LEARNING OBJECTIVES

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

1. Describe the processes of hemostasis and thrombosis—specifically the role of the vascular endothelium, platelets, coagulation cascade, and thrombolytic proteins.
2. Discuss the pathogenesis of deep vein thrombosis (DVT) and pulmonary embolism (PE).
4. Recognize the signs and symptoms of DVT and PE.
5. Compare and contrast the mechanisms of action of anticoagulant drugs: warfarin, unfractionated heparin (UFH), the low-molecular-weight heparins (LMWHs), fondaparinux, rivaroxaban, apixaban, and dabigatran.
6. State at least two potential advantages of the LMWHs and fondaparinux over UFH.
7. Analyze the advantages and disadvantages of anticoagulant drugs in terms of their pharmacokinetic and pharmacodynamic properties.
8. Identify factors that place a patient at high risk of bleeding while receiving anticoagulant drugs.
10. Formulate a treatment plan for a patient who develops a DVT or PE consistent with clinical practice guidelines.
12. Select and interpret laboratory test(s) commonly used to monitor anticoagulant drugs.
13. Develop a comprehensive education plan for a patient who is receiving an anticoagulant drug.
14. Formulate an opinion regarding the potential role of rivaroxaban, apixaban, and dabigatran in the prevention and treatment of venous thromboembolism.