



PROGRAM : BACCALAUREUS TECHNOLOGIAE
PODIATRY

SUBJECT : **CLINICAL STUDIES 2**

CODE : **PKSB 211**

DATE : NOVEMBER 2016 EXAMINATION

DURATION : 180 MINUTES

WEIGHT : 50:50

TOTAL MARKS : 168

EXAMINER : MRS M. PURBHOO

MODERATOR : MISS M. MOOTHEE

NUMBER OF PAGES : 6

INSTRUCTIONS :

- ANSWER ALL QUESTIONS
- MARKS WILL BE ALLOCATED FOR A CLEAR AND LOGICAL EXPOSITION OF THE ANSWER
- PLEASE HAND IN ALL QUESTION AND ANSWER PAPERS TO THE INVIGILATOR

QUESTION 1:

Mr. Obama, a 60 year old man, comes to your clinic for management of a painful toenail. Pt is a Type 2 diabetic and has hypertension. On examination of the patient's toe you notice that the medial sulcus of the right hallux is red, inflamed with hypergranulation tissue, very painful on palpation and seems to be oozing a yellow fluid-like substance. On examination of the patients vascular assessment you notice that on the right foot there are no pulses, the foot looks pale, there is no hair growth and the foot feels cold. The Dorsalis Pedis pulse is non palpable and the Posterior Tibial pulse is weak.

As a podiatry student you are aware of the standard infection control protocols with regards to hand hygiene and the use of gloves when managing wounds.

- 1.1. Identify and briefly explain the standard infection control protocols/precautions that you would have to adhere to when treating Mr. Obama with regards to
 - (a) Waste disposal (4)
 - (b) Patient care equipment (4)
- 1.2. Provide a diagnosis for the painful toenail (3)
- 1.3. Provide a second diagnosis based on your vascular assessment (3)
- 1.4. Provide an explanation for your diagnosis in Q1.3. (4)
- 1.5. Identify 2 factors that may have led to the results seen in Mr Obamas vascular assessment. (4)
- 1.6. Provide a step by step holistic treatment plan for this patient (10)
- 1.7. Give a step by step account for how you would position Mr Obama before you would perform a blood pressure measurement (10)
- 1.8. Identify the observable signs of the foot and lower limb if Mr Obama was diagnosed with Lymphedema (8)

You decide to take a swab of the yellow fluid-like substance that you noticed in the medial sulcus of Mr Obamas painful toe. You want to send the swab to the laboratory for analysis

- 1.9. Identify the type of laboratory test that you would send for to confirm the infecting organism (2)
- 1.10. Identify the apparatus that you would use to collect your sample (2)
- 1.11. Provide a list of all the important information that your lab request form will contain (10)

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QUESTION 2:

Mr Bailey, a 20year old UJ student comes to you complaining of right knee pain. You proceed to do your orthopedic assessment of his right knee. You have conducted a general observation of the patient as he walked into your rooms and have also specifically looked at the right knee and observed for any erythema, odema and contusions. Thereafter you had palpated around the knee observing for a raised temperature, any painful lumps, swelling or tenderness. You are now ready to examine the joint movement.

- 2.1. Give an explanation on what you will be observing for when examining the movement of Mr Bailey's right knee. (10)

Once the organization and function of the nervous system is understood, it is often possible to diagnose the site of a lesion by careful history taking, observation and clinical tests

- 2.2 (a) Identify the clinical tests of the lower limb that you may perform on your patient to rule out the possibility of an Upper Motor Neurone Lesion (4)

- (b) If the patient does have an Upper Motor Neuron Lesion explain the possible results of the clinical tests that you performed in question 2.2 (a) (4)

Mrs Snow White is 80 years old and consults with you complaining that her legs feel “weak”. You conduct a muscle assessment on Mrs White and want to grade the strength of her calf muscles.

- 2.3. Draw a table highlighting the 0-5 grading scale developed by the Medical Research Council (2009) that helps you to determine the patients muscle strength (12)

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QUESTION 3:

Mrs Pocahontas, consults with you at the Podiatry Clinic complaining of pain in her left medial heel. You examine the heel but you also perform a biomechanical examination. The results showed the following:

1. *Both feet Forefoot to rearfoot and rearfoot to lower third status:*
 - *A true anomaly of a forefoot and rearfoot varus.*
2. *Both Feet On Neutral calcaneal stance position you notice*
 - *The bisection line of the posterior calcaneus is now vertical to the ground and the forefoot is flat on the ground.*
3. *Both feet Resting Calcaneal stance position*
 - *The STJ is everted, there's the “too many toes sign”, and the Medial longitudinal arch is flat on the ground.*
4. *Both feet Gait analysis*
 - *There is excessive Subtalar joint overpronation. Worse on the left foot*
5. *Leg length discrepancy measurement: right leg 98cm and left leg 99cm*

You have a differential diagnosis of Calcaneal spur. You also decide to refer your patient for an X-ray.

- 3.1. Name the X-ray view that you would request? (2)
- 3.2. Give a reason/s for choosing the X-ray view mentioned in 3.1 (2)
- 3.3. Identify the advantages and disadvantages of Magnetic Resonance Imaging (MRI) (8)
- 3.4. Based on the biomechanical examination findings, provide a detailed explanation as to why she may be getting heel pain (10)

Your treatment plan includes providing Mrs Pocahontas with ultrasound therapy and insole manufacture

- 3.5. Discuss the benefits of using this type of therapeutic modality (5)
- 3.6. Identify the risks of using infrared radiation therapy (5)
- 3.7. Describe the type of insole that you would like to prescribe for this patient. (Your description must include type of pads, types of materials, density of materials) (10)
- 3.8. Provide an explanation of the type of short term advice that you would give your patient in order to alleviate her symptoms (10)
- 3.9. Provide your patient with good footwear advice (10)

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QUESTION 4:

- 4.1. Describe the characteristics of an arterial ulcer in terms of :
 - 4.1.1. Location (1)
 - 4.1.2. Size (1)
 - 4.1.3. Depth (1)
 - 4.1.4. Margins (1)
 - 4.1.5. Base (1)

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- 4.1.6. Surrounding skin (1)
- 4.1.7. Pain (1)
- 4.1.8. Pedal pulses (1)

- 4.2. For each of the options dressing categories given below, state whether you would use this dressing for a) a dry wound, (b) an infected wound, or (c) a highly exudative/sloughy wound (choose only 1 type of wound per dressing)
 - 4.2.1. Hydrocolloid dressings (1)
 - 4.2.2. Silver dressings (1)
 - 4.2.3. Hydrogel dressings (1)
 - 4.2.4. Alginate dressings (1)

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GRAND TOTAL: 168 MARKS