# INFECTION CONTROL AND HOSPITAL EPIDEMIOLOGY®

| EDITORIAL  |           |
|--|-----------|
| Vancomycin-Resistant Enterococcus faecium: Headline News<br>DONALD A. GOLDMANN, MD   | 695       |
| ORIGINAL ARTICLES  |           |
| Vancomycin-Resistant Enterococcus faecium in Hospitalized Children<br>LORRY G. RUBIN, MD; VICTOR TUCCI; EMILIA CERCENADO, PHARMD; GEORGE<br>ELIPOULOS, MD; HENRY D. ISENBERG, PHD  | 700       |
| Molecular Epidemiology of Endemic Ciprofloxacin-Susceptible and -Resistant Enterobacteriaceae Y.C. YEE; R.R. MUDER; M.H. HSIEH; T.C. LEE   | 706       |
| Methicillin-Resistant <i>Staphylococcus aureus</i> : A Questionnaire Survey of 75 Long-Term Care Facilities in Western New York JOSEPH M. MYLOTTE, MD; JURGIS KARUZA, PHD; DAVID W. BENTLEY, MD  | 711       |
| Healthcare Workers' Risk of Contact With Body Fluids in a Hospital: The Effect of Complying With the Universal Precautions Policy MICHAEL SELTZ KRISTENSEN, MD; NIELS MOGENS WERNRERG, MD; ERLING ANKER-MOLLIZ, MD   | 719       |
| SPECIAL REVIEW   |           |
| Methicillin-Resistant <i>Staphylococcus aureus</i> in Hospitals and Long-Term Care Facilities: Microbiology, Epidemiology, and Preventive Measures JOHN M. BOYCE, MD   | 725       |
|  |           |
| TOPICS IN CLINICAL MICROBIOLOGY  | 738       |
| BK Virus DOUGLAS A. HoLT, MD; JOHN T. SINNOTT, IV, MD, FACP; RICHARD L. OEHLER, BS ELIZABETH A. BRADLEY. BA  |           |
| TOPICS IN LONG-TERM CARE   |           |
| Group A Streptococcal Outbreaks in Nursing Homes BENJAMIN SCHWARTZ, MD; XILLA T. USSERY, MD  | 742       |
| READERS' FORUM   |           |
| Two Outbreaks of Primarily Noninvasive Group A Streptococcal Disease in the Same Nursing Home, New York, 1991 LOUISE-ANN MCNUTT, PHD; AIDA E. CASIANO-COLON, PHD; F. BRUCE COLES, DO DALE L. MORSE, MD, MS; MARILYN MENEGUS, PHD; ANNEMARIE GROTH MD; JANET LANSKY, MS; KAREN BELL MD; BENJAMIN SCHWARTZ, MD | 748<br>); |
| Using Force Field Analysis to Promote Use of Personal Protective Equipment CAROLINE MCCOY WHITE, RN, DRPH; MARIE C. BERGER. RN, PHD  | 752       |
| SHEA NEWS  | 757       |
| ANNUAL INDEX   | 768       |





The U.S. Department of Education has published a booklet entitled **Growing Up Drug Free-A Parent's Guide to Prevention.** Within its pages, you will find valuable advice on how parents can keep their children drug free, as well as specific things to watch for if they suspect drug abuse.

# PLEASE SEND FOR A SUPPLY OF FREE COPIES FOR YOUR PATIENTS

Call the Department of Education's toll free number: 1-800-624-0100 In Washington, DC: 202-785-1 161

or send your name and address to:
Growing Up Drug Free
Pueblo, CO 81009

# INFECTION CONTROL AND HOSPITAL EPIDEMIOLOGY ®

| CONTENTS  |      |
|---|------|
| EDITORIAL   |      |
| Vancomycin-Resistant <i>Enterococcus</i> faecium: Headline News   | 695  |
| DONALD A. GOLDMANN. MD  |      |
| ORIGINAL ARTICLES   | 700  |
| Vancomycin-Resistant Enterococcus faecium in Hospitalized Children  | 700  |
| LORRY G. RUBIN, MD; VICTOR TUCCI; EMILIA CERCENADO, PHARMD;<br>GEORGE ELIOPOULOS, MD; HENRY D. ISENBERG, PHD                    |      |
| Molecular Epidemiology of Endemic Ciprofloxacin-Susceptible and -Resistant Enterobacteriaceae                                   | 706  |
| Y.C. YEE; R.R. MUDER; M.H. HSIEH; TX. LEE   |      |
| Methicillin-Resistant Staphylococcus <i>aureus</i> : A Questionnaire Survey of 75 Long-Term Care Facilities in Western New York | 711  |
| JOSEPH M. MYLOTTE MD; JURGIS KARUZA, PHD; DAVID W. BENTLEY, MD  |      |
| Healthcare Workers' Risk of Contact With Body Fluids in a Hospital: The Effect of Complying                                     | 710  |
| With the Universal Precautions Policy   | 719  |
| MICHAEL SELTZ KRISTENSEN, MD; NIELS MOGENS WERNBERG, MD; ERLING ANKER-MOLER   | , MD |
| SPECIAL REVIEW  |      |
| Methicillin-Resistant <b>Staphylococcus aureus</b> in Hospitals and Long-Term Care Facilities:                                  |      |
| Microbiology, Epidemiology, and Preventive Measures   | 725  |
| JOHN M. BOYCE, MD   |      |
| TOPICS IN CLINICAL MICROBIOLOGY   |      |
| BK Virus  | 738  |
| DOUGLAS A. HOLT, MD; JOHN T. SINNOTT, IV, MD, FACP; RICHARD L. OEHLER, BS; ELIZABETH A. BRADLEY, BA                             |      |
| TOPICS IN LONG-TERM CARE  |      |
| Group A Streptococcal Outbreaks in Nursing Homes  | 742  |
| BENJAMIN SCHWARTZ, MD; XILLA T. USSERY, MD  |      |
| DEPARTMENTS   |      |
| Letters to the Editor   | 693  |
| Readers' Forum  | 748  |
| SHEA News   | 757  |
| SHEA Abstracts  | 760  |
| Medical News  | 766  |
| Annual Index  | 768  |
| · · · · · · · · · · · · · · · · · · ·   |      |

THE PUBLICATION OF AD-SING IN THE JOURNAL DOES NOT CONSTITUTE ANYGUARANTEE OR ENDORSEMENT BY THE SOCIETY FOR HOSPITAL EPIDEMIOLOGY OF AMERICA OR SLACK INCORPORATED OF THE AD-SED PRODUCT OR SERVICE OR OF CLAIMS MADE BY THE ADVERTISER. THE PUBLICATION OF ARTICLES AND OTHER EDITORIAL MATERIAL INTHE JOURNAL DOES NOT NECESSARILY REPRESENT THE POLICY RECOMMENDATION SORENDORSEMENT BY THE SOCIETY.

PUBLISHER Infection Control and Hospital Epidemiology (ISSN-0899-823X, Canadian GST#129780466) is published exclusively by SLACK Incorporated 12 times a year. Address: 6900 Grove Rd., Thorofare, NJ 08086. Telephone: (609) 848-1000.

COPPRIGHT 1992 by The Society for Hospital Epidemiology of America, Inc. and SLACK Incorporated. All rights reserved. No part of this publication may be reproduced without written permission from the publisher.

Subscriptions: Requests should be addressed to the publisher (except Japan). In Japan, contact Woodbell Incorporated, 4-22-11, Kitakasai, Edogawaku, Tokyo 134. Japan. Subscription rates in the United States and possessions: Individual: One vear—\$80.00; Two vears—\$115.00; Three years—\$145.00; Institutional: One year—\$90.00; Two years—\$130.00; Three years—\$145.00; Three years—\$145.00; Institutional: One year—\$90.00; Two years—\$130.00; Three years—\$145.00; Institutional: One year—\$90.00; Two years—\$150.00; Three years—\$145.00; Institutional: One year—\$90.00; Two years—\$100.00; Three years—\$100.00; Thre

REPRINTS: All requests to reprint or use material published herein should be addressed to Lester J. Robeson, SLACK Incorporated, 6900 Grove Rd., Thorofare, NJ 08086. For reprint orders and prices, contact Lester T. Robeson at (609) 848-1000. Authorization to photocopy items for internal or personal use. or the internal or personal use of specific clients, is granted by SLACK Incorporated, provided that the base fee of \$1.00 per copy, plus \$.15 per page is paid directly to Copyright Clearance Center, 27 Congress St., Salem, MA 01970. This consent does not extend to other kinds of copying, such as for general distribution, resale, advertising and promotional purposes, or for creating new collective works.

CHANGE OF ADDRESS: Notice should be sent to the publisher six weeks in advance of effective date. Include old and new addresses with zip codes. The publisher cannot accept responsibility for undelivered copies Second-class postage is paid at Thorofare, New Jersey 08066. and additional entry points. Postmaster: Send address changes to SLACK Incorporated, 6900 Grove Rd., Thorofare, NJ 08086.

INFECTION CONTROL AND HOSPITAL. EPIDEMIOLOGY is listed in Index Medicus, Current Contents-Clinical Practice, Hospital Literature Index, Cumulative Index to Nursing & Allied Health Literature, Nursing Abstracts, and Laboratory Performance Information Exchange System.

# **EDITORIAL OFFICES**

Vanderbilt University School of Medicine A-1131 Medical Center North Nashville, TN 37232-2637 (615) 343-1095; (615) 343-1882 (FAX)

Email: iche@mcmail.vanderbilt.edu

Michael D. Decker, MD, MPH

# MANAGING EDITOR

Susan Cantrell

### STATISTICAL EDITOR

Beverly G. Mellen, PhD

# SENIOR ASSOCIATE EDITORS

C. Glen Mayhall, MD Gina Pugliese, RN, MS William Schaffner, MD

# ASSOCIATE EDITORS

Donald A. Goldmann, MD

Didier Pittet, MD, MS

Andreas Widmer, MD, MS

# **SECTION EDITORS**

# **Beyond Infection Control:**

The New Hospital Epidemiology Bryan P. Simmons, MD

Stephen B. Kritchevsky, PhD

Memphis, Tennessee

Wing Hong Seto, MD

Hong Kong

# **Disinfection and Sterilization**

William A. Rutala, PhD, MPH

Chapel Hill, North Carolina

# Emerging Infectious Diseases Larry J. Strausbaugh, MD

Portland, Oregon

Robert W. Pinner, MD

Atlanta, Georgia

# From the Laboratory

Marcus Zervos, MD

Royal Oak, Michigan Fred C. Tenover. PhD

# Atlanta, Georgia Information Management

John A. Sellick, DO

Buffalo, New York

# The International Perspective

Mary D. Nettleman, MD, MS

Richmond, Virginia

**Issues in Surgery** James T. Lee, MD, PhD

St. Paul, Minnesota

# **Medical News**

Gina Pugliese, RN, MS

Chicago, Illinois

Martin S. Favero, PhD

Irvine, California

# **Practical Healthcare Epidemiology**

Loreen A. Herwaldt, MD Iowa City, Iowa

### **SHEA News** Murray D. Batt, MD

Clarksburg, West Virginia

# **Statistics for Hospital Epidemiology**

David Birnbaum, PhD, MPH Sidney, British Columbia, Canada

**Topics in Long-Term Care** Philip W. Smith, MD

Omaha, Nebraska

Publisher

John C. Carter

**Editorial Director** Jennifer Kilpatrick

**Production Editor** 

Shirley P. Strunk, ELS

# **Topics in Occupational Medicine**

Vice President/Group Publisher Richard N. Roash

David Weber, MD, MPH

Chapel Hill, North Carolina

# INFECTION CONTROL AND HOSPITAL EPIDEMIOLOGY®

### **EDITORIAL ADVISORY BOARD**

Jacques F. Acar, MD

J. Wesley Alexander, MD

Cincinnati, Ohio Chicago, Illinois

Paris, France

Paul Arnow, MD Graham A.J. Ayliffe, MD

Birmingham, United Kingdom

Neil L. Barg, MD

Yakima, Washington Atlanta, Georgia

Elizabeth Ann Bolyard, RN, MPH, CIC

John M. Boyce, MD Providence, Rhode Island Professor Dr. Ilja Braveny Munich, Federal Republic of Germany

Charles Bryan, MD

Columbia, South Carolina Creteil, France

Christian Brun-Buisson, MD Donald E. Craven, MD

Boston, Massachusetts Sue Crow, MSN, RN, CIC Shreveport, Louisiana

Franz Daschner, MD

Freiburg, Federal Republic of Germany Charlottesville, Virginia

Leigh G. Donowitz, MD Charles E. Edmiston, Jr., PhD

Milwaukee, Wisconsin Denver, Colorado

Theodore C. Eickhoff, MD

Manhasset, New York

Bruce Farber, MD Victoria J. Fraser, MD

St. Louis, Missouri

Peter C. Fuchs, MD, PhD

Black Butte, Oregon Farmington, Connecticut

Richard A. Garibaldi, MD Velvl Greene, PhD, MPH

Beer Sheva, Israel Atlanta, Georgia

Robert Gaynes, MD

Nashville, Tennessee

David W. Gregory, MD David K. Henderson, MD

Bethesda, Maryland

Peter N.R. Heseltine, MD

Los Angeles, California Chapel Hill, North Carolina

Karen Hoffmann, RN, CIC, MS Marguerite McMillan Jackson, RN, PhD

San Diego, California Charlottesville, Virginia

Janine Jagger, MPH, PhD William R. Jarvis, MD

Atlanta, Georgia Nashville, Tennessee

Douglas S. Kernodle, MD Robert H. Latham, MD

Nashville, Tennessee

Lewis B. Lefkowitz, MD

Nashville. Tennessee Taipei, Taiwan

Hsieh-Shong Leu, MD, MSc Jack Levy, MD Victor Lorian, MD

Brussels, Belgium Bronx, New York

Dennis G. Maki, MD

Madison, Wisconsin

Professor Dr. Walter Marget Munich, Federal Republic of Germany William J. Martone, MD

Bethesda, Maryland Toronto, Ontario, Canada

Allison McGeer, MD

John E. McGowan, Jr., MD Atlanta, Georgia

Jonathan L. Meakins, MD, DSc

Montreal, Quebec, Canada Brussels, Belgium

Raf Mertens, MD Robert R. Muder, MD

Joseph M. Mylotte, MD, CIC

Pittsburgh, Pennsylvania

Buffalo, New York

Lindsay Nicolle, MD Juhani Ojajärvi, MD

Winnepeg, Manitoba, Canada Helsinki, Finland Minneapolis, Minnesota

Iowa City, Iowa

Houston, Texas

Vienna, Austria

Jerusalem, Israel

Trenton, New Jersey

Mexico City, Mexico

Madison, Wisconsin New York City, New York

Prahran Victoria, Australia

Michael T. Osterholm, PhD, MPH Jan Evans Patterson, MD

San Antonio, Texas

Sindy M. Paul, MD

Michael A. Pfaller, MD

Samuel Ponce de Leon, MD, MSc

Isaam Raad, MD

Manfred L. Rotter, MD, DipBact

Theodore Sacks, MD William E. Scheckler, MD

Kent Sepkowitz, MD

Denis Spelman, MD Michael L. Tapper, MD

Clyde Thornsberry, PhD Professor Leonid P. Titov

Timothy R. Townsend, MD Antoni Trilla, MD, PhD

Professor Wang Shu-Qun J. John Weems, Jr., MD

Millwood, Virginia Barcelona, Spain Beijing, People's Republic of China Greenville, South Carolina

New York, New York

Brentwood Tennessee Minsk, Republic of Belarus

Robert A. Weinstein, MD Chicago, Illinois Greifswald, Federal Republic of Germany Professor Dr. W. Weuffen

Sergio B. Wey, MD

São Paulo, Brazil

Evanston Illinois

Rebecca Wurtz, MD

SLACK Incorporated 6900 Grove Road Thorofare, New Jersey 08086 (609) 848-1000

**Assistant Editor** Eileen C. Anderer Circulation Manager

Lester J. Robeson, CCCP **Production Director** 

Christine Malin

**Production Coordinator** Joanne Patterson

**Publishing Director/ Advertising** Wayne McCourt

Pharmaceutical Group Sales Director Michael LoPresti

Advertising Sales Representative

Classified/Recruitment Sales Manager Michele Burch

https://doi.org/10.1017/S0899823X00089327 Published online by Cambridge University Press