8.1 Correct answer: B
Comment: The PR interval is identical in all complexes, so the diagnosis of Wolff–Parkinson–White syndrome with QRS alternans can be ruled out (Wolff–Parkinson–White complexes would have a short PR segment), as well as ventricular bigeminy occurring in the PR segment for the same reason. On the other hand, QRS complex alternans in a cardiac tamponade change their morphology but not their width. The only valid option for diagnosis is therefore an intermittent left bundle branch block. This phenomenon occurs sometimes in cases of tachycardia-dependent blocks, as in this case, and other times in bradycardia-dependent blocks.

8.2 Correct answer: C
Comment: V1 morphology with a tall R wave but without rSR’ pattern favors ectopy or conduction through an accessory pathway rather than aberrancy from right bundle branch block. A) could perfectly well be a case of ventricular tachycardia. Even B) could represent a case of ventricular tachycardia with a Wenckebach-type 3x2 exit block, although complexes with different morphology support conduction through an accessory pathway. Fibrillation waves (“f” waves) are clearly seen in C) and D) as well as the morphology and width variation of the QRS complexes. Narrow QRS complexes are more or less late, as is usually the case in atrial fibrillation with conduction through an accessory pathway (Figures 4.52 and 4.66). Instead, in cases of ventricular tachycardia, narrow complexes (captures) are always early. Consequently, this case corresponds to different types of supraventricular tachyarrhythmia conducted through an accessory pathway: first (A), a 2x1 atrial flutter, then (B) with a 2x1, 3x1 block (bigeminal rhythm), and, later (C and D), atrial fibrillation in the presence of an intermittent and variable conduction through an accessory pathway.