

## Gastroenterology – Acute Non-Traumatic Abdominal Pain: What You Need to Know

### Whiteboard Animation Transcript

with Heather Murray, MD

Patients with abdominal pain can have literally hundreds of things wrong with them, involving many different organs and systems. Your job is to figure out what's wrong and start the right treatments – an intimidating task!

**There are a number of life-threatening diagnoses that cannot be missed.** I would like to introduce you to the **HIPPOI framework**: Could my patient have an Hemorrhage, Infection or Inflammation, Perforation, Obstruction, or Ischemia?

**H is for hemorrhage.** You need to rule out an aortic aneurysm if your patient presents with sudden onset of pain that radiates to the back, and you should rule out a ruptured ectopic pregnancy in a woman of childbearing age. These hemorrhagic disorders manifest with a sudden onset of pain and often have symptoms of volume loss that include weakness and dizziness, or syncope.

**I is for Infection or inflammation.** You need to rule these out in a patient who has a localized area of pain and tenderness, along with infectious symptoms like fever, chills, and myalgias. In right lower quadrant think of appendicitis, in the right or left lower quadrant – diverticulitis, in the right upper quadrant – cholecystitis, and in either flank – pyelonephritis. Pancreatitis is more of an inflammatory condition, and causes upper abdominal pain, which is usually epigastric.

**P is for Perforation.** Non-traumatic bowel perforations generally present with a sudden onset of generalized severe pain and an “acute abdomen” with generalized guarding, rebound, and shake tenderness. Shoulder tip pain may indicate sub-diaphragmatic air.

**O is obstruction.** Patients with bowel obstructions typically present with colicky generalized abdominal pain, bilious vomiting, and significant abdominal distension. They will report constipation and absence of flatus. Remember to check for hernias in any patient who has a bowel obstruction.

**I is for Ischemia.** Patients with mesenteric artery thromboembolism (or “ischemic gut”) have a sudden onset of generalized severe abdominal pain but an absence of impressive peritoneal findings on exam. Patients with atrial fibrillation (who are not anti-coagulated) and with patients known vascular disease are at higher risk of this illness.

**Finally,** remember that patients who are suffering from a **myocardial infarction** can present with epigastric or abdominal pain, so remember to rule this out.

**Using the HIPPOI** framework in a patient presenting with acute abdominal pain ensures that you will not miss an important cause of your patients pain.