Faltering Growth / Failure to Thrive

Reference: 1074
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Purpose
To provide a guideline to clinicians who manage Failure to thrive / Faltering Growth

Intended Audience
Clinical staff dealing with Failure to thrive / Faltering growth
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1. Introduction
   Failure to Thrive is a common problem for which we receive referrals in the acute admission unit and also sometimes in outpatient clinics. Failure to thrive is not a diagnosis and the more accepted term is weight faltering which describes the growth of the child causing concern (crossing two centiles)

2. Intended Audience
   All doctors in the trust who deal with children referred for weight loss or failure to thrive.

3. Guideline Content

   DEFINITION
   Weight faltering describes a weight pattern not a diagnosis. It represents a spectrum from what may simply be a normal variant to children with serious problems.
   A weight that crosses more than two centile spaces is often the recommended threshold for concern
   Causes tend to be multifactorial and often involve problems with diet and feeding behaviour that usually respond to simple targeted advice

   B. SCREENING
   History:
   Should include both medical and social factors.
   Pay particular attention to the feeding history - record amounts taken at each feed.
   Ask about mealtime routine and eating and feeding behaviour.
   Ask about associated symptoms e.g. vomiting, diarrhoea, food refusal, respiratory infections, urinary symptoms and should cover all system specific symptoms
   History of consanguinity is important in Asian children who present with vomiting to rule out metabolic conditions
Examination
Dysmorphic features – signs of TORCH infection, Russel-Silver, Turner's syndrome
Distended abdomen, gluteal muscle wasting, – signs of Malabsorption
Examine all systems to make sure there is no underlying pathology - example neurological examination in a child with feeding difficulty

Growth measurements:
Plot on growth chart. Serial measurements of growth will help determine growth velocity and need for investigation (remember to make allowance for prematurity (<37 weeks), until 2 years old).

An early request for a 3 day dietary assessment may save fruitless investigations!

C. CAUSES

Organic disease is rare in otherwise asymptomatic children, but do not label everyone as feeding difficulty if there is adequate intake and child is not gaining weight. Organic causes should not be missed and should be appropriately investigated.

Inadequate intake is the most common cause. The child does not consume enough calories to support adequate growth. Contributary factors may include
- poor appetite - chronic infections, chronic fever, anaemia
- feeding problems - gastro-oesophageal reflux, cerebral palsy, cleft lip/palate
- Social/family factors - chaotic family, parental mental health, lack of knowledge, neglect

Increased calorie demand and expenditure
- Chronic infections with fever
- Surgery
- Chronic illness such as GI disorders (cystic fibrosis, inflammatory bowel disease), respiratory disorders (cystic fibrosis, severe asthma), congenital heart disease, endocrine disorders (diabetes mellitus, hyperthyroidism), renal failure

Inefficient utilisation of calories or loss of calories
- GI disorders - coeliac disease, chronic diarrhoea, chronic vomiting
- Endocrine/metabolic disorders - diabetes mellitus, hyperthyroidism, inborn errors of metabolism
- Burns, GI problems or other chronic illnesses

Some children may have chromosomal abnormalities associated with poor weight gain (e.g. Russel-Silver syndrome, Trisomy 21, Turner's Syndrome) or
may poor weight gain due to perinatal causes (e.g. TORCH infection, fetal alcohol syndrome)

D. INVESTIGATIONS TO CONSIDER

FBC
ZPP
Blood Gas – In infants where vomiting is the presentation and when consanguinity exists to rule out metabolic problems
U&Es - renal tubular acidosis, electrolyte abnormalities which indicate endocrine problems for example pseudohypoaldosteronism
Bone profile
LFT
TFT
Mid-stream urine - urinary tract infection

Consider more investigations when history is suggestive

IgA TTG and IgA EMA - coeliac disease (also request immunoglobulins)
CXR and Sweat test - history of respiratory infections
Vitamin D levels - rickets

4. References

BMJ Best Practice. Failure to thrive