Community HealthPathways North Cumbria

Acute Abdominal Pain in Adults

Red flags

- Haemodynamic instability
- Acute coronary syndrome
- Pregnancy

Background

About acute abdominal pain in adults

About acute abdominal pain in adults

Acute abdominal pain is a common presentation in primary care.

Acute abdomen is defined as a sudden onset of severe abdominal pain of less than 24 hours' duration. Use a structured approach as there are a large number of possible causes.

Use the initial assessment to determine if the patient has an acute problem that requires immediate and prompt surgical intervention, or urgent medical therapy.

The differential diagnosis of acute abdominal pain includes both potentially life-threatening conditions requiring urgent management, e.g. acute appendicitis, and common, less serious conditions suitable for management in the community, e.g. diverticulitis.

Non-urgent causes of abdominal pain are often non-specific and self-limiting.

Assessment

1. Take a comprehensive history, and check:
   - pain features .

Pain features

- Ask about:
  - onset, severity, quality, and duration.
  - aggravating or relieving factors.

- Check location, and whether pain radiates elsewhere or not:
  - Epigastric – consider oesophageal, gastric, duodenal, biliary, pancreatic, vascular, cardiac, and respiratory causes.
  - Right upper quadrant (RUQ) – consider biliary, hepatic, colonic, pulmonary, and renal causes.
  - Left upper quadrant (LUQ) – consider gastric, oesophageal, pancreatic, renal, vascular, cardiac causes.
  - Peri-umbilical:
    - Consider colonic, gastric, vascular causes.
    - Pain migrating from peri-umbilical to right lower quadrant (RLQ) is highly suggestive of appendicitis.
  - Lower abdomen – consider bowel involvement (e.g. appendix, diverticular disease, bowel obstruction) or gynaecological or renal causes.
  - Low back pain – consider abdominal aortic aneurysm (AAA).
  - Pelvis – consider gynaecological or genitourinary causes.
  - Flank pain – consider urological causes.
  - Sharp localised superficial pain – consider nerve or abdominal wall pain.

- associated symptoms .

Associated symptoms

- Anorexia, nausea or vomiting, e.g. bilious haematemesis
- Abdominal distension
- Constitutional symptoms, e.g. malaise, fevers
- Change in bowel habits or stool characteristics, e.g. constipation, diarrhoea, melena
- Recent weight loss, dyspepsia, dysphagia
- Urinary symptoms, e.g. lower urinary tract symptoms (LUTS), haematuria
- Testicular pain or swelling
- Palpitations, chest pain, fainting, or syncope
- Breathlessness or cough

- other relevant factors .

Other relevant factors

Be aware that atypical presentation of serious pathology may occur with elderly or immunocompromised patients, pregnant patients (particularly in the third trimester), and patients with diabetes.

- History of:

    - Cardiovascular disease – consider cardiovascular risk
    - Recent trauma
    - Irritable bowel disease
    - Bowel obstruction
    - Hernias
    - Diverticular disease
    - Abdominal surgery
  - Consider gynaecological and obstetric history:
    - Risk of ectopic pregnancy
    - History of ovulatory pain, ovarian cysts, or pelvic inflammatory disease (PID)
    - Risk of sexually transmitted infection (STI)
  - Family history, e.g. abdominal aortic aneurysm (AAA)
  - Alcohol consumption
  - Smoking habit, illicit drug use
  - Medications, e.g. aspirin, nonsteroidal anti-inflammatory drugs (NSAIDs), oral corticosteroids

2. Examine the patient:
   - Look for jaundice, pallor, signs of liver disease
   - Check temperature, pulse, and blood pressure
   - Perform an abdominal examination

     Abdominal examination

     Check for:

     - Abdominal distension
     - Bowel sounds, e.g. silent in peritonitis or ileus, high-pitched in bowel obstruction
     - Any masses, e.g. pulsatile mass of abdominal aortic aneurysm
     - Rebound tenderness or guarding, indicating acute perotinism
     - Scars, hernias, and skin changes, e.g. erythema ab igne
     - Femoral pulses
     - Loin tenderness, e.g. urological causes
     - Testicular tenderness or swelling, e.g. in torsion of testis

   - Consider pelvic or rectal examination:
     - Pelvic examination – if gynaecological cause suspected
     - Rectal examination – if indicated in a patient presenting with rectal symptoms

If performing genital anal examination, follow the recommended chaperone protocol .

Recommended chaperone protocol

- Only perform a genital examination if there is a specific and clear clinical indication.
- The presence of a chaperone (trained staff member) is generally required. If declined by the patient the doctor may decline to conduct the examination.
- Always explain the purpose of the examination. If relevant, discuss and explain the limits of confidentiality.
- Always seek verbal consent from the patient.
- Consider capacity to consent of patients who are physically, mentally, or intellectually impaired, and consider cultural and linguistic background.
- Only proceed if verbally consented and cooperating.

3. Consider possible causes of acute abdominal pain .

Causes of acute abdominal pain

List not exhaustive.

Requiring urgent management:

- Abdominal aortic aneurysm (AAA)
- Abdominal or psoas abscess
- Acute coronary syndrome
- Acute pancreatitis
- Appendicitis
- Bowel obstruction
- Cholecystitis or biliary colic
- Diabetic ketoacidosis
- Ectopic pregnancy
- Incarcerated or strangulated hernia
- Ischaemic bowel
- Ovarian torsion or ovarian cyst rupture
- Peptic ulcer disease (PUD) perforation
- Peritonitis of any cause
- Pneumonia (lower lobe) or empyema
- Pulmonary embolism (lower lobe)
- Testicular torsion

Less urgent or likely to be suitable for management in the community:

- Abdominal wall haematoma
- Acute gastritis
- Acute hepatitis
- Diverticulitis
- Dysmenorrhoea
- Endometriosis
- Fitz-Hugh-Curtis Syndrome in Pelvic Inflammatory Disease (PID)
- Gastroenteritis
- Herpes zoster
- Infectious mononucleosis
- Inflammatory bowel disease (IBD) or irritable bowel syndrome (IBS) flare up
- Narcotic withdrawal
- Sickle cell crisis
- Urinary tract infection (UTI)
- Urolithiasis

4. Investigations – If immediate assessment in hospital is not indicated, arrange investigations according to history and examination findings:

- Pathology

Pathology

- FBC, LFTs, CRP, blood glucose, amylase.
- If urolithiasis or urinary tract infection (UTI) suspected, urine dipstick, microscopy, culture, and sensitivities. Note that haematuria and pyuria can also be seen in non-urological conditions, e.g. appendicitis.
- Pregnancy test for all women of childbearing age.
- If inflammatory bowel disease flare-up suspected, faecal calprotectin.
- If infectious cause for diarrhoea suspected, stool specimen for microscopy and culture.
- If acute coronary syndrome is a differential diagnosis, cardiac enzymes.
- Hepatitis screen.

- Imaging

Imaging

Imaging modality	Indication

Chest X-ray	• Respiratory issues
Upper abdominal ultrasound	• Upper abdominal pain • Jaundice • Suspected abdominal mass • Child patient
Pelvic ultrasound	• Gynaecological cause suspected
CT (preferably with contrast for suspected gastrointestinal tract pathology, if renal function permits)	• First presentation diverticulitis (not needed for recurrences) • Pancreatitis • Renal colic • Atypical appendicitis (unusual history or aged > 40 years) • Abdominal mass – including suspected abscess • Suspicion of obstruction or perforated viscus • Suspicion of mesenteric ischemia (atrial fibrillation, vasculopath) • Elderly patients with few clinical signs
Kidney, ureter, bladder X-ray (KUB)	Renal colic

- ECG

Management

1. Request acute general surgery assessment if:
   - the patient is haemodynamically unstable.
   - potentially life-threatening condition is suspected, e.g. acute aortic aneurysm, acute coronary syndrome, or acute abdomen.
2. If uncertain diagnosis and the patient does not require transfer for emergency management:
   - provide pain relief:
     - Advise over-the-counter analgesia (unless contraindicated) and general pain management measures, e.g. heat or cold packs.

> **Over-the-counter analgesia**

> - Paracetamol
> - Nonsteroidal anti-inflammatory drugs (NSAIDs)

    - Avoid opioid analgesia if the diagnosis is unclear.
  - Advise the patient to seek prompt medical attention if their condition is worsening.
3. If uncertain about management, seek acute general surgery advice.
4. Arrange follow-up within 24 to 48 hours:
   - Review symptoms and results of any investigations arranged.
   - If surgical pathology is confirmed on follow-up, request acute general surgery assessment or acute gynaecology assessment as indicated.
5. If non-urgent diagnosis is confirmed, manage the specific condition according to relevant pathway if available (e.g. endometriosis, diverticulitis, urolithiasis, dysmenorrhoea, gastroenteritis, urinary tract infection).

Request

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- If surgical pathology is confirmed, request acute general surgery assessment or acute gynaecology assessment as indicated.
- If uncertain about diagnosis or management, seek acute general surgery advice.

Information

For health professionals

> **Education**
>
> North Cumbria HealthPathways – Continuing Professional Development
>
> **Further information**
>
> TeachMe Surgery – The Acute Abdomen

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