

INFECTION CONTROL AND HOSPITAL EPIDEMIOLOGY[®]

EDITORIAL

- The Costs of Hospital Infection Control in a Developing Country 647
CLAUDIO S. PANNUIT, MD, PHD

ORIGINAL ARTICLES

- Cost Improvements Through the Establishment of Prudent Infection Control Practices in a Brazilian General Hospital, 1986-1989 649
M.D.A. CAVALCANTE, MD, MPH; O.B. BRAGA, MD; C.H. TEOFILO MD, FICS; E.N. OLIVEIRA, RN; A. AWES, MD

- Failure of Bland Soap Handwash to Prevent Hand Transfer of Patient Bacteria to Urethral Catheters 654
N. JOEL EHRENKRANZ, MD; BLANCA C. ALFONSO, BS

- Measles Immunity Among Community Hospital Employees 663
PETER HOUCK, MD; GAY SCOTT-JOHNSON, RN; LYLANNE KREBS, RN

- Evaluation of the Epidemiology of Hepatitis B Virus Cross-Infection in a Maternity Hospital 669
Z. PUVACIC, MD; S. SIMIC, MD; M. KARLOVAC, MD; V. VISNJEVAC, MD; M. SIMIC, MD; B. NIKULIN, MD

NOVEL APPLICATIONS FOR HOSPITAL EPIDEMIOLOGY

- Infection Control Violations 672
LINDA A. HORNING, RN, CIC; PHILIP W. SMITH, MD

TOPICS IN CLINICAL MICROBIOLOGY

- Malassezia furfur* Infections 676
OSVALDO TEGLIA, MD; PAUL E. SCHOCH, PHD; BURKE A. CUNHA, MD

SPECIAL COMMENTARIES

- Medical Waste: A Minimal Hazard 682
JOHN H. KEENE, DRPH

- The Nonexistent Problem 686
RUTH DAVIDHIZAR, RN, DNS, CS

LETTERS TO THE EDITOR

- Infected Urine and Prostatectomy Wound Infection (And Reply) 644
DAVID BIRNBAUM, MPH
SANTIAGO RICHTER, MD

- Antibiotic Dosing (And Reply) 645
HARRY J. SILVER, MD
MICHAEL D. DECKER, MD, MPH

- SHEA NEWS 691

- MEDICAL NEWS 694

Twenty-eight years ago
we declared germ warfare.

Cidex*

Meet our newest Weapons.

Twenty-eight years ago, Johnson & Johnson Medical, Inc. revolutionized disinfection with the introduction of CIDEX® Activated Dialdehyde Solution. And now, we're offering two new additions to the CIDEX Solution Family of Products.

Introducing ENZOL® Enzymatic Detergent — it breaks down and removes tough, dried-on organic matter from instruments. Plus, easy rinsing means no clogging of scopes.

And, new CIDEX Solution Test Strips — developed exclusively for monitoring the effectiveness of CIDEX Solution. It's the easiest, most reliable way to detect unintentional dilution. Simply dip a test strip in CIDEX Solution, remove and read.

Depend on Johnson & Johnson Medical to lead the charge in asepsis and infection control. For additional product information, call 1-800-433-5009, or contact your Johnson & Johnson Medical sales representative.



With our two newest additions, the CIDEX Solution Family of Products is the most powerful weapon you have.

Johnson & Johnson
MEDICAL INC.

TRADEMARK © JJM, INC 1991



SPORICIDIN® MONITOR TEST KIT



PROOF FOR EFFECTIVE CONCENTRATIONS

The Sporicidin Monitor Test Kit is a color indicator which is used to determine effective concentrations of 1:8 and 1:16 dilutions of Sporicidin Cold Sterilizing Solution.

To order, or for additional information,
call: (800) 424-3733



Sporicidin International, 12000 Old Georgetown Road, Rockville, MD 20852 • (301) 231-7700 • FAX (301) 231-8165

INFECTION CONTROL AND HOSPITAL EPIDEMIOLOGY

CONTENTS

EDITORIAL

- The Costs of Hospital Infection Control in a Developing Country 647

CLAUDIO S. PANNUTT, MD, PHD

ORIGINAL ARTICLES

- Cost Improvements Through the Establishment of Prudent Infection Control Practices in a Brazilian General Hospital, 1985-1989 649

**M.D.A. CAVALCANTE, MD, MPH; O.B. BRAGA, MD; C.H. TEOFILLO, MD, FICS;
E.N. OLIVEIRA, RN; A. ALVES, MD**

- Failure of Bland Soap Handwash to Prevent Hand Transfer of Patient Bacteria to Urethral Catheters 654

N. JOEL EHRENKRANZ, MD; BLANCA C. ALFONSO, BS

- Measles Immunity Among Community Hospital Employees 663

PETER HOUCK, MD; GAY SCOTT-JOHNSON, RN; LYLANNE KREBS, RN

- Evaluation of the Epidemiology of Hepatitis B Virus Cross-Infection in a Maternity Hospital 669

**Z. PUVACIC, MD; S. SIMIC, MD; M. KARLOVAC, MD; V. VISNJEVAC, MD;
M. SIMIC, MD; B. NIKULIN, MD**

NOVEL APPLICATIONS FOR HOSPITAL EPIDEMIOLOGY

- Infection Control Violations 672

LINDA A. HORNING, RN, CIC; PHILIP W. SMITH, MD

TOPICS IN CLINICAL MICROBIOLOGY

- Malassezia furfur Infections 676

OSVALDO TEGLIA, MD; PAUL E. SCHOCH, PHD; BURKE A. CUNHA, MD

SPECIAL COMMENTARIES

- Medical Waste: A Minimal Hazard 682

JOHN H. KEENE, DRPH

- The Nonexistent Problem 686

RUTH DAVIDHIZAR, RN, DNS, CS

DEPARTMENTS

- Republication and Copyright Policy 641

- Information for Authors 642

- Letters to the Editor 644

- Calendar of Events 690

- SHEA News 691

- Medical News 694

- Classified Marketplace Cover 3

THE PUBLICATION OF ADVERTISING IN THE JOURNAL DOES NOT CONSTITUTE ANY GUARANTEE OR ENDORSEMENT BY THE SOCIETY FOR HOSPITAL 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) is published exclusively by SLACK Incorporated 12 times a year. Address: 6900 Grove Rd., Thorofare, NJ 08086. Telephone: (609) 848-1000.

COPYRIGHT 1991 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 year—\$70.00; Two years—\$105.00; Three years—\$135.00; Institutional: One year—\$80.00; Two years—\$120.00; Three years—\$160.00. Fellows: \$35 per year. Canada: \$18.00 additional each year; all other countries: \$36.00 additional each year. Single copies of current issues may be obtained for \$8.00, United States and possessions; \$16.00 all other countries.

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 J. 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 08086, and additional entry points. **POSTMASTER:** Send address changes to SLACK Incorporated, 6900 Grove Rd., Thorofare, NJ 08086.

As of Volume 1, Number 1, 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

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 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

INFECTION CONTROL AND HOSPITAL EPIDEMIOLOGY

The Society for Hospital Epidemiology of America (SHEA) and SLACK Inc. Copyright and Republication Policy

The Society for Hospital Epidemiology of America (SHEA) and SLACK Inc. hold copyright on *Infection Control and Hospital Epidemiology*. We request that all authors of works transfer to SHEA and SLACK Inc. all rights, title, and interest to such works, including copyright. In accord with the Copyright Act of 1976, we must acquire every author's signature to effect the transfer. A written work cannot be considered for publication until the 'Assignment of Copyright' form is signed by the author or authors and is on file at the editorial offices. Please submit this signed form with your manuscript. In the event that a manuscript is not accepted for publication, this agreement will be returned to the authors.

Signed 'Assignment of Copyright' forms confirm that a work submitted has not previously been published, is not subject to copyright or other rights except those of the author to be transferred to SHEA and SLACK Inc., and is not under consideration for publication elsewhere, except under circumstances communicated to us in writing at the time the work is submitted.

Permission to reproduce any part of the works published by SHEA and SLACK Inc. in *Infection Control and Hospital Epidemiology* in any form or by any means, electronic or mechanical, is not permitted without written permission from SLACK Inc.

Assignment of Copyright

In consideration of SLACK Incorporated and The Society for Epidemiology of America (collectively called the 'Publisher') in publishing my (our) submitted manuscript, the undersigned hereby transfer(s), assign(s), and otherwise convey(s) all copyright in the manuscript to the Publisher. The undersigned declares that the manuscript is original and, to the best of the undersigned's knowledge, contains no matter that is libelous or unlawful or that infringed upon anyone else's rights of copyright.

In addition, we affirm that the work is the work of every author listed, and is not under consideration for publication elsewhere, except under circumstances communicated to us in writing at the time the work is submitted.

MANUSCRIPT NUMBER (if known) _____ DATE _____

AUTHORS _____

TITLE _____

ALL AUTHORS

Signature _____ Date _____

Signature _____ Date _____

Signature _____ Date _____

Signature _____ Date _____

Signature _____ Date _____

Signature _____ Date _____

Signature _____ Date _____

This form may be photocopied.