Chapter 8  Drugs for Relaxing Skeletal Muscle

Case Study
Last weekend at the conference invitational gymnastics meet, Michelle injured her back while doing her floor exercise routine. The physician at the invitational examined her and provided Michelle with muscle relaxants to reduce her back muscle spasms. Today is the first day you have seen Michelle since the team returned home. Michelle indicates that she is still taking the medication the physician gave her and is feeling better but finds she is having a hard time staying awake in her classes and has noticed she has constipation, something she usually doesn’t worry about. She is wondering if these are the result of the pain she suffered last weekend. How should you answer Michelle’s questions?

Answer: The athletic trainer would explain to her that these are indeed side effects, but not from her pain. The drugs for relaxing skeletal muscle act in the central nervous system (CNS), and one of their effects is CNS depression. This results in the adverse effect of drowsiness. The skeletal muscle relaxants also commonly cause anticholinergic adverse effects. One of the manifestations of the anticholinergic adverse effects is constipation.

Exam Questions
1. One of the common groups of adverse effects that occur with skeletal muscle relaxants are anticholinergic adverse effects. This group of adverse effects includes:
   a. Diarrhea, pupil constriction, and respiratory depression.
   b. Constipation, dry mouth, and urinary retention.
   c. Decreased heart rate, constipation, and pupil constriction.
   d. Sweating, diarrhea, and urinary retention.
2. Carisoprodol is a skeletal muscle relaxant that is available in combination with:
   a. Aspirin and codeine.
   b. Acetaminophen and codeine.
   c. Aspirin and caffeine.
   d. Acetaminophen and caffeine.
3. An athlete tells you that he has been very sleepy and has had trouble concentrating since beginning therapy with diazepam as a muscle relaxant. You know that these adverse effects occur because diazepam is a(n):
   a. Opioid analgesic.
   b. CNS depressant.
   c. General anesthetic.
   d. Anticholinergic.
4. Discoloration of the urine is an adverse effect of:
   a. Orphenadrine.
   b. Cyclobenzaprine.
   c. Carisoprodol.
   d. Methocarbamol.
5. An athlete has been prescribed cyclobenzaprine for relief of muscle spasms. The athletic trainer should make sure the athlete knows that she should:
   a. Not drive because cyclobenzaprine causes drowsiness.
b. Also take over-the-counter (OTC) Benadryl to help her sleep.
c. Buy OTC Immodium because cyclobenzaprine commonly causes diarrhea.
d. Limit her alcohol consumption to no more than 3 drinks per day.