GFM SAQ
Management of an i.v. drug user with suspected DVT

Name of question writer	Demonstration SAQ
Date question is finished	
Main topic areas covered	Management of an i.v. drug user with suspected DVT
Total number of available marks	**34**
Scenario theme	
Main body of question (with model answer)	
Stretch element (to challenge and help identify the best candidates), if any	

QUESTION & MODEL ANSWERS:

Steve White is a 33 year old intravenous drug user. He last injected into his right groin 3 days ago and stopped because he is concerned that he may have a recurrence of a deep vein thrombus (DVT).

1. Define deep vein thrombosis.

   The formation of a thrombus (blood clot) [1] in a deep vein [1], which partially or completely obstructs blood flow [1]

   3 marks

2. Give seven intrinsic risk factors for deep vein thrombosis.

   Previous venous thromboembolism [1]

   Family history of thromboembolism [1]

   History of stroke [1]

   Cancer (known or undiagnosed) [1]

   Age over 40 years [1]

   Being overweight or obese [1]

   Male sex [1]

   Heart failure [1]

   Severe infection [1]

   Acquired or familial thrombophilia [1]

   Chronic low-grade injury to the vascular wall (for example from vasculitis, hypoxia from venous stasis, or chemotherapy) [1]

   Varicose veins [1]

   Smoking [1]

   7 marks i.e. 1 mark for each factor listed

3. List five risk factors (other than intrinsic risk factors) that temporarily increase the risk of deep vein thrombosis.

Immobility [1]
Significant trauma or direct trauma to a vein [1]
Hormone treatment [1]
Pregnancy and the postpartum period [1]
Dehydration [1]
Recent surgery [1]
Long distance air travel [1]

5 marks i.e. 1 mark for each factor listed.

4. What scoring system is recommended as a clinical prediction guide for the likelihood of deep vein thrombosis?

Two-level DVT Well's score/Well's score/Well's Clinical Prediction Rule [1]

1 mark for identifying any one

5. List the nine clinical features of the scoring system (as recommended by the National Institute for Health and Care Excellence) for one mark for each feature.

Active cancer (treatment ongoing, within the last 6 months, or palliative) [1]
Paralysis, paresis, or recent plaster immobilization of the legs [1]
Recently bedridden for 3 days or more, or major surgery within the last 12 weeks needing general or regional anaesthesia [1]
Localized tenderness along the distribution of the deep venous system e.g. such as:
  The back of the calf [1]
  Entire leg is swollen [1]
  Calf swelling by more than 3 cm compared with the asymptomatic leg
  Pitting oedema confined to the symptomatic leg [1]
  Collateral superficial veins (non varicose) [1]
  Previously documented DVT [1]

9 marks 5 marks i.e. 1 mark for each factor listed

6. According to the scoring system, 1 mark is given for each feature. Two points are subtracted if an alternative cause is considered more likely than a deep vein thrombus. List two alternative causes of his symptoms of pain and swelling in his calf and lower leg, if Mr White states that he was unable to weight bear after running away from an assailant.

Calf muscle tear or strain [1]
Haematoma in the calf muscle [1]
Achilles tendon tear [1]
Fracture [1]
Vasculitis [1]
Cellulitis [1]
Compartment syndrome [1]

2 marks. 1 mark for each cause

7. What is a possible alternative cause if Mr White states that he is being investigated for arthritis and had a swelling behind his knee that has disappeared.

Ruptured Baker's cyst [1]

1 mark

8. List two alternative causes if you find Mr White to have a temperature of 39.2 degrees Celsius.

Cellulitis [1]
Septic arthritis [1]
Sepsis [1]

2 marks

9. What radiological investigation is recommended within four hours of presentation and what haematological test, if raised, would increase the likelihood of a diagnosis of DVT?

Proximal leg vein ultrasound [1]
D-Dimer [1]

2 marks

10. It is 23:00 on Friday and Mr. White has attended hospital and on his return he has been remanded for the weekend. What is the most likely treatment that the hospital will have prescribed and you will have to administer during his detention? **1 mark** What is the name of a commonly used drug? **1 mark**

Subcutaneous anticoagulant [1]
Enoxaparin but could be Dalteparin or Tinzaparin [1]

2 marks

References:

www.cks.nice.org.uk Deep vein thrombosis.