SHEA
The Society for Healthcare Epidemiology of America

# Infection Control & Hospital Epidemiology

Volume 41, No 10

ICHE

SIR JOHN PRINGLE

OCTOBER 2020

CAMBRIDGE UNIVERSITY PRESS

https://doi.org/10.1017/ice.2020.420 Published online by Cambridge University Press

https://doi.org/10.1017/ice.2020.420 Published online by Cambridge University Press

Infection Control & Hospital Epidemiology

Volume 41 2020 Number 10

# CONTENTS

## Original Articles



**Cover image: Sir John Pringle, 1707-1782. Oil Painting. Credit: Wellcome Collection. CCBY.**

https://doi.org/10.1017/ice.2020.420 Published online by Cambridge University Press

## State of the Pandemic Commentary



## Commentaries



## Review



## Concise Communications



https://doi.org/10.1017/ice.2020.420 Published online by Cambridge University Press

## Research Briefs



## Letters to the Editor



https://doi.org/10.1017/ice.2020.420 Published online by Cambridge University Press

## Corrigendum



https://doi.org/10.1017/ice.2020.420 Published online by Cambridge University Press

# MICROBIAL SURVEILLANCE TESTING MADE EASY

*Healthmark offers the One-Two Punch to Identify and Document the Efficacy of Your Endoscope Reprocessing*

## SCREEN WITH THE NOW! TEST

*Rapid Indicator of Gram-Negative bacteria*

Immediate, practical screening test. Simply flush the lumen of a flexible endoscope, such as a duodenoscope, and follow the procedure for gram-negative bacteria detection in less than 12 hours.

**< 10 CFU**


healthmark

## AUDIT WITH THE FLEXIBLE ENDOSCOPE SAMPLING KIT

*Surveillance tool for the random testing of duodenoscopes in compliance with CDC guidelines - In association with Nelson Laboratories*


A simple and complete kit. After flushing and brushing the lumen and elevator mechanism of a duodenoscope, simply follow the procedure to have the sample solution & brush heads quickly sent to Nelson Laboratories - the leader in independent testing of flexible endoscopes. All tools are included for testing and shipment.

NELSON LABORATORIES

HEALTHMARK INDUSTRIES | WWW.HMARK.COM | 800.521.6224 | 33671 DOREKA DRIVE FRASER, MI 48026

https://doi.org/10.1017/ice.2020.420 Published online by Cambridge University Press

# INFECTION CONTROL & HOSPITAL EPIDEMIOLOGY

cambridge.org/ICHE

*An Official Publication of the Society for Healthcare Epidemiology of America*



***Infection Control & Hospital Epidemiology*** **(ISSN 0899-823X)** is published monthly by Cambridge University Press, One Liberty Plaza, New York, NY 10006, USA.

**Editorial Office**
Communications should be addressed to the Editor, *Infection Control & Hospital Epidemiology*, One Liberty Plaza, New York, NY 10006 (email: iche.managingeditor@cambridge.org. Contributors should consult the Instructions for Contributors, which is available at the journal's Web site.

**Advertising**
Please direct advertising inquiries to M. J. Mrvica Associates, 2 West Taunton Avenue, Berlin, NJ 08009 (e-mail: mjmrvica@mrvica.com; telephone: 856-768-9360, fax: 856-753-0064). Publication of an advertisement in *Infection Control & Hospital Epidemiology* does not imply endorsement of its claims by the Society for Healthcare Epidemiology of America, by the Editor, or by Cambridge University Press.



**Subscriptions**
The individual subscription rate for 2020 is $287. Individuals have the option to order directly from Cambridge University Press. Institutional print + electronic and e-only subscriptions are available from Cambridge University Press and include unlimited online access; rates are tiered according to an institution's type and research output and may be reviewed at the journal's homepage on Cambridge Core: cambridge.org/ICHE.

Please direct subscription inquiries and requests for back issues to Customer Services at Cambridge University Press, e-mail: subscriptions_newyork@cambridge.org (USA, Canada, and Mexico) or journals@cambridge.org (outside of USA, Canada, and Mexico).

**Postmaster:** Send address changes to *Infection Control & Hospital Epidemiology*, Cambridge University Press, One Liberty Plaza, New York, NY 10006 USA.

## About the cover:

Since 2015, the cover format of each volume of *Infection Control and Hospital Epidemiology* has been changed to honor one of the many professionals throughout history who recognized not only how disease might be spread but also how those principles could be applied to reduce healthcare-associated infections.

Sir John Pringle (1707–1782) was born into a prominent Scottish family. He initially studied the classics and philosophy followed by 1 year of medical study at the University of Edinburgh. He planned to leave medicine for a mercantile career. While in the Netherlands, Pringle met Boerhaave, and his interest in medicine was re-energized. He received his medical degree in 1730 from the University of Leyden. In 1734, he assumed a chair in the Faculty of Arts in "Pneumatical and Ethical Philosophy" and practiced medicine at the University of Edinburgh.

At the age of 35, Pringle was appointed surgeon to the British Forces, which had formed an alliance with the Habsburg Dynasty against France. In 1745, as Physician General of the Army, Pringle played a role in assuring the humane treatment of prisoners of war and neutrality for military hospitals hundreds of years before the Geneva Convention and the formation of the Red Cross.

In 1748, Pringle returned to London and published his experiences in military hospitals. He recognized that hospital fever and jail fever were spread from person to person and that both syndromes were due to typhus. He mandated that prisoners be washed, that their clothing burnt, and that clean clothes be provided at public expense. He understood that hospitals were a major cause of patient sickness: crowding, filth, and lack of hygiene facilitated the spread of disease. Decades before Florence Nightingale, Pringle advocated for fresh air, cleanliness, and hygiene. He observed that fomites contaminated with body fluids, like bedding, spread sepsis. He adopted microscopy and understood that the mites he saw caused scabies. Many years before Lister and Semmelweis, Pringle used acids and distilled spirits to reduce the spread of sepsis, and the first use of the term "antisepsis" was attributed to him.

During his lifetime, Pringle was recognized for his work as President of the Royal College of Physicians (RCP), Member of the Academy of Sciences, and receipt of the prestigious Copley Gold Medal. He was made a Baronet in 1766 and physician to the King in 1774. By 1780, he retired from medicine and returned to Scotland, but the cold climate did not agree with him. Pringle returned to London, but not before he gifted 10 volumes of his Medical and Physical Observations to the RCP (Edinburgh) with the understanding that they would never be published or lent out. He died 4 months later.

The major advances in infection control that Pringle made to the field have too often been attributed to others, and few reminders of him survive to this day. His birthplace was demolished and his grave destroyed during World War II; 2 paintings remain. A memorial to Sir John Pringle can be found in Westminster Abbey albeit in Poets' Corner; this location is ironic, as one friend noted that an inadequate appreciation of English poetry was one of Pringle's few failings.

---

**Cover image: Sir John Pringle, 1707-1782. Oil Painting. Credit: Wellcome Collection. CCBY.**

https://doi.org/10.1017/ice.2020.420 Published online by Cambridge University Press

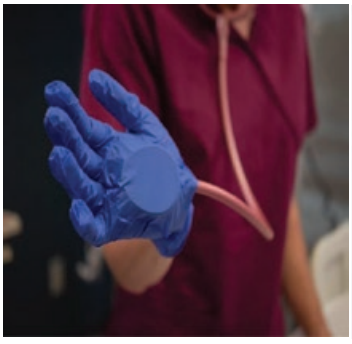
-Studies show non-compliance with stethoscope cleaning despite CDC recommendations.

-Covering stethoscopes will decrease cross contamination and lowers bio-burden on stethoscopes compared to cleaning.

-ScopeShield provides Polyethylene isolation gowns with a protective cover for your stethoscopes.

Get rid of the isolation stethoscopes and partner with ScopeShield to:

- ✓ Decrease Infections
- ✓ Lower Costs
- ✓ Save Lives



**ScopeShield, Inc.**

3959 Van Dyke Rd, Suite 187 Lutz, Fl 33558

T: 813-344-4468 E: info@scopeshieldinc.com W: scopeshieldinc.com

https://doi.org/10.1017/ice.2020.420 Published online by Cambridge University Press

https://doi.org/10.1017/ice.2020.420 Published online by Cambridge University Press

# INFECTION in the time of RESISTANCE

*One Patient at a Time*

## Online CME/CPE HABP/VABP Activity

This activity was originally planned for SHEA Decennial 2020. Although we were unable to present live, we are pleased to provide you online access to this high-quality and timely content.

Please scan the QR code to access activity or view at ***www.vemcomeded.com***

## Educational Overview

The past decade has seen a growing diversity of bacterial resistance mechanisms and the global rise and spread of multidrug-resistant (MDR) pathogens. These infections pose a significant health threat and burden to individuals and healthcare institutions. In the US, the CDC estimates at least 2.8 million people acquire antimicrobial-resistant infections annually that result in at least 35,000 deaths. The diversity and spread of MDR and XDR (extensively drug-resistant) organisms challenge clinicians and substantially impact patient outcomes and healthcare costs. As a result, healthcare providers must be fully knowledgeable and remain up-to-date of the local epidemiology and resistance trends as well as recognize the latest tools available that aim to minimize the burden of these infections. These tools include rapid diagnostics and newer antimicrobials that can overcome resistance mechanisms and allow for pathogen-specific therapy. In this manner, clinicians have a greater ability to tailor management approaches based on patient factors and needs.

## Learning Objectives

At the conclusion of the educational activity, the learner should be able to:

- Summarize the changing epidemiology of antimicrobial resistance in relation to prevalence and resistance mechanisms
- Differentiate the pharmacology and antibacterial activity of newer antimicrobial agents to combat antimicrobial-resistant infections
- Identify strategies aimed to guide appropriate antimicrobial selection to optimize outcomes and reduce resistance development

## Target Audience

This continuing medical education activity meets the needs of ID healthcare providers, including physicians, pharmacists, and microbiologists, in a variety of practice settings, including large and small health systems, outpatient clinics, managed-care organizations, long-term care facilities, and academia.

## Faculty


**Robert A. Bonomo | MD, FIDSA**
Professor of Medicine
Case Western Reserve University School of Medicine
Chief, Medical Service
Louis Stokes Cleveland Department of Veteran Affairs Medical Center
Northeast Ohio VA Health Care System
Cleveland, OH

**Keith A. Rodvold | PharmD, FCCP, FIDSA**
Professor, Department of Pharmacy Practice
Co-Director, Section of Infectious Diseases Pharmacotherapy
Professor of Pharmacy in Medicine
Colleges of Pharmacy and Medicine
University of Illinois at Chicago
Chicago, IL


### Accreditation - Physicians

This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education through the joint providership of Center for Independent Healthcare Education (Center) and Vemco MedEd. Center is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

Center designates this Enduring material for a maximum of 1.5 *AMA PRA Category 1 Credit(s)*™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

This activity is also accredited for Physician Assistants, Nurse Practitioners, and Pharmacists. For questions regarding accreditation, please contact info@jointsponsor.com

### Disclosures of Conflict of Interest

Center for Independent Healthcare Education and Vemco MedEd require faculty, planners, and others who are in a position to control the content of continuing education activities to disclose to the audience any real or apparent conflict of interest related to the activity. All identified conflicts of interest are reviewed and resolved to ensure fair balance, objectivity, and scientific rigor in all activities. The faculty is further required to disclose discussion of off-label uses in their presentations.


**Supported by an educational grant from Merck & Co., Inc.**

**Jointly provided by Center for Independent Healthcare Education and Vemco MedEd**