D.6.3 Interventions to manage faltering growth – non-nutritional (question number F.3)

Item	Details
Area in the scope	Interventions to manage faltering growth, including: • breastfeeding support • support for other types of feeding • dietary advice and supplementation • family support
Review question in the scope	What is the effectiveness of non-nutritional interventions (including providing advice on, and practical support for feeding practices other than breastfeeding) to families or carers in the management of faltering growth when compared to no intervention or compared to dietary advice and supplementation?
Review question for the guideline	What is the effectiveness of providing advice on, and practical support for feeding practices other than breastfeeding to families or carers in the management of children with suspected or confirmed faltering growth when compared to no intervention or compared or dietary advice and supplementation?
Objective	The aim of this review is to identify what feeding practices interventions other than breastfeeding are clinically and cost effective for improving nutritional status for infants and preschool children in whom growth concerns have been raised, through either routine monitoring (defined in recommendation 17 of the NICE guideline on maternal and child nutrition) or professional or parental concern.
Population and directness	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. Exclude complex, severe malnutrition in World Bank low and middle income group countries, and infants and children in intensive care settings.

Intervention	This review will consider the following interventions:
	
	Parent based:
	• behavioural and practical mealtime advice, for example,
	  ○ mealtime interventions (e.g. routine, setting, duration, frequency family meals, social modelling)
	  ○ models of parent – child interactions (e.g. promoting and avoiding certain feeding practices, e.g. persecutory/forced feeding, mechanistic feeding, praising good behaviour/ignoring undesired behaviour)
	• observation (including videoing) and support of mealtimes in the family home
	
	Child based:
	• feeding therapies
	• sensory interventions (SOS)
	• behavioural interventions (e.g. ABA applied behavioural analysis)
	• oral motor therapy, chewing exercises
	• child-led feeding (finger food)
	• desensitisation
	• use of feeding cup

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Item	Details
	• use of age appropriate feeding utensil • alternative care (e.g. nursery placement, pre-school, child minder)
Comparison	The following possible comparisons will be included: • any of above interventions versus no intervention • any of above interventions versus placebo • any of above intervention versus any other of the above interventions • any of above intervention versus other supportive interventions and dietary advice or supplementation
Outcomes	• measurements of growth • other anthropometric measurements relating to nutritional status, including length/height, head circumference, mid-arm circumference • health-related quality of life • parent or carer satisfaction • adherence to interventions • adverse effects of interventions (for instance, gastrointestinal symptoms) • cognition and neurodevelopment - only restricted to IQ at school age if reported If none of the above outcomes are identified in studies we would consider looking at calorie intake. Only tools that are externally validated will be assessed.
Importance of outcomes	Preliminary classification of the critical and important outcomes for decision making: Critical: • measurements of growth • other anthropometric measurements relating to nutritional status, including length/height, head circumference, mid-arm circumference • adverse effects of interventions (for instance, gastrointestinal symptoms) Important: • all other specified outcomes
Setting	Any setting in World Bank high income group countries except ICU settings.
Stratified, subgroup and adjusted analyses	Stratified analyses: • age / stage of feeding • neonates (i.e. early weight loss after birth) • age (1 - 6 months, 6 months and older), i.e. milk fed and after the introduction of solids Subgroups • premature birth, including degree of prematurity • IUGR • type of intervention • baseline severity of faltering growth • 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)

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	Sensitivity analysis: including and excluding studies with a high risk of bias. Confounders (for cohort studies): • age • prematurity • baseline severity of faltering growth • socio-economic factors • parental height • maternal cognition
Language	English
Study design	• Systematic reviews of RCTs or systematic reviews of comparative observational studies (if no RCT evidence for each comparison is found). • Randomised controlled trials (RCTs). • 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. 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.
Search strategy	• Sources to be searched: Medline, Medline In-Process, CCTR, CDSR, DARE, HTA, Embase, PsycINFO, AMED, CINAHL. • Limits (e.g. date, study design): Standard English language/animal studies exclusions will be applied where possible. RCT/SR filters will be applied where possible. • Supplementary search techniques: No supplementary search techniques will be used. See appendix E for full search strategies.
Review strategy	Dual weeding of the literature search results will be performed on 10% of records, because relevant non-nutritional interventions may be difficult to recognise in study abstracts. Any disagreements will be resolved through discussion and consultation with senior staff where necessary. Appraisal of methodological quality: • 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. Synthesis of data: • 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. In this case we would downgrade the evidence because a p-value would create uncertainty and therefore impact on our confidence in this evidence
Equalities	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.

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Item	Details
Notes/additional information	n/a

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