

The Medical Letter®

On Drugs and Therapeutics

Published by The Medical Letter, Inc. • 1000 Main Street, New Rochelle, NY 10801 • A Nonprofit Publication

IN THIS ISSUE (starts on next page)

In Brief: Poor Metabolizers of Clopidogrel (*Plavix*) p 33

Important Copyright Message

The Medical Letter® publications are protected by US and international copyright laws. Forwarding, copying or any distribution of this material is prohibited.

Sharing a password with a non-subscriber or otherwise making the contents of this site available to third parties is strictly prohibited.

By accessing and reading the attached content I agree to comply with US and international copyright laws and these terms and conditions of The Medical Letter, Inc.

**For further information click: [Subscriptions](#), [Site Licenses](#), [Reprints](#)
or call customer service at: 800-211-2769**

FORWARDING OR COPYING IS A VIOLATION OF US AND INTERNATIONAL COPYRIGHT LAWS

The Medical Letter®

On Drugs and Therapeutics

Published by The Medical Letter, Inc. • 1000 Main Street, New Rochelle, NY 10801 • A Nonprofit Publication

Volume 52 (Issue 1337)
May 3, 2010

www.medicalletter.org

IN BRIEF

Poor Metabolizers of Clopidogrel (Plavix)

The FDA has required the manufacturer of *Plavix*, an antiplatelet drug used in addition to aspirin to prevent cardiovascular events in high-risk patients,¹ to add a boxed warning to the package insert about the risk of a poor response to the drug in patients with genetic polymorphisms of the cytochrome P450 enzyme CYP2C19. Clopidogrel is a prodrug and CYP2C19 is mainly responsible for its bioactivation. The Medical Letter reported last year that several studies have found higher rates of cardiovascular events, including stent thrombosis, in patients with these polymorphisms taking clopidogrel.²

At least one genetic polymorphism leading to poor metabolism of clopidogrel has been reported to occur in 15% of Caucasians, 17% of African Americans and 30% of Asians.³ Since many patients take clopidogrel to protect against life-threatening events, and some continue to do so for extended periods of time, it might be worthwhile to test for these polymorphisms. Such tests, requiring small amounts of blood or saliva, are commercially available from clinical laboratories. More directly, patients who are taking clopidogrel could have platelet aggregation assays to determine whether the drug is being activated.

However, the best course of action for patients who prove to be poor metabolizers of clopidogrel is not clear. They could be treated with higher doses of clopidogrel, but the doses that would be safe and effective in such patients have not been established. Alternatively, they could be treated with prasugrel (*Effient*), a similar antiplatelet drug that does not require CYP2C19 for activation, instead of clopidogrel, but prasugrel has a greater effect on platelets and may cause more bleeding.⁴

1. Antiplatelet and anticoagulant drugs. *Treat Guidel Med Lett* 2008; 6:29.
2. PPI interactions with clopidogrel revisited. *Med Lett Drugs Ther* 2009; 51:13.
3. Z Desta et al. Clinical significance of the cytochrome P450 2C19 genetic polymorphism. *Clin Pharmacokinet* 2002; 41:913.
4. Prasugrel (*Effient*) vs. clopidogrel (*Plavix*). *Med Lett Drugs Ther* 2009; 51:69.

The Medical Letter®

On Drugs and Therapeutics

EDITOR IN CHIEF: Mark Abramowicz, M.D.
EXECUTIVE EDITOR: Gianna Zuccotti, M.D., M.P.H., F.A.C.P., Harvard Medical School
EDITOR: Jean-Marie Pflomm, Pharm.D.
ASSISTANT EDITORS, DRUG INFORMATION: Susan M. Daron, Pharm.D., Blaine M. Houst, Pharm.D., Corinne E. Zanone, Pharm.D.
CONSULTING EDITOR: Brinda M. Shah, Pharm.D.
ADVISORY BOARD:
Jules Hirsch, M.D., Rockefeller University
Gerald L. Mandell, M.D., University of Virginia School of Medicine
Dan M. Roden, M.D., Vanderbilt University School of Medicine
CONTRIBUTING EDITORS:
Carl W. Bazil, M.D., Ph.D., Columbia University College of Physicians and Surgeons
Vanessa K. Dalton, M.D., M.P.H., University of Michigan Medical School
Eric J. Epstein, M.D., Albert Einstein College of Medicine
David N. Juurlink, BPhm, M.D., Ph.D., Sunnybrook Health Sciences Centre
Richard B. Kim, M.D., University of Western Ontario
Hans Meinertz, M.D., University Hospital, Copenhagen
Sandip K. Mukherjee, M.D., F.A.C.C., Yale School of Medicine
F. Estelle R. Simons, M.D., University of Manitoba
Jordan W. Smoller, M.D., Sc.D., Harvard Medical School
Neal H. Steigbigel, M.D., New York University School of Medicine
SENIOR ASSOCIATE EDITORS: Donna Goodstein, Amy Faucard
ASSOCIATE EDITOR: Cynthia Macapagal Covey
EDITORIAL FELLOW: Vincent Teo, B.Sc. Phm, Sunnybrook Health Sciences Centre

MANAGING EDITOR: Susie Wong
ASSISTANT MANAGING EDITOR: Liz Donohue
PRODUCTION COORDINATOR: Cheryl Brown

EXECUTIVE DIRECTOR OF SALES: Gene Carbona
FULFILLMENT & SYSTEMS MANAGER: Cristine Romatowski
DIRECTOR OF MARKETING COMMUNICATIONS: Joanne F. Valentino
VICE PRESIDENT AND PUBLISHER: Yosef Wissner-Levy

Founded in 1959 by
Arthur Kallet and Harold Aaron, M.D.

Copyright and Disclaimer: The Medical Letter is an independent nonprofit organization that provides health care professionals with unbiased drug prescribing recommendations. The editorial process used for its publications relies on a review of published and unpublished literature, with an emphasis on controlled clinical trials, and on the opinions of its consultants. The Medical Letter is supported solely by subscription fees and accepts no advertising, grants or donations.

No part of the material may be reproduced or transmitted by any process in whole or in part without prior permission in writing. The editors do not warrant that all the material in this publication is accurate and complete in every respect. The editors shall not be held responsible for any damage resulting from any error, inaccuracy or omission.

Subscription Services

Mailing Address:
The Medical Letter, Inc.
1000 Main Street
New Rochelle, NY 10801-7537
Customer Service:
Call: 800-211-2769 or 914-235-0500
Fax: 914-632-1733
Web Site: www.medicalletter.org
E-mail: custserv@medicalletter.org

Permissions:
To reproduce any portion of this issue, please e-mail your request to: permissions@medicalletter.org

Subscriptions (US):
1 year - \$98; 2 years - \$167;
3 years - \$235. \$49.00 per year for students, interns, residents and fellows in the US and Canada.
CME: \$70 for 26 credits.

E-mail site license inquiries to:
info@medicalletter.org or call 800-211-2769 x315.
Special fees for bulk subscriptions. Special classroom rates are available. Back issues are \$12 each. Major credit cards accepted.

Copyright 2010. ISSN 1523-2859