phone calls by the nurse between visits allow parents to discuss their concerns and ask any questions that have arisen.

Cardiac Dysrhythmias

Dysrhythmias, or abnormal heart rhythms, can occur in children with structurally normal hearts, as features of some congenital heart defects, and in patients after surgical repair of congenital heart defects. They are also seen in patients with cardiomyopathy and with cardiac tumors. They can occur secondary to metabolic and electrolyte imbalances. They can be classified in several ways, including by heart rate characteristics (bradycardia and tachycardia) and by the origin of the dysrhythmia in the atria or ventricles. Some dysrhythmias are well tolerated and self-limiting. Others may cause decreased cardiac output with associated symptoms. Some dysrhythmias can cause sudden death. Treatment depends on the cause of the dysrhythmia and its severity.

Many advances have been made in the diagnosis and treatment of pediatric dysrhythmias in the past decade. Improvements in technology have allowed better diagnosis, the development of ablation techniques, and the expansion of pacemaker capabilities. New antidysrhythmic medications have proven safe and effective in children. Radiofrequency ablation has offered a cure for some dysrhythmias. Pediatric electrophysiology has become a highly specialized field, and students should consult more detailed sources for an in-depth discussion. The following sections address diagnostic studies and provide a general discussion of the most common tachycardia (supraventricular tachycardia [SVT]) and the most common bradycardia (complete heart block) that require treatment in the pediatric population.

Diagnostic Evaluation

Nurses must be familiar with the standards of normal heart rate for the particular age group (see inside back cover). An initial nursing responsibility is recognition of an abnormal heartbeat, either in rate or rhythm. When a dysrhythmia is suspected, the apical rate is counted for 1 full minute and compared with the radial rate, which may be lower because not all of the apical beats are felt. Consistently, high or low heart rates should be regarded as