

CLINICAL SKILLS – Examining for Causes of Pyrexia

***Possible OSCE scenario:** You are the doctor covering the medical wards and have been asked to review a patient on the ward with a fever of 38.5 degrees. Please examine the patient and explain to the examiner what you would do next.*

Examination Technique

- Introduce yourself
- Wash your hands
- Explain to the patient that you have been asked to review them due to a high temperature
- Ask for the patients **observations** – if any signs that patient is unwell/septic advise you would assess using ABCD technique, otherwise continue as below

- Look at the patient from the end of the bed:
 - Look for any obvious signs of infection or abnormality– e.g. tachypnoea,

- Review the hands:
 - Peripheral stigmata of infective endocarditis
 - Feel the temperature
 - Capillary refill

- Feel the pulse:
 - Feel for rate and rhythm, and pulse volume

- Look at both arms:
 - Look for any areas of erythema or rashes
 - Look at any peripheral **access points** (cannula's, PICC lines) – check dates on them and check surrounding skin areas

- Feel the neck
 - Feel for any enlarged **lymph nodes** – if any are enlarged note if they are unilateral or bilateral and state what they feel like (rubbery, firm, mobile)
 - Check for **neck stiffness**

- Look in the mouth
 - Check for **enlarged tonsils**
 - Check for any **oral infections** – e.g. candida, ulcerations
 - Check **mucosal membranes**
 - Look for any abnormalities in the **lips and tongue** (Kawasaki disease)

- Look in the eyes
 - Offer to check the retinae with a fundoscope

- Look at the rest of the body for a full skin examination (ensure undress patient fully to check all areas)
 - Erythema
 - Scars, wound infections
 - Rashes

- Explain at this point you would do a full cardiac, respiratory, neurological and abdominal examination but will concentrate on the main points now.
- Respiratory:
 - Listen to the chest for any signs of infection – crepitations, bronchial breathing
- Cardiac:
 - Feel the apex beat
 - Listen to the heart sounds for any **murmurs**
- Examine the abdomen:
 - Feel for any tenderness
 - Feel for any enlarged organs (spleen)
 - Listen for bowel sounds
- Neurology examination if indicated:
 - Kernigs sign
 - Any cranial nerve deficits or peripheral neurology
- Thank the patient
- Summarise what you have found
- Explain to the examiner what you would do next:
 - Take a full history
 - Explain you would like to do a **full septic screen**:
 - Full set of bloods including FBC and CRP
 - Blood cultures
 - Urine dip +/- MC&S
 - Chest X-ray
 - Specific investigations if anything picked up on examination e.g, sputum sample, wound swab
 - Explain you would like to give the patient paracetamol to bring their fever down (check allergies and whether has already had)
 - If the patient had any signs of sepsis or SIRS explain you would resuscitate the patient e.g. IV fluids and treat appropriately e.g. antibiotics
 - Explain you would like to read through the patients notes and drug chart to check if any history of infection or risk factors

Definitions

- Pyrexia = temperature above the normal range
- Usually considered > 37.5 degrees
- Pyrexia of unknown origin = fever of over 38.3 degrees or greater for at least 3 weeks with no identified cause after 3 days of hospital evaluation or three outpatient visits

Differential Diagnosis

- Most common infections:
 - Bacterial:
 - Chest infection

- Urinary infection
 - Cellulitis
 - GI – gastroenteritis, cholangitis
- Viral infections
 - Influenza
- Rare infections but important to rule out:
 - Infective Endocarditis
 - Meningitis
 - Encephalitis
 - HIV (seroconversion)
- Non-infective causes:
 - Inflammatory: Inflammatory bowel disease, Kawasaki disease, Juvenile RA
 - Neoplastic: ALL, lymphoma
 - Drugs/toxins