



UNIVERSITY
OF
JOHANNESBURG

PROGRAM : BACCALAUREUS TECHNOLOGIAE
PODIATRY

SUBJECT : CLINICAL STUDIES IV

CODE : PKSA 411

DATE : NOVEMBER EXAMINATION 2014

DURATION : 180 MINUTES

WEIGHT : 50:50

TOTAL MARKS : 184

EXAMINER : MS M PURBHOO

MODERATOR : MR G LEES

NUMBER OF PAGES : 5 PAGES (INCLUDING THE COVER PAGE)

INSTRUCTIONS

1. PLEASE HAND BOTH YOUR QUESTION PAPER AND ANSWER SHEET TO THE INVIGILATOR
 2. PLEASE ANSWER ALL QUESTIONS.
 3. WRITE NEATLY AND LEGIBLY AND CLEARLY MARK QUESTIONS.
 4. LEAVE A LINE SPACE BETWEEN QUESTIONS.
 5. NUMBER QUESTIONS CLEARLY.
 6. MARKS WILL BE ALLOCATED FOR LOGICAL EXPOSITION OF ANSWERS. PLEASE ENSURE THAT YOU READ THE QUESTIONS CAREFULLY.
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QUESTION 1:

Amide type local anaesthetics (L.A), like Lidocaine, are metabolized by microsomal enzymes (Cytochrome P450 Enzymes) located in the liver. Therefore, amide-type anaesthetics should be used with care in patients with severe liver damage and patients taking certain medications (Gmyrek 2009).

1.1. Provide a brief discussion about the statement mentioned above (5)

1.2.

(a) Identify 7 broad categories of medications, that can lead to a significant drug interaction with an amide-type local anaesthetic. (eg. Diuretics) (7)

(b) Give one drug example for each of the broad categories you mentioned in question 1.2 (a) (eg. Furosemide) (7)

1.3. Give three possible reasons that could reduce the duration of action of Lignocaine 2% plain. (3)

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QUESTION 2:

A 50yr old patient, who smokes, presents to you with a very painful, inflamed, septic onychocryptosis. He also presents with the following medical history. The patient is a Type 2 diabetic with a last post prandial glucose reading of 6mmol/l. Patient currently on Trental 400 for peripheral arterial disease, Cimetidine for peptic ulcers, Probenecid for chronic gout, and a beta-blocker for hypertension. However, the patient has indicated that he has stopped the hypertension medication himself as he feels fine without them. O/E you diagnose a septic Onychocryptosis, patients random blood glucose level was 10.0mmol/l and Blood pressure reading 150/95mmhg. You contemplate about the management of this patient

2.1. From the above information summarize the patients' general health. (5)

2.2. Provide a critical argument with regards to the holistic podiatric management that you wish to offer this patient (10)

2.3. Provide a brief discussion highlighting the rationale for the pharmacological management that you will chose for this patient. (10)

You have just administered Local Anesthesia to your patient and she suddenly starts feeling unwell and realize that your patient is going into anaphylaxis.

2.4. Provide a discussion on the organ system being affected there is a sudden decrease in the partial pressure of oxygen in her blood (10)

2.5. Give a detailed discussion on the management of anaphylaxis (18)

2.6. Explain the invasive nail ablation technique called the Winograds procedure (5)

[58]

QUESTION 3:

A 30 year old male consulted with you at your clinic for general podiatric treatment. History revealed that he suffers from Poliomyelitis.

A vascular assessment revealed weak pulses in both feet, with the right foot being cold. A neurological assessment revealed diminished reflexes in the right leg and absence of vibration sense in the right foot. Two-point discrimination was 2cm in the left foot and 10cm in the right foot. Orthopedic assessment showed a leg length discrepancy of 2.5cm, the right leg being the shorter and having developed functional equines at the ankle.

- 3.1. Discuss the three clinical tests and findings that you, as a practitioner, would do and expect in a patient suffering from a lower motor neuron lesion. (10)
- 3.2. Discuss the podiatric principals of management in this patient (10)
- 3.3.
- (a) Draw and label all dimensions of the posterior heel, indicating the first steps in the preparation of the positive cast for the medial heel skive technique with regards to marking the cast in a 60mm wide heel. (5)
- (b) Draw and label the posterior heel dimensions, indicating the Kirby heel skive angle and depth of modification (5)
- 3.4. Provide an explanation about non-constraint osteoligamentous mechanisms of the foot (10)
- [40]**
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QUESTION 4:

- 4.1. Your patient tells you that he has been for an MRI of his feet and wants you to explain to him the disadvantages of this type of radiological imaging (3)
- 4.2. Identify the advantages and disadvantages of using a Nuclear Bone Scan Imaging Technique (Scintigraphy) (7)
- 4.3. Describe the dimensions of the lines that make up (a) The metatarsal axis and (b) The longitudinal axis of the rearfoot (9)

[19]

QUESTION 5:

Mr. Laurel Hardy, a 25 year old man, had been stung on his big toe by an African burrowing scorpion. This scorpion is extremely aggressive and its venom ranges from mild to strong. Mr. Hardy said that he is very lucky to still be alive.

5.1. Discuss the severe symptoms that Mr. Hardy could have experienced under the following headings:

(a) Autonomic effects (b) Cranial nerve effects (c) Somatic effects (20)

5.2. Discuss the podiatric implications of the following condition:

(a) Cytotoxic spider bite (5)

5.3 Briefly summarize the parasite that can cause Lyme Disease (5)

[30]

QUESTION 6:

6.1. Describe the clinical dermatological manifestations of the following conditions:

(a) Bowen's Disease

(b) Classic plaque psoriasis (5)

(b) Classic plaque psoriasis (5)

(c) *Molluscum Contagiosum* (5)

(5)

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GRAND TOTAL: 184 MARKS