

Instructions to Candidates – Aim for 8 minutes

You are a Foundation doctor working in a GP practice.

Your next patient is Mrs Pauline Scarlett, a 48-year-old lady who is complaining of discomfort in her hand.

Please take a history and formulate your differential diagnoses.

At 6 minutes the examiner will ask you some questions.

Name: Pauline Scarlett

Age: 48, *PC:* Discomfort in hand

HOPC:

You work as a secretary for your son's company. Although you do not carry much workload nowadays, you are required to type up important minutes for meetings. You find yourself not as efficient as you used to be. In fact, you are unable to complete your task to meet deadlines and have been asked to take time off for almost three months now. You have pain in your hands, mainly in the joints near to the knuckles, the knuckles itself and your wrist joint. They are symmetrical on both hands; you've not noted any other affected joints.

You find that your hand "don't appear right". They shape differently as though they are pointing away from you. You have stiffness in the morning, and it lasts till lunch time. You find that keeping active and moving your joints help with the stiffness. You have tried icing your hands but that has not worked.

You have not noted any skin rashes, or weird lumps anywhere on your body. You generally feel well but have been feeling tired and lack of energy. That has been going on for a while now. Apart from that, systemically well – no breathing problem, no chest pain, no dry eyes, no urination issue.

PMH:

Hypertension, hypercholesterolaemia

DH: Ramipril, Atorvastatin

Allergy: NKDA

FH:

You remembered that your mum had to stop working at a young age due to issues with her hands, but you are not sure what happened. She died at 68 from a heart attack. Your dad is alive and well. He has diabetes only.

SH (LOST):

Living situation:

Lives with son and his family.

Occupation:

Secretary in a law firm.

Social: Smoking, Alcohol, Recreational drugs, Exercise

Smoke ~10/days, 30years now. Drinks about one bottle of wine each week. No recreational drugs. Not much exercise per se but does gardening at home. Even that has become quite difficult nowadays and you are unable to enjoy gardening.

Travels: N/A

I: You think this could be old age but you're getting concerned. You thought it will pass but it's been three months now. You want to get back to work because you need income from the job.

C: Worried that you've got the same thing as your mum, but you don't think so!

E: Find out what's going on.

Questions:

1. What are your differential diagnosis?

Rheumatoid arthritis, Osteoarthritis, Psoriatic arthritis, SLE, Reactive arthritis

Which is your top diagnosis? Rheumatoid arthritis

2. What investigations would you like to request for this patient? And why?

Bloods:

Anti-CCP, RF factor – specific for RA.

ESR and CRP– may have -ESR, -CRP

LFT, U&E – baseline before prescribing DMARDs

Imaging: X-ray both hands – to identify severity of destruction in joint & monitor progression. LESS (loss of joint space, erosions, soft tissue swelling, soft bones (osteopenia))

Bonus points for **DAS-28**^{[insert hyperlink](#)} score to assess severity

3. How will you manage this patient?

Always refer to rheumatology to confirm diagnosis

Medications: Analgesia, NSAID, steroid, cDMARDs (Eg methotrexate, sulfasalazine, leflunomide), biological DMARDs (Eg anti-TNFa, rituximab, abatacept, tocilizumab).

Invasive: if needed, Operation.

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

Rheumatoid arthritis (RA) is a chronic systemic inflammatory disease. It can present in multiple ways but most typically occur symmetrically on both hands, over weeks to months.

Risk factors:

- Female sex
- peak between 30-50yo

Signs and symptoms:

Symmetrical joint inflammation – pain, swelling, stiffness (>60mins)
Often in hands (MCP, PIP, wrist) - Swan neck deformity, Boutonniere's, ulnar deviation
Feet (MTP, subtalar jt) – toe hyperextension deformity, hallux valgus
Can affect other joints: knees, elbows, cervical spine, ankle, shoulder

RA can go on and affect other systems in the body.

Extra-articular features:

Systemic feature – fatigue, malaise, fever, weight loss, sweats.

Eyes – dry eyes (keratoconjunctivitis sicca)

Heart – atherosclerosis, pericardial effusion, mitral regurgitation, anaemia

Lungs – pulmonary fibrosis, pleural effusion, lung nodules.

Dermato - Rheumatoid nodules

Others – Felty's syndrome (RF+, Splenomegaly and RA), vasculitis

Investigations:

Always refer patient **asap** to rheumatology as soon as you suspect RA. Test that can support RA:

Bloods:

- Rheumatoid factor (RF) +
- Anti-Cyclic Citrullinated peptide (anti-CCP) +
- CRP, ESR -

Imaging: X-ray to determine severity of joint destruction

Management:

under specialist

Medications: Analgesia, NSAID, steroid, cDMARDs (Eg methotrexate, sulfasalazine, leflunomide), biological DMARDs (Eg anti-TNFa, rituximab, abatacept, tocilizumab).

Invasive: if needed, Operation.

References (accessed July 2020):

<https://www.orthobullets.com/basic-science/9085/rheumatoid-arthritis>

<https://cks.nice.org.uk/rheumatoid-arthritis#!topicSummary>