ficile types among clustered cases of diarrhea.^{2,3} We hypothesize that some factors that may contribute to the differences observed are larger patient population with a higher turnover rate; higher number of healthcare personnel in the general medicine ward as compared to the oncology ward; and the lack of protective practices to decrease infection rates of immunocompromised hosts (such as single rooms) in the general medicine ward. Further studies with larger groups of patients and an analysis of some of these external factors are in progress.

REFERENCES

- Cohen SH, Tang YJ, Muenzer J, Gumerlock PH, Silva J Jr. Isolation of various genotypes of *Clostridium difficile* from patients and the environment in an oncology ward. *Clin Infect Dis* 1997;24:889-893.
- Samore MH, Bettin KM, DeGirolami PC, Clabots CR, Gerding DN, Karchmer AW. Wide diversity of *Clostridium difficile* types at a tertiary referral hospital. *J Infect Dis* 1994;170:615-621.
- Skoutelis AT, Westenfelder GO, Beckerdite M, Phair JP. Hospital carpeting and epidemiology of Clostridium difficile. Am J Infect Control 1994;22:212-217.

Scott Rojas, MD Stuart H. Cohen, MD Yajarayma J. Tang, BA, MA Jennifer Wilson, BS John Inciardi, PharmD Joseph Silva, Jr, MD University of California Davis Medical Center Sacramento, California

Dr. Rojas currently is a fellow at Stanford University, Stanford, California.

Primary Bacteremia and Needleless Safety Devices

To the Editor:

The incidence of needlestick injuries (NIs) continues to be high in healthcare workers (HCWs). There are recommendations aimed at reduc-

ing the incidence of NI, as it poses the risk of transmission of bloodborne infections between HCWs and patients. It is an issue of great concern from both the employee and employer perspective. Many hospitals have implemented various types of safety devices to reduce NI incidents. One of the safety devices used is a needleless vascular access system. The effects of the implementation of such needleless systems on the incidence of nosocomial primary bacteremias have been contradictory.1-3 The objective of our study was to determine the effect of needleless safety devices on primary bacteremia in our hospital.

Arlington Hospital is a 350-bed acute-care community teaching hospital located in northern Virginia, with approximately 1,500 HCWs and an average of 16,000 patient admissions per year. We adopted an NI prevention program in 1992.⁴ One of the components of our NI prevention program was the use of a needleless vascular access system.

All new safety devices for the NI prevention program were reviewed by the NI Prevention Committee and then evaluated by the prime users of the products. New device selection criteria were safety, user acceptance, device simplicity, patient satisfaction, infection risk, passive operation, and lack of need for disassembly for disposal after use. Because a substantial number of NIs were related to intravenous (IV) therapy, IV safety was the first priority addressed in this hospital. After evaluation by the nursing department, the committee approved the use of Braun Safsite Needleless Systems (B. Braun Medical Inc. Bethlehem, PA).

All primary bacteremia or bloodstream infections (BSIs) from 1989 to 1997 were reviewed using the Centers for Disease Control and Prevention's criteria for nosocomial infections. BSI before and after implementation of the needleless devices were calculated and compared for trend and clusters. No trend, cluster of infections or organ-

isms, or outbreaks were noted during the study period. Rates of BSI before and after implementation of the Braun Safsite needleless devices were comparable. During the study period, the patient census did not change significantly. BSI rates also were calculated for coagulase-negative staphylococci, *Staphylococcus aureus*, aerobic gram-negative bacilli, *Candida* species, enterococci, and others. The distribution of organisms did not change significantly during the study period.

This 6-year surveillance study after the implementation of the Braun Safsite Needleless Systems suggests that its use was not associated with any increase in BSI.³

REFERENCES

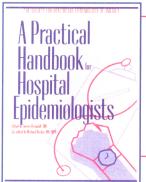
- Skolnick R, Larocca J, Barba D, Paicius L. Evaluation and implementation of a needleless intravenous system: making needlesticks a needless problem. Am J Infect Control 1993:21:39-41.
- Cookson ST, Ihrig M, O'Mara EM, Denny M, Volk H, Banerjee SN, et al. Increased bloodstream infection rates in surgical patients associated with variation from recommended use and care following implementation of a needleless device. *Infect* Control Hosp Epidemiol 1998;19:23-27.
- Mendelson MH, Short LJ, Schecter CB, Meyers BR, Rodriguez M, Cohen S, et al. Study of a needless intermittent intravenous access system for peripheral infusions: analysis of staff, patient, and institutional outcomes. *Infect Control Hosp Epidemiol* 1998;19:401-406.
- Zafar AB, Butler RC, Podgorny JM, Mennonna PA, Gaydos LA, Sandiford JA. Effect of a comprehensive program to reduce needlestick injuries. *Infect Control Hosp Epidemiol* 1997;18:712-715.

Abdul B. Zafar, MBBS, MPH R. Christopher Butler, PhD, ABMLI Sarah T. Wright, MLS Eleanor Draghi, RN, MA Arlington Hospital Arlington, Virginia

Dr. Butler currently is affiliated with the National Institute of Health/ National Institute of Allergy and Infectious Diseases, Bethesda, Maryland.

ALL THE ANSWERS UNDER ONE COVER

Just Released!



A Practical Handbook for Hospital Epidemiologists

Edited by Loreen A. Herwaldt, MD and co-edited by Michael D. Decker, MD, MPH

Soft Cover, 448 pp, ISBN 1-55642-302-0, Order# 13020, \$60.00

A Practical Handbook for Hospital Epidemiologists is the most complete source for practical advice on hospital epidemiology. It is intended to be a pragmatic guide that will assist both beginning and experienced epidemiologists in establishing and operating a successful hospital epidemiology program.

This handbook will supplement the various scientific references already available for hospital epidemiologists. It will provide practical information and advice regarding many aspects of operating a hospital epidemiology program and will help hospital epidemiologists improve their practices.

The Society for Healthcare Epidemiology of America (SHEA) has recruited the most recognized leaders in

the field to share their expertise. They will share successful strategies for handling specific situations. The authors cover many topics that every newcomer should know but are usually learned through experience. These topics include:

- Overarching goals and ethical principles you should adopt to guide your practice
- What you can do to educate yourself
- How to negotiate with the administration and communicate with colleagues
- How to develop policies and procedures
- How to develop a surveillance system

Contents

Getting Started

Chapter 1: An Introduction to Practical Hospital Epidemiology

Chapter 2: The Hospital Epidemiologist: Practical Ideas

Chapter 3: Educational Needs and Opportunities for the Hospital Epidemiologist

Chapter 4: Negotiating with the Administration or How to Get Paid for Doing Hospital Epidemiology

Chapter 5: The Infection Control Committee

Chapter 6: Developing Policies and Guidelines

Chapter 7: Intramural and Extramural Communication

Chapter 8: Ethical Aspects of Infection Control
Surveillance and Analysis

Chapter 9: Basics of Surveillance—An Overview

Chapter 10: Hospital-Acquired Pneumonia: Perspectives for the Healthcare Epidemiologist.

Chapter II: Basics of Surgical Site Infection Surveillance

Chapter 12: Surveillance for Infections Associated with Vascular Catheters

Chapter 13: Designing Surveillance for Noninfectious Outcomes of Medical Care

Chapter 14: Outbreak Investigations Chapter 15: Exposure Workups

Chapter 16: Isolation

Chapter 17: Basics of Stratifying for Severity of Illness

Chapter 18: Quantitative Epidemiology

Support Functions

Chapter 19: Microcomputers in Hospital Epidemiology

Chapter 20: The Computer-Based Patient Record: The Role of the Hospital Epidemiologist

Chapter 21: Basic Microbiologic Support for Hospital Epidemiology

Chapter 22: Epidemiologic Typing Systems
Special Topics

Chapter 23: Epidemiologic Approaches to Quality Assessment

Chapter 24: Disinfection and Sterilization of

Chapter 25: Controlling Use of Antimicrobial Agents

Chapter 26: Employee Health and Infection

Chapter 27: Tuberculosis Control in Healthcare

Chapter 28: Infection Control Issues in Construction and Renovation

Chapter 29: Hospital Epidemiology in Smaller Hospitals

Chapter 30: Infection Control in Public Hospitals
Chapter 31: Infection Control in Long-Term Care
Facilities

Chapter 32: Infection Control in the Outpatient Setting

Chapter 33: OSHA Inspections

Chapter 34: Preparing for and Surviving a JCAHO Inspection

Chapter 35: Product Evaluation

0 1 6

Yes, Send mecopies of A Practical Handbook for Hospital Epidemiologists (Order# 13020) at the Special Introductory Price of \$60.00 each. (Shipping may apply.) Foreign orders add \$25.00 USD for direct air-freight shipping to your location. Subtotal \$ Handling charge \$4.50 NJ residents add 6% sales tax \$ Total \$
Please print
Name
Address
City
State/Country
Zip
PhoneFax
Check enclosed (payable to SLACK Inc., in US dollars drawn on a US bank)Charge MyVisaMastercardAmerican Expres
Account No Exp
Signature
SLACK Incorporated, 6900 Grove Road, Thorofare, NJ 08086-9447, USA
35 textines porated, 5700 Grove Road, Thorotare, Fig 00000-7417, 05A

To order call (in the US) 800-257-8290 or 609-848-1000 Fax orders to 609-853-5991 Order on-line: orders@slackinc.com

All Prices Are Subject To Change

CODE 4A345