

# NUR 2474 PHARMACOLOGY FOR PROFESSIONAL NURSING

## Pharm Quiz

A patient with type 1 diabetes recently became pregnant. What blood glucose testing schedule will the provider recommended during the pregnancy?

**Correct Answer:**

**Six or seven times a day**

A pregnant patient with type 1 diabetes must have frequent blood sugar monitoring (e.g., six or seven times a day) to manage the patient's glucose levels and to ensure that no harm occurs to the fetus. Monitoring the blood sugar level before meals and at bedtime is not significant enough to provide the necessary glycemic control. Morning and 4:00 PM monitoring is not enough to provide glycemic control. Urine glucose testing is not sensitive enough to aid glycemic control, and monitoring three times a day is not enough.

An older adult patient with type 2 diabetes has a history of severe hypoglycemia. The patient's partner asks the provider what A1c level they should strive to achieve. What guideline will the prescriber provide?

**Correct Answer:**

**Below 8.0**

For patients with a history of severe hypoglycemia and those with a limited life expectancy or advanced micro- and macrovascular complications, the target A1c level should be below 8.0. For most other patients with diabetes, the target is 7.0 and below.

An adolescent had a serum glucose test at a health fair. The parent calls the clinic and says, "The level was 125 mg/dL. Does that mean my child has diabetes?" What is the provider's most accurate response?

**Correct Answer:**

**"Unless your child were fasting for longer than 8 hours, this does not necessarily indicate diabetes."**

If a person has not fasted for 8 hours, a blood sugar level of 125 mg/dL would be considered normal, because it is less than 200 mg/dL for a random sampling. Also, a person must have positive outcomes on two separate days to be diagnosed with diabetes. This patient does not need to have an oral glucose tolerance test, because the 125 mg/dL reading is so far below 200 mg/dL, which would require further work-up. No conclusive evidence indicates that this patient has diabetes, because the random sample value is so low, and the patient has not had two separate tests on different days. However, this also is not conclusive evidence that the patient does not have diabetes.

A patient arrives in the emergency department with a heart rate of 128 beats/minute and a temperature of 105°F. The patient's skin feels hot and moist. The free T<sub>4</sub> level is 4 ng/dL, the free T<sub>3</sub> level is 685 pg/dL, and the TSH level is 0.1 microunits/mL. The provider caring for this patient will give what intervention priority?

**Correct Answer:**

**Propylthiouracil (PTU)**

Propylthiouracil is used for patients experiencing thyroid storm, and this patient is showing signs of that condition. Levothyroxine is given IV for hypothyroidism. I<sup>131</sup>I is used in patients over 30 years of age who have not responded to other therapies for hyperthyroidism. Methimazole is used long term to treat hyperthyroidism, but PTU is more useful for emergency treatment.

A patient who takes oral levothyroxine for hypothyroidism is admitted to the hospital. After the provider determines the patient has myxedema, what action will the provider take?

**Correct Answer:**

**Change to intravenous levothyroxine.**

This patient is showing signs of severe hypothyroidism or myxedema. Intravenous administration of levothyroxine is used for myxedema coma. A  $\beta$  blocker is useful in patients who show signs of hyperthyroidism to minimize cardiac effects. Because the half-life of oral levothyroxine is so long, increasing the PO dose will not provide immediate relief of this patient's symptoms. Methimazole is used to treat hyperthyroidism.

A provider teaches a patient who has been diagnosed with hypothyroidism about a new prescription for levothyroxine. Which statement by the patient indicates a need for further teaching?

**Correct Answer:**

**"If I take calcium supplements, I may need to decrease my dose of levothyroxine."**

Patients taking calcium supplements should take these either 4 hours before or after taking levothyroxine, because they interfere with levothyroxine absorption. Many heartburn medications contain calcium, so patients should consult their provider before taking them. Insomnia, tremors, and tachycardia are signs of levothyroxine toxicity and should be reported. Iron also interferes with levothyroxine absorption, so dosing should be 4 hours apart.