

# Acute Gastroenteritis (AGE)

- Vomiting, diarrhea, or both, +/- fever, abdominal cramps
- Vomiting often first, lasting 1-2 days, followed by diarrhea lasting 5-7 days (sometimes up to 2 weeks)
  - If evaluating child in vomiting only phase, warn parents diarrhea may ensue
  - Diarrhea is typically watery, non-bloody
  - Vomiting should be non-bloody, non-bilious
- Evaluate for signs of dehydration: urine output / wet diapers
- Labs / Imaging
  - If atypical (e.g. just a few episodes of v/d or associated sx), r/o appendicitis, UTI
  - Consider Chem 7 if significant dehydration, prolonged / profuse symptoms
  - Stool studies only if bloody diarrhea, prolonged diarrhea, high fever, concerning exposure

# AGE Management

- Ondansetron 0.15 mg/kg IV or PO, can give up to every 8 hours
  - Rapid *single* dose calculation
    - 8-15kg: 2mg
    - 15-30kg: 4mg
    - >30kg: 4-8mg
  - Can consider prescribing 2-3 days of ondansetron for home use
- Significant dehydration, 20 mL/kg IV NS or oral rehydration solution PO
- No anti-diarrheal medications recommended
  - Loperamide and diphenoxylate-atropine have significant side effects
  - Bismuth subsalicylate limited efficacy and risk of salicylate toxicity
  - Probiotics unclear benefit but not likely to cause harm
- BRATY diet: complex carbs (high fiber breads, crackers), rice, applesauce, toast, yogurt with active cultures, bananas, avoid high-sugar fluids and foods
- Review with parents importance of *small* amounts at a time, more frequently
- If prolonged diarrhea, consider 1-2 weeks of lactose-free diet

# AGE Causes

Virus	Season	Incubation	Transmission	Duration	Other Symptoms
Rotavirus	Fall/Winter	1-3 days	Fecal-oral	5-7 days	Fever
Norovirus	All year	12-48 hrs	Fecal-oral, foodborne	1-4 days	May be mainly vomiting
Sapovirus	All year	1-2 days	Fecal-oral	3-4 days	Abdominal cramps
Astrovirus	Winter	4-5 days	Fecal-oral, contam water	5-6 days	Headache, malaise
Enteric adenovirus	Summer	3-10 days	Fecal-oral	6-9 days	Can have respiratory symptoms

# Vomiting Etiologies to Rule Out with Hx & PE

Disease	Age Group	Symptoms	Diagnostics
Pyloric stenosis	< 12 weeks old	Projectile vomiting soon after eating, eager to eat	Ultrasound
Malrotation / Volvulus	Highest in < 1yo	Bilious vomiting infants; older pts: abd pain out of proportion to exam	Ultrasound, UGI
Intussusception	Peak 4-36 mos, but any age if lead point	Pain episodes lasting 15-20 min w/vomiting, can have lethargy	Air contrast enema (also therapeutic)
Appendicitis	All ages, peak	RLQ tenderness	Ultrasound, CT
Cannabis hyperemesis	Teen to young adult	Severe vomiting bouts, takes long hot showers	Clinical diagnosis, h/o prolonged cannabis use
Brain tumor causing increased ICP	Any age	Early AM vomiting, abnormal neuro exam	Head CT or MRI
Abdominal migraine	Incr in < 10yrs	Abd pain, n/v episodes lasting 2-72 hrs; no HA	Clinical diagnosis

# Food Poisoning

Bug	Food(s)	Incubation	Duration	Vomiting	Diarrhea	Fever	Other Symptoms
B. Cereus	Rice, sauces, soups	30min-6hr	24hrs	0-6hrs	6-24hrs	No	Abdominal cramps
Campylobacter	Raw chicken, raw milk	2-5 days	7-10 days	Sometimes	Yes, +/-bloody	Yes	Abdominal cramps
Ciguatera	Reef fish: barracuda, mackerel, grouper	3-24 hrs	Up to a week	Yes	Yes	No	Hot/cold reversal, peri-oral paresthesias
Clostridium botulinum	Home-canned foods, honey for < 1yo	18-36 hrs	Weeks-mos	Sometimes	Sometimes	No	Neuro sx - botulism
Clostridium perfringens	Foods kept warm too long, esp meat/gravy	6-24 hrs	1 day	No	Yes	No	Abdominal cramps
Cyclospora	Imported produce (eg lettuce, berries)	7-10 days	Come & go for mos	Rare	Yes	Rare	Wt loss, bloating, fatigue
E. Coli Enterotoxin	Food or water contaminated w/feces	1-3 days	3-4 days	Rare	Yes	Rare	Rare: Nausea, chills, myalgias
E. Coli O157:H7	Undercooked beef, leafy greens, sprouts	3-4 days	5-7 days	Yes	Often bloody	No	Hemolytic Uremic Syndrome
Listeria monocytogenes	Raw milk / cheeses, deli meats	3-90 days	Days to weeks	No	No	Yes	Flu-like symptoms

# Food Poisoning

Bug	Food(s)	Incubation	Duration	Vomiting	Diarrhea	Fever	Other Symptoms
Norovirus	Raw produce or shellfish, infected cook	12-48 hrs	1-3 days	Yes	Yes	Sometimes	Headache, myalgias
Salmonella	Eggs, poultry, beef, flour	12-72 hrs	4-7 days	Sometimes	Yes	Yes	Abdominal cramps
Scombroid							
Shigella	Ready-to-eat foods, infected cook, raw produce	8 hrs – 2 days	5-7 days	No	May be bloody	Yes	Abdominal cramps
Staph aureus	Uncooked foods left out (potato, egg salad)	1-7 hours	1 day	Yes	Yes	No	Abdominal cramps
Trichinella	Undercooked pork	2-7 days	Up to 8 wks	Yes	Yes	No	Muscle phase: weakness
Vibrio parahaemolyticus	Raw shellfish, esp oysters	4 hrs – 4 days	2-6 days	Yes	Yes	No	Abdominal cramps
Vibrio vulnificus	Raw shellfish, esp oysters	12 hrs – 3 days	Days to weeks	Sometimes	Sometimes	Yes	Sepsis in immunocompromised
Yersinia	Undercooked pork	4-7 days	1-3 weeks	Yes	May be bloody	Yes	Abdominal cramps, may mimic appendicitis