Wyoming Drug Utilization Review

Possible Interaction Between Clopidogrel and Proton Pump Inhibitors

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The FDA issued a MedWatch regarding a possible drug-drug interaction between clopidogrel and omeprazole in November of 2009.[1] Clopidogrel is a prodrug and undergoes hepatic metabolism (via CYP 2C19) to form an active metabolite. Poor metabolizers and patients taking medications that inhibit CYP 2C19 may experience decreased efficacy of clopidogrel. Reduced platelet inhibition correlates with an increase in risk for cardiovascular complications.

The initial notice of this interaction occurred in 2006 in a letter to the editor.[2] Since that time, over 50 articles have been published with conflicting outcomes. Some suggest it is a class effect with all proton pump inhibitors involved, others have conflicting results regarding specific PPIs. Some studies have found that there is no change in outcomes with the combination of PPIs and clopidogrel, and some suggest that the interaction increases the risk for heart attacks, acute coronary syndrome events and death.

Given the range of data available and the potential for severe outcomes if an interaction exists, it may be prudent to avoid the combination of PPIs with clopidogrel when clinically possible. If acid reduction therapy with a PPI is warranted, pantoprazole appears to have the least likelihood of causing an interaction.[3,4]

References

1. MedWatch. Clopidogrel (marketed as Plavix) and omeprazole (marketed as Prilosec) - drug interaction (11-17-09). U.S. Food and Drug Administration Web site. Available at: http://www.fda.gov/Safety/MedWatch/SafetyInformation/SafetyAlertsforHumanMedicalProducts/ucm190848.htm. Accessed: January 13, 2010.
2. Gillard M, Arnaud B, Le Gal G, Abgrall JF, Boschat J. Influence of omeprazol on the antiplatelet action of clopidogrel associated to aspirin. J Thromb Haemost. 2006;4:2508–2509.
3. Norgard NB, Mathews KD, Wall GC. Drug-drug interaction between clopidogrel and the proton pump inhibitors. Ann Pharmacother. 2009;43:1266-74.
4. Siller-Matula JM, Spiel AO, Lang IM. Effects of pantoprazole and esomeprazole on platelet inhibition by clopidogrel. Am Heart J 2009;157:148.e1-148.e5.

Editor's Note

Pantoprazole is no longer a preferred agent on the Wyoming Medicaid Preferred Drug List. However, in light of the mixed evidence on this drug interaction, pantoprazole will be approved for patients taking clopidogrel concomitantly.

2010 P & T Committee Meetings Dates

February18
May 20
August 19
November 18

Meetings are from 9 am – 3 pm and are held in Cheyenne. The location and agenda (available approximately 3 weeks prior to meeting date) are available at the DUR website www.uwyo.edu/DUR.

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Wyoming Drug Utilization Review Board
Public Comment Policy

(Effective 2/1/10)

- A public comment period is provided during all DUR Board meetings. Each presenter will have a maximum of three minutes to present all oral comments to the Board.

- Any handouts/written information for the Board should be provided electronically to:

  alewis13@uwyo.edu AND lgm@uwyo.edu

  at least **ten business days (14 calendar days)** prior to a meeting. This review time will allow the Board to more fully incorporate the information into any recommendations or decisions made during the meeting.

- ***Any written information not submitted as above will not be submitted to the Board for consideration. Handouts may not be provided at the meeting.***

- Due to time constraints associated with decreasing the number of meetings held each year, presenters are asked not to present information that is readily available in the package insert or is well-known to most health care providers.

- Presenters will be asked to answer the following questions during their presentation:

  1. What action are you asking the Board to take?
  2. What evidence do you have to support the requested action? (i.e. comparative studies if you are asking for your product to be preferred with or over another agent).
  3. What evidence is there that is contrary to the requested action? (i.e. any negative studies conducted with your product).

  This information must be submitted via the official form (page 3) following the above policy for written information at least ten business days prior to the meeting.

- **Presenters are strongly encouraged to provide published evidence to support the comments that will be made during the meeting as the Board values this type of information. All evidence must be submitted electronically per the policy above.**

WY P & T Committee
Public Comment Request Form

Name

Affiliation

Which person or organization alerted you to this meeting?

Are you being offered financial or other incentives to attend this meeting (e.g., money, the offer of dinner, free samples in the clinic, patient referrals, gifts)?

Were you asked to speak about something specifically?

Have you been a paid speaker for any pharmaceutical manufacturer? Which manufacturer?

Do you own stock in the company mentioned above?

Have you received funding for research by a pharmaceutical manufacturer?

Do you often prescribe this medication or medications in this therapeutic class?

Presentation information:

What action are you asking the Board to take?

What evidence do you have to support the requested action? (ie comparative studies if you are asking for your product to be preferred with or over another agent).

What evidence is there that is contrary to the requested action? (ie any negative studies conducted with your product).

Please attach all studies cited above.

By signing this form, I hereby attest that the answers given above are true, correct, complete, and not intended to mislead

Signature

Date

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In This Issue

Possible Interaction Between Clopidogrel and Proton Pump Inhibitors

2010 P&T Committee Meeting Dates

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