

INCLUSION CRITERIA

Infants 0-1 years old with suspected GERD with normal abdominal exam

EXCLUSION CRITERIA

- Significant weight loss
- Lethargy
- Guaiac positive stools
- Excessive irritability/pain
- Bulging fontanel
- Rapidly increasing head circumference
- Persistent forceful, bilious, or bloody vomiting
- Rectal bleeding
- Bloody stools
- Fundoplication
- Airway Anomaly

MEASURES

Percent of patients with GERD prescribed anti-reflux medication

"Happy Spitters"

- Do not have GERD instead have GER and caregivers should be provided reassurance and education

¹Reflux Precautions

- Avoid overfeeding
- Slower feeds
- Frequent burping
- Upright after feeds
- Avoid tobacco smoke

²Enfamil AR

- Needs an acidic environment, famotidine and omeprazole are contraindicated

³Cereal Thickening

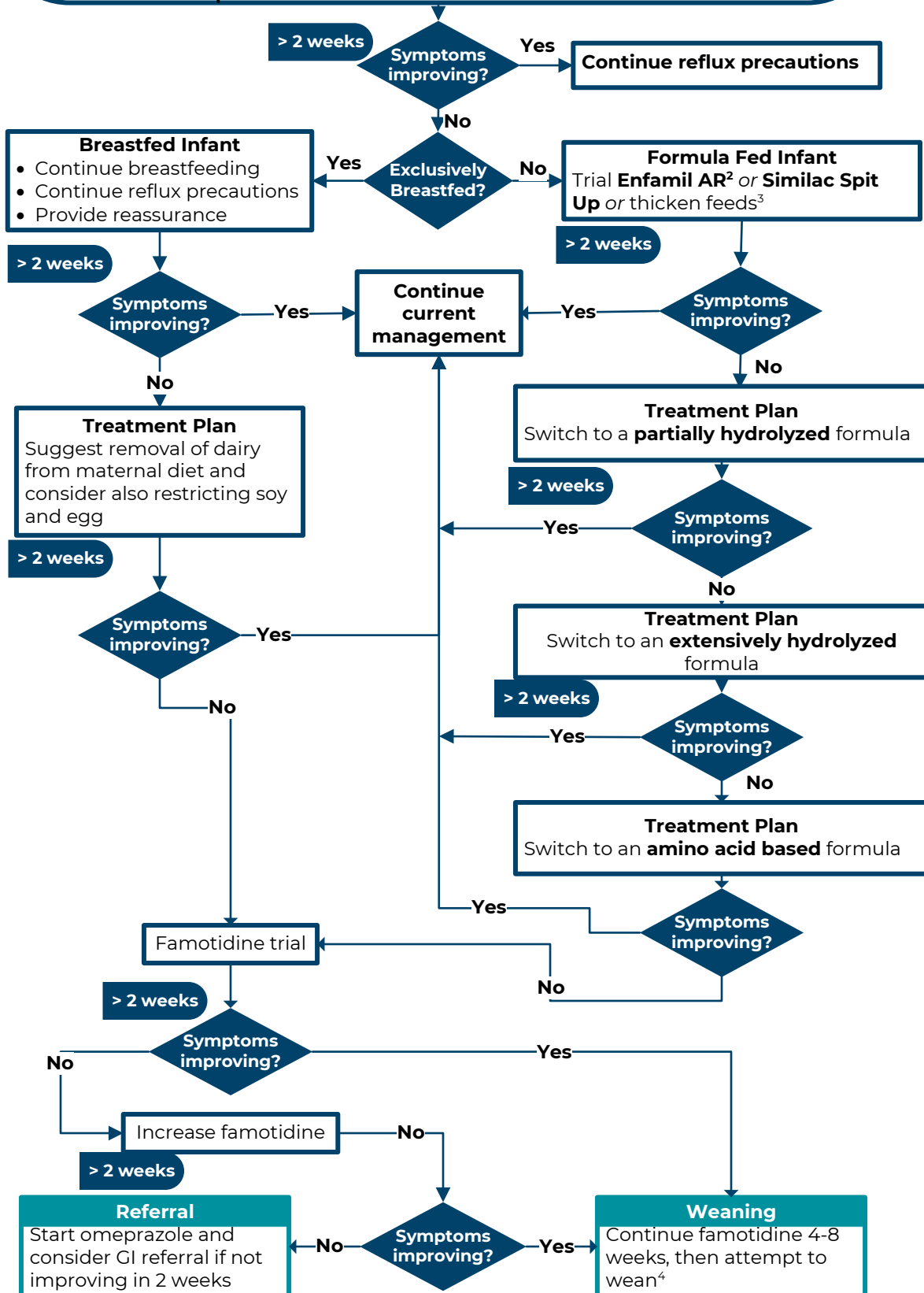
- Thicken with ½ - 1 tsp per ounce
- Cereal thickening may cause constipation and weight gain

⁴Famotidine Weaning

- Attempt every 2 months
- BID to daily for 2 doses, then every 2 days for 2 doses, then every 3 days for 2 doses
- If wean fails restart at previous dose
- If still requiring at 1 year of age refer to GI

Infant with suspicion for GERD

- Assess for "red flags" symptoms and signs ^{page 2}
- Refer to speech/feeding therapy if dysphagia suspected (coughing during feeding or inadequate intake)
- Refer to lactation if latch issue suspected
- **Provide reflux precaution education¹**



Partially Hydrolyzed

- Similac Pro Total Comfort (Store Brand Complete)
- Enfamil NeuroPro Gentlease (Store Brand Gentle)
- Enfamil Enspire Gentlease
- Gerber Good Start GentlePro
- Gerber Good Start Gentle Supreme
- Gerber Good Start Soothe (Store Brand Tender)

Extensively hydrolyzed

- Enfamil Nutramigen (Store Brand Hypoallergenic)
- Similac Alimentum
- Gerber Good Start Extensive HA
- Enfamil Pregestimil

Amino Acid Based

- Neocate Infant
- Neocate Infant Syneo
- EleCare Infant
- PurAmino Infant
- Alfamino Infant

Medication	Dosage
Famotidine 8 mg/mL suspension	Neonates – <3 months: 0.5mg/kg/dose once daily may increase to 1mg/kg/dose once daily ≥3 months: 0.5mg/kg/dose twice daily may increase to 1mg/kg/dose twice daily
Omeprazole 2 mg/mL suspension	<u>All ages:</u> 1 mg/kg/day once daily

Possible Signs and Symptoms of Gastroesophageal Reflux Disease in Infants

Symptoms	Signs
<u>General:</u> • Failure to thrive • Feeding refusal • Dystonic neck posturing (Sandifer syndrome)	<u>General:</u> • Anemia
<u>Gastro-intestinal:</u> • Recurrent regurgitation • Hematemesis • Dysphagia/odynophagia	<u>Gastro-intestinal:</u> • Esophagitis • Esophageal stricture • Barrett's esophagus
<u>Airway:</u> • Wheezing • Stridor • Cough • Hoarseness	<u>Airway:</u> • Apnea spells • Brief resolved unexplained events (BRUE) • Recurrent pneumonia associated with aspiration • Recurrent otitis media

"Red Flag" Symptoms and Signs That Suggest Disorders Other Than GERD

Symptoms and Signs	Remarks
<u>General:</u> • Weight loss • Lethargy • Fever • Excessive irritability/pain • Onset >6 months or increasing or persisting >12-18 months of age	<u>General:</u> • Suggesting a variety of conditions including systemic infections • May suggest urinary tract infections, especially in infants and young children • Late onset and symptoms increasing or persisting after infancy, based on natural course of the disease, may indicate a diagnosis other than GERD.
<u>Gastro-intestinal:</u> • Persistent forceful vomiting • Nocturnal vomiting • Bilious vomiting • Hematemesis • Chronic diarrhea • Abdominal distention • Rectal bleeding	<u>Gastro-intestinal:</u> • Indicative of hypertrophic pyloric stenosis (infants up to 2mo old) • May suggest increased intracranial pressure • Symptom of intestinal obstruction • Suggests a potentially serious bleed from the esophagus • May suggest food protein-induced gastroenteropathy • Indicative of obstruction, dysmotility, or anatomy abnormalities • Possibly indicative of multiple conditions, including bacterial gastroenteritis, inflammatory bowel disease, acute surgical conditions, and food protein-induced gastroenteropathy rectal bleeding.
<u>Neurological:</u> • Bulging fontanel/rapidly increasing head circumference • Seizures • Macro/microcephaly	<u>Neurological:</u> • May suggest raised intracranial pressure due to meningitis, brain tumor, or hydrocephalus.

Disclaimer: The clinical pathways are based upon publicly available medical evidence and/or a consensus of medical practitioners at Nemours Children's Health ("Nemours") and are current at the time of publication. These clinical pathways are intended to be a guide for practitioners and may need to be adapted for each specific patient based on the practitioner's professional judgment, consideration of any unique circumstances, the needs of each patient and their family, and/or the availability of various resources at the health care institution where the patient is located.

VERSION MANAGEMENT

- Version 1.0 (10/23/2025): Go Live.

Questions about this pathway should be directed to clinicalpathways@nemours.org.

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