

New study suggests potent antiplatelet drug effective with low-dose aspirin

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When taken with higher doses of aspirin (more than 300 milligrams), the experimental antiplatelet drug ticagrelor was associated with worse outcomes than the standard drug, clopidogrel, but the opposite was true with lower doses of aspirin.

The study is a secondary analysis of a clinical trial that compared the two drugs and found ticagrelor to be less effective in North America than in other countries.

Researchers suggest the aspirin dose in combination with anti-clotting medicine may alter ticagrelor's effectiveness.

The experimental [antiplatelet](#) drug ticagrelor prevented significantly more [cardiovascular complications](#) than the standard medication clopidogrel when used with low-dose aspirin, according to new research reported in the American Heart Association's Emerging Science Series webinar.

However, patients taking ticagrelor with high-dose aspirin fared worse than those taking clopidogrel, according to the researchers' new analysis of data from a clinical trial comparing the drugs. Both drugs are used to prevent potentially dangerous blood clots from forming in patients with acute coronary syndromes, including those who have suffered a heart attack.

The new analysis found that patients taking ticagrelor with less than 300 milligrams of aspirin daily were 16 percent less likely than those taking

clopidogrel with low-dose aspirin to have a [heart attack](#), stroke or to die within a year.

In the initial analysis of the data from the Platelet Inhibition and [Patient Outcomes](#) (PLATO) trial, ticagrelor was less effective than [clopidogrel](#) in North America but not in other parts of the world. Researchers examined the PLATO data to determine why these regional differences occurred. While they could not exclude chance, they identified aspirin dose as a potential explanation.

Ticagrelor is already approved for use in some countries but still under [Federal Drug Administration](#) review in the United States.

"Patients with [acute coronary syndrome](#) have options to prevent recurrent events," said Kenneth W. Mahaffey, M.D., lead author and co-director of cardiovascular research at the Duke Clinical Research Institute, and associate professor of medicine at Duke University Medical Center. "Physicians choosing to use ticagrelor in countries where it is approved and available should consider using a low-dose of maintenance aspirin with the drug."

The study will be presented in the American Heart Association's Emerging Science Series. The series is a free online webinar presentation of cutting-edge science. The Emerging Science Series provides a new venue for presenting the latest cardiovascular scientific breakthroughs several times a year, when the discoveries are ready to be presented rather than waiting for a regularly scheduled meeting. Each study is handled in a peer-reviewed process similar to late-breaking clinical trials presented at AHA's annual Scientific Sessions.

The series will include the first presentation of data from clinical trials, basic science, key updates of previously presented trials and major bench-to-bedside breakthroughs. The webinar will be viewable from a

computer or mobile phone and attendees can post questions electronically before or after the event.

More information: Presentations will be archived for on-demand viewing. For registration and information about the series visit: http://my.americanheart.org/professional/Sessions/AdditionalMeetings/EmergingScienceSeries/New-Emerging-Science-Series_UCM_424613_Article.jsp

Provided by American Heart Association

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