

ACC/AHA/AHRQ/CMS/JCAHO PRACTICE ADVISORY

September 7, 2006

Response to COMMIT/CCS-2 Trial Results: Beta Blocker Use for Myocardial Infarction (MI) Within 24 Hours of Hospital Arrival

At the American College of Cardiology Annual Scientific Session '05 in Orlando, preliminary COMMIT/CCS-2 trial results evaluating the use of metoprolol for the emergency treatment of ST elevation myocardial infarction were presented. As the largest clinical trial ever undertaken in China and the second largest trial ever conducted in this patient population in the world, the preliminary results raised questions about the use of beta blockers (IV then oral dosing) in the early stages of MI, especially in Killip Class II and III heart failure patients. The final results of this trial have now been published.

In support of national efforts to develop a common set of performance measures, the American College of Cardiology, American Heart Association, Agency for Healthcare Research and Quality, Centers for Medicare and Medicaid Services, and the Joint Commission on Accreditation of Healthcare Organizations undertook a joint review of the published findings from the COMMIT/CCS-2 trial to evaluate whether the relevant performance measure (Beta Blocker Use for Myocardial Infarction (MI) Within 24 Hours of Hospital Arrival) should be updated based on these new findings.

In general, the COMMIT/CCS-2 study reaffirms previous findings that the use of early beta-blocker therapy in acute MI reduces the risks of reinfarction and ventricular fibrillation, although there may be an increased risk of early (i.e., within the first day) cardiogenic shock, especially in patients who present with high risk features (i.e., Killip class III, high shock risk index, relatively low systolic blood pressure and/or tachycardia).¹ Current evidence-based guidelines for STEMI and NSTEMI support the consideration of early oral therapy with beta blockers in patients with AMI. The COMMIT study, although raising concerns about the use of intravenous beta blockers in patients with STEMI presenting with heart failure or tachycardia, also emphasizes the importance of individualizing treatment. The performance measure, while supporting early beta blockade in AMI, specifically excludes patients with documented heart failure or patients for whom clinicians document a specific rationale for not providing treatment, which could include a high risk for cardiogenic shock. The intent and current specifications for the performance measure are, therefore, judged to be generally consistent with the findings of the recent COMMIT trial and will not be updated at this time.

The practicing community is encouraged to review the current guidelines and performance measure specifications. These documents contain more detailed information about contraindications and exclusion criteria for the early use of beta blockers in patients

presenting with MI (see attached fact sheet). The measures have been constructed to allow for clinical judgment and documentation of reasons for not prescribing beta blockers. As such, the specifications are meant to encourage evidence-based care and to help clinicians avoid care oversights, but do not mandate that everyone is treated in exactly the same way.

It is also important to remember that a number of other trials have been conducted in this area and are currently reflected in both the guidelines and performance measures. Each patient should be evaluated in the context of all the information that has been published in the medical literature and in the current statements of the organizations represented in this advisory. It should be emphasized that, although the COMMIT study looked only at short term outcomes, beta blockers have been shown to provide important benefits to MI patients over the long term.²

¹ Chen ZM, Pan HC, Chen YP et al. Early intravenous then oral metoprolol in 45,852 patients with acute myocardial infarction: randomised placebo-controlled trial. *Lancet*. 2005;366:1622-1632.

² Antman EM, Anbe DT, Armstrong PW, Bates ER, Green LA, Hand M, Hochman JS, Krumholz HM, Kushner FG, Lamas GA, Mullany CJ, Ornato JP, Pearle DL, Sloan MA, Smith SC Jr. ACC/AHA guidelines for the management of patients with ST-elevation myocardial infarction: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines (Committee to Revise the 1999 Guidelines for the Management of Patients With Acute Myocardial Infarction). *J Am Coll Cardiol*. 2004;44:E1-E211.