INFECTION CONTROL

HOSPITAL EPIDEMIOLOGY

Volume 11, Number 4 • April 1990

Brief Report: Reduction in the Frequency

194

Zeroing in on the Appropriate Management of Occupational Exposures to HIV-1 David K. Henderson, MD	175	of Needle Recapping by Effective Education: A Need for Conceptual Alteration W.H. Seto, MD; T.Y. Ching, RN; Y.B. Chu, BSc; F. Fielding, PhD	
The Choice of Microcomputer Software	178	TODICO IN OLINICAL EDIDENIOLOGY	
for Infection Control David R. Reagan, MD, PhD		TOPICS IN CLINICAL EPIDEMIOLOGY Surveillance for Quality Assessment: III. The Critical Assessment of Quality Indicato	197 rs
ORIGINAL ARTICLES		William B. Crede, MD;	
Detection of HIV Antibody and Antigen (p24) in Residual Blood on Needles and Glass	180	Walter J. Hierholzer, Jr., MD TOPICS IN LONG-TERM CARE	
Djamshid Shirazian, PhD; Barry C. Herzlich, MD; Foroozan Mokhtarian, PhD; David Grob, MD		AIDS and Long-Term Care Facilities David W. Bentley, MD; Lois Cheney, RN, MS, CIC	202
A Comparison of Infection Control	185	TOPICS IN CLINICAL MICROBIOLOGY	
Software for Use by Hospital Epidemiologists in Meeting the New JCAHO Standards	100	Toxoplasma gondii Deborah J. Zygmunt, MD	207
Sharon LaHaise, RN, PhD		SHEA NEWSLETTER	215
Increasing ICU Staff Handwashing: Effects of Education and Group Feedback Patricia M. Dubbert, PhD; Jeffrey Dolce, PhD; William Richter, MS; Mary Miller, MS;	191		

EDITORIALS

Stanley W. Chapman, MD

From SmithKline Biologicals/SK&F

ENGETIX B Hepatitis B Vaccine (Recombinant)

0, 1, 2 Month Dosing Regimen for Certain Populations*

20 mcg recombinant dose helps to ensure immune response in adult patients of all ages

Choice of dosing regimens

Adult dose (mcg)

Standard dosing regimen (0, 1 and 6 months)

New 0, 1, 2 month doking regimen for certain communious?

Published efficacy data: Neonates born of infected mothers'

VACTRAC[™]—computer software for vaccination tracking and compliance

Bar-coded, unit-dose vials

Lowest cost per dose²

^{*}For those recently exposed to the virus (including needlestick exposure), certain travelers to high-risk areas, and neonates born of infected mothers. When prolonged maintenance of protective antibody titers is desired, a booster dose at month 12 is recommended.

[†]Hepatitis B Vaccine (Recombinant), MSD

[‡]Please see brief summary of prescribing information on adjacent page for a complete listing of adverse reactions, contraindications, warnings and precautions.

[©]SmithKline Beckman Corporation, 1990

Lowest Cost Per Dose²

Extensively Tested and Well Tolerated[‡]

State-of-the-art recombinant technology 10 million doses distributed in over 80 countries³

Switch to 'Engerix-B'

Can be used to complete a course of vaccination initiated with another hepatitis B vaccine^{3,4}

**					
	Engerix-B°	Recombivax HI	3 *†		
	20	10			
	Yes	Yes			
	Yes	No			
	Yes	Yes		A STATE OF THE STA	
	Yes	No		20 mcg/ml. \mathrm{\textit{MDC 0007-3860-01}} \text{Hepatitis B Vaccin (Recombinant)} \text{Engerix-B}^{\text{@}}	
	Yes ⊨	No		1 Adult Dose	Li
	Yes	No			
	Manufact Rivensari	ured by line Biologicals Belgium			Distributed by Smuth Kline &French Lab Philadelphia, PA 19101

Engerix-B®

Hepatitis **B** Vaccine (Recombinant)

Sos complete prescribing information in SK&F literature or *PDR*. The following isabrief summary.

INDICATIONS AND USAGE: 'Engerix-B' is indicated for immunization against inlection caused by all known subtypes of hepatitis B wrus. Immunization is recommended in persons of all ages, especially those who are of will be at increased risk of exposure to hepatitis B virus.

CONTRAINDICATIONS: Hypersensitivity to yeast of any other component of the vaccine is a contraindication for use of the vaccine

WARNINGS: Do not ivgwe' äögra! injections | ' To patients experiencing hypersensitivity after an 'Engerix-B' injection (See CONTRAINDICATIONS)

Hepatitis B has a long incubation period. Hepatitis B vaccination may not prevent hepatitis B intection in individuals who had an unrecognized hepatitis B intection at the time of vaccine administration. Additionally, it may not prevent infection in individuals who do not achieve protective antibody titers.

PRECAUTIONS: General: As with any percutaneous vaccine, keep epinephrine available for use in case of anaphylaxis or anaphylactoid reaction.

As with any vaccine, delay administration, 1 possible, in persons with any febrile illness or active infection

Prognancy: Pregnancy Citegry C: Animal reproduction studies have not been conducted with 'Engerix B' it is also not known whether 'Engerix B' can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Give 'Engerix B' to a pregnant woman only if clearly needed

Nursing Mothers: it is not known whether 'Engerix B' is excreted in human milk Because many drugs are excreted in human milk, use caution when giving 'Engerix B' to a nursing woman

Padiatric Usa: 'Engerix-B' has been shown to be well tolerated and highly immunogenic in infanis and children of all ages. Newborns also respond well maternally transferred antibodies do not interfere with the active immune response to the vaccine.

ADVERSE REACTIONS: 'Enger's, B' 6 penerally well tolerated. During clinical studies involving over 10,000 individuals distributed over all age groups, no serious adverse reactions attributable to vaccine administration were reported. As with any vaccine, however, it is possible that expanded commercial use of the vaccine could reveal rare adverse reactions not observed in clinical studies.

Ten double-blind studies involving 2.252 subjects showed no significant difference in the frequency or severity of adverse experiences between Engerix B' and plasma-derived accounts, in 36 clinical studies a total of 3,485 dose of Engerix B' were administered to 5,071 battley adults and children who were initially seronegative for hepatitis B markers, and healthy neonates All subjects were monitored for 4 days post-administration. Frequency of adverse experiences tended to decrease with successive doses of Engerix B. Using a symptom checklist," the most frequently reported adverse excitons were njection site soreness (22%), and fatigue" (14%) Other reactions are listed below

incidence 1% to 10% of Injections: Induration; erythema; swelling; fever (>37.5°C); headache"; dizziness.*

Parent or guardian completed forms for children and neonates Neonatal checklist did not include headache, fatigue or dizziness.

Incidence < 1% of Injections: Pain; pruritus; ecchymosis; sweating; malaise; chills, weakness: flushing; Ingling; hypotension; influenza-like symptoms; upper respiratory tract illnesses: nausea; anorexia; abdominal pain/cramps; vomiting; constipation; diarrhea; hymphadenopathy; pain/stiffness in am. shodkr or neck. arthralgia; myalgia; back pain; rash: urlicaria; petechiae; erythema; somnolence; insomnia; irritability; agitation

Additional adverse experiences have been reported with the commercial 'se d'Enperix' B' outside the United States Those listed below are to serve as alerting information to physicians. Anaphylaxis, erythema multiforme including Steens-Johnson syndrome; angiodeama; arthritis; Lachycardia/platations; bronchospasm including asthma-like symptoms: abnormal liver functions tests; nigrame; syncope, paresis, neuropathy including hypoesthesia, grassthesia, Gualin-Barré syndrome and Bell's palsy: transverse myelitis; thrombocytopenia; ezezma; purpura; herpes zoster; vertigo, conjunctivitis; leartitis; verquel disturbances.

Potential Adverse Experiences in addition, certain other adverse experiences not observed with "Ingerix Bihave been reported with Heptavax 8° † and/or Recombivax H8° ‡ Those listed below are to serve as alerting information to physicians Optic neuritis.

HOW SUPPLIED: 20 mcg/mL in Single-Dose Vials in packages of 1, 10 and 25 vials.

NDC 0007-3860-01 (package of 1) NDC 0007-3860-11 (package of 10) NOC 0007-3860-16 (package of 25)

10 mcg/0.5 mL in Single-Dose Vials in packages of 1 vial.

NOC 0007-3859-01 (package d 1)

t plasma-derived, Hepatitis B Vaccine, MSD ‡ yeast-derived, Hepatitis 6 Vaccine, MSD.

Manufactured by Smith Kline Brotograets, Riversari, Belgium Distributed by Smith Kline & French Laboratories Division of Smith Kline Beckman Corp., Philadelphia, PA 19101

Date of issuance Aug. 1989

BRS-FB:L6

© SmithKline Beckman Corporation, 1989

Engerix-B is a registered trademark of SmithKline Beckman Corporation.

References:

References:

1. Povorawan Y. Sanpavat S. Pongpunlert W. et al: Protective efficacy cd a recombinant DNA hepatitis B vaccine in neonates cd HBe antigen-positive mothers: JMM 1989; 261(22):3278-3281.

2. Based on Medi-Span* Hospital Formulary Pricing Guide, December 1989.

3. Data on tile, SK&F. 4. Bush L, Moonsammy G, Boscia 1: Evaluation of initiating a hepatitis B vaccination schedule with one vaccine and completing it with another. Hepatology 1989;10:689.

HATS OFF TO FIRST CLASS SERVICE

t SLACK Incorporated we believe ur subscribers are first class peole. That's why we do everything ossible to publish first class jourals. And, that's why we maintain TOLL-FREE CUSTOMER SERVICE IOTLINE. For the first class Cusomer service you deserve, call:

f-800-257-8290 alk to a SLACK Customer ervice Representative about:

Subscriptions. Subscribing by phone is quick and easy; it only akes a minute and Visa and Mas-:ercard are accepted.

Renewals. Early subscription renewal helps avoid possible interruptions in service.

Change of Address. Please notify us four weeks in advance to assure prompt delivery to your new address.

Questions or Problems. Delivery problems or questions about your subscriptions can be



6900 Grove Road, Thorofare, NJ 08086

INFECTION CONTROL

AND HOSPITAL EPIDEMIOLOGY

EDITORIALS	Zeroing in on the Appropriate Management of Occupational Exposures to HIV-l David K. Henderson, MD					
	The Choice of Microcomputer Software for Infection Control David R. Reagan, MD, PhD					
ORIGINAL ARTICLES	Detection of HIV Antibody and Antigen (p24) in Residual Blood on Needles and Glass Djamshid Shirazian, PhD; Barry C. Herzlich, MD; Foroozan Mokhtarian, PhD; David Grob, MD					
	A Comparison of Infection Hospital Epidemiologists Standards Sharon LaHaise, RN, Ph	in Meeting the			185	
	Increasing ICU Staff Handwashing: Effects of Education and Group Feedback Patricia M. Dubbert, PhD; Jeffrey Dolce, PhD; William Richter, MS; Mary Miller, MS; Stanley W. Chapman, MD					
	Brief Report: Reduction in the Frequency of Needle Recapping by Effective Education: A Need for Conceptual Alteration W.H. Seto, MD; T.Y. Ching, RN; Y.B. Chu, BSc; F. Fielding, PhD					
SPECIAL SECTIONS	Topics in Clinical Epidemiology Surveillance for Quality Assessment: III. The Critical Assessment of Quality Indicators William B. Crede, MD; Walter J. Hierholzer, Jr., MD				197	
	Topics in Long-Term Care AIDS and Long-Term Care Facilities David W. Bentley, MD; Lois Cheney, RN, MS, CIC				202	
	Topics in Clinical Micro Toxoplasma gondii Deborah J. Zygmunt, MI	O.			207	
DEPARTMENTS	Calendar of Events	214	SHEA	Newsletter	215	

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-0899-623X) is published monthly by SLACK Incorporated. 6900 Grove Road, Thorofare, New Jersey 08086 Telephone (609) 848-1000

Copyright 1990: 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—\$60 00. Two years—\$50 00, Three years-\$125 00 Institutional: One year-\$70 00 Two years—\$110 00. Three years-\$150 00 Canada \$18 00 additional each year. all other countries 530 00 additional each year. all other countries 530 00 additional each year.

Reprints: All requests to reprint or use material published herein should be addressed to Lester J Robeson, SLACK Incorporated, 6900 Grove Road. Thorofare, NJ 08066 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 lee 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 tor creating new collective works

Change of address: Notice should be sent to the publisher six weeks in advance of effective dale 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 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

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

Publisher

John C. Carter

Editorial Director Jennifer Kilpatrick

Production Editor

Shirley P. Strunk, ELS

Topics in Occupational Medicine

Vice President/Group Publisher Richard N. Roash

David Weber, MD, MPH

Chapel Hill, North Carolina

INFECTION CONTROL AND HOSPITAL EPIDEMIOLOGY®

EDITORIAL ADVISORY BOARD

Jacques F. Acar, MD

J. Wesley Alexander, MD

Cincinnati, Ohio Chicago, Illinois

Paul Arnow, MD Graham A.J. Ayliffe, MD

Birmingham, United Kingdom Yakima, Washington

Boston, Massachusetts

Charlottesville, Virginia

Milwaukee, Wisconsin

Manhasset, New York

Denver, Colorado

St. Louis, Missouri

Beer Sheva, Israel

Atlanta, Georgia

Black Butte, Oregon

Nashville, Tennessee

Bethesda, Maryland

San Diego, California

Nashville, Tennessee

Nashville. Tennessee

Brussels, Belgium

Madison, Wisconsin

Bethesda, Maryland

Atlanta, Georgia

Brussels, Belgium

Buffalo, New York

San Antonio, Texas

Iowa City, Iowa

Houston, Texas

Vienna, Austria

Jerusalem, Israel

Trenton, New Jersey

Mexico City, Mexico

Madison, Wisconsin New York City, New York

Prahran Victoria, Australia

New York, New York

Brentwood Tennessee Minsk, Republic of Belarus

Millwood, Virginia

Barcelona, Spain

Toronto, Ontario, Canada

Montreal, Quebec, Canada

Pittsburgh, Pennsylvania

Minneapolis, Minnesota

Winnepeg, Manitoba, Canada Helsinki, Finland

Munich, Federal Republic of Germany

Bronx, New York

Atlanta, Georgia Nashville, Tennessee

Taipei, Taiwan

Charlottesville, Virginia

Farmington, Connecticut

Los Angeles, California Chapel Hill, North Carolina

Freiburg, Federal Republic of Germany

Shreveport, Louisiana

Paris, France

Neil L. Barg, MD

Elizabeth Ann Bolyard, RN, MPH, CIC Atlanta, Georgia

John M. Boyce, MD Professor Dr. Ilja Braveny

Providence, Rhode Island Munich, Federal Republic of Germany Columbia, South Carolina

Charles Bryan, MD

Creteil, France

Christian Brun-Buisson, MD Donald E. Craven, MD

Sue Crow, MSN, RN, CIC

Franz Daschner, MD

Leigh G. Donowitz, MD Charles E. Edmiston, Jr., PhD

Theodore C. Eickhoff, MD

Bruce Farber, MD

Victoria J. Fraser, MD

Peter C. Fuchs, MD, PhD

Richard A. Garibaldi, MD

Velvl Greene, PhD, MPH

Robert Gaynes, MD

David W. Gregory, MD

David K. Henderson, MD

Peter N.R. Heseltine, MD Karen Hoffmann, RN, CIC, MS

Marguerite McMillan Jackson, RN, PhD

Janine Jagger, MPH, PhD

William R. Jarvis, MD

Douglas S. Kernodle, MD

Robert H. Latham, MD Lewis B. Lefkowitz, MD

Hsieh-Shong Leu, MD, MSc

Jack Levy, MD

Victor Lorian, MD Dennis G. Maki, MD

Professor Dr. Walter Marget

William J. Martone, MD

Allison McGeer, MD

John E. McGowan, Jr., MD Jonathan L. Meakins, MD, DSc

Raf Mertens, MD

Robert R. Muder, MD

Joseph M. Mylotte, MD, CIC Lindsay Nicolle, MD

Juhani Ojajärvi, MD

Michael T. Osterholm, PhD, MPH Jan Evans Patterson, MD

Sindy M. Paul, MD

Michael A. Pfaller, MD Samuel Ponce de Leon, MD, MSc

Isaam Raad, MD

Manfred L. Rotter, MD, DipBact Theodore Sacks, MD

William E. Scheckler, MD

Kent Sepkowitz, MD

Denis Spelman, MD Michael L. Tapper, MD

Clyde Thornsberry, PhD Professor Leonid P. Titov

Timothy R. Townsend, MD Antoni Trilla, MD, PhD

Professor Wang Shu-Qun

J. John Weems, Jr., MD

Robert A. Weinstein, MD Professor Dr. W. Weuffen

Sergio B. Wey, MD Rebecca Wurtz, MD

São Paulo, Brazil

Greenville, South Carolina Chicago, Illinois Greifswald, Federal Republic of Germany

Beijing, People's Republic of China

Evanston Illinois

SLACK Incorporated 6900 Grove Road Thorofare, New Jersey 08086 (609) 848-1000

Assistant Editor Eileen C. Anderer

Circulation Manager Lester J. Robeson, ČCCP

Production Director Christine Malin

Production Coordinator Joanne Patterson

Publishing Director/ Advertising Wayne McCourt

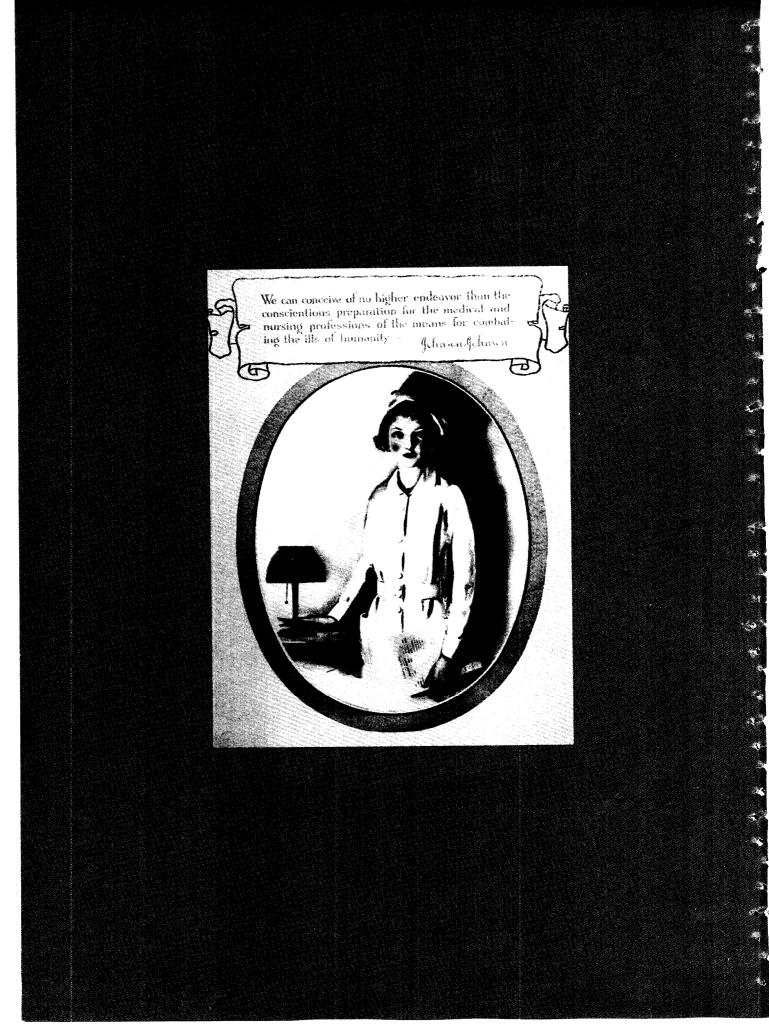
Pharmaceutical Group Sales Director

Michael LoPresti Advertising Sales Representative

Jennine Kane Classified/Recruitment Sales Manager

Michele Burch





or over a century, that philosophy has guided the growth of the largest and most diversified health care company in the world. Today, as we continue to grow in response to a health care marketplace where the need for effective infection control and wound care products, as well as efficient, specialized services, has never been greater, we can still conceive of no higher purpose.

Johnson & Johnson Medical Inc. was created to better meet your needs in the coming decade. Over the years, **Johnson & Johnson Patient** Care, Surgikos and Sterile Design have provided health care professionals with a wide range of products and a valuable body of knowledge in the critical area of infection control. Now, they come together as Johnson & Johnson Medical Inc., giving you a single source of continued support in the vital areas of infection control and wound care, while responding to the everincreasing need for economic efficiencies. We dedicate Johnson & Johnson Medical Inc. to you, the health care professional, as we prepare to meet the special challenges of the 1990s together.

Johnson Johnson MEDICAL INC.

© JJM INC. 1990, ARLINGTON, TEXAS 76004-0130



MEET THE NEW JCAHO SCORING GUIDELINES!

Use the AICE® Software System to comply with the 1990 JCAHO Infection Control Standards and Scoring Guidelines

Compliance and simplicity are not words normally heard in the same sentence--not until the AICE Software **System** was developed to meet the complex demands of infection control. Now you can accurately and effectively meet the new JCAHO requirements by using AICE to:

- ◆ Calculate specific infection rates (by surgeon, service, unit, etc.)
- ♦ Perform rates stratified by infection risk
- ♦ Easily feedback these rates to the employees/physicians who can make a difference
- ♦ Conduct priority-directed/targeted, problem-oriented, and/or total house surveillance
- ♦ Document your data collection methods
- ♦ Identify clusters of infections on incidence graphs
- ♦ Perform case-control and special studies
- ♦ Compare hospital infections in-house with data trend analyses
- ♦ Watch the decline of infection rates and patient morbidity!

And the <u>AICE Surveillance Manual</u> not only instructs you on the use of the software but gives you a practical guide to SBO. It can also be used as a refresher course in epidemiology, statistical and surveillance methods.

ICPA, Inc. has always been sensitive to your needs. Designed by professionals in epidemiology, the AICE Software System complies with JCAHO guidelines while meeting your own high standards of **surveillance...the** only software system that **pealty** or m s!

It is time to deal yourself a winning hand.



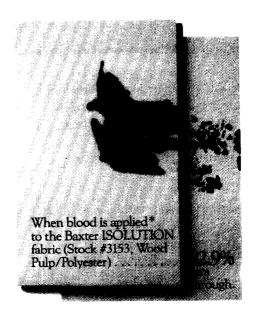
Order **AICE** Today! For more information write or call

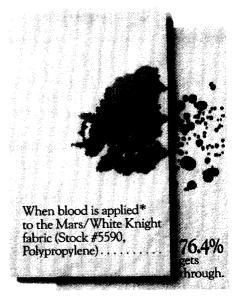


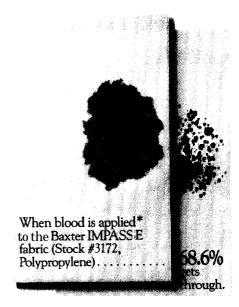
Infection Control and Prevention Analysts, Inc. 4425 MoPac South, Suite 205 Austin, TX 78735 1-800-426-8015

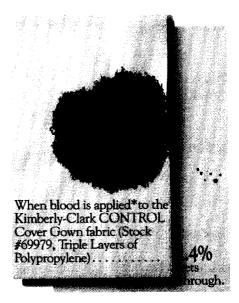
Come by our Booth # 210 at APIC!

SPOT THE #1 COVER GOWN









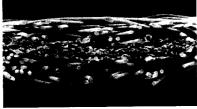
*applied at 0.5 psi of pressure

- 1 Eisenach, K., T. Yamauchi, B. Johnson, and R. Clarke. 1989. Resistance of cover gowns to microbially contaminated human body fluids. Abstr. Annu. Meet. of Interscience Conf. on Antimicrob. Agents and Chemother., 604, p.202.
- 2 Klein, B.S., W.H. Perloff, and D.G. Maki. 1989. Reduction of nosocomial infection during pediatric intensive care by protective isolation. N. Engl. J. Med. 320: 1714-1721.
- ® Registered Trademark of Kimberly-Clark Corp., Roswell, GA 30076 01990 KCC. All rights reserved.

CONTROL" Cover Gowns from Kimberly-Clark are the #1 choice for many reasons, but none more critical than the superior barrier protection shown in these unretouched photos. Simply put, they far outperform other gowns.

Two major independent studies support CONTROL Cover Gowns' superior performance.

In a study at Arkansas Children's Hospital, CONTROL Cover Gowns were shown to be more protective against contaminated body fluids! And a study published in The New England Journal of Medicine showed that CONTROL Cover Gowns and gloves significantly reduced nosocomial infection in pediatric intensive care!



Cross-section of CONTROL Cover Gown Fabric

The key is CONTROL Cover Gowns' unique, three-layer laminated fabric with an inner layer of polypropylene microfibers. This inner layer forms a barrier to screen out bacteria and resist fluid penetration. Yet, this remarkable cloth-like fabric is also highly breathable and tear resistant.

Get the best for your staff and patients. For more information on CONTROL Cover Gowns, call 1-800-KC HELPS, or 1-800-524-3572

