



College of Applied Medical Science

Second Semester 1435/1436

Community Health Department

9 March 2015

Clinical Nutrition Program

First midterm

Practicum 1 in clinical nutrition

CHS 369

Course instructor: Dr Sadeem Aljammaz

Student Name: _____

Student Number: _____

Time: 1.5 hr.

Sections	Total possible score	Student's score
1	7.5	
2	2.5	
3	10	
Total	20	

Section 1. Give a clear and concise answer, as if you are giving this information to your patient, too much information will not be marked, as too much talk will not be heard by the patient. (1.5 points each).

1- Which food items should be omitted in fiber restricted diets?

Raw or dried fruits (except ripe banana and avocado), raw vegetables (except lettuce), whole grains, legumes, seeds, and nuts.

2- Who are the appropriate candidates for gastric bypass surgery?

Obese patients with grade III obesity (morbid obesity). Also patients with lower level of obesity (grade II, BMI 35-40) with comorbidity are candidates.

3- What deficiencies may occur following gastric surgery?

Iron, vitamin B12, folic acid, calcium, vitamin D, vitamin A, vitamin K, and zinc.

4- How can a patient with type 2 diabetes reduce their hypertension, hyperglycemia, and dyslipidemia other than medication use?

By following a diabetic, low fat, low salt diet, exercise, and lose weight.

5- When do use the adjusted body weight? And when do use the ideal body weight?

Adjusted body weight: For obese patients (BMI above 30).

Ideal body weight: For underweight and overweight patients.

6- There are few assessments that are a must for every pediatric patient. What are they?

Growth assessments (anthropometric measures: ht, wt and HC) and plotting these on growth charts.

Section 2. Fill in the blanks. (0.5 points each).

1- There is a risk of developing __hypoglycemia__ or __malnutrition__ in older adults with diabetes. (Will accept: hyperglycemia, kidney disease, increased weight)

2- The excessive intake of some dietary fibers may bind and interfere with the absorption of __ calcium, copper, iron, magnesium, selenium, and zinc__.

3- A clear liquid diet is indicated __after surgery__.

4- To have a low fat diet, the maximum percentage of fat should not exceed __25__% of the total calories.

Section 3. Case studies. (10 points).

Ms. Munera is a 50 years old female, she has DM and GERD. Her BMI is within the normal range.

She was brought to hospital by her son because she fainted at home. She has also been complaining of loss of appetite, heartburn, bloating, flatulence, vomiting, weight loss and constipation. She complains of indigestion and pain in the abdomen that becomes worse after eating.

On examination she is suspected of having gastritis.

She claims that she follows her diet and takes her medication. She takes two kinds of pills Sulfonylureas (Amaryl) and Biguanides (metformin).

Using the above mentioned information please answer to the following questions:

1. What labs do you need to see for this patient? Explain why for each? (1.5 points)

1- Fasting glucose and Hemoglobin A1c lab test shows how well the patient is controlling her blood sugar levels over a two to three-month period. It helps determine overall, long-term glucose control. Most people with diabetes should aim for an A1c of less than 7%.

2- Lipid profile (Cholesterol): A cholesterol test measures cholesterol and triglycerides in blood. Adults with type 2 diabetes should have this test every year. People with high cholesterol may have this test more often. High LDL cholesterol levels increase the risk of fat building up in the walls of the arteries. Excess amounts of glucose in your blood can make cholesterol sticky, which causes it to cling to arteries and possibly build up to the point where it decreases blood flow. This decrease in blood flow can put the patient at greater risk of a heart attack.

3- Renal profile / Urine check for microalbumin: Diabetes cause renal damage, so good to check once a year.

4- Hemoglobin/Iron and B12: can be affected with gastritis.

2. What could be the cause of her fainting? How can she avoid this? (1.5 points)

Since she is diabetic, and has been complaining of loss of appetite and weight loss, then her fainting could have been due to hypoglycemia. She must follow her diabetic diet, insure proper use of the medication and regularly check her blood glucose level to prevent any hypoglycemia or hyperglycemia.

3. To interview the patient, what are the questions you will ask to cover all of the information you need to know to give her proper dietary instructions? (2 points)

- What are your usual eating **habits**/pattern?
- What are your food **likes and dislikes? Any allergies?**
- **Diet history.** Are you following any diet currently? Have you been given any dietary instructions for DM or GERD?
- If not following, why not?
- Do you **monitor** your blood glucose at home? How often?
- What do you do if you found the level low or high?
- Is this your first time to experience a **fainting** episode? If not, how often does it occur?
- How is your food usually prepared at home? The use of oil, salt, cooking method?
- When did the loss of appetite start?
- When did the weight loss start and how much did you lose from your previous weight (if it was not in the chart)?
- How is your activity level? Do you do any **exercise**?

4. Go over the general guidelines of the dietary therapy for Ms. Muneera with her, covering all of her issues, starting from the most important onward. (2 points)

- Follow the diabetic diet.
- Avoid acidic foods.
- Avoid high fat foods.

- Avoid foods that cause the heartburn and bloating.
- Avoid large meals, consume small frequent meals.
- Avoid meals 2 hours before bed when symptoms of GERD are apparent, but be careful to check glucose level before bed in case a snack is needed.
- Avoid high fiber foods for gastritis.
- Increase water intake to help with constipation.

5. Beside diet, what other behavioural or life style modifications that you would recommend? Give the patient clear realistic points. (1.5 points)

- For her diabetes: The importance of exercise and continuous monitoring of blood glucose.
- For GERD and gastritis: Eat small meals, avoid tight fitting clothes when eating, stay upright and avoid laying down for at least 45 minutes after meals, avoid eating a meal within 2 hours before bed time, sleep on an elevated pillow.
- For constipation: increase exercise.
- To improve appetite: eat with family members and choose what to eat.

6. She does not understand why she is taking two medications for her DM, Explain for Ms Muneera how each works. (1.5 points)

Sulfonylureas (Amaryl): Lowers blood sugar by prompting the pancreas to release more insulin.

Biguanide (Metformin) works in two ways:

- It helps to stop the liver producing new glucose
- It helps to overcome insulin resistance by making insulin carry glucose into muscle cells more effectively, improves the cells uptake of glucose.