NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Health and social care directorate

Quality standards

Briefing paper

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| Quality standard topic: Faltering growth  Output: Prioritised quality improvement areas for development.  Date of Quality Standards Advisory Committee meeting: 12 November 2019 |

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1. Introduction

This briefing paper presents a structured overview of potential quality improvement areas for faltering growth. It provides the committee with a basis for discussing and prioritising quality improvement areas for development into draft quality statements and measures for public consultation.

* 1. Structure

This briefing paper includes a brief description of the topic, a summary of each of the suggested quality improvement areas and supporting information.

If relevant, recommendations selected from the key development sources below are included to help the committee in considering potential statements and measures.

* 1. Development source

The key development sources referenced in this briefing paper are:

* [Faltering growth: recognition and management of faltering growth in children](https://www.nice.org.uk/guidance/ng75) NICE guideline NG75.

Published September 2017.

* [Coeliac disease: recognition, assessment and management](https://www.nice.org.uk/guidance/ng20) NICE guideline NG20.

Published September 2015.

1. Overview
   1. Focus of quality standard

This quality standard will cover the recognition and management of faltering growth in infants and preschool children.

* 1. Definition

The term 'faltering growth' (previously called 'failure to thrive') is widely used to refer to a slower rate of weight gain in childhood than expected for age and sex.

* 1. Incidence and prevalence

Various definitions of faltering growth have been used in the past, meaning estimates of prevalence in the UK vary widely. Concerns about faltering growth arise in up to 5% of infants and preschool children depending on the definition used. Concerns are usually raised in primary care by parents, health visitors, or GPs[[1]](#footnote-1).

The cause of faltering growth in the absence of a specific underlying health condition is likely to be complex and multifactorial. In the past, child neglect or socioeconomic and educational disadvantage were often considered to be likely contributors. While neglected children may be undernourished, neglect is an uncommon explanation for faltering growth. Similarly, significant associations with socioeconomic or educational factors have not been demonstrated.

* 1. Management

The World Health Organization (WHO) has produced growth standards, based on longitudinal studies of healthy breastfed infants. These standards, along with UK term and preterm infant growth data, have been incorporated into [UK WHO growth charts](https://www.rcpch.ac.uk/resources/growth-charts) for monitoring growth in UK children. A child's weight, length or height and head circumference can be plotted on these charts to provide a visual representation of growth over time. Epidemiological data suggest that healthy children usually progress relatively consistently along a growth centile.

Newborn infants normally lose weight in the early days of life. Persisting or large weight losses can cause concern in parents, carers and health professionals about ineffective establishment of feeding. In older children, faltering growth can occur when nutritional intake does not meet a child's specific energy requirements. Undernutrition presents as a relatively slow weight gain, demonstrated by downward movement across weight centiles on the growth chart.

Children with faltering growth may be identified by routine growth monitoring or by parental or health professional concern. Standard management is usually community based, with support and advice provided to increase energy intake and manage challenging feeding behaviour. Some children will be referred to paediatric dietitians or paediatricians for further assessment and management.

Certain health conditions predispose children to faltering growth (for example, cystic fibrosis or coeliac disease). Specific treatment for these conditions can improve or restore expected rates of weight gain. In children with no specific cause for faltering growth, simple interventions to increase nutritional intake may be effective in improving weight gain. Faltering growth in early childhood may be associated with persisting problems with appetite and feeding.

* 1. Resource impact

We do not expect this quality standard to have a significant impact on resources. When the [faltering growth: recognition and management of faltering growth in children](https://www.nice.org.uk/guidance/ng75) guideline was developed, a resource impact statement was produced which noted that:

* the resource impact of implementing any single guideline recommendation will be less than £1 million per year in England (or £1,800 per 100,000 population) **and**
* the resource impact of implementing the whole guideline in England will be less than £5 million per year (or £9,100 per 100,000 population).

There may be savings as a result of the recommendations improving the accuracy of recognising faltering growth. However, the savings are not anticipated to be significant.

It is not anticipated that the recommendations will result in a significant increase in costs, as the principal change from current practice will be the standardisation of care. This is anticipated to be achieved if necessary by using existing resources differently.

These services are commissioned by NHS England and clinical commissioning groups. Providers are NHS hospital trusts, community providers and primary care providers.

1. Summary of suggestions
   1. Responses

In total 10 registered stakeholders responded to the engagement exercise 12 September – 2 October 2019. 8 of these registered stakeholders provided areas for quality improvement and 2 advised they had no comment to make. We also received comments from 6 specialist committee members. The responses have been merged and summarised in table 1 for further consideration by the committee.

Full details of all the suggestions provided are given in appendix 2 for information.

### Table 1 Summary of suggested quality improvement areas

| Suggested area for improvement | Stakeholders |
| --- | --- |
| Measurement and assessment   * Faltering growth in the early days of life * Measurement after the early days * Assessment | BDA, BSNA, BSPGHAN, SCM2, SCM4, SCM5, SCM6 |
| Monitoring and referral   * Care planning and support * Referral | BSPGHAN, CGF, CUK, SCM2, SCM3, SCM4, SCM5, SCM6 |
| Feeding   * Breastfeeding and nutritional supplements * Enteral feeding | BSPGHAN, FSNT, RCPCH, SCM1, SCM4, SCM6 |
| Organisation of care   * Pathways of care * Management in primary care | BDA, BSPGHAN, SCM1, SCM2, SCM4 |
| Advice and support for parents or carers | BDA, SCM3, SCM4 |
| Additional areas   * Homelessness and poverty * Malnutrition screening tool, weight and measurement * Consideration of evidence * Training and development | BDA, BSNA, RCPCH  NHSE |
| Abbreviations:  BDA, British Dietetic Association  BSNA, British Specialist Nutrition Association Ltd  BSPGHAN, British Society of Paediatric Gastroenterology, Hepatology and Nutrition  CGF, Child growth foundation  CUK, Coeliac UK  FSNT, First Steps Nutrition Trust  NHSE, NHS England  RCPCH, Royal College of Paediatrics and Child Health  SCM, Specialist Committee Member | |

* 1. Identification of current practice evidence

Bibliographic databases were searched to identify examples of current practice in UK health and social care settings; 293 papers were identified for faltering growth. In addition, 19 papers were suggested by stakeholders at topic engagement and 53 papers internally at project scoping.

Of these papers, 4 have been included in this report and are included in the current practice sections where relevant. Appendix 1 outlines the search process.

1. Suggested improvement areas
   1. Measurement and assessment
      1. Summary of suggestions

Faltering growth in the early days of life

A stakeholder commented that professionals should know the thresholds for concern are a loss of more than 10% of a baby’s birth weight in the early days of life, or if they have not returned to their birth weight by 3 weeks of age. All professionals involved in the baby’s care having access to growth monitoring charts means any faltering growth can be recognised.

Measurement after the early days

A stakeholder commented that where there are concerns about faltering growth after the early days of life standardised methods of weighing and measuring should be used and that professionals should be trained to do and document this. A consistent approach to documenting measurements can ensure accurate assessment and identify thresholds for further action. Stakeholders stated that healthcare professionals should measure height or length as well as weight and this should be plotted on the growth chart. Another stakeholder did not feel that BMI centiles are particularly helpful in this group of patients or adds anything above height and weight.

A stakeholder felt that faltering growth can be detected early by opportunistic measurement of weight and length when children present to hospital either as an emergency or to an outpatient appointment.

Assessment

A stakeholder suggested that clinical, social and feeding assessments should be conducted for an infant over 1 month old with faltering growth.

A stakeholder suggested assistant practitioner roles should be established to support mealtime observations at home, including assessment of a family meal. It was noted that using video assessments of family eating patterns with a family has been shown to be helpful. Stakeholders also felt that a trained and experienced clinician should observe breastfeeding to observe an infant’s feeding cues as this can quickly alter the trajectory of faltering growth.

A stakeholder suggested that infants and children have their growth assessed at each of the mandated health visitor contacts as outlined in the Healthy Child programme.

* + 1. Selected recommendations from development source

Table 2 below highlights recommendations that have been provisionally selected from the development source that may support potential statement development. These are presented in full after table 2 to help inform the committee’s discussion.

### Table 2 Specific areas for quality improvement

|  |  |
| --- | --- |
| Suggested quality improvement area | Suggested source guidance recommendations |
| Faltering growth in the early days of life | NICE NG75 Recommendation 1.1.1 |
| Measurement after the early days | NICE NG75 Recommendation 1.2.2 |
| Assessment | NICE NG75 Recommendations 1.2.6 and 1.2.7 |

**Faltering growth in the early days of life**

NICE NG75 recommendation 1.1.1

Be aware that:

* it is common for infants to lose some weight during the early days of life
* this weight loss usually stops after about 3 or 4 days of life
* most infants have returned to their birth weight by 3 weeks of age.

**Measurement after the early days**

NICE NG75 recommendation 1.2.2

If there is concern about faltering growth (for example, based on the criteria in recommendation 1.2.1):

* weigh the infant or child
* measure their length (from birth to 2 years old) or height (if aged over 2 years)
* plot the above measurements and available previous measurements on the UK WHO growth charts to assess weight change and linear growth over time.

**Assessment**

NICE NG75 recommendations 1.2.6 and 1.2.7

1.2.6 If there is concern about faltering growth:

* perform a clinical, developmental and social assessment
* take a detailed feeding or eating history
* consider direct observation of feeding or meal times
* consider investigating for:
  + urinary tract infection (follow the principles of assessment in NICE's guideline on urinary tract infection in under 16s)
  + coeliac disease, if the diet has included gluten-containing foods (follow the principles of assessment in NICE's guideline on coeliac disease)
* perform further investigations only if they are indicated based on the clinical assessment.

1.2.7 If observation of eating or feeding is needed because of concern about faltering growth, ensure this is done by a person with appropriate training and expertise.

* + 1. Current UK practice

### Faltering growth in the early days of life and measurement after the early days

No published studies on current practice were highlighted for these suggested areas for quality improvement; these areas are based on stakeholder’s knowledge and experience.

### Assessment

A survey of 1000 mothers of children aged 0-23 months was completed by Channel Mum for the Institute of Health Visiting[[2]](#footnote-2) in April 2019. This found that 22% of mothers reported that the health visiting service felt like a “tick box exercise”. Some of the main drivers for dissatisfaction were lack of continuity of health visitor, the appointments feeling rushed and conflicting advice.

No other published studies on current practice were highlighted for this suggested area for quality improvement.

* 1. Monitoring and referral
     1. Summary of suggestions

Care planning and support

A stakeholder felt that very frequent monitoring where there is no noted growth faltering issue can be harmful and may show a need for referral for feeding support.

Stakeholders noted that a baby with faltering growth should be monitored for weight gain regularly, using appropriate timescales, by a health visitor. A management plan with specific goals for the infant or child should be developed with their parents or carers. This should include referral to other healthcare professionals if needed, with timescales.

A stakeholder noted that maternal mental health should be considered for children with faltering growth, especially postnatal depression in babies under 1.

A stakeholder suggested measuring mid-upper arm circumference for children with faltering growth as a tool to monitor improvement in nutritional status.

Referral

A stakeholder noted that a discussion with, or referral to, the relevant paediatric specialist services is important where there are concerns about an infant or child with faltering growth, for example if they have symptoms of an underlying disorder. Another stakeholder commented that all infants and children with faltering growth should receive specialist feeding advice from a paediatric dietitian.

A stakeholder commented that babies with more than 10% weight loss who have not regained their birthweight by 3 weeks, despite feeding support, should be referred to the paediatric service and their weight measured weekly.

A stakeholder felt that all possible causes of faltering growth should be explored, however rare, and referrals should be made, for example to endocrinologists or geneticists if initial advice and investigations have not improved growth. It was noted that faltering growth is a symptom of coeliac disease so these children should be tested for it. Another stakeholder noted that over investigation should not take priority over management of undernutrition.

A stakeholder suggested there should be specific monitoring of all children born with intrauterine growth restriction (IUGR) or who are small for gestational age (SGA) to ensure catch up growth has occurred and, if not by age 4, referral to endocrine to commence growth hormone treatment.

A stakeholder noted that infants or children with faltering growth should not be admitted to hospital unless they are acutely unwell or there is a specific indication requiring inpatient care.

* + 1. Selected recommendations from development source

Table 3 below highlights recommendations that have been provisionally selected from the development sources that may support potential statement development. These are presented after table 3 to help inform the committee’s discussion.

### Table 3 Specific areas for quality improvement

|  |  |
| --- | --- |
| Suggested quality improvement area | Suggested source guidance recommendations |
| Care planning and support | NICE NG75 Recommendations 1.2.8, 1.2.15, 1.2.27, 1.2.28 and 1.2.30 |
| Referral | NICE NG20 Recommendation 1.1.1  NICE NG75 Recommendations 1.1.4, 1.2.6, 1.2.31 and 1.2.32 |

### Care planning and support

NICE NG75 recommendations 1.2.8, 1.2.15, 1.2.27, 1.2.28 and 1.2.30.

1.2.8 Be aware that the following factors may be associated with faltering growth:

* preterm birth
* neurodevelopmental concerns
* maternal postnatal depression or anxiety.

1.2.15 Together with parents and carers, establish a management plan with specific goals for every infant or child where there are concerns about faltering growth. This plan could include:

* assessments or investigations
* interventions
* clinical and growth monitoring
* when reassessment to review progress and achievement of growth goals should happen.

1.2.27 If there are concerns about faltering growth (see recommendation 1.2.1), measure the weight at appropriate intervals taking account of factors such as age and the level of concern, but usually no more often than:

* daily if less than 1 month old
* weekly between 1–6 months old
* fortnightly between 6–12 months
* monthly from 1 year of age.

1.2.28 Monitor weight if there are concerns about faltering growth (see recommendation 1.2.1), but be aware that weighing children more frequently than is needed (see recommendation 1.2.27) may add to parental anxiety (for example, minor short-term changes may cause unnecessary concern).

1.2.30 If there are concerns about faltering growth monitor length or height at intervals, but no more often than every 3 months.

### Referral

NICE NG20 recommendation 1.1.1 (relevant section)

Offer serological testing for coeliac disease to people with any of the following:

* faltering growth

NICE NG75 recommendation 1.1.4

If infants lose more than 10% of their birth weight in the early days of life, or they have not returned to their birth weight by 3 weeks of age, consider:

* referral to paediatric services if there is evidence of illness, marked weight loss, or failure to respond to feeding support (see recommendations in NICE’s guideline on postnatal care up to 8 weeks after birth)
* when to reassess if not referred to paediatric services.

NICE NG75 recommendation 1.2.6 (relevant section)

If there is concern about faltering growth:

* consider investigating for:
  + coeliac disease, if the diet has included gluten-containing foods (follow the principles of assessment in NICE’s guideline on coeliac disease)

NICE NG75 recommendations 1.2.31 and 1.2.32

1.2.31 If an infant or child with faltering growth has any of the following discuss with, or refer to, an appropriate paediatric specialist care service:

* symptoms or signs that may indicate an underlying disorder
* a failure to respond to interventions delivered in a primary care setting
* slow linear growth or unexplained short stature (see recommendation 1.2.3)
* rapid weight loss or severe undernutrition
* features that cause safeguarding concerns (see the NICE guideline on child maltreatment).

1.2.32 Do not admit infants or children with faltering growth to hospital unless they are acutely unwell or there is a specific indication requiring inpatient care, such as a plan to begin tube feeding (see recommendation 1.2.25).

* + 1. Current UK practice

### Care planning and support

No published studies on current practice were highlighted for this suggested area for quality improvement; this area is based on stakeholder’s knowledge and experience.

### Referral

A very small, retrospective review[[3]](#footnote-3) of 74 paediatric admissions in a district general hospital was carried out for the period of 1 January – 31 December 2014. This was to identify whether admissions of newborns with feeding difficulties and weight loss could be avoided. This review found that 72% of newborns admitted were otherwise healthy and there was potential for them to be managed in the community.

No published studies on current practice were highlighted for the other areas suggested by stakeholders related to referral.

* 1. Feeding
     1. Summary of suggestions

Breastfeeding and nutritional supplements

Stakeholders noted that giving breastfeeding infants formula milk soon after birth increases the likelihood that breastfeeding will be stopped so supplementation should only be offered when really needed. The threshold for investigation should be a loss of 10% of birthweight (or still below birthweight after 3 weeks) when a feeding and clinical assessment should be made and appropriate support offered before formula milk is given. Early breastfeeding support can reverse the majority of weight loss in the early days of life.

Stakeholders noted that if an infant is given formula milk due to faltering growth their mother should be encouraged to express breast milk to promote their milk supply and feed the infant with breast milk before giving any infant formula. Mothers should be supported to continue breastfeeding, both in the early days of life and later.

Stakeholders felt that GPs should not routinely prescribe energy-rich formula milk without the advice of a specialist dietitian. If a child is prescribed this formula milk they should be regularly assessed to see if they should continue to use it. A stakeholder commented that children receiving oral nutritional supplements should be under the care of a specialist paediatric team

Enteral feeding

A stakeholder noted that healthcare professionals should understand the limited role of enteral feeding. Another stakeholder felt that enteral tube feeding should be used as a short term measure to improve nutritional status with a clear plan to wean off enteral tube support.

A stakeholder commented that children receiving enteral feeding for faltering growth should be under the care of a specialist paediatric team.

* + 1. Selected recommendations from development source

Table 4 below highlights recommendations that have been provisionally selected from the development source that may support potential statement development. These are presented in full after table 4 to help inform the committee’s discussion.

### Table 4 Specific areas for quality improvement

|  |  |
| --- | --- |
| Suggested quality improvement area | Suggested source guidance recommendations |
| Breastfeeding and nutritional supplements | NICE NG75 Recommendations 1.1.3, 1.1.7, 1.2.16, 1.2.18 and 1.2.24 |
| Enteral feeding | NICE NG75 Recommendations 1.2.25 and 1.2.26 |

### Breastfeeding and nutritional supplements

NICE NG75 recommendations 1.1.3, 1.1.7, 1.2.16, 1.2.18 and 1.2.24

**Weight loss in the early days of life**

1.1.3 Provide feeding support (see recommendations in NICE’s guideline on [postnatal care up to 8 weeks after birth](https://www.nice.org.uk/guidance/cg37)) if there is concern about weight loss in infants in the early days of life, for example if they have lost more than 10% of their birth weight.

1.1.7 If supplementation with an infant formula is given to a breastfed infant:

* support the mother to continue breastfeeding
* advise expressing breast milk to promote milk supply and
* feed the infant with any available breast milk before giving any infant formula.

**Faltering growth after the early days of life**

1.2.16 Provide feeding support (see recommendations in NICE’s guideline on [postnatal care up to 8 weeks after birth](https://www.nice.org.uk/guidance/cg37)) if there is concern about faltering growth in the first weeks of life. Consider whether such feeding support might be helpful in older milk-fed infants, including those having complementary solid foods.

1.2.18 If supplementation with an infant formula is given to a breastfed infant because of concern about faltering growth after the early days of life:

* support the mother to continue breastfeeding
* advise expressing breast milk to promote milk supply **and**
* feed the infant with any available breast milk before giving any infant formula.

1.2.24 Regularly reassess infants and children receiving an oral nutritional supplement for faltering growth to decide if it should be continued. Take into account:

* weight change
* linear growth
* intake of other foods
* tolerance
* adherence
* the views of parents or carers.

### Enteral feeding

NICE NG75 recommendations 1.2.25 and 1.2.26

1.2.25 Only consider enteral tube feeding for infants and children with faltering growth when:

* there are serious concerns about weight gain **and**
* an appropriate specialist multidisciplinary assessment for possible causes and contributory factors has been completed **and**
* other interventions have been tried without improvement.

1.2.26 If enteral tube feeding is to be used in an infant or child with faltering growth, make a plan with appropriate multidisciplinary involvement for:

* the goals of the treatment (for example, reaching a specific weight target)
* the strategy for its withdrawal once the goal is reached (for example, progressive reduction together with strategies to promote oral intake).
  + 1. Current UK practice

### Breastfeeding and nutritional supplements

The public health outcomes framework data[[4]](#footnote-4) shows the proportion of all infants due a 6-8 week check that are totally or partially breastfed. Note this is not specific to children with faltering growth.

|  |  |
| --- | --- |
| Data collection end | Proportion of infants that are breastfed |
| March 2018 | 42.7% |
| March 2017 | 44.4% |
| March 2016 | 43.2% |
| March 2015 | 43.8% |
| March 2014 | 45.8% |

A 2018 survey[[5]](#footnote-5) of women’s experiences of maternity care found that 63% of women felt that midwives and other health professionals gave them active support and encouragement about feeding their baby. 62% of women felt that in the six weeks after the birth of their baby they ‘definitely’ received help and advice from a midwife or health visitor about feeding their baby and 29% responded this was correct ‘to some extent’.

No published studies on current practice were highlighted for nutritional supplements.

### Enteral feeding

No published studies on current practice were highlighted for this suggested area for quality improvement; this area is based on stakeholder’s knowledge and experience.

* 1. Organisation of care
     1. Summary of suggestions

Pathways of care

A stakeholder noted there should be a pathway of care for infants and children if there are concerns about faltering growth or weight loss in the early days of life. It should set out the roles of healthcare professionals in primary and secondary care settings and the process for referral to, and coordination of, specialist care.

Stakeholders noted that accessible pathways following early recognition of weight faltering, especially after the first few weeks of life, would allow effective intervention and may prevent the need for onward hospital referral and unnecessary investigations.

Management in primary care

A stakeholder felt there should be specialist support for primary care management of faltering growth. They felt that the primary care team should have access to a multidisciplinary team including a paediatric dietitian, psychologist and speech and language therapist. It was also suggested that local areas should identify a lead healthcare professional to coordinate care and act as the first point of contact.

* + 1. Selected recommendations from development source

Table 5 below highlights recommendations that have been provisionally selected from the development source that may support potential statement development. These are presented in full after table 5 to help inform the committee’s discussion.

### Table 5 Specific areas for quality improvement

|  |  |
| --- | --- |
| Suggested quality improvement area | Suggested source guidance recommendations |
| Pathways of care | NICE NG75 Recommendations 1.3.1 and 1.3.2 |
| Management in primary care | NICE NG75 Recommendation 1.3.3 |

**Pathways of care**

NICE NG75 recommendations 1.3.1 and 1.3.2

1.3.1 Ensure there is a pathway of care for infants and children where there are concerns about faltering growth or weight loss in the early days of life that:

* clearly sets out the roles of healthcare professionals in primary and secondary care settings
* establishes and makes clear the process for referral to and coordination of specialist care in the pathway.

1.3.2 Provide community-based care for infants and children where there are faltering growth concerns or weight loss in the early days of life with a team (the ‘primary care team’) that includes, for example:

* a midwife
* a health visitor
* a GP.

**Management in primary care**

NICE NG75 recommendation 1.3.3

Ensure that the primary care team has access to the following healthcare professionals with expertise relevant to faltering growth:

* infant feeding specialist
* consultant paediatrician
* paediatric dietitian
* speech and language therapist with expertise in feeding and eating difficulties
* clinical psychologist
* occupational therapist.
  + 1. Current UK practice

No published studies on current practice were highlighted for these suggested areas for quality improvement; these areas are based on stakeholder’s knowledge and experience.

* 1. Advice and support for parents or carers
     1. Summary of suggestions

A stakeholder noted that parents or carers should be given information about responsive feeding to help minimise feeding-related behavioural issues. Parents or carers should be advised that drinking too many energy-dense drinks, including milk, can reduce a child’s appetite for other foods.

A stakeholder noted parents should be supported if they are anxious about their child’s growth or weight gain.

* + 1. Selected recommendations from development source

Table 6 below highlights recommendations that have been provisionally selected from the development source that may support potential statement development. These are presented in full after table 6 to help inform the committee’s discussion.

### Table 6 Specific areas for quality improvement

|  |  |
| --- | --- |
| Suggested quality improvement area | Suggested source guidance recommendations |
| Advice and support for parents or carers | NICE NG75 Recommendations 1.2.19, 1.2.22 and 1.4.4 |

NICE NG75 recommendations 1.2.19, 1.2.22 and 1.4.4

1.2.19 When there are concerns about faltering growth, discuss the following, as individually appropriate, with the infant’s or child’s parents or carers:

* encouraging relaxed and enjoyable feeding and mealtimes
* eating together as a family or with other children
* encouraging young children to feed themselves
* allowing young children to be ‘messy’ with their food
* making sure feeds and mealtimes are not too brief or too long
* setting reasonable boundaries for mealtime behaviour while avoiding punitive approaches
* avoiding coercive feeding
* establishing regular eating schedules (for example 3 meals and 2 snacks in a day).

1.2.22 Advise the parents or carers of infants or children with faltering growth that drinking too many energy-dense drinks, including milk, can reduce a child’s appetite for other foods.

1.4.4 If there is concern about faltering growth in an infant or child or weight loss in the early days of life, discuss with the parents or carers:

* the reasons for the concern, and how the growth measurements are interpreted
* any worries or issues they may have
* any possible or likely causes or factors that may be contributing to the problem
* the management plan (see recommendation 1.2.15).
  + 1. Current UK practice

No published studies on current practice were highlighted for this suggested area for quality improvement; this area is based on stakeholder’s knowledge and experience.

* 1. Additional areas

### Summary of suggestions

The improvement areas below were suggested as part of the stakeholder engagement exercise. However, they were felt to be either unsuitable for development as quality statements, outside the remit of this particular quality standard referral or need further discussion by the committee to establish potential for statement development.

There will be an opportunity for the committee to discuss these areas at the end of the session on 12 November 2019.

### Homelessness and poverty

This suggestion has not been progressed. Quality statements are action-focussed however no action was proposed by the stakeholder. This can be included in the equality and diversity considerations section of the quality standard if appropriate.

### Malnutrition screening tool, weight and measurement

A suggestion was made to create a malnutrition screen tool. Suggestions were also received to standardise head measurement and mandate measurement on admission for inpatients. These suggestions have not been progressed as they are not within the remit of quality standards.

### Consideration of evidence

Consideration of evidence for links between faltering growth and other factors such as social deprivation was suggested as an area of quality improvement. This is outside the remit of the quality standards process and will be passed on to the NICE clinical guidelines team to inform any future reviews of guideline NG75.

### Training and development

Throughout the suggestions received training of staff was highlighted as an area of quality improvement.

This has not been progressed. Quality statements focus on actions that demonstrate high quality care or support, not the training that enables the actions to take place. The committee should consider which parts of care and support would be improved by increased training. Training may be referred to in the audience descriptors.

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# Appendix 1: Review flowchart

Records identified through topic engagement  
19

Records identified through IS scoping search  
53

Records identified through ViP searching  
293

Records excluded  
335

Records screened  
365

Citation searching or snowballing

16

Full-text papers excluded  
42

Full-text papers assessed   
46

Current practice examples included in the briefing paper  
4

# Appendix 2: Suggestions from stakeholder engagement exercise – registered stakeholders

| ID | Stakeholder | Key area for quality improvement | Why is this important? | Why is this a key area for quality improvement? | Supporting information |
| --- | --- | --- | --- | --- | --- |
| **Measurement and assessment** | | | | | |
| 1 | British Dietetic Association | Meal time observations | Establish assistant practitioner roles to support with observations of feeding /mealtimes at home. This can resolve many issues at source within a few minutes of watching a meal! There are many isolated families with little or no extended family and little awareness of what to cook/shop/how to feed infants and children. | Although this is a recommendation in guidelines, this is not consistently implemented in practice. |  |
| 2 | BSPGHAN | Key area for quality improvement 1  **Early detection of growth faltering by opportunistic measurement of weight /length at the time of contact with healthcare** | Improve measurement of weight and height for all children presenting to hospital (outpatient / emergency) | Audit of number of children having their weight and height measured on attendance to emergency |  |
| 3 | BSPGHAN | We are not sure BMI centiles is particularly helpful in this group of patients or adds anything above height and weight. |  |  |  |
| 4 | British Specialist Nutrition Association Ltd (BSNA Ltd) | It should be mandatory for all HVs in the community (when a parent is taking their child for weighting) or HCPs coming in contact with a paediatric patient in an acute or community setting to check height/length every time and not just weight. This should also be plotted on the growth chart. |  |  |  |
| 5 | SCM 2 | Assessment process  Where there are concerns about weight faltering weights and lengths/height should be recorded (with correct exposure of baby or child according to age)-should include standardised methods of weighing and measuring length and height.  Training should be available to all staff involved in the use of paper or electronic and appropriate calibration of approved equipment. Assessment of weight and height/length should be part of clinical assessment | Consistent approach in documentation of measurements ensures accurate assessment and identifies thresholds for further action. Access to calibrated approved equipment in front-line clinical settings is important, this includes GP practices, out of hours and urgent care centres as well as hospital, clinic and health visitor settings.  Training in completion of growth charts including correction for preterm infants ensures appropriate interpretation of growth patterns and helps to identify those needing closer or more timely assessment. Training may be available to hospital staff and health visitors but should be included in GP training as well as being available to wider primary care staff and all those involved in managing babies and children. |  |  |
| 6 | SCM 2 | Indicators for concern – knowledge of criteria  Recognised criteria for thresholds  First few days to weeks-  lose more than 10% of their birth weight in the early days of life, or they not returned to their birth weight by 3 weeks of age.  After first few weeks   * A fall across ≥1 weight centile spaces, if birth weight was below the 9th centile * A fall across ≥2 weight centile spaces, if birth weight was between the 9th and 91st centiles * A fall across ≥3 weight centile spaces, if birth weight was above the 91st centile   When current weight is below the 2nd centile for age, whatever the birth weight. | Access to growth monitoring charts by all professionals ensures this can be recognised in practice. Staff should be aware of thresholds requiring assessment (to be included in health visitor training). |  |  |
| 7 | SCM 4 | Key area for quality improvement 2:  1.2.7: If observation of eating or feeding is needed because of concern about faltering growth, ensure this is done by a person with appropriate training and expertise. | While no evidence was identified, the guideline committee had felt this was an important area needing support, and links with Clinical Guideline (Postnatal Care, CG37) and well as the QS for GORD in children | Breastfeeding support may have a small direct cost, associated with clinical time and follow up which could be incurred if a woman needs – for example – a discussion with her midwife about breastfeeding but in terms of indirect costs, there is evidence that continued breastfeeding can reduce overall healthcare spending on a baby by making certain illnesses less likely and promoting robust health generally (see above). As this effect is ongoing over the lifetime of the child, it is likely that relatively small investments made in breastfeeding support early will be cost-effective given the accumulation of QALYs and costs offset over the lifetime of the child. | Evidence of local arrangements to ensure that breast-fed infants with faltering growth have their feeding assessed (by a qualified professional e.g. paediatrician, HV, dietitian, or midwife) before other treatments are offered.  Likely Data source:Local data collection. |
| 8 | SCM 5 | Make reference and links to all other relevant QSs  QS98 Breastfeeding and QS37  QS98 Introduction to family foods  QS37 Postnatal care (QS point 11) | Faltering growth can be multifactorial in cause, or no cause found. Careful assessment by a suitably qualified and experienced clinician with adequate time to observe an infant’s feeding cues can alter the trajectory of faltering growth quickly and effectively , with the aim of preventing any inpatient care |  |  |
| 9 | SCM 5 | Key area for quality improvement 5  Every clinician taking a detailed eating history of a child has the appropriate training and time to observe a meal. | Eating family foods is best done with in a family environment. If a child is at risk of inadequate intake of calories, an assessment of a family meal can be helpful |  |  |
| 10 | SCM 5 | Key area for quality improvement 4  Every clinician taking a detailed feeding history of an Infant has the appropriate training and the time to allow to observe a whole feed. | The nature of breastfeeding allows for a well mother and well infant to develop a symbolic relationship, where, if an infant is allowed free asses to the breast and is positioned and attached effectively, then the infant behaviour will allow for the adequate production of maternal milk. When this process is restricted or the infant is given other forms of milk , then infant behaviour can be altered and thus interfere with this process |  |  |
| 11 | SCM 5 | Key area for quality improvement 3  Infants and children have their growth assessed at each of the 4 mandated contacts as outlined in the Health Child programme (England)  The 8 mandated visits (Wales) and the 11 mandated visits (Scotland) | The healthy Child programme is the framework for health visitors practice with the aim to asses the whole population and to intervene early for infants or children suspected of being at risk of faltering growth |  |  |
| 12 | SCM 5 | Additional developmental areas of emergent practice  Video assessment to show back to parents for an older child (VIG) | Using video assessments of family eating patterns with a family has been shown to be helpful |  | The children’s Society. “My child won’t eat” |
| 13 | SCM 6 | Infants experiencing greater than 10% weight loss should have a clinical assessment and feeding assessment (including direct observation by a trained individual) as well as regular weight monitoring (no more than daily) | Weight faltering can be associated with low appetite or weak suck (Wright et al, 2012). With appropriate training health visitors can make wide ranging and effective assessments, improve feeding and calorie intake (Wright et al. 2012). |  | ? Local HV services audit data on referral/activity/interventions  Evidence of training in observing infant feeding/training in lactation & breast feeding support |
| 14 | SCM 6 | For infants greater than 1 month of age and young children identified as experiencing faltering growth (as defined in the NICE guidance) a length/height measurement should be taken and plotted. | Weighing does not distinguish slow growth from thinness. A length should also be measured (Wright et al. 2012). | ? HV data |  |
| 15 | SCM 6 | For infants greater than 1 month of age and young children identified as experiencing growth faltering (as defined in the NICE guidance) a clinical assessment, social assessment and feeding assessment (including observation by a trained individual) should be conducted and weight monitored regularly (fortnightly for 6 to 12 months of age and monthly for those aged greater than 12 months) | Faltering growth can occur for a variety of reasons: medical problems, feeding difficulties and social issues (Wright et al. 2012). These should be investigated to allow an appropriate management plan to be formulated. | Local HV activity data/interventions  Local evidence of HV training in observing mealtimes/feeding |  |
| **Monitoring and referral** | | | | | |
| 16 | BSPGHAN | Key area for quality improvement 4  Measure mid upper arm circumference for children with faltering growth as a tool to monitor improvement in nutritional status. |  |  |  |
| 17 | BSPGHAN | Key area for quality improvement 2  All infants and children with faltering growth should receive specialist feeding advice from paediatric dietitan |  |  |  |
| 18 | BSPGHAN | Maternal mental health should be considered in patients with faltering growth, especially postnatal depression in babies < 1yr. There are publications in relation to GORD, weight loss and maternal mental health |  |  |  |
| 19 | Child growth foundation | Approaching concerns over faltering growth with an understanding of all conditions which may cause faltering growth | To ensure that all causes are explored, however unusual/rare the conditions may be. Referral to the correct professionals, such as geneticists, if appropriate. | Whilst many cases of faltering growth are dietary/nutrition related, it is important for health professionals to be aware of the more rare/unusual causes and to pursue other avenues eg referral to endocrine/genetics if initial investigations/advice have not improved growth |  |
| 20 | Child growth foundation | Clear care plan, including referral to relevant HCPs in within an appropriate time | To ensure faltering growth is acted upon as quickly as possible and caregivers are given appropriate support and advice | Delays in assisting with faltering growth can potentially impact children’s health, eg in growth hormone deficiency the child could have a lack of energy, stamina which may make them more susceptible to catching bugs resulting in time away from school/with peers. Unable to keep up with peers. Being bullied by peers due to lack of height.  A child being consistently ill/time in hospital has an impact on the whole family. It can impact emotionally, financially and mentally. For parents, a lack of care plan and needing to fight for referrals can leave them exhausted and drained emotionally and mentally, this does not help them to look after their poorly child. |  |
| 21 | Child growth foundation | Specific monitoring of all children born IUGR/SGA to ensure catch up growth has occurred and, if not by age 4, referral to endocrine to commence growth hormone treatment | Whilst the majority of IUGR/SGA babies do catch up a small percentage do not. Of those that do not catch up they are likely to also experience difficulties feeding and/or a genetic condition. | Most parents of an IUGR/SGA baby will have gone through regular monitoring throughout the pregnancy. To be left to their own devices following birth can be daunting and very concerning. Additional support /care should be in place for these parents and babies. For those IUGR/SGA babies who have trouble feeding this causes additional stress for the parents. Many parents are left to ‘get on with it’ with their IUGR/SGA babies and are not aware of the GHT treatment available. They then find themselves seeking help from GPs and Health Visitors who are often unaware of the importance of growth.  In addition these babies may have problems regulating blood sugars and have frequent admission to hospital, they may also have a genetic condition such as Russell Silver Syndrome which requires specific care. The earlier these conditions/health difficulties are identified the better the long term outcome for the child and their family | **Personal experiences**  1) When my IUGR/SGA baby was born I was told she would ‘feed like a horse and soon catch up’. We were discharged after 6 days in NICU and provided with routine follow up care like any other parent. We were never offered a follow up with paediatrician to ensure growth was as expected. She struggled to feed and when I reported this to health visitor it was shrugged off. I was concerned about her weight gain but at one appointment with health visitor I was told I was coming too often and needed to stop worrying. Another health visitor once asked me what IUGR meant as she hadn’t heard the term before. At the eight month check I was told the reason why my baby wasn’t enjoying meals or tolerating more lumpier foods was due to her being awkward and I needed to persevere. I later discovered it was due to her gross motor skills being slightly behind and not having the muscles for it. Three years later she was diagnosed as food neophobia and was put on supplement milkshakes. She is now 8, still on supplements and still has severe feeding difficulties.  At 12 months I asked GP if I should stop Nutriprem formula and was told it was my decision. Between 12 and 18 months she was admitted to hospital numerous times for breathing difficulties and repeated infections. I believe this was due to poor diet/nutrition and her being able to fight bugs. I lost my job due to time I had to take off looking after her which put a huge strain on us financially. Due to the repeated admissions she was referred to a paediatrician who listened to my concerns and referred us on to genetics, endocrine and dietician. From here her care improved but it was such a fight to get here. I felt alone and unsupported. The health professionals I sought advice from dismissed me and my concerns. If we had a routine follow up at say 6 and 12 months with a knowledgeable paediatrician I believe her care would have been better managed, possibly her feeding issues would not have been so servers and we would not have had the repeated hospital admission.  2) I had twins Dec 2017 and one was severe IUGR with a birthweight of 2lb 14oz at 34 weeks, and not viable until 30 weeks. She wasn’t on the growth charts for months, I fed and fed and she eventually reached the dizzy heights of 0.9, falling back down to 0.2 where she has stayed. She turns 2 in December and still v dinky. How long do I accept the ‘some children are just little’ line from the paediatrician, or should I be pushing for more of a programme of care concerning her growth. She has come so far, beyond all expectations and we are so grateful for her, should we just accept the smallness?  3) My daughter was born at 26 weeks and off the chart until she was 2/3 months corrected age, IGUR and more medical issues plus a very small appetite that I was feeding her 2oz every couple of hours day and night. She’s following her own line at 1/2 centile for weight and height, with ups and downs but mostly steady. She’s turning 4 in a couple of weeks and it’s when they’re looking at her growth because until 4/5 years old doctor says kids still develop. She has done the bone x-rays and hormonal test plus MRI, waiting until January for her endocrine to decide if she needs the growth hormones or she’s just petite genetically. |
| 22 | Coeliac UK | Testing for coeliac disease | As faltering growth can be a symptom of coeliac disease, it is important that children with faltering growth are serologically tested for coeliac disease. This is in line with the NICE guideline for coeliac disease, NG20 recommendation 1.1.1.[1] | This is a key area for improvement as the majority of people with coeliac disease in the UK are currently undiagnosed. Coeliac disease affects 1 in 100 children in the UK, however only 30% of those with the disease are diagnosed and most people are not diagnosed until their 50s and 60s.[2] An early diagnosis is important to improve symptoms and quality of life and to reduce the risk of the long term complications of coeliac disease. Undiagnosed coeliac disease can result in long term complications including malnutrition, osteoporosis, intestinal malignancy, ulcerative jejunitis and functional hyposplenism.[1] | [1] NICE, NG20 Coeliac disease; recognition, assessment and management. 2015.  [2] West J, Otete H, Sultan AA, Crooks CJ. Changes in Testing for and Incidence of Celiac Disease in the United Kingdom. Epidemiology [Internet]. 2019 Jul;30(4):e23–4. Available from: <http://dx.doi.org/10.1097/EDE.0000000000001006> |
| 23 | SCM 2 | Indicators for concern | Equally very frequent monitoring where there is no noted growth faltering issue can also be harmful and lead to other problems (such as early cessation breastfeeding) and may reflect the need for other appropriate action such as referral for feeding support.  GPs should be aware in the context of illness or concerns re neglect that growth measurements are required. GPs should not routinely prescribe supplements without the advice of a specialist dietitian.  Evolution of a primary growth disorder can be identified and further appropriate referral made based on these criteria and previous recorded measurements. |  |  |
| 24 | SCM 2 | Criteria for referral  If an infant or child with faltering growth has any of the following, discuss with or refer to an appropriate paediatric specialist care service:  Symptoms or signs that may indicate an underlying disorder (include GORD, cardiac, respiratory, neurological and other notable flags under QS GOR).  A failure to respond to interventions delivered in a primary care setting. WF associated  Slow linear growth or unexplained short stature  Rapid weight loss or severe undernutrition  Safeguarding concerns | Rapid weight loss if a child is unwell requires emergency assessment.  Assessment according to standards should be documented and include reference to % weight loss or centile drop as part of the overall physical assessment.  Lack of response to interventions can also be documented by review of growth criteria |  |  |
| 25 | SCM 2 | Avoid over-investigation in clinical settings | This is important to ensure 1. Suitable management of undernutrition does not take lower priority over undertaking inappropriate investigations. 2. From a health -economic and effectiveness perspective investigations should be selective and appropriate for the population. | See also areas of research recommendations NG 75 which include use of supplementation or behavioural management where further research required in risk-benefit assessment. |  |
| 26 | SCM 3 | A parent who has a baby with faltering growth will be monitored for weight gain regularly as per NICE Faltering Growth Guidelines by the health visitor. The parent will be informed of these guidelines and offered a timeframe of monitoring and care plan if faltering growth continues | It is common for parents to be concerned about their baby’s weight, but it is important that weight (and height) gain are monitored and measured regularly – not too often (can cause parental anxiety) but regularly to monitor growth patterns. Often weighing is adhoc and parent-led in many clinics. |  | <https://www.nice.org.uk/guidance/ng75> |
| 27 | SCM 3 | Children who are SGA at age 4 yrs to be considered for Growth Hormone Therapy using the NICE Guidelines on Growth Hormone Replacement | Parents struggle to be offered this treatment within the permitted time frames. There is inconsistent delivery of treatment within England, some trusts/consultants are fine to work to guidelines, others will not support the treatment. |  | <https://www.nice.org.uk/guidance/ta188/chapter/1-Guidance> |
| 28 | SCM 4 | Key area for quality improvement 1:  1.2.15 Together with parents and carers, establish a management plan with specific goals for every infant or child where there are concerns about faltering growth. This plan could include:   * assessments or investigations * interventions   clinical and growth monitoring when reassessment to review progress and achievement of growth goals should happen. | This sets the baseline for managing any child with faltering growth and so sets a framework within which clinicians and families work together to help a child with faltering growth: including identification of factors needing improvement, and biological markers of disease needing investigation and treatment, as well as a strategy for reducing additional treatment when no longer required. | Quality Standards ensure this is part of establishing a strategy of care for any child with faltering growth, without which other quality standards would not make the required impact on quality of care | Local audit |
| 29 | SCM 4 | Key area for quality improvement 4:  1.2.32 Do not admit infants or children with faltering growth to hospital unless they are acutely unwell or there is a specific indication requiring inpatient care, such as a plan to begin tube feeding | ‘Admission to hospital is rarely necessary and that it carries risks for both the patient and family. Such risks may include infections, disruption of feeding or eating routines and raised parental anxiety.  Referral to secondary care carries an increased cost, especially for conditions or investigations that require admission for prolonged periods. Thompson (2013) described above finds an average cost of around £10,000 per admission (depending on whether it was a weekday or weekend admission) although the cost in an NHS setting is likely to be closer to £2000-£3000.’ | Although each referral for faltering growth is potentially expensive and the absolute number of referrals per year may be relatively high, the Committee are clear that their recommendations should reduce the number of hospital referrals for faltering growth. Therefore these recommendations are likely to have a low resource impact, in the direction of saving the NHS money.  Low quality evidence from one cohort study including 229 young children with faltering growth (but who may have had signs or symptoms of underlying organic disease) indicated that in 4% of cases an underlying organic condition was the likely sole cause of faltering growth and in 12% of cases an underlying organic condition was a contributory factor to faltering growth. In most cases these organic conditions had already been diagnosed before study entry, however a previously undiagnosed organic condition was identified in 2% of the subset of children routinely assessed as part of the study. | Local data |
| 30 | SCM 5 | Key area for quality improvement 2  Parents and Carers of infants and children under 5 to have a discussion during each contact that includes a weight or height measurement about factors that may pose a risk to their infant or child’s growth | Every opportunity for growth assessment and health promotion /health education needs to be emphasised |  |  |
| 31 | SCM 6 | Infants experiencing greater than 10% weight loss should have a clinical assessment and feeding assessment (including direct observation by a trained individual) as well as regular weight monitoring (no more than daily) | Weight faltering can be associated with low appetite or weak suck (Wright et al, 2012). With appropriate training health visitors can make wide ranging and effective assessments, improve feeding and calorie intake (Wright et al. 2012). |  | ? Local HV services audit data on referral/activity/interventions  Evidence of training in observing infant feeding/training in lactation & breast feeding support |
| 32 | SCM 6 | Infants with greater than 10% weight who have not regained their birthweight by 3 weeks despite feeding support should be referred to a paediatric service and weight monitored weekly | Infants should be referred to a secondary care paediatrician if they have weight faltering that has persisted despite community intervention (Wright et al. 2012). Referral to a paediatric dietitian to optimise existing intake (Wright et al. 2012). Referral to a paediatrician allows reassessment of growth, exclusion of organic pathology and reinforcement of dietary advice (Wright et al. 2012) |  | ? Local HV services audit data on referral/activity/interventions  ? referral data from hospital paediatric depts |
| 33 | SCM 6 | For infants greater than 1 month of age and young children identified as experiencing growth faltering (as defined in the NICE guidance) a clinical assessment, social assessment and feeding assessment (including observation by a trained individual) should be conducted and weight monitored regularly (fortnightly for 6 to 12 months of age and monthly for those aged greater than 12 months) | Faltering growth can occur for a variety of reasons: medical problems, feeding difficulties and social issues (Wright et al. 2012). These should be investigated to allow an appropriate management plan to be formulated. | Local HV activity data/interventions  Local evidence of HV training in observing mealtimes/feeding |  |
| **Feeding** | | | | | |
| 34 | BSPGHAN | Key area for quality improvement 3  Enteral tube feeding should be used as a short term measure to improve nutritional state with a clear plan to wean off enteral tube support . |  |  |  |
| 35 | BSPGHAN | Key area for quality improvement 5  Ensure continued breast feeding in cases of faltering growth | For infants with faltering growth benefits of breast feeding outweigh risks and supplementary feeding should be used on top of breast feeding |  |  |
| 36 | First Steps Nutrition Trust | Breastfeeding support for mothers of breastfed infants with faltering growth | Exclusive breastfeeding is recognised as the optimal feeding mode for infants under 6 months and breastfeeding is recommended to continue to at least 12 months (SACN (2018) Feeding in the First Year of Life). Breastmilk is energy and nutrient dense as well as conferring immunological and other benefits to mother and child.  Current NICE Guidance (NG 75) warns that supplementing a breastfed baby’s diet with infant formula may lead to the cessation of breastfeeding (1.2.17). However, the guidance suggests that where growth faltering may be the result of breastfeeding challenges, infant formula supplementation may be the optimal solution. The guidance is insufficiently clear that the priority should be to resolve any breastfeeding difficulties. Suggested improvements include: 1.2.2 highlighting the importance of accuracy of measurements (para 105: SACN (2011) The influence of maternal, fetal and child nutrition on the development of chronic disease in later life); 1.2.16 clearer signposting to breastfeeding support provided by someone with appropriate training; 1.2.17 clarify that the priority in a breastfed baby with faltering growth, where the mother wishes to continue to breastfeed, should be to address breastfeeding challenges; 1.2.18 provide clearer signposting to guidance on how to maintain/increase breast milk supply; 1.2.22 emphasise the growth promoting properties of breastmilk for infants; 1.3.2 recommend that an infant feeding specialist is a member of the primary care team for any infant with growth faltering. | It is widely acknowledged that breastfeeding support in the UK is inadequate (e.g. see the DHSC’s consultation: Advancing our health: prevention in the 2020s which is currently open).  Improved breastfeeding rates are necessary to safeguard the health and wellbeing of infants and their mothers in the short and longer term. | The UK has among the lowest breastfeeding rates in the world. While three quarters of babies will be put to the breast when they are born, 1 in 4 new mothers will use infant formula from birth (NHS Digital (2019). Maternity Services Monthly Statistics England, February 2019). Breastfeeding initiation was higher among women surveyed in England in 2010 for the last Infant Feeding Survey at 83%, but there was a rapid drop off so that by two weeks of age only 67% of mothers were still breastfeeding (McAndrew F, Thompson J, Fellows L et al. (2012): Infant Feeding Survey 2010).  Fewer than half (46%) of babies are still breastfed at six to eight weeks old, and only a third (32%) are exclusively breastfed (PHE (2019). Breastfeeding at 6 to 8 weeks after birth: 2018 to 2019 quarterly data. Number and proportion of infants who have been fully, partially or not at all breastfed at 6 to 8 weeks after birth). Thirty-nine percent of babies are fully formula fed by 6-8 weeks old.  In England, among those women who stopped breastfeeding after 1 or 2 weeks in 2010, 80-85% would have liked to have breastfed for longer, and only about a fifth of these women received help with breastfeeding (McAndrew et al 2012). More needs to be done to support women who want to, to breastfeed for longer. |
| 37 | RCPCH | Key area for quality improvement 1  Breastfeeding rates in infants with faltering growth after assessment and management | The benefits of breastfeeding are well established and the NICE guidance notes that formula feeding with an aim of increasing weight gain is associated with cessation of breastfeeding. Families need excellent breastfeeding support, alongside formula supplementation if required, to continue breastfeeding or breastmilk feeding an infant with faltering growth. High rates of exclusive formula feeding after assessment for faltering growth represent suboptimal care. | Infants with faltering growth are high risk for cessation of breastfeeding. Switching to formula is an ‘easy way out’ and avoidable for many families with investment in high quality breastfeeding support. Measuring other quality indicators without reference to breastfeeding outcomes would miss an important public health balancing factor. | Lancet breastfeeding series reviews the impact of breastfeeding on health outcomes:  <https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(15)01024-7/fulltext> |
| 38 | RCPCH | Breast feeding support in the early days, how to support effective breast feeding and not give formula | When breast fed babies fail to gain weight quickly when born, parents can be encouraged to give formula, but they are not supported to correct the breast feeding and therefore often stop breast feeding. | Breast feeding is better for both the mother and baby, and breast-fed babies are in hospital less which is of benefit to the NHS. | <https://www.unicef.org.uk/babyfriendly/about/breastfeeding-in-the-uk/breastfeeding-in-england/> |
| 39 | SCM 1 | Approaches to intervening with neonatal weight loss | Children who have shown very extreme initial weight loss are at risk of adverse health consequences, but it is well recognised that giving breastfeeding infants formula milk soon after birth greatly increases the likelihood that their mothers will cease breastfeeding altogether1 2. It is thus vital that thresholds for investigation are set at safe levels, but that supplementation is only offered when really needed. NICE 75 recommended that this threshold should be a loss of 10% of birthweight (or still below birthweight after 3 weeks) but that once this threshold is passed a feeding and clinical assessment should be made and appropriate support offered before any formula milk is given. If supplementation is needed NICE 75 recommends that mother should be encouraged to express breast milk to promote their milk supply and feed the infant with any available breast milk before giving any infant formula. | There is still very limited awareness of these lower thresholds, or of the need to support and maintain breastfeeding. Supplementing with formula milk is simple in the short term, but places the infant at long term risk. The proportion of mothers ceasing breastfeeding in the early weeks remains high3. | 1. McAndrew F, Thompson J, Fellows L, et al. Infant Feeding 2010, 2012.  2. Wright CM, Parkinson K, Scott J. Breast-feeding in a UK urban context: who breast-feeds, for how long and does it matter? Public Health Nutr 2006;9(6):686-91.  3. Wolfson L. Scottish maternal and infant nutrition survey 2017. Edinburgh: Scottish Government, 2018. |
| 40 | SCM 1 | Uses of high energy milks to treat faltering growth | The NICE guideline recommends a range of practical approaches that aim to enhance oral intake. It also suggests that practitioners may consider giving a high energy liquid feed orally, but that they should regularly assess whether these have improved weight gain or reduced intake of other foods and therefore whether they should be continued. Very few trials of these supplements have been undertaken and the largest and most robust trial, which found no medium term benefit, was not scrutinised by NICE as the participants had cystic fibrosis7. | Practitioners are still not aware of the limitations and risks of this therapeutic approach. In my clinic practice I have seen many children who had been started on these supplements and left on them long term, despite no evidence of benefit and a major detrimental impact on dietary intake and appetite8. These supplements are still strongly promoted worldwide as a treatment for faddy eating and faltering growth and can now be purchased over the counter. | Examples of misleading promotional videos: <https://www.youtube.com/watch?v=KXwYAeRr8wc> <https://www.youtube.com/watch?v=hTAvxWX9Zww>  7. Poustie VJ, Russell JE, Watling RM, et al. Oral protein energy supplements for children with cystic fibrosis: CALICO multicentre randomised controlled trial. Bmj 2006;332(7542):632-36.  8. Wright CM, Chillingworth A. The impact of stopping high-energy oral nutritional supplements on eating behaviour and weight gain. Archives of disease in childhood 2015;100(11):1024-7 |
| 41 | SCM 1 | Uses of enteral feeding to treat faltering growth | The effective management of growth faltering depends first on correctly identifying whether the weight gain pattern is outwith normal limits and then whether this solely reflect slow growth, which suggest a growth disorder, or underweight, which suggest undernutrition. The NICE guideline provides thresholds for concern and a flow chart to advise when to measure lengths and how to interpret the weight and height trajectory.  The NICE guideline recommends that enteral feeding should only be initiated for weight faltering when there are serious concerns about weight faltering and when other intervention approaches have failed. | There is a need for better understanding of clinical thresholds and the limited role of enteral feeding. In our feeding clinic we have seen children who have been started on enteral feeding without any sustained attempt to increase oral intake and others referred for consideration of enteral feeding who did not have weight faltering or who had an unrecognised growth disorder. | I can supply audit data if wished |
| 42 | SCM 4 | Key area for quality improvement 3  1.1.3 Provide feeding support (see recommendations in NICE's guideline on postnatal care up to 8 weeks after birth) if there is concern about weight loss in infants in the early days of life, for example if they have lost more than 10% of their birth weight. | This is a low-cost but important area of support to help new mums and babies. 5% of infants will lose 11% or more of their birthweight and in the majority of cases, breastfeeding support may be sufficient to reverse this. Early support and intervention helps reduce infant morbidity from hypernatraemic dehydration and reduces frequency of admission. Also mums are at higher risk of postnatal depression if they need admission. | The benefits of breastfeeding are numerous and recommended by WHO and NICE. Breastfeeding reduces the incidence of childhood infections including gastroenteritis, lower respiratory tract infections and otitis media, as well as the risk of sudden infant death syndrome and maternal breast cancer.The magnitude of impact is significant; exclusive breastfeeding in the UK would halve the number of infants admitted with diarrhoeal illness and prevent a third of hospitalisations with lower respiratory tract infections.  These beneficial health impacts lead to significant economic implications: if all women in the UK who are exclusively breastfeeding at 1 week continued until 4 months, the annual savings from reducing childhood infections exceed £11 million. If the number of women breastfeeding for 7-18 months during their lifetime was doubled, reduction in breast cancer rates would lead to an additional annual saving of £31 million.  This QS would dovetail in well with the QS for postnatal care and antenatal and postnatal mental health | World Health Organisation: UNICEF UK: Baby friendly initiative  CEMACH: now MBRRACE collecting data on late neonatal deaths  Local data |
| 43 | SCM 6 | Children receiving oral nutritional supplement or enteral feeding as a treatment for faltering growth should be under the care of a specialist paediatric team (including a paediatrician, paediatric dietitian and for enteral feeding a CCN team). | High energy supplements can depress appetite and should not be started in primary care (Wright et al. 2012). Timing of high energy feed supplementation, impact on solid intake and effectiveness should be monitored. |  | GP data ? who request supplements/pharmacist based at GP data regarding ONS requests & evidence of review  ? GP referral data to paediatricians |
| **Organisation of care** | | | | | |
| 44 | British Dietetic Association | Access to Multidisciplinary Team | Ensuring all Primary Care Teams have access to a Multidisciplinary Teams including Specialists with expertise. These should include a Paediatric Dietitian, Psychologist and Speech and Language Therapist. | Inconsistent access to Specialists across services. Dietitians provide dietary counselling to manage faltering growth however many children with may have underlying issues related to behaviour and swallowing that need to be assessed by a Psychologist and Speech and Language Therapist. |  |
| 45 | British Dietetic Association | Local treatment pathway to Specialist services | A clear pathway of care ‎to Specialist services and coordination of care/support in the community. | Due to inconsistencies across healthcare provision, ensuring a pathway for management of faltering growth is established is essential for all children to be appropriately managed. This will help to standardise the quality, safety and efficiency of treatment received. |  |
| 46 | SCM 1 | Specialist support for primary care management of faltering growth | Growth faltering occurs for wide range and combination of reasons and effective management thus requires a broad ranging assessment4 and the NICE guideline recommends that the primary care team should have access to a range of secondary care professionals. There is evidence that a coordinated care approach to the management of weight faltering results in improved weight gain5 and the NICE guideline recommends that districts should consider identifying a lead healthcare professional to coordinate care and to act as the first point of contact. | While HVs do normally take the lead in assessing and monitoring these children they cannot usually directly access the full range of expert advice they may need, in a particular dietetic assessment. Referral into general paediatrics tends not to be helpful and may result in adverse outcomes see below. Very few districts currently take the recommended multidisciplinary coordinated approach. Those that do often struggle to fund a service that by necessity straddles a number of disciplines and is intermediate between primary and secondary care. | The existing service in Glasgow has been described6. There are similar services in Leeds, Newcastle and Brighton.  4. Shields B, Wacogne I, Wright CM. Weight faltering and failure to thrive in infancy and early childhood. Bmj 2012;345:e5931.  5. Wright CM, Callum J, Birks E, et al. Effect of community based management in failure to thrive: randomised controlled trial. Bmj 1998;317(7158):571-74.  6. Ross S, Wright C. Preschool growth and nutrition service – addressing common nutritional problems: a community based, primary care led intervention. London Journal of Primary Care 2017:1-5. |
| 47 | SCM 2 | Management within primary care settings | Accessible pathways following early recognition of weight faltering (especially after the first few weeks of life)- as per NICE guideline recommendations would allow effective intervention, and may prevent the need for onward hospital referral, and unnecessary investigations (where there are no flags suggesting onward referral) | See NG 75 Section 1.3 Organisation of Care  Ensure there is a pathway of care for infants and children where there are concerns about faltering growth or weight loss in the early days of life that:  clearly sets out the roles of healthcare professionals in primary and secondary care settings establishes and makes clear the process for referral to and coordination of specialist  Provide community-based care for infants and children where there are faltering growth concerns or weight loss in the early days of life with a team (the 'primary care team') that includes, for example:  a midwife a health visitor and a GP.  Ensure that the primary care team has access to the following healthcare professionals with expertise relevant to faltering growth:  infant feeding specialist consultant paediatrician paediatric dietitian speech and language therapist with expertise in feeding and eating difficulties clinical psychologist occupational therapist.  Consider identifying a lead healthcare professional to coordinate care and to act as the first point of contact for parents of children with faltering growth, for example if several professionals are involved. |  |
| 48 | SCM 4 | Additional developmental areas of emergent practice |  | 1.3.1 would also be suitable for a QS: Ensure there is a pathway of care for infants and children where there are concerns about faltering growth or weight loss in the early days of life that: clearly sets out the roles of healthcare professionals in primary and secondary care settings establishes and makes clear the process for referral to and coordination of specialist care in the pathway |  |
| **Advice and support for parents or carers** | | | | | |
| 49 | British Dietetic Association | Education to caregivers about responsive feeding | Responsive feeding is an important aspect of feeding a child and education should be provided in early years settings. | Many caregivers are given little education before embarking on complementary feeding, so they have limited awareness on ways to minimise feeding-related behavioural issues that could lead to growth problems. |  |
| 50 | SCM 3 | In the case that the parent visits the GP with anxiety about their child's weight gain or growth, they will be supported and if necessary, appropriate referrals to dietitian or paediatrician will be made. The parent will be given a time frame by the HV or GP with possible care plans suggested. | Parents are easily dismissed about lack of weight gain – GP might suggest other factors like short-term illness, change in environment etc. Ideally these babies should be monitored (as per guidelines) and family height details taken to assess how the baby is growing compared to genetic potential. |  |  |
| 51 | SCM 4 | Key area for quality improvement 5:  1.2.22: Advise the parents or carers of infants or children with faltering growth that drinking too many energy-dense drinks, including milk, can reduce a child's appetite for other foods. | Full guideline suggests that ‘Usual liquid intake should be reviewed, as drinking too much milk or too many energy-dense drinks, may be suppressing the child’s appetite and therefore, stopping the child from eating food at regular times.’ | Clinical: High to moderate quality evidence from 1 randomised controlled study with 299 participants found that there is no clinically significant difference in weight change from baseline between nutrient-enriched formula and standard term formula at 9 months; however, the same evidence found that there may be a clinically significant beneficial effect of nutrient-enriched formula on weight change from baseline compared with standard term formula at 18 months, but there is uncertainty around the estimate. When looking at weight change between 9 and 18 months, there is no clinically significant difference between nutrient-enriched formula and standard term formula.  High to moderate quality evidence from 1 randomised controlled study with 299 participants found that there is no clinically significant difference between length change from baseline with nutrient-enriched formula or standard term formula at 9 months; however, there is a clinically significant beneficial effect of nutrient-enriched formula compared with standard term formula on length change from baseline to 18 months. When looking at change in length between 9 and 18 months, there is no clinically significant difference between nutrient-enriched formula and standard term formula.  High to moderate quality evidence from 1 randomised controlled study with 299 participants found that there is no clinically significant difference between the occipital frontal circumference with nutrient-enriched formula or standard term formula at 9, 18 months and between 9 and 18 months.  Economic: Direct interventions may carry large costs – especially the intervention of enteral tube feeding. | The costs of prescription formulas can be significant, especially if enteral feeds required. The data here shows energy-rich formula carries no benefit over standard formula (high- to moderate quality evidence).  Although there may be a short-term benefit in some children from individual supplementation with energy-dense drinks: eating in most circumstances is more appropriate, with less health-costs, and less risk of medicalisation.  NHS data on costs of individual formulae: Wessex Infant Feeding Guidelines.  NHS costs of high-energy formulae (PrescQIPP): ‘total spend in England and Wales for faltering growth products is over £9.2 million’ |
| **Additional areas** | | | | | |
| 52 | British Dietetic Association | Homeless and poverty | The socio-economic impact of poverty can impact of food provision and choices to many families | Clinical dietetic centres in the UK are seeing an increased number of children with faltering growth that has been linked to poverty, increased homelessness and reliance on access to food banks. |  |
| 53 | British Specialist Nutrition Association Ltd (BSNA Ltd) | It should be mandatory to have weight and height/ length measured on admission and plotted on the growth chart. For inpatients this should be repeated weekly or bi-monthly. |  |  |  |
| 54 | British Specialist Nutrition Association Ltd (BSNA Ltd) | There isn’t a universally accepted screening tool in paediatrics like ‘MUST’ therefore a malnutrition screening pathway (a simple tool) should be created that takes the anthropometric measurements into consideration and identifies the children at risk of faltering growth or diagnoses faltering growth |  |  |  |
| 55 | RCPCH | Key area for quality improvement 2  Standardisation of who and when head circumference is completed | At clinics there will not be a consistent person measuring the head which can led to measurement inconsistencies. Also, hospitals will request measurement in the community but then there is no guidance of what to do with this information and it is not shared outside of the red book, it then becomes measuring for measuring sake. | Currently there are different thoughts and guidance throughout the country, and not all areas do this in the same timeframes or for the same reasons. There is large variation throughout the country. | Anecdotal from conversations with health visitors |
| 56 | NHSE – Chief Nursing Officer | Suggestion to consider evidence for a number of links and potential correlation | Thank you for the opportunity to add to the Quality Standards Advisory Committee (QSAC) consideration of a quality standard on [faltering growth](https://www.nice.org.uk/guidance/indevelopment/gid-qs10083).  At this stage we do not have any particular aspects of current practice that we would like to highlight.  However, in thinking about the quality priorities, I would like to share some suggestions.  It would be helpful if this work considers evidence for a number of links and potential correlation:   * Faltering growth and the correlation with factors linked to social deprivation: maternal smoking/ drinking/ class a drug taking during pregnancy and economic / financial poverty. * Number of children diagnosed with faltering growth who are known to social services/ at risk due to safeguarding concerns. * Faltering growth linked to childhood disorders with increased metabolism * Faltering growth in breast fed versus artificial milk fed babies * Faltering growth and correlation as to how often/ time during the day / method how babies children are weighed. * Faltering growth and any links with genomics. |  |  |
| **No comments** | | | | | |
| 57 | Royal College of Nursing | Thank you for the opportunity to contribute to the quality standard. The RCN do not have any comments to add to this. |  |  |  |
| 58 | RCGP | No comments |  |  |  |

1. British Medical Journal [Faltering growth in children: summary of NICE guidance](https://www.bmj.com/content/358/bmj.j4219.full) (2017) [↑](#footnote-ref-1)
2. [Health Visiting in England: A Vision for the Future](https://ihv.org.uk/news-and-views/news/ihv-launches-health-visiting-in-england-a-vision-for-the-future/), Institute of Health Visiting 2019 [↑](#footnote-ref-2)
3. Admission of newborns with feeding difficulties: a largely avoidable phenomenon? EK Harrison 2016 [↑](#footnote-ref-3)
4. [Public health outcomes framework](https://fingertips.phe.org.uk/profile/public-health-outcomes-framework/data#page/0/gid/1000042/pat/6/par/E12000004/ati/102/are/E06000015), Public Health England. 2018. [↑](#footnote-ref-4)
5. [Survey of women's experiences of maternity care](https://www.cqc.org.uk/publications/surveys/maternity-services-survey-2018), Care Quality Commission. January 2019 [↑](#footnote-ref-5)