

Infection Control Hospital Epidemiology

Volume 41. No 11



NOVEMBER 2020



Medicine

Books and Journals from Cambridge University Press

The Cambridge Medicine programme focuses its book publishing in a defined set of core clinical areas with our great strength in the clinical brain sciences. Other specialties of significant focus include reproductive medicine/obstetrics and gynaecology, anaesthesia and critical care, emergency medicine and pathology.

Our journals programme covers a broad spectrum of medical disciplines including emergency and disaster medicine, epidemiology and infectious diseases, biomedical science, genetics, nutrition, mental health and psychiatry, and neuroscience.

We partner with many learned societies including The Society for Healthcare Epidemiology of America, the Neuroscience Education Institute, and the Royal College of Obstetricians and Gynaecologists.

For further details visit: cambridge.org/core-medicine





Infection Control & Hospital Epidemiology

Volume 41 2020 Number 11

CONTENTS

SHEA White Paper

1251 SHEA neonatal intensive care unit (NICU) white paper series: Practical approaches to Staphylococcus aureus disease prevention Ibukunoluwa C. Akinboyo, Kenneth M. Zangwill, Wendy M. Berg, Joseph B. Cantey, Beth Huizinga and Aaron M. Milstone

Original Articles

- 1258 Air and environmental sampling for SARS-CoV-2 around hospitalized patients with coronavirus disease 2019 (COVID-19)

 Vincent Chi Chang Chang Shuk Ching Wong Verening Wing Man Chan Simon Vene Chang Shuk Ching Wong Verening Wing Man Chan Simon Vene Chang Shuk Ching Wong Venezing Wing Man Chan Simon Venezing Venezing Wing Man Chang Simon Venezing Ven
 - Vincent Chi-Chung Cheng, Shuk-Ching Wong, Veronica Wing-Man Chan, Simon Yung-Chun So, Jonathan Hon-Kwan Chen, Cyril Chik-Yan Yip, Kwok-Hung Chan, Hin Chu, Tom Wai-Hin Chung, Siddharth Sridhar, Kelvin Kai-Wang To, Jasper Fuk-Woo Chan, Ivan Fan-Ngai Hung, Pak-Leung Ho and Kwok-Yung Yuen
- 1266 Cluster randomized trial of an antibiotic time-out led by a team-based pharmacist Trevor C. Van Schooneveld, Mark E. Rupp, R. Jenifer Cavaleiri, Elizabeth Lyden and Kiri Rolek
- 1272 Impact of unit-specific metrics and prescribing tools on a family medicine ward Nicholas J. Mercuro, Thomas P. Lodise, Rachel M. Kenney, Berta Rezik, Raghavendra C. Vemulapalli, Mariam J. Costandi and Susan L. Davis
- **1279** The current state of antifungal stewardship among pediatric antimicrobial stewardship programs Lourdes Eguiguren, Jason G. Newland, Matthew P. Kronman, Adam L. Hersh, Jeffrey S. Gerber, Grace M. Lee and Hayden T. Schwenk
- 1285 Impact of clinical guidance and rapid molecular pathogen detection on evaluation and outcomes of febrile or hypothermic infants
 Jennifer Crook, Meng Xu, James C. Slaughter, Jeremy Willis, Whitney Browning, Cristina Estrada,
 James Gay, Gale Thomas, Alison Benton, Criziel Quinn, Jonathan Schmitz and Ritu Banerjee
- 1292 Costs of ambulatory pediatric healthcare-associated infections: Central-line—associated bloodstream infection (CLABSIs), catheter-associated urinary tract infection (CAUTIs), and surgical site infections (SSIs) *Michael L. Rinke, Suzette O. Oyeku, William J. H. Ford, Moonseong Heo, Lisa Saiman, Patricia DeLaMora, Barbara Rabin, Philip Zachariah, Rebecca E. Rosenberg, Parsa Mirhaji, Oghale Obaro-Best, Michael Drasher, Elizabeth Klein, Alexandre Peshansky and David G. Bundy*
- 1298 Methicillin-resistant *Staphylococcus aureus* (MRSA) screening upon inpatient hospital admission: Is there concordance between nasal swab results and samples taken from skin and soft tissue? *Natasha J. Petry, Anna D. Montgomery, Kimberly D. P. Hammer and Tze Shien Lo*

1302 Oral vancomycin prophylaxis for the prevention of *Clostridium difficile* infection: A systematic review and meta-analysis

Sumbal Babar, Bara El Kurdi, Mahmoud El Iskandarani, Ibrahim Haddad, Zaid Imam, Mohammad Alomari, James Myers and Jonathan Moorman

- **1310** The burden of gastroenteritis outbreaks in long-term care settings in Philadelphia, 2009–2018 *Hansol Kang, Yvette Khachadourian, Dana Perella, Tiina M. Peritz, Kristen A. Feemster and Susan E. Coffin*
- 1315 The impact of healthcare associated infections on mortality and length of stay in Singapore—A time-varying analysis

Yiying Cai, Jamie Jay-May Lo, Indumathi Venkatachalam, Andrea L. Kwa, Paul A. Tambyah, Li Yang Hsu, Adrian Barnett, Kalisvar Marimuthu and Nicholas Graves

State of the Pandemic Commentary

1321 Universal pandemic precautions—An idea ripe for the times

David J. Weber, Hilary Babcock, Mary K. Hayden, Sharon B. Wright, A. Rekha Murthy, Judith Guzman-Cottrill, Sarah Haessler, Clare Rock, Trevor Van Schooneveld, Corey A. Forde, Latania K. Logan, Anurag Malani and David K. Henderson for the SHEA Board of Trustees

Commentaries

- 1323 The COVID-19 infection control arms race *Chanu Rhee, Meghan A. Baker and Michael Klompas*
- 1326 Disposition of patients with coronavirus disease 2019 (COVID-19) whose respiratory specimens remain positive for severe acute respiratory coronavirus virus 2 (SARS-CoV-2) by polymerase chain reaction assay (PCR) *Leonard A. Mermel*

Concise Communications

- **1328** Environmental surface testing for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) during prolonged isolation of an asymptomatic carrier *Kyeong Seob Shin, Hee Sue Park, Jisu Lee and Joon Kee Lee*
- 1331 Widespread severe acute respiratory coronavirus virus 2 (SARS-CoV-2) laboratory surveillance program to minimize asymptomatic transmission in high-risk inpatient and congregate living settings Lauren P. Jatt, Alexander Winnett, Christopher J. Graber, John Vallone, David O. Beenhouwer and Matthew Bidwell Goetz
- 1335 Repurposing antimicrobial stewardship tools in the electronic medical record for the management of COVID-19 patients

Matthew W. Davis, Dayna McManus, Alan Koff, Gregory R. Jaszczur, Maricar Malinis, Charles Dela Cruz, Clemente J. Britto, Christina Price, Veronica Azmy, Kelsey Kaman, David Gaston, Kevin Early, Michelle DeWitt, Ju-Sung Song, Claudia Ortiz, Manisha Juthani-Mehta and Jeffrey E. Topal

- 1338 What is the current state of patient education after Clostridioides difficile infection?

 Christina M. DeBenedictus, Michelle T. Hecker, Patricia D. Zuccaro, Jacob P. John, Curtis J. Donskey and Payal K. Patel
- 1341 Transmission of novel Klebsiella pneumoniae carbapenemase-producing Escherichia coli sequence type 1193 among residents and caregivers in a community-based, residential care setting—Nevada, 2018 Danica J. Gomes, Ana C. Bardossy, Lei Chen, Adrian Forero, Andrew Gorzalski, Heather Holmstadt, Kimisha Causey, Chidinma Njoku, Nimalie D. Stone, Abimbola Ogundimu, Heather Moulton-Meissner, Gillian McAllister, Alison L. Halpin, Paige Gable, Nicholas Vlachos, Sandra Larson, Maroya Spalding Walters and Lauren Epstein
- 1344 Sustainably reducing device utilization and device-related infections with DeCATHlons, device alternatives, and decision support

Emil P. Lesho, Robert Clifford, Kelly Vore, Balazs Zsenits, Jose Alcantara, Bryan Gargano, Matthew Phillips, Susan Boyd, Laura Eckert-Davis, Carlos Sosa, Roberto Vargas, Dawn Riedy, Deborah Stamps, Hiloni Bhavsar, Jennifer Fede, Maryrose Laguio-Vila and Melissa Bronstein

Research Brief

- 1348 Antibody evidence of SARS-CoV-2 infection in healthcare workers in the Bronx Elana R. Sydney, Preeti Kishore, Isaac Laniado, Lisa M. Rucker, Komal Bajaj and Michael J. Zinaman
- 1349 Nudging empiric prescribing: Embedding antimicrobial stewardship program order sets into a general medicine admission order set

 April J. Chan, Ajay Kapur, Bradley J. Langford and Mark Downing
- 1351 Improved empiric antibiotic prescribing for acute cystitis with use of local urinary antibiogram and clinical decision support system

 Christopher J. Shoff, Mary L. Townsend, L. Gayani Tillekeratne, Ryan D. Schulteis, Michael E. Yarrington, Nicholas A. Turner, Christopher W. Woods and Christopher J. Hostler
- 1353 Correlation of the air–surface nexus of bacterial burden during routine patient care Werner E. Bischoff and Gregory Russell

Letters to the Editor

- 1355 Prevention of nosocomial COVID-19: Another challenge of the pandemic Jens T. Van Praet, Bram Claeys, Ann-Sofie Coene, Katelijne Floré and Marijke Reynders
- 1356 Critical role of Wuhan cabin hospitals in controlling the local COVID-19 pandemic Wenlong Yao, Xueren Wang and Tianzhu Liu
- 1358 Diagnostic options for coronavirus disease 2019 (COVID-19)

 Yuanyuan Xiao, Zhong Peng, Caixia Tan, Xiujuan Meng, Xun Huang, Anhua Wu and Chunhui Li

- **1359** Iran's success in controlling the COVID-19 pandemic *Nima Mohammadzadeh, Mahla Shahriary and Erfan Nasri*
- 1360 Might hydrogen peroxide reduce the hospitalization rate and complications of SARS-CoV-2 infection? *Arturo A. Caruso, Antonio Del Prete, Antonio I. Lazzarino, Roberto Capaldi and Lucia Grumetto*
- 1362 Computed tomography (CT) scan challenges the result of SARS-CoV-2 nucleic acid test in a suspected COVID-19 case

 Kun Yan, Jingfeng Zhang, Yangfan Zhang, Shun Zhang, Ting Cai and Jianjun Zheng
- 1363 A dynamic residential community-based quarantine strategy: China's experience in fighting COVID-19 *Yan Guo, Yiran Li, Aliza Monroe-Wise, Sai-Ching Jim Yeung and Yixiang Huang*
- 1364 Extended use or reuse of N95 respirators during COVID-19 pandemic: An overview of national regulatory authority recommendations
 Leticia Mitiko Kobayashi, Bianca Ramos Marins, Patrícia Cristina dos Santos Costa, Hugo Perazzo and Rodolfo Castro
- 1366 Transparency and information sharing could help abate the COVID-19 pandemic Farid Rahimi and Amin Talebi Bezmin Abadi
- 1368 Management of healthcare areas for the prevention of COVID-19 emergency in an Italian teaching hospital in Pisa, Tuscany: A hospital renovation plan Angelo Baggiani, Silvia Briani, Grazia Luchini, Mauro Giraldi, Maria Carola Martino, Andrea Porretta, Michele Totaro and Gaetano Privitera
- **1369** Risk factors for severe COVID-19 illness in healthcare workers: Too many unknowns *Pandora L. Wander, Marika Orlov, Susan E. Merel and Daniel A. Enquobahrie*
- 1371 Antibiotic prescription during the COVID-19 pandemic: A biphasic pattern Gabriela Abelenda-Alonso, Ariadna Padullés, Alexander Rombauts, Carlota Gudiol, Miquel Pujol, Claudia Alvarez-Pouso, Ramón Jodar and Jordi Carratalà

Erratum

1373 Antibiotic prescription during the COVID-19 pandemic: a biphasic pattern – ERRATUM

INFECTION CONTROL & HOSPITAL EPIDEMIOLOGY

An Official Publication of the Society for Healthcare Epidemiology of America

EDITOR

Suzanne F. Bradley, MD • Ann Arbor, MI

DEPUTY EDITOR

Carol Chenoweth, MD • Ann Arbor, MI

ASSOCIATE EDITORS

David P. Calfee, MD, MS • New York, NY Lindsay E. Nicolle, MD • Winnipeg, Manitoba Trevor C. Van Schooneveld, MD • Omaha, NE David Weber, MD, MPH • Chapel Hill, NC

STATISTICS CONSULTANTS

Jon P. Furuno, PhD • Portland, OR Jessina C. McGregor, PhD • Portland, OR

MANAGING EDITOR

Lindsay MacMurray • New York, NY

PAST EDITORS

Infection Control • Portland, OR
Richard P. Wenzel, MD, 1980-1987 (vols. 1-8)
Infection Control & Hospital Epidemiology
Richard P. Wenzel, MD, 1988-1992 (vols. 9-13)
Michael D. Decker, MD. 1993-2001 (vols. 14-22)
Barry M. Farr, MD, 2002-2004 (vols. 23-25)
William R. Jarvis, MD, 2005-2006 (vols. 26 and 27)

EDITORIAL ADVISORY BOARD

Deverick Anderson, MD, MPH • Durham, NC Anucha Apisarnthanarak, MD • Pratumthani, Thailand-Lennox Archibald, MD, FRCP • Alachua, FL Shailen Banerjee, PhD • Atlanta, GA

Elise M. Beltrami, MD, MPH • Atlanta, GA Jo Anne Bennett, RN, PhD • New York, NY David Birnbaum, PhD, MPH • Sidney, BC Marc Bonten, MD • Utrecht, Netherlands Christian Brun-Buisson, MD • Creteil, France John P. Burke, MD • Salt Lake City, UT Yehuda Carmeli, MD, MPH • Tel Aviv, Israel Donald E. Craven, MD • Burlington, MA Christopher Crnich, MD, MS • Madison, WI Erika D'Agata, MD, MPH • Boston, MA Daniel Diekema, MD • Iowa City, IA Erik Dubberke, MD, MSPH • St. Louis, MO Charles E. Edmiston, Jr., PhD • Milwaukee, WI Mohamad Fakih, MD, MPH • Grosse Pointe Woods, MI Petra Gastmeier, MD • Berlin, Germany Jeffrey Gerber, MD, PhD • Philadelphia, PA Dale N. Gerding, MD • Hines, IL Donald A. Goldmann, MD • Boston, MA Nicholas Graves, PhD • Brisbane, Australia Donna Haiduven, RN, PhD, CIC • Tampa, FL Anthony D. Harris, MD, MPH • Baltimore, MD Elizabeth Henderson. PhD • Calgary, AB David K. Henderson, MD • Bethesda, MD Loreen A. Herwaldt, MD • Iowa City, IA Peter N. R. Heseltine, MD • Brea, CA John A. Jernigan, MD, MS • Atlanta, GA Mini Kamboj, MD • New York, NY Carol A. Kauffman, MD • Ann Arbor, MI James T. Lee, MD, PhD • St. Paul, MN

L. Clifford McDonald, MD • Atlanta, GA Allison McGeer, MD • Toronto. ON Leonard A. Mermel, DO, ScM • Providence, RI Robert R. Muder, MD • Pittsburgh, PA Linda Mundy, MD • Collegeville, PA Joseph M. Mylotte, MD, CIC • Buffalo, NY Jan Evans Patterson, MD • San Antonio, TX David A. Pegues, MD • Philadelphia, PA Didier Pittet, MD, MS . Geneva, Switzerland Isaam Raad, MD • Houston, TX Manfred L. Rotter, MD, DipBact • Vienna, Austria William A. Rutala, PhD, MPH • Chapel Hill, NC Lisa Saiman, MD, MPH • New York, NY Sanjay Saint, MD, MPH • Ann Arbor, MI Sorana Segal-Maurer, MD • Flushing, NY Lynne M. Sehulster, PhD • Atlanta, GA John A. Sellick, DO • Amherst, NY Andrew E. Simor, MD • Toronto, ON Philip W. Smith, MD • Omaha, NE Kurt Stevenson, MD, MPH • Columbus, OH Nimalie Stone, MD • Atlanta, GA Thomas Talbot, MD, MPH • Nashville, TN Paul Tambyah, MBBS • Singapore William Trick, MD • Chicago, IL Antoni Trilla, MD. PhD • Barcelona, Spain Robert A. Weinstein, MD • Chicago, IL Andreas Widmer, MD, MS • Basel, Switzerland Marcus Zervos, MD • Detroit, MI

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.

Permissions

Articles may be copied or otherwise reused without permission only to the extent permitted by Sections 107 and 108 of the US Copyright Law. Permission to copy articles for personal, internal, classroom, or library use may be obtained from the Copyright Clearance Center (http://www.copyright.com, email: info@copyright.com). For all other uses, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works, or for resale, please contact Cambridge University Press. Full details may be found at: www.cambridge.org/about-us/rights-permissions.

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.

INFECTION One Patient at a Time in the time of RESISTANCE



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.

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

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 Vernco 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





Cambridge Core

Access leading journals in your subject



Cambridge Core

