

### QUESTION

1. A 65-year-old male patient with a long history of hypertension and a recent diagnosis of type 2 diabetes mellitus is being treated with lisinopril and metformin. He has been experiencing increasing fatigue and weakness over the past few weeks. His blood pressure is well-controlled, and his blood glucose levels are stable. The patient has a diet low in sodium and a regular exercise routine. He has no other significant medical history and is on no other medications. The patient's physical examination is unremarkable. The most likely cause of his symptoms is:

- A. Anemia
- B. Hypothyroidism
- C. Vitamin B12 deficiency
- D. Iron deficiency
- E. Chronic kidney disease

ANSWER: A

EXPLANATION: The patient's symptoms of fatigue and weakness are most likely due to anemia, which is a common complication of chronic kidney disease (CKD). CKD is a common condition in patients with long-standing hypertension and diabetes mellitus. The patient's blood pressure is well-controlled, and his blood glucose levels are stable, making other causes of his symptoms less likely. Anemia is caused by a decrease in the number of red blood cells, which can lead to fatigue and weakness. CKD can cause anemia by affecting the production of erythropoietin, a hormone that stimulates the production of red blood cells. The patient's diet low in sodium and regular exercise routine are unlikely to cause his symptoms. Hypothyroidism, vitamin B12 deficiency, and iron deficiency are also possible causes of fatigue and weakness, but they are less likely in this patient given his medical history and physical examination findings.

### QUESTION



ANSWER: A

EXPLANATION: The diagram shows the skeletal structure of a human arm. The humerus is the upper arm bone, and the radius and ulna are the forearm bones. The diagram is labeled with 'A' at the proximal end of the humerus and 'B' at the distal end of the radius and ulna.