RISE IN POST-ACS EVENT RATES WITH THE 2012 UNIVERSAL DEFINITION OF MYOCARDIAL INFARCTION

Poster Contributions
Poster Sessions, Expo North
Saturday, March 09, 2013, 3:45 p.m.–4:30 p.m.

Session Title: STEMI Topics
Abstract Category: 1. Acute Coronary Syndromes: Clinical
Presentation Number: 1171-204

Authors: Hadi Jarir Halazun, Siqin Ye, Karina Davidson, Jonathan Newman, William Whang, Columbia University, New York, NY, USA

Background: The effect of the 2012 European Society of Cardiology/American Heart Association Universal Definition of myocardial infarction (MI) on event rates in clinical studies has not been well characterized.

Methods: 695 subjects hospitalized for acute coronary syndrome (ACS) were enrolled in the Prescription Use, Lifestyle, & Stress Evaluation study. Deaths and hospitalizations during a 12-month period post-hospital discharge were reviewed. We compared the number of MI's according to a definition based on a troponin level above the clinical decision limit for specific assays, versus the 2012 Universal Definition of MI. The composite outcome of death / MI / urgent revascularization was also compared.

Results: The mean age was 63.2 years, and 33.5% were female. There were 24 (3.5%) deaths. The number of MI's doubled with the application of the 2012 Universal Definition (29 [4.2%] to 63 [9.1%]). There was also an increase in the composite outcome of death / MI / urgent revascularization, from 89 (12.3%) to 107 (15.4%). Of the 34 additional MI's identified by the 2012 Universal Definition, 15 (41.2%) were type 1 and 16 (51.6%) were type 2.

Conclusion: Application of the 2012 Universal Definition doubled the number of MIs identified and modestly increased our composite outcome of death / MI / urgent revascularization. These results have important implications for planning of future trials in post-ACS patients.

Figure 1. Number of myocardial infarctions, by different definitions.*