Offer Holder
day work book
Physiotherapy
April 2020
University of Hertfordshire
Integrated thematic teaching: A practical example......

Case Scenario: Mary is a 75 year old lady

- **History of Present Complaint:**
  - Peripheral vascular disease diagnosed 10 years ago

- **Present complaint:**
  - At regular GP check-up; complained of increasing numbness in lower leg/foot and weakness
  - On examination: cool and pale foot, with decreased sensation and muscle power in right leg

- **Drug History:**
  - Metformin & Simvastatin

- **Past Medical History:**
  - Type 2 Diabetes, Peripheral Vascular Disease and high cholesterol.
  - Re-current chest infections
  - Previous bypass graft to re-vascularise right leg

- **Familial History:**
  - Mother had Diabetes and Father died of a Heart attack (Myocardial Infarction)

- **Social History:**
  - Lives with partner who is fit and well
  - Smokes 35/day since 15 years of age
Anatomy – Bones/Joints

Looking at this pictures try and.......

1) Identify and orientate the bones correctly
2) Label them on the diagrams below
3) Draw a quick sketch of them in the correct positions to form the lower limb
4) Identify the various lower limb joints
Anatomy – Muscles

Using your existing knowledge or on-line resources, try to.....

1) Label the following muscles
2) See if you know what function/movement they are responsible for?

[Diagram with spaces for labels]
Anatomy - Nervous supply to the muscles: Assessment

We can determine if various muscles are innervated by the nerves by assessing tendon reflexes.

You may have had this done yourself already or if not perhaps you could try this at home on someone else using a tightly rolled up magazine perhaps, instead of a tendon hammer to test the patella tendon (just below the knee cap with the leg hanging relaxed and with the foot off of the floor)
Anatomy - Nervous supply to the muscles: Treatment

We could use various modalities or treatment options to treat a nerve deficit or injury. One of these that our students learn how to use is an electrotherapy device called a **Transcutaneous Electrical Nerve Stimulation (TENS)**. Following our assessment we might use thus to externally stimulate a muscle’s motor unit, where the nervous supply has been compromised, such as with ‘Mary’ and her Peripheral Vascular Disease / Diabetes induced Neuropathy.........
Anatomy – Blood supply:

On yourselves, find & palpate your....... 

1) Radial (wrist) pulse
2) Carotid pulse
3) Count your pulse over 30 secs, considering the strength, rate and rhythm

Pulse Rate = Beats/min: 30 secs x 2 ___________
Exercise Prescription......

Now consider the kind of exercises that you might prescribe Mary following her ‘Through Knee amputation’ resulting from her Peripheral Vascular Disease.

Try them out and consider.......

1) How effective they might be?

2) What kind of adaptations you may need to make post-operatively for an elderly amputee with no leg below her femur (thigh bone)