Problem Assisted Learning (PAL)  
Diabetes Mellitus

This PAL is based on the following objectives:

- List the risk factors for diabetes mellitus type 2 (DM2).
- List the criteria needed to diagnose diabetes.
- Demonstrate the ability to perform an appropriate physical exam in the context of diabetes and diabetes complications.
- Discuss the non-pharmacological approach to diabetes management.
- Discuss the mechanism of action of oral hypoglycemic medications and their use.
- Discuss insulin use and its mechanism of action.
- Discuss primary cardiovascular prevention for diabetics.
- Explain the importance of monitoring for complications of diabetes.
- Discuss a multidisciplinary approach to the management of diabetes.
- Perform and interpret glucometer testing.
- Perform and interpret monofilament testing.

Session Structure

The larger group is to be divided into four smaller groups (i.e. 3-4 students per group) and each group will either be assigned Case #1 or Case #2. The students are to work with their group members to develop the history and physical, investigations, and management (~10minutes). Then, the presenter will then go through the PowerPoint presentation to review the cases/answers.

Case #1:

Katie is a 41-year-old woman who presents to your family medicine office for a “check up”. She tells you that she has not seen a doctor in the past 2 years because she feels well, however, she recently found out her mother was diagnosed with diabetes and worries that she may also be diabetic.

1. What would you like to ask Katie?
2. What physical examination should you do?
3. What tests would you order?
4. You see Katie in follow-up and establish that she has diabetes mellitus type 2. What advice would you give her regarding management of her newly diagnosed condition?
Case #2:

Mr. Sharma is a 59-year-old South Asian gentleman who is seeing you for his routine diabetic visit.

1. What would you like to ask Mr. Sharma?

2. What physical examination should you do?

His BP is 140/90mmHg and you review his most recent lab results with him:
   - HbA1c = 7.3% and random glucose = 12.0
   - LDL = 2.7 and TC/HDL = 5.2

3. What do you think about his diabetes control?

4. How would you counsel him?

Resources:

Diabetes Canada 2018 Guidelines
http://guidelines.diabetes.ca/

Diabetes Self-Learning Module
https://curriculum.med.uottawa.ca/eng/year3/clerkship/diabetes_mellitus_type2