

INFECTION CONTROL^{AND}

HOSPITAL EPIDEMIOLOGY

Volume 10, Number 9 • September 1989

EDITORIAL

Enteral Nutrition: An Increasingly Recognized Cause of Nosocomial Bloodstream Infection

J. Levy, MD

ORIGINAL ARTICLES

***Enterobacter sakazakii* Infections in Neonates Associated with Intrinsic Contamination of a Powdered Infant Formula**

Bryan P. Simmons, MD; Michael S. Gelfand, MD; Michael Haas, MT;
Linda Metts, RN; John Ferguson, MD

The inanimate Environment of an Intensive Care Unit as a Potential Source of Nosocomial Bacteria: Evidence for Long Survival of *Acinetobacter calcoaceticus*

Sandra I. Getchell-White, BS, MT(ASCP); Leigh G. Donowitz, MD;
Dieter H.M. Groschel, MD

***Legionella pneumophila* Grows Adherent to Surfaces in vitro and in situ**

J.B. Wright, PhD; I. Ruseska, MD; M.A. Athar, PhD; S. Corbett, RT;
J.W. Costerton, PhD

Investigation of a *Streptococcus viridans* Pseudobacteremia Epidemic at a University Teaching Hospital

Dierdre L. Church, MD, PhD, FRCPC;
Heather E. Bryant, MD, PhD, CCFP, FRCPC

The Official Journal of The Society of Hospital Epidemiologists of America

Recommended by all major scope manufacturers

Sporicidin® Requires No Heat

Compare for 100% TUBERCULOCIDAL ACTIVITY

	Temperature	Immersion Time	Dilution	Reuse Life
Sporicidin® (EPA Reg. No. 8383-5)	68°F and above (True Room Temperature)	10 Minutes	1:16	30 Days
CIDEX® (EPA Reg. No. 7078-1)	77°F Requires Heat	45 Minutes	Full Strength	14 Days

100% Hospital Level
Disinfection for
instruments and
equipment in the
O.R. and
respiratory therapy



**Note: Because of confusion
created in the marketplace,
EPA issued this letter to
reaffirm the label claims
of Sporicidin.**

"Sporicidin is currently registered with EPA as a cold sterilizing solution and concentrated disinfectant, (for endoscopes, respiratory equipment, etc.), based on test results from EPA prescribed tests for such products,.. at this use dilution (1:16), the product is effective against bacteria, pathogenic fungi, tubercle bacillus and viruses (those specifically tested) in 10 minutes at 20°C/68°F and above."

EPA letter 11/22/88

Sporicidin®
INTERNATIONAL

12000 Old Georgetown Road • Rockville, MD 20852

Far Information: 1-800-424-3733

"All Sporicidin disinfectant products kill HIV.1 (AIDS virus) on pre-cleaned environmental surfaces." (EPA accepted on 2/6/89)

INFECTION CONTROL AND HOSPITAL EPIDEMIOLOGY

EDITORIAL	Enteral Nutrition: An Increasingly Recognized Cause of Nosocomial Bloodstream Infection J. Levy, MD	395
ORIGINAL ARTICLES	Enterobacter <i>sabazakii</i> Infections in Neonates Associated with Intrinsic Contamination of a Powdered Infant Formula Bryan P. Simmons, MD; Michael S. Gelfand, MD; Michael Haas, MT; Linda Metts, RN; John Ferguson, MD	398
	The Inanimate Environment of an Intensive Care Unit as a Potential Source of Nosocomial Bacteria: Evidence for Long Survival of <i>Acinetobacter calcoaceticus</i> Sandra I. Getchell-White, BS, MT(ASCP); Leigh G. Donowitz, MD; Dieter H.M. Groschel, MD	402
	<i>Legionella pneumophila</i> Grows Adherent to Surfaces in vitro and in situ J.B. Wright, PhD; I. Ruseska, MD; M.A. Athar, PhD; S. Corbett, RT; J.W. Costerton, PhD	408
	Investigation of a <i>Streptococcus viridans</i> Pseudobacteremia Epidemic at a University Teaching Hospital Dierdre L. Church, MD, PhD, FRCPC; Heather E. Bryant, MD, PhD, CCFP, FRCPC	416
SPECIAL SECTIONS	Statistics for Hospital Epidemiology: On Using Microcomputers in Statistical Analysis Peter A. Lachenbruch, PhD	422
DEPARTMENTS	Letters to the Editor	389
	Information for Authors	392
	<i>SHEA</i> Newsletter	427
	Calendar of Events	429
	Classified Marketplace	431

The ideas and opinions expressed by contributing authors do not necessarily reflect those of the editors or publisher.

Publisher: Infection Control and Hospital Epidemiology (ISSN-0899-823X) is published monthly by SLACK Incorporated, 6900 Grove Road, Thorofare New Jersey 08086 Telephone (609) 848-1000

Copyright 1989: All rights reserved No part of this publication may be reproduced without written permission from the publisher

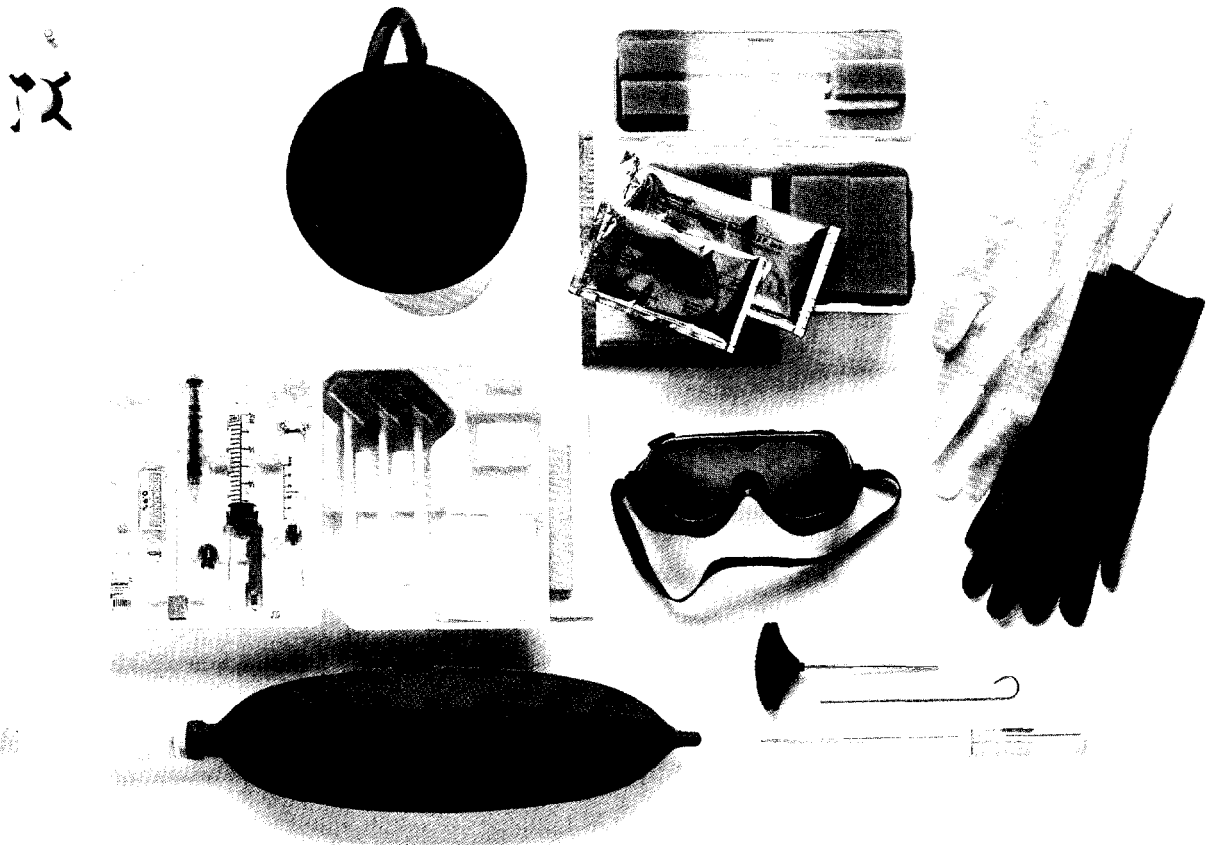
Subscriptions: Requests should be addressed to the publisher (except Japan) In Japan, contact Woodbell Incorporated, 4-22-11 Kitakasai, Edogawaku, Tokyo 134, Japan Subscription rates in the US and possessions Individual One year- \$50 00 Two years—\$85 00. Three years \$115 00 Institutional One year-\$60 00 Two years—\$100 00 Three years—\$140 00. Canada \$15 00 additional each year all other countries \$25 00 additional each year Single copies of current issues may be obtained for \$7 00, United States and possessions; \$13 00 all other countries

Reprints: All requests to reprint or use material published herein should be addressed to Susan S Budd, SLACK Incorporated 6900 Grove Road, Thorofare, NJ 08086 For reprint orders and prices, contact Joanne Patterson 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 Street, 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 Road, 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, and Cumulative Index to Nursing and Allied Health Literature

How could we
call ourselves the
Operating Room
Division without
Phmaseal
Surgical?



The truth is, we couldn't. Pharmaseal[®] Surgical's operating room products, anesthesia products and special procedure trays are essential today for assuring an efficient and safe O.R. environment.

To begin with, our TriFlex[®] surgical gloves and Medi-Vac[®] suction canisters are industry leaders. And LaserLine is the first comprehensive group of laser surgery safety products available from a single source.

Pharmaseal Surgical also offers a complete line of single-use procedural trays for anesthesia, patient prepping and diagnostic procedures, as well as Tru-Cut[®] and Jamshidi[®] biopsy trays.

But perhaps the greatest plus Pharmaseal

offers is its association with two other well-known names in the industry. V. Mueller[®] and Convertors[®]/Custom Sterile. Together as the Operating Room Division, we're uniquely qualified to help you with both the clinical and business issues you face. The result will make your O.R. as efficient and productive as possible, while still maintaining the highest standards of patient care possible.

The bottom line? Your operation wouldn't be the same without Pharmaseal Surgical. And neither would ours.

For more information, write Baxter Health-care Corporation, Operating Room Division, 1500 Waukegan Road, McGaw Park, IL 60085.

Operating Room Division

Baxter

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 Thornsberrry, 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, CCCC

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