

INFECTION CONTROL AND HOSPITAL EPIDEMIOLOGYTM

EDITORIAL

Preventing Staphylococcal Infections by Eradicating Nasal Carriage of *Staphylococcus aureus*: Proceeding With Caution

JOHN M. BOYCE, MD

775

ORIGINAL ARTICLES

Reduction of Surgical-Site Infections in Cardiothoracic Surgery by Elimination of Nasal Carriage of *Staphylococcus aureus*

JAN A.J.W. KLUYTMANS, MD; JOHAN W. MOUTON, MD, PhD; MARJOLEIN F.Q. VANDENBERGH, MD; MARIE-JOSÉ A.A.J. MANDERS, CIC; ALEXANDER P.W.M. MAAT, MD; JOHAN H.T. WAGENVORT, MD, PhD; MARC F. MICHEL, MD, PhD; HENRI A. VERBRUGH, MD, PhD

780

Cost-Effectiveness of Perioperative Mupirocin Nasal Ointment in Cardiothoracic Surgery

MARJOLEIN F.Q. VANDENBERGH, MD; JAN A.J.W. KLUYTMANS, MD; BEN A. VAN HOUT, PhD; ALEXANDER P.W.M. MAAT, MD, PhD; ROB J. SEERDEN, MSc; JOSEPH McDONNELL, MSc; HENRI A. VERBRUGH, MD, PhD

786

Elimination of Nasal Carriage of *Staphylococcus aureus* in Hemodialysis Patients

JAN A.J.W. KLUYTMANS, MD; MARIE-JOSÉ MANDERS, ICN; ERIK VAN BOMMEL, MD; HENRI VERBRUGH, MD, PhD

793

A Prolonged Outbreak of Methicillin-Resistant *Staphylococcus aureus* in the Burn Unit of a Tertiary Medical Center

PATRICIA A. MEIER, MD, MSc; CHERYL D. CARTER, RN; SARAH E. WALLACE, LPN; RICHARD J. HOLLIS, MA; MICHAEL A. PFALLER, MD; LOREEN A. HERWALDT, MD

798

Randomized Prospective Study of the Impact of Three Needleless Intravenous Systems on Needlestick Injury Rates

PAUL B. L'ECUYER, MD; ELIZABETH OWENS SCHWAB, RN; ELIZABETH IADEMARCO, RN; NORMA BARR, RN; ELIZABETH A. ATON, MS; VICTORIA J. FRASER, MD

803

CONCISE COMMUNICATIONS

Nasal and Cutaneous Carriage of *Staphylococcus aureus* in Hemodialysis Patients: The Effect of Nasal Mupirocin

JOHAN R. BOELAERT, MD; HERMAN W. VAN LANDUYT, MD; BART Z. GORDTS, MD; YVAN A. DE BAERE; SHAWN A. MESSER, BS; LOREEN A. HERWALDT, MD

809

Development of Mupirocin Resistance Among Methicillin-Resistant *Staphylococcus aureus* After Widespread Use of Nasal Mupirocin Ointment

MARK A. MILLER, MD; ANDRE DASCAL, MD; JOSEPH PORTNOY, MD; JACK MENDELSON, MD

811

Emergence of High-Level Mupirocin Resistance in Methicillin-Resistant *Staphylococcus aureus* Isolated From Brazilian University Hospitals

KÁTIA REGINA NETTO DOS SANTOS, MSc; LEILA DE SOUZA FONSECA, MD, PhD; PAULO PINTO GONTIJO FILHO, MD, PhD

813

Follow-Up Evaluation of Respiratory Isolation Rooms in 10 Midwestern Hospitals

KAREN M. DAHL, BS; PAUL B. L'ECUYER, MD; MARILYN JONES, RN; VICTORIA J. FRASER, MD

816

PRACTICAL HEALTHCARE EPIDEMIOLOGY

Tuberculosis Control in Health Care

GINA PUGLIESE, RN, MS; MICHAEL L. TAPPER, MD

819

Continued inside.

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

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. 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

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 Ojajärvi, 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

INFECTION CONTROL AND HOSPITAL EPIDEMIOLOGY™

CONTENTS

Continued from cover

LETTERS TO THE EDITOR

Online Services

ALLAN GOTTLIEB

770

Long-Term Survival of Vancomycin-Resistant *Enterococcus faecium* on a Contaminated Surface

HECTOR F. BONILLA, MD; MARCUS J. ZERVOS, MD; CAROL A. KAUFFMAN, MD; GARY A. NOSKIN, MD; LANCE R. PETERSON, MD; JOHN M. BOYCE, MD

770

Bloodstream Infection From a Port-A-Cath: Successful Treatment With the Antibiotic Lock Technique

THOMAS BREGENZER, MD; ANDREAS F. WIDMER, MD, MS

772

Comparison of Rapid Readout Biological Indicator for Steam Sterilization With Four Conventional Biological Indicators and Five Chemical Indicators

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

773

Vancomycin Use in a University Medical Center: Comparison With Hospital Infection Control Practices Advisory Committee Guidelines

SARY BEIDAS, MD, FACP; MASOOMEH KHAMESIAN, PHARM D

773

CORRECTION

Rapid Identification of Respiratory Viruses: Impact on Isolation Practices and Transmission Among Immunocompromised Pediatric Patients

774

MEDICAL NEWS

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

VRE in Liver Transplant Recipients	779
Mediastinitis Associated With HCW Nasal Carriage	785
Chlamydia Infections Most Common US Notifiable Infectious Disease	792
New Test for Diagnosis of CJD	797
Intrinsic Contamination Prompts Recall of Albumin	802
Influenza Vaccine: No Side Effects	808
Hospital Outbreak of <i>Salmonella</i>	828
<i>S epidermidis</i> Resistant to Vancomycin	828
Semi-Quantitative and Sonication Cultures of IV Catheters Comparable	828
Automated Flexible Endoscope Reprocessors	829
Transmission Events in Mother-to-Child Transmission of HIV	829
Breach in Confidential AIDS Patient Information	829
Draft Guidelines on Infectious Disease and Xenotransplantation	830

The Bug Stops Here

RICHARD N. OLANS, MD

831

ANNUAL INDEX

832

SHEA NEWS

MURRAY D. BATT, MD

844

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 1996 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.

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, and Social Sciences Citation Index. For more information, please contact the publisher.