Potential Barriers and Suggested Ideas for Change

Key Activity: Treatment

Rationale: The 2018 NASPGHAN Guidelines discuss 3 primary treatment strategies for pediatric patients with gastroesophageal reflux disease, or GERD. They are nonpharmacological treatment, pharmacologic therapy, and surgery. Nonpharmacological lifestyle management of reflux should be discussed in all patients with physiological reflux and with suspected reflux disease or proven GERD, and is probably underutilized in practice. Shalaby and Orenstein (2003)[1] found that 27% of infants referred to a drug trial for GERD because they failed treatment by their primary care provider actually responded to lifestyle management given over the phone and did not require medical treatment. The 2018 NASPGHAN Guidelines stress that there are no indications for using pharmacological treatment for patients with GER. They also recommend various pharmacological treatment strategies to treat GERD. Because surgical procedures for GERD can result in significant morbidity and even mortality, careful consideration needs to be given to make sure the procedure is indicated and the child has GERD and not another condition that can mimic GERD (for example, eosinophillic esophagitis).

[1]Shalaby TM, Orenstein SR. Efficacy of telephone teaching of conservative therapy for infants with symptomatic gastroesophageal reflux referred by pediatricians to pediatric gastroenterologists. *J Pediatr.* 2003;142(1):57–61

Potential Barriers	Suggested Ideas for Change	Still Not Seeing Results?
Gap: Nonpharmacological treatment options are not discussed with the patient/family and documented in the patient chart.		
The practice lacks clarity and understanding of the current recommendations regarding nonpharmacological treatment.	Review the following: • 2018 NASPGHAN Guidelines • 2013 AAP Clinical Report: Gastroesophageal Reflux: Management Guidance for the Pediatrician • Shalaby TM, Orenstein SR. Efficacy of telephone teaching of conservative therapy for infants with symptomatic gastroesophageal reflux referred by pediatricians to pediatric gastroenterologists. *J Pediatr.* 2003;42:57–61	Consider having a lunch-and-learn session with physicians of the practice to discuss everyone's understanding of the policies, and/or what is unclear.
The practice lacks a process for discussing age-specific nonpharmacological (formerly called "conservative methods") options with the patient/family during the visit.	Develop your own patient handout that discusses nonpharmacological treatment at different ages or consider using the Parent's Take Home Guide to GERD available on the GI Kids Home Page. Create a checklist of nonpharmacological options by age group to ensure you do not miss any of the following points: For infants ▪ Avoid overfeeding ▪ Thickened formula ▪ Trial of protein hydrolysate or amino-acid based formula (at	

Potential Barriers	Suggested Ideas for Change	Still Not Seeing Results?
	least 2 weeks). ▪ Positioning: ▪ Keep the infant upright for 30 to 45 minutes after meals. ▪ Prone positioning may be used if the infant is observed and awake. **Note:** "*However, because of the risk of sudden infant death syndrome, supine positioning is recommended for sleep. Although elevating the head of the bed by 30° is recommended for children, it is recommended* ***not*** *to use positional therapy to treat symptoms of GERD in sleeping infants*."[1] For children and adolescents ▪ Eat smaller, more frequent meals. ▪ Avoid eating or drinking 2 to 3 hours before bedtime. ▪ Elevate the head of the bed to 30° if having nocturnal symptoms. ▪ Sleep in the left lateral decubitus position. ▪ Limit or avoid carbonated drinks, chocolate, caffeine, and foods high in fat or that are acidic or spicy. ▪ Avoid large meals before exercise. ▪ Lose weight, if overweight.	
The practice does not have a process or place in the medical record to document recommended nonpharmacological treatment options.	All discussions should be documented in the medical record. Develop process and a place in the medical record to document: • Create an encounter form with a space for documenting the recommended nonpharmacological /treatment. Or use the encounter form provided with this course.	
Gap: Recommended nonpharmacological treatment options are not confirmed.		
The practice does not have a process to confirm that the patient/family initiated the recommended nonpharmacological treatment options.	Include a procedure in your treatment protocol to flag the chart/medical record of patients for whom compliance is to be confirmed in "x" number of weeks. Have appointed office staff contact the family via phone, e-mail, or patient portal to ensure the patient:	

Potential Barriers	Suggested Ideas for Change	Still Not Seeing Results?
	✓ Is following recommended treatment and that they are correctly administering treatment ✓ Has no questions regarding the recommended treatment ✓ Is clear on what signs/symptoms to watch for ✓ Does not have any concerns ✓ Knows when to return for follow-up and has made an appointment	
Gap: Acid suppression medications or other treatments/interventions* are inappropriately initiated and/or continued for patients with a diagnosis of GER. *****(*Other treatments include, but are not limited to: nasogastric tubes, continuous or transpyloric feeds, maternal elimination diet, hypoallergenic formula, surgical referral.*)		
Empiric trial (ie, acid suppression medications and other treatments/interventions) of therapy is not clearly understood. The practice does not have a process in place to assess patient response to empiric therapy.	Review *Treatment* section in the Clinical Guide with medical staff. Develop a protocol that clearly establishes criteria for prescribing an empiric trial of therapy for patients with GERD that includes the following: o Identification of specific GERD symptoms and signs that require improvement before initiation of treatment. o Determination of dose and type of acid-suppressant medication. Considerations should include severity of disease; compliance issues, including cost formulation and insurance requirements; and any underlying patient medical conditions. o Determination of the definitive length of a trial appropriate to a particular condition. See 2018 NASPGHAN Guidelines. o Schedule follow-up appointments within 2 to 4 weeks to assess patient response to empiric trial of therapy. **Note:** Prior to additional testing, it may be necessary to first rule out alternative diagnosis.	Educate health care providers about the use of acid-suppressant therapy before referral.
There is a lack of time to **manage** patients with GERD.	Create an office protocol for the treatment of patients with GERD that includes the following: ✓ Symptoms and signs of GERD ✓ What empiric treatments should be attempted and for how long before referral	

Potential Barriers	Suggested Ideas for Change	Still Not Seeing Results?
	✓ When to appropriately refer a patient ✓ If the patient can be managed by the primary care practice, consider the following: • What medications/lifestyle changes should be recommended and how long of a trial is necessary? • When should the patient return for follow-up? • Set up a process for nursing staff to call patients during the interim to check in on the patient's progress. ✓ Flagging of the chart with the condition to alert physicians to make sure they inquire about current status of condition.	
Gap: Metoclopramide is inappropriately initiated or continued.		
Initiating appropriate pharmacologic treatment for patients diagnosed with GERD is not clearly understood. Practice is unaware that current evidence does not support the benefit of metoclopramide because there are definitive risks such as potentially serious CNS sequlae with this drug.	Educate medical staff. See the *Treatment* section in the Clinical Guide. o Develop a practice-wide protocol that addresses the various pharmacologic treatment options and strategies for patients with GERD. (Provide office-wide training once a protocol is developed.) Realistically, pediatricians may spend considerable time determining doses and adjusting doses. Allow for patient contact time, which may include nurse-specific follow-up phone calls, to determine and adjust medication dosages before GERD symptoms improve.	