Researchers ID potential patient population who may benefit from novel anti-platelet treatment

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Prasugrel, a novel anti-platelet therapy, is used to prevent recurrent cardiovascular events in patients who have had a prior heart attack, suffer severe chest pain and have been treated with coronary artery procedures (revascularization).

Recent results from a large clinical trial, the TRILOGY ACS study that focused on the effectiveness and safety of prasugrel in high-risk patients with acute coronary syndrome (ACS) who are medically managed without revascularization, found a neutral effect (failed to show a reduction in major cardiovascular events compared with clopidogrel).

However, in a new analysis, researchers from Brigham and Women's Hospital (BWH) examined whether prasugrel would benefit a subset of patients with acute coronary syndrome (ACS), a condition categorized by sudden, reduced blood flow to the heart, who underwent angiography (visualization of the coronary arteries), but did not have a percutaneous coronary intervention (PCI), prior to being randomized to receive either prasugrel or clopidogrel.

Stephen D. Wiviott, MD, senior investigator with the TIMI Study Group, associate physician, Cardiovascular Division at BWH, and associate professor of Medicine at Harvard Medical School presented the data at the Transcatheter Cardiovascular Therapeutics 2012 meeting in Miami, FL on October 24, 2012 with Deepak L. Bhatt, MD, MPH, Chief of

Cardiology at VA Boston Healthcare System, a senior physician in the Cardiovascular Division at BWH and professor of Medicine at Harvard Medical School.

"Despite the neutral findings of the TRILOGY study, it may be possible to identify a subset of medically managed patients who benefit from more intensive platelet blockade," said Dr. Wiviott. "What we found was that there may be a distinct patient population among those who do not receive a PCI, who could be successfully managed with this therapy, however to prove this, additional study would be required."

This analysis looked at prasugrel versus clopidogrel and the benefits to patients who were randomized to placebo within 10 days of a cardiovascular event, either unstable angina or a specific type of heart attack called a Non ST-Elevation Myocardial Infarction. Angiography was not required, but if performed, had to be done before randomization, and evidence of coronary disease had to be seen. Researchers report that overall, prasugrel did not show significant reduction in cardiovascular events among patients managed medically for ACS. However, researchers report that when treated with prasugrel compared to clopidogrel, patients triaged to medical therapy following angiography tended to have lower rates of the combined endpoint of cardiovascular disease, heart attack, or stroke, but higher rates of bleeding.

"This sub-study of the TRILOGY ACS trial suggests that certain patients may experience a greater advantage with a more potent anti-platelet therapy for a longer duration compared with other trials," said E. Magnus Ohman, MD, a professor of Medicine at Duke Medicine and Chairman of the TRILOGY ACS study. "This is just one insight from the broader trial data, which suggested benefit reducing multiple cardiac events, when used for up to 30 months. We are pleased that the TRILOGY ACS trial is providing this wealth of new information that

will help shape how ACS patients are managed without artery-opening procedures."

"There seems to be a benefit here, and while more research is needed, our results are consistent with previous research and they suggest that when coronary disease is confirmed by angiography, the benefit and risks of intensive anti-platelet therapy exist whether medical therapy is elected or PCI is performed," Dr. Wiviott said.

Provided by Brigham and Women's Hospital