

Station title:
Station duration:
Station number:

Man with difficulty walking
8 mins
Rheumatology



Student Instructions

Station No

Final MB

Background information to station:

You are a Foundation Doctor in the Emergency Department.

This 32 year old man has presented with difficulty walking. He feels generally unwell.

Specific student instructions:

1. Take a relevant history.
2. At the '2 minutes left' bell, or sooner, the examiner will ask you 3 questions.

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Examiner Instructions

Station No

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Station author: Dr Dean Carolan

Background information to station:

Students are asked to perform the role of a Foundation Doctor in the Emergency Department. They are asked to take a history from a 32 year old man who has presented with difficulty walking in association with feeling generally unwell. The most likely diagnosis in this case is of septic arthritis secondary to haematogenous spread.

Assessment outcome:

This station assesses the student's ability to:

1. Take a structured history
2. Describe and appropriate investigations, interpret them and suggest a diagnosis
3. Outline an appropriate initial management plan

At the '2 minutes to go bell', or sooner, please ask the following questions:

1) List 3 appropriate investigations and justify each

- Bloods (FBP, CRP, U+E, coag)
 - inflammatory markers to support clinical diagnosis of septic arthritis
 - renal function e.g. for dosing of antibiotics
 - coagulation screen to exclude coagulopathy
- Microbiology investigations: Blood Cultures AND Aspiration of Synovial Fluid
 - isolate causative micro-organism
 - sensitivity data to direct antimicrobial protocol
- Plain film radiograph of joint
 - to establish baseline
 - exclude fracture

G: 3; A:2; P:0-1 (Must justify to score the marks)

- 2) Please review the investigation results provided. What is the most likely diagnosis?** G: Septic Arthritis

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3) **Please outline your initial management plan for this patient after completing the history and examination.**

Admit patient; analgesia; antibiotics (in line with local antimicrobial protocols e.g. intravenous flucloxacillin if no penicillin allergy). Liaison with appropriate specialties [e.g. rheumatology, orthopaedics, microbiology]. Referral to substance misuse liaison team following treatment of acute presentation

G:3; A:2; P:0-1

Potential areas of serious concern:

- Failure to offer septic arthritis as a differential diagnosis
- Failure to recognise the clinical presentation as a medical emergency

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Marking sheet

G = Good, A = Acceptable, P = Poor

DETAIL / question	MARK	WEIGHTING
1) Overall introduction including identification of self and patient. (Name & role, purpose of encounter, confirms patient's agreement) G:all; A:omits one; P:omits>1	G A P	2 1 0
2) Rapport & professional manner (shows interest, respect, concern, appropriate body language, closure)	G A P	2 1 0
3) Attention to infection control throughout	G P	1 0
4) History of pain (onset and duration; severity; use of analgesia; aggravating and relieving factors) G:3; A:2:P:0-1	G A P	4 2 0
5) Associated signs and symptoms (swelling; redness; fever)	G A P	2 1 0
6) Relevant systems review (diarrhoea, urethritis, rashes, oral ulceration)	G A P	2 1 0
7) Functional limitation	G P	2 0
8) History of trauma	G P	2 0
9) Past Medical History. G: specifically asks re joint issues/surgery; A: general; P:not done	G A P	2 0
10) Drug History. (Allergies, current medications, OTC, herbal) G:3 or 4; A: 1-2; P: 0	G A P	2 1 0
11) Social History (Smoking, alcohol, illicit drugs, occupation, living arrangements) G:4-5 (must include illicit drugs): A:2-3; P:0-1	G A P	2 1 0
12) Family History	G P	1 0
13) Elicits patient's ideas, concerns and expectations. G:2-3; A:1:P:0	G A P	2 1 0
At the 2 minutes to go bell or sooner, examiner to ask:		
14) List 3 appropriate investigations and justify each (see examiner instructions)	G A P	4 2 0
15) Please review the investigation results provided. What is the most likely diagnosis? G: <i>Septic Arthritis</i>	G P	2 0
16) Please outline your initial management plan for this patient. (See examiner instructions)	G A P	4 2 0
SP Rating: SA: <i>Strongly agree</i> ; A: <i>Agree</i> ; JA: <i>Just Agree</i> ; N: <i>Neutral</i> ; D: <i>Disagree</i>	SA A JA N D	4 3 2 1 0
Global mark: E: <i>Excellent</i> ; V: <i>Very good</i> ; P: <i>Pass</i> ; B: <i>Borderline</i> ; F: <i>Fail</i>	E V P B F	5 4 3 2 1

Total score /40 (excluding Global Mark)

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Simulated Patient Instructions

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This station assesses the student's ability to take a focused history.

Background information to station:

You are a 32 year old man who has presented to the Emergency Department with difficulty walking and feeling generally unwell. You have had left knee swelling and fevers with loss of function of the knee over the past 1-2 days. If asked directly, you will admit to intravenous drug use (heroin). You recently were prescribed a course of antibiotics for a groin abscess.

How the role should be portrayed:

You are able to give a full history but you are in some pain and feel unwell.

Patient details

- Mr Andrew Green
- 32 year old man
- DoB: 18/03/1989

You have been feeling generally unwell for the last 3 days, with loss of appetite and episodes of high fever. You have measured your temperature at home, and at times you think it has reached as high as 39.5°C.

You have had difficulty in walking for the last 1-2 days. Your left knee is painful and you find it hard to put any weight on the left leg at all. Bending the knee is also extremely painful.

You have been using ibuprofen and paracetamol but with no relief and as a result you have attended ED.

You have never had any previous issues with your joints.

The skin over the knee is very red and the left knee does look more swollen than the right.

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You have had no recent eye symptoms, genito-urinary symptoms, GI upset, neurological, cardiovascular or respiratory symptoms.

You have no other rheumatological symptoms. There is no history of trauma to the knee. No cardiovascular symptoms. No gastrointestinal symptoms. No headache or neurological symptoms

Past medical history:

Normally fit and well but recently completed a course of antibiotics for a groin abscess
No history of gout, pseudogout, IBD, conjunctivitis/uveitis, gastro-intestinal conditions or joint replacement

Drug History

No regular medications (but recently completed a course of antibiotics for a groin abscess, you are not sure which one)

You have no known drug allergies

Social History

You have never smoked

Consume 3-4 bottles of wine/week

Work as a freelance photographer

Single, no children

No recent foreign travel

If asked directly, admit to recreational intravenous drug use and last injected heroin a few days ago

Family history

Father had recurrent issues with gout

Mother died following a stroke aged 74

Patients ideas and concerns

Concerned about loss of earnings if admitted to hospital as you are self-employed

Concerned this could be gout as your father had gout

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Additional Information for Station

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Investigation results from today:

Andrew Green

H&C 3281938298

DOB 18/03/1989

Hb	140g/dL	130-175
WBC	18.9 x 10 ⁹ /L	3.8-10
PLT	250 x 10 ⁹ /L	150-400
CRP	237.2 mg/L	<5
Na	140 mmol/L	135-146
K	4.9 mmol/L	3.5-4.3
Cr	87 µmol/L	60 – 120
Urea	4.9 mmol/L	2.5 – 7.8
eGFR	>60 mL/min/ 1.73m ²	>60
Urate	0.41 mmol/L	0.2– 0.42

Synovial Fluid Analysis from today (left knee aspirate):

Colour/Clarity	Very cloudy, yellowish-green material
WBC Count	75,000 cells/mm ³
Neutrophil Count	>75%
Gram Stain	Gram-positive cocci in clusters
Crystals	Negative