NHS
Cheshire and Wirral Partnership
NHS Foundation Trust

Document level: Local
Code: CC53
Issue number: 1

Prevention and management of faltering weight gain in breastfed babies

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Type of document	Guidance
Target audience	All staff within the 0-19 Starting Well Service
Document purpose	This document provides staff with clear guidance regarding how to manage weight loss and faltering growth in breastfed babies. These guidelines reflect NICE Clinical Guidelines NG75 ' Recognition and management of faltering growth in children.' (September 2017) and the UNICEF UK Baby Friendly Initiative Standards (2013) This guideline supports the Cheshire and Wirral Partnership 'Infant Feeding Guidance' and links to the local Key Performance Indicators for sustainability of breastfeeding

Approving meeting	West Quality Governance and Effectiveness Meeting	Date 26/01/2018
Implementation date	November 2018	

CWP documents to be read in conjunction with	
HR6	Trust-wide learning and development requirements including the training needs analysis (TNA)
CC52	Infant Feeding Guidance

Document change history	
What is different?	Updated in line with UNICEF UK Baby Friendly Initiative Standards (2013) and NICE Clinical Guidelines NG75 ' Recognition and management of faltering growth in children.' (September 2017)
Appendices / electronic forms	N/A
What is the impact of change?	Low.

Training requirements	Yes - Training requirements for this policy are in accordance with the CWP Training Needs Analysis (TNA) with Education CWP. The guidance will be referred to during Breastfeeding and Relationship Building training and updates

Document consultation	
Clinical Services	0-19 Starting Well Service
Corporate services	N/A
External agencies	N/A

Financial resource implications	No

External references

References
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Equality Impact Assessment (EIA)

Initial assessment	Yes/No	Comments
Does this document affect one group less or more favourably than another on the basis of:		
• Race	No	
• Ethnic origins (including gypsies and travellers)	No	
• Nationality	No	
• Gender	No	
• Culture	No	
• Religion or belief	No	
• Sexual orientation including lesbian, gay and bisexual people	No	
• Age	No	
• Disability - learning disabilities, physical disability, sensory impairment and mental health problems	No	
Is there any evidence that some groups are affected differently?	No	
If you have identified potential discrimination, are there any exceptions valid, legal and/or justifiable?		
N/A		
Is the impact of the document likely to be negative?	No	
• If so can the impact be avoided?	N/A	
• What alternatives are there to achieving the document without the impact?	N/A	
• Can we reduce the impact by taking different action?	N/A	

Where an adverse or negative impact on equality group(s) has been identified during the initial screening process a full EIA assessment should be conducted. If you have identified a potential discriminatory impact of this procedural document, please refer it to the human resource department together with any suggestions as to the action required to avoid / reduce this impact. For advice in respect of answering the above questions, please contact the human resource department.	
Was a full impact assessment required?	No
What is the level of impact?	Low

Contents

1. Introduction

Birth weight is usually regained by 2 weeks of age (Wright & Parkinson, 2004). Recovery of birthweight by 2 weeks suggests that feeding is effective and that the baby is well (Royal College of Paediatrics and Child Health, 2013).

Studies have indicated that normal weight loss in the majority of babies is between 5-7% (Dewey, Nommsen-Rivers, Heinig & Cohen, 2005; Macdonald, Ross, Grant & Young, 2003). Initial weight loss of more than 7% from birth weight may be an indicator of breastfeeding difficulties and requires observation and evaluation of the breastfeeding process. Weight loss of more than 10% definitely requires intervention (International Lactation Consultant Association, 2005). Once over birth weight the baby who gains **less** than 30-40g per day in the first 2 months of life requires through medical and breastfeeding evaluation (appendix 1). Poor feeding or poor weight gain can be a sign of illness in young babies. It is essential to keep illness as part of the differential diagnosis of feeding problems or poor weight gain.

2. Responsibilities

All staff within the 0-19 Starting Well Service involved with supporting breastfeeding mothers are responsible for reading and following this guidance, and for accessing training and updates regarding its use.

3. Purpose/ Objective of document

To provide staff with a clear pathway on how to manage weight loss or faltering growth in breastfed babies in order to maintain their health and well-being. In order to do this staff will be trained to;

- Identify slow weight gain
- Proactively manage slow weight gain
- Prevent premature cessation of breastfeeding
- Prevent **unnecessary** formula supplementation of breastfed babies
- To safely manage any **necessary** formula supplementation of breastfed babies

Staff will provide information to parents that is;

- Specific to them and their child
- Clearly explained in terms they can understand
- Verbally and in written form

4. Routine weight monitoring and breastfeeding assessment by the 0-19 Starting Well team.

- All babies should be weighed at the birth visit (10-14 days) and their weight plotted on the UK WHO growth charts.
- All babies should have a breastfeeding assessment (using the breastfeeding assessment tool) at the birth visit to ensure effective breastfeeding.
- If concerns exist about the effectiveness of breastfeeding, a plan of care should be formulated in partnership with the mother.
- The assessment and plan of care should also be documented in the mother and child's electronic EMIS records.

5. Weight monitoring after the birth visit

If no problems are identified at the birth visit, it is acceptable for the
baby to be weighed as recommended by NICE (2008), and the Royal College of Paediatrics and Child Health (2013), at 8, 12, 16 weeks and at 1 year around the time of routine immunisations.

6. Weight monitoring when there are concerns about faltering growth or weight loss

If there is concern about faltering growth or weight loss in the early days of life then discuss with the parents

- The reasons for your concern
- Any worries or issues they may have
- Any possible likely causes or factors that may be contributing to the problem
- The management plan

Poor weight gain can be a result of ineffective milk transfer from mother to baby. This is commonly caused by poor attachment and positioning at the breast, or insufficiently frequent feeds. More rarely, it may be due to poor health of the mother, a medical condition, or physical abnormality of either mother or baby. In most cases the problem can be overcome with good management.

If ineffective milk transfer is not corrected, suppression of milk production will result due to Feedback Inhibitor of Lactation (FIL), which inhibits further milk production (Neifert, 2004). It is therefore extremely important that slow or static weight gain is managed proactively. Breastfeeding technique and management should be optimised to support the establishment of a good milk supply and effective milk removal.

If there is cause for concern the baby should be moved from a routine to an individual weighing plan. As far as reasonably possible, the baby should be weighed at the same time of day, in the same relation to a feed (i.e. before/after), on the same scales which are placed on the same surface and by same person, as all these factors contribute to accuracy of weighing. (Hall & Elliman, 2003).

7. Measurement of weight and length

If there is concern about faltering growth;

- Weigh the baby
- Measure their length
- Plot the above measurements and available previous measurements on the UK WHO growth charts to assess weight change and linear growth over time.

8. Babies who enter health visitor care below their birth weight

A baby who is below birth weight around **day 14 needs careful monitoring**.

A breastfeeding history and assessment should be conducted, using the breastfeeding assessment tool. This may show that the baby is recovering from a large initial loss and is now gaining weight. In this case both feeding and weight monitoring should continue until birth weight is regained and the baby has established an upward weight gain trend on at least two occasions 2-4 weeks apart depending on the history and risk factors such as inter-uterine growth restriction.

If the baby is not now gaining weight, careful monitoring and assessment should continue. Feeding should be managed using **Plans 1-3** (appendix 2) and a clear feeding plan should be documented in the personal child health record and the mother and child's EMIS electronic record. If a baby has not regained birth weight by 3 weeks of age s/he should be referred to the GP for a review and further assessment.

Mothers can be signposted to additional sources of support such as breastfeeding counsellors, breastfeeding groups, peer support and social media groups.

A discussion with the breastfeeding lead health visitor may also be appropriate.

9. Babies who are gaining weight slowly

A baby's weight may not exactly follow one centile line. Weight loss during an illness is also common, but on recovery the baby's centile usually returns to normal within 2-3 weeks.
Consider using the following as thresholds for concern about faltering growth:

- A fall across 1 or more weight centile spaces, if birthweight was below 9th centile
- A fall across 2 or more weight centile spaces, if birthweight was between 9th and 91st centile
- A fall across 3 or more weight centile spaces, if birthweight was above 91st centile

- When current weight is below the 2nd centile for age, whatever the birthweight

A centile space is the space between adjacent centile lines on the UK WHO growth charts (NICE, 2017).

Monitor weight if there are concerns about faltering growth (appendix 4) but be aware that weighing children more frequently than necessary may add to parental anxiety (for example, minor short term changes may cause unnecessary concern).

10. Monitoring compliance

Compliance with this policy will be audited annually, as part of the UNICEF UK Baby Friendly Initiative audit.

Appendix 1 - When to evaluate the new-born and the young infant for growth concerns

Parameter	Normal	**Concerning** Evaluate medical condition and breastfeeding
Initial weight loss	6% or less	7-10%
Return to birth weight	7-14 days	Later than 14 days of age
Average daily weight gain (after return to birth weight)	Females 39g Males 46g	Less than 30-40g
Weight loss after immediate new born period	None	Any amount of unexplained weight loss
Growth curve weight	Weight follows curves of WHO Growth Standards	Current weight is below the 2nd centile for age, whatever the birthweight A fall across 1 or more weight centile spaces, if birthweight was below 9th centile A fall across 2 or more weight centile spaces, if birthweight was between 9th and 91st centile A fall across 3 or more weight centile spaces, if birthweight was above 91st centile NICE (2017)
Growth curve- length	Length continues on a given percentile	Crossing of percentiles downward (crossing percentiles upward may also be of medical concern)
Growth curve- head circumference	Head size continues on a given percentile	Crossing of percentiles upward or downward

Appendix 2 – Management plans

Management Plan 1

Complete a breastfeeding assessment and observe a full breastfeed- ensure optimal positioning and attachment.

Consider signs of poor milk transfer, dehydration or illness. If any concerns regarding the baby's physical condition or risk factors, refer for a medical review.

Explain the technique of hand expressing and the benefit of this in increasing milk supply.

Ensure the mother is aware of feeding cues and is feeding responsively.

Observe and discuss with mother effective sucking pattern;
Initially rapid sucks changing to deep rhythmical sucks, 1-2 sucks with audible swallowing and short pauses. If limited sucking pattern observed see **Plan 2** for compression and switch feeding.

If baby is feeding for a prolonged period of time but inefficiently also consider **Plan 2** for compression and switch feeding.

Explain the importance of offering the second breast at each feed and allowing baby to come off the breast spontaneously.

Discourage the use of a dummy as it may interfere with feeding cues.

Ensure ***minimum*** of 8 feeds in 24 hours including at least one feed at night- ask mother to wake baby to ensure adequate number of feeds in 24 hours.

Encourage skin to skin contact to increase hormonal response and responsive feeding.

Discuss urine and stool output. Explain to mother the need to observe for increased amount of urine and stools *(yellow, soft and seedy)* which will indicate increased milk intake.

Encourage attendance at breastfeeding support group. Offer additional breastfeeding support. Consider whether referral is needed to the specialist lactation clinic.

Review mother and baby to assess improvement in feeding. If no improvement, implement **Plan 2 and weigh as per NICE guidelines.**

Management Plan 2

Complete a breastfeeding assessment and observe a full breastfeed- ensure optimal positioning and attachment.

Consider signs of poor milk transfer, dehydration or illness. If any concerns regarding the baby's physical condition or risk factors, refer for a medical review.

Follow Plan 1 plus;

Teach mother how to use **'breast compressions'** and **'switch feeding'** to maximise milk intake (especially useful for sleepy babies) (appendix 3).

Express - Following compression and switch feeding ask mother to express by hand or pump for 5-10 minutes. Increased milk removal= increased prolactin levels=increased milk supply.

A hospital grade double electric breast pumps can be hired from Countess of Chester Maternity Unit (01244 363646/ 365401) or online from the manufacturers.

The expressed milk (EBM) can then be given to baby as an additional feed via a bottle (discuss paced bottle feeding) or a small cup if mother is confident to use one. **Give the collected EBM following a breast feed in the evening. Mum should do a full session of expressing at this time (around 20-30 minutes).** Massage the breast before expressing to increase the oxytocin/milk ejection reflex.

Discuss breastfeeding history with breastfeeding lead and plan care. Refer to specialist lactation clinic (as per pathway)

Example
Baby's weight in kilos x 150mls = amount in 24 hours
Divide this by number of feeds in 24 hours (8 feeds) = expressed amount

4660 x 150mls = 699 in 24 hours, divide by 8 = 87mls approximately per feed

Give full supplement of EBM/formula (KG X 150mlskg = 24hours/8) via a bottle or cup in the evening to allow mother to do a full session of expressing for 20-30 minutes.

Reassess within 24 hours; assessing baby's condition and feeding, urine and stool output.

If mother reports an increase in the frequency/amount of urine and stools and the baby is more effective on the breast, continue the above and arrange to re-weigh the next day.
If no evidence of increased milk intake i.e. no increase in yellow stools or wet nappies or only minimal weight gain move to **Plan 3.**

If the mother reports at any time that the baby has become sleepy, not interested in feeding, or urine or stool output decreases further, the discuss need for admission with the Paediatric Registrar.

Management Plan 3

Refer to on-call Paediatric Registrar for a medical review. Baby is likely to be admitted and will follow hospital weight loss plans. On discharge follow plan as documented and re-weigh as instructed.

If baby is not required to be admitted continue with Plans 1+ 2 plus;

Inform breastfeeding lead of baby's condition and the management plan in place.

Ensure at least 10 breastfeeds per 24 hours and encourage expressing after each feed using hospital grade pump (preferably double pumping) to increase milk supply. Feed any EBM to baby as supplementary feed as appropriate.

If breastfeeding is assessed as ineffective or EBM is not available supplementing with donor milk or formula feeds will be necessary. Calculate feed volume per 24 hours; 150mls per kg of body weight. If mother continues to breastfeed give 25% of volume required as a whey based formula feed. The volume calculated is to be divided into appropriate feeds and given at times when convenient to mother.

Continue to support active breastfeeding as per plans 1-2. Monitor to assess adequacy of plan.

Reduce formula supplements as breastmilk supply increases.

As condition improves;

1. Ensure optimal position and attachment.

a) Baby to be offered alternate feeds.

1st feed- use compression and switch feeding (appendix 3) express after breastfeeds for 5-10 mins.

b) 2nd feed- give full supplement of EBM/donor/formula (if not enough EBM to make a full feed collect enough to use within 24 hours). Use paced bottle feeding technique.

Mother to express for 20-30 minutes. If the mother is able she can express more than once, in between breastfeeds.

c) Repeat steps a) and b)

If baby is ineffective when breast feeding 1st feed then give top up. As baby becomes more effective stop the top up at the breastfeed.

2. As mother's milk increases then donor or formula milk can be replaced by EBM. As baby becomes more effective in breast feeding then one supplement at a time can be stopped. The mother should still be encouraged to express after feeds. As baby's weight increases and effective milk transfer is evident, gradually reduce the supplements over the next few days. As mother begins to fully breastfeed, expressing can be reduced.

3. As condition improves continue to monitor weight, urine and stool output and observe breastfeeding closely until baby is following an upward trend on at least two occasions at least 2-4 weeks apart depending on history and risk factors. Support mother with transitioning back to full, exclusive breastfeeding. Refer into specialist lactation clinic.

Appendix 3 – Breast compressions and switch feeding

Breast Compressions

- **Breastfeed your baby as usual** optimising positioning and attachment
- During the breastfeed, **watch for the moment when your baby stops sucking actively** (the deep jaw movements slow down and you can't hear any swallows).
- Using a free hand, **cup and squeeze the breast between thumb and fingers** e.g. with the thumb on top of the breast and the fingers of the same hand below it. Alternatively, some mothers press the breast against the chest wall or have their *fingers* on top of the breast and their thumb below.
- **Place your hand far enough behind the nipple and areola** so you don't disturb your baby's attachment but close enough to put gentle pressure on the milk glands in the breast.
- **Avoid sliding your thumb or fingers along the breast** and do not press so firmly that it is uncomfortable or painful**.**
- Once milk starts to flow again your baby will start swallowing again, and you can **maintain the pressure while he is still sucking and swallowing** and then release the pressure and rest your hand when your baby pauses.
- **Repeat the compressions until there is no active swallowing**.
- Once baby stops actively sucking on the first breast even with compression, **offer the other breast and repeat**.

Switch feeding

Switch feeding will encourage a baby to suck more vigorously for a longer period of time so that he gets more of the creamier, high-fat milk. In switch feeding, you let the baby feed on the first breast until the intensity of his suck and swallow diminishes.

1. Before he drifts off into comfort sucking, sit him up and switch him to the other breast and encourage him to actively feed again.
2. When his sucking slows, go back to the first breast, and finally, finish feeding on the other breast. Wind him or change his nappy between sides, if that will help to wake him.

Appendix 4 - Table of recommended weight monitoring if there are concerns about faltering growth

Age	Monitoring
Less than one month old	Daily
1-6 months old	Weekly
6-12 months old	Fortnightly
From 1 year of age	Monthly

(NICE, 2017)