



PROGRAM : BACCALAUREUS TECHNOLOGIAE
PODIATRY

SUBJECT : CLINICAL STUDIES 3

CODE : PKSA 311

DATE : NOVEMBER 2016 EXAMINATION

DURATION : 180 MINUTES

WEIGHT : 50:50

TOTAL MARKS : 164

EXAMINER : MS M. MOOTHEE

MODERATOR : MR S. NTULI

NUMBER OF PAGES : 5

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:

According to literature a Clinical Reasoning Process is dependent upon a critical thinking and clinical decision making.

1.1. Describe this approach Clinical Reasoning Process by drawing a flow chart?

(1x10=10)

Neutral foot position as described by Root et al. (1972) was considered to be an important component of podiatric biomechanics until recently.

1.2. Briefly explain, why you think that the Root theory is still useful in clinical practice?

(5x2=10)

[20]

QUESTION 2:

Mr. M presents with pain on the anterior lower aspect of his right leg. He is a long distance runner and you notice hyperpronation on gait with excessive medial rotation of the tibia. You diagnose this patient with Anterior Tibialis Tendonitis.

2.1. Which biomechanical paradigm did you use in assessing this patient? (3)

2.2. Explain why you would think that this paradigm is applicable in assessing this patient complaint? (4)

2.3. Identify and briefly explain the four- stage protocol of this paradigm? (4x2=8)

2.4. Based on your chosen biomechanical paradigm, outline your approach of managing this patient? (4)

[19]

QUESTION 3:

Ms. Y presents with a painful left toe and lower back pain. On examination you discover that she has limited dorsiflexion of the left hallux.

3.1 What would you diagnose this patient as having? (1x2=2)

3.2. Based on your understanding of the Sagittal plane facilitation theory, briefly describe how the condition you've diagnosed above would lead to Sagittal plane blockade? (5x2=10)

3.3. Give a biomechanically plausible explanation of how a patient with such a condition develops severe knee, hip and lower back pain? (15)

3.4. Explain how you would manage this patient and support your answer? (6)

[33]

QUESTION 4:

A Type 2 Diabetic patient with a history of sensory neuropathy, presents with a painful ulcer on the plantar aspect of his hallux, his ABPI is 0.5. There are signs of infection and you suspect tracking to the bone.

4.1. Would you classify the above mentioned foot as High Risk? Substantiate your answer. (4)

4.2. According to literature, there are many risk factors responsible for a high risk foot, list the **five** risk factors that you may associate with the case study and provide a motivation for each? (5x2=10)

4.3. What possible complication would you suspect with the infection tracking to the bone? Motivate your answer. (2x2=4)

4.4. Mention two imaging modalities you could send this patient for in order to rule out the suspected complication mentioned above? (2x2=4)

4.5. Motivate why you have chosen the imaging modalities indicated in 4.4.? (2x4=8)

4.6. Why would Nuclear Medicine Imaging be an unsuitable modality to send this patient for? (3)

4.7. Write a comparison between Ultrasound and Magnetic Resonance Imaging under the following headings: Mechanism of action, uses/indications, advantages and disadvantages? (2x4=8)

[41]

QUESTION 5:

A young student is troubled with a painful ingrowing toe nail. Her trouble first began when she cut down the side of her nail. Her right hallux medial sulcus has hypergranulation tissue and the infection has resolved after taking a course of Flucloxacillin. Her weight is 70kg. You have decided to perform nail surgery under local anaesthesia (LA) using Xylotox ® 2% Plain solution 1,8ml ampoules.

5.1. What are the essential characteristics of Lignocaine Hydrochloride? (10)

5.2. Explain the mechanism of action of local anesthesia on neural tissue? (10)

5.3. List the factors influencing LA toxicity? (10)

5.4. Calculate the maximum safe dosage for this patient? (10)

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5.5. What Nail Surgical procedure would you decide to perform for this patient?

Motivate your answer. (5)

5.6. Explain to this patient the postoperative management of nail surgery? (1x6=6)

[51]

GRAND TOTAL: 164 MARKS