Getting ready for the United States Medical Licensing Examination® (USMLE®) is no easy feat, but we’re sharing expert insights to help give you a leg up. Take a look at the exclusive scoop on this month’s most-missed USMLE test prep question. Think you have what it takes to rise above your peers? Test your USMLE knowledge, and view an expert video explanation of the answer from Kaplan Medical. Once you’ve got this question under your belt, be sure to test your knowledge with other posts in this series.

Ready. Set. Go.

This month’s question that stumped most students

A 21-year-old man with a history of schizophrenia is brought to the emergency department by his mother because of the acute onset of neck stiffness. He says his neck has been locked to the right for the last hour, and he has been unable to move it. Physical examination shows that he is anxious, diaphoretic and his pulse is 120/min. His upper body and neck are rigid, with his neck locked in flexion and rotated to the right. A review of his records shows that treatment with haloperidol was begun four days ago. He said that he took an additional dose three hours previously in order to control his auditory hallucinations. Which of the following best describes the physical findings in this patient?

A. Akathisia

B. Dystonia

C. Neuroleptic malignant syndrome

D. Parkinsonism
E. Tardive dyskinesia

The correct answer is B.

Kaplan says, here’s why

This patient is exhibiting an acute dystonic reaction, manifesting as torticollis. 90 percent of dystonic reactions occur within five days of starting a new antipsychotic medication. More specifically, symptoms may begin immediately or can be delayed hours to days. As many as one in three patients experience at least a mild dystonic reaction during this time. Dystonias are sustained muscle contractions, often causing twisting, repetitive movements or abnormal postures. Examples include torticollis (a twisting of the neck), oculogyric crisis (rotary eye movements or a deviated gaze) and opisthotonic crisis (spasm of entire body with back arching and flexion of the upper limbs and extension of the lower limbs). Patients are often frightened and can be in considerable pain.

Dystonic reactions occur more frequently in males, children and young adults, especially if there is a history of acute dystonia, and with high-potency D2 receptor antagonists (e.g., haloperidol, fluphenazine). The first line of treatment is with benztropine (antimuscarinic agent), and the response can be rapid and dramatic. Benzodiazepines and antihistamines with anticholinergic activity (e.g., diphenhydramine, promethazine) can also be used. All of the other answer choices also can be consequences of neuroleptic therapy.

Why you shouldn’t choose the other answers

Read these explanations to understand the important rationale for each answer to help you prepare with future studying.
Choice A: Akathisia is an extrapyramidal syndrome characterized by a feeling of restlessness, frequent repetitive stereotyped movements and an inability to sit still for more than a short period of time. It usually occurs during the first few months of drug use.

Choice C: Neuroleptic malignant syndrome is a rare but potentially fatal syndrome that usually occurs within 10 days of starting neuroleptic therapy. Clinical manifestations include fever, encephalopathy, muscle rigidity, dystonia, diaphoresis, tachycardia and labile blood pressure. Treatment is with dantrolene or with dopamine agonists such as bromocriptine.

Choice D: Parkinsonism, as the name implies, is similar to Parkinson’s disease. Mask-like facies, drooling, tremors, pill-rolling motion, cogwheel rigidity and shuffling gait all may be present. Parkinsonism can be produced by neuroleptic drugs, usually beginning about three weeks after the initiation of therapy.

Choice E: Tardive dyskinesia is an often irreversible syndrome characterized by involuntary, choreoathetoid movements in patients treated with antipsychotic medications. The frequency of tardive dyskinesia increases with age and with the length of therapy. This disorder would be unlikely to occur within a few days of the initiation of drug therapy.