Chapter 8:

LEARNING OBJECTIVES

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

1. Explain the following pathophysiologic mechanisms underlying the major arrhythmias: abnormal automaticity, reentry, and triggered activity.
2. Classify the antiarrhythmic drugs (AADs) according to the Vaughan-Williams system.
3. Characterize each AAD class according to effects on ion channels and basic electrophysiologic outcomes.
4. Compare and contrast the side effect profile of individual AADs.
5. List the factors that would guide selection of a specific AAD for an individual patient.
6. Describe the goals of treatment for each of the following arrhythmias: atrial fibrillation (AF)/flutter, paroxysmal supraventricular tachycardia (PSVT), and recurrent ventricular tachycardia (VT).
7. Describe the impact that major clinical trials (e.g., Cardiac Arrhythmia Suppression Trial [CAST], Atrial Fibrillation Follow-up Investigation of Rhythm Management [AFFIRM]) have had on the treatment of atrial and ventricular arrhythmias.
8. Develop a therapeutic regimen and monitoring plan for each of the following arrhythmias: AF/atrial flutter, PSVT, and recurrent VT.
9. Identify the risk factors for stroke in AF and develop an appropriate antithrombotic treatment regimen for an individual patient with this arrhythmia.
10. Outline an algorithm for the acute treatment of torsades de pointes (TdP) based upon current recommendations.
11. Discuss the role of nonpharmacological therapies (e.g., radiofrequency catheter ablation, implantable cardioverter-defibrillators) for the treatment of arrhythmias.
12. Differentiate between the major types of life-threatening proarrhythmia.
13. List the risk factors for developing incessant VT induced by class Ic AADs.
14. List the drugs that are known to prolong repolarization and the QT interval and to cause TdP.
15. Characterize the electrocardiographic characteristics and predisposing factors for the various types of atrioventricular (AV) block.
16. Formulate a treatment plan for vasovagal syncope, carotid hypersensitivity, and the different forms of AV block.