Premature Infant GER Guidelines:

Red Flags that may require additional testing/Immediate Intervention:

- Persistent forceful vomiting
- Bilious vomiting
- Hematemesis
- Chronic diarrhea
- Rectal bleeding
- Abdominal distension
- Concern for increased intracranial pressure (bulging fontanel), or seizures

Steps for Assessment and Treatment

First: Anti-Reflux Positioning

- Consult OT/SLP for high-risk infants (ELBW or preterm infants with IUGR).
- Hold infant during the feed and for 20-30 min following feed as able.
- If not held for feeding, position the infant left side down during the feeding and for the first 30 minutes after the feeding, followed by right side down.
- May consider prone positioning instead of supine.
- Consider a trial for 3-5 days of positioning the head of the bed up. If this does not help, return the bed to a flat position.

Second: Feeding Strategies

- May consider more frequent, smaller volume feeds for certain infants (if growth supported).
- May prolong feeds on pump up to an hour, but return to 30 min if no improvement after several days. May consider prolonging pump feeds longer than 60 min, up to continuous gastric feeds, prior to initiating more invasive therapies.
- Pump times for partial oral feedings are adjusted to the remaining volume of feeding.
- Transpyloric feeding – may consider this after maximizing above therapies. For the ELBW population: May consider if >1000 g, >30 days of age, and breast milk used for feeds. Time to not exceed one week if symptoms do not improve.

Third: Alternative Formula Trial – ≥36 weeks; already incorporated OT interventions

- Consult NICU RD for recommendations/implementation
- If suspected cow's milk protein allergy (CMPA) and >/= 36 wks, trial one of the following:
  - If formula fed: trial protein hydrolysate, or elemental/AA-based formula for at least 2-wks.
  - If using breast milk: eliminate cow's milk in maternal diet x2-4 weeks. Continue to give breast milk as available during this trial if mother agrees to dairy free diet (use protein hydrolysate or AA-based formula to fortify).
  - Note: this trial is not intended to treat reflux, rather to rule out CMPA.
- If suspected prematurity related GER/D that significantly impacts growth/feeding progression (including associated ABD events with feeds), may consider trial of an anti-reflux formula (Added Rice Starch infant formula).
  - Consult OT, if not already following, for oral feeding evaluation and parent feeding education.
  - Trial Added Rice Starch/anti-reflux formula for up to 1-week, with the following items in place:
    - Must hold acid-blocking medications which interfere with the thickening function.
    - Cannot use with maternal milk due to amylase enzyme activity within maternal milk which breaks down the rice starch, negating the thickening effect.
    - If maternal milk IS available, consider alternate plan to avoid eliminating maternal milk.
  - Anti-Reflux/Rice Starch formulas are NOT intended for use in treatment of infants with dysphagia.
  - Anti-Reflux/Rice Starch formulas are NOT intended for small bowel feeding tubes.

Fourth: Referral to Pediatric GI if above fails – 38-40 weeks:

- Impedance testing first, then:
- Acid suppression trial (recommend objective data from impedance testing first).

Fifth: Thicken Feeds – 42 weeks

- If >42 weeks and not improved with Elemental/Dairy-free feeds – thickened feeds require OT&RD consultation prior to implementation.
- Refer to Children's Protocol on Thickening for additional guidance.

Sixth: Consider fundoplication – 44 weeks

- If all above fails or other special circumstances. GI consultation should be obtained if not already done.

Discharge Considerations:

- A trial of the infant in a flat recumbent position should be considered by 32 weeks CGA and at the very latest several days prior to anticipated discharge.
- If ordered, give discharge instructions for elevating the head of the bed to parents (only special circumstances).

Nationwide Children's Hospital GER Manuscript: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6400306/pdf/nihms-1520466.pdf