Identifying Pancreatic Cancer in Emergency Settings

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Introduction

- Pancreatic cancer is the 5th leading cause of cancer death in the UK.
- Sadly, 75% of patients diagnosed have stage 3 or 4 cancer.
- Approximately 50% of diagnosis happens in an emergency setting.

Why Emergency Recognition Matters

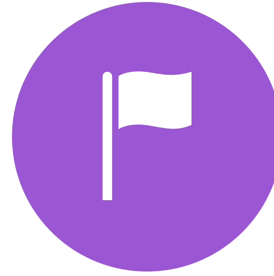
Pancreatic cancer rarely presents with a single, clear-cut symptom

Many of its early features overlap with benign or more common conditions—such as dyspepsia, musculoskeletal back pain, or viral illness

Clinicians are often required to make decisions under time pressure, with incomplete information, and in patients who may not yet appear overtly unwell

Maintaining a high index of suspicion is critical

Objectives



RECOGNISE RED FLAG SIGNS OF PANCREATIC CANCER

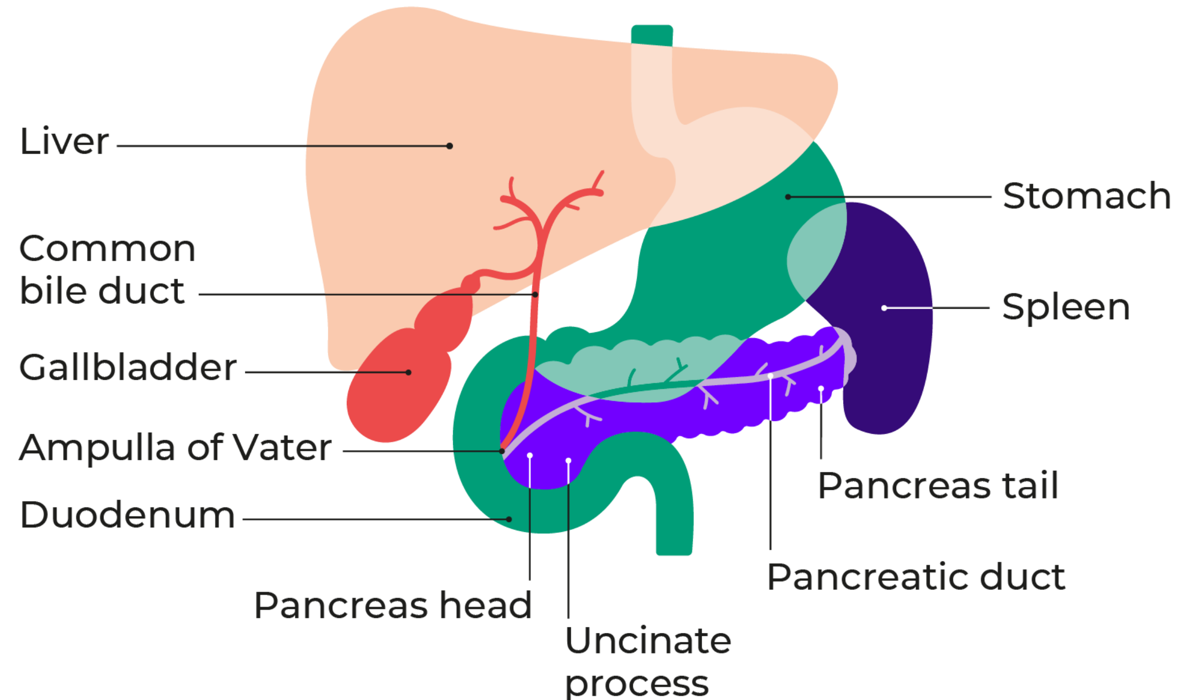
APPLY EMERGENCY PATHWAYS TO AID DIAGNOSIS

IDENTIFY SYMPTOMS THAT REQUIRE URGENT ESCALATION

UNDERSTAND WHEN TO INVOLVE OR REFER TO HPB/ONCOLOGY/CNS/OTHER HEALTH CARE PROFESSIONALS

Pancreatic physiology

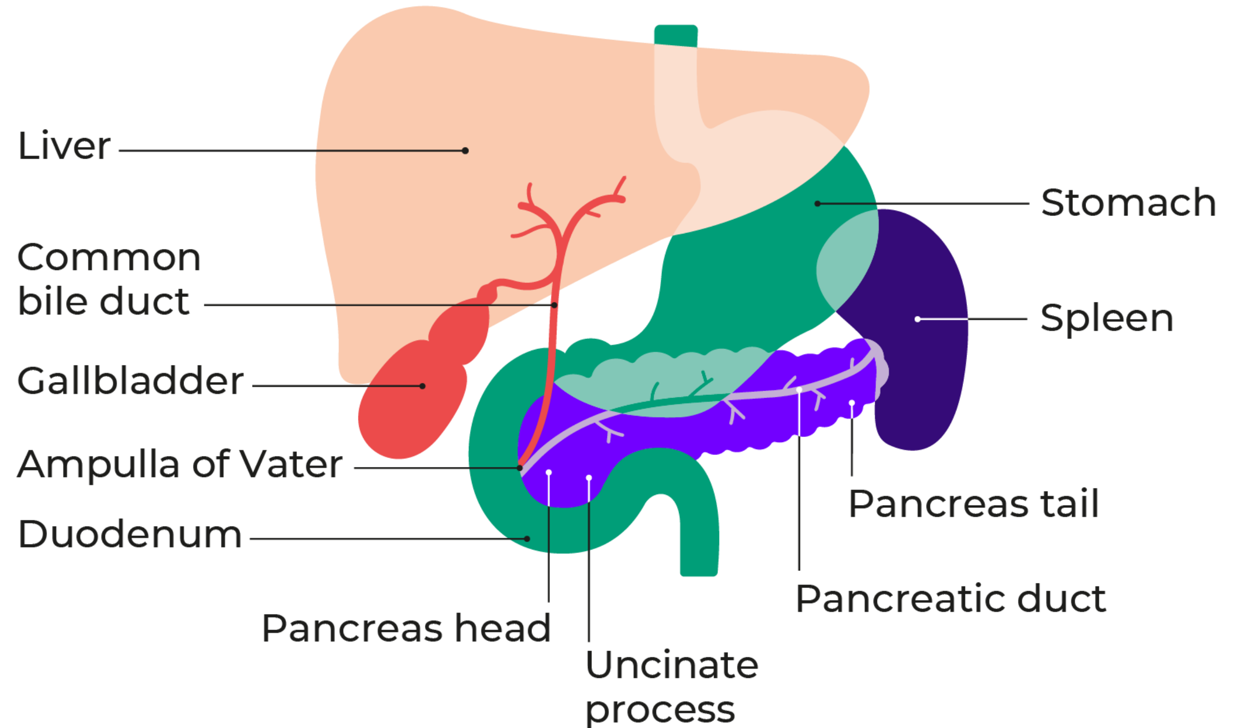
- The pancreas is a large gland (approx. 6 inches / 15 centimetres), surrounded by the duodenum, stomach, liver and blood vessels.
- It is divided into the head, body and tail.



Pancreatic functions

- **Exocrine:** production of digestive enzymes (lipase, amylase, proteases) and sodium bicarbonate. The head of the pancreas is where most of the pancreatic enzymes are produced.

- **Endocrine:** production of hormones. The tail of the pancreas is where most of the hormones are produced



Islets of Langerhans 1-2% of pancreas

PEI – Pancreatic exocrine insufficiency

When the pancreas produces or delivers insufficient pancreatic enzymes into the gut for adequate digestion

- Lipase – digests fat
- Protease – digests protein
- Amylase – digests starch

Symptoms

- Oily, pale, orange or yellow stools
- Stools that float/ are difficult to flush
- Undigested food in the stools
- Loose stools
- Offensive smelling stools
- Wind, bloating, abdo pain or cramps
- Nausea, reflux symptoms
- Weight not inline with intake
- Vitamin deficiencies
- Hypos

Red Flags

- Painless jaundice
- Worsening control of diabetes or…
- New onset diabetes in >50-year-olds
- Unintentional weight loss
- Vague abdo / back pain including
- Change in bowel habit – steatorrhoea

Think!

- Thorough medical history – specifically looking for:
  - Family history
  - Chronic pancreatitis
  - Obesity
  - High alcohol intake
  - Smoker
  - Diet high in processed food/red meat

Potential Questions:

- “Tell me why you have attended here today.
- Do you have any pain? – if so, where? – does your position make it better or worse?
- Are you diabetic? – are your sugars well controlled? – any changes?
- Check for symptoms of diabetes – thirst, fatigue, urinating more - especially at night, weight loss, blurry vision.
- Do you drink alcohol?
- Do you smoke?
- How is your appetite? – what did you have for your main meal yesterday?
- Have you lost weight? – observe if the patient is overweight / obese
- Have you had any changes in your bowel habits? – loose, fatty, floaty, foul-smelling stool?
- Have you noticed any bloating?
- Have you ever looked yellow / had jaundice?
- Have you ever been diagnosed with pancreatis?
- Do you have a family history of any cancer? – pancreatic cancer?”

Diagnostic Pathways

- Painless jaundice – urgent referral to specialist team
- CT is gold standard – CT pancreas (although CT TAP will be required)
- USS has limitations
- Blood work – especially LFTs, HbA1c, CA19-9
- Referral to specialist MDT

Case Study

63-year-old female attended A&E (**day 1**)

Main complaint is documented as abdo pain

Gave her history as:

- abdominal pain in epigastric region for 3 days
- felt a bit nauseated on the first day but did not vomit
- pain is dull and constant – it does not radiate anywhere and sometimes gets better with paracetamol
- standing up makes the pain better, sitting or lying down makes the pain worse
- feels a bit bloated since last Saturday.

Poll Question:

- Should this patient be admitted?
  - Yes
  - No
  - Unsure

Case Study - continued

Patient was admitted with a possible diagnosis of acute pancreatitis

Attended on **day 30** for USS – *"abnormal pancreas. CT recommended"*

CT **day 51** – *"pancreas appears bulky and heterogenous. Pancreatic duct is dilated to 7mm with a calibre change in the head and concern for a mass. Amenable to EUS FNA if appropriate"*

EUS **day 77** – *"Appearances concerning for pancreatic malignancy, FNA performed"*

Cytology available **day 79** – *"appearances in keeping with adenocarcinoma"*

Question:

- Could anything have been done differently to speed up diagnosis?
    - No, nothing could have been done differently
    - Yes, CT abdomen
    - Yes, CA19-9
    - Yes, Endoscopic ultrasound biopsy (EUS Bx)

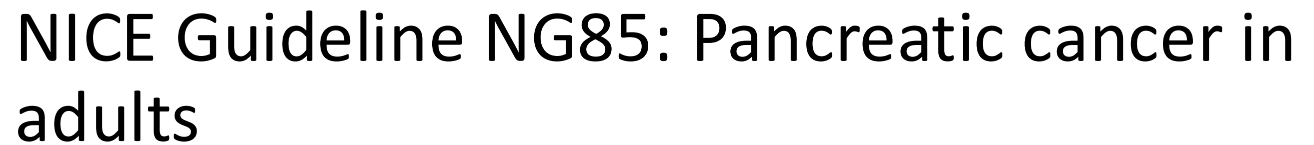
Take home messages

- In the fast-paced emergency setting, maintaining a high index of early suspicion can play a crucial role in the diagnosis of pancreatic cancer.
- Always:
  - **Maintain awareness of red flags**
  - **Take a little extra time to get the full history**
  - **Have a low threshold for scanning higher-risk patients**
  - **Refer to HPB/UGI specialist team if in doubt**
  - **Ensure the patient has been safety netted**

Thank you!

References:

Pancreatic Cancer UK: NHS management guidelines



NICE Guideline NG85: Pancreatic cancer in adults