

# INFECTION CONTROL

---



## EDITORIAL

### **Skin Tests for Tuberculosis**

J.E. Kasik, MD

## ORIGINAL ARTICLES

### **Tuberculosis Screening in the Long-term Care Setting**

Loraine E. Price, BSN, CIC; William A. Rutala, PhD

### **Determinants of *Legionella pneumophila* Contamination of Water Distribution Systems: 15-Hospital Prospective Study**

Richard M. Vickers, BS; Victor L. Yu, MD; S. Sue Hanna, MPH, RN;  
Paul Muraca, MS; Warren Diven, PhD; Neil Carmen, BS, MER;  
Floyd B. Taylor, DSc

### **Nosocomial Transmission of Hepatitis A in an Adult Population**

Ramona Baptiste, BS, RN; Deloris Koziol, MPH, MT (ASCP);  
David K. Henderson, MD

### **Quantity of Soap as a Variable in Handwashing**

Elaine L. Larson, RN, PhD, FAAN; Paul I. Eke, MSc; Mary P. Wilder;  
Barbara E. Laughon, PhD

## SPECIAL SECTIONS

### **Readers' Forum: The Hygienic Situation in 56 German, 33 Austrian, and 25 Belgian Intensive Care Units**

H. Benzer; P. Brühl; W. Dietzel; J. Kilian; F. Lackner;  
G. Reybrouck; M. Rotter; G. Werner

### **Clinical Pharmacology of Antibiotics: Agents for the Treatment of *Pseudomonas aeruginosa* Infections**

Mark Eggleston, PharmD

### **Product Commentary: Handwashing Agents**

Nancy B. Bjerke, BSN, MA, CIC

To physicians who have concern for the personnel in the laboratories they use:

# Minimize exposure of laboratory personnel to AIDS

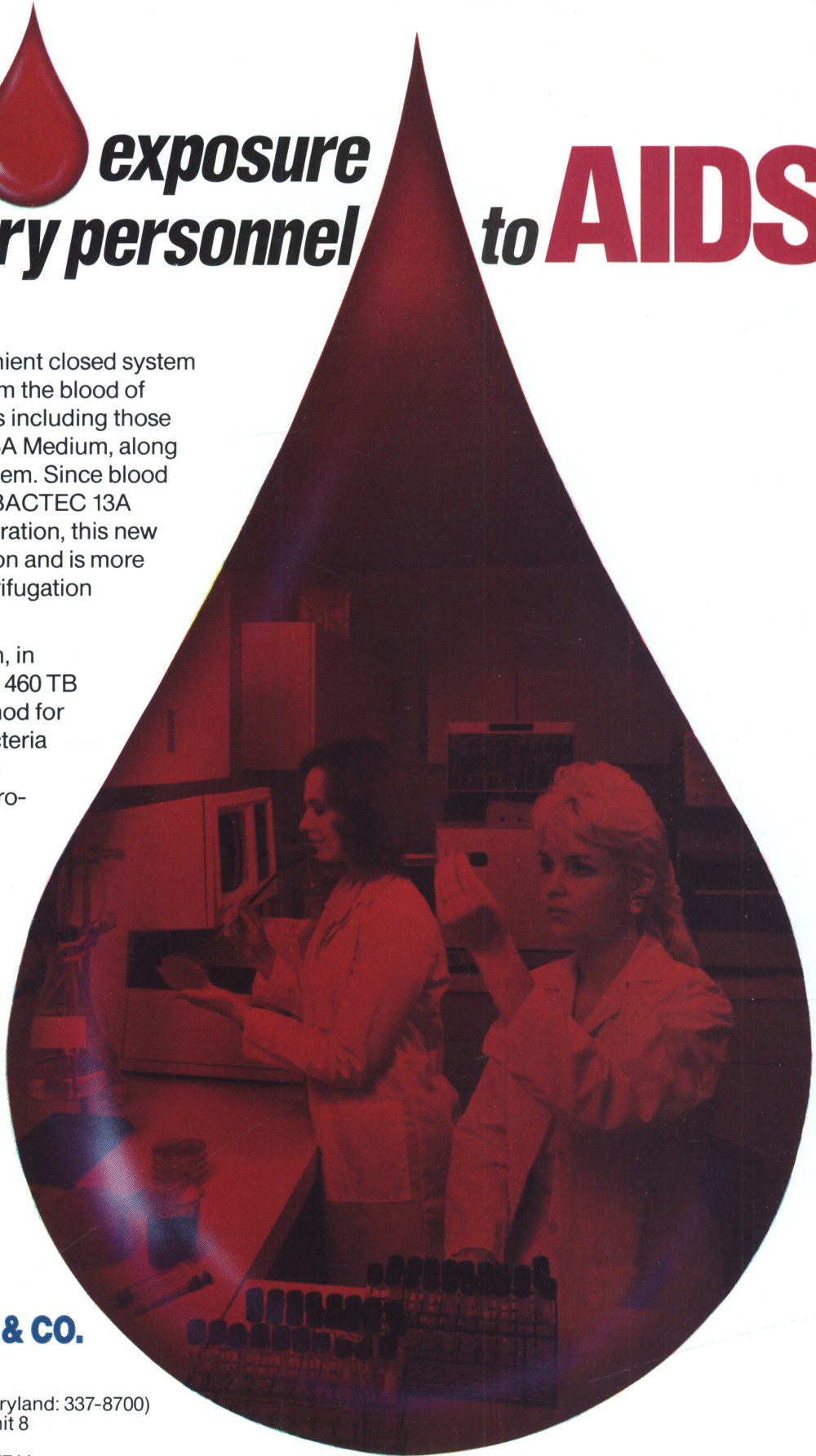
■ Now there's a more convenient closed system for culturing mycobacteria from the blood of immunocompromised patients including those with AIDS. It's the BACTEC 13A Medium, along with the BACTEC 460 TB System. Since blood is directly inoculated into the BACTEC 13A Medium without prior concentration, this new method minimizes manipulation and is more convenient than the lysis centrifugation culture method.

The BACTEC 13A Medium, in conjunction with the BACTEC 460 TB System is a cost effective method for the rapid recovery of mycobacteria from the blood of patients with AIDS and other immunocompromised syndromes. It provides comparable recovery and faster detection than processing blood using a lysis centrifugation culture method.

For results of a multi-clinic evaluation of the BACTEC 13A Mycobacteria Blood Culturing Medium, call or write Johnston Laboratories. We will send this data to you or to the laboratorians whose names you provide.

## **BECTON DICKINSON & CO.**

**Johnston Laboratories Division**  
383 Hillen Rd., Towson, MD 21204  
Call toll-free 1-800-638-8656. (In Maryland: 337-8700)  
In Canada: 1021 Meyerside Drive, Unit 8  
Mississauga, Ontario L5T 1J6  
(416) 677-0260. Toll-free 1-800-268-4744



**BECTON  
DICKINSON**

***Hands  
that serve deserve  
the best***

**HIBICLENS<sup>®</sup>**

**Antiseptic/antimicrobial  
skin cleanser**



**STUART PHARMACEUTICALS**  
Division of ICI Americas Inc  
Wilmington, Delaware 19897

© 1986 ICI Americas Inc

# INFECTION CONTROL®

## Table of Contents

### EDITORIAL

- Skin Tests for Tuberculosis** 350  
J.E. Kasik, MD

### ORIGINAL ARTICLES

- Tuberculosis Screening in the Long-term Care Setting** 353  
Loraine E. Price, BSN, CIC; William A. Rutala, PhD
- Determinants of *Legionella pneumophila* Contamination of Water Distribution Systems: 15-Hospital Prospective Study** 357  
Richard M. Vickers, BS; Victor L. Yu, MD;  
S. Sue Hanna, MPH, RN; Paul Muraca, MS; Warren Diven, PhD;  
Neil Carmen, BS, MER; Floyd B. Taylor, DSc
- Nosocomial Transmission of Hepatitis A in an Adult Population** 364  
Ramona Baptiste, BS, RN; Deloris Koziol, MPH, MT (ASCP);  
David K. Henderson, MD
- Quantity of Soap as a Variable in Handwashing** 371  
Elaine L. Larson, RN, PhD, FAAN; Paul I. Eke, MSc;  
Mary P. Wilder; Barbara E. Laughon, PhD

### SPECIAL SECTIONS

- Readers' Forum: The Hygienic Situation in 56 German, 33 Austrian, and 25 Belgian Intensive Care Units** 376  
H. Benzer; P. Brühl; W. Dietzel; J. Kilian; F. Lackner;  
G. Reybrouck; M. Rotter; G. Werner
- Clinical Pharmacology of Antibiotics: Agents for the Treatment of *Pseudomonas aeruginosa* Infections** 380  
Mark Eggleston, PharmD
- Product Commentary: Handwashing Agents** 384  
Nancy B. Bjerke, BSN, MA, CIC

### DEPARTMENTS

- |                                |     |                               |     |
|--------------------------------|-----|-------------------------------|-----|
| <b>Information for Authors</b> | 341 | <b>Calendar of Events</b>     | 386 |
| <b>Letters to the Editor</b>   | 347 | <b>Classified Marketplace</b> | 388 |
| <b>Book Reviews</b>            | 386 |                               |     |

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

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

**Copyright 1987:** 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 Scope Incorporated, Mansui Bldg., 9-18, Kanda Surugadai 2-chome, Chiyoda-ku, Tokyo 101, Japan. Subscription rates in the US and possessions: Individual: One year—\$40.00; Two years—\$66.00; Three years—\$94.00. Institutional: One year—\$55.00; Two years—\$92.00; Three years—\$128.00; Canada: \$15.00 additional each year; all other countries: \$25.00 additional each year. Single copies of current issues may be obtained for \$7.00, United States and possessions; \$13.00 all other countries.

**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. **Postmaster:** Send address changes to SLACK Incorporated, 6900 Grove Road, Thorofare, NJ 08086.

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*.

## EDITOR

Richard P. Wenzel, MD, MSc  
Iowa City, Iowa

## SENIOR

### ASSOCIATE EDITOR

William Schaffner, MD  
Nashville, Tennessee

### ASSOCIATE EDITORS

Sue Crow, MSN, RN  
Shreveport, Louisiana

John E. McGowan, Jr., MD  
Atlanta, Georgia

Dennis G. Maki, MD  
Madison, Wisconsin



# SLACK

SLACK Incorporated  
6900 Grove Road  
Thorofare, New Jersey 08086

## Publisher

Richard N. Roash

## Editorial Director

Donna Carpenter

## Senior Editor/Development

John C. Carter

## Editorial Coordinator

Sandra L. Patterson

## Assistant Editor

Dawn A. Zwick

## Editorial Assistant

Mary Lou Jerrell

## Production Manager

Jim Griffin

## Production Coordinator

Lester Robeson

## Circulation Manager

Kevin J. Fenton

## Advertising Manager

Randall Roash

## Advertising

### Sales Representative

Wayne M. McCourt

## Advertising Sales

### Coordinator

Betty Martz

## Classified

### Advertising Representative

Donna M. Coles 5941700067333 Published online by Cambridge University Press

## EDITORIAL OFFICES

C41 General Hospital  
University of Iowa Hospitals and Clinics  
Iowa City, Iowa 52242  
(319) 356-0464

William J. Hausler, Jr., PhD

R. Michael Massanari, MD, MS

Michael Pfaller, MD

Robert F. Woolson, PhD

## Managing Editor

Marikay Klein

## EDITORIAL

### ADVISORY BOARD

Robert C. Aber, MD  
Hershey, Pennsylvania

Paul Arnow, MD  
Chicago, Illinois

Charles S. Bryan, MD  
Columbia, South Carolina

John P. Burke, MD  
Salt Lake City, Utah

Mary Castle, MPH, RN  
Berkeley, California

Marie B. Coyle, PhD  
Seattle, Washington

Burke A. Cunha, MD  
Mineola, New York

Richard E. Dixon, MD  
Trenton, New Jersey

Leigh G. Donowitz, MD  
Charlottesville, Virginia

Mark Eggleston, PharmD  
Washington, DC

Harvey A. Elder, MD  
Loma Linda, California

Bruce Farber, MD  
Pittsburgh, Pennsylvania

Martin S. Favero, PhD  
Atlanta, Georgia

Peter C. Fuchs, MD, PhD  
Portland, Oregon

Richard A. Garibaldi, MD  
Farmington, Connecticut

Angella Goetz, MNEd, RN  
Pittsburgh, Pennsylvania

Donald A. Goldmann, MD  
Boston, Massachusetts

Dieter H.M. Gröschel, MD  
Charlottesville, Virginia

Peter A. Gross, MD  
Hackensack, New Jersey

Karen Hadley, MPH, RN  
New Orleans, Louisiana

David K. Henderson, MD  
Bethesda, Maryland

Peter N.R. Heseltine, MD  
Los Angeles, California

Cyrus C. Hopkins, MD  
Boston, Massachusetts

Allen B. Kaiser, MD  
Nashville, Tennessee

Donald L. Kaiser, DrPH  
Charlottesville, Virginia

Elaine Larson, PhD  
Cabin John, Maryland

Harold Laufman, MD, PhD  
New York, New York

Barbara McArthur, PhD, RN  
Detroit, Michigan

Rob Roy MacGregor, MD  
Philadelphia, Pennsylvania

C. Glen Mayhall, MD  
Richmond, Virginia

Patti J. Miller, MS  
Charlottesville, Virginia

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

James E. Peacock, Jr., MD  
Winston-Salem, North Carolina

Frank S. Rhame, MD  
Minneapolis, Minnesota

William A. Rutala, PhD, MPH  
Chapel Hill, North Carolina

William E. Scheckler, MD  
Madison, Wisconsin

Walter E. Stamm, MD  
Seattle, Washington

Charles W. Stratton, MD  
Nashville, Tennessee

Richard L. Sweet, MD  
San Francisco, California

George H. Talbot, MD  
Philadelphia, Pennsylvania

Timothy R. Townsend, MD  
Baltimore, Maryland

James Veazey, MD  
Albany, New York

## FOREIGN

### ADVISORY BOARD

Graham Ayliffe, MD, FRCPath.  
Birmingham, England

Professor G. Berencsi  
Szeged, Hungary

David Birnbaum, MPH  
Sidney, British Columbia, Canada

Professor Jaap Dankert  
Groningen, Netherlands

Professor Dr. F. Daschner  
Freiburg, West Germany

Lars O. Kallings, MD  
Stockholm, Sweden

Professor W.B. Kędzia  
Sieroca, Poland

Professor A.P. Krasilnikow  
Minsk, USSR

Professor Dr. W. Marget  
Munich, West Germany

Jonathan L. Meakins, MD,  
FRCSC, FACS  
Montreal, Canada

Bertil Nyström, MD  
Huddinge, Sweden

Ian Phillips, MA, MD, MRCPath.  
London, England

Samuel Ponce de Leon, MD  
Mexico City, 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  
Greifswald, German Democratic  
Republic

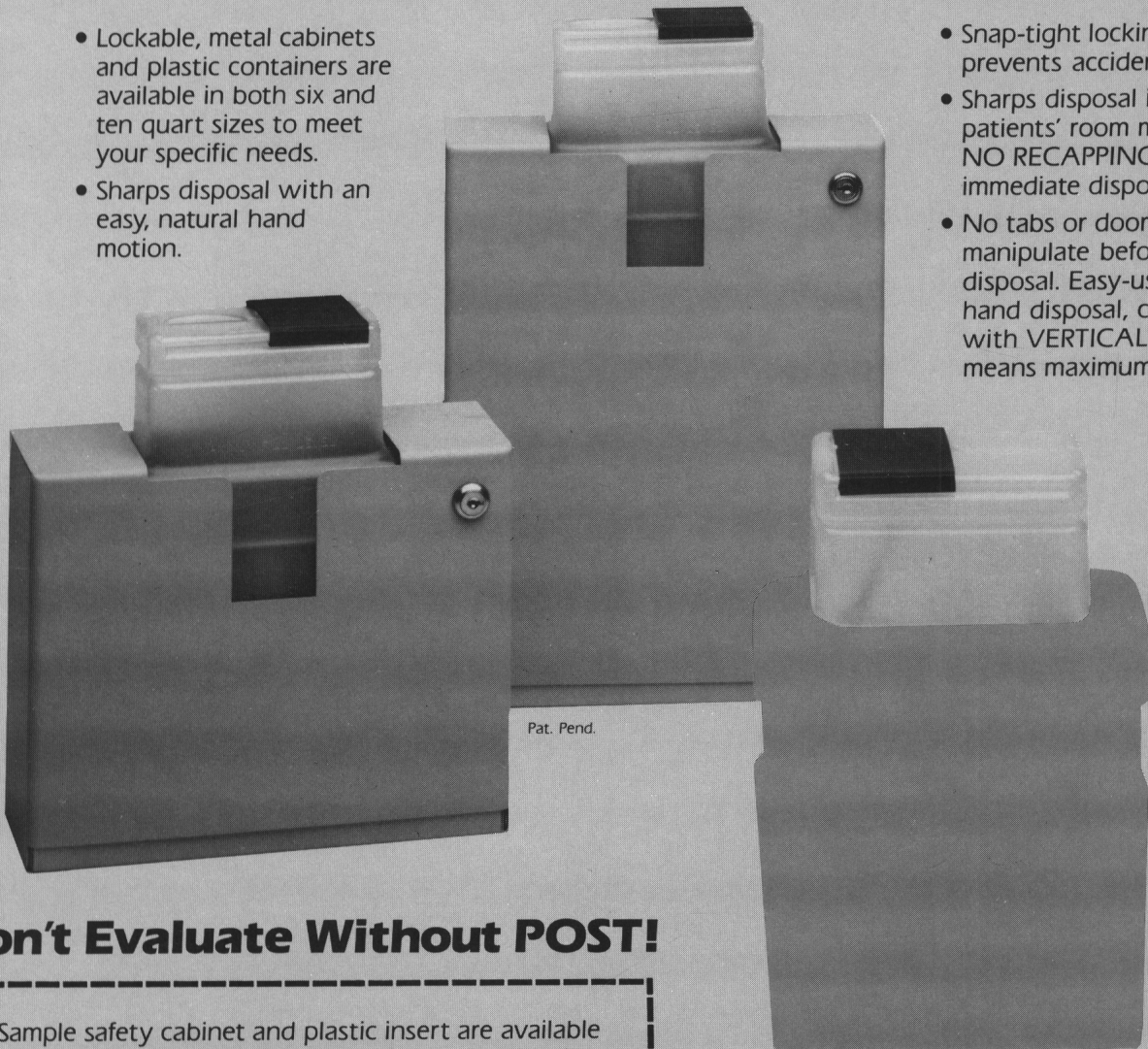
# POST—

## The Ultimate In-Room Sharps Containment System

The Answer to your Sharps Disposal Problem—an in room system with a vertical drop. The proven effective, efficient way to avoid sticks.

- Lockable, metal cabinets and plastic containers are available in both six and ten quart sizes to meet your specific needs.
- Sharps disposal with an easy, natural hand motion.

- Snap-tight locking top prevents accidents.
- Sharps disposal in the patients' room means **NO RECAPPING**. Safe, immediate disposal.
- No tabs or doors to manipulate before disposal. Easy-use, one-hand disposal, combined with **VERTICAL DROP** means maximum safety.



### Don't Evaluate Without POST!

Sample safety cabinet and plastic insert are available for evaluation. Send the enclosed form, or call today.

NAME \_\_\_\_\_  
TITLE \_\_\_\_\_  
HOSPITAL \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_  
PHONE (    ) \_\_\_\_\_ EXT \_\_\_\_\_

- Sharps **FILL LEVEL** is always in view, controlling over filling.
- Safe, immediate disposal of large size needles and syringes.

**POST MEDICAL INC.**  
PO BOX 29863  
ATLANTA, GA 30359  
(404) 325-9300

# TOUGH ON STAPH. GENTLE ON STAFF.

It shouldn't hurt to wash your hands. Yet that's just what happens at so many medical facilities. But now relief is as close as your fingertips. With the new ProCare™ hand-care system from Sani-Fresh International.

ProCare's rich emollients refresh tired hands. Its non-staining, synthetic-based products gently clean without irritation. And its thick, creamy formulations bathe skin in a luxurious lather.\*

But don't let ProCare's mild-mannered qualities fool you. Because washing with it eliminates a wide range of transient microorganisms. Its anti-septic ingredients\*\* provide proven effectiveness



Introducing new ProCare™  
Extra mild to encourage  
frequent handwashing.

for all non-surgical applications.

New ProCare also provides something else—a complete system of disposable hermetically sealed pump/pouch refills. Plus a free dispenser which can be operated with one hand to reduce cross contamination. And which complies with CDC guidelines.

So go tough on staph, not on staff. Call toll-free 1-800-322-2200 to order new ProCare. And take the pain out of fighting nosocomial infections. Ask about new ProCare SpectraCare™, Para-San® and Alco-San® Anti-septic Hand Care Products. Or ProCare extra-mild Ultra-Kind™ Multi-Purpose Hand Wash.

\*Alco-San is a non-synthetic waterless formulation. \*\*SpectraCare and Para-San contain Chloroxylenol. Alco-San contains gelled Isopropyl Alcohol.

**ProCare™**  
MEDICAL PRODUCTS GROUP

©1987 Sani-Fresh International, Inc. / San Antonio, TX 78218 / 1-800-322-2200