Clopidogrel in Acute Coronary Syndromes: Can the Cost Effectiveness Improve?

To the Editor:

The usefulness of clopidogrel and aspirin in acute coronary syndromes (Clopidogrel in Unstable angina to prevent Recurrent Events [CURE] Trial) was clear from the beginning and was confirmed again in the new report from Yusuf et al.1 The actual question is: could the cost effectiveness still be improved?

I propose the combination of aspirin and clopidogrel during the first 30 days. Beyond 30 days, these medications could be given on alternate days, one day aspirin and the other day clopidogrel. That would reduce the cost, probably not affecting the efficacy and maybe reducing the risk of life-threatening bleeds.

With this approach, the main effect would be reached in the first 30 days (4.3% versus 5.4%), when one needs to treat 91 patients to prevent one event. Beyond 30 days, the events would rise only 0.9% in total (5.2% versus 6.3%), the relative risk reduction would remain 18%, and the absolute risk reduction would then be only 0.16%, resulting in a “number needed to treat” of 625 to prevent an event. It is also important to remember that the effect of aspirin is irreversible, so it would be active on the day off, and the new, unaffected platelets would then be inhibited by clopidogrel. This strategy could be very useful for the patients (and doctors) with limited economic resources. It could also be useful in cases of aspirin resistance.

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Response

Sanchez-Delgado makes an interesting point for which prospective data are needed. In the US Physicians study, aspirin at 325 mg on alternate days was effective in preventing vascular events. Further, we know that doses of aspirin as low as 80 mg per day are effective. However, similar data are not available with clopidogrel. Given the prolonged effects of both aspirin and clopidogrel, an alternate-day strategy may make pharmacologic sense at initial glance. However, this hypothesis requires prospective evaluation in well-designed trials of alternate-day antiplatelet therapy versus daily treatment, as many unpredictable factors often destroy elegant hypotheses. Until such data are available, it would be wise to stick with the proven regimen of daily use of clopidogrel, 75 mg, plus aspirin, as used in the CURE (Clopidogrel in Unstable angina to prevent Recurrent Events) Trial.

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