

## **EVOLUTION OF ANTITHROMBOTIC THERAPY USED IN ACUTE CORONARY SYNDROMES**

1. Design an evidence-based treatment plan for a patient with ST-segment elevation myocardial infarction (STEMI).
2. Design an evidence-based treatment plan for a patient with non-ST-segment elevation (NSTEMI) acute coronary syndrome (ACS).
3. Justify the selection and timing of administration of a 75-mg, 300-mg, 600-mg, or 900-mg initial clopidogrel dose for a patient undergoing percutaneous coronary intervention (PCI) for NSTEMI ACS or STEMI or receiving fibrinolysis for STEMI.
4. Distinguish the efficacy and safety of prasugrel and clopidogrel for patients undergoing PCI.
5. Analyze the evidence for using rivaroxaban, apixaban, cangrelor, and ticagrelor in place of traditional antithrombotics for treating ACS.
6. Given a patient case, design a plan for improvement in quality care performance.
7. Given a patient case, estimate the patient's risk of major bleeding and recommend therapies to reduce the patient's bleeding risk.

## **ATRIAL AND VENTRICULAR ARRHYTHMIAS: EVOLVING PRACTICES**

1. Demonstrate an understanding of the most recent evidence regarding the epidemiology and pathophysiology of atrial fibrillation (AF).
2. Assess the role of statins, angiotensin-converting enzyme inhibitors, angiotensin receptor blockers, and fish oil in the prevention of atrial or ventricular arrhythmias.
3. Using patient-specific information, design an appropriate treatment plan for the acute or chronic management of patients with AF based on the evidence and the most recent treatment guidelines.
4. Given a patient's risk factor profile, justify appropriate selection of antithrombotic therapy in patients with AF.
5. Using patient-specific information, devise a pharmacotherapy treatment plan for patients with pulseless ventricular tachycardia, ventricular fibrillation, pulseless electrical activity, or asystole.
6. Analyze the role of implantable cardioverter-defibrillator therapy for the primary and secondary prevention of sudden cardiac death and develop a plan for reducing the frequency of appropriate or inappropriate shocks from these devices.
7. For each pharmacotherapy treatment plan developed for patients with atrial or ventricular arrhythmias, formulate a monitoring plan to assess efficacy as well as potential adverse effects and drug interactions.

## **PERIOPERATIVE MANAGEMENT OF ANTITHROMBOTIC THERAPY**

1. Evaluate risk factors that will influence the management of perioperative antithrombotic therapies for patients undergoing cardiac or noncardiac surgery.
2. Apply recent guideline recommendations to design an appropriate perioperative anticoagulation regimen for patients requiring vitamin K antagonists related to anticoagulation who will undergo either cardiac or noncardiac surgery.
3. Apply recent guideline recommendations to design a care plan for patients with acute and chronic indications for antiplatelet therapy.
4. Develop a treatment plan to provide appropriate high-dose systemic anticoagulation necessitated by cardiopulmonary bypass during cardiac surgery.
5. Develop a treatment plan for the postoperative reversal of systemic anticoagulation provided during cardiac surgery and for postoperative surgical site bleeding associated with cardiac surgery.