

Current Indications for Amiodarone Use

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1. With the significant side-effect profile of amiodarone therapy and its long half life, what are the current indications and cautions for its use?

Question submitted by: Richard Wianechi, Mississauga, Ontario

Unfortunately, nothing is for free when it comes to managing cardiac dysrhythmias. While amiodarone remains the most effective antiarrhythmic medicine available for treating both supraventricular and ventricular tachyarrhythmias, the superior efficacy of the drug comes at a cost. There are many potential side-effects of amiodarone, including blue-gray skin discoloration, photosensitivity, hypothyroidism and hyperthyroidism, pulmonary toxicity, peripheral neuropathy, optic neuropathy, and hepatotoxicity (where elevated liver enzyme levels occur in 15% to 30% of patients and hepatitis or cirrhosis in

less than 3% of patients). The risk of these side-effects increases with the duration of therapy.¹ As a result, amiodarone should be used with close follow-up in patients who are likely to derive the most benefit, which includes those with acute sustained ventricular arrhythmias and those with implantable cardioverter-defibrillators and symptomatic shocks.² As for management of atrial fibrillation, amiodarone should be reserved for those patients who have either significant left ventricular dysfunction (ejection fraction < 35%) or have failed multiple other antiarrhythmic therapies like propafenone, sotalol, or

dronedarone. And, regardless of the indication for use, patients on amiodarone need to have consistent biannual screenings of liver, thyroid, and pulmonary function, and they should avoid drugs that can potentiate toxicity, such as rate-slowing medications.

References:

1. Vorperian VR, Havighurst TC, Miller S, *et al*: Adverse Effects of Low Dose Amiodarone: A Meta-analysis. *J Am Coll Cardiol* 1997;30(3):791-8
2. Vassallo P, Trohman RG: Prescribing Amiodarone: An Evidence-based Review of Clinical Indications. *JAMA* 2007;298(11):1312-22

Answered by:
Dr. Theodore K. Fenske

Drug-eluting Stents

2. Are drug-eluting stents all that they're cracked up to be, and what is their short term prognosis vs. long-term prognosis?

Question submitted by: anonymous

The introduction of coronary stents to the application of balloon angioplasty represented a major step forward, which provided increased vessel patency and overall success of the procedure. Acute closure of the target artery was less of a problem, but recurrence of stenosis and the need for target vessel revascularization remained a problem. Drug-eluting stents were introduced and received expedited approval from the regulatory authorities because of the improved rate of success,

the significant reduction of restenosis, and the need for target vessel revascularization. In the short term (within the first year), there is no doubt that drug-eluting stents represented a major improvement. In The Alberta Provincial Project for Outcome Assessment in Coronary Heart Disease (APPROACH) study, drug eluting stents were selected for patients who had a greater burden of comorbid illnesses, such as diabetes mellitus or renal failure, than those who received bare metal

stents. Within one year, the drug eluting stents were associated with a decreased mortality and a significant reduction in the rate of the composite of death or repeat revascularization compared to bare metal stents. In the subgroup of patients with acute coronary syndromes, there was a marked reduction in death or repeat revascularization.

Answered by:
Dr. Wayne Warnica