

Q  
TANG65

# Annals of Internal Medicine

www.annals.org

ESTABLISHED IN 1927 BY THE AMERICAN COLLEGE OF PHYSICIANS



LETTERS 145  
COMPLETE CONTENTS I-5

## ARTICLES

**Exercise Is Associated with Reduced Risk for Incident Dementia among Persons 65 Years of Age and Older** 73

LARSON, WANG, BOWEN, MCCORMICK, TERI, CRANE, AND KUKULL

**Socioeconomic Status and Mortality after Acute Myocardial Infarction** 82

ALTER, CHONG, AUSTIN, MUSTARD, IRON, WILLIAMS, AND OTHERS

**Clarithromycin-Resistant Genotypes and Eradication of *Helicobacter pylori*** 94

DE FRANCESCO, MARGIOTTA, ZULLO, HASSAN, AND OTHERS

**Brief Communication: Tamoxifen Therapy for Nonmalignant Retroperitoneal Fibrosis** 101

VAN BOMMEL, HENDRIKSZ, AND OTHERS

## IMPROVING PATIENT CARE

**Problem Doctors: Is There a System-Level Solution?** 107

LEAPE AND FROMSON

## REVIEW

**Systematic Review: Antimicrobial Urinary Catheters To Prevent Catheter-Associated Urinary Tract Infection in Hospitalized Patients** 116

JOHNSON, KUSKOWSKI, AND WILT

## PERSPECTIVE

**Acute Pain Management for Patients Receiving Maintenance Methadone or Buprenorphine Therapy** 127

ALFORD, COMPTON, AND SAMET

## EDITORIALS

**Mens Sana in Corpore Sano** PODEWILS AND GUALLAR 135

**Going Back To Understand the Future: Socioeconomic Position and Survival after Myocardial Infarction** KAPLAN 137

**Improving *Helicobacter pylori* Eradication Regimens** 140

FRANCOIS AND BLASER

## ON BEING A DOCTOR

**Of Poems and Patients** SEDER 142

Aziza KANNAI 143

## CURRENT CLINICAL ISSUES

**Health and the Environment after Hurricane Katrina** 153

FISHER WILSON

537

EBLING LIBRARY  
UNIVERSITY OF WISCONSIN  
JAN 24 2006  
750 Highland Avenue  
Madison, WI 53705

# CONTENTS *Annals of Internal Medicine*

17 January 2006 144 2 73-156

## ARTICLES

### Exercise Is Associated with Reduced Risk for Incident Dementia among Persons 65 Years of Age and Older 73

E.B. Larson, L. Wang, J.D. Bowen, W.C. McCormick, L. Teri, P. Crane, and W. Kukull

The authors followed 1740 persons who did not have cognitive impairment at baseline. During a mean follow-up of 6.2 years, 158 participants developed dementia; the incidence rate was 13.0 per 1000 person-years for those who exercised 3 or more times per week at baseline and 19.7 per 1000 person-years for those who exercised less frequently. The results were similar in the 107 participants who developed Alzheimer disease.

Summary for Patients 1-20

### Socioeconomic Status and Mortality after Acute Myocardial Infarction 82

D.A. Alter, A. Chong, P.C. Austin, C. Mustard, K. Iron, J.I. Williams, C.D. Morgan, J.V. Tu, J. Irvine, and C.D. Naylor, for the SESAMI Study Group

The true causes of income-related health disparities are not known. In 3407 Canadian patients who were hospitalized for acute myocardial infarction, high income was associated with a lower 2-year mortality rate (crude hazard ratio, 0.45 [95% CI, 0.35 to 0.57];  $P < 0.001$ ). However, adjusting for income-related differences in age and the prevalence of preexisting cardiovascular events or risk factors substantially reduced the effect of high income (adjusted hazard ratio, 0.77 [CI, 0.54 to 1.10];  $P = 0.150$ ).

Summary for Patients 1-42

### Clarithromycin-Resistant Genotypes and Eradication of *Helicobacter pylori* 94

V. De Francesco, M. Margiotta, A. Zullo, C. Hassan, L. Troiani, O. Burattini, F. Stella, A. Di Leo, F. Russo, S. Marangi, R. Monno, V. Stoppino, S. Morini, C. Panella, and E. Ierardi

The authors compared *Helicobacter pylori* eradication rates among strains with different point mutations that confer clarithromycin resistance. Antibiotics eradicated *Helicobacter pylori* infection in 11 of 23 patients (48%) with the A2143G mutation and in 14 of 15 patients (93%) with either A2142G or A2142C strains. A sequential triple-therapy regimen achieved a higher cure rate than simultaneous triple therapy in A2143G mutation strains.

### Brief Communication: Tamoxifen Therapy for Nonmalignant Retroperitoneal Fibrosis 101

E.F.H. van Bommel, T.R. Hendriksz, A.W.L.C. Huiskes, and A.G.M. Zeegers

Retroperitoneal fibrosis is a progressive disease that can respond to corticosteroids but is sometimes steroid-resistant. Among 19 patients with retroperitoneal fibrosis who received tamoxifen, 20 mg twice daily, 15 reported substantial symptom resolution after a median of 2.5 weeks. Repeated computed tomography showed mass regression in 14 of 15 clinical responders. Treatment failed in 5 patients, and 1 patient developed severe hepatitis while receiving treatment.

Summary for Patients 1-51

## IMPROVING PATIENT CARE

### Problem Doctors: Is There a System-Level Solution? 107

L.L. Leape and J.A. Fromson

Three ideas frame an effective system for managing poorly performing physicians: Subpar performance can be objectively defined; routine monitoring of the entire medical staff is necessary to detect problems fairly and early; and responses to deficiencies should be prompt, constructive, and sustained. The long-term objective is to enable physicians to continue to practice effectively and safely, not to "weed them out."

## REVIEW

### Systematic Review: Antimicrobial Urinary Catheters To Prevent Catheter-Associated Urinary Tract Infection in Hospitalized Patients 116

J.R. Johnson, M.A. Kuskowski, and T.J. Wilt

The authors assessed the efficacy of currently marketed antimicrobial urinary catheters. In this systematic review of 12 trials, they concluded that antimicrobial urinary catheters can prevent bacteriuria in hospitalized patients during short-term catheterization. The cost implications of these catheters and their effect on infectious complications remain undefined.

## PERSPECTIVE

### Acute Pain Management for Patients Receiving Maintenance Methadone or Buprenorphine Therapy 127

D.P. Alford, P. Compton, and J.H. Samet

The number of patients with opioid addiction who receive opioid agonist therapy (OAT) with methadone and buprenorphine is increasing, so that physicians will more frequently encounter such patients who have acutely painful conditions. This paper acknowledges the complex interplay

Continued on page I-6

**Postmaster:** Send changes of address to Customer Service, *Annals of Internal Medicine*, 190 N. Independence Mall West, Philadelphia, PA 19106-1572. • *Annals of Internal Medicine* is published twice monthly and copyrighted © 2006 by the American College of Physicians, 190 N. Independence Mall West, Philadelphia, PA 19106-1572, USA. Basic member subscription price is \$20.00 per year. Periodicals postage paid at Philadelphia, Pennsylvania, and at additional mailing offices. Canadian Publications Mail Agreement #40030513. (ACP/Brokers, 1031 Helena Street, Fort Erie, Ontario L2A 5N8, Canada.) GST ID#128512159. • AIMEAS 144(2)73-156(2006) • US ISSN 0003-4819.

among addictive disease, OAT, and acute pain management; describes 4 misconceptions that lead to suboptimal treatment of acute pain; and gives clinical recommendations for providing analgesia when a patient receiving OAT develops acute pain.

EDITORIALS

**Mens Sana in Corpore Sano** 135

L.J. Podewils and E. Guallar

Larson and colleagues provide important evidence that more physical exercise is associated with lower rates of dementia, adding significantly to several other recent studies on the association between physical activity and dementia risk. We now need randomized trials to examine the effect of physical activity on cognitive function measures, and we need researchers to include clinical dementia end points in ongoing trials of lifestyle modification.

**Going Back To Understand the Future: Socioeconomic Position and Survival after Myocardial Infarction** 137

G.A. Kaplan

Do we really need another paper on socioeconomic inequalities in health? Alter and colleagues have added to our knowledge, but the assumption that we can reduce socioeconomic inequalities in survival after cardiovascular disease (CVD) by reducing morbidity and risk factors in poor people begs the key question. We must integrate our knowledge of the upstream social determinants that lead to differential burdens of CVD and its risk factors and the downstream, proximal biological factors that drive health outcomes. Building a bridge between these bodies of knowledge could provide a way to decrease socioeconomic inequalities in survival.

**Improving *Helicobacter pylori* Eradication Regimens** 140

F. Francois and M.J. Blaser

The work by De Francesco and colleagues showing the enhanced efficacy of sequential therapy is a timely advance for patients with peptic ulcer disease or mucosa-associated lymphoid tissue lymphoma, in whom *Helicobacter pylori* eradication is clearly indicated. A larger question is whether the relatively indiscriminate practice of "test and treat" for *H. pylori* infection treats the patient or the physician. In their zeal to remedy many ailments with antibiotics, physicians are contributing to new problems of antibiotic resistance and to changing human microecology.

ON BEING A DOCTOR

**Of Poems and Patients** 142

D. Seder

Recently, my wife and I were out listening to a folk singer, and I realized how hard it is to listen to live music without leaning across a bar. It wasn't so long ago that 4 or 5 nights a week I poured beer and shook drinks while customers came and went. That life is so different from my current one that it could have been led by another person entirely.

**Aziza** 143

R. Kannai

During the physical examination, Aziza read me with astute observation: She sensed my aversion to physical contact with her and my attempt to end the session peacefully. I tried to understand the contents of her thoughts, since she easily transferred from the world of delusions to our world, complete with National Insurance forms. Why couldn't I, the sane one, identify with her hallucinations?

LETTERS

*Comments and Responses*

**National Health Information Network Cost and Structure** 145

R.H. Dolin and A.M. Wiesenthal; R.B. Doherty; J.M. Kretz; M.M. Rothkopf and H.S. Jackson; R. Kaushal, D.W. Bates, and D. Blumenthal

**Prevention of Exacerbations of Chronic Obstructive Pulmonary Disease with Tiotropium** 147

C.B. Good and L. Longo; A.B. O'Connor; D.E. Niewoehner, K. Rice, and S. Kesten

**Exorcising Ghosts and Unwelcome Guests** 149

S.S. Daskalopoulou and D.P. Mikhailidis; A. Jacobs

*Clinical Observations*

**Inhaled Trepostinil for Treatment of Chronic Pulmonary Arterial Hypertension** 149

R. Voswinkel, H.A. Ghofrani, F. Grimminger, W. Seeger, and H. Olschewski

**Neurocysticercosis in Kansas** 150

T.L. Daniels and T.A. Moore

*Correction*

**Correction: Advanced Lipoprotein Testing in Young Adults** 152

CURRENT CLINICAL ISSUES

**Health and the Environment after Hurricane Katrina** 153

J. Fisher Wilson

Cover photograph by Robert L. Meyer

Authors' Form I-19

CME Bulletin Board I-31

Subscription and Business Information I-46

Classified Services Begin on I-53

## Subscriptions

*Annals of Internal Medicine* (ISSN 0003-4819) is issued twice monthly by the American College of Physicians; new volumes begin with the first issues of January and July each year.

To subscribe to *Annals of Internal Medicine*, call 800-523-1546, extension 2600, or write to *Annals of Internal Medicine*, Customer Service, 190 N. Independence Mall West, Philadelphia, PA 19106-1572.

## Advertising

To advertise in *Annals of Internal Medicine* or request a media kit, call 800-523-1546, extension 2440, or write to Advertising Sales Department, 190 N. Independence Mall West, Philadelphia, PA 19106.

## Editorial Correspondence

Editorial correspondence should be addressed to:

The Editor

*Annals of Internal Medicine*

190 N. Independence Mall West  
Philadelphia, PA 19106-1572, USA  
Fax 215-351-2644

## Reprint Information

Helen Canavan, Reprints Coordinator  
190 N. Independence Mall West  
Philadelphia, PA 19106-1572, USA  
Phone 800-523-1546, extension 2663  
Fax 215-351-2686

For Canadian and translated reprints worldwide, contact Marsha Fogler, Reprint Sales Representative  
Phone 800-482-1450; 01-856-489-4446 (outside the USA)  
Fax 856-489-4449  
E-mail [mfogler@medicalreprints.com](mailto:mfogler@medicalreprints.com)

## Editorial Staff

**Editor:** Harold C. Sox, MD

**Editors Emeriti:** Frank Davidoff, MD, Robert H. Fletcher, MD, MSc, Suzanne W. Fletcher, MD, MSc, Edward J. Huth, MD

**Senior Deputy Editor:** Christine Laine, MD, MPH

**Deputy Editors:** Michael Berkwitz, MD, MSCE, Paul Epstein, MD, Cynthia D. Mulrow, MD, MSc

**Associate Editors:** Elias Abrutyn, MD,

E. Victor Adlin, MD,

Robert G. Badgett, MD (electronic publications), Martin Black, MD,

Leonard E. Braitman, PhD, David Goldmann, MD,

Steven N. Goodman, MD, PhD, MHS,

Michael E. Griswold, PhD,

Eliseo Guallar, MD, PhD,

DuPont Guerry IV, MD, Anne Hudson Jones, PhD,

William G. Kussmaul III, MD,

Michael A. LaCombe, MD,

Andrew S. Levey, MD, A. Russell Localio, JD,

Catharine Stack, MS, PhD,

Barbara J. Turner, MD, MEd, MA,

Sankey V. Williams, MD

**Associate Editor Emeritus:** John L. Abruzzo, MD

**Managing Editor:** Mary Beth Schaeffer

**Editorial Office:** Robert Blackwell, Nicole Briglia,

Ruth Burrows, Jill Jackson,

Nicole Massone, Ann Paul

## Editorial Board

Martin Blaser, MD, *New York*

Clara Bloomfield, MD, *Columbus, Ohio*

Harry R. Büller, MD, PhD, *Amsterdam*

Christopher Callahan, MD, *Indianapolis*

Christine Cassel, MD, *Philadelphia*

Janice Douglas, MD, *Bratenell, Ohio*

Ezekiel J. Emanuel, MD, PhD, MSc, *Bethesda*

David P. Faxon, MD, *Chicago*

Lisa H. Fish, MD, *Edina, Minnesota*

Bevra H. Hahn, MD, *Los Angeles*

Alessandro Liberati, MD, *Milan*

Barry J. Marshall, *Crawley, Australia*

Robert J. Mayer, MD, *Boston*

Clement J. McDonald, MD, *Indianapolis*

David Meltzer, MD, PhD, *Chicago*

Santiago Pavlovsky, MD, *Buenos Aires*

Lewis J. Rubin, MD, *San Diego*

Margaret A. Tucker, MD, *Rockville, Maryland*

## Publication Committee, ACP

William B. Applegate, MD, *Chair*

Clara Bloomfield, MD

David B. Duggan, MD, *Vice Chair*

Erin E. Dunnigan, MBA

John P. Fitzgibbons, MD

Benjamin J. George, MD

Phyllis A. Guze, MD

Stephen G. Pauker, MD

Brian L. Strom, MD

## Publishing Staff

**Publisher:** Robert Spanier

**Associate Publisher:** Diane McCabe

**Director, Editorial Production:** Linda Drumheller

**Managing Editor:** Mary E. Boylan

**Supervisor, Editorial Production:**

Jennifer Kearney-Strouse

**Senior Production Editor:** Laura Altobelli

**Production Editors:** Beth A. Hummel,

Christine Kucowski

**Assistant Production Editor:** Kimberly S. Rak

## Advertising Operations

**Manager:** Brian S. Barker

**Advertising Production:** Helen Canavan

**Advertising Billing:** Penny Quartapella

**Supervisor, Recruitment Sales:** Margaret Gardner

## Advertising Sales

**National Account Managers:** Tom Terreri (Catalyst Communications), Frank Cox (PMI), Kathleen Harrison (PMI), Betty Ann Gilchrist (PMI)

## Editorial Policy

*Annals of Internal Medicine* publishes original articles, reviews, clinical conferences, editorials, letters, and other information relevant to internal medicine and related fields. Further details on the kinds of manuscripts that are considered for publication are given in "Information for Authors."

Portions of the content of *Annals of Internal Medicine* are protected by copyright. Papers without a copyright symbol are in the public domain. Manuscripts are accepted for publication with the understanding that their contents, all or in part, have not been published elsewhere and will not be published elsewhere, except in abstract form or by the express consent of the Editor.

Statements expressed in *Annals of Internal Medicine* reflect the views of the authors and not necessarily the policies of the journal or of the American College of Physicians, unless so identified. *Annals of Internal Medicine* and the American College of Physicians accept no responsibility for statements made by contributors or claims made by advertisers, nor does the publication of advertisements constitute or imply endorsement. The information contained herein should never be used as a substitute for clinical judgment.

(Boehringer Ingelheim Pharmaceuticals); *Consultancies*: D.E. Niewoehner (Boehringer Ingelheim Pharmaceuticals); *Honoraria*: D.E. Niewoehner (Boehringer Ingelheim Pharmaceuticals), K. Rice (Boehringer Ingelheim Pharmaceuticals).

#### References

1. COMBIVENT Inhalation Aerosol Study Group. In chronic obstructive pulmonary disease, a combination of ipratropium and albuterol is more effective than either agent alone. An 85-day multicenter trial. *Chest*. 1994;105:1411-9. [PMID: 8181328]
2. COMBIVENT Inhalation Solution Study Group. Routine nebulized ipratropium and albuterol together are better than either alone in COPD. *Chest*. 1997;112:1514-21. [PMID: 9404747]
3. National Heart, Lung and Blood Institute. Global Initiative for Chronic Obstructive Lung Disease: Global Strategy for the Diagnosis, Management and Prevention of Chronic Obstructive Pulmonary Disease (NHLBI/WHO workshop report). Bethesda, MD: National Heart, Lung and Blood Institute; 2001.
4. O'Donnell DE, Aaron S, Bourbeau J, Hernandez P, Marciniuk D, Balter M, et al. State of the Art Compendium: Canadian Thoracic Society recommendations for the management of chronic obstructive pulmonary disease. *Can Respir J*. 2004;11 Suppl B:7B-59B. [PMID: 15340581]
5. Anthonisen NR, Connett JE, Kiley JP, Altose MD, Bailey WC, Buist AS, et al. Effects of smoking intervention and the use of an inhaled anticholinergic bronchodilator on the rate of decline of FEV1. The Lung Health Study. *JAMA*. 1994;272:1497-505. [PMID: 7966841]
6. Sin DD, McAlister FA, Man SF, Anthonisen NR. Contemporary management of chronic obstructive pulmonary disease: scientific review. *JAMA*. 2003;290:2301-12. [PMID: 14600189]
7. Wilt TJ, Niewoehner D, Kim C, Kane RL, Linabery A, Tacklind J, et al. Use of Spirometry for Case Finding, Diagnosis, and Management of Chronic Obstructive Pulmonary Disease (COPD). Evidence Report/Technology Assessment No. 121 AHRQ Publication No. 05-E017-2. Rockville, MD: Agency for Healthcare Research and Quality; 2005.

#### Exorcising Ghosts and Unwelcome Guests

**TO THE EDITOR:** We applaud the editors of *Annals* for their effort to increase awareness regarding ghostwriting (1). Drs. Laine and Mulrow cite our editorial (2), but a slight correction is needed; they imply that the GATE principles were proposed by the European Medical Writers Association. Actually, we initially proposed these guidelines ourselves in our editorial (2). However, we were influenced by the association's statements and by our own experience when we formulated these guidelines.

There is increasing concern about ghostwriters because it is difficult to prove their existence. Therefore, whenever help from professional writers is necessary, it is imperative that the GATE principles are maintained. Maybe a uniform policy should be implemented by journals (in our editorial, we proposed a formula of acknowledgment statements to achieve maximum transparency). One key issue not addressed by Laine and Mulrow is the possibility of regulating professional writers. In other words, writers would need to be registered and evaluated to maintain minimum standards (2).

The earliest article on ghostwriting that we identified through a search of PubMed was published in 1934 (3). It is about time that we sort out this issue. Professional writers, if they have to be used, should have a legitimate role in assisting (not replacing) experts to provide a quality document while maintaining high ethical standards. However, the experts should always play a key role and have

the final say on content. Hidden ghosts, unwelcome guests, and hired experts do not have any place in the medical literature.

*Stella S. Daskalopoulou, MD, MSc, DIC, PhD*  
*Dimitri P. Mikhailidis, MD, MSc*  
Royal Free Hospital  
London NW3 2QG, United Kingdom

**Potential Financial Conflicts of Interest:** None disclosed.

#### References

1. Laine C, Mulrow CD. Exorcising ghosts and unwelcome guests [Editorial]. *Ann Intern Med*. 2005;143:611-2. [PMID: 16230729]
2. Daskalopoulou SS, Mikhailidis DP. The involvement of professional medical writers in medical publications [Editorial]. *Curr Med Res Opin*. 2005;21:307-10. [PMID: 15802002]
3. Place F. Ghost writing. *Bull Med Libr Assoc*. 1934;22:209-213. [PMID: 16016210]

**TO THE EDITOR:** I was pleased to read Drs. Laine and Mulrow's editorial about ghosts and guests, which I thought steered a very sensible course through a difficult topic (1). I feel that 1 minor point of clarification is required, however. The GATE principles referred to in the editorial were not described by the European Medical Writers Association but were described in an editorial (2) that accompanied the association's guidelines. Readers of *Annals* may also be interested in the original guidelines (3), which were not cited by Drs. Laine and Mulrow in their editorial.

*Adam Jacobs, PhD, MSc*  
Dianthus Medical Limited  
London SW19 3TZ, United Kingdom

**Potential Financial Conflicts of Interest:** Dr. Jacobs is a former president of the European Medical Writers Association and is a coauthor of the association's guidelines on the role of medical writers in developing peer-reviewed publications.

#### References

1. Laine C, Mulrow CD. Exorcising ghosts and unwelcome guests [Editorial]. *Ann Intern Med*. 2005;143:611-2. [PMID: 16230729]
2. Daskalopoulou SS, Mikhailidis DP. The involvement of professional medical writers in medical publications [Editorial]. *Curr Med Res Opin*. 2005;21:307-10. [PMID: 15802002]
3. Jacobs A, Wager E. European Medical Writers Association (EMWA) guidelines on the role of medical writers in developing peer-reviewed publications. *Curr Med Res Opin*. 2005;21:317-22. [PMID: 15802003]

#### CLINICAL OBSERVATIONS

##### Inhaled Treprostinil for Treatment of Chronic Pulmonary Arterial Hypertension

**TO THE EDITOR:** *Background:* Treprostinil is a stable prostacyclin analogue that is approved for the treatment of pulmonary arterial hypertension when administered by continuous subcutaneous infusion (1). Inhalation of the stable prostacyclin analogue iloprost has

# Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

## Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

## Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

## Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

## API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

## LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

## FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

## E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.