CLINICAL SKILLS: ABDOMINAL EXAMINATION

Introduction
- Wash hands
- Introduce yourself and ask permission
- Any pain?
- Position/Exposure: Lie flat, hands at sides, blanket to cover legs
- Examine from the patient’s right

Inspection - General
- Stand back and look carefully, make this obvious to the examiner or state ‘I am just going to have a look from the end of the bed’
- Look for 3 main things from end of the bed
  o Chronic liver disease (spider naevi, gynaecomastia, loss of hair, scratch marks, bruising)
  o Decompensation of liver disease (ascites – distended abdomen, jaundice)
  o Scars (hockey stick - renal transplant, multiple – could this be IBD?)
- For extra marks: Look for underlying cause:

<table>
<thead>
<tr>
<th>Chronic liver disease</th>
<th>Splenomegaly</th>
<th>Renal transplant</th>
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<tbody>
<tr>
<td>- Tattoos (Viral hepatitis)</td>
<td>- Bruising (lymphoproliferative disease)</td>
<td>- Rutherford Morrison ‘Hockey stick’ incision</td>
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<td>- Needle prick marks</td>
<td>- Jaundice (haemolytic anaemia e.g. hereditary spherocytosis)</td>
<td>- Nephrectomy scar (on back)- polycystic kidneys</td>
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<td>- Skin pigmentation (haemochromatosis)</td>
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<td>- Needle prick marks on fingers (capillary glucose in diabetes)</td>
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<td>- Xanthelasma (PBC)</td>
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<td>- Malar rash (SLE)</td>
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<td>- Obese (NAFLD)</td>
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Hands
- Examine nails for clubbing (chronic liver disease, IBD, coeliac), koilonychia (spoon shaped nails in iron deficiency anaemia), leuconychia (white nails-low albumin in CLD)
- Look at both hands for Dupuytren’s contracture, palmar erythema, spider naevi
- Feel both palms, early Dupuytren's may be palpable as a nodular area in the palm.
- Check for Asterixis: Ask the patient to ‘place your arms out in front of you and cock your wrists back’. Asterixis is a course flapping tremor which is present in hepatic encephalopathy and thus, unlikely to be present in your exam.

Eyes
- Ask to pull down one eyelid looking for anaemia, scleral icterus (jaundice seen in the eye)
- Look around the eye for xanthelasma (Primary biliary cirrhosis, NAFLD)

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**Mouth**
- Look briefly in the patient’s mouth for:
  - Smooth tongue, angular stomatitis (iron deficiency)
  - Aphthous ulcers (IBD)
  - Pigmented freckles (Peutz-Jeghers syndrome)

**Chest**
- Inspect for:
  - Loss of male hair distribution
  - Gynaecomastia
  - Spider naevi: if present count them: more than 5 is abnormal.
- Ask the patient to lean forward: use opportunity to examine neck and supraclavicular fossae for lymphadenopathy: examine from **behind**. Feel above the left clavicle for Virchow’s node (sign of intra-abdominal malignancy)
- Inspect the back for more spider naevi and look for scars e.g. nephrectomy incision in loin.

**Abdomen**

**Inspect**
- Re-inspect more closely (this will give you time to think!). Think about what you have already found and what you would expect next. Look for:
  - Abdominal distension (ascites, constipation etc)
  - Scars (Hockey stick: Renal transplant, Mercedes-Benz: Liver transplant, scars from laparoscopic surgery, drains etc)
  - Caput medusae (Veins radiating from umbilicus: a sign of portal hypertension)
  - Striae (‘stretch marks’): May be normal but if marked could represent Cushing’s syndrome (e.g. due to steroids used in IBD/renal transplant)

**Superficial & Deep Palpation**
- Looking at the patient’s **face**, warn the patient (ask again if any pain) and gently palpate (using the flat of your hand) in all 9 areas, starting away from any painful area and working towards it. You are looking for evidence of pain and peritonism (guarding, rebound)
- Palpate more deeply for any masses (try to think what this might be: where is it, how does it feel (smooth, hard, craggy), is it attached to surrounding structures etc. (see ‘examination of a lump)
- **If there is a ‘hockey stick’ incision: feel for an underlying mass (the kidney transplant).**

**Liver**
- Place the flat of your hand on the right lower quadrant with the index finger side of your hand towards the patient’s head.
- Ask the patient to take deep breaths in and out.
- Move up the abdomen towards the right costal margin. **Feel** as the patient breathes in, **move up** as they breath out
- If there is liver enlargement you will feel the liver moving under your fingers.
- Quantify the enlargement with ‘number of finger breadths’ below the costal margin.
- Try to feel if it is smooth or craggy.

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**OSCE-Aid Tips**

**Peritonism is indicated by:**
- Rebound: Pain elicited on palpation is less severe than pain when hand rapidly removed from abdomen
- Guarding: **Involuntary** tensing of abdominal musculature due to local or generalised inflammation
- **Confirm** the enlargement by **percussing** from RIF up to right costal margin. The liver will be **dull** to percussion.

**Spleen**
- With the same technique and starting in the right iliac fossa, slowly move **diagonally** to the left costal margin feeling for a spleen.
- Use a flat hand but the **tips of your fingers**, rather than the margin of your index finger.
- If the spleen is palpable, then it is **enlarged**.
- Features of the spleen (to distinguish from kidney):
  - You can not get above it
  - Dull to percussion
  - Moves with respiration
  - Splenic notch
- **Confirm** the enlargement but percussing in the same direction.
- If impalpable when lying flat, ask the patient to lean onto their right hand side and palpate deeply in LUQ.

**Shifting Dullness**
- Percuss from the midline to the patient’s **left side** – moving left will make the next stage easier!
- If ascites is present, the resonance in the midline will be come dull laterally
- If dull, ask the patient to lean to their right side while keeping your finger in position.
- Wait 20s, then percuss. If the previously dull area is now resonant, this is **shifting dullness**, and a sign of abdominal fluid (ascites)

**Kidneys**
- While patient is still in position (on right side), place your left hand behind them onto their back and ask them to roll flat.
- Using your right hand palpate deeply in the mid-left side of the abdomen
- Ballot the left kidney by pressing sharply upwards with your left hand (on their back), an enlarged kidney will be palpable on balloting.
- Perform the same manoeuvre to palpate for the right kidney.

**Auscultate**
- **Listen for bruits:**
  - Abdominal aortic aneurysm: just above umbilicus
  - Renal 2.5cm above and lateral to umbilicus (renal artery stenosis)
- Bowel sounds (listen in right lower quadrant, ‘over the ileocaecal valve’)

**Complete**
‘I would like to dipstick the urine, examine the external genitalia and perform a digital rectal examination’.

**NB** This is the standard suggested completion sentence. This can be adapted if necessary to the condition in question. For example, for a renal transplant you may wish to ask to ‘dip the urine for protein, check the blood glucose and to know the blood pressure.’