

1. Can you provide an update on the indications/guidelines for the use of clopidogrel bisulfate (Plavix®) for acute coronary syndrome (ACS) beyond the initial six weeks?

Question submitted by: Dr. Brian Fernandes, Edmonton, Alberta.

Clopidogrel combined with acetylsalicylic acid (ASA) has been shown to be clinically superior to ASA alone in reducing cardiac events (myocardial infarction, stroke, and cardiovascular death) following presentation with ACS. Although the major benefits are observed at 30 days, there are ongoing benefits for up to at least nine months. This holds true for patients treated medically and for those undergoing percutaneous transluminal coronary angioplasty (PTCA).

The optimum duration of therapy with clopidogrel is not known, but longer duration studies are underway. In general, for patients who do not undergo angiography and PTCA, at least nine months of therapy is prudent. For those

who do undergo PTCA/stenting, the precise duration is less clear, but should range between one month and nine months.

Clopidogrel plus ASA has been shown to be superior to ASA alone in reducing cardiac events after ACS.

Due to a slight increase in the risk of bleeding, clopidogrel therapy should be stopped at least five days, or, ideally, seven days before planned coronary artery bypass grafting surgery.

Answered by:

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2. In which patients would post-PCI testing be best recommended and how?

Question submitted by: Dr. Alkykhan
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Percutaneous coronary intervention (PCI) is limited by the fact that a substantial number of patients develop restenosis within the first six months. Because of the high restenosis rates documented in patients undergoing PCI, authorities¹ have recommended various strategies to identify and treat patients with restenosis. There is currently little information on which to base functional testing strategies after PCI.

Some physicians use an aggressive approach of routine functional testing, while others use a more conservative one. Although numerous studies have shown that routine functional testing with an exercise treadmill test and perfusion imaging can identify patients with restenosis, the clinical value of aggressively attempting to diagnose restenosis is unclear.

Routine functional testing is likely to be associated with an increased number of followup procedures and costs. Therefore, several experts have suggested physicians use selective functional testing after PCI, which is only employed in patients who have atypical symptoms. For those patients with symptoms highly suggestive of restenosis, cardiac catheterization without functional testing is recommended. As for the approximately 50% of patients who are asymptomatic,² no functional testing is done.

The American College of Cardiology (ACC) and the American Heart Association (AHA) have issued guidelines for exercise testing.³ These guidelines suggest functional testing should not be performed routinely following PCI. However, these guidelines do leave open the possibility that routine functional testing may be used in high-risk subgroups of patients (*e.g.*, those with proximal left anterior descending artery lesions, those with diabetes, *etc.*). Also, with the recent advent of drug-eluting stents, the need for post-PCI functional testing may be reduced dramatically. 

References

1. Fletcher GF, Froelicher VF, Hartley LH, et al: Exercise standards: A statement for health professionals from the American Heart Association. *Circulation* 1990; 82(6):2286-322.
2. Hernandez RA, Macaya C, Iniguez A, et al: Midterm outcome of patients with asymptomatic restenosis after coronary balloon angioplasty. *J Am Coll Cardiol* 1992; 19(7):1402-9.
3. Gibbons RJ, Balady GJ, Bricker JT, et al: ACC/AHA 2002 guideline update for exercise testing: Available online at: www.acc.org/clinical/guidelines/exercise/dirIndex.htm (Accessed February 25, 2004).

Answered by:

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