



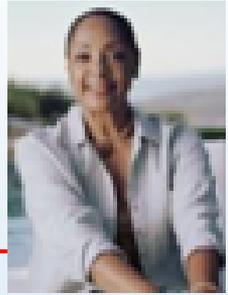
**CASE STUDY AND
DISCUSSION**
DIABETES MELLITUS

Case Study



- ❖ R.H. is a 62-year-old woman who comes to the clinic for a routine physical examination.
- ❖ She works as a banking executive and gets little exercise.
- ❖ She says she is “just tired.”
- ❖ She has gained 18 pounds over the past year and eats a high-fat diet.
- ❖ Her BP is 162/98, heart rate is 92, and respiration rate is 20.

Case Study



- ❖ R.H. complains of some weakness in her right foot that began about a month ago.
- ❖ She says it also feels a little numb.
- ❖ A sensory examination reveals diminished sensations of light touch, proprioception, and vibration in both feet.
- ❖ R.H. also complains of increased thirst and frequent nighttime urination.
- ❖ She denies any other weakness, numbness, or changes in vision.

Case Study



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- ❖ A physical examination reveals an erythematous scaling rash in both inguinal areas and in axillae.
- ❖ R.H. states the rash has been there on and off for several years and is worse in the warm weather.

Case Study



Ryan Murphy Digital - Talent Thinkers

- ❖ **What risk factors for diabetes does R.H. have?**
- ❖ **Which type of diabetes is R.H. at highest risk for developing?**
- ❖ **What clinical manifestations of diabetes is she displaying?**
- ❖ **What diagnostic tests for diabetes would you expect the health care provider to order?**

Case Study



Byron McKinley Digital | Years/Thinks/works

❖ R.H.'s diagnostic testing results

- Random glucose test: 253 mg/dL
- Hb A1C: 9.1%
- Urine: positive for glucose and negative for protein
- Wet preparation of smear from rash: consistent with *Candida albicans*
- ECG: evidence of early ventricular hypertrophy

Case Study



Ryan Miller, DPM, 39-year-old female

- ❖ What would you teach R.H. about her dietary needs in relation to her type 2 diabetes?

Case Study



Ryan McKay Digital | 1 Year | Thank you!

- ❖ R.H. realizes that she needs to start exercising in order to gain her health back.
- ❖ She asks you what she should be doing.
- ❖ How would you respond?

Case Study



Ryan Murphy, DNP, FNP-BC

- ❖ What would you teach R.H. about hyperglycemia associated with type 2 diabetes?

Case Study



Ryan McKay Digital | Visual Thinkers

- ❖ Despite intense patient teaching, R.H. presents to the ED with HHS
- ❖ She has been ill with the flu and has not taken her metformin as prescribed.
- ❖ R.H.'s admitting BG level is 832 mg/dL.
- ❖ She is admitted to the ICU for IV hydration and insulin therapy.
- ❖ What will be your priority nursing assessments/interventions for R.H.?

Case Study



Ryan, MD | by Digital | 1 Year | Thinkstock

- ❖ Several days after being admitted for hyperglycemia, R.H.'s BG level drops to 56 mg/dL.
- ❖ R.H. remains alert and oriented.
- ❖ What are your priority nursing interventions?

Practice Question 1

A patient with type 1 diabetes calls the clinic with complaints of nausea, vomiting, and diarrhea. It is most important that the nurse advise the patient to

- a. Withhold the regular dose of insulin.
- b. Drink cool fluids with high glucose content.
- c. Check the BG level every 2 to 4 hours.
- d. Use a less strenuous form of exercise than usual until the illness resolves.

Practice Question 2

The nurse plans a class for patients who have newly diagnosed type 2 diabetes mellitus. Which goal is most appropriate?

- a. Make all patients responsible for the management of their disease.
- b. Involve the family and significant others in the care of these patients.
- c. Enable the patients to become active participants in the management of their disease.
- d. Provide the patients with as much information as soon as possible to prevent complications.

Practice Question 3

A patient screened for diabetes at a clinic has a fasting plasma glucose level of 120 mg/dL (6.7 mmol/L). Which statement by the nurse is best?

- a. "The laboratory test result is positive for type 2 diabetes."
- b. "You will develop type 2 diabetes within 5 years."
- c. "The test is normal, and diabetes is not a problem."
- d. "You are at increased risk for developing diabetes."

Practice Question 4

The nurse is caring for a patient with T₁DM who is admitted for diabetic ketoacidosis. The nurse would expect which laboratory test result?

Select all that apply

- a. Hypokalemia
- b. Hyperglycemia
- c. Fluid overload
- d. High serum osmolality