Weighing Babies Guideline- For prevention and management of excess weight loss in Neonates

Breastfeeding has strong evidence of positive health impact on both infants and mothers in the short medium and longer term.

Excessive weight loss in and faltering weight in breastfed infants causes great anxiety to parents, carers, families and staff. It can lead to the cessation of breastfeeding and possible re- admission to hospital.

Proactive management of feeding can prevent issues and prompt detection and resolution of early feeding challenges associated with weight can protect infants for morbidities associated with both weight loss and discontinuation of breastfeeding.

1. To support staff to understand the factors that contribute to early weight loss and proactively manage early feeding to prevent excessive weight loss and readmission to hospital.
2. To enable staff to identify excessive weight loss or faltering growth early and plan proactive management in collaboration with the family and medical staff
3. Prevention of hypernatremia and compromise in infants.
4. To support maternity staff with the knowledge and evidence base to manage early excessive weight loss and enable continued breastfeeding.
5. To enable staff to identify compromise in the neonate and seek appropriate care
6. To enable continued breastfeeding

Weighing should only be carried out as part of a clinical examination and assessment of feeding as it is of little value on its own. The following is a guide but should not replace clinical judgement. Neonatal weight loss in the first few days of life is part of a **normal** physiological process where excess extra-cellular fluid is excreted. Recent studies have indicated that normal weight loss in the majority of babies is more likely to be between 5 and 7% of birth weight; however a small group of babies may be vulnerable to greater loss (references 14, 15).

Previous guidance to expect weight loss up to 10% of the birth weight is outdated and was never evidence based. A baby should **not** continue to lose weight after the fifth day of life. Most babies will regain their birth weight by day 14.

Prevention & Management of Excessive Weight Loss in Neonates

Contents

1. Preventative management all for breastfed babies:

- Establish skin-to-skin contact and early, effective breastfeeding support.

- Appropriate management of breastfeeding in the first 48 hours when breastfeeding is being established (see Appendix 2).

  - Avoid early supplementation with infant formula milk or use of dummy's while breastfeeding is establishing

•Full breastfeeding assessment to be carried out and documented at least twice in the first week of life using the assessment tool in "Badger" usually prior to discharge and day 5/6 with blood spot test and weight.

- Ensure baby is feeding frequently (8–12 feeds in 24 hours) and mother given information to enable her to recognise that breastfeeding is going well, including appropriate amount of wet and dirty nappies for age of baby, and she is confident with position/attachment and can recognise signs of effective milk transfer before transfer to community midwife care.

- Careful monitoring of urine and stool is key in ensuring baby is receiving sufficient milk, the absence of frequent bowel movements is the first indication a baby is becoming compromised.

- A healthy baby should regain birth weight by around 14 days and certainly before 21 days.

2. Risk Factors and aetiology in early weight loss

Breastfed or partially breastfed babies with risk factors for weight loss (see chart) are at higher risk of excessive weight loss and should be actively managed in the first few days to ensure adequate stimulation of supply. These babies should be weighed at around **60 - 72 hours**, and **again on day 5 or 6 with new-born screening blood spot testing**. However, if there are any concerns about a babies wellbeing then babies can be weighed at any time if clinically indicated.

All other babies, including exclusively formula fed babies should be weighed on day 5/6 with blood spot test.(26)

An example of a weight loss calculation is given below:

Birth weight	3000 g
Present weight	2700 g
Weight loss	300 g
Percentage loss	**300 ÷ 3000 x 100 = 10%**

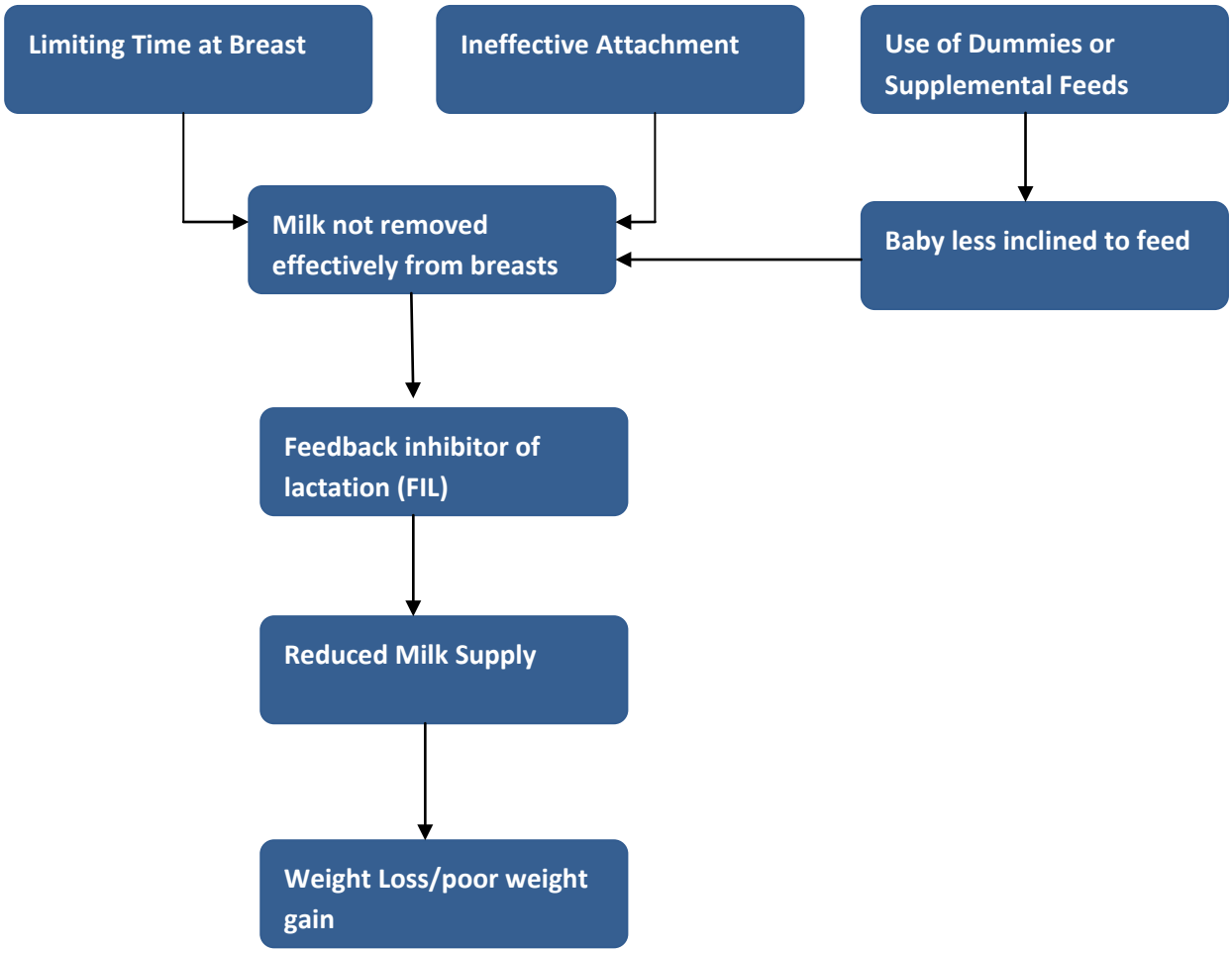
Excessive weight loss occurs when:

- Ineffective milk transfer to the baby occurs, caused mainly by poor positioning and attachment. It can also be caused by infrequent feeds i.e. when a baby is given a complementary feed or a dummy.
- These are the most common causes of excessive weight loss and unless corrected, this problem will inevitably lead to a reduction in breastmilk production.
  - Breastmilk production is reduced due to the feedback inhibitor of lactation (FIL). As the volumes of FIL increase in the

breast due to poor milk transfer to the baby, future milk production is greatly compromised (16).

- The let down or milk ejection reflex may be delayed by factors such as stress or pain in the early period resulting in the baby being unable to effectively remove milk, resulting in a build-up of milk within the breast and ultimately suppression of lactation.

Reasons for Excessive Weight Loss



Excessive weight loss in breastfed babies may be anticipated in specific instances such as:

- Delivery by caesarean section.
- Forceps delivery
- Large ante or post-natal haemorrhage >1.5Litres.
- Pre term delivery <37 weeks' gestation
- Intra-uterine growth retardation

- Any baby with below expected urine or stool output (see chart below);

- **Excessive weight loss may also be anticipated in the following cases: -** History of breast reduction surgery.

  - Any baby with any congenital abnormality or condition
  - Persistent breastfeeding problems e.g. damaged nipples/engorgement
  - Baby with excessive jaundice

These babies should be monitored closely for signs of insufficient milk intake and weighed at around 60- 72 hours (usually day 4) to ensure early detection and prevention of excessive weight loss. These babies need to be carefully assessed and early weighing at 60-72 hrs may also be indicated to prevent excessive weight loss

In these cases, it is important to reassure mothers regarding reasons behind an excessive weight loss, ensuring support and encouragement to increase milk supply and confidence in their abilities.

3. Signs of sufficient milk transfer

Day of life	Wet Nappies	Stools	Feed frequency
Day 1-2	1-2 or more	1 or more meconium	3-4 feeds in first 24 hrs
Day 3-4	At least 3 heavier wet nappies	2 or more changing stool	At least 8 times in 24 hrs
Day 5-6	5-6 heavy wet nappies in 24 hours	At least 2 soft yellow seedy stools	At least 8 times in 24 hrs
Day 6 onwards	At least 6 heavy wet nappies in 24 hours	At least 2 soft yellow seedy nappies. After 4-6 weeks stools may be less frequent	On demand usually 6-8 feeds in 24 hrs

4. Babies with 8%-10% Weight Loss

Babies who have lost more than 8% of their birth weight are generally well but may require careful assessment and planning to prevent further weight loss.

- Conduct a full breastfeeding assessment including observation of a feed. Encourage frequent skin to skin contact.
- Encourage responsive feeding and educate parents on early feeding cues. Ensuring baby is feeding at least 8-10 times in 24 hours.
- If breastfeeding assessments identifies signs of poor milk transfer- i.e. reduced urine and stool or no signs of effective milk transfer- rhythmic sucking and audible swallows at breast. Encourage mother to express after feeds to protect and stimulate milk supply, any milk obtained should be given to the baby ideally by using responsive paced bottle feeding technique, if no milk transfer give

Expressed Breastmilk (EBM) or formula milk if not available - 10mls/kg per feed.

- Baby should be weighed again in no more than 48 hours to ensure no further weight loss.
- Ensure families have information on adequate urinary and stool output and know who to contact if any concerns.

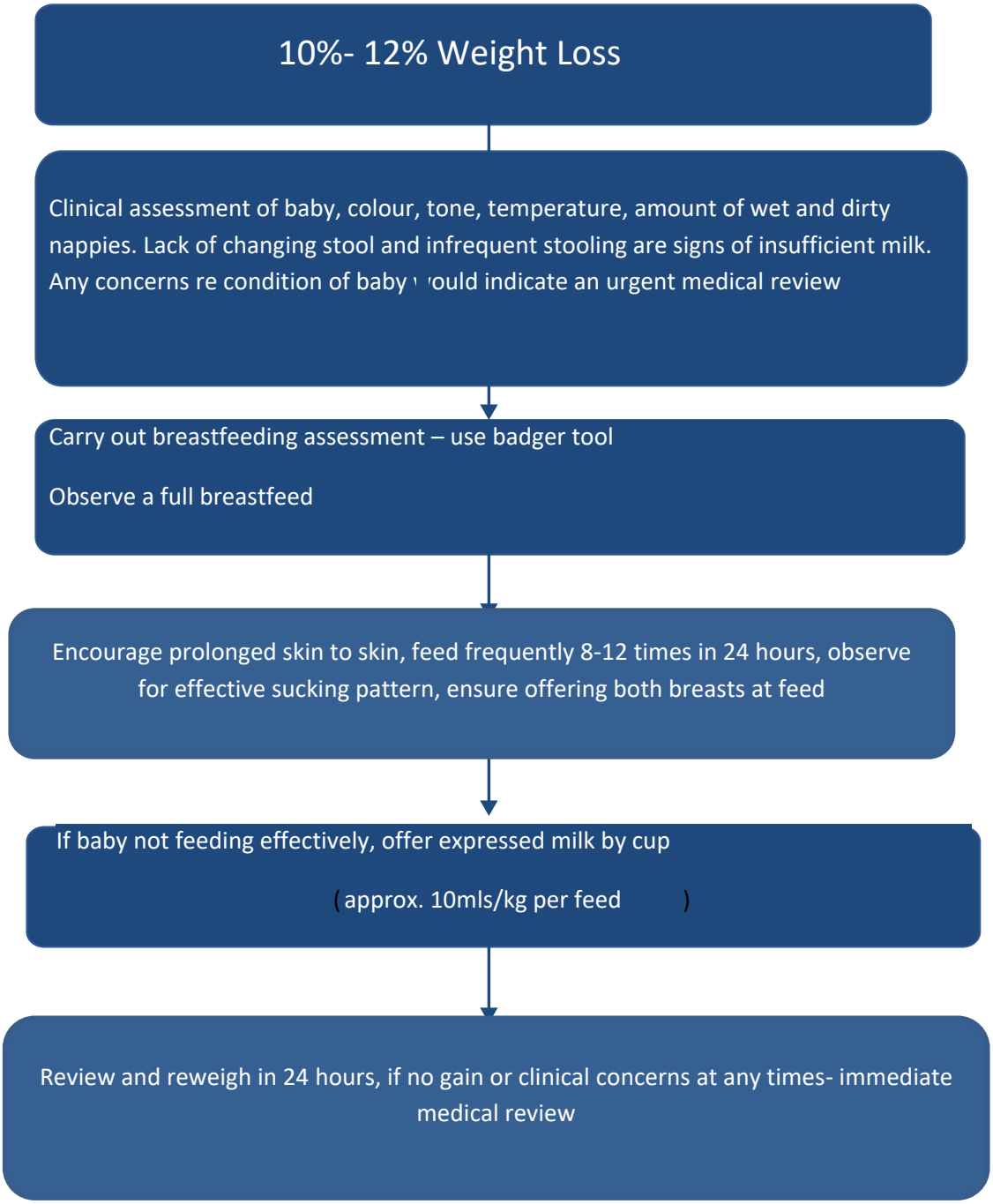
Managing >10% – 12% weight loss

Most babies with 10% weight loss are medically well but many will be having feeding problems of some kind and the severity of their weight loss may be an indicator that more assessment and help is needed.

- Assess baby's wellbeing including alertness, colour, tone, temperature and nappy output.
- If not producing appropriate amount of wet and dirty nappies according to age, (see chart above) seek medical advice as baby should be reviewed.
- Observe a full breastfeed including the frequency and length of feed.
- Encourage frequent prolonged skin-to-skin contact.
- Encourage responsive feeding and educate parents on early feeding cues. Ensuring baby is feeding at least 8-10 times in 24 hours, offering both breasts at each feed.
- Baby is likely to require a feeding and expressing plan to be implemented which will be highlighted by your breastfeeding assessment.
- Encourage to express after feeds (approx. 8-10 times in 24hr period) This will stimulate supply and collect breastmilk for top up of approx. 10mls/kg per feed.
- In the event of delayed lactation, and if insufficient volumes can be expressed after 2-3 expressing sessions, formula supplements may be required until supply has increased.

- Additional milk should be given via paced bottle feeding technique/cup.
- **Parents should be given worsening advice and instructed to seek immediate advice if baby not passing adequate amounts of urine and stool.**
- Refer for additional support from breastfeeding support service if appropriate.
- Recheck weight in 24 hours and monitor carefully until upward trend demonstrated.

Weight Loss Flow Chart 10% -12%



5. Management of weight loss greater than 12%

More than 12% weight loss is uncommon and these babies should be assessed by Neonatal or Paediatric services.

IN SEVERE HYPERNATRAEMIA SLOW REHYDRATION/IV FLUIDS MAY BE REQUIRED TO PREVENT SEIZURES. SENIOR CLINICAL/CONSULTANT INPUT IS ESSENTIAL.

(See appendix 1 flow chart for management of readmission)

- A full history and system review as above is necessary. These infants are at risk of hypernatraemic dehydration and may be difficult to identify with the infant appearing well, falsely reassuring health professionals and parents.
- Signs may be non-specific and include lethargy and irritability. Urine and stool output may be reduced.
- The infant may have dry mucous membranes, a sunken fontanel and decreased skin turgor.
- All infants presenting with weight loss >12% require electrolyte assessment (1719).

Management should be about identifying the underlying cause and supporting lactation as above (see flow chart for 10-12% weight loss). If blood results are abnormal or dehydration suspected babies will require supplemental feeds of EBM or formula if insufficient EBM available. The mother should be encouraged to continue to breastfeed on demand and express her milk to increase supply until weight gain is achieved and blood results are normal.

6. Normalising breastfeeding after weight loss

Careful monitoring of the baby and gradual reduction in amount of supplement is essential to normalise breastfeeding following weight loss. Daily weighing is recommended until a sustained improvement in weight is demonstrated and close monitoring continued until the baby is feeding effectively.

Any baby with a greater than 8% weight loss should be weighed on day 10 prior to handover to health visitor.

Infants under 14 days old with a weight loss of >12% should be referred to the receiving neonatologist at Wishaw General Hospital Neonatal Unit.

Infants older than 14 days should be reviewed urgently by the receiving paediatrician at University Hospital Wishaw.

All mothers should be asked to contact Health Care Staff if they are concerned that their baby is not wakening for feeds, not feeding well or not settling between feeds.

Any baby that appears unwell must have a full assessment including physical examination, weight and recording of vital signs with appropriate Neonatal Medical/ANNP referral.

Staff should explore the possibility of child protection issues and/or parenting capacity concerns when readmitted with excessive weight loss with no identified cause. Please discuss any concerns with senior paediatrician, Public Protection team or emergency social work department"

Babies fed with Infant Formula Milk:

A significant weight loss in a baby being fed with Infant Formula Milk is of concern – this baby should have an urgent referral for Neonatal Medical/ANNP review.

7. Individualised care

• This document uses the words mother or mum to describe the parent who is breastfeeding. We acknowledge that there are parents who are breastfeeding who may have a gender identity other than female, and may use terms other than 'mother' to describe themselves. We also know that some parents may prefer 'chest feeding' to 'breastfeeding'. We are clear that all parents should be treated with dignity and respect when accessing support. When we are asked to use pronouns, terms, and descriptors other than those in this document we will use the preferred words as part of individualised care.

8. References

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Appendices

1. Governance information for Guidance document

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CHANGE RECORD

Date	Lead Author	Change	Version
			1
			2
			3
		.	4
			5

Appendix 1 Flowchart for management of feeding when baby readmitted with compromise or >12% weight loss

Only to be used as an appendix to the full weighing guideline

More than 12% weight loss is uncommon and these babies should be assessed by paediatric services. Babies can also be compromised without excessive weight loss, in these cases thorough clinical examination and history are vital to ensure appropriate plan of care. This flow chart is designed to help staff manage feeding and maintain safety while protecting and preserving breastfeeding - **see flow chart.**

A full history and systematic review is necessary. These infants are at risk of hypernatraemic dehydration and may be difficult to identify with the infant appearing well, falsely reassuring health professionals and parents.

- Signs may be non-specific and include lethargy and irritability.
- Urine and stool output are usually reduced; urates may be present in nappy.
- The infant may have dry mucous membranes, a sunken fontanel and decreased skin turgor.
- All infants presenting with weight loss >12% require electrolyte assessment.

IN SEVERE HYPERNATRAEMIA SLOW REHYDRATION/IV FLUIDS MAY BE REQUIRED TO PREVENT SEIZURES. SENIOR CLINICAL/CONSULTANT INPUT IS ESSENTIAL.

Management includes identifying the underlying cause while **supporting lactation**. If blood results are abnormal or dehydration suspected babies will require supplemental feeds of Expressed Breast Milk (EBM) or formula if insufficient EBM available. The mother should be encouraged to continue to breastfeed on demand and express to increase supply until weight gain is achieved and blood results are normal. Careful monitoring of the baby and gradual reduction in amount of supplement is essential to normalise breastfeeding following weight loss. Daily weighing is recommended until a sustained improvement in weight is demonstrated

Excessive Weight Loss

Occurs when: Ineffective milk transfer to the baby occurs mainly due to poor positioning and attachment. It can also be caused by infrequent feeds i.e. when a baby is given a complementary feed or a dummy. These are the most common causes of excessive weight loss and unless corrected, this problem will inevitably lead to a reduction in breastmilk production. Breastmilk production is reduced due to the feedback inhibitor of lactation (FIL). As FIL increases in the breast due to poor milk transfer to the baby, milk production is greatly compromised. The let-down may be impacted by factors such as stress or pain, resulting in suppression of lactation. It is important to reassure mothers regarding reasons behind an excessive weight loss, ensuring support and encouragement to increase milk supply and confidence in their abilities.

It is not normal for breastfed babies to pass infrequent bowel movements in the first 4-6weeks of life, infrequent stooling is the first sign of insufficient milk intake.

Day of life	Wet Nappies	Stools	Feed frequency
Day 1-2	1-2 or more	1 or more meconium	3-4 feeds in first 24 hours
Day 3-4	At least 3 heavier wet nappies	2 or more changing stool	At least 8 times in 24 hours
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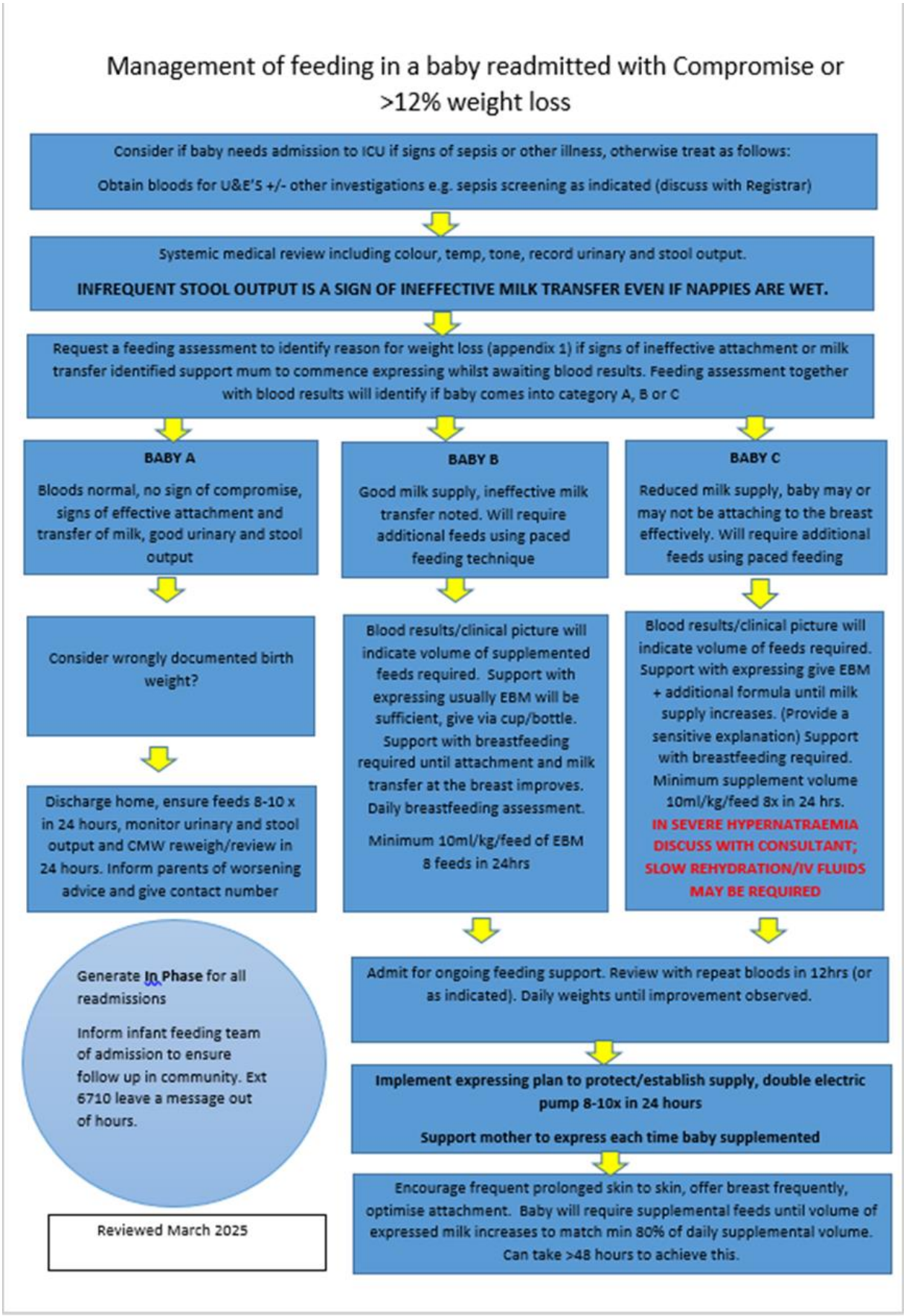

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