LEARNING OBJECTIVES

On completion of the chapter, the reader will be able to:

1. Contrast the circumstances of adult and childhood poisoning.
2. Propose several preventive approaches to reduce unintentional poisonings.
3. Describe the first aid that should be performed for an ocular exposure, skin exposure, inhalation, or ingestion of a potentially toxic substance.
4. Compare the benefits and risks of using ipecac syrup, gastric lavage, and activated charcoal for the treatment of acute poisoning.
5. For multiple-dose activated charcoal therapy (charcoal intestinal dialysis), describe its hypothetical mechanism of action, dosage schedule, contraindications, and cautions.
6. Correlate the symptoms of acute overdosage with acetaminophen and their time of appearance.
7. Given a serum acetaminophen concentration and time that it was collected after ingestion, interpret the results with the acetaminophen nomogram.
8. Describe the rationale and procedure for the administration of acetylcysteine and the relationship of the time of initiating treatment and patient outcome.
9. Contrast the pharmacologic actions of organophosphate insecticides, atropine, and pralidoxime.
10. Correlate the symptoms of poisoning with organophosphates and the pharmacologic actions of these agents.
11. Describe the general treatment measures that should be employed for an acute poisoning of an organophosphate insecticide.
12. Correlate the pharmacologic action of calcium channel antagonists with toxic effects found on overdosage.
13. Compare the rationale, indications, and adverse effects for the use of parenteral calcium, insulin–dextrose, and glucagon for calcium channel antagonist poisoning.
14. Contrast the treatment of patients who have overdosed with sustained-release calcium channel antagonists with those with immediate-release products.
15. Correlate the typical symptoms of acute iron poisoning with their time of onset.
16. Given a patient history, indicate the appropriate conditions for using deferoxamine for iron poisoning.
17. State the end-points of therapy with deferoxamine for acute iron poisoning.
18. Describe the typical signs and symptoms of acute overdosage with an opioid drug.
19. Describe the general treatment of an acute opioid overdose including dosing considerations for naloxone.
20. State at least five situations that could produce a poor or no response to naloxone in an opioid-poisoned patient.
21. Categorize the signs and symptoms of poisoning from antidepressant drugs with their pharmacologic actions.
22. Describe the indications for the administration of IV sodium bicarbonate for life-threatening tricyclic antidepressant overdosage.
23. Contrast the acute toxicity of tricyclic antidepressants and selective serotonin reuptake inhibitors.