

# INFECTION CONTROL AND HOSPITAL EPIDEMIOLOGY<sup>TM</sup>

## EDITORIAL

### Water As a Reservoir of Nosocomial Pathogens

WILLIAM A. RUTALA, PhD, MPH; DAVID J. WEBER, MD, MPH

609

## ORIGINAL ARTICLES

### Outbreak Among HIV-Infected Patients of *Staphylococcus aureus* Resistant to Cotrimoxazole and Methicillin

ROBERTO ALONSO, PhD; BELEN PADILLA, MD; CARLOS SÁNCHEZ-CARRILLO, PHARM D; PATRICIA MUÑOZ, MD; MARTA RODRÍGUEZ-CREIXEMS, MD; EMILIO BOUZA, PhD

617

### Environmental Contamination Due to Methicillin-Resistant *Staphylococcus aureus*: Possible Infection Control Implications

JOHN M. BOYCE, MD; GAIL POTTER-BYNOE, BS; CLAIRE CHENEVERT, BS; THOMAS KING, MD

622

### *Clostridium difficile*-Associated Diarrhea: Epidemiology, Risk Factors, and Infection Control

KWAN KEW LAI, DMD, MD; ZITA S. MELVIN, RN, BSN, CIC; MARY JANE MENARD, RN, MS, ANP, CNS; HELEN R. KOTILAINEN, MA, MT (ASCP), CIC; STEPHEN BAKER, PhD

628

### Primary Prevention and Rubella Immunity: Overlooked Issues in the Outpatient Obstetric Setting

DEBORAH D. SCHOENHOFF, MD; TIMOTHY W. LANE, MD; CHARLES J. HANSEN, MA

633

### Nosocomial Legionellosis Traced to a Contaminated Ice Machine

PAUL S. GRAMAN, MD; GAIL A. QUINLAN, BS, RN, CIC; JUNE A. RANK, BS, RN, CIC

637

### Bacterial Killing Ability of 10% Ethylene Oxide Plus 90% Hydrochlorofluorocarbon Sterilizing Gas

MICHELLE J. ALFA, PhD; PAT DEGAGNE, RT; NANCY OLSON, BSc

641

### An Evaluation of the AbTox Plazlyte Sterilization System

E.A. BRYCE, MD; E. CHIA, RT; G. LOGELIN, RT; J.A. SMITH, MD

646

## CONCISE COMMUNICATIONS

### When the Biological Indicator Is Positive: Investigating Autoclave Failures

E.A. BRYCE, MD; F.J. ROBERTS, MD; B. CLEMENTS, P.ENG; S. MACLEAN, CET

654

### Exclusion of Noninfectious Medical Waste From the Contaminated Waste Stream

MICHAEL C. FRANCIS, MD; LANA A. METOYER, MD; ALAN D. KAYE, MD, PhD

656

## PRACTICAL HEALTHCARE EPIDEMIOLOGY

### Basics of Surgical-Site Infection Surveillance

MARIE-CLAUDE ROY, MD, MS; TRISH M. PERL, MD, MSc

659

Continued inside.

# INFECTION CONTROL AND HOSPITAL EPIDEMIOLOGY<sup>®</sup>

## CONTENTS

Continued from cover

### LETTER TO THE EDITOR

#### The Stethoscope As a Potential Source of Transmission of Bacteria

ITZHAK BROOK, MD, MSC

608

### CALENDAR

616

### MEDICAL NEWS

GINA PUGLIESE, RN, MS; MARTIN S. FAVERO, PhD

Microbiological Factors and Mortality of Septicemia

621

Check Out These Web Sites

632

The HIV Postexposure Prophylaxis Registry

636

Guidelines Issued for Vancomycin-Resistant Staphylococcal Infection

669

Antibiotic Resistance Surveillance

669

HCV Transmission During Home Infusion Therapy

669

HIV Transmission From Deep Kissing?

670

Russia to Open New TB Center

670

### SHEA NEWS

MURRAY D. BATT, MD

672

*To view abstracts of these articles,  
visit us on the Internet at <http://www.slackinc.com/general/icbe>*

THE PUBLICATION OF ADVERTISING IN THE JOURNAL DOES NOT CONSTITUTE ANY GUARANTEE OR ENDORSEMENT BY THE SOCIETY FOR HEALTHCARE EPIDEMIOLOGY OF AMERICA OR SLACK INCORPORATED OF THE ADVERTISED PRODUCT OR SERVICE OR OF CLAIMS MADE BY THE ADVERTISER. THE PUBLICATION OF ARTICLES AND OTHER EDITORIAL MATERIAL IN THE JOURNAL DOES NOT NECESSARILY REPRESENT THE POLICY RECOMMENDATIONS OR ENDORSEMENT 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.

**COPYRIGHT 1997** The Society for Healthcare Epidemiology of America, Inc., and SLACK Incorporated. All rights reserved. No part of this publication may be reproduced without written permission from the publisher. Printed in the USA.

**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 year-\$98.00; Two years-\$136.00; Three years-\$169.00; Institutional: One year-\$120.00; Two years-\$170.00; Three years-\$220.00. Fellows: \$49 per year with proof of training status. Canada: \$19.00 additional each year plus 7% for Canadian Goods & Services tax; all other countries: \$38.00 additional each year. Overseas surface, \$84.00 each year overseas air mail. Single copies of current issues may be obtained for \$15.00, United States and possessions; \$20.00 all other countries.

**INSTRUCTIONS TO AUTHORS:** Authors may submit manuscripts prepared in accordance with the 1997 revision of the "Uniform Requirements for Manuscripts Submitted to Biomedical Journals." The Uniform Requirements has been published in several journals, including *Infect Control Hosp Epidemiol* 1997;18:457-464 and *Ann Intern Med* 1997;126:36-47. A digital version is available on our web site (<http://www.slackinc.com/general/icbe/icbehome.htm>). Submit to "ICHE Editorial Offices, Vanderbilt University School of Medicine, A-1131 Medical Center North, Nashville, TN 37232-2637, USA."

**REPRINTS:** All requests to reprint or use material published herein should be addressed to Les Robeson, SLACK Incorporated, 6900 Grove Rd., Thorofare, NJ 08086. For reprint orders and prices, contact Les 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. Periodicals postage paid at Thorofare, New Jersey 08086-9447 and at additional mailing offices. 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, Laboratory Performance Information Exchange System, and RNDex Top 100.

## 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](mailto:iche@mcmail.vanderbilt.edu)

## EDITOR

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. Kritchewsky, 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

### Topics in Occupational Medicine

David Weber, MD, MPH

Chapel Hill, North Carolina

# INFECTION CONTROL AND HOSPITAL EPIDEMIOLOGY®

## EDITORIAL ADVISORY BOARD

|                                      |                                         |
|--------------------------------------|-----------------------------------------|
| Jacques F. Acar, MD                  | Paris, France                           |
| J. Wesley Alexander, MD              | Cincinnati, Ohio                        |
| Paul Arnow, MD                       | Chicago, Illinois                       |
| Graham A.J. Ayliffe, MD              | Birmingham, United Kingdom              |
| Neil L. Barg, MD                     | Yakima, Washington                      |
| Elizabeth Ann Bolyard, RN, MPH, CIC  | Atlanta, Georgia                        |
| John M. Boyce, MD                    | Providence, Rhode Island                |
| Professor Dr. Ilja Braveny           | Munich, Federal Republic of Germany     |
| Charles Bryan, MD                    | Columbia, South Carolina                |
| Christian Brun-Buisson, MD           | Creteil, France                         |
| Donald E. Craven, MD                 | Boston, Massachusetts                   |
| Sue Crow, MSN, RN, CIC               | Shreveport, Louisiana                   |
| Franz Daschner, MD                   | Freiburg, Federal Republic of Germany   |
| Leigh G. Donowitz, MD                | Charlottesville, Virginia               |
| Charles E. Edmiston, Jr., PhD        | Milwaukee, Wisconsin                    |
| Theodore C. Eickhoff, MD             | Denver, Colorado                        |
| Bruce Farber, MD                     | Manhasset, New York                     |
| Victoria J. Fraser, MD               | St. Louis, Missouri                     |
| Peter C. Fuchs, MD, PhD              | Black Butte, Oregon                     |
| Richard A. Garibaldi, MD             | Farmington, Connecticut                 |
| Velvl Greene, PhD, MPH               | Beer Sheva, Israel                      |
| Robert Gaynes, MD                    | Atlanta, Georgia                        |
| David W. Gregory, MD                 | Nashville, Tennessee                    |
| David K. Henderson, MD               | Bethesda, Maryland                      |
| Peter N.R. Heseltine, MD             | Los Angeles, California                 |
| Karen Hoffmann, RN, CIC, MS          | Chapel Hill, North Carolina             |
| Marguerite McMillan Jackson, RN, PhD | San Diego, California                   |
| Janine Jagger, MPH, PhD              | Charlottesville, Virginia               |
| William R. Jarvis, MD                | Atlanta, Georgia                        |
| Douglas S. Kernodle, MD              | Nashville, Tennessee                    |
| Robert H. Latham, MD                 | Nashville, Tennessee                    |
| Lewis B. Lefkowitz, MD               | Nashville, Tennessee                    |
| Hsieh-Shong Leu, MD, MSc             | Taipei, Taiwan                          |
| Jack Levy, MD                        | Brussels, Belgium                       |
| Victor Lorian, MD                    | Bronx, New York                         |
| Dennis G. Maki, MD                   | Madison, Wisconsin                      |
| Professor Dr. Walter Marget          | Munich, Federal Republic of Germany     |
| William J. Martone, MD               | Bethesda, Maryland                      |
| Allison McGeer, MD                   | Toronto, Ontario, Canada                |
| John E. McGowan, Jr., MD             | Atlanta, Georgia                        |
| Jonathan L. Meakins, MD, DSc         | Montreal, Quebec, Canada                |
| Raf Mertens, MD                      | Brussels, Belgium                       |
| Robert R. Muder, MD                  | Pittsburgh, Pennsylvania                |
| Joseph M. Mylotte, MD, CIC           | Buffalo, New York                       |
| Lindsay Nicolle, MD                  | Winnipeg, Manitoba, Canada              |
| Juhani Ojajarvi, MD                  | Helsinki, Finland                       |
| Michael T. Osterholm, PhD, MPH       | Minneapolis, Minnesota                  |
| Jan Evans Patterson, MD              | San Antonio, Texas                      |
| Sindy M. Paul, MD                    | Trenton, New Jersey                     |
| Michael A. Pfaller, MD               | Iowa City, Iowa                         |
| Samuel Ponce de Leon, MD, MSc        | Mexico City, Mexico                     |
| Isaam Raad, MD                       | Houston, Texas                          |
| Manfred L. Rotter, MD, DipBact       | Vienna, Austria                         |
| Theodore Sacks, MD                   | Jerusalem, Israel                       |
| William E. Scheckler, MD             | Madison, Wisconsin                      |
| Kent Sepkowitz, MD                   | New York City, New York                 |
| Denis Spelman, MD                    | Prahran Victoria, Australia             |
| Michael L. Tapper, MD                | New York, New York                      |
| Clyde Thornsberry, PhD               | Brentwood, Tennessee                    |
| Professor Leonid P. Titov            | Minsk, Republic of Belarus              |
| Timothy R. Townsend, MD              | Millwood, Virginia                      |
| Antoni Trilla, MD, PhD               | Barcelona, Spain                        |
| Professor Wang Shu-Qun               | Beijing, People's Republic of China     |
| J. John Weems, Jr., MD               | Greenville, South Carolina              |
| Robert A. Weinstein, MD              | Chicago, Illinois                       |
| Professor Dr. W. Weuffen             | Greifswald, Federal Republic of Germany |
| Sergio B. Wey, MD                    | São Paulo, Brazil                       |
| Rebecca Wurtz, MD                    | Evanston, Illinois                      |

## SLACK Incorporated

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

### Vice President/Group Publisher

Richard N. Roash

### Publisher

John C. Carter

### Editorial Director

Jennifer Kilpatrick

### Production Editor

Shirley P. Strunk, ELS

### 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

Jennine Kane

### Classified/Recruitment Sales Manager

Michele Burch