

APPROACH TO PATIENTS WITH ABDOMINAL PAIN

Undifferentiated abdominal pain is a common presentation to the ED. There is a wide range of causes of abdominal pain. Clinical suspicion for serious disease is especially important for patients in high-risk groups.

Causes of acute abdominal pain

Surgical	Medical	Gynaecological
<ul style="list-style-type: none"> • Non-specific abdominal pain • Acute appendicitis • Cholecystitis/ biliary colic • Pancreatitis • Peptic ulcer disease • Ruptured aortic aneurysm • Intestinal obstruction • intussusception • Large bowel perforation • Mesenteric ischemia • Diverticulitis • Ureteric calculi • Urinary retention • Testicular torsion • Cancer (especially of the colon) • Unrecognized or unreported trauma 	<ul style="list-style-type: none"> • ACS • Pneumonia • PE • Aortic dissection • Acute hepatitis • Gastroenteritis • DKA • Hypercalcemia • UTI • Herpes zoster • Irritable bowel syndrome • Inflammatory bowel disease 	<ul style="list-style-type: none"> • Ectopic pregnancy • Pelvic inflammatory disease • Rupture/ torsion of ovarian cyst • Endometritis • Mittelschmerz

TRIAGE

- Identify the patients with red or yellow criteria

INITIAL STABILIZATION

If critically ill patients need immediate stabilization, assessment of any abnormality must be simultaneously followed by treatment.

Position

Position the patient as appropriate to the presentation

Airway

Assessment: airway patency +/-

Treatment: If airway is not patent, secure by basic airway maneuver +/- airway adjuncts, +/- ETT

Breathing

Assessment: RR, SpO₂%, respiratory distress, and auscultate the chest

Treatment: Give O₂ or assisted ventilation if necessary

Circulation

Assessment: PR, BP, CRT

Treatment: IV access (take blood sample for blood tests)

: IV fluid if the patient is haemodynamically compromised

Disability

- Pupil response
- GCS/ AVPU
- If GCS \leq 8 or AVPU (P/U) and not rapidly improving, consider intubation to protect the airway from aspiration

Measure

- Temperature
- RBS

Monitor: ECG, SpO₂%, BP, PR, RR

Reassess

DIRECTED HISTORY AND PHYSICAL EXAMINATION

History

- Pain: obtain clear description of pain (site, severity, radiation, shift, character, timing, precipitating, relieving factor and what the patient has taken for the pain)
- Vomiting: if present, ask about nature of vomit (blood, bile, etc.), following/ preceding pain
- Bowel disturbance: enquire about recent change of bowel habit, any rectal bleeding
- Ask other symptoms & any recent trauma

- Past medical h/o: diabetes, heart disease, hypertension, liver disease, renal disease, human immunodeficiency virus status, sexually transmitted diseases, previous episodes of similar abdominal pain, diagnostics, and treatments, review previous medical records
- Past surgical h/o: previous abdominal surgeries
- O&G h/o: LMP, intrauterine devices...
- Medications: allergies, steroids, immune suppressants, acetylsalicylic acid, NSAID, antibiotics, laxatives, narcotics, fertility agents, chemotherapeutic agents
- Social history: tobacco, alcohol, other drug use, occupation, possible toxic exposures, and living circumstances

Physical examination

- General examination
 - Look for evidence of dehydration, anemia and jaundice
 - Examine respiratory and cardiovascular systems
- Abdomen examination
 - Inspection: signs of distension, obvious masses, surgical scars, ecchymoses, stigmata of liver disease. Check hernia orifices.
 - Palpation: tenderness, rigidity
 - Percussion: liver size, fluid wave, tympany
 - Auscultation of bowel sound: decreased/ hyperactive?
- Perform PR/ per vaginam (PV) examination only if necessary

Investigations

The range of investigations is based on history, physical examination and clinical suspicions.

Bedside tests

- RBS: check for hyperglycemia
- ABG: in case of suspected DKA and seriously ill patients
- ECG: check for MI, arrhythmia

Other blood tests

- Consider FBC, U&E, amylase, LFTs, CRP, urinalysis, coagulation screen and cross-matching, lactate
- Urine or serum β hCG to exclude pregnancy, ectopic/molar pregnancy

Imaging

Erect CXR: to exclude cardiac and respiratory pathology

Abdominal x-ray: if bowel obstruction/ perforation is suspected

USG (abdomen & pelvic): reveals gallstones, free peritoneal fluid, urinary stone, and aortic aneurysm, gynaecological pathology

Abdominal/ Pelvic CT scan if indicated

COMMENCE SPECIFIC TREATMENT

- Appropriate IV analgesia
- IV fluids if necessary
- IV antibiotics: indicated for suspected abdominal sepsis and peritonitis
- Insert NG tube/ urinary catheter and monitor urine output if necessary

DISPOSITION AND FOLLOW-UP

- Contact appropriate specialist(s) for patients who need admission and surgical intervention
- Transfer to Ward/HDU/ICU
- Ask the patients with an unclear diagnosis at discharge to return to ED (e.g., increased/different pain, fever, vomiting, syncope, bleeding)