

Lab simulation after Diabetes Case Study

1. Is the man in the video type 1 or 2 diabetic? Explain

Type-1, because doctor order insulin dose to manage blood glucose level.

2. If you have an infection, your blood sugar may rise.

A True

B False

3. A person with diabetes should stop taking their medications when they are sick

A True

B False

4. Would an A1C be important for the man in the video? What would this lab tell us about the patient?

Yes, A1C is important for the patient.

The A1C test result reflects average blood sugar level for the past two to three months. Specifically, the A1C test measures hemoglobin percentage, coated with sugar (glycated). The higher your A1C level, the poorer your blood sugar control and the higher your risk of diabetes complications.

Normal	Below 5.7%
Prediabetes	5.7% to 6.4%
Diabetes	6.5% or above

Your A1C result can also be reported as estimated average glucose (eAG), the same numbers (mg/dL) you're used to seeing on your blood sugar meter:

A1C %	eAG mg/dL
7	154
8	183
9	212
10	240
11	269

5. What are some complications of diabetes that the man in the video needs to be educated on?

Some of the most common complications are:

- Kidney disease (nephropathy)
- Heart disease
- Stroke
- High blood pressure
- Nerve disease (neuropathy)
- Foot problems, including ulcers
- Eye disease (retinopathy)
- Skin infections
- Gum disease (inflammation and infection)

6. What education on controlling diabetes should this patient be educated?

- Take medications (pills and/or insulin) as prescribed by your doctor.
- Monitor your blood sugars closely.
- Follow a sensible diet. Do not skip meals.
- Exercise regularly.
- See your doctor regularly to monitor for complications.

7. Should the patient in the video be educated on hypoglycemia? Why and what are the signs?

Yes. Hypoglycemia is important to treat since blood sugar is essential to proper brain, heart, and digestive function.

Signs of hypoglycemia:

- Seizures
- Mood changes (irritability, nervousness)
- Sleep disturbances
- Headaches
- Visual Disturbances
- Rapid heartbeat
- Jitteriness

8. What would you education the patient in the video about insulin injections?

I would educate the patient on steps to properly prepare and administer insulin. It is important for the patient to know reasons for insulin treatment, contraindications, complications and appropriate aftercare. In addition, an understanding of different

insulin's (short-acting, immediate acting, etc.) their action, and safe dose adjustments will be beneficial to him.

9. What are risk factors for Type 2 Diabetes and what risk factors does the patient in the video have?

You are more likely to develop type 2 diabetes if you:

- are overweight or obese
- are age 45 or older
- have a family history of diabetes
- are African American, Alaska Native, American Indian, Asian American, Hispanic/Latino, Native Hawaiian, or Pacific Islander
- have high blood pressure
- have a low level of HDL cholesterol, or a high level of triglycerides
- have a history of gestational diabetes
- have a history of heart disease or stroke
- have depression
- have polycystic ovary syndrome
- have acanthosis nigricans—dark, thick, and velvety skin around your neck or armpits

Patient in the video is:

- Obese and overweight (i.e. 308 lbs)
- Meets the age requirement of age 45 or older (i.e. 52)
- He is prehypertensive (128/72)

10. What medication is the man in the video on that can increase blood sugar and needs tapered when discontinuing?

Prednisone increases blood sugar and requires tapering. Prednisone and other steroids can cause a spike in blood sugar levels by making the liver resistant to insulin. Steroids can make the liver less sensitive to insulin because they cause it to carry on releasing sugar, even if the pancreas is also releasing insulin.

References

<https://camdenhealth.org/wp-content/uploads/2011/07/Safe-Efficient-Insulin-Use-LH21.pdf>

<https://www.healthline.com/health/low-blood-sugar-effects-on-body#1>