

Specialized Infant formulas Clinical Practice Guideline Tool

First step: ALWAYS encourage breastfeeding



Saudi Society of Family and Community Medicin



If mother is unable to breastfeed or prefers formula, a standard formula (iron fortified) Is suggested - No data to support one formula over another

Most term infants need a standard formulas. These formulas are modeled after breast milk and contain 20 kcal per ounce (0.67kcal/ml). Their carbohydrate source is lactose, and they contain cow's milk protein.

Common Indications for use of Non standard formula include GERD, infantile colic, lactose intolerance and Milk protein allergy

Infant with Suspicion of GERD



History and Physical Exam



Presence of Alarm signs



Continue breastfeeding Consider Anti Reflux measures Avoid Overfeeding , Thicken feeds (infant with emesis)

Red flags

Weight loss Lethargy

Fever

Excessive irritability/pain

Dysuria

Onset of regurgitation/vomiting > 6 months Increasing/persisting symptoms >12-18 months of age Bulging fontanelle/rapidly increasing head circumference Seizures , Macro/microcephaly Persistent forceful vomiting

Nocturnal vomiting / Bilious vomiting

Hematemesis Chronic diarrhea Rectal bleeding

Abdominal distension

Improved



Continue management

Not Improved

Consider other Dx

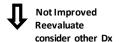
Reevaluate

Continue AR measures Breastfed infants: elimination of cow's milk in maternal diet Formula fed infant :

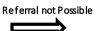
Consider 2-4 weeks of Partially/ hydrolyzed or amino acid based formula



Continue management (up to 1 year) and discuss milk protein reintroduction at follow up



Referral to Pediatric GI



Consider 4-8 week trial of acid suppression then wean if symptoms improved

Anti reflux formulas reduce daily emesis and regurgitation in infants, but have not been shown to improve growth or development

Gastroesophageal reflux [GER]

a normal physiologic process that occurs in healthy infants

Gastroesophageal reflux disease (GERD)

when the reflux episodes are associated with complications such as esophagitis or poor weight gain

Symptoms: Postprandial emesis associated with poor weight gain, irritability, cough, recurrent stridor, hoarseness, sleep disturbances etc Dx: Clinical diagnosis, diagnostic testing is not needed if symptoms do not impact growth or development.

Anti reflux measures

Avoid tobacco smoke exposure Avoid overfeeding Anti reflux positioning

Poor Weight gain

Weight less than the 2nd percentile for gestationcorrected age and sex when plotted on an appropriate growth chart and decreased velocity of weight gain that is disproportionate to growth in length

Do not consider weight gain to be poor among children growing along a curve with a normal interval growth rate, even if their weight is <2nd percentile

Milk protein allergy

Symptoms: Gastrointestinal symptoms (diarrhea with or without blood) associated with extra GI manifestations ex: Eczema (most common presentation), wheezing, family hx of atopy Dx: History and physical examination, implementing diet diary

Hypoallergenic formula is effective for the treatment of milk protein allergy and the prevention of atopic disease.

In breastfed babies with cow milk protein allergy, mother need to eliminate all dairy product or any food containing dairy

Suggested formula:

Trial of Hypoallergenic formulas contain extensively hydrolyzed proteins for 4-8 weeks if improve continue to 4-6 months

Lactose intolerance

Congenital lactase deficiency: onset: birth, extremely rare



GI Referral

Primary lactase deficiency :primary lactase deficiency ,usually develops in childhood , lactose free diet suggested

Secondary lactase deficiency:

Onset: Common, occurs after small bowel injury; transient following gastroenteritis, chemotherapy, etc.

Dx: History and physical examination

Symptoms: Flatulence, fussiness, emesis, diarrhea

Children with diarrheal illnesses who have no or only mild dehydration



Continue breastfeeding or standard (lactosecontaining) formula Persistent diarrhea (diarrhea lasting more than 14 days) (indicate mucosal injury) or severe dehydration



In Breastfed: Continue Breast feeding
In formula fed: Trial of Lactose-free formulas (4-6 weeks)



If no improvement after trial of lactose free formulas refer to pediatric GI

Infantile colic

A self-limited and benign functional disorder of paroxysmal uncontrollable crying and fussiness in otherwise healthy infants <3 months old without obvious cause ·

Dx: Wessel criteria for definition of infantile colic is based on amount and duration of crying

- > 3 hours/day
- > 3 days/week
- > 3 weeks duration

Infantile colic

First-line Interventions



Changes to the feeding technique and/or experimenting with a number of techniques to soothe the infant

not responding to first line-interventions



One-week trial of an extensive hydrolysate infant formula Up to 3-4 months The response to formula usually occurs within 48 hours

The original formula is resumed if there is no change in the infant's symptoms Hydrolysate formula may be continued if there is a decrease in crying/fussiness.

References:

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