

INFECTION CONTROL AND HOSPITAL EPIDEMIOLOGY[®]

SPECIAL ISSUE

The Sixth Annual Conference on Human Retrovirus Testing 469
THE ASSOCIATION OF STATE AND TERRITORIAL PUBLIC HEALTH LABORATORY DIRECTORIES

SPECIAL REPORT

Bactericidal Action of Modulated Ultraviolet Light on Six Groups
of *Salmonella* 486
H.L. BANK, PHD; J.F. JOHN, MD; L.M. ATKINS; M.K. SCHMEHL, PHD; R.J. DRATCH

NOVEL APPLICATIONS FOR HOSPITAL EPIDEMIOLOGY

The Development of Indicators 490
MICHAEL D. DECKER, MD, MPH

TOPICS IN CLINICAL MICROBIOLOGY

Lyme Borreliosis 493
DOUGLAS A. HOLT, MD; NAMRATA J. PATTANI, BS; JOHN T. SINNOTT, IV, MD, FACP;
ELIZABETH BRADLEY, BA

PRODUCT COMMENTARY

Automatic Washers/Disinfectors for Flexible Endoscopes 497
MARIMARGARET REICHERT, RN, MA

MEDICAL NEWS 504

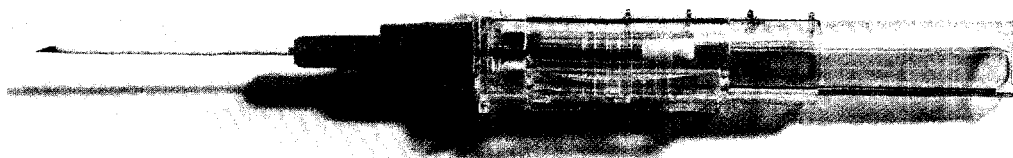
LETTERS TO THE EDITOR

The Protectiveness of Protective Clothing 464
NATHAN L. BELKIN, PHD

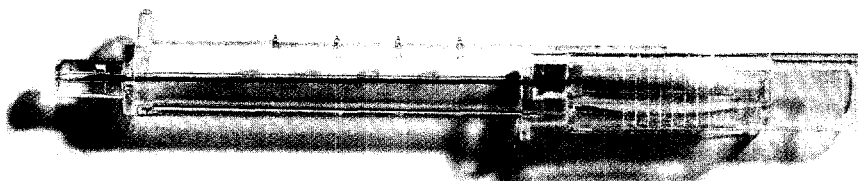
SHEA NEWSLETTER 501



THE RISK OF A SERIOUS **INFECTION** FROM
A **CONTAMINATED NEEDLESTICK** IS **ONE IN 10.**



THE **PROTECTIV™** I.V. SAFETY SYSTEM
PROTECTS **AGAINST ACCIDENTAL NEEDLESTICKS.**



**ISN'T IT TIME YOUR HOSPITAL BECAME
A PROTECTIV™ ENVIRONMENT?**

It's no accident so many hospitals are switching to the **PROTECTIV™** I.V. Catheter Safety System from Critikon.

Today, your risk of infection from a needlestick contaminated with Hepatitis B is one in 10. An alarming 80% of all exposures to the AIDS virus among healthcare workers are through needlesticks. And the Centers for Disease Control estimates that by 1995, the number of people in the U.S. infected with HIV will reach 7 million. The most disturbing fact of all? A growing number are undiagnosed cases leaving healthcare workers

stick protection during and after use. As you slide the catheter off the introducer needle, the protective guard glides over the contaminated needle. A reassuring "click" tells you when the needle is locked safely inside the guard.

**CHANGING TO
THE PROTECTIV™ SAFER SYSTEM
IS GOOD PROTECTION.**

Not only does it protect the lives of healthcare workers, but it protects the hospital from the



**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: 800-521-3044.
Or call collect in Michigan, Alaska and Hawaii:
313-761-4700.

**University
Microfilms
International**

Please send information about these titles:

Name _____

Company/Institution¹ _____

Address _____

City _____ State _____ Zip _____

Phone () _____

DO YOU REALLY KNOW WHAT YOU'RE GETTING INTO?

If you work in a high-risk medical area, you know the hazards. So does **Ansell**. That's why we've introduced our new E.P.[™] Gloves. They provide the extra protection you need because E.P. Gloves are manufactured and tested to even tighter requirements than the current industry standards for surgical gloves. They also provide features for added protection not available with other gloves in the marketplace today.

Ansell E.P. Gloves Provide Extra Protection By:

- Testing to ten times tighter **AQL** than the industry standard for surgical gloves*
- 100% electronic inspection for pinholes
- **No powder** added
- **Thicker** latex
- long, **12"** cuff
- Textured wet-grip surface
- Meeting industry guidelines for handling cytotoxic **drugs****
- Availability in four sizes, petite, small, medium, and **large**

So get your hands into **Ansell's** new E.P. Gloves — before your get into anything else. For more information and a FREE pair of E.P. Gloves, call today.

*American Society for the Testing of Materials (ASTM) D3577-78a

**Occupational Safety & Health Administration (OSHA) Instruction PUB 8-1.1 "Work Practice Guidelines for Personnel Dealing with Cytotoxic (Antineoplastic) Drugs" January 29, 1986

Ansell Medical

Ansell Incorporated
P.O. Box 1252, Dothan, Alabama 36302
800-327-8659 205-794-4231 (in Alabama)

© 1990 Ansell Incorporated All Rights Reserved



INFECTION CONTROL AND HOSPITAL EPIDEMIOLOGY

CONTENTS

SPECIAL ISSUE

The Sixth Annual Conference on Human Retrovirus Testing **469**

THE ASSOCIATION OF STATE AND TERRITORIAL PUBLIC HEALTH LABORATORY DIRECTORS

SPECIAL REPORT

Bactericidal Action of Modulated Ultraviolet Light on Six Groups of Salmonella **486**

H.L. BANK, PHD; J.F. JOHN, MD; L.M. ATKINS; M.K. SCHMEHL, PHD; R.J. DRATCH

NOVEL APPLICATIONS FOR HOSPITAL EPIDEMIOLOGY

The Development of Indicators **490**

MICHAEL D. DECKER, MD, MPH

TOPICS IN CLINICAL MICROBIOLOGY

Lyme Borreliosis **493**

DOUGLAS A. HOLT, MD; NAMRATA J. PATTANI, BS;

JOHN T. SINNOTT, IV, MD, FACP; ELIZABETH BRADLEY, BA

PRODUCT COMMENTARY

Automatic Washers/Disinfectors for Flexible Endoscopes **497**

MARIMARGARET REICHERT, RN, MA

MEDICAL NEWS 504

DEPARTMENTS

Copyright and Republication Policy **462**

Letters to the Editor **464**

SHEA Newsletter **501**

Information for Authors **509**

Calendar of Events **511**

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. NO 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 T. 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

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, CCCC

Production Director

Christine Malin

Production Coordinator

Joanne Patterson

Publishing Director/ Advertising

Wayne McCourt

Pharmaceutical Group Sales Director

Michael LoPresti

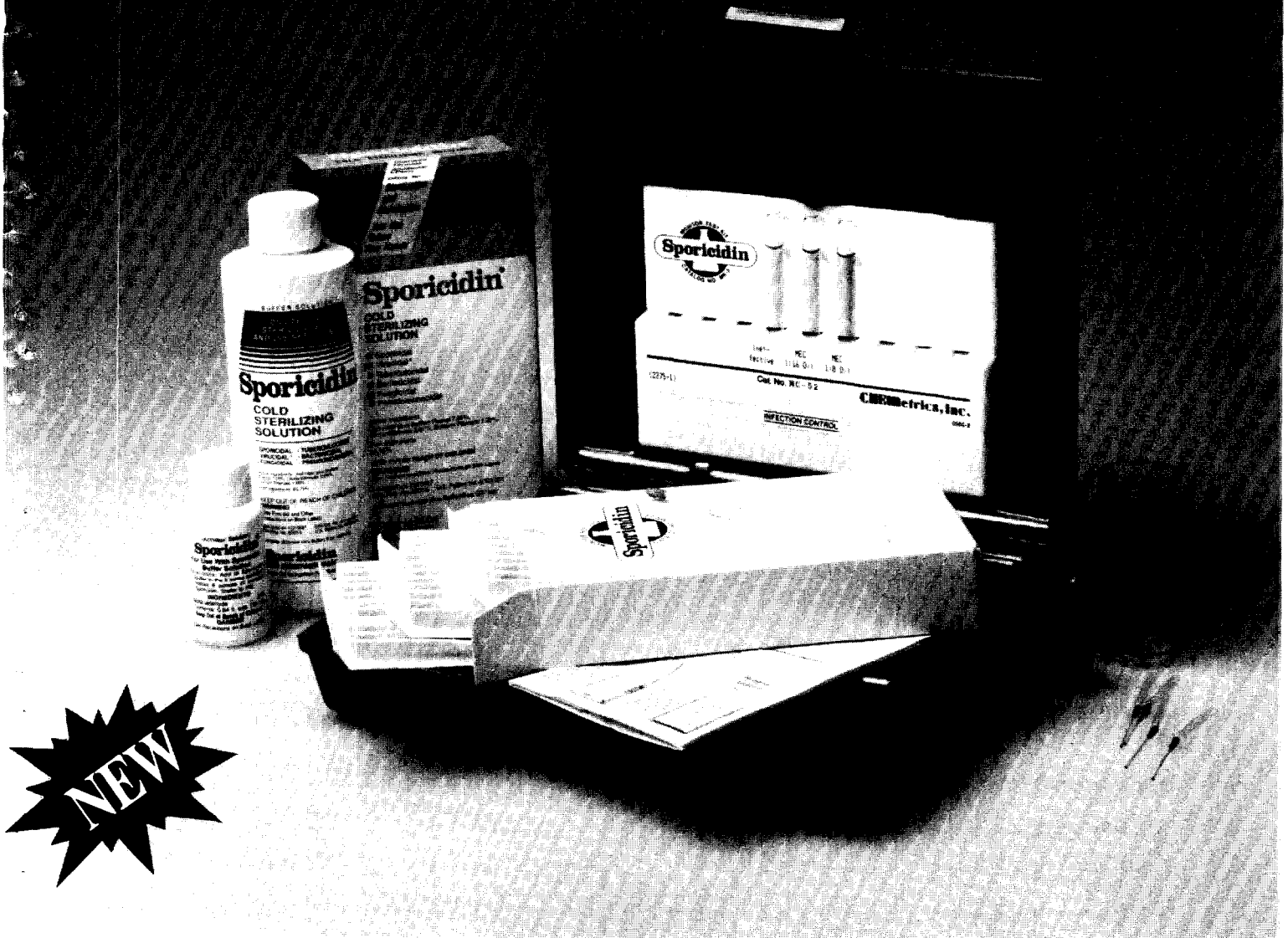
Advertising Sales Representative

Jennine Kane

Classified/Recruitment Sales Manager

Michele Burch

SPORICIDIN® MONITOR TEST KIT



NEW

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

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

Why Take Chances?

...discussed with you, the Occupational Safety and Health Administration (OSHA) does not endorse or approve any type of product or medical device. The current compliance directive (OSHA Human Immunodeficiency Virus) against recapping and expressly clarifies OSHA's prohibition of instruments, self-sheathing needles, or forceps sheathing needles by hand. (page 16)

Monoject[®] ... the right choice in Safety Syringes



For technical information call 1-800-527-1073. (In Missouri call 1-314-241-5700.)

© 1991 Sherwood Medical Company