

D.3.2 Assessment of infants and preschool children with faltering growth (question C.2)

Item	Details
Area in the scope	Assessment of infants and preschool children with faltering growth. This includes identifying possible causes of faltering growth and, in the absence of any other symptoms or signs, deciding on appropriate investigations.
Review question in the scope	None
Review question for the guideline	What approaches are useful in assessing feeding and eating in faltering growth in individual children, including formal feeding observations and assessment?
Objective	To identify the most useful approaches and tools to identify mechanisms contributing to faltering growth in individual children.
Population and directness	<p>Infants and preschool children in whom weight gain concerns have been raised through either routine monitoring (defined in recommendation 17 of the NICE guideline on maternal and child nutrition) or concern by professionals, parents or carers.</p> <p>Exclude complex, severe malnutrition in World Bank low and middle income group countries, and infants and children in intensive care settings.</p>
Assessment methods	<ul style="list-style-type: none"> • history taking of <ul style="list-style-type: none"> ○ feeding (milk feeding) ○ age of weaning ○ range and types of food now taken • food diary • meal observation • video observation • assessment of breastfeeding and/or bottle feeding • validated feeding or eating assessment tools (Individually or in combination)
Comparison	<p>The following possible comparisons will be included:</p> <ul style="list-style-type: none"> • assessment without any of the above • any comparison of any of the above
Outcomes	<ul style="list-style-type: none"> • fluid and nutritional intake • milk transfer • rates of feeding behavioural problems (e.g. refusal) • oromotor function • parent-child interaction during feeding/mealtimes • health-related quality of life • parent or carer satisfaction

Item	Details
	Only to include measurements by validated methods.
Importance of outcomes	<p>Preliminary classification of the outcomes for decision making:</p> <p>Critical outcomes:</p> <ul style="list-style-type: none"> • measurement of fluid and nutritional intake • behavioural problems (e.g. refusal)
Setting	Any setting where a child is suspected of having faltering growth in World Bank high income group countries except intensive care settings.
Stratified, subgroup and adjusted analyses	<p>Stratified analyses:</p> <ul style="list-style-type: none"> • neonates • age / stage of feeding - (1 – 6 months, 6 months and older) <p>Subgroups:</p> <ul style="list-style-type: none"> • premature birth, including degree of prematurity • IUGR • type of intervention • children with a previous condition that caused the faltering growth but who are still not thriving once the condition has been controlled (e.g. treated cardiac condition that may have led to faltering growth but even after treatment growth is still not catching up) • breastfed babies <p>Sensitivity analysis: including and excluding studies with a high risk of bias.</p> <p>Confounders (for cohort studies):</p> <ul style="list-style-type: none"> • age • prematurity • baseline severity of faltering growth • socio-economic factors • parental height • maternal cognition
Language	English
Study design	<p>For comparative studies:</p> <ul style="list-style-type: none"> • Systematic reviews of RCTs or systematic reviews of comparative observational studies (if no RCT evidence for each comparison is found). • Randomised controlled trials (RCTs). <p>If no RCTs are available we will look for abstracts of RCTs and comparative cohort studies. If non-randomised studies are included we would prioritise studies using multivariable analysis over univariate methods.</p> <p>Minimum sample size for RCT studies would be 10 participants in each arm and for cohort studies 30 participants or at least 10 per outcome variable.</p> <p>If no comparative studies are available cohort studies reporting the predictive accuracy of assessment methods will be included.</p>
Search strategy	<p>Sources to be searched:</p> <p>Limits (e.g. date, study design):</p> <p>Supplementary search techniques: No supplementary search techniques were used.</p> <p>See appendix E for full search strategies.</p>

Item	Details
Review strategy	<p>This question is not prioritised for dual weeding as the interventions of interest should be readily apparent in the study abstracts.</p> <p>Appraisal of methodological quality:</p> <ul style="list-style-type: none"> • The methodological quality of each study should be assessed using quality checklists and the quality of the evidence for an outcome (i.e. across studies) will be assessed using GRADE <p>Synthesis of data:</p> <ul style="list-style-type: none"> • Meta-analysis will be conducted where appropriate • Default MIDs will be used: 0.75 and 1.25 for dichotomous outcomes; 0.5 times SD for continuous outcomes to assess imprecision • If studies only report p-values, this information will be plotted in GRADE tables without an assessment of imprecision possible to be made. <p>In the absence of studies comparing alternative assessment methods, studies of the predictive accuracy of assessment methods will be appraised using the CASP checklist for clinical prediction tools and methodological quality summarised using modified GRADE.</p>
Equalities	<p>Effective interventions to address should take into consideration parents' and carers' socioeconomic, cultural, religious and ethnic environment, and potential language barriers. Access to appropriate nutrition may also differ across socioeconomic groups. Certain groups may be at greater risk of developing faltering growth, including preterm infants and children, children and infants with intrauterine growth restriction, those with learning-disabled parents or carers, asylum seekers, and looked-after children.</p>
Notes/additional information	n/a