<u>Instructions to Candidates</u> – Aim for 8 minutes

You are a Foundation doctor working in a GP surgery.

Your next patient is Mr Joel Trent, a 68-year-old gentleman who has come in with a painful limp.

Please take a history and formulate your differential diagnoses.

At 6 minutes the examiner will ask you a few questions.

Name: Joel Trent

Age 68, *PC:* Painful limp

HOPC:

You have been having pain in your foot, specifically in your right big toe. It started suddenly and was extremely painful since the first day. It has been four days now and it is getting swollen and redder by each day. It is extremely painful to move your big toe and it's now affecting your walking.

(Only if asked directly) You have had a similar issue in the past but it was in your left knee. You think it could be Osteoarthritis in your knee at the time and took some NSAIDs to deal with it. That episode it only lasted for a week, and it was 6 months ago.

You had no trauma to your toe prior to this. No fever, no other joints are affected, no rash, no urinary symptoms. Systemically well apart from this toe which puts you in agony.
You noticed that you have some smaller swellings on your ears but you put it down to age related changes to your ear cartilage.

PMH:
Hypertension, T2DM, hypercholesterolaemia

DH:
Ramipril 2.5mg OD, Amlodipine 5mg OD, Metformin 1g BD, Gliclazide 40mg OD, Atorvastatin 80mg OD
Allergy: NKDA

FH:
Hypertension, Asthma

SH (LOST):

Living situation:
Lives with wife at home. No one else ill.

Occupation:
Retired.

Social: Smoking, Alcohol, Recreational drugs, Exercise
Smoke 20 cigarettes/day, 40 years. Drinks three pints of beer every day. No recreational drug use. Exercise is too mainstream for you.

Travels: N/A

I: Not sure what it is.
C: The pain is severe and causes agony when I walk.
E: Expect the pain to be managed.

Questions:

1. What are your differential diagnosis?
Gout, Septic arthritis, Pseudogout, Psoriatic arthritis, Bunion

2. What investigations would you like to do for this patient? And why?
Bloods- urate level (raised in gout), CRP (raised in gout and septic A)

Joint aspiration showing: negative birefringent needle-shape crystal under polarised light (differentiates from pseudogout (positive birefringent rhomboid-shape crystal), and septic arthritis (no crystal, tonnes of white cells!))

X-ray – shows periarticular erosions, destruction of the joint.

3. How will you manage this patient?
Pain management using analgesia – NSAID, colchicine
Secondary prevention – Allopurinol, Febuxostat
Advise re lifestyle changes – alcohol, diet changes, reduce smoking

Answer sheet:

Area	**Clear Fail**	**Fail**	**Satisfactory**	**Good**	**Excellent**
C/O & HOPC					
PMH					
DH					
SH					
FH					
ICE					
Differential dx					
Investigations					
Rapport/ Comm skill					
Overall					

Feedback
For Gout, it's particularly important to ask about lifestyle, drug and family history. A (super) brief intro to Gout:

Pathophysiology: Hyperuricaemia – deposits of ↑monosodium urate crystals in the joint.
Cause: Increased uric acid intake.

1) Diet- red meat, seafood, alcohol
2) Drugs- diuretics, cytotoxics
3) Diseases- diabetes, hypertension, haematological malignancies, hypertriglyceridaemia, kidney failure
4) Demographic risk factors: male, obese, family hx

Investigations: as per above

Management:
Acute (manage pain) - NSAIDs or colchicine. 2nd line: steroids
Long term (to reduce uric acids)-
Conservative: ↓alcohol intake, ↓seafood/red meat
Medical: Allopurinol, 2nd line: Febuxostat.

As you can see from the causes, the biggest contributory factor (if not for genetics), is lifestyle. By asking these in your consultation, you can lead to into explaining treatment and discuss lifestyle changes in later consultations!

References:

https://bestpractice.bmj.com/topics/en-gb/13/