

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

## EDITORIAL

- Methicillin-Resistant *Staphylococcus aureus* in Nursing Homes:  
Putting the Problem in Perspective 413  
JOHN M. BOYCE, MD

## ORIGINAL ARTICLES

- Serial Survey of Methicillin-Resistant *Staphylococcus aureus* Nasal Carriage  
Among Residents in a Nursing Home 416  
CLEMENT C.S. HSU, MD

- Effect of an Automated Sink on Handwashing Practices and Attitudes  
in High-Risk Units 422  
ELAINE LARSON, RN, PHD, FAAN, CIC; ALLISON MCGEER, MD, FRCPC;  
Z. AHMED QURAISHI, PHD; DINA KRENZISCHEK, RN, BSN; B.J. PARSONS, RN, BSN;  
JACK HOLDFORD, RN, BSN; WALTER J. HIERHOLZER, MD

- Clinical Significance of Neutropenia in Patients With Human  
Immunodeficiency Virus Infection 429  
BRUCE F. FARBER, MD; MARTIN LESSER, PHD; MARK H. KAPLAN, MD;  
JEANINE WOLTMANN, RN; BARBARA NAPOLITANO, MA; DONNA ARMELLINO, RN

- Efficacy of Glove Combinations in Reducing Cell Culture  
Infection After Glove Puncture With Needles Contaminated With Human  
Immunodeficiency Virus Type 1 435  
GREGORY K. JOHNSON, MD; TIMOTHY NOLAN, MS; HANK C. WUH;  
WILLIAM S. ROBINSON, MD

## TOPICS IN LONG-TERM CARE

- The Hospital Epidemiologist in Long-Term Care: Practical Considerations 439  
JOSEPH M. MYLOTTE, MD

## AIDS

- Expected Costs of Implementing a Mandatory Human Immunodeficiency  
Virus and Hepatitis B Virus Testing and Restriction Program for Healthcare  
Workers Performing Invasive Procedures 443  
JULIE LOUISE GERBERDING, MD, MPH

## READERS' FORUM

- An Attempt To Make an Issue Less Murky: A Comparison of Four Systems  
for Infection Precautions 448  
MARGUERITE M. JACKSON, RN, MS, CIC; PATRICIA LYNCH, RN, MBA, CIC

## LETTERS TO THE EDITOR

- Concerns About Hospital-Based Routine Human Immunodeficiency  
Testing Programs (And Reply) 405  
KEITH HENRY, MD; SCOTT CAMPBELL, RN, MSPH

- Clinical Predictors of Infection of Central Venous Catheters Used  
for Total Parental Nutrition (And Reply) 407  
MARCELO SEGURA, MD; ANTONIO SITGES-SERRA, MD  
CARL W. ARMSTRONG, MD; C. GLEN MAYHALL, MD; KATHY B. MILLER, RN, MS;  
HEBER H. NEWSOME, JR., MD; HARVEY J. SUGERMAN, MD; HARRY PL DALTON, PHD;  
GAYE O. HALL; SALLY HUNSBERGER

- SHEA NEWSLETTER 451

**CIDEX\* is safe for scopes. Don't take our word for it.  
Take theirs.**

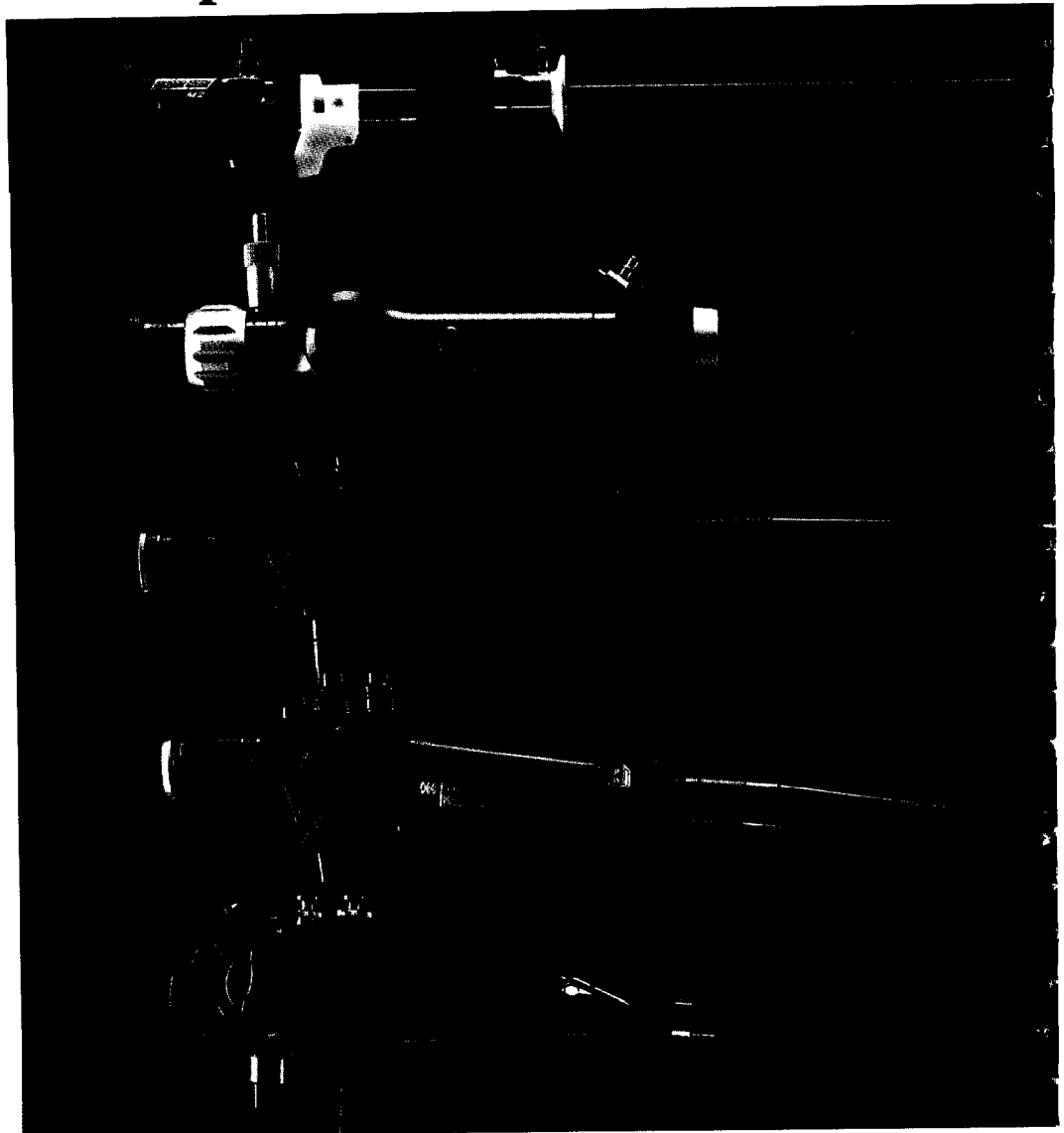
Circon ACMI

Circon ACMI

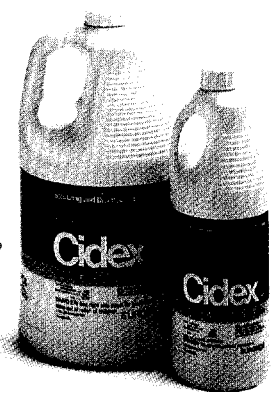
Pentax

Olympus

Fujinon



Major scope manufacturers have always recommended CIDEX\* Activated Dialdehyde Solution.† Research and more than 25 years of actual use have shown that nonsurfactant CIDEX Solution safely disinfects delicate fiberoptic equipment. *Take their word for it: When it comes to scopes, there's no safer high-level disinfectant available.* CIDEX. We go back a long way.



# INFECTION CONTROL AND HOSPITAL EPIDEMIOLOGY

## CONTENTS

### EDITORIAL

Methicillin-Resistant *Staphylococcus aureus* in Nursing Homes: Putting the Problem in Perspective 413

JOHN M. BOYCE, MD

### ORIGINAL ARTICLES

Serial Survey of Methicillin-Resistant *Staphylococcus aureus* Nasal Carriage Among Residents in a Nursing Home 416

CLEMENT C.S. HSU, MD

Effect of an Automated Sink on Handwashing Practices and Attitudes in High-Risk Units 422

ELAINE LARSON, RN, PHD, FAAN, CIC; ALLISON MCGEER, MD, FRCPC;  
Z. AHMED QURAISHI, PHD; DINA KRENZISCHEK, RN, BSN; B.J. PARSONS, RN, BSN;  
JACK HOLDFORD, RN, BSN; WAITER J. HIERHOLZER, MD

Clinical Significance of Neutropenia in Patients With Human Immunodeficiency Virus Infection 429

BRUCE F. FARBER, MD; MARTIN LESSER, PHD; MARK H. KAPLAN, MD;  
JEANINE WOLTMANN, RN; BARBARA NAPOLITANO, MA; DONNA ARMELLINO, RN

Efficacy of Glove Combinations in Reducing Cell Culture Infection After Glove Puncture With Needles Contaminated With Human Immunodeficiency Virus Type 1 435

GREGORY K. JOHNSON, MD; TIMOTHY NOLAN, MS; HANK C. WUH; WILLIAM S. ROBINSON, MD

### TOPICS IN LONG-TERM CARE

The Hospital Epidemiologist in Long-Term Care: Practical Considerations 439

JOSEPH M. MYLOTTE, MD

### AIDS

Expected Costs of Implementing a Mandatory Human Immunodeficiency Virus and Hepatitis B Virus Testing and Restriction Program for Healthcare Workers Performing Invasive Procedures 443

JULIE LOUISE GERBERDING, MD, MPH

### READERS' FORUM

An Attempt To Make an Issue Less Murky: A Comparison of Four Systems for Infection Precautions 448

MARGUERITE M. JACKSON, RN, MS, CIC; PATRICIA LYNCH, RN, MBA, CIC

### DEPARTMENTS

Information For Authors 401

Copyright and Republication Policy 403

Letters to the Editor 405

SHEA Newsletter 451

Calendar of Events 454

Classified Marketplace 456

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. AU 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—\$60.00; 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 \$6.00, 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 and Allied Health literature, and Nursing Abstracts.

## 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. 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

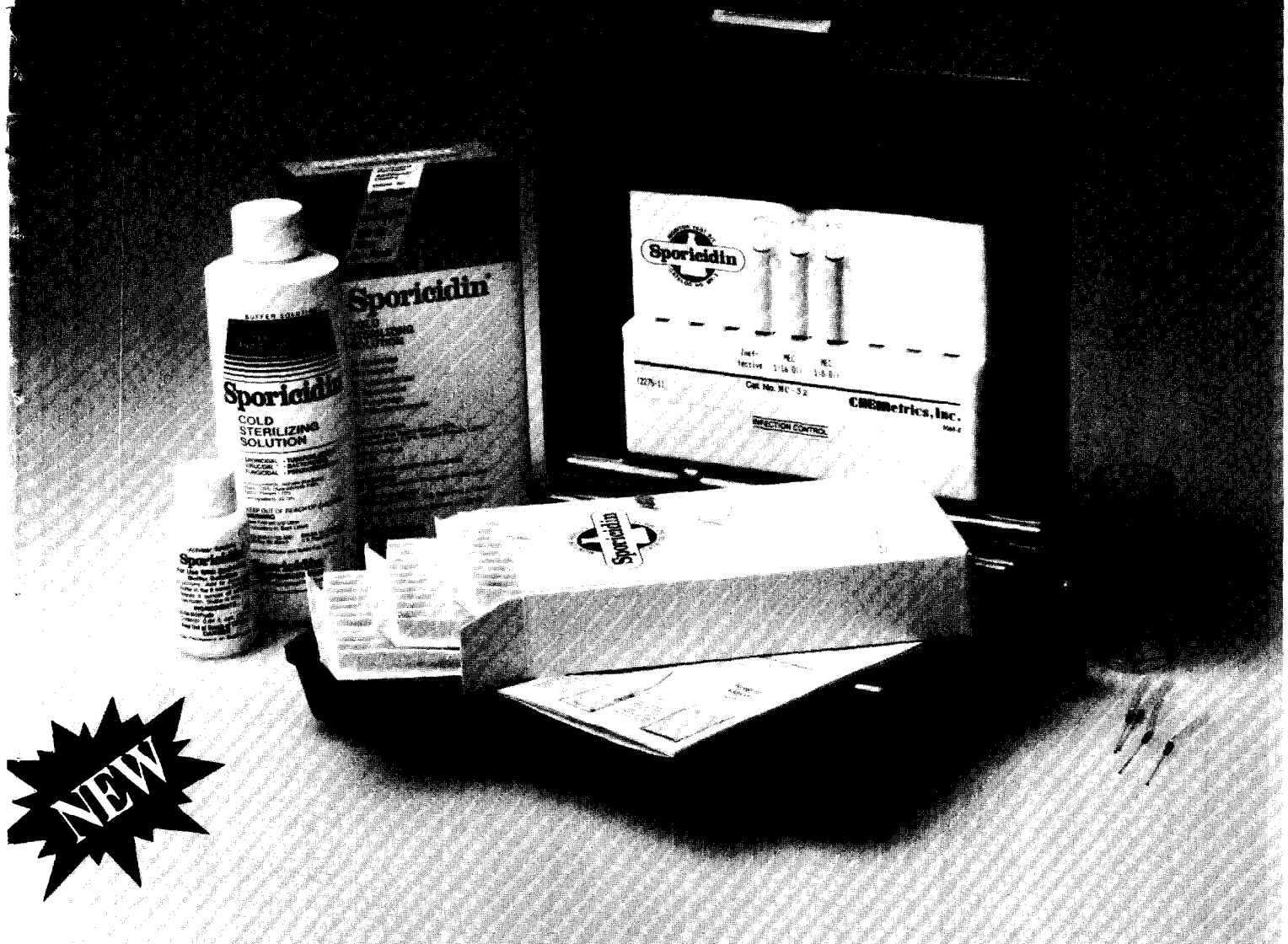
Jennine Kane

### Classified/Recruitment Sales Manager

Michele Burch



# 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



**This  
publication is  
available in  
microform.**

University Microfilms  
International reproduces this publication  
in microform: microfiche and 16mm or 35mm film.  
For information about this publication or any of the  
more than 13,000 titles we offer, complete and mail  
the coupon to: University Microfilms International,  
300 N. Zeeb Road, Ann Arbor, MI 48106. Call us  
toll-free for an immediate response: 8005213044.  
Or call collect in Michigan, Alaska and Hawaii:  
313-761-4700.

**University  
Microfilms  
International**

Please send information about these titles:

Name \_\_\_\_\_  
Company/Institution \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
Phone ( ) \_\_\_\_\_