Pediatric Gastroenterology Management and Referral Guidelines

Provided by

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Medical Center of Central Texas

Gastro-Esophageal Reflux Disease (GERD) (K21)

Diagnosis: ICD-10

Gastro-esophageal reflux disease with esophagitis: K21.0
Gastro-esophageal reflux disease without esophagitis: K21.9
Newborn esophageal reflux: P78.83

Target Population	• Infants • Children • Young adults up to 21 years of age
Clinical Findings	Appropriate distinction between gastroesophageal **reflux** and true gastroesophageal reflux **disease** is vital to initiating proper treatment. • **Gastroesophageal reflux (GER)** is the passage of gastric contents into the esophagus with or without regurgitation and vomiting. Most episodes of reflux in healthy individuals last less than 3 minutes, occur in the postprandial period, and cause few or no symptoms. Sometimes infants (0 to 12 months) spit up but do not have symptomatic reflux. About 50% of healthy 3- to 4-month-old infants spit up at least once a day. This is known as "happy spitting." Most infants with asymptomatic GER grow normally and the condition often peaks at 4 months and resolves by 12 to 18 months of age. • In contrast, **gastroesophageal reflux disease (GERD)** is present when the reflux of gastric contents causes troublesome symptoms and/or complications (e.g., retarded weight gain, pneumonia, vomiting blood, or other related problems)
Evaluation Recommendations	• In the event of **forceful or bilious vomiting**, consider pyloric ultrasound for infants and UGI for older age group. • In the event of **GI bleeding**, refer to GI or admit based on severity of the bleeding • In the event of **weight loss and feeding refusal**, consider admission to the hospital for observation and work up

Red Flags	• Vomiting associated with
	  o Blood (e.ge, bright red streaks, blood clots of coffee ground appearance in stomach fluids
	  o Green or yellow fluid
	• Arching away from breast/bottle with crying or irritability
	• Persistent crying
	• Feeding difficulties (e.g., choking or gagging with feeds) and feeding refusal
	• Poor growth or failure to thrive

	• Breathing problems
	  o Repeat bouts of pneumonia
	  o Turning blue
	  o Chronic coughing or wheezing

Treatment Recommendations:

	GER	*GERD*
Treatment	**0-12 months of age** • Provide education on expected course of disease If intervention is needed: • Small frequent feeds • Begin a 2-week trial of extensively hydrolyzed formula to exclude milk and soy protein intolerance • Consider treatment with H2 receptor antagonist or proton pump inhibitor **1-21 years of age** • Lifestyle changes • Avoidance of precipitating factors • Consider treatment with H2RA Dosage for H2RAs: Ranitidine (Zantac): 5 to 10 mg/kg/day divided twice daily (max 300 mg/day) or Famotidine (Pepcid): 1mg/kg/day divided twice daily (max 80 mg/day)	**0-12 months of age** • Start treatment with H2RA (step up approach) but may opt for PPI if symptoms are concerning (use the step down approach) • An example of H2RAs: Ranitidine (Zantac): 5 to 10 mg/kg/day divided twice daily • An example of PPIs: Omeprazole (Prilosec): 0.7 to 1.5 mg/kg/dose once daily , Administer on empty stomach 30 minutes prior to feeding; do not mix with milk or formula **1-21 years of age** • Lifestyle changes • Avoidance of precipitating factors • Begin a PPI as follows: Lansoprazole (Prevacid)† < 30 kg: 15 mg once daily > 30 kg: 30 mg once daily or Omeprazole (Prilosec)† 5 kg to 10 kg: 5 mg once daily 10 kg to <20kg: 10 mg once daily > 20 kg: 20 mg once daily †*Administer on empty stomach 30 minutes prior to feeding; do not mix with milk or formula*
Maintenance	Continue reflux precautions Stop medicine after three months	Taper medicine to half of the original dose when treatment

		response is satisfactory. Continue PPI for 3 months.
Referral	If treatment fails, refer to Pediatric Gastroenterology or try PPI	If the child is not improving in 1-2 weeks or if unable to wean off the medication after three months, refer to GI

If at any time patient develops signs/symptoms that make more urgent evaluation important, please alert Gastroenterology (512-628-1810) to this change in status.

These guidelines are designed to be used by primary care physicians wishing to refer children with suspected gastroesophageal reflux disease for additional evaluation and care. They are recommendations and are based on best evidence and expert consensus.