

Care of the Late Preterm Newborn	
Summary statement: How does the document support patient care?	The purpose of this guideline is to provide guidance to support neonates who are late preterm, usually being cared for in Transitional Care on the Postnatal Wards.
Staff/stakeholders involved in development: <i>Job titles only</i>	Infant Feeding Lead, Neonatal Managers, Neonatal Matron, Paediatric Consultants, Midwifery Matrons, Maternity Postnatal Ward Managers.
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For use by:	All Obstetric, Paediatric and Midwifery staff
Purpose:	To provide evidence based guidance...
This document supports: <i>Standards and legislation</i>	Transitional Care Guideline for the safe care of late preterm babies cared for on the maternity postnatal ward.
Key related documents:	UH Sussex (SRH & WH) Maternity Guidelines: CG20015 Parent-to-baby skin-to-skin contact guideline , CG1102 Guideline for Admission to Neonatal or Transitional Care , GG1118 Neonatal Hypothermia Guideline , CG12035 Neonatal Jaundice Guideline , CG12033 Tongue-tie guideline
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1.0	October 2021	Claire Parr	Archived	New Guideline
1.1	August 2022	G. Thomson	LIVE	Updated to include Nursery Nurses. Changes to grammar throughout – no clinical changes. Gender inclusive language added.

**The interpretation and application of clinical guidelines will remain the responsibility of the individual clinician.
 If in doubt contact a senior colleague or expert.**

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Care of the Late Preterm Neonate

1.0. Aim

To provide guidance to support neonates who are late preterm or early term, usually being cared for in Transitional Care on the Postnatal Wards.

2.0. Scope

For the criteria for Admission to Additional/ Transitional Care or Beeding/ SCBU please refer to the [CG1102 Guideline for Admission to Neonatal or Transitional Care](#).

3.0. Responsibilities

A guideline is a set of measurable, objective standards to determine a course of action. Professional judgement may be use in the application of a guideline.

Midwives & maternity staff:

- To access, read, understand and follow this guidance
- To use their professional judgement in application of this guideline

Management:

- To ensure the guideline is reviewed as required in line with Trust and National recommendations.
- To ensure the guideline is accessible to all relevant staff.

4.0. Introduction

Late preterm infants are those born between 34 and 36+6 weeks. Because these babies often look and seem normal, at least at first, much less attention is focused on this group than on babies born more prematurely. This guideline aims to support the clinical care of these potentially vulnerable, late-preterm babies whilst on the maternity postnatal ward.

4.1 Abbreviations used in this guideline

GBS- Group-B Streptococcus	NIPE- Newborn and Infant Physical Examination
NTC- Neonatal Transitional Care	WOB- Work of Breathing
NNU- Neonatal Unit	TCB- Transcutaneous Bilirubinometer
BGL- Blood Glucose Level	NTC- Newborn Transitional Care
NEWTT- Newborn Early Warning Trigger and Track	NOS- Neonatal Outreach Sisters

4.2 Risks Associated with the Late Preterm Infant

The late preterm infant is at increased risk of the following:

Hypoglycaemia:

- Higher metabolic rate.
- Limited brown fat stores.
- Low glycogen stores.
- Temperature instability.
- Ineffective feeding due to weak suck and/or fatigue.

Hypothermia:

- Decreased brown fat for thermogenesis and white fat for insulation.
- Increased heat loss due to higher surface-area-to-mass-ratio.

Respiratory distress and/or apnoea:

- Immature lung development.
- Decreased surfactant.
- Immature breathing control.
- Reduced clearance of lung fluid.
- Decreased airway muscle tone.

Sepsis:

- Immaturity of the immune system.
- Precipitating factors of preterm birth - eg: chorioamnionitis, pre-labour rupture of membranes.
- GBS positive.
- Exposure to nosocomial pathogens.
- Invasive procedures.
- Potential delay in initiation and establishment of breastfeeding.

Hyperbilirubinemia:

- Slower passage of meconium.
- Decreased bilirubin-conjugating glucuronyl transferase.
- Poor arousal and immature suck reflex leading to ineffective feeding and increased risk of dehydration and jaundice.
- Peak serum bilirubin at 5-7 days rather than 2-3 days.
- Higher incidence of kernicterus up to 10-fold increase in risk for re-hospitalisation for phototherapy.

Feeding difficulties:

- Immature suck/swallow/breathing co-ordination
- Low oromotor tone, central nervous system (CNS) immaturity, limited brown fat stores, poor regulation of state behaviour and excessive sleepiness contribute to feeding issues.
- Separation from mother/birthing parent affecting milk supply and establishment of breastfeeding.

Poor weight gain:

- Poor suck feeding.
- Use of supplementation (formula, fortification, vitamins) may be medically indicated.

Psychosocial issues:

- Higher incidence of breast feeding problems in mothers/birthing parents of late preterm infants due to separation and associated maternal morbidity (eg diabetes, pre-eclampsia).
- Maternal anxiety and fatigue.
- Medicalised and stressful environment of the neonatal unit.

4.3 Neonatal Transition Care

Neonatal Transitional Care (NTC) is care additional to normal infant care, provided in a postnatal clinical environment by the mother/birthing parent or an alternative resident carer, supported by appropriately trained healthcare professionals.

Keeping mothers/birthing parents and babies together should be the cornerstone of newborn care. NTC supports resident mothers/birthing parents to fulfil the role as primary care providers for their babies and manage their expected additional care requirements, without requiring admission to the SCBU.

Implementation of NTC has the potential to prevent thousands of admissions annually to UK neonatal units, and also to provide additional support for small and/or late preterm babies and their families. NTC also helps to ensure a smooth transition to discharge home from the neonatal unit for sick or preterm babies who have spent time in a neonatal unit, often at some considerable distance from home.

NTC is multidisciplinary and should be flexible and responsive to mother/birthing parent and baby's physical and emotional needs as well as the rest of the family. A recent systematic review concluded that "transitional care benefits the health outcomes of moderately compromised infants and mothers/birthing parents in terms of de-medicalising care, improving mother/birthing parent and baby attachments, avoiding separation, developing parenting skills for dependent infants and raising the potential for shorter length of

hospitalisation". *British Association of Perinatal Medicine (BAPM) Neonatal Transitional Care - A Framework for Practice (2017). A BAPM Framework for Practice*

Potential benefits of transitional care:

For mum and baby:

- Optimised attachment process.
- Maximal opportunities for skin-to-skin contact.
- Facilitation of baby-led feeding and establishment of breast feeding.
- Access to 24 hour practical support with feeding and /or prompt medical review if required– helping to build self-efficacy and thus confidence in parenting.
- Immediate access to skilled midwifery support for routine postnatal care.
- Family-friendly environment.
- Potentially reduced risk of hospital-acquired infection.

For maternity and neonatal services:

- Reduced length of neonatal stay.
- Improved team working within maternity and neonatal services.
- Greater parental confidence, with reduced rates of re-admission.
- Increased breast feeding rates.
- Improved neonatal patient flow with potential for more efficient use of SCBU cots.
- Additional professional opportunities for midwives.

5.0 Organisation and Work Flow

Late preterm infants may experience delayed or inadequate transition to the extra-uterine environment, so careful consideration of staffing ratios to address the additional support required during transition for this population of infants is necessary. [CG1102 Guideline for Admission to Neonatal or Transitional Care](#)

- Mothers/birthing parents and their babies will be admitted to NTC from various sources including Labour Ward, Birth Centre, Postnatal Ward and the Special Care Baby Unit (SCBU) or readmitted from the community (≤ 10 days) following assessment/discussion with the ward and neonatal staff. (See [Appendix 1](#))
- Babies who are unwell in the transitional care unit will be transferred to SCBU after discussion and review by the paediatric team.
- Mothers/birthing parents will have a daily postnatal examination by a midwife as part of routine postnatal care. Mothers/birthing parents can be discharged from obstetrics but remain on the ward and stay with their babies until they are fit to be discharged home together.
- Babies will be discussed at the daily Neonatal Handover and will be reviewed daily by a member of the paediatric team.

- If a woman/person is unwell and/or unable to care for their own baby, the baby should be assessed on an individual basis and cared for by an appropriate family member supported by the staff on the postnatal ward or SCBU as appropriate.
- Parents will be encouraged to actively participate in the care of their babies on NTC.
- NIPE and ideally hearing screening will be undertaken prior to discharge.
- Discharge arrangements will be planned on an individual basis, and follow-up appointments will be made as necessary. Outpatient appointments will be made at the time of discharge.
- Referrals to the neonatal outreach team will be made if the baby requires specialist follow up in the community.
- A discharge letter will be generated to inform health care professionals of the planned ongoing care for the baby.
 - For mothers/birthing parents this is generated through the Maternity Information System and Badgernet for the baby.

6.0 Birth

Facilitate skin-to-skin contact immediately after birth and continue for a minimum of 1 hour, if mother/birthing parent and baby's condition allows, to improve postpartum stabilisation of heart rate, respiratory effort, temperature control, blood glucose, metabolic stability, and early breastfeeding. [CG20015 Parent-to-baby skin-to-skin contact guideline](#).

Dry infant on mother's/birthing parent's chest, remove wet wrap, cover infant with dry warm wraps and cover head with a woollen hat.

Perform weight (using a pre-warmed towel) and newborn check after the first feed (in skin contact). Commence the neonatal hypoglycaemia protocol and ensure a blood glucose level (BGL) is performed prior to leaving birthing area (within 2-4 hours of birth, prior to second feed).

To determine place of transfer and care see [CG1102 Guideline for Admission to Neonatal or Transitional Care](#).

6.1 Breastfeeding

Aim for baby to feed within the first hour following birth. Ensure that the baby has uninterrupted skin to skin to give breastfeeding within this timeframe the best possible opportunity.

If the baby does not feed within an hour after birth, support the mother/birthing parent to hand express and give expressed colostrum to the infant with a syringe. If the baby does feed at the breast, encourage the mother/birthing parent to hand express and harvest colostrum for future feeds. Continue with a minimum of 3 hourly feeds and observe for feeding cues.

6.2 Formula Feeding

Aim for baby to feed within the first hour following birth using paced feed technique to avoid overwhelming baby and to allow baby to control feed. Ensure that the baby has uninterrupted skin to skin and that the first feed is given in skin to skin.

Continue with a minimum of 3 hourly feeds.

6.3 Transfer to postnatal ward

Prior to transfer to the postnatal ward, the baby must have fed, had its first blood glucose level measured, and have stable observations which have been documented on the Newborn Early Warning Trigger and Track (NEWTT) chart for late preterm babies.

Discharge before 72 hours of age has been shown to increase this risk of readmission and complications associated with it. Staff must be mindful that the late preterm baby is not a healthy term baby and should actively ensure they are not managed as if they were. These babies may have similar weights to some of their term counterparts and visually look very similar but are much more susceptible to problems associated with prematurity such as hypothermia, hypoglycaemia, jaundice and respiratory complications.

Staff caring for these babies should emphasise this difference to parents early on. Parents should be made aware of the need for provision of extra care and support before discharge, regardless of neonatal progress, and that this will involve staying for a minimum of 3 days.

6.4 Identification of Transitional Care Babies on Postnatal Ward

Babies who are under transitional care on the postnatal ward will be identified by:

- A 'Red Hat' laminated card will be placed on the baby's cot to identify NTC
- A marker will be placed on the ward whiteboard to identify NTC babies. This will either be a magnet on the physical board or highlighted text on the online electronic handover sheet and appropriately updated.
- Staff handover sheets will have the gestation at birth of all babies

7.0 Observations

Babies who require NTC must be properly and continually assessed by an appropriately experienced and trained member of the midwifery and/or neonatal team.

After initial stabilisation following birth, perform a full set of neonatal observations every 30 minutes for 2 hours. Provided these are stable and within the expected range then observations can be performed every 4 hours for first 24 hours, then at every shift (once per day and night) until discharge. This is to rule out physiologic instability (e.g., hypothermia, apnoea, tachypnoea, oxygen desaturation, hypoglycaemia, poor feeding). (See [Appendix 2](#)).

Close attention should be made to:

- Respiratory rate including work of breathing (WOB)
- Temperature
- Heart Rate
- Colour and tone

All observations must be plotted on the NEWTT charts. NEWTT chart entries help to provide a trend.

It is important that any abnormal signs are escalated in a prompt manner. If either 2 amber scores or 1 red score are identified then this should be escalated to the paediatric team for medical review, as stated on the NEWTT chart.

7.1 Thermal care

Normal body temperature of a late preterm baby is between 36.5°C - 37.5°C. However when late preterm baby's temperature is between 36.5-36.7°C, proactive measures should be taken to increase temperature. These include skin to skin or increasing clothing (hat, layers) - please note skin to skin is preferable and should be implemented prior additional methods such as a hot cot. Once hypothermia initially identified escalate to midwife in charge of care if not already aware.

The temperature should be rechecked in 30 minutes following the introduction of these measures to ensure it is improving/stable. When a further fall in temperature is noted upon re-check then a neonatal team review should be sought (see neonatal hypothermia guideline) and a hot cot should be considered.

Explain to parents that their baby is at increased risk for hypothermia:

- Decreased brown fat (thermogenesis) and white fat (insulation).
- Increased heat loss due to higher surface-area-to-mass ratio.

Teach importance of safe skin-to-skin contact in keeping infant warm. Stress importance of adequate clothing when not in skin-to-skin contact.

- Frequent, prolonged, safe skin to skin should be encouraged to promote optimal physiological stability. It can also be used to support babies to initiate a breastfeed and will help breastmilk supply. When the mother/birthing parent is asleep or if unable to perform skin to skin, the baby should be in a hot cot. However if the temperature is within the expected range or if a hot cot is not available then the baby should have a double blanket and hat, as well as usual clothing.
- Please be aware that monitoring room temp in the warmer months remains vital as it is important to avoid overheating. [CG20015 Parent-to-baby skin-to-skin contact guideline](#)
- Please review the trend in the baby's observations via the NEWTT chart when plotting each set of observations. Please ensure additional actions, such as

escalation to the paediatric team and increasing monitoring, are implemented if any abnormalities or changes are identified. For example, a baby who has been easily maintaining a good core temp and suddenly drops to a temperature of approximately 36.6°C may need further investigation.

- If there are any concerns with temperature, or additional clinical concerns due to infection, a full set of observations (including heart rate and respiratory rate) should be documented on the NEWTT chart. Staff need to be aware that temperature instability may be a sign of sepsis and should be reported to the paediatric team for further investigation.
- Intermittent use of a hot cot may be required to maintain normothermia. [CG1118 Neonatal Hypothermia Guideline](#)

7.2 Blood Glucose Monitoring

Preterm infants have lower reserves than term infants and are more prone to slower establishment of feeds and difficulties with thermoregulation.

Please follow the hypoglycaemia pathway in [Appendix 3](#) for late preterm babies.

8.0 Jaundice

Late preterm and early term infants should be followed closely with a low threshold for checking bilirubin levels. This can be initially be completed using a Transcutaneous Bilirubinometer (TCB) test as per [CG12035 Neonatal Jaundice Guideline](#), provided the baby is above 35 weeks gestation and is over 24 hours old.

The late preterm baby is at increased risk for hyperbilirubinemia due to delay in bilirubin metabolism and excretion, with peak bilirubin levels at days 5–7 after birth. These babies are twice as likely to have significantly high bilirubin levels and more susceptible to bilirubin toxicity.

All late preterm infants, bilirubin level should be measured at 72 hours prior to discharge from hospital via a TCB. If jaundice is obvious or suspected prior this then their levels should be measured upon identifying the jaundice and escalated to the paediatric team.

9.0 Weighing

Poor weight gain or considerable weight loss is almost always the result of inadequate milk intake. This could be a result of insufficient milk production or inability of the baby to transfer sufficient milk, or a combination of both. The measures described in **10.0** should maximise milk intake however the following actions should be taken for the following weight losses for the late preterm baby.

Day 3

All late preterm babies should be weighed at 72 hours to identify developing problems and avoid excessive weight loss or dehydration. Losses greater than 7% of birth weight by 72

hours merit further evaluation which may require further monitoring and adjustment of medical and breastfeeding support.

Feeding should be observed and assessed thoroughly, regardless of feeding methods.

Day 5

A threshold maximum of 7% weight loss is more appropriate for the late preterm, smaller and/or growth restricted infant.

Feeding should be observed and assessed thoroughly, regardless of feeding method.

For management of weight loss in the breastfeeding infant see section **10.2 and Appendix 5** insufficient milk intake for recommended plan.

10.0 Breastfeeding

Late preterm and early term infants should be considered as populations at risk for shortened breastfeeding duration and the need to create specific breastfeeding support and education for parents and those health professionals caring for them.

Early and frequent feeding is vital for the late preterm baby.

Feeding can be more difficult to assess in the late preterm than in term babies as they tire more easily and can give the impression of having taken a suitable feed and fallen asleep at the breast. This is because, even when well positioned and deeply attached at the breast, and encouraged to feed as often and long as they want, they often just don't have enough energy yet to take what they need from the breast. This is due to being physiologically immature and may have difficulty with their suck/swallow coordination, so may tire from this rather than from satiety. This increases the risk of weight loss, jaundice and hypernatremia as well as impact breastmilk supply which in itself can be a vicious cycle if not managed appropriately.

All breastfeeding preterm babies should have a full feed observed and assessed thoroughly on a twice daily basis. This should be documented in the Baby Postnatal Record Breastfeeding Assessment table.

Support for the breastfeeding late preterm infant should include:

- Support and education of feeding cues for all mothers/birthing parents to actively encouraged responding to these at the earliest opportunity, every time and achieve 8-12 effective feeds in 24 hours. If baby hasn't fed 3 hourly from the start of each feed, wake them. Late preterm babies do not always wake themselves.
- Principles of positioning and attachment should be discussed. Breast compressions should be taught and added as a proactive measure during every feed. This will increase milk transfer and can keep baby interested in

breastfeeding. This will also assist in breast emptying to ultimately maintain adequate breastmilk supply.

- Strip baby down to their nappy, they will feed more effectively when in skin to skin contact. Ensure a warm blanket is draped over babies back to keep exposed skin, warm. Ensure the room is warm and there are no direct drafts.
- If mother/birthing parent is struggling to wake baby try to give some colostrum by syringe. This boost of energy may help them wake and breastfeed and only needs to be a drop or two.
- Proactive hand expression should be encouraged after each breastfeed to empty the breasts as much as possible. If the baby breastfed well then this milk can be stored in the fridge or freezer as per hospital milk storage guidance.
- Baby driven positions such as laid back nursing should be the position of choice due to the reduced amount of effort required of the baby to attach to the breast.
- Baby should always be offered the second breast at each feed.
- Safe skin to skin should be encouraged to support babies to initiate a breastfeed and will help breastmilk supply. [CG20015 Parent-to-baby skin-to-skin contact guideline](#)
 - Keeping babies tummy down towards their mother's/birthing parent's chest (with their head to the side to allow a clear airway) on their mother's/birthing parents semi-reclined body, directly on their chest for extended periods of time, during the first 3 days increases breastfeeding duration.
 - Holding can also be encouraged lightly clothed. When late preterm babies are swaddled and laid in the cot, they are more likely to sleep longer and show fewer feeding cues, which can lead to underfeeding.
- Allow uninterrupted periods of rest between feedings, and limiting stimulation will optimise the baby's ability to feed well when awake.

(See [Appendix 2](#))

10.1 Inefficient feeding (sleepy or reluctant to feed)

- Sleepy babies can be identified by observing a feed. If the active feeding phase has been only a few minutes add in switch feeding which should maintain their interest in feeding.
 - The baby is switched to the other breast once they have slowed their active feeding down or become sleepy. The new side will have a faster flow and will initiate the baby to suck and swallow again. Like before, once feeding is slowed they should be switched back to the other side and so on at least 3-4 times, until baby no longer wants to go back on. Breast compressions during switch feeding will also maximise the amount of breastmilk transferred to baby too.
 - Try to use upright feeding positions as these can also help baby to stay awake.
- If baby does not latch or if feeding has not been vigorous with at least 5-20 minutes of active feeding at the breast (and switch feeding or breast compressions have not helped) then the mother/birthing parent should be encouraged to hand express (add in use of a breast pump support if required) and give baby the collected expressed breastmilk. Baby should then ideally be brought back to the

breast to finish a feed, or just be close to the mother's/birthing parent's breast, as often as possible to avoid dissatisfaction at the breast and undermining the mother's/birthing parent's confidence.

- If the mother/birthing parent has not been able to hand express any breastmilk then consideration must be given to formula supplementation in this situation (a supplementation audit should be completed). Reassure the mother/birthing parent that expressing can take some time to produce greater volumes of breastmilk. Reassure mother/birthing parent that 'dry pumping/expressing' will still be beneficial as it offers stimulation to breast.
- Expressing doesn't need to be regular; even if this means expressing several times close together (babies often feed like this too!). Aim for at least 8-10 expressions in 24 hours. Ensure no more than about 6 hours go by without removing milk, as this causes milk making hormone levels to fall. The number of times a mother/birthing parent expresses per day is more important than the total period of time they express for.
- Whilst in hospital give any additional supplement of expressed breastmilk or formula via finger feeding and tube. This works really well for late preterm babies who may then start to directly breastfeed whilst in inpatient care.
- In community any supplements should be given via paced bottle feeding.
- If the baby remains sleepy by day 4 or 5 and the suck seems weak then it may be appropriate to offer feeding with a nipple shield. The firm shield may help the baby with a weak suck to grasp and remove milk more effectively from the breast. Caution around using these should be made in view of possible effect on breastmilk supply. The principles of effective positioning and attachment should be applied, alongside observing feeds for active feeding with swallows seen/heard, even when using a nipple shield.

(See [Appendix 4](#))

10.2 Insufficient Milk Intake (weight loss or reduced output)

Any signs that the baby is not taking enough milk (excessive weight loss **see point 9.0**, reduced wet and/or dirty nappies), should be offered additional milk on top of the breastfeed as a supplement to breastfeeding. Ideally this should be expressed breastmilk, however if this is not available then formula should be considered and discussed with the mother/birthing parent (follow process for continuous supplementation audit).

- The infant should be observed breastfeeding with attention to the latch, suck, and swallow.
 - If there are latch difficulties despite optimising positioning consider referral to the Tongue Tie Clinic for review or the oral function [CG12033 Tongue-tie guideline](#)
- Increase the frequency of breastfeeds. Just adding in 1 additional feed per 24 hours can greatly improve output and weight gain.
- Start supplementing (preferably with expressed breast milk) after breastfeeding or increase the amount of supplement already being given. Baby should then ideally be brought back to the breast to finish a feed, or just be close to the

mother's/birthing parent's breast, as often as possible to avoid dissatisfaction at the breast and undermining the mother's/birthing parent's confidence.

- If the baby is still on the breast, awake and feeding after 30-40 minutes, offer a supplement. Additional time suckling may tire the infant without significantly increasing intake. However if effective sucking and swallowing observed (suck, swallow or suck, suck, swallow) during this time keep baby at breast.
- Increase frequency of expressing (hand or pump), especially after a breastfeed if the breasts are not well drained. If already using a breast pump appropriately, switch to a more effective type (e.g., hand to mechanical, mechanical with hands on pumping, or a more efficient mechanical pump). Expressing more than six times a day may not be feasible for many mothers/birthing parents once their infant is home, whereas expressing eight or more times a day may be necessary to maximise milk removal. Discussion around expectations and mother's/birthing parent's ability to do this must be sensitively explored.
- Explore ways for the mother to relax while expressing.
- Triple feeding regimens (breastfeeding, followed by supplementation and then expressing) for every feed are effective, but they may not be sustainable for some mothers, especially if they have limited support at home. The mother's/birthing parent's ability to cope and manage breastfeeding and expressing must be taken into account when devising a feeding plan.
- The baby should be reviewed after 24-48 hours after initiating a new feeding plan depending on the situation- see infant feeding guideline. The measures put in place should ideally slow the weight loss and increase the baby's output. Once weight begins to increase there is an expectation that babies will put on approximately 30 grams/day.

11.0 Formula feeding

Early and frequent feeding is vital for the late preterm baby.

Feeding can be more difficult to assess in the late preterm than in term babies as they tire more easily. This is due to being physiologically immature and may have difficulty with their suck/swallow coordination, so may tire from this rather than from satiety. This increases the risk of weight loss, jaundice and hypernatremia.

Paced bottle feeding is the optimum method of feeding the late preterm baby, to ensure that the baby can manage the flow of milk and not be overwhelmed by overfeeding. Similar to breastfeeding these babies can tire from feeding rather than satiety. It is important to ensure that an adequate volume is taken whilst being led by the baby. If a baby only takes a small volume of the prepared decanted formula feed then attempts to wake the baby by changing nappy and/or giving skin to skin may reinitiate the baby's eagerness to feed.

Mother's/birthing parent's should be shown how to pace bottle feed their baby, preferably with the bottle they will be using at home. This is so they can get use to their preferred bottle type and get support if having difficulty.

12.0 Schedule of midwifery care for women/people whose babies are being cared for on NTC

Maternal/Birthing parent lengths of stay on the postnatal ward tend to be longer when the baby is being cared for within the NTC pathway. The midwifery care of the mother/birthing parent should follow the normal postnatal schedule of care, according to the mother's/birthing parent's clinical condition and individualised need.

Midwifery examinations should be provided in line with normal postnatal care schedule and is not required on a daily basis after day 2 unless clinically indicated. Ongoing postnatal midwifery care should be provided on an individualised basis according to clinical need.

13.0 Discharge from postnatal ward

Late preterm babies that are sent home before they are ready have an increased risk of readmission to hospital. They are at greater risk for readmission with hyperbilirubinemia, feeding problems, apnoea and respiratory concerns and suspected sepsis (often due to low temperature and poor feeding).

A baby may be considered for discharge from the maternity ward after 72 hours of age if they fulfil all of the following criteria.

- 24 hours of successful feeding of late preterm infants must be established before discharge home. Feeding methods suitable for discharge are breast or paced bottle feeds or a combination of them both.
- 24 hours of temperature stability in a normal cot in normal clothing with room temperature 20-25°C. Normal body temperature of a late preterm baby is between 36.5°C - 37.5°C.
- It is important to let parents know that a home brought thermometer is a useful piece of equipment to assist in recognising their baby's temperature.
- Discharge plans must take into account the health, parenting and feeding skills of the mother/birthing parent and the availability of support in the home.
- Preferably, weight should be no more than 7% below birth weight, although all aspects of the mother/birthing parent-infant dyad and measures taken to address these should be taken into account.
- If the baby meets the criteria as outlined in point 15.0, the baby should be discussed with the neonatal outreach team prior to discharge. It is anticipated that late preterm babies who meet this criterion will have a neonatal outreach follow up if discharged from the maternity ward. However the majority of 36 week gestation babies will be mainly followed up by the midwives.
- Babies that have required admission to SCBU for feeding support may be discharged from SCBU on NGT feeds as per the outreach policy once mothers/birthing parents have been trained in this. These babies must satisfy all other discharge criteria to be accepted for home feeding support.
- Transcutaneous bilirubin level should be undertaken on all late preterm babies on 72 hours prior to consideration for discharge.

- Levels less than 50 below the treatment threshold may indicate that feeding is not adequate even if assessment has suggested it may be and these infants should remain in hospital for further feeding support / consideration of supplemental feeds and have a repeat level 18-24 hours later.

A Discharge Risk Assessment ([Appendix 6](#)) should be completed on day 3 (not before 72 hours). If a baby has met all of the criteria they can be considered for discharge. If they have not then they should remain in hospital until they achieve these and each area be reviewed on a daily basis. If baby is not ready for discharge on day 5 discuss with paediatric team for consideration of transfer to SCBU parent room (rooming in room).

Prior to discharge parents should be informed about safer sleeping and ICON in relation to the preterm baby. ([Link](#))

Recommending The Lullaby Trust, Baby Check App and signposting to Family Assist will offer the parents more ongoing information on the well-being of their baby.

Complete Community Follow Up Plan (see [Appendix 7](#))

14.0 Community midwifery care

All late preterm babies discharged should have a face to face review and jaundice assessment as a priority visit in the morning of the day following discharge. At this visit the midwife should carry out normal baby (and maternal) checks and they should reiterate:

- Safer sleeping
- ICON
- Signs of illness including temperature control for this age group
- Feeding (see above for principles)
- Well-fitting baby clothes to help maintain temperature
- To delay bathing or taking outside (unless absolutely necessary) for about a week. This will give the baby time to adjust to the different environment at home.
- Try to limit the number of visitors initially and to avoid crowded public places to reduce the risk of infection.

A full feeding assessment should be carried out at the first home visit. This will help confirm the current feeding plan and determine the plan for ongoing care. This should be documented on the Feeding Assessment page if breastfeeding. However the principles for both bottle and breastfeeding remain:

- Frequency and approximate duration (in a 24 hour period)
- Volume of formula (bottle feeding) or supplementation (breastfeeding)
- Urine output in relation to age
- Colour of stools depending on age (should stool at least twice a day)
- Baby's behaviour (i.e. crying, not satisfied after a feed, sleepy and difficult to wake during a feed etc).

Caution should be given if a mother/birthing parent wishes to reduce any supplementation. This needs careful assessment and is likely to be carried out under Health Visiting care due to the time required to ensure feeding, weight gain is moving in the right direction.

15.0 Outreach care

The Neonatal Outreach Sisters (NOS) can provide additional support in the community for babies under the below criterion. As nurse specialist in neonatal nursing, they work collaboratively within the multi-disciplinary team to support families of babies who may need ongoing medical support at home (including beyond the scope of midwifery services for NTC babies), to reduce length of stay in hospital, e.g. undertaking blood tests (SBRs, U&Es), assess weight gain and nutrition and involve dietician if necessary, for a maximum of 4 weeks from discharge. If medical needs are ongoing, the Children's Community Nursing team may take over.

Neonatal referral criteria:

- Below 2 kg at discharge
- Nutritional concerns
- Oxygen dependant
- NGT feeding
- Congenital abnormalities – at request of consultant
- Needs blood tests
- Drug withdrawal – on morphine
- Multiple births
- Consultant request
- Child protection issues – on discussion
- Post-surgery wound care
- Children's Community Nurses Referral
- Babies born 23-28 weeks
- Babies 29-31 weeks birthweight <2nd centile or <1.5kg

The Neonatal team should decide if the baby requires outreach care and will be responsible for liaison to the Outreach Team. The NOS should be contacted as soon as a baby's discharge date is arranged and requires outreach care. The NOS will aim to meet parents where possible prior to discharge, to give information leaflet and to arrange a visit within 48 hours of discharge.

16.0 Parent information

Discharge before 72 hours of age has been shown to increase the risk of readmission and complications associated with it. Staff must be mindful that the late preterm baby is not a healthy term baby and should actively ensure they are not managed as if they were. These babies may have similar weights to some of their term counterparts and visually look very similar but are much more susceptible to problems associated with prematurity such as hypothermia, hypoglycaemia, jaundice and respiratory complications.

Staff caring for these babies should emphasise this difference to parents early on and that they need extra care and support before discharge and that this will involve staying for a minimum of 72 hours even when the baby does not have any obvious immediate difficulties.

16.1 Prior to birth

Stress importance of immediate postpartum skin-to-skin contact with mother/birthing parent to:

- Stabilise infant and support optimal transition after birth including optimal cord management.
- Promote physiological stability in heart rate, respiratory rate, oxygen saturation, temperature, and glucose levels.
- Facilitate infant's first feed.

Stress the value to mother/birthing parent and baby of exclusive breastmilk feeding:

- Explain the value of colostrum in providing immune protection and nutrition.
- Reassure mothers/birthing parents that small amounts of colostrum are usually adequate in the first few days if baby is feeding frequently enough.

16.2 Information whilst inpatient

Give Late Preterm Pack to parent.

- Teach how to recognise signs of respiratory distress and apnoea and when to alert staff for immediate review of the baby.
- Teach importance of safe skin-to-skin contact in keeping infant warm.
- Stress importance of adequate clothing when not in skin-to-skin contact.
- Teach how to take infant's temperature accurately.
- Educate on feeding cues and probable need to wake baby for 3 hourly feeds (babies will transition to full cue-based feeds when closer to term gestational age).
- Stress importance of feeding infant frequently, at least 8–12 breastfeeds or 8–10 formula feedings per day.
- Principles of positioning and attachment for breastfeeding and paced bottle feeding if formula feeding or offering supplements of expressed breastmilk or formula.
- Nappy output in relation to age.
- ICON in relation to the late preterm.
- Safer Sleeping advice in relation to the late preterm.

16.3 First day home information

- Teach how to recognise early signs of infection.
- Teach ways to reduce illness.
 - Wash hands, limit visitors, avoid crowds, protect against contact with sick people.

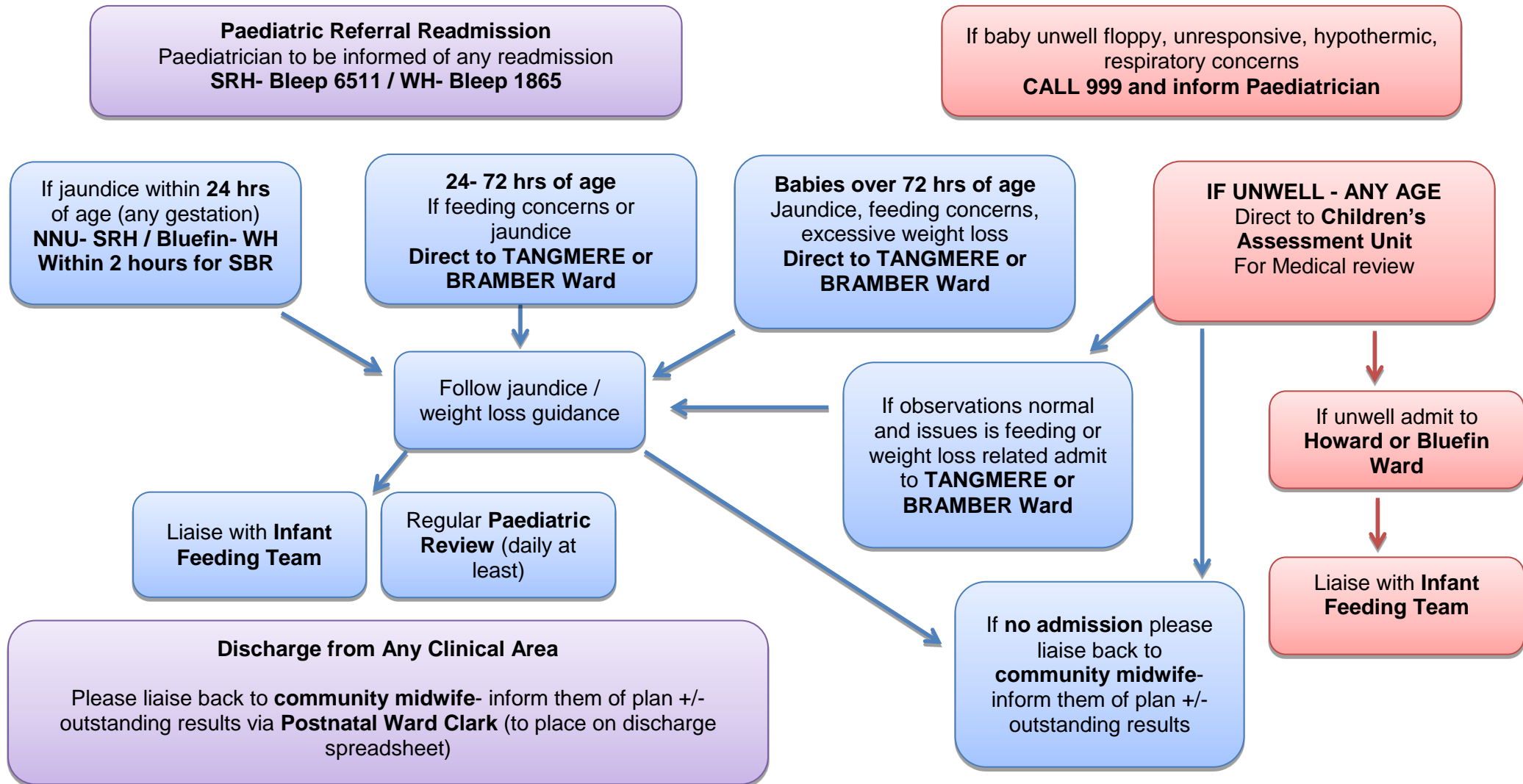
- Inform when to alert healthcare professional for immediate review of the baby.
- Deepening yellow skin and eye colour (visual assessment alone is not reliable).
- Teach how to recognise signs and symptoms of hyperbilirubinemia and when to alert staff.
 - Sleepiness and lethargy
 - Decreased feeding
 - Increased irritability and high-pitched cry
- Breastfeed for as long as possible during the first year after birth or longer.
- Responding to baby's needs for cuddles and closeness as well as feeding.

https://www.laleche.org.uk/feeding-late-preterm-babies/?fbclid=IwAR06iK67FC-9h_Kc8YVlbnFm4DcAhc-2qZWPGR8OML05z6Hw0rEs79wBs6c

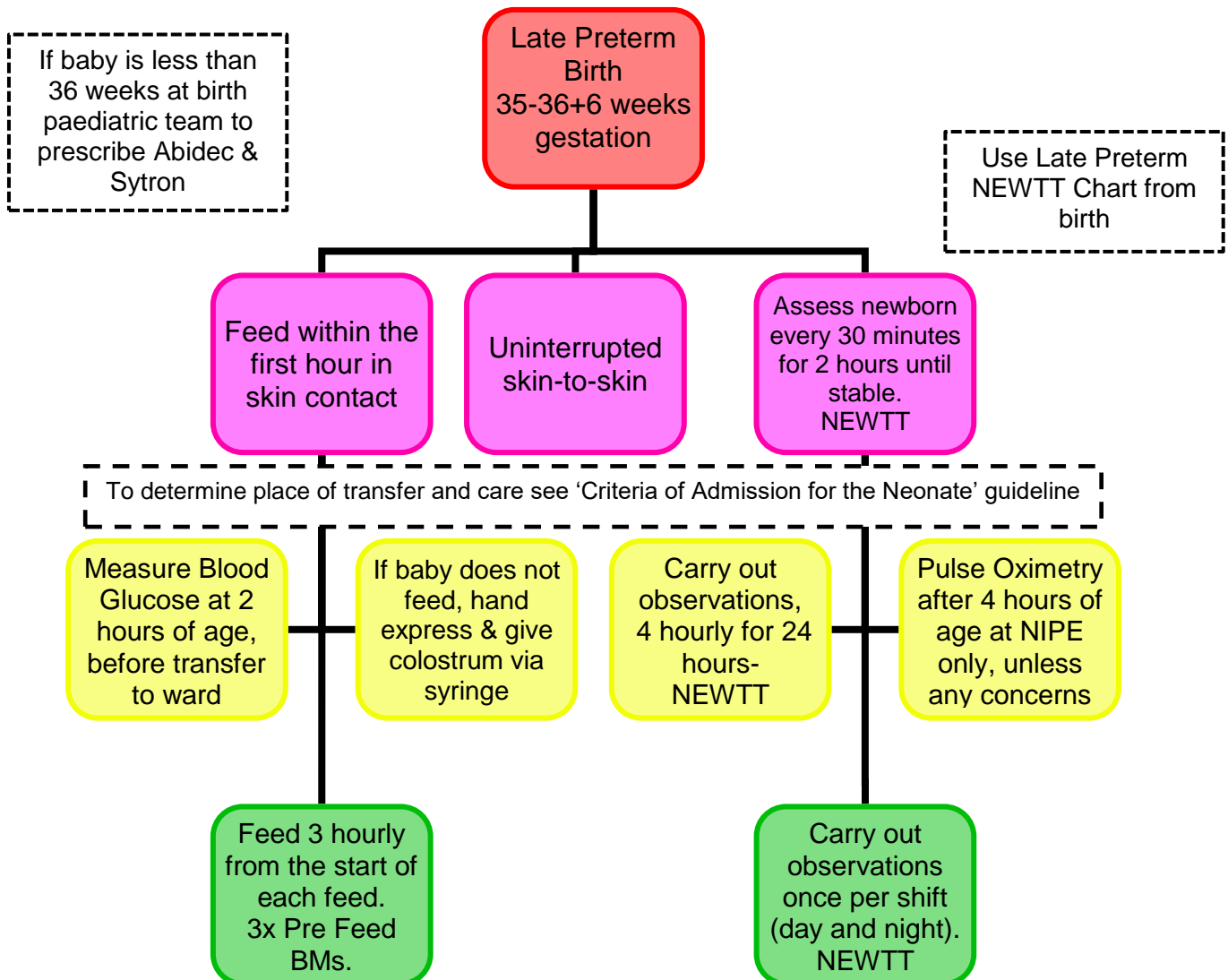
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Appendix 1: Referral Pathway from Community <28 Days (readmission)



Appendix 2: Observations and Feeding Plan from Birth of Late Preterm Infant



Feeding-

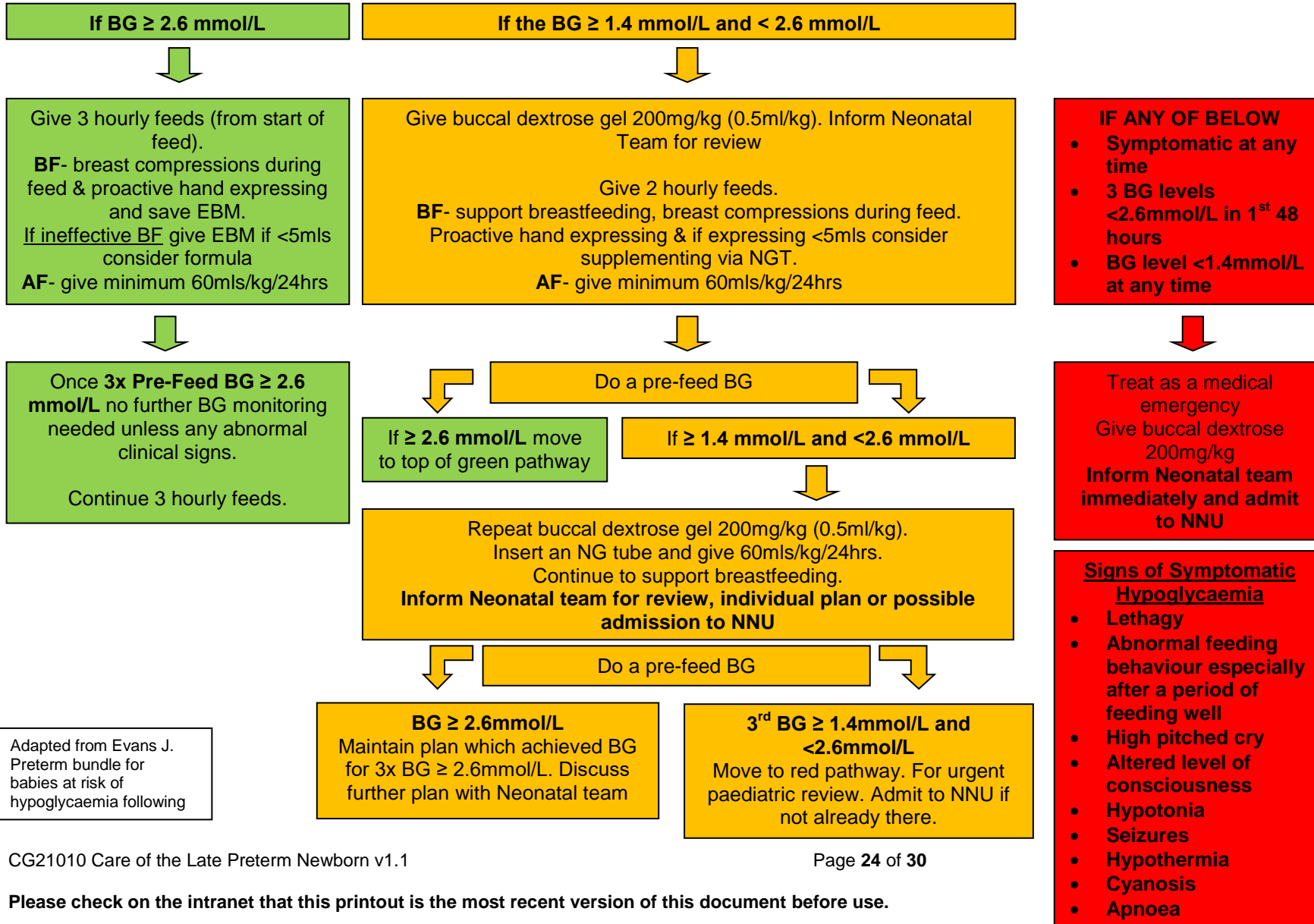
- Observe and assess feed twice daily
- 8-12 effective feeds in 24 hours. Wake baby 3 hourly from the start of each feed
- Laid back nursing is position of choice due to the reduced amount of effort required of the baby to attach to the breast
- Breast compressions added per feed
- Struggling to wake baby- give colostrum by syringe. This boost of energy may help them wake and breastfeed, only needs to be a drop or two
- Lots of skin to skin with warm blanket draped over baby's back
- Proactive hand expression after each breastfeed to empty the breasts as much as possible. If the baby breastfed well then this milk can be stored for use later, if needed.

Observations-

- Respiratory rate, including work of breath (WOB)
- Temperature (36.5°C - 37.5°C). Proactive measures to be made from 36.5-36.7°C
- Heart rate
- Blood glucose
- Bilirubin levels (low threshold & 72 hours)
- Weigh (72 hours, day 5 and onwards planning)
- Urine output
- Stooling (at least 2 per day, changing)

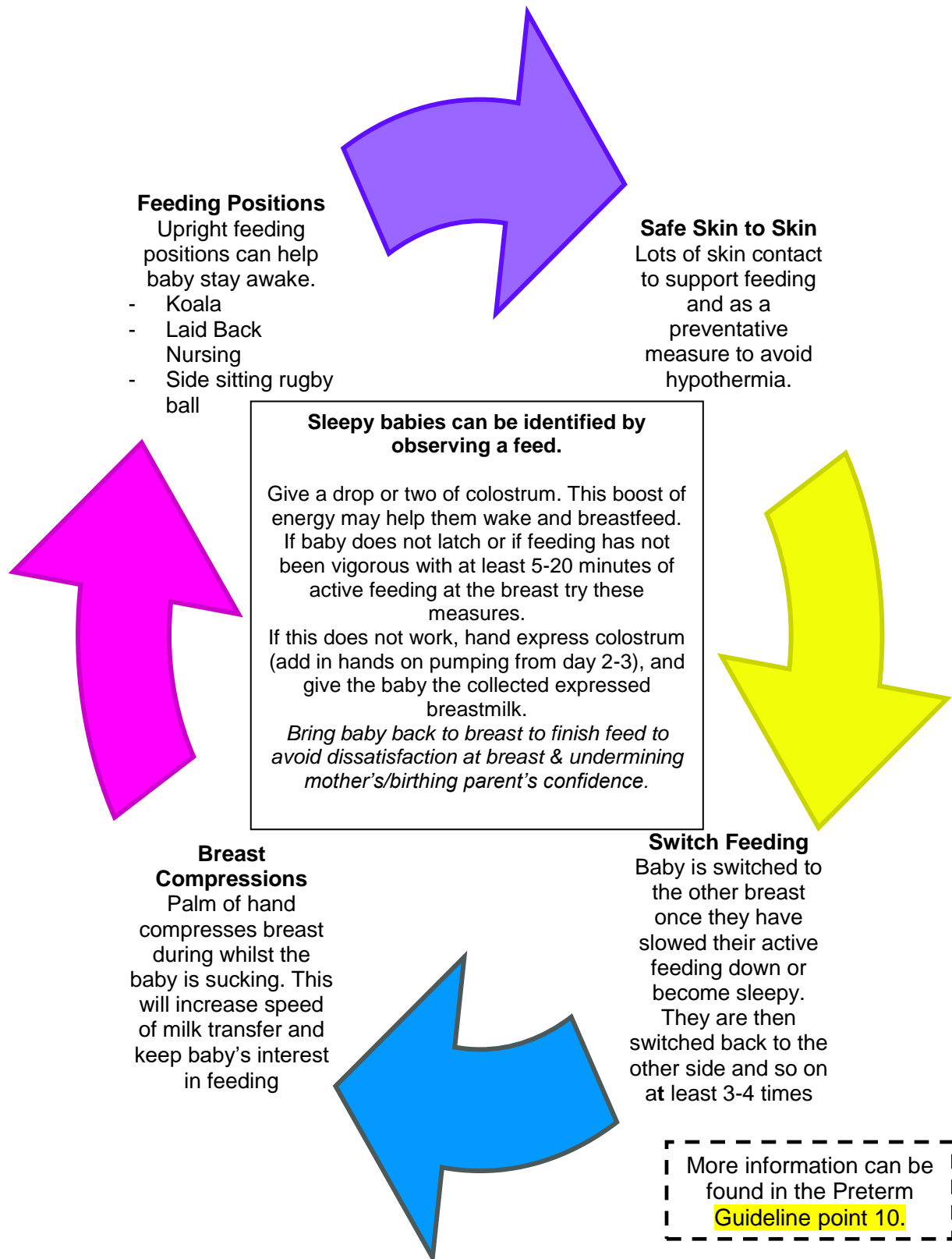
Uninterrupted periods of rest essential

Appendix 3: Late Preterm Hypoglycaemia Pathway



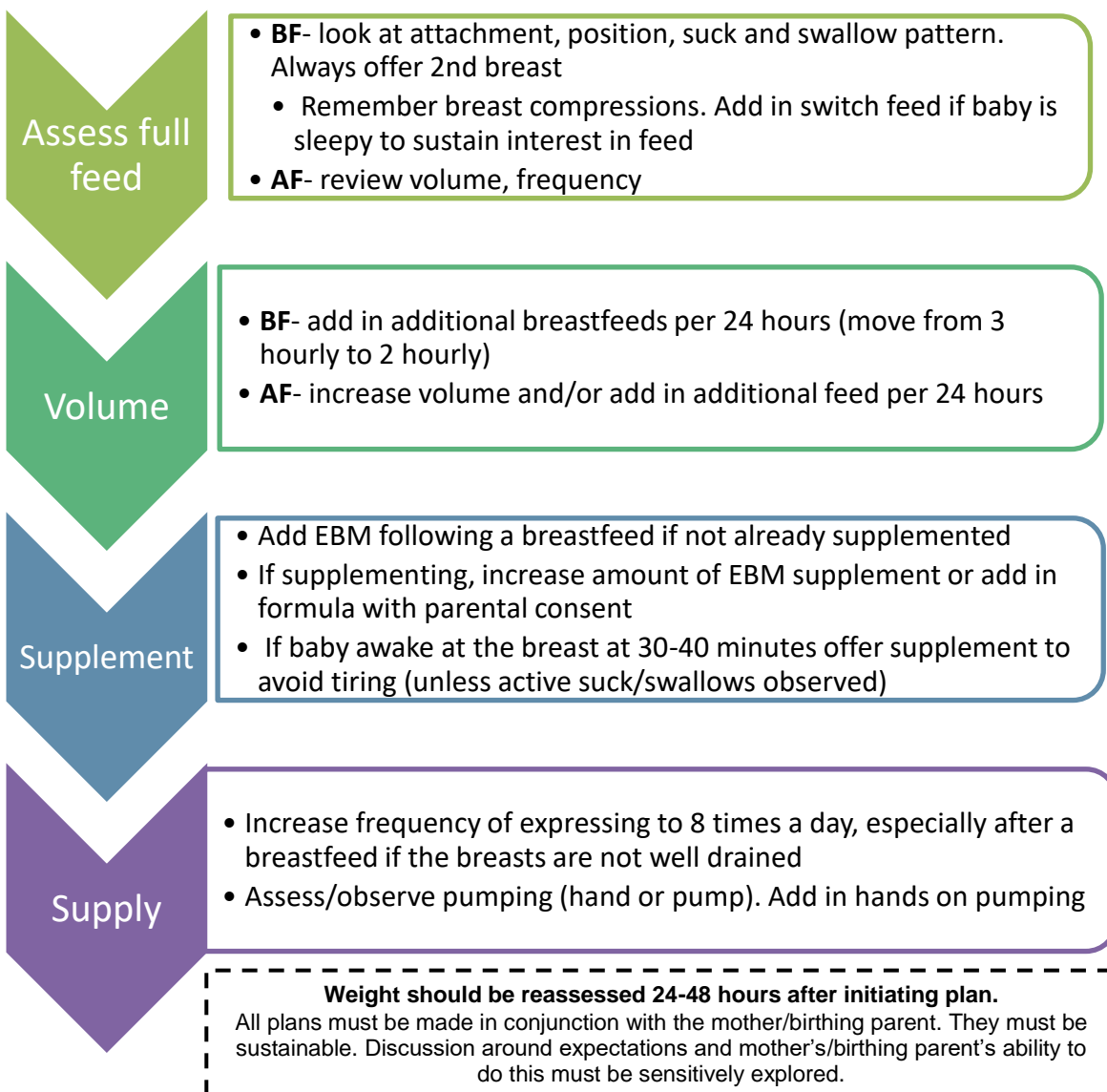
Adapted from Evans J.
Preterm bundle for
babies at risk of
hypoglycaemia following

Appendix 4: Inefficient Feeding (Sleepy or Reluctant to Feed)- Late Preterm



Appendix 5: Insufficient Milk Intake (weight loss or reduced output) of Late Preterm

Weight Loss	Normal Output
<p>72 hours and Day 5 $\geq 7\%$ of birth weight is considered for urgent evaluation and adjustment of care plan.</p> <p><i>NB: weight must be rechecked and recalculated to confirm % to avoid unnecessary intervention or inaction. Ensure scales used are calibrated.</i></p> <p><i>Remember weight is one part of the whole assessment.</i></p>	<p>Urine Number of wet nappies corresponds to days old, until day 6 when 6+ heavy wet nappies are expected.</p> <p>Stool At least 2 stools per day for breastfed infants and 1 per day for exclusive formula fed infants. Colour should change and by day 5, becoming yellow and looser in consistency.</p> <p>Anything less than above requires urgent evaluation and adjustment of care plan.</p>



Appendix 6: Discharge Risk Assessment & Follow Up

PLEASE DO NOT PRINT FROM GUIDELINE

Discharge Risk Assessment for Late-Preterm Part A Day 3 (not prior to 72 hours old)			
Gestation at birth..... weeks		Date achieved	Signature
Birth weight..... grams			
Feeding	Achieved a minimum of 24 hours successful feeding (either breast or bottle or mixed).		
	Education provided on feeding cues and when to be concerned about feeding info in Baby's Postnatal Record		
	Information provided to parents on urine and stool output required for baby info in Baby's Postnatal Record		
Temperature control.	24 hours stability in normal clothes and normal cot with room temperature 20-25° Teach how to take infant's temperature accurately. Ensure parents have a thermometer. Normal body temperature of a late preterm baby is between 36.5°C - 37.5°C.		
Day 3 weight	<i>Weight..... % weight loss.....%</i> <i>If <7% loss continue to assess for discharge.</i> <i>≥7% loss. Medical review and baby to stay in until day 5 weight check</i>		
Day 3 jaundice assessment	Review bilirubin chart If baby has NOT had phototherapy <ul style="list-style-type: none"> Do a TCB reading..... Plot on chart. If >50 below phototherapy line. Continue to assess for home. If <50 below the line. Review feeding, keep in hospital and repeat in 18-24 hours.		

	If baby has had phototherapy <ul style="list-style-type: none"> • Paediatric review of jaundice • If levels are stable or falling and >50 below treatment line and baby has been off phototherapy for at least 12 hours continue to assess for home. 		
Outreach plan	Does the baby meet Outreach criteria? Yes- ask Neonatal team to set up liaison prior to discharge		

Part B- Follow up community care plan			
			signature
All elements of the day 3 risk assessment for safe discharge have been met			
Community midwife follow up. Face to face review and jaundice assessment the day after discharge.			
Date and time of visit.....			
Neonatal outreach.	Do they plan to see baby in community as well?		
	Yes / No		
	Have they met with the parents?		
	Yes / No		
	Date and time for agreed follow up if needed		
		
Parent Education in relation to Preterm	ICON Safer Sleeping (inc co-sleeping) Responsive Parenting Information on signs of illness in babies (inc respiratory distress and apnoea) Jaundice <ul style="list-style-type: none"> ○ Sleepiness and lethargy ○ Decreased feeding ○ Increased irritability and high-pitched cry Parents have maternity triage number for contact if concerned		

Appendix 7: Overall Care Flow Chart - Care of the Late Preterm Baby

