# VOLUME 5/NUMBER 3



#### EDITORIAL

Nosocomial Sexually Transmitted Diseases Michael F. Rein, MD

#### **ORIGINAL ARTICLES**

**Rubella in Hospital Employees** Marc A. Strassburg, DrPH; Timothy G. Stephenson, MPH; Laurie A. Habel, MPH; Shirley L. Fannin, MD

Storage of Human Breast Milk Elaine Larson, RN, PhD: Ramona Zuill, RN; Vicki Zier, RN; Barbara Berg, RN

*Morganella morganii:* Epidemiology of Bacteremic Disease Carolyn McDermott, RN; Joseph M. Mylotte, MD

Non-Gonococcal Ophthalmitis Associated With Erythromycin Ointment Prophylaxis of Gonococcal Ophthalmia Neonatorum Barbara R. Mooney, RN, BSN; Jon A. Green, MD, PhD; Beverly J. Epstein, RN; Peter A. Hashisaki, MD

**Readers' Forum: Increased Antimicrobial Resistance of Pathogenic Coagulase-Negative Staphylococci From Blood Cultures (1961-1981)** D.J. Flournoy, PhD

**Topics in Clinical Microbiology: The Role of the Laboratory in Control of Nosocomial Infection** John E. McGowan, Jr., MD

**Product Commentary: Infectious Waste** William A. Rutala, PhD

## THE LAST THING YOUR HOSPITAL NEEDS

### The threat of nosocomial infection

Between 4% and 8% of all hospitalized patients develop an infection at some time during their stay,<sup>1</sup> and such infections usually add to the length and cost of hospitalization.

Protecting patients and staff from nosocomial infection is becoming more difficult due to changing patterns of bacterial infection and the emergence of resistant bacteria, most notably methicillinresistant *Staphylococcus aureus*.<sup>2,3</sup>

#### The key to management

Pathogenic bacteria are easily transmitted by the hands of physicians, nurses, technicians, and other hospital personnel.<sup>4</sup>

Both the Center for Disease Control and the American Hospital Association consider handwashing the single most important procedure in preventing nosocomial infection and recommend handwashing after *every* patient contact.<sup>4</sup> An increase in nosocomial infection that is transmitted by serial direct contact indicates suboptimal handwashing practices and antiseptic technique.<sup>5</sup>

### A program for prevention

Because proper handwashing techniques are so important in the prevention of nosocomial infection, Winthrop-Breon has developed a comprehensive program of educational materials for every member of the hospital staff. The in-service program includes two films on handwashing, a slide/ tape presentation, handwashing instruction wall charts, and dispenser maintenance instructions.

If you would like more information, please write to Professional Services Department, Winthrop-Breon Laboratories, 90 Park

Avenue, New York, NY 10016, or contact your Winthrop-Breon representative.

References: 1. Infection control for the obstetric patient and the newborn infant. NAACOG Tech Bull 1981; March. 2. Kraybill EN: Needs of the term infant, in Avery GB (ed): Neonatology, ed 2. Philadelphia, Lippincott, 1981, p 226. 3. Haley RW, Hightower AW, Khabbaz RF, et al. The emergence of methicillin-resistant Staphylococcus aureus infections in United States hospitals: Possible role of the house staff-patient transfer circuit. Ann Intern Med 1982; 97:297-308. 4. Albert RK, Condle F: Hand-washing patterns in medical intensive-care units. N Engl J Med 1981; 24:1465-1466. 5. Wenzel RP: The emergence of methicillin-resistant Staphylococcus aureus. Ann Intern Med 1982; 97:440-442.

inthrop-Breon

Winthrop-Breon Laboratories New York, NY 10016

41350A/3586

An experienced partner in fighting nosocomial infection



Brevis Isolation Cards and Labels instantly communicate CDC infection control precautions.

## Brevis, the first sign of good patient care.

There isn't a single infection that you can't fight *more effectively* with the help of Brevis. That's because Brevis offers the *most complete* line of Isolation Cards and Labels now available to infection control professionals.

Now the entire Brevis line has been updated to make it easier for the health care staff, patients and visitors to understand and follow CDC's "Guideline for Isolation Precautions in Hospitals" (Infection Control, Vol. 4/No. 4). Included are the new "Disease-Specific Isolation Precautions" cards.

#### **Bigger. Bolder. Easier to read.**

Each card has been enlarged to  $6^{\circ} \times 10^{\circ}$  with bigger and bolder variable pictograms. Constant symbols for hand washing and waste disposal instructions are displayed in the lower corners of each card.

The largest type on each card is reserved for a VISITOR alert.

Instructions are printed boldly in a white band across the top of each card in English, Spanish and French.

#### Isolation Labels are easy to use.

Brevis Isolation Labels are miniature versions for use on patient chart covers and card files. They affix firmly to all surfaces and peel off easily. "Biohazard" and "Isolation Precaution" labels are also available for tagging waste bags and lab specimens. A specially designed aluminum rack keeps labels organized for easy dispensing.

#### Comprehensive. Inexpensive.

The Brevis line of Nursing Cards is now also available printed on the back of Category-Specific Isolation cards (for extra flexibility). These reusable cards feature a UV plastic coating for greater readability and longer life. This exclusive Brevis feature saves money because it cuts inventory requirements in half. In fact, Brevis can help you control infection for far less than you might expect.

#### Send for a FREE Sample Pack.

Use this handy coupon to order your free Brevis Sample Pack. It comes complete with representative products from the latest Brevis line.

Beat the bugs. Fight infection more effectively with Brevis.

Brevis, Inc., 4305 Brockbank Way, Salt Lake City, Utah 84124 (801) 278-0670			
NAME			
TITLE			
HOSPITAL			
ADDRESS			
СІТҮ			
STATE, ZIP			

## Safe for Scopes



Courtesy of Olympus and ACMI

## Completely disinfects flexible and rigid scopes in 10 minutes with only 0.13% glutaraldehyde.

Safe to use... Does not cloud scope lenses nor harm metals, rubber and/or plastics. Does not stain or irritate the hands. No gloves are necessary for safety. Vapors do not irritate the eyes or nostrils.

**Most effective**... The only sterilizing solution which is fully effective against the tubercle bacillus, influenza, hepatitis and enteroviruses when diluted 1 in 16.

Stable...Fully effective for 30 days after activation.

## Proven...The most effective cold sterilant and disinfectant ever registered by the E.P.A.

"Sporicidin, diluted 1 in 16, (0.13% glutaraldehyde), is effective for high level hospital disinfection..." Centers for Disease Control, Atlanta, GA (Guidelines...revised August 1982)

"This study has determined that although E.P.A. requirements for classifying a sterilizing agent were satisfied by Cidex, they were exceeded by Sporicidin." *Journal of Dental Research, Vol. 60, March 1981* (U.S. Army Institute of Dental Research, Wash., DC)

"Sporicidin... was both more stable and more active against test spores than...Cidex and Cidex-7." Infection Control, 1(2): 90-93, 1980

### The Sporicidin Company

https://doi.org/10.1017/50195941740002Massachusetts.Avenue, NWeWashington, DC 20016 Call Toll Free (800) 424-3733

## Table of Contents

Editorial			
Nosocomial Sexually Transmitted Diseases Michael F. Rein, MD			
Original Articles			
<b>Rubella in Hospital Employees</b> Marc A. Strassburg, DrPH; Timothy G. Stephenson, MPH; Laurie A. Habel, MPH; Shirley L. Fannin, MD			123
<b>Storage of Human Breast Milk</b> Elaine Larson, RN, PhD; Ramona Zuill, RN; Vicki Zier, RN; Barbara Berg, RN			127
<i>Morganella morganii:</i> Epidemiology of Bacteremic Disease Carolyn McDermott, RN; Joseph M. Mylotte, MD			
Non-Gonococcal Ophthalmitis Associated With Erythromycin Ointment Prophylaxis of Gonococcal Ophthalmia Neonatorum Barbara R. Mooney, RN, BSN; Jon A. Green, MD, PhD; Beverly J. Epstein, RN; Peter A. Hashisaki, MD			
<b>Readers' Forum: Increased Antimicrobial Resistance of Pathogenic Coagulase-Negative Staphylococci From Blood Cultures (1961-1981)</b> D.J. Flournoy, PhD			142
<b>Topics in Clinical Microbiology: The Role of the Laboratory in</b> <b>Control of Nosocomial Infection</b> John E. McGowan, Jr., MD			144
<b>Product Commentary: Infectious Waste</b> William A. Rutala, PhD			149
Departments			
Information for Authors	112	<b>Book Reviews</b>	151
Letters to the Editor	115	Calendar of Events	155

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

**₩BPA** 

Publisher: Infection Control (ISSN-0195-9417) is published monthly by SLACK Incorporated, 6900 Grove Road, Thorofare, New Jersey 08086. Telephone: Thorofare (609) 848-1000.

**Copyright 1984:** All rights reserved. No part of this publication may be reproduced without written permission from the publisher.

Subscriptions: Subscription requests should be addressed to the publisher (except Japan). In Japan, contact Woodbell Scope Incorporated, 11-11, Shoto 2-chrome, Shibuya-Ku, Tokyo 150, Japan. Annual subscription price is: Individual: One year—\$35.00; Two years—\$50.00; Three years—\$65.00. Institutional: One year—\$50.00; Two years—\$65.00; Three years—\$60.00. All subscriptions, without exception, will start with the first issue published after the order is received. Back copies are available, but must be purchased separately. Cost per individual copy is \$5.00. Foreign subscribers add \$15.00 to regular rate: foreign orders, \$6.00.

**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. Publisher requests Form 3547 for address correction changes.

As of Volume 1, Number 1, INFECTION CONTROL is listed in Index Medicus, Current Contents-Clinical Practice, Hospital Literature Index, and Cumulative Index to Nursing and Allied Health Literature.

## Editorial Boc

#### EDITOR

Richard P. Wenzel, MD Charlottesville, Virginia

#### SENIOR ASSOCIATE EDITOR Atlanta, Georgia

William Schaffner, MD Nashville, Tennessee

#### **EDITORIAL ADVISORY BOARD**

Robert C. Aber, MD Hershey, Pennsylvania

Charles S. Bryan, MD Columbia, South Carolina

John P. Burke, MD Salt Lake City, Utah

Trenton, New Jersey

Harvey A. Elder, MD Loma Linda, California

Peter C. Fuchs, MD, PhD Portland, Oregon

Richard A. Garibaldi, MD Farmington, Connecticut

Boston, Massachusetts

Charlottesville, Virginia

Hackensack, New Jersey

Karen Hadley, RN, MPH

Cyrus C. Hopkins, MD Boston, Massachusetts

Allen B. Kaiser, MD Nashville, Tennessee

Harold Laufman, MD, PhD

New York, New York

Detroit, Michigan

Richard E. Dixon, MD

Donald A. Goldmann, MD

Dieter H.M. Gröschel, MD

Peter A. Gross, MD

New Orleans, Louisiana

New York, New York

William J. Ledger, MD

Barbara McArthur, RN, BSN, MS, PhD

## **SLACK**

**SLACK** Incorporated 6900 Grove Road Thorofare, New Jersey 08086

#### **ASSOCIATE EDITORS**

Sue Crow, RN, MSN Shreveport, Louisiana

John E. McGowan, Jr., MD

Dennis G. Maki, MD Madison, Wisconsin

Rob Roy MacGregor, MD Philadelphia, Pennsylvania

C. Glen Mayhall, MD Richmond, Virginia

Ronald Lee Nichols, MD New Orleans, Louisiana

Harry C. Nottebart, Jr., JD, MD Richmond, Virginia

Karen Paul, BS, MS Tacoma, Washington

Frank S. Rhame, MD Minneapolis, Minnesota

William E. Scheckler, MD Madison, Wisconsin

Robert J. Shannon, MSPH Boston, Massachusetts

Walter E. Stamm, MD Seattle, Washington

Charles W. Stratton, MD Nashville, Tennessee

Timothy R. Townsend, MD Baltimore, Maryland

William M. Valenti, MD Rochester, New York

James Veazey, MD Albany, New York

Kathy J. Wydra, RN Geneva, New York

#### FOREIGN ADVISORY BOARD

Graham Ayliffe, MD, FRC Path. Birmingham, England

Professor G. Berencsi Szeged, Hungary

Professor Jaap Dankert Groningen, Netherlands

Professor Dr. F. Daschner Freiburg, West Germany

Lars O. Kallings, MD Stockholm, Sweden

Professor W.B. Kedzia Sieroca, Poland

Professor A.P. Krasilnikow Minsk, USSR

Professor Dr. W. Marget Munich, West Germany

Bertil Nystrom, MD Huddinge, Sweden

Ian Phillips, MA, MD, MRC Path, MRCP London, England

Samuel Ponce de Leon, MD Mexico

Hans Reber, MD Basel, Switzerland

Professor Gerald Reybrouck Leuven, Belgium

Manfred L. Rotter, MD, DipBact Vienna, Austria

Theodore Sacks, MD Jerusalem, Israel

Dr. Bernhard M. Thimm Federal Republic of Germany

Professor Dr. med. H.P. Werner Mainz, West Germany

Professor Dr. W. Weuffen Griefswald, German Democratic Republic

Publisher Richard N. Roash **Editorial Director** Eric Baloff

**Managing Editor** Donna Carpenter **Assistant Editor** Jeanne M. Campo **Circulation Manager** Joyce J. Albert **Advertising Sales Representative** Daniel W. Perkins

**Classified Advertising Representative** Harriet E. Hampton

## Glutaraldehydes stink.

#### Yet unlike glutaraldehydes, a good sterilant: doesn't have to emit noxious odors or leave toxic residues; doesn't have to be slow or expensive.

#### Consider a totally new alternative: EXSPOR<sup>\*\*</sup> Cold Sterilant.

Based on the proven sterilizing properties of *chlorine dioxide*, EXSPOR<sup>™</sup> sterilant works faster. It's safe to use, is cost effective and has a clean, pleasant scent that patients will appreciate at least as much as you do.

It's powerful and fast. At room temperature, EXSPOR<sup>™</sup> sterilant kills all viruses and fungi in only 1 minute. Kills all bacteria in 2 minutes or less! Glutaraldehydebased sterilants, on the other hand, require at least 10 minutes to accomplish the same.

accomplish the same. EXSPOR<sup>™</sup> sterilant is so powerful, in fact, it destroys *vacuum dried* spores in just *six* hours (AOAC method) compared with 10 hours for glutaraldehydes.

Yet safe and gentle. It's so safe and gentle, that instruments sterilized in an EXSPOR" solution can be used immediately without rinsing. Extensive testing has documented EXSPOR<sup>™</sup> sterilant as non-toxic, non-mutagenic and non-carcinogenic. It does not harm soft tissue and it does not irritate or stain the skin.

#### Specify EXSPOR<sup>™</sup> Cold Sterilant:

now — and for the future. Based on the biodegradable Alcide<sup>®</sup> compound, EXSPOR<sup>™</sup> sterilant derives its power from a new form of *chlorine dioxide* with proven anti-microbial properties, rather than from glutaraldehydes. It functions as an oxidizing rather than a chlorinating species. So, no matter what future decisions

OSHA may make concerning acceptable levels of glutar-

aldehydes (comparable to its recent proposal to lower exposure levels of ethylene oxide), you can continue to rely on EXSPOR" sterilant for fast, safe infection control.

#### Update yourself.

We invite you to learn more about EXSPOR<sup>™</sup> Cold Sterilant and other products based on the safe, powerful

Alcide compound, such as LD" High Level Disinfectant.

Contact us, or use this publication's reader service card, for literature that documents efficacy, speed, safety, pack-



aging and cost effectiveness.

#### **EXSPOR<sup>™</sup>** Cold Sterilant

**Alcide** CORPORATION

125 Main Street, Westport, CT 06880 Phone: 203/227-1223 Coming soon...

The Ultimate Drainage System for just \$12495!

Hide-Away™ twin hangers pop up when you need them to keep bag level on windy days.

Built-in Accu-Scale™ displays bag weight to the nearest gram.

> Solar-powered hydrogen peroxide dispenser helps prevent infection in patient rooms facing south.

> > Fill Alarm™ automatically emits a shrill whistle when bag needs changing

Dial-a-Drip™ valve lets you calibrate drip rates. A surprise to the patient; a convenience for the nurse.

Flexible Armor-Tuf™ tubing rated to withstand 1200 psi.

> Steel fiber reinforced seam guaranteed not to tear for three years.

Microprocessor LED volume readout accurate to .001 ml.

Patient monograms in 6 different lettering styles. Helps prevent confusion. Good for patient's ego.

Available in 16 designer colors to match any room decor. Noncorroding stainless steel exit port ∽ with No-Drip™ shut-off valve.

> Dandy time-release detergent capsule fights bacteria for 96 hours.

0

https://doi.org/10.1017/S0195941700059920 Published online by Cambridge University Press

Who Needs It?

## Why Pay for Frills?

### Seamless already gives you what you really need.

All urinary drainage systems perform the same functions. So why pay a jacked-up price for frills when all you really need is a Seamless system that satisfies all these needs: (1) ensures closed system integrity; (2) minimizes the risks of infection; (3) ensures unobstructed catheter drainage; (4) bags empty easily, completely; (5) saves nursing time.



#### Seamless satisfies CDC recommendations

You won't pay for expensive "bells and whistles" with Seamless. Yet, you'll have everything you need to satisfy the CDC recommendations as outlined in "Guidelines for Prevention of Catheter-Associated Urinary Tract Infections and Guideline Ranking Scheme." Here's what the CDC has to say about all the so-called "improvements" manufacturers have been touting for years"...none have been shown to be effective in reducing the frequency of catheter-associated infections. Additionally, overly complex drainage systems can affect the ease of operation or more easily malfunction."

#### Patient comfort and nursing convenience built in

Seamless offers what's needed to make patients more comfortable and the nurse's job easier. Vented drainage systems provide a free flow of urine for maximum drainage and ball-check anti-reflux valves help prevent retrograde contamination without obstructing flow.

Reseatable sample ports let the nurse easily draw urine samples without violating closed system integrity. Large graduations are easy to read from a distance. And all Seamless bags are easy to hang and drain...quickly, completely. Latex bottom drain is packaged closed to insure the sterile integrity of the system.

#### A complete line to meet your needs

To save you money, Seamless offers variety so you can select the features you need <u>only when</u> you need them. Seamless also offers an extensive line of easy-to-use catheter trays for both indwelling and intermittent catheters, drainage bags, urine meters, and sterile irrigation systems.

#### All you give up is a high price

Why pay for frills? Seamless gives you everything you really need to ensure patient comfort, nursing convenience and protection against urinary tract infections.

\*Kunin CM, McCormack RC. Prevention of catheterinduced urinary tract infections by sterile closed drainage. N Engl J Med 1966; 274: 1155-61, as quoted in CDC Guidelines, October, 1981.

#### **FREE Infection Control File**

We don't think a drainage system has to be complex to be effective. But what do the investigators have to say? To find out, ask for our Clinical Papers Collection...a complete selection of significant articles which evaluate urinary drainage systems...all in an easy-to-file binder. It's yours free just by calling 800-243-3032.

Seamless makes more sense...especially now.