

# Perforated ulcer

**This scenario will walk through the presentation of a patient who is septic from a perforated peptic ulcer. Student should recognize sepsis and efficiently identify treatment priorities and surgical management**

Stem:

You are called to the ER to see a patient with abdominal pain. The ER doc thinks its surgical and wants you to see them ASAP because they think he's pretty sick.

The patient, Mr. Decker is a 57 yo male who suddenly developed severe upper abdominal pain while watching TV this evening. He ignored it and tried to go to bed. After midnight he developed sweats and chills and came to ED.

*Examinee should start with history*

History

- Started suddenly, progressively worse over time, associated with some nausea, sweats, chills, subjective fever
- Has never had anything like this before

PMhx/PsHx

- Was told he has gallstones
- Occasionally takes tums for heartburn
- Takes ibuprofen for arthritis ("lots")
- s/p L inguinal hernia repair
- Remainder of history non contributory
- No other meds, no allergies, drinks socially

*Examinee describes physical exam*

PE:

Ill appearing male, pale, lethargic, diaphoretic

VSS: pulse 115 BP 90/50 Temp 38.5 RR 20

Abdomen exam

- Firm
- +rebound tenderness in epigastrium
- Epigastric guarding

Remainder of exam negative

- Examinee may wish to fluid resuscitate
  - if so exam improves -> More awake, pulse 100, 100/60
- Should ask for labs or imaging
- Should have thought about fluid resuscitation, pain control

**Before giving labs/imaging, examiner should ask:**

**What is your differential at this point?**

- Cholecystitis, cholangitis, pancreatitis, PUD
- Less likely appe, diverticulitis, SBO

Labs

- WBC 22K HCT 45
- CMP normal other than Alk phos 150
- Lipase 90

Imaging

Acute abdominal series

- Rim of free air above liver, large air fluid level in stomach

CT

- Free air with stranding around the first portion of the duodenum and extravasation of oral contrast, large amount of free fluid

**What do you think is going on?**

**What would you do next?**

**What operation would you do?**

Examinee should describe updated differential  
-Plan and prep for OR

**OR Findings**

- 0.5cm ulcer in anterior duodenum with large amount of bilious succus throughout abdomen
- Patient needs washout, omental (Graham) patch

**What is your post operative plan for patient? (PPI, H.pylori, ng tube, antibiotics etc)**

***Grading guidelines:***

***Pass:***

***Adequate history including risk factors for ulcer***

***Adequate exam of abdomen***

***Can generate adequate differential diagnosis for presentation***

***Appropriate imaging***

***Knows that free air indicates need for surgery***

***High Pass:***

***All above plus:***

***Recognizes need for resuscitation early***

***Starts PPI and tests for h. pylori***

***Knows basic of omental patch (graham patch)***

***Honors:***

***All above plus:***

***Early aggressive resuscitation for sepsis***

***Recognizes the risks and treatments for complex ulcers***