

# JAMA

The Journal of the American Medical Association  
103 Years of Continuous Publication

**Editor:** George D. Lundberg, MD

**Deputy Editor:** M. Therese Southgate, MD

**Senior Editors:** Helene M. Cole, MD, Bruce B. Dan, MD, Don Riesenber, MD

**Senior Contributing Editor:** Drummond Rennie, MD

**Contributing Editors:** John D. Archer, MD, Charles B. Clayman, MD, Lester S. King, MD, Harriet S. Meyer, MD, Carlotta M. Rinke, MD

**Statistical Editor:** Naomi Vaisrub, PhD

**Morris Flehbein Fellow:** Jody W. Zytko, MD

**Medical News—Editor:** Phil Gunby; **Associate Editors:** Marsha F. Goldsmith, Charles Marwick (Washington, DC), Beverly Merz;

**Assistant Editor:** Chris Anne Raymond, PhD; **Writer:** Timothy F. Kim; **Graduate Journalism Student Fellow:** Katherine Garrahan (Medill School of Journalism, Northwestern University, Evanston, Ill)

**Associate Editor:** Roxanne K. Young

**Assistant Editors:** Charlene Breedlove, Elizabeth Knoll; Letters to the Editor: Sharon Iverson

**Editorial Services Manager:** Martha Carney

**Production Manager:** Marlene M. Hirsch

**Assistant Production Manager:** John R. Sayban

**Editorial Processing Manager:** Cheryl Iverson

**Assistant Editorial Processing Manager:** Paula Gittman

**Permissions and Graphic Design Manager:** Dennis J. Shipley

**Staff Assistants:** Diane Darnell, Bonnie Van Clevon

**Production Supervisors:** Lori A. Barba (Copy Editing), Thomas J. Handrigan (Illustrations), Elizabeth Petrikenas (Proofreading), John R. Sayban (Advertising), Mary C. Steermann (Editorial), Jo Anne Weiskopf (Layout)

**Copy Editing:** Vickie Golden (Free-lance Coordinator), Daniel Haliboy, Kathy Loudon, Lisa Moscato, Jennifer Sperry, Cynthia Takács

**Proofreading:** Jennifer Reiling, Lisette Sabbach, Barbara Wojtowicz

**Senior Production Assistants:** Karen Branham, Jerri Hall-Gortowski, Sally Hoyt, Debra Lucas, Terese Noto, Dorothy Patterson, Susan Price, Dairdre Rittenhouse, Jill Stein, Ellen Yoshinara

**Production Assistants:** Darlene E. Filips, Anita Jackson

**Illustrations and Layout:** Cari Biamonte, Donna Hagler, Mary Planek-Vanco, Sandra Williams

**Cover Editor:** M. Therese Southgate, MD

**Editorial Coordinator:** Cathy Watkins

**Editorial Supervisor:** Cassandra Johnson

**Editorial Assistants:** Ann Bartling, Mary Cannon, Shirley Goines, Michele Knutsen, Mary Ann Lilly, Rosemary Navarro, Ethel Pinkston, Theresa Raines, Gale Saulsberry, Helga Wutz

**Indexing:** Norman Frankel (Supervisor), Hermese Bryant, Mary Kay Tinarella


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.

**JAMA, The Journal of the American Medical Association** (ISSN 0098-7484), is published four issues per month by the American Medical Association, 535 N Dearborn St, Chicago, IL 60610. Phone (312) 645-5000. Cable address "Medic" Chicago.

**SUBSCRIPTION RATES**—The subscription rate per year for members of the AMA is \$2 included in the annual membership dues. The subscription rate per year for nonmembers is \$58 for one year; \$102 for two years in the United States and US possessions; in all other countries, one year, \$68; two years, \$115 (add \$35 surcharge to each one-year subscription and \$70 surcharge to each two-year subscription for air delivery to the United Kingdom, Europe, Bangladesh, India, Nepal, or Sri Lanka). Rates to medical students and residents, \$29 for one year, \$51 for two years in the United States and US possessions. Rates for subscriptions for delivery to Australia, Japan, New Zealand, or South Korea are available through respective exclusive agents. Address all subscription communications to American Medical Association, Circulation and Fulfillment Division, 535 N Dearborn St, Chicago, IL 60610. Phone: (312) 280-7154.

**CHANGE OF ADDRESS**—POSTMASTER, send all address changes to Caryl L. Wertheimer, Director of Fulfillment, 535 N Dearborn St, Chicago, IL 60610. Notification of address change must be made at least six weeks in advance; include both old and new addresses, a recent mailing label, and your new zip code. Second-class postage paid at Chicago and additional mailing office.

JAMA® Registered in the US Patent and Trademark Office.

Copyright © 1987 by the American Medical Association 

February 27, 1987, Vol 257, No. 8

The Journal is a forum for open and responsible discussion of matters relevant to the field of medicine. Its mission is education: to inform its readers of progress in clinical medicine, medical research, and of developments in other fields of interest to physicians.

## The Cover

**Salvator Rosa, St Peter Delivered by the Angel** ..... 1020  
B. Flynn, Renaissance, Calif

## Medical News & Perspectives

**Ophthalmologists Discuss Methods to Help Physicians See What Patients Can't See . . . Simple Techniques Aid Eye Drop Penetration . . . Miscellanea Medica** ..... 1025

## Leads from the MMWR

..... 1034

## AMA Insights

..... 1041

## Reference Directories

**US Meetings, Feb 6; Meetings Outside the US, Jan 23/30; Organizations of Medical Interest, Jan 9; State Association and Exams and Licensure, Jan 16; AMA Officials, Oct 3**

## Instructions for Authors

(see Feb 6, 1987, p 605)

## Letters

..... 1046

**Prevention of HIV Infection** D. R. Hopkins, MD, Atlanta, P. R. Gustafson, MD, Houston

**Need for Caution in Interpretation of Western Blot Tests for HIV**

S. Roy, J. Portnoy, MD; M. A. Wainberg, PhD, Montreal

**HIV Antibodies in Drug-Addicted Prostitutes** M. Dan, MD,

M. Rock, MD, Holon, Israel; S. Bar-Shani, MD, Tel Aviv, Israel; U. Tirelli, MD, Aviano, Italy

**Alanine Aminotransferase and Posttransfusion Hepatitis** D. A. Lacher, MD, Toledo

**Multi-Infarct Dementia** H. E. Cohen, MD, Philadelphia;

B. E. Robinson, MD, D. M. Keller, PhD, Tampa, Fla; J. S. Meyer, MD;

R. L. Rogers, PhD; K. F. Mortel, PhD, Houston

**Primary Sjögren's Syndrome After Infectious Mononucleosis**

S. C. Pflugfelder, MD; T. J. Rousset, MD; W. W. Culbertson, MD, Miami

**Blood Lead Levels** J. W. Graef, MD, Boston

**Chest Boxing** J. E. P. Frederiks, Jr, Maastricht, the Netherlands

**The Angelchik Antireflux Prosthesis** J. A. Sapala, MD, M. A. Sapala, MD, Albion, Mich;

J. P. Angelchik, MD, Phoenix

**Caring for the Patient With Alzheimer's Disease** E. W. Campion, MD, Boston

**Who Should Test the Testers?** D. N. Baron, MD, DSc, London; H. Friedman, MD;

D. J. Greenblatt, MD, Boston

## Original Contributions

**Toxic Shock Syndrome** ..... 1053

K. L. MacDonald, MD, Atlanta; M. T. Osterholm, PhD, MPH, C. W. Hedberg, MS, Minneapolis;

C. G. Schrock, MD, Robbinsdale, Minn; G. F. Peterson, MD, JD; J. M. Jentzen, MD;

S. A. Leonard, MD; P. M. Schlievert, PhD, Minneapolis

**Preexposure Immunization With Intradermal Human Diploid Cell Rabies Vaccine** ..... 1059

K. W. Bernard, MD, Atlanta; J. Mallonee, MPH, Oklahoma City;

J. C. Wright, DVM, PhD, Stillwater, Okla; F. L. Reid, Atlanta;

S. Makintube, RN, MPH, Oklahoma City; R. A. Parker, DSc, Atlanta;

D. M. Dwyer, MD, Oklahoma City; W. G. Winkler, DVM, Atlanta

**Impact of Cataract Surgery With Lens Implantation on Vision and Physical Function in Elderly Patients** ..... 1064

W. B. Applegate, MD, MPH; S. T. Miller, MD; J. T. Elam;

J. M. Freeman, MD; T. O. Wood, MD; T. C. Gettelfinger, MD, Memphis

**Therapy vs No Therapy for Bacteriuria in Elderly Ambulatory Nonhospitalized Women** ..... 1067

J. A. Boscia, MD; W. D. Kobasa, MS; R. A. Knight, PhD; E. Abrutyn, MD;

M. E. Levison, MD; D. Kaye, MD, Philadelphia

**An Attitudinal Assessment of Faculty Practice Plans** ..... 1072

G. K. MacLeod, MD, H. E. Rockette, PhD, Pittsburgh; M. R. Schwarz, MD, Chicago

## Preliminary Communication

**Bronchodilating Effect of Intravenous Magnesium Sulfate in Bronchial Asthma** ..... 1076

H. Okayama, MD; T. Aikawa, MD; M. Okayama, MD; H. Sasaki, MD;

S. Mue, MD; T. Takishima, MD, Sendai, Japan

**Brief Reports****Transmission of Hepatitis B Virus by Artificial Insemination** ..... 1079

W. R. Berry, MD, R. L. Gottesfeld, MD, Denver;  
H. J. Alter, MD, Bethesda, Md; J. M. Vierling, MD, Denver

**Iron Deficiency Occurs Frequently in Patients With Pernicious Anemia** ..... 1081

R. Carmel, MD; J. M. Weiner, DrPH; C. S. Johnson, MD, Los Angeles

**Case Reports****Reversible Orthostatic Hypotension of Pernicious Anemia** ..... 1084

G. E. Johnson, MD, Albuquerque

**Toxic Shock Syndrome During an Influenza Outbreak** ..... 1086

S. J. Sperber, MD, J. B. Francis, MD, Charlottesville, Va

**Concepts in Emergency and Critical Care****Management of Malignant Pericardial Effusion and Tamponade** ..... 1088

O. W. Press, MD, PhD, R. Livingston, MD, Seattle

**Editorials****Semen Donors as the Source of Sexually Transmitted Diseases in Artificially Inseminated Women: The Saga Unfolds** ..... 1093

L. Mascola, MD, MPH, Los Angeles, M. E. Guinan, MD, PhD, Atlanta

**Toxic Shock Syndrome: Back to the Future** ..... 1094

B. B. Dan, MD, Chicago

**A Piece of My Mind****Twelve Brown Eggs** ..... 1098

J. L. Mayer, MD, Enosburg Falls and Richford, Vt

**Specialty Abstracts** ..... 1101**Questions and Answers** ..... 1108

**Bloody Tears** R. L. Anderson, MD, Salt Lake City

**Cat-scratch Disease of the Parotid Gland** A. M. Margileth, MD, Bethesda, Md

**Migrating Surgical Clips** R. E. Hermann, MD, Cleveland

**Books** ..... 1111

**Practice-Based Epidemiology** (Schuman) Reviewed by J. P. Frolkis, MD, PhD, Cleveland

**Medical Parasitology** (Markell, Voge, John) Reviewed by Y. Gutierrez, MD, PhD, Cleveland

**The Whole Emergency Medicine Catalog** (Jastremski et al) Reviewed by J. H. van de Leuw, MD, Indianapolis

**Principles of Ambulatory Medicine** (Barker, Burton, Zieve, eds) Reviewed by H. Nachimson, MD, Irving, Tex

**Bailey and Scott's Diagnostic Microbiology** (Finegold, Baron) Reviewed by J. A. Morello, PhD, Chicago

**Cranial Computed Tomography** (Williams, Haughton) Reviewed by M. S. Huckman, MD, Chicago

**Cardiopulmonary Critical Care** (Dantzker, ed) Reviewed by R. W. Carlson, MD, Detroit

**Textbook of Surgery** (Sabiston, ed) Reviewed by B. Brandt III, MD, Syracuse, NY

**Obstetrics and Gynecology** (Danforth, Scott, eds) Reviewed by

T. K. Edwards, MD, Bluefield, WVa

**Books Received**

**JAMA 100 Years Ago** ..... 1044**Osleriana** ..... 1100**The Exchange** ..... 1110**Obituaries** ..... 1117**Classified Advertising** ..... 1119**CME Corner** ..... 1132**Index to Advertisers** ..... 1132**Corrections** ..... 1051**The Fetal Tobacco Syndrome**

P. Nieburg, MD, MPH; J. S. Marks, MD, MPH; N. M. McLaren, MD;

P. L. Remington, MD, Atlanta

**Medical News & Perspectives: Road Back From Substance Abuse Especially Long, Hard for Athletes****JAMA**<sup>®</sup>

The Journal of the American Medical Association

## EDITORIAL BOARD

**Kenneth A. Arndt, MD**, Boston  
**Byron J. Bailey, MD**, Galveston, Tex  
**Arthur E. Baue, MD**, St Louis  
**James E. Dalen, MD**, Worcester, Mass  
**R. Gordon Douglas, Jr, MD**, New York  
**William H. Foegle, MD**, Atlanta  
**Renee C. Fox, PhD**, Philadelphia  
**Daniel X. Freedman, MD**, Los Angeles  
**Vincent A. Fulginiti, MD**, Tucson  
**Morton F. Goldberg, MD**, Chicago  
**Marilyn Helms, MD**, Tucson  
**Edward C. Hill, MD**, San Francisco  
**James F. Holland, MD**, New York  
**King K. Holmes, MD, PhD**, Seattle  
**Harold G. Jacobson, MD**, Bronx, NY  
**Robert J. Joynt, MD, PhD**, Rochester, NY  
**Richard L. Landau, MD**, Chicago  
**Gordon K. MacLeod, MD**, Pittsburgh  
**Daniel J. McCarty, MD**, Milwaukee  
**William W. McLendon, MD**, Chapel Hill, NC  
**Arno G. Motulsky, MD**, Seattle  
**Edmund D. Pellegrino, MD**, Washington, DC  
**Robert E. Rakel, MD**, Houston  
**Domeena C. Renshaw, MD**, Chicago  
**Martha M. Sarasa, MD, PhD**, Charleston, SC

## AMA Officers

**President:** John J. Coury, Jr, MD\*

**President-Elect:** William S. Hotchkiss, MD\*

**Immediate Past President:** Harrison L. Rogers, Jr, MD

**Secretary-Treasurer:** George L. Collins, Jr, MD\*

**Speaker, House of Delegates:** James E. Davis, MD

**Vice-Speaker, House of Delegates:** John L. Clowe, MD

## AMA Trustees

Stefano Bertozzi (student); Lonnie R. Bristow, MD; Rufus K. Broadaway, MD; George L. Collins, Jr, MD\* (Secretary); Ronald M. Davis, MD (resident); John H. Dawson, MD; Ray W. Gifford, MD; Robert E. McAfee, MD; Alan R. Nelson, MD\* (Chairman); Joseph T. Painter, MD\*; John J. Ring, MD\* (Vice-Chairman); Raymond Scalettar, MD; Jerald R. Schenken, MD\*; C. John Tupper, MD

\*Executive Committee

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.

**Executive Vice President:** James H. Sammons, MD

**Senior Deputy Executive Vice President:** James S. Todd, MD

**Deputy Executive Vice President:** Whalen M. Strobhar

**Assistant Executive Vice President:** Theodore R. Chilcoat, Jr

**Assistant Executive Vice President:** M. Roy Schwarz, MD

**Vice President, Scientific Information:** George D. Lundberg, MD

**Vice President, Publishing and Marketing:** John T. Baker

**Director, Publication Production and Printing Division:** Norman D. Richey

**General Sales Manager; Director, Advertising Sales and Promotion Services Division:** D. Joseph Dennehy

**Director, Circulation-Fulfillment Division:** Lee A. Parent

**Director, Advertising Communications:** Thomas J. Carroll

**Director, Advertising Services:** Raymond Christian

**ADVERTISING OFFICES:** Eastern: 600 Third Ave, Suite 700, New York, NY 10016 (**Manager:** Robert C. Corcoran [212-867-6640]; **Representatives:** Bill Tice, Cliff Vanderhoof). Midwest/Farwest: 535 N Dearborn St, Chicago, IL 60610 (**Manager:** Thomas J. Carroll [312-280-7182]; **Representative:** Daniel T. Mjolsness); **Classified Advertising:** Delores Boudentt [312-280-7190]

**ADVERTISING PRINCIPLES**—Advertisements in this issue have been reviewed to comply with the principles governing advertising in AMA publications. A copy of these principles is available on request. The appearance of advertising in AMA publications is not an AMA guarantee or endorsement of the product or the claims made for the product by the manufacturer.