

Emerging Infectious Diseases

Travel and the Emergence
of Infectious Diseases

Mary E. Wilson

Escherichia coli
Serotype O157:H7

Peter Feng

Epidemic-Associated
Neisseria meningitidis

Michael W. Reeves

Dengue/Dengue
Hemorrhagic Fever

Duane J. Gubler and
Gary G. Clark

Eradication of Dracunculiasis

Ernesto Ruiz-Tiben

Escherichia coli
O169:H41 in Japan

Yoshikazu Nishikawa

The GAP Project in
Southeastern Turkey

Serap Aksoy

Drug-Resistant
Streptococcus pneumoniae

Martin S. Cetron

WHONET: Monitoring
Antimicrobial Resistance

Thomas F. O'Brien and
John M. Stelling

Preventing the Spread of
Vancomycin Resistance

Hospital Infection Control
Practices Advisory
Committee

Waterborne Cryptosporidiosis

Daniel G. Colley



Emerging Infectious Diseases

Editors

Editor

Joseph E. McDade, Ph.D.
National Center for Infectious Diseases
Centers for Disease Control
and Prevention (CDC)
Atlanta, Georgia, USA

Perspectives Editor

Stephen S. Morse, Ph.D.
The Rockefeller University
New York, New York, USA

Synopses Editor

Phillip J. Baker, Ph.D.
Division of Microbiology and
Infectious Diseases
National Institute of Allergy and
Infectious Diseases
National Institutes of Health (NIH)
Bethesda, Maryland, USA

Dispatches Editor

Stephen Ostroff, M.D.
National Center for Infectious Diseases
Centers for Disease Control
and Prevention (CDC)
Atlanta, Georgia, USA

Managing Editor

Polyxeni Potter, M.A.
National Center for Infectious Diseases
Centers for Disease Control
and Prevention (CDC)
Atlanta, Georgia, USA

Editorial and Computer Support

Emerging Infectious Diseases receives editorial and computer support from the Office of Planning and Health Communication, National Center for Infectious Diseases.

Editorial Support

Maria T. Brito
Beatrice T. Divine, M.B.A.
Sharon D. Hoskins
Anne D. Mather
Carol D. Snarey, M.A.

Production

Beverly J. Holland

Electronic Distribution

Carol Y. Crawford
Wendell Ramirez
Cheryl G. Shapiro, M.S.

Liaison Representatives

Anthony I. Adams, M.D.
Chief Medical Adviser
Commonwealth Department of
Human Services and Health
Canberra, Australia

David Brandling-Bennett, M.D.
Deputy Director
Pan American Health Organization
World Health Organization
Washington, D.C., USA

Gail Cassell, Ph.D.
Liaison to American Society for
Microbiology
University of Alabama at Birmingham
Birmingham, Alabama, USA

Richard A. Goodman, M.D., M.P.H.
Editor, *MMWR*
Centers for Disease Control
and Prevention (CDC)
Atlanta, Georgia, USA

William Hueston, D.V.M., Ph.D.
Acting Leader, Center for Animal
Health Monitoring
Centers for Epidemiology and
Animal Health
Veterinary Services, Animal and Plant
Health Inspection Service
U.S. Department of Agriculture
Fort Collins, Colorado, USA

James LeDuc, Ph.D.
Advisor for Arboviral Diseases
Division of Communicable Diseases
World Health Organization
Geneva, Switzerland

Joseph Losos, M.D.
Director General
Laboratory Center for Disease Control
Ontario, Canada

Gerald L. Mandell, M.D.
Liaison to Infectious Diseases Society
of America
University of Virginia Medical Center
Charlottesville, Virginia, USA

Robert Shope, M.D.
Director, Yale Arbovirus Research Unit
Yale University School of Medicine
New Haven, Connecticut, USA

Bonnie Smoak, M.D.
Chief, Dept of Epidemiology
Division of Preventive Medicine
Walter Reed Army Institute of Research
Washington, D.C., USA

Robert Swanepoel, B.V.Sc., Ph.D.
Head, Special Pathogens Unit
National Institute for Virology
Sandrinham 2131, South Africa

Roberto Tapia, M.D.
Director General de Epidemiología
Dirección General de Epidemiología
Secretaría de Salud
México

Morag Timbury, M.D.
Director
Central Public Health Laboratory
London, United Kingdom

Emerging Infectious Diseases

Emerging Infectious Diseases is published four times a year by the National Center for Infectious Diseases, Centers for Disease Control and Prevention (CDC), 1600 Clifton Road., Mailstop C-12, Atlanta, GA 30333, USA. Telephone 404-639-3967, fax 404-639-3039, e-mail eideditor@cidod1.em.cdc.gov.

The opinions expressed by authors contributing to this journal do not necessarily reflect the opinions of CDC or the institutions with which the authors are affiliated.

All material published in *Emerging Infectious Diseases* is in the public domain and may be used and reprinted without special permission; proper citation, however, is appreciated.

Use of trade names is for identification only and does not imply endorsement by the Public Health Service or by the U.S. Department of Health and Human Services.

Editorial Policy and Call for Articles

The goals of *Emerging Infectious Diseases* (EID) are to promote the recognition of new and reemerging infectious diseases and to improve the understanding of factors involved in disease emergence, prevention, and elimination. EID has an international scope and is intended for professionals in infectious diseases and related sciences. We welcome contributions from infectious disease specialists in academia, industry, clinical practice, and public health as well as from specialists in economics, demography, sociology, and other disciplines whose study elucidates the factors influencing the emergence of infectious diseases.

EID will be published in English and will feature three types of articles: *Perspectives*, *Synopses*, and *Dispatches*. The purpose and requirements of each type of article are described in detail below.

Instructions to Authors

Editorial Material: Manuscripts should be prepared according to the "Uniform Requirements for Manuscripts Submitted to Biomedical Journals" (JAMA 1993;269[17]: 2282-6).

Begin each of the following sections on a new page and in this order: title page, abstract, text, acknowledgments, references, each table, figure legends, and figures. On the title page, give complete information about each author (full names and highest degree). Give current mailing address for correspondence (include fax number and e-mail address). Follow Uniform Requirements style for references. Consult *List of Journals Indexed in Index Medicus* for accepted journal abbreviations. Tables and figures should be numbered separately (each beginning with 1) in the order of mention in the text. Double-space everything, including the title page, abstract, references, tables, and figure legends. Italicize scientific names of organisms from species name all the way up, except for vernacular names (viruses that have not really been speciated, such as coxsackievirus and hepatitis B; bacterial organisms, such as pseudomonads, salmonellae, and brucellae).

Perspectives: Contributions to the Perspectives section should address factors known to influence the emergence of infectious diseases, including microbial adaptation and change; human demographics and behavior; technology and industry; economic development and land use; international travel and commerce; and the breakdown of public health measures. Articles should be approximately 3,500 words and should include references, not to exceed 40. The section should begin with an introduction outlining the relationship of the issues discussed in the paper to the emergence of infectious diseases. Use of additional subheadings in the main body of the text is recommended. If detailed methods are included, a separate section on experimental procedures should immediately follow the body of the text. Photographs and illustrations are optional. Provide a short abstract (150 words) and a brief biographical sketch.

Synopses: Submit concise reviews of infectious diseases or closely related topics. Preference will be given

to reviews of new and emerging diseases; however, timely updates of other diseases or topics are also welcome. Synopses should be approximately 3,500 words and should include references, not to exceed 40. The section should begin with an introduction outlining the relationship of the issues discussed in the paper to the emergence of infectious diseases. Use of additional subheadings in the main body of the text is recommended. If detailed methods are included, a separate section on experimental procedures should immediately follow the body of the text. Photographs and illustrations are optional. Provide a short abstract (150 words) and a brief biographical sketch.

Dispatches: Provide brief updates on trends in infectious diseases or infectious disease research. Dispatches (1,000 to 1,500 words of text) should not be divided into sections. Dispatches should begin with a brief introductory statement about the relationship of the topic to the emergence of infectious diseases. Provide references, not to exceed 10; and figures or illustrations, not to exceed two.

All articles will be reviewed by independent reviewers. The Editor reserves the right to edit articles for clarity and to modify the format to fit the publication style of *Emerging Infectious Diseases*.

Send documents in hardcopy (Courier 10-point font), on diskette, or by e-mail. Acceptable electronic formats for text are ASCII, WordPerfect, AmiPro, DisplayWrite, MS Word, MultiMate, Office Writer, WordStar, or Xywrite. Send graphics documents in Corel Draw, Harvard Graphics, Freelance, .TIF (TIFF), .GIF (CompuServe), .WMF (Windows Metafile), .EPS (Encapsulated Postscript), or .CGM (Computer Graphics Metafile). The preferred font for graphics files is Helvetica. If possible, convert Macintosh files into one of the suggested formats. Submit photographs in camera-ready hardcopy.

Send all manuscripts and correspondence to the Editor, *Emerging Infectious Diseases*, National Center for Infectious Diseases, Centers for Disease Control and Prevention, 1600 Clifton Road, Mailstop C-12, Atlanta, GA 30333, USA, or by e-mail on the Internet to eeditor@cidod1.em.cdc.gov.

Emerging Infectious Diseases

Volume 1 • Number 2

April–June 1995

Perspective

Travel and the Emergence of Infectious Diseases 39 Mary E. Wilson

Synopsis

Escherichia coli Serotype O157:H7: Novel Vehicles of Infection and Emergence of Phenotypic Variants 47 Peter Feng

Dispatches

Epidemic-Associated *Neisseria meningitidis* Detected by Multilocus Enzyme Electrophoresis 53 Michael W. Reeves, Bradley A. Perkins, Marion Diermayer, and Jay D. Wenger

Dengue/Dengue Hemorrhagic Fever: The Emergence of a Global Health Problem 55 Duane J. Gubler and Gary G. Clark

Progress Toward the Eradication of Dracunculiasis (Guinea Worm Disease): 1994 58 Ernesto Ruiz-Tiben, Donald R. Hopkins, Trenton K. Ruebush, and Robert L. Kaiser

Letters

Heat-Stable Enterotoxin-Producing *Escherichia coli* O169:H41 in Japan 61 Yoshikazu Nishikawa, Masaki Hanaoka, Jun Ogasawara, Nelson P. Moyer, and Teruo Kimura

The GAP Project in Southeastern Turkey: The Potential for Emergence of Diseases 62 Serap Aksoy, Sedat Ariturk, Martine Y. X. Armstrong, K. P. Chang, Zeynep Dörtbudak, Michael Gottlieb, M. Ali Ozcel, Frank F. Richards, and Karl Western

Commentary

Action Plan for Drug-Resistant *Streptococcus pneumoniae* 64 Martin S. Cetron, Daniel B. Jernigan, Robert F. Breiman, and the DRSP Working Group

News and Notes

WHONET: An Information System for Monitoring Antimicrobial Resistance 66 Thomas F. O'Brien and John M. Stelling

Recommendations for Preventing the Spread of Vancomycin Resistance 66 Hospital Infection Control Practices Advisory Committee

Waterborne Cryptosporidiosis Threat Addressed 67 Daniel G. Colley

Electronic Access to *Emerging Infectious Diseases*

If you have Internet access, you can retrieve the journal electronically through file transfer protocol (FTP), electronic mail, or World-Wide Web (WWW).

The journal is available in three file formats: ASCII, Adobe Acrobat (.pdf), and PostScript (.ps). The ASCII version of the journal does not contain figures. Both the .pdf and .ps files, however, contain graphics and figures and are true representations of the hard copy of the journal. The Adobe Acrobat format requires an Adobe Reader. This reader is available in DOS, Windows, UNIX, and Macintosh versions. Installation instructions come with the Adobe software.

Access Methods

FTP: Download the journal through anonymous FTP at <ftp.cdc.gov>. The files can be found in the

pub/EID directory in each of the file types listed above.

WWW: Launch WWW browser for the Internet and connect to the following address: <http://www.cdc.gov>. Your WWW software will allow you to view, print, and retrieve journal articles.

LISTSERVer (e-mail lists): You may have the table of contents sent to your e-mail box by subscribing to the EID-TOC mailing list. When you subscribe to this list, you automatically receive the table of contents and will be able to receive individual journal articles by FTP or e-mail.

If you chose to receive the entire journal, you may subscribe to one of three other lists. EID-ASCII sends the journal in ASCII format. EID-PDF sends the journal in Adobe Acrobat format. You can get the

free Adobe Acrobat Reader by subscribing to the list. EID-PS sends the journal in PostScript format. However, because of the large file sizes and the complexity of sending the journal to different e-mail systems, it is strongly recommended that if you have FTP capabilities, you choose to access EID through FTP rather than by e-mail lists.

To subscribe to a list, send an e-mail to lists@list.cdc.gov with the following in the body of your message: subscribe *listname* (e.g., subscribe EID-ASCII). Once you have requested a subscription, you will receive further instructions by e-mail.

For more information about receiving *Emerging Infectious Diseases* electronically, send an e-mail to eidhelp@cid01.em.cdc.gov.