

Abdominal Pain (Acute)

FAST FACTS

~75,000

children <18 years in the US have appendicitis annually

216%

increase in cholecystectomies over past 10 years in children

acute cholecystitis

most common gallstone-related complication

4.9

cases of ovarian torsion per 100K children ≤ 20

up to 20%

of menarchal adolescents may have ovarian hemorrhagic cysts

Acute abdominal pain is a common complaint in children. It varies with age, symptoms and location of pain. Causes vary significantly and may require non-surgical or surgical methods to resolve. Most episodes of abdominal pain are brief and benign, but some situations may require urgent intervention.

ASSESSMENT

Perform assessment focused on symptom onset, location and character of pain, exacerbating factors (e.g. movement, car ride, eating), and associated symptoms (e.g. nausea, vomiting, anorexia, fever).

HPE (HISTORY AND PHYSICAL EXAM) RED FLAGS

- Significant abdominal pain and/or tenderness
- Persistent or progressively worsening pain
- Peritoneal signs (pain with movement/jumping jacks/car ride, + Rovsing/obturator/psoas signs, +Murphy's sign)
- Persistent or worsening associated symptoms including nausea/vomiting, fever

WHEN TO REFER

In the presence of any of the red flags listed above, refer to Cincinnati Children's Pediatric Surgery for management/treatment as soon as possible.

► **SEE ALSO:** Community Practice Support Tool—Abdominal Pain (Functional)

If you have clinical questions about patients with acute abdominal pain, call Physician Priority Link® at 513-636-7997 or 1-888-987-7997.

If you would like additional copies of this tool, or would like more information, please contact the Physician Outreach and Engagement team at Cincinnati Children's.

Abdominal Pain (Acute)

Patient presents with acute onset abdominal pain

Standard Workup

- Situational History
- Past Medical/Surgical History
- Physical Exam

HPE (HISTORY AND PHYSICAL EXAM) RED FLAGS

- Periumbilical/epigastric pain, progression to RLQ
- Associated nausea, vomiting, anorexia, fever
- Worse with movement, car ride

- Epigastric/RUQ pain, possible radiation to back
- Post-prandial
- ± Nausea, fever

- Female patient
- Periumbilical pain, may progress to lower abdominal pain
- ± nausea, vomiting, dysuria
- May present with sudden onset of pain

- **RLQ tenderness to palpation**
- **+ Rovsing sign (pain in RLQ with LLQ palpation)**
- **Pain with movement of bed, jumping jacks**
- **May also have + obturator or psoas signs**

- **±RUQ or epigastric tenderness to palpation**
- **± Murphy's sign**

- **± Unilateral lower quadrant or suprapubic tenderness**
- **± Pain with movement**
- **± Tender pelvic mass on palpation**

Likely diagnosis: Appendicitis

Likely diagnosis: Symptomatic cholelithiasis vs cholecystitis

Likely diagnosis: Ovarian torsion or ovarian hemorrhagic cyst rupture

Work-Up: CBC, U/A, RLQ US
(± pelvic US for females)

Work-Up: CBC, LFTs, RUQ US

Work-Up: CBC, U/A, pelvic US, Serum HCG (pregnancy) test

Other potential medical/surgical causes of abdominal pain

- Inflammatory bowel disease
- Omental infarct
- Meckel's diverticulitis/obstruction from omphalomesenteric duct remnant
- Gastroenteritis
- Mesenteric adenitis
- Pyelonephritis/cystitis
- Endometriosis
- Intussusception
- Epiploic appendagitis
- Urolithiasis
- Gastric/duodenal ulcer
- Pelvic inflammatory disease
- Ectopic pregnancy