



**FIGURE 24-2** Stepwise clinical evaluation algorithm for diagnostic cardiac catheterization: (1) emergency surgery; (2) prior coronary revascularization; (3) prior coronary evaluation; (4) clinical assessment; (5) revised cardiac risk index; (6) risk modification strategies. Preventive medical therapy includes  $\beta$ -blocker and statin therapy. ACC, American College of Cardiology; AHA, American Heart Association; AS, aortic stenosis; CHF, congestive heart failure; ECG, electrocardiogram; MET, metabolic equivalent; RCRI, Revised Cardiac Risk Index.

management of hypertension, CHF, chronic renal failure, and ischemic heart disease. Evidence supports the discontinuation of these agents for 24 hours before noncardiac surgery because of adverse circulatory effects after induction of anesthesia in patients on a chronic ACE inhibitor regimen and use of vasopressin agonists for refractory hypotension after induction of anesthesia.

### Oral Antithrombotic Agents

Evidence-based recommendations regarding perioperative use of aspirin, clopidogrel, or both to reduce cardiac risk currently lack

clarity. A substantial increase in perioperative bleeding and transfusion requirement in patients receiving dual antiplatelet therapy has been observed. The discontinuation of clopidogrel for 5 days and aspirin for 5 to 7 days before major surgery to minimize the risk of perioperative bleeding and transfusion must be balanced with the potentially increased risk for an acute coronary syndrome, especially in high-risk patients with recent coronary stent implantation. If clinicians elect to withhold aspirin before surgery, it should be restarted as soon as possible postoperatively, especially after vascular graft procedures.