy <28/40

Where born if not in Worcester LNU?

If born in Worcester out of normal criteria, why was Intrauterine transfer not achieved?

Was an exception report competed? Y/N

2. Antenatal Steroids:

(If <34 weeks)

Dexamethasone / Betamethasone (<34 weeks)
Full course (2 doses 12-24hrs apart)? Y / N

Date and time of last dose: __/__/____:__

3. Magnesium Sulphate:

(if <30 weeks)

PReCePT $MgSO_4$

Given? Y / N

Date and time commenced: __/__/____:__

4. Early Breast Milk: (a)

Antenatal counselling and advice for mother re benefits of EBM and early & frequent expressing? Y / N

Given Early Breast Milk information leaflet? Y / N
__/__/____:__

5. Antibiotic Prophylaxis

Required? Y / N Given? Y / N

Given > 4hrs pre birth? Y / N

6. Optimal Cord Management (OCM):

Time of OCM: __ : __ (minutes and seconds)

If no OCM, reason why:

Thermal Care interventions during OCM:

7. Thermal Care:

Temp in delivery room prior to transfer to NNU: °C
Time taken: __:__

Admission Temp: °C
Time taken: __:__

Thermal care provided:

8. Respiratory Management:

Volume targeted/volume guided ventilation (if invasively ventilated)?
Y / N / NA

9. Caffeine:

(<30 weeks but consider up to 32-34 weeks)

Time of administration
(within 6h admission): _ _ : _ _

4. Early Breast Milk: (b)

Mother helped to express <1hr after delivery? Y / N
_ _ / _ _ / _ _ _ _ : _ _

Hand expressing demonstrated or assisted? Y / N
_ _ / _ _ / _ _ _ _ : _ _

Date & time Colostrum first available: _ _ / _ _ / _ _ _ _ : _ _

Date & time Colostrum given to baby: _ _ / _ _ / _ _ _ _ : _ _

10. Probiotics:

(<32 weeks or <1.5kg)

Probiotics started as per WRH guideline? Y / N / NA

_ _ / _ _ / _ _ _ _ : _ _

Appendix D.

PERIPrem Baby Passport

Right Place of Birth

(for babies born less 27 weeks, less than 28 weeks for multiple births or who may weigh less than 800 grams)

I understand that if my baby(ies) need to be born early, we may need to be transferred to another hospital.

In Progress ○ Complete ○

Antenatal Steroids

(for all babies born less than 34 weeks)

I have received a full course of steroids to help prepare my baby(ies) for being born early.

In Progress ○ Complete ○

Antenatal Magnesium Sulphate

(for all babies born less than 30 weeks)

I have received Magnesium Sulphate to support my baby(ies) brain development.

In Progress ○ Complete ○

Early Breast Milk

(for all babies born less than 34 weeks)

I have received information about the benefits of Early breast milk and have been shown hand expressing/breast pump techniques to help me try to make early breast milk for my baby(ies) before or within an hour of them being born.

In Progress ○ Complete ○

Antibiotics

(for all babies born less than 34 weeks where mum was in established labour)

I have received antibiotics to reduce the chance of my baby developing an infection called Group B Streptococcus.

In Progress ○ Complete ○

Optimal Cord Management

(for all babies born less than 34 weeks)

After my baby(ies) are born, whenever possible, the professional team will support them to receive an extra transfusion from the placenta to help protect them, for at least a minute before the umbilical cord is clamped.

In Progress ○ Complete ○

PERIPrem Baby Passport

Thermal Care

(for all babies born less than 34 weeks)

After my baby(ies) are born, the professional team will try to maintain their temperature between 36.5C and 37.5C, and will help me hold my baby skin to skin as soon as it is safe to do so in a planned and supported way.

In Progress ○ Complete ○

Respiratory Management

(for all babies born less than 34 weeks who may need it)

If my baby(ies) need a tube and ventilator machine to help them breathe, the neonatal team will protect their lungs by using a special ventilator setting.

In Progress ○ Complete ○

Caffeine

(for all babies born less than 30 weeks and some babies born less than 34 weeks or who weigh less than 1500g)

My baby(ies) have been given caffeine to protect their brain and help their breathing.

In Progress ○ Complete ○

Probiotics

(for babies born less than 32 weeks, or who weigh less than 1500g)

My baby(ies) have been given probiotic medicine with friendly bacteria in on their first day of life to help protect their gut.

In Progress ○ Complete ○

I understand the risk and benefits associated with the treatment (s) being offered to my baby (ies).
Any questions please ask the maternity of neonatal team and we would be happy to answer

Appendix E.
Periprem leaflet

Early Maternal Breast Milk

PERIPrem

Evidence shows that for premature babies, their mother's* fresh breast milk is the most important and effective nutrition that is available.

Your breast milk has a vital role in protecting your premature baby's gut from necrotising enterocolitis, a serious, and sadly in some cases, life threatening gut condition. It also helps their brain, immune system, eyes and lungs. For premature babies, breast milk is associated with improved development as the baby grows up (development includes skills such as walking, coordination, speech).

Every drop counts

Each millilitre of their mother's breast milk has a positive influence on outcomes for premature babies.

All babies, no matter how early or unwell, can receive their mother's colostrum (special early breast milk) into their mouths.

Your breast milk is specifically designed for your baby in terms of nutrition, optimum gut health and immunity.

* The words 'mother' and 'mothers' have been used throughout this leaflet as this is the way that the majority of those who are pregnant and having a baby will identify. For the purposes of this leaflet, this term includes girls. It also includes people whose gender identity does not correspond with their birth sex or who may have a non-binary identity. (nmc.org.uk: standards-of-proficiency-for-midwives.pdf)

Providing breast milk for your baby

You may not have decided yet how to feed long term, but if your baby is born prematurely you will be encouraged to express milk for them before, or very soon after birth.

Whilst this can be overwhelming and a lot for you to process, the midwives, nurses and feeding specialists will be on hand to talk to you and help you with expressing, storing and delivering your breast milk to your baby. This leaflet is designed to share some of the science behind the benefits of breast milk for preterm babies.

When can I start expressing breast milk for my baby?

Although you may give birth early, your body will still be able to make breast milk, but your breasts will need the stimulation of regular expressing to start and maintain breast milk production.

Expressing before your baby is born

You can start expressing breast milk for your baby even before they are born. You must discuss this with your doctor or midwife before you start as **antenatal expressing should only be done once it is certain that you will give birth to your baby in the next few hours**.

You can discuss this with the obstetric and midwifery team to support your decision.

- Antenatal expressing can be done by hand or by using the special 'Premature Breast Pump'. Expressing by hand or pump encourages your breasts to have milk available at birth. **This would mean your breast milk can be one of the first (and most important) treatments your baby receives,** even if this is for initial mouthcare and you choose, for whatever reasons, not to breast feed long term.

Expressing after your baby is born

- Evidence shows that if you can **express within the first 1 – 2 hours after giving birth**, your milk volumes will be over double by 7 days (compared to if you wait until later than 2 hours after giving birth), and this difference continues until at least 4 weeks.

Frequency of expressing:

- When it is possible, having as much skin to skin contact with your baby will help with milk production.
- Aim to express **8 to 10 times in every 24 hours**; Staff can help with both hand expressing and using the pump.
- **Night time expressing** is important because that is when the hormone receptors are most ready to stimulate milk production. Although challenging it will help with establishing your supply. An alarm can help.
- It may seem frustrating when very little milk comes out initially, but this stimulation will be important to get breast milk production established. **Every drop of breast milk counts and gives your baby important nutrients.**

Increasing Breast Milk Supply:

Sometimes, despite regular expressing, your milk supply may start to fall. Feel free to talk to us about this, but there are also things we recommended you do to help increase your breast milk supply:

- Increasing the amount of contact and skin to skin you have with your baby (Staff will support you with this).
- Expressing near your baby, thinking about your baby, and looking at photos of your baby while you express.
- Exchanging a muslin cloth or item of clothing with your baby that has been near you. They will be comforted by your smell and you can touch and smell something that your baby has been close to when you are expressing.
- Looking after yourself by drinking plenty so that you stay hydrated, eating well and getting rest when you can.
- Increasing the frequency of expressing attempts: try hand expressing and using the pump.
- Checking you have a good fit with the pump. There are different size shields available and you can ask one of the staff to help you check you have the right one.

Donor Breast Milk

Your fresh breast milk is the most important nutrient to give to protect premature babies. Where possible, we avoid giving formula for premature or very low birth weight as it can increase the risk of a very serious gut complication (Necrotising EnteroColitis (NEC)), as well as eye and lung problems. We will do everything we can to support you to produce your own breast milk to give to your baby, but when necessary, for example while your milk volume is increasing, with your agreement we will offer Donor Breast Milk for all babies <32 weeks gestation or under 1.5kg. Donor Breast Milk is a highly regulated, pasteurised product obtained from our SouthWest Neonatal Network Breast Milk Bank.

Please see our other leaflets on **'Donor Breast Milk'** and **'Expressing your milk'** for practical advice about expressing techniques and milk storage.

If you require further support with feeding please ask your midwife or baby's nurse to contact your local Infant Feeding Specialists.

Appendix F.

WMN ODN Breastfeeding Assessment Score for Babies Receiving Special or Transitional Care

NHS
West Midlands
Neonatal Operational Delivery Network

Score	Category that best describes baby's behaviour at the breast during the first 10 mins…	Action
A	Offered the breast, not interested, remained sleepy;	**Full top up** (preferably with Expressed Breast Milk)
B	Interested in feeding, licking & nuzzling, however does not latch;	**Full top up** (preferably with EBM)
C	Latches* onto the breast, has a few sucks then comes off the breast; repeats this pattern for several minutes or falls asleep within just a few minutes of latching;	**Full top up** (preferably with EBM)
D	Latches* & starts sucking & swallowing**, but … •sucking is shallow for most of the feed (more than 2 sucks/second), •sucking bursts are short •pauses are long (Mum feels need to encourage baby to restart sucking);	**Half - full top up** (preferably with EBM) – depending on weight gain, Mum's milk supply and wet & dirty nappies. ***Babies who are receiving phototherapy or have excessive weight loss*** should receive a full top-up;
E	Latches well * with regular bursts of slow rhythmical sucking and swallowing** (1 suck/sec) interspersed with short pauses and feed duration is typically between 5-10 mins;	**Half top up** (preferably with EBM), consider not topping up if mother is available for next feed. If score is A – E at next feed offer a top-up feed as indicated above. ***Babies who are receiving phototherapy or have excessive weight loss*** should receive a full top-up;
F	Latches well * with regular bursts of slow rhythmical sucking and swallowing** (1 suck/sec) interspersed with short pauses and feed duration is within range of 10 – 40 mins/breast; More than one breast may be taken;	**The 2nd breast can be offered but no top-up is required *provided baby*:** •wakes naturally to feed at least 8x/day, •is having expected no. & colour of wet & dirty nappies •is gaining weight (Weight check every 48 hrs) And Mum's milk supply is increasing;

*Latching criteria - See reverse
** Sucking & swallowing criteria - see reverse

Adapted from a scale used by Queen Charlotte's Hospital SCBU, London.

Appendix G.

WMN ODN Bottle Feeding Assessment Chart for Babies Receiving Special or Transitional Care

NHS West Midlands Neonatal Operational Delivery Network

Score	Category that best describes infant's response to the bottle within the first 15-20 minutes....	Action
A	Offered the bottle, not interested, shows signs of stress or remains asleep	**Full top up** Focus on foundation skills in preparation for oral feeding
B	Latches onto the bottle teat and starts to suck, but has difficulty coordinating their swallow with breathing, loss of milk despite careful pacing. Demonstrates signs of stress cues and/or falls asleep	**Full top up** Focus on foundation skills in preparation for oral feeding
C	Latches onto the bottle teat and demonstrates short sucking bursts e.g. 2-3 suck and swallows per burst and baby has frequent long pauses to breathe. Shows signs of fatigue and stress cues within 10 minutes of the bottle feeding opportunity. Bottle feed is discontinued at this point	**Naso gastric tube feed top up** Offer top up with remaining volume left from the bottle feed
D	Latches well to the bottle teat, sucks with a strong suck/swallow/breathe/pattern initially but fatigues as the bottle feed progresses. Starts to show signs of stress cues and fatigue within 10-15 minutes of the bottle feeding opportunity. Bottle feed is discontinued at this point	**Naso gastric tube feed top up** Offer top up with remaining volume left from the bottle feed
E	*Latches well, with a coordinated suck/swallow/breathe pattern - feed duration up to 20 minutes. The infant does not demonstrate any stress cues or signs of fatigue therefore beginning to show maturation of their skills	**No top up** provided baby displays feeding cues at least 8x/day & is gaining weight

Foundation skills to prepare for bottle feeding:

- Skin to skin contact
- Positive touch
- Mouth care with EBM
- Non-nutritive sucking
- Held in a feeding position during NGT feeds

Approach/early feeding cues:

- Stirring
- Mouth opening
- Turning head/rooting
- Stretching
- Hands to mouth

Signs of stress during a bottle feed:

- Finger splay
- Back arching
- Grimace/startled look
- Disengages
- Cry
- Change in saturations and heart rate
- Drooling
- Loss of tone
- Colour change to face, lips, nose or finger tips

Supportive feeding strategies during bottle feed:

- Elevated side lying feeding position
- Slow flow teat
- Responsive feeding following cues and offering external pacing as indicated by the infant

***Coordinated sucking/swallowing and breathing:**

- Able to maintain a consistent latch around the teat and loosing minimal milk is observed
- Maintains a pattern of 3-5 suck-swallows followed by a breath with an occasional long pause
- Infant returns to sucking in a pattern of a short series of suck-swallow bursts and brief pauses for breathing

Adapted from Ludwig, S and Waitzman, K. Changing Feeding Documentation to Reflect Infant-Driven Feeding Practice. 2007 Elsevier Inc.
Ross, ES and Philbin, K. Supporting Oral Feeding in Fragile Infants. An Evidence-Based Method for Quality Bottle-Feedings of Preterm and Fragile Infants. 2011. Journal of Perinatal and Neonatal Nursing Volume 25 no 4, 349-357