

# JAMA

The Journal of the American Medical Association



Paulus Potter (1625-1654), *Two Cows and a Young Bull Beside a Fence in a Meadow, 1647, Dutch*.

## Letters

### Assessing Prevention Interventions by "Number Needed to Treat" ..... 303

T. H. LAM; J. L. Y. LIU, J. TANG;  
P. E. MCBRIDE, J. H. STEIN; C. R. KUMANA,  
B. M. Y. CHEUNG, I. J. LAUDER

### Molecular Epidemiology and Tuberculosis Control

C. R. BRADEN, I. M. ONORATO,  
J. T. CRAWFORD; M. HANNAN;  
P. J. BIFANI, B. SHOPSIN,  
P. ALCABES, B. MATHEMA,  
B. N. KREISWIRTH, Z. LIU,  
J. DRISCOLL, R. FROTHINGHAM,  
J. M. MUSSER

### Estrogen as a Treatment for Alzheimer Disease

D. COSGROVE;  
C. D. TORAN-ALLERAND;  
R. A. MULNARD

### Prognostic Value of Cortisol Response in Septic Shock

P. MARIK, G. ZALOGA;  
K. CHAWLA, Y. KUPFER,  
S. TESSLER; D. ANNANE,  
E. BELLISSANT

117 Years of  
CONTINUOUS  
PUBLICATION

EDITOR  
Catherine D. DeAngelis, MD, MPH

[www.jama.com](http://www.jama.com)

July 19, 2000

## ORIGINAL CONTRIBUTIONS

### Relationship of Baseline Serum Cholesterol Levels in 3 Large Cohorts of Younger Men to Long-term Coronary, Cardiovascular, and All-Cause Mortality and to Longevity ..... 311

J. STAMLER, M. L. DAVIGLUS, D. B. GARSIDE, A. R. DYER, P. GREENLAND, J. D. NEATON

### Long-term Satisfaction and Psychological and Social Function Following Bilateral Prophylactic Mastectomy ..... 319

M. H. FROST, D. J. SCHAID, T. A. SELLERS, J. M. SLEZAK, P. G. ARNOLD,  
J. E. WOODS, P. M. PETTY, J. L. JOHNSON, D. L. SITTA, S. K. MCDONNELL,  
T. A. RUMMANS, R. B. JENKINS, J. A. SLOAN, L. C. HARTMANN

### Mapping of a Gene for Severe Pediatric Gastroesophageal Reflux to Chromosome 13q14 ..... 325

F. Z. HU, R. A. PRESTON, J. C. POST, G. J. WHITE, L. W. KIKUCHI, X. WANG,  
S. M. LEAL, M. A. LEVENSTIEN, J. OTT, T. W. SELF, G. ALLEN, R. S. STIFFLER,  
C. MCGRAW, E. A. PULSIFER-ANDERSON, G. D. EHRLICH

### Trends in Twin Birth Outcomes and Prenatal Care Utilization in the United States, 1981-1997 ..... 335

M. D. KOGAN, G. R. ALEXANDER, M. KOTELCHUCK, M. F. MACDORMAN,  
P. BUEKENS, J. A. MARTIN, E. PAPIERNIK

## SPECIAL COMMUNICATION

### Role of Exercise Stress Testing and Safety Monitoring for Older Persons Starting an Exercise Program ..... 342

T. M. GILL, L. DIPETRO, H. M. KRUMHOLZ

## GRAND ROUNDS

### Pemphigoid: Clinical, Histologic, Immunopathologic, and Therapeutic Considerations ..... 350

K. B. YANCEY, C. A. EGAN

## THE MEDICAL LITERATURE

### Users' Guides to the Medical Literature: XXIII. Qualitative Research in Health Care A. Are the Results of the Study Valid? ..... 357

M. K. GIACOMINI, D. J. COOK; FOR THE EVIDENCE-BASED MEDICINE WORKING GROUP

## COMMENTARY

### Promoting Early Diagnosis and Treatment of Type 2 Diabetes: The National Diabetes Education Program ..... 363

C. M. CLARK, J. E. FRADKIN, R. G. HISS, R. A. LORENZ, F. VINICOR, E. WARREN-BOULTON

## EDITORIAL

### Early Detection of High Cholesterol Levels in Young Adults ..... 365

S. M. GRUNDY

(Reprinted) (TABLE OF CONTENTS CONTINUED ON PAGE 273.) 271

©2000 American Medical Association. All rights reserved.

# JAMA

## Humanities

### THE COVER ..... 279

*Two Cows and a Young Bull  
Beside a Fence in a Meadow*

M. T. SOUTHGATE

### POETRY AND MEDICINE ..... 280

Alzheimer's

L. D. THOMAS

### JAMA 100 YEARS AGO ..... 282

A System of Personal Biologic  
Examinations—The Condition  
of Adequate Medical and  
Scientific Conduct of Life

## Reader Service

### This Week in JAMA ..... 275

### Masthead ..... 276

### Abstracts ..... 283

### Archives Journals Abstracts ..... 286

### The Key and Critical Objectives of JAMA ..... 289

### Obituary Listing ..... 373

### Continuing Medical Education JAMA Reader's Choice ..... 375

### Classified Advertising and Announcements ..... 377

### Index of Advertisers ..... 391

### Subscription, Business, and Contact Information ..... 391

### Reference Directories

Meetings in the United States and  
International Meetings ..... June 14, 2000

Organizations of Medical Interest  
and State Medical Associations and  
Examinations and Licensure ..... July 28, 1999

### JAMA Instructions for Authors

JULY 5, 2000

All articles published, including editorials, letters, and  
book reviews, represent the opinions of the authors  
and do not reflect the official policy of the American  
Medical Association or the institution with which the  
author is affiliated, unless this is clearly specified.

### RESIDENT PHYSICIAN FORUM ..... 290

AMA-RFS Adopts New Policies

### BOOKS, JOURNALS, NEW MEDIA ..... 368

Doctors in the Movies: Boil the Water and Just Say Aah (Dans)

REVIEWED BY T. MIKSANEK

Nelson Textbook of Pediatrics (Behrman et al, eds)

REVIEWED BY N. J. SISSMAN

The Woman in the Surgeon's Body (Cassell)

REVIEWED BY S. M. RAMOS

Death Foretold: Prophecy and Prognosis in Medical Care (Christakis)

REVIEWED BY M. R. GREY

Books, Journals, New Media Received

### JAMA PATIENT PAGE

### Gastroesophageal Reflux in Children ..... 392

## News and Analysis

### MEDICAL NEWS & PERSPECTIVES ..... 291

Psychiatric Help May Shrink Some Waistlines

Researchers Describe Findings for Targeted Cancer Therapies

Miscellanea Medica

### HEALTH AGENCIES UPDATE ..... 296

"Book of Life" Rough Draft

Islamic Medieval Medicine

Treating Mild Asthma

Toxic Chemicals and Defects

### FROM THE CENTERS FOR DISEASE CONTROL AND PREVENTION ..... 299

Contribution of Assisted Reproduction Technology  
and Ovulation-Inducing Drugs to Triplet and  
Higher-Order Multiple Births—United States, 1980-1997

Suspected Brucellosis Case Prompts Investigation of Possible  
Bioterrorism-Related Activity—New Hampshire and Massachusetts, 1999

Injuries From Fireworks in the United States

# JAMA

## EDITORIAL STAFF

EDITOR  
Catherine D. DeAngelis, MD, MPH

**Deputy Editors:** Richard M. Glass, MD, Drummond Rennie, MD, Phil B. Fontanarosa, MD, Margaret A. Winker, MD

**Senior Contributing Editor:** M. Therese Southgate, MD

**Managing Senior Editor:** Annette Flanagan

**Contributing Editors:** Charles B. Clayman, MD, Helene M. Cole, MD, Thomas B. Cole, MD, MPH, David S. Cooper, MD, Stephen J. Lurie, MD, PhD, David H. Mark, MD, MPH, Harriet S. Meyer, MD, Carin M. Olson, MD, Jeanette M. Smith, MD, Jody W. Zyke, MD

**Consulting Editors:** Robert A. Clark, MD, Deborah J. Cook, MD

**Statistical Editor:** Naomi Vaisrub, PhD

**Associate Editors:** Charlene Breedlove, Roxanne K. Young

**Medical News & Perspectives:** Marsha F. Goldsmith (editor); Charles Marwick, Mike Mitka, Joan Stephenson, PhD (associate editors); Rebecca Voelker (contributing editor)

**Assistant Editor:** Juliana M. Walker

**MSJAMA:** Alison J. Huang, MPhil, Stephan C. Weiss, MHS (coeditors)

**Assistant to the Editor:** Helga Fritz

**Administrative Assistant:** Nadine Siewnarine

**Editorial Graphics:** Ronna Henry Siegel, MD (director); Jill Ghormley (medical illustrator)

**Electronic Media:** Michelle Kurzynski (director); Keith Huff (Web development editor); Nikhil Torsekar (assistant editor); Erin Giannini (Web copy editor); Marla A. Hall (staff assistant); Gemma Wall (editorial assistant)

**Editorial Systems and Administration:** Elaine Williams (director); Gale Saulsbery (database specialist); Lenette Gardner-Gullens (electronic input supervisor); Fanny L. Brown, Celina Canchola (electronic input specialists)

**Editorial Assistants:** Patricia Joworski, Gloria Tate (group supervisors); Kemberly Evans (letters coordinator); Mary Cannon, Susan Collister, Audrey Forman, Shirley Gogins, Charisse Green, Gwenn Gregg, Lisa Hardin, Carmina Landeros, Mary Ann Lilly, Lupe Morales, Ethel Pinkston, Jennifer Reiling, Cara Savage, Raul Serrato

**Editorial Processing Division:** Cheryl Iverson (director); Paul Frank (electronic editing specialist); Monica Mungle (assistant electronic editing specialist)

**Copyediting:** Stacy L. Christiansen (director); Joy K. Jaeger (abstracts editor); Coleen Adamson, Susan R. Benner (senior copy editors); Diane Howard, Beverly Stewart

## PUBLISHING AND BUSINESS STAFF

**Vice President, Publishing:** Robert L. Kennett

**Publisher:** Peter J. Murphy

**Production and Distribution Division:** Vanessa Hayden (director), Diane Darnell (manager, journal manufacturing), Nona Malchin (publishing manufacturing analyst), Karen Adams-Taylor (director, advertising and production), Paul Gasecki (manager, distribution), Debbie Camp (production services supervisor), Terri Hanley (production specialist)

**Managers:** David Antos (proofreading), Karl Elvin (composition), Mary Ellen Johnston (database and new media), Carole Piszker (advertising), Susan Price (print production), Charl Richey (color and graphics)

**Proofreaders:** Daniel James, Rachel Novickas, Teresa Omiolek, Mary Kay Tinerella, Barbara Wojtowicz

**Production Associates and Specialists:** Joseph Amft, Clifford O. Barrett, Gail Barrett, Joel Brammeier, Karen Branham, Regina Brownlee, Noel Chaparro, Brenda Chandler-Grayer, La'son J. Diggs, Mary Anne Donley, Amy Evers, Fred Furtner, Carolyn Hall, Maria Kowalkowski, Mary Ann Kuranda, Sandra Lopez, Bruce McGregor, Christopher Meyer, Melanie Parenti, Sarah Powell, Michelle Robinson, Angela Smits, Denise Steinhauer, Jo Anne Turner, Carmela Ware, JoAnne Weiskopf

**Production Assistant:** Shannon Epplett, Ruth Sprague

**Circulation and Content Marketing Staff:**

James A. Skowrenski (director)

**Circulation Processing:** Robert Herling (director); Susan Stoken, Alfred Tomaselli (managers); Reginald Jordan, Kathryn Osten (specialists)

**Circulation Development:** Bina Oza (director); Audrey Mathies (manager); Sandra Garzon, Michael McGraw (specialists)

**Licensing and Permissions:** Norman Frankel (director); Rhonda Bailey (permissions)

**Subscriber Services:** (800) 262-2350; fax: (312) 464-5831; e-mail: ama-subs@ama-assn.org

**Advertising Sales Staff:**

Stuart H. Williams (director)

**Eastern:** Susan J. Carollo, Alice H. Herman (representatives); 119 Cherry Hill Rd, Third Floor, Parsippany, NJ 07054, (973) 263-9191

**Midwest/Farwest:** Jeffrey J. Bonistalli (representative); 515 N State St, Chicago, IL 60610, (312) 464-2551

**Classified Advertising:** Crystal Wells (representative); 515 N State St, Chicago, IL 60610, (312) 464-2456

**Marketing Services Manager:** Kathleen Hiltz

## AMA EXECUTIVES AND TRUSTEES

**Executive Vice President, Chief Executive Officer:**

E. Ratcliffe Anderson, Jr, MD

**Senior Vice President, Publishing and Business Services:**

Robert A. Musacchio, PhD

**President:** Randolph D. Smoak, Jr, MD

**President-Elect:** Richard F. Corlin, MD

**Immediate Past President:** Thomas R. Reardon, MD

**Speaker, House of Delegates:** John A. Knote, MD

**Vice-Speaker, House of Delegates:** Nancy H. Nielsen, MD

**Trustees:** D. Ted Lewers, MD (chair); Timothy T. Flaherty, MD (chair-elect); Yank D. Coble, Jr, MD (secretary-treasurer);

Herman I. Abramowitz, MD; Susan Hersberg Adelman, MD;

Duane M. Cady, MD; J. Edward Hill, MD; William H.

Mahood, MD; Sandeep "Sunny" Mistry (student); John C.

Nelson, MD; Donald J. Palmisano, MD; William G. Plested,

MD; Liana Puscas, MD (resident); Joseph A. Riggs, MD;

Bruce A. Scott, MD (young physician)

## JOURNAL OVERSIGHT COMMITTEE

Joshua Lederberg, PhD (chair), Christine K. Cassel, MD,

David A. Kessler, MD, JD, Robert A. Musacchio, PhD,

William M. Passano, Jr, Roy M. Pitkin, MD,

Kenneth I. Shine, MD

## EDITORIAL BOARD

**Daniel M. Albert, MD**  
University of Wisconsin Hospital and Clinics  
Madison, Wis

**Kenneth A. Arndt, MD**  
Harvard Medical School  
Boston, Mass

**H. David Banta, MD**  
The Netherlands Organization  
for Applied Scientific Research  
Leiden, the Netherlands

**Jack D. Barchas, MD**  
Cornell University Medical College  
New York, NY

**Michael Berger, MD**  
Heinrich Heine Universität Düsseldorf  
Düsseldorf, Germany

**Robert J. Blendon, ScD**  
Harvard University  
Boston, Mass

**Marjorie A. Bowman, MD, MPA**  
University of Pennsylvania Health System  
Philadelphia, Pa

**James E. Dalen, MD**  
University of Arizona College of Medicine  
Tucson, Ariz

**Lois DeBaakey, PhD**  
Baylor College of Medicine  
Houston, Tex

**Pierre Durieux, MD, MPH**  
Université Paris 6  
Paris, France

**Ronald G. Evens, MD**  
Washington University School of Medicine  
St Louis, Mo

**Alain Joffe, MD**  
Johns Hopkins University  
School of Medicine  
Baltimore, Md

**Michael E. Johns, MD**  
Robert W. Woodruff Health Sciences  
Center of Emory University  
Atlanta, Ga

**Colin I. Johnston, MB, BS**  
University of Melbourne  
Melbourne, Australia

**Wayne F. Larrabee, Jr, MD**  
University of Washington  
Seattle, Wash

**Joseph K. Lim, MD**  
Yale University School of Medicine  
New Haven, Conn

**Donald A. B. Lindberg, MD**  
National Library of Medicine  
Bethesda, Md

**Kenneth D. McClatchey, MD, DDS**  
Loyola University Medical Center  
Maywood, Ill

**C. David Naylor, MD, DPhil**  
University of Toronto  
Toronto, Ontario, Canada

**Claude H. Organ, Jr, MD**  
University of California—Davis, East Bay  
Oakland, Calif

**Edmund D. Pellegrino, MD**  
Georgetown University  
Washington, DC

**Reed E. Pyeritz, MD, PhD**  
MCP Hahnemann University  
Pittsburgh, Pa

**Uwe E. Reinhardt, PhD**  
Princeton University, Princeton, NJ

**Povl Riis, MD, DSCI, DHC**  
Professor of Medicine  
Copenhagen, Denmark

**William L. Roper, MD, MPH**  
University of North Carolina at Chapel Hill  
Chapel Hill, NC

**Roger N. Rosenberg, MD**  
University of Texas  
Southwestern Medical Center  
Dallas, Tex

**Masaaki Terada, MD**  
National Cancer Center  
Tokyo, Japan

## INTERNATIONAL ADVISORY COMMITTEE

**Bassel Atallah, MD, JAMA—Middle East**

**Mauro Bologna, MD, JAMA—Italy**

**Namsik Chung, MD, PhD, JAMA—Korea**

**Romuald Debski, MD, PhD, JAMA—Poland**

**Csaba Farsang, MD, DSc, JAMA—Hungary**

**Evarist Feliu Frasnado, MD, JAMA—Spain**

**Carlos R. Gherardi, MD, JAMA—Argentina**

**Carla Gikovate, MD, MSc, JAMA—Brazil**

**Hiromasa Ishii, MD, JAMA—Japan**

**Evin Kantemir, MD, JAMA—Turkey**

**A. J. Khan, SI, FRCP, JAMA—Pakistan**

**C. R. Kumana, MBBS,**

**JAMA—Southeast Asia**

**Li Chengyi, MD, JAMA—China**

**Alexandra Livaditou, MD, JAMA—Greece**

**Victor Hugo Olmedo Canchola, MD,**

**JAMA—Mexico**

**Jiří Widimský, MUDr, DrSc,**

**JAMA—Czech/Slovak**

**Alexei Yurenev, MD, JAMA—Russia**