


Inspired by research. Driven by compassion. / Inspiré par la recherche. Guidé par la compassion.

# MANUSCRIPT PREPARATION

## HOW TO GET YOUR PAPER PUBLISHED

KATHRYN N. SUH, MD, FRCPC, CIC  
IFID IPAC 2019 CONJOINT CONFERENCE  
QUEBEC CITY, QUEBEC  
28 MAY 2019

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### DISCLOSURES

Editor, International Journal of Infection Control

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International Journal of Infection Control

Current | Archives | Announcements | About | Search

**Current Issue**

Vol 15 No 2 (2019): Second Issue 2019

Published: 2019-05-02

Information  
For Readers  
For Authors  
For Librarians

Open Journal Systems

Editorial Commentary

"Clean care for all - it's in your hands", the May 6th, 2019 World Health Organization SAVE LIVES: Clean Your Hands campaign  
Alexandra Peters, Dider Pitet, Tshen Boryakowski, Emira Tartar, Claire Kilpatrick, Safah Inaij Chun Mai, Benedetta Allegranti

[PDF](#)

Editorial

Why should developed countries care about Universal Health Coverage?  
Alexandra Peters, Marie-Anne Phan, Chloé Guizat, Dider Pitet

[PDF](#) **3**

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### OBJECTIVES

- Understand why your work should be published!
- Outline steps to maximize your chance of publication:
  - Preparing your manuscript
  - Practices to avoid
  - Dealing with rejection, and getting a second chance (revisions)



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### WHY PUBLISH?

- IPAC recommendations are stronger when supported by evidence!
- Share observations, findings, new knowledge with others
  - Understand epidemiology, natural evolution of diseases
  - Learn about new interventions (that work, or don't work)
  - Improve practice, processes, outcomes, safety
- May be required for academic appointment or promotion in some settings



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### COMPETENCIES AND PRACTICE STANDARDS

- IPAC Canada Core Competencies (2016): "collaborate with others to disseminate research findings both formally, through presentations and publication, and informally"
- APIC Practice Standards (2016): "publish and present research findings to assist in advancing the field"
- IPS Competences (2011): "share best practice through the dissemination of evidence and knowledge"

Moralejo D et al. [https://ipac-canada.org/photos/custom/pdf/2016\\_IPAC\\_Canada\\_CoreCompetenciesforICPs.pdf](https://ipac-canada.org/photos/custom/pdf/2016_IPAC_Canada_CoreCompetenciesforICPs.pdf)  
Bubb T et al. Am J Infect Control 2016;44:745; Burnett E et al. J Infect Prevention 2011;12:67

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**ARE YOU PRESENTING A POSTER?**



www.dreamstime.com 7

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**HAVE YOU PUBLISHED?**

- ▶ Implemented quality improvement initiatives in your setting
- ▶ Investigated an (uncommon) outbreak
- ▶ Evaluated a change and its impact on an outcome (or process)
- ▶ Observed an unusual case of a healthcare-associated infection
- ▶ Reviewed the literature to summarize evidence or findings about a specific topic



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**INSIDE**

- 196 Position paper: Electronic devices practice recommendations
- 198 Understanding infection control professionals' educational practice: There is more to it than meets the eye
- 204 Risk analysis of respiratory infections in facilities for patients with severe motor and intellectual disabilities in Japan
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- 216 Prevalence and risk factors of healthcare-associated infections in a Moroccan teaching hospital
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- 223 Facultative anaerobic bacteria on dentistry students' gutta-percha points: The importance of disinfection
- 227 Orthopaedic surgical site infections: A prospective cohort study

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### QUALITIES OF A GOOD MANUSCRIPT

- Your publication should be:
  - Relevant
  - Original in some way
  - Plausible (realistic)
  - Honest




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The screenshot shows a PubMed search for 'hand hygiene'. The search results list three articles:

- 1. Q. Xiao, L.H. Huang, Andrew J. Stevanovic, M. Lindsay Grayson**  
*Curr Opin Infect Dis*, 2014 Aug 27(4): 379-388. Published online 2014 Jul 2. doi: 10.1097/QCO.0000000000000080  
 PMID: 24608774  
 Article Fulltexter PDF-3316 Citation
- 2. Video observation of hand hygiene practices during routine companion animal appointments and the effect of a poster intervention on hand hygiene compliance**  
 Maureen EC Anderson, Jen M Sargeant, J Scott Wiesse  
*BMC Vet Res*, 2014, 10: 106. Published online 2014 May 2. doi: 10.1186/s12917-014-010-106  
 PMID: 246419258  
 Article Fulltexter PDF-3300K Citation
- 3. The Feedback Intervention, Trial (FIT) — Improving Hand-Hygiene Compliance in UK Healthcare Workers: A Stepped-Wedge Cluster-Randomised Controlled Trial**  
 Christopher Fuller, Susan Michie, Joanne Savage, John McAleer, Sarah Besser, Andre Charlett, Andrew Hayward, Barry D. Cookson, Ben S. Cooper, Georgia Duckworth, Annette Jeanes, Jenny

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The cover of the American Journal of Infection Control (AIC) features the title 'AIC American Journal of Infection Control' and the subtitle 'DISSEMINATION AND IMPLEMENTATION SCIENCE FOR INFECTION PREVENTION AND CONTROL'. It highlights a 'Special Issue: Hand Hygiene Awareness' for May 2019, Volume 17, Number 5. The cover lists several 'Issue Highlights':

- "Clean care for all—It's in your hands": the May 9<sup>th</sup>, 2018 World Health Organization's SAVE LIVES Clean Your Hands campaign  
 A Peters, T. Borzakowski, E. Taran, C. Kiparous, S.H.C. Ho, B. Alagappan, and D. Pittet
- The effect of incorporating covert observation into established overt observation-based hand hygiene promotion programs  
 E. Ho, L. Upton, R. Clark, J. Smith, J. Jones, and H.B. Kim
- Beyond entry and exit: Hand hygiene at the bedside  
 J.A. Woodruff, S. Leffler, S. Johnson, and K.A. Thom
- Hand hygiene before donning nonsterile gloves: Healthcare workers' beliefs and practices  
 J. Babin, K.A. Thom, E. Remeisbach, C. Rock, G. Robinson, M. Ward, L. Horowitz, and H.B. Kim
- A program to improve the hand hygiene compliance of Hong Kong practitioners with an insight into their absenteeism  
 H.L. CHIFFY Cheng and JINYI Chung
- Sleep safe in clean hands: Improving hand hygiene compliance in the operating room through education and increased access to hand hygiene products  
 E. Rock, M. Kasperowski, A. Davenport, J.A. Thompson, and B. Morgan

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### THINKING ABOUT PUBLISHING?

- A clear question that you were trying to answer, or a problem that you were trying to solve
- A reasonable idea of what has been studied on the topic in the past (literature review)
- Clear methods – a record of what you have done and how
- Clear measurements – data points, timelines, survey results, etc. with definitions where applicable
- Collaborators – you may need help with statistics, formatting, writing



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### SO HOW DO I START? I'VE NEVER DONE THIS BEFORE

- What are you writing about??
- Who should you include as a co-author?
- Develop an outline of your manuscript
  - Jot ideas, notes
- Consider making empty tables or figures at the outset
- No need to write an entire paper in one sitting, or even to write sections in order
  - Take advantage when creativity strikes!



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### PREPARING A MANUSCRIPT FOR SUBMISSION

- Most journals offer various manuscript options – e.g. original research, review, short reports, letters to the editor
- Look at published papers in journals to see how they are written



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### ARTICLE FORMATS: EXAMPLES

	CJIC (IPAC)	IJIC (IFIC)	AJIC (APIC)	JIP (IPS)
Original Articles	✓	✓	✓	✓
Reviews	✓	✓	✓	✓
Outbreak Reports	✓			
Practice Forum	✓	✓	✓	
Qual Improve't	✓			
Concise Reports	✓	✓	✓	✓
Letters to Editor	✓	✓	✓	✓
Emerging Tech	✓			
Commentary			✓	✓

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### PREPARING A MANUSCRIPT FOR SUBMISSION

- ▶ Each journal outlines specifications for word length, figures / tables, number of references – for each type of article
- ▶ **Refer to Instructions for Authors for descriptions of each**
- ▶ **Make sure you follow the instructions!!**

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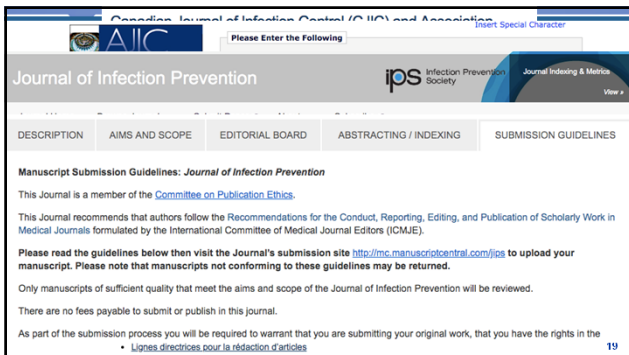
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**Journal of Infection Prevention**

DESCRIPTION | AIMS AND SCOPE | EDITORIAL BOARD | ABSTRACTING / INDEXING | **SUBMISSION GUIDELINES**

**Manuscript Submission Guidelines: Journal of Infection Prevention**

This Journal is a member of the [Committee on Publication Ethics](#).

This Journal recommends that authors follow the Recommendations for the Conduct, Reporting, Editing, and Publication of Scholarly Work in Medical Journals formulated by the International Committee of Medical Journal Editors (ICMJE).

Please read the guidelines below then visit the Journal's submission site <http://mc.manuscriptcentral.com/jip> to upload your manuscript. Please note that manuscripts not conforming to these guidelines may be returned.

Only manuscripts of sufficient quality that meet the aims and scope of the Journal of Infection Prevention will be reviewed.

There are no fees payable to submit or publish in this journal.

As part of the submission process you will be required to warrant that you are submitting your original work, that you have the rights in the

• [Lignes directrices pour la rédaction d'articles](#)

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### AUTHORSHIP

- Agree on authorship prior to starting the research if possible
- As per ICMJE, all listed authors should have:
  - Contributed substantially to the research project / execution / analysis
  - Contributed to writing and / or revising the manuscript
  - Provided final approval for manuscript publication
- All authors are accountable for the findings in the manuscript
- All should provide authorship agreement and conflict of interest declarations, and confirm prior to publication



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### CONFLICTS OF INTEREST

- Financial or personal relationships which may be seen to inappropriately bias research must be disclosed:
  - Employment or ownership of products
  - Paid honoraria
  - Funding or grants
  - Personal relationships



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### SCIENTIFIC MANUSCRIPT FORMAT

- Most original research papers will follow a format that includes:
  - Title (title page)
  - Key words
  - Abstract
  - Introduction or Background: briefly, why is this study needed?
  - Methods: what did we do (and how)?
  - Results: what did we find?
  - Discussion: what does it all mean?



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### THE TITLE IS KEY FOR READERS

- The title is the most accessible part of the paper
  - Readers will see title (+/- abstract) and decide if they will read it
  - Electronic databases (e.g. PubMed) use words in titles
- Use keywords in your title
  - Include study design (e.g. "A retrospective cohort study of.....")
  - Do not use abbreviations
- Running head title (short version title)



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### KEY WORDS

- Some journals will ask authors for key words (or phrases)
  - MeSH term (Medical Subject Headings) - National Library of Medicine indexing ([www.nlm.nih.gov/mesh/](http://www.nlm.nih.gov/mesh/))
  - Journals may provide a key word menu
- Words used in title or abstract are more likely to identify your paper
- Avoid unique or outdated terms – you want your paper to be found



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### THE TITLE

- Hand hygiene reduces transmission of methicillin-resistant *Staphylococcus aureus*  
OR  
Impact of hand hygiene on transmission of methicillin-resistant *Staphylococcus aureus*: a cluster randomized trial
  - Running head: hand hygiene and MRSA transmission
- How to successfully submit your first manuscript – what journal editors look for
  - Running head: submitting your first manuscript



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### TITLE AND KEY WORDS

Impact of hand hygiene on transmission of methicillin-resistant *Staphylococcus aureus*: a cluster randomized trial

Key words: hand hygiene, MRSA, transmission, cluster randomized trial



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### ARE CONTACT PRECAUTIONS REQUIRED FOR MRSA?

- The impact of discontinuing isolation for patients with MRSA
- The impact of discontinuing contact precautions for patients with MRSA



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PubMed | Search

1. [Detection and molecular characterization of Livestock-Associated MRSA in raw meat on retail sale in North West England.](#)  
Fitz A, Pithon B, Wilkinson H, Doumith M, Hill RL, McLaughlin J, Keane AM. *Lett Appl Microbiol*. 2017 Mar;54(3):239-243. doi: 10.1111/lam.12709. Epub 2017 Jan 26. PMID: 28281910

2. [Differences in MRSA prevalence and resistance patterns in a tertiary center before and after joining an international program for surveillance of antimicrobial resistance.](#)  
Djuric O, Jovanovic S, Stosovic B, Trajk T, Jovanovic M, Nardic N, Todorovic J, Markovic-Denic L. *Asia Pac J Trop Biomed*. 2017 Jun 1;8(4):165-177. doi: 10.15562/23.03.2016.017. Epub 2016 Dec 8. PMID: 27920554

3. [Frequent isolation of methicillin resistant \*Staphylococcus aureus\* \(MRSA\) ST398 among healthy pigs in Portugal.](#)  
Correia T, de Lencastre H, Aires-de-Sousa M. *PLoS One*. 2017 Apr 11;12(4):e0175340. doi: 10.1371/journal.pone.0175340. eCollection 2017. PMID: 28381956

4. [Hospital-associated MRSA and antibiotic resistance-what have we learned from genomics?](#)  
Lindsay JA. *Int J Med Microbiol*. 2013 Aug;303(6-7):319-23. doi: 10.1016/j.ijmm.2013.02.005. Epub 2013 Mar 15. Review. PMID: 23429479

5. [Methicillin-resistant \*Staphylococcus aureus\* bacteria: past, present, and future.](#)  
Rodwell KA, McConnelly KW. *Clin Infect Dis*. 2014 Jan;58 Suppl 1:S20-7. doi: 10.1093/cid/cit484. Review. PMID: 24430503

6. [Methicillin-resistant \*Staphylococcus aureus\* among animals: current overview.](#)  
Aires-de-Sousa M. *Clin Microbiol Rev*. 2017 Jun;23(6):1373-380. doi: 10.1128/cmr.2016.11.002. Epub 2016 Nov 13. Review. PMID: 27822897

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ABSTRACTS

- Two formats:
  - Structured: Background or Problem; Methods; Results; Discussion or Conclusions
  - Unstructured: single paragraph




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Understanding infection control professionals' educational practice:

**ABSTRACT**

**Background:** There is a paucity of research exploring infection control professionals' (ICPs) educational practice and the daily challenges they face in providing education to change healthcare worker (HCW) behaviour and promote patient safety. Without closer examination of educational practice, ICPs cannot critically reflect on what, how, or why their educational approaches need to be improved or changed.

**Methods:** This research was conducted as part of a larger Design-Based Research study that looked at building ICP educational practice and culture within the Alberta Health Services (AHS) Infection Prevention and Control (IPAC) program. AHS ICP educational practice was explored using an online survey questionnaire, a focus group interview, and field observations of ICP educational practice. A qualitative-systematic methodology was used to identify interconnected themes regarding ICP educational practice.

**Results:** Education is considered important and central to ICPs' professional practice. Despite its importance, ICPs are frustrated with the quality and effectiveness of the education they provide and seek ways to build their educational expertise. Four themes emerged in this study: the ICPs' role as educator, circumstances influencing educational practice, educational strategies, and educational outcomes. These themes, along with their associated influences and challenges, illustrate the multifaceted nature of ICP educational practice in the AHS IPAC program.

**Discussion:** ICP educational practice is more complex than the IPAC educational research literature suggests. This study provides a detailed understanding of that practice and the multiple issues and processes involved in it. Making the complexity of ICP educational practice explicit validates ICPs in their role as educators and provides a foundation from which to build their educational expertise. Although ICPs are frustrated with the quality and outcomes of their education, their insights into their educational practice challenges indicate they are primed for change. ICPs seek innovative professional development experiences to change and build their educational expertise.

**KEYWORDS**  
infection prevention and control, education, teaching and learning, professional

**Measures**  
educational practice in the AHS IPAC program.  
**Discussion:** ICP educational practice is more complex than the IPAC educational research literature suggests. This study provides a detailed understanding of the practice and the multiple issues and processes involved in it. Making the complexity of ICP educational practice explicit validates ICPs in their role as educators and provides a foundation from which to build their educational expertise. Although ICPs are frustrated with the quality and outcomes of their education, their insights into their educational practice challenges indicate they are primed for change. ICPs seek innovative professional development experiences to change and build their educational expertise.

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Implementing an Antibiotic Stewardship Program: Guidelines by the Infectious Diseases Society of America and the Society for Healthcare Epidemiology of America

Tamar B. Barlam,<sup>1,4</sup> Sara E. Cosgrove,<sup>2,4</sup> Lillian M. Abbo,<sup>2</sup> Conna MacDougall,<sup>4</sup> Audrey N. Schuetz,<sup>3</sup> Edward J. Septimus,<sup>4</sup> Arjun Srinivasan,<sup>4</sup> Timothy H. Dellit,<sup>4</sup> Yagye I. Falck-Ytter,<sup>4</sup> Neil O. Fishman,<sup>5</sup> Cindy W. Hamilton,<sup>6</sup> Timothy C. Jenkins,<sup>7</sup> Pamela A. Lipsitt,<sup>8</sup> Preeti N. Malani,<sup>1,4</sup> Larissa S. May,<sup>9</sup> Gregory J. Moran,<sup>10</sup> Melinda M. Neuhauser,<sup>11</sup> Jason G. Newland,<sup>12</sup> Christopher A. Ohl,<sup>13</sup> Matthew H. Samore,<sup>14</sup> Susan K. Seo,<sup>15</sup> and Kavita K. Trivedi<sup>16</sup>

<sup>1</sup>Section of Infectious Diseases, Boston University School of Medicine, Boston, Massachusetts; <sup>2</sup>Division of Infectious Diseases, Johns Hopkins University School of Medicine, Baltimore, Maryland; <sup>3</sup>Division of Infectious Diseases, University of Miami Miller School of Medicine, Miami, Florida; <sup>4</sup>Department of Clinical Pharmacy, School of Pharmacy, University of California, San Francisco; <sup>5</sup>Department of Medicine, Weill Cornell Medical Center/New York-Presbyterian Hospital, New York, New York; <sup>6</sup>Department of Internal Medicine, Texas A&M Health Science Center College of Medicine, Houston; <sup>7</sup>Division of Healthcare Quality Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia; <sup>8</sup>Division of Allergy and Infectious Diseases, University of Washington School of Medicine, Seattle; <sup>9</sup>Department of Medicine, Case Western Reserve University and Veterans Affairs Medical Center, Cleveland, Ohio; <sup>10</sup>Department of Medicine, University of Pennsylvania Health System, Philadelphia; <sup>11</sup>Hamilton House, Virginia Beach, Virginia; <sup>12</sup>Division of Infectious Diseases, Denver Health, Denver, Colorado; <sup>13</sup>Department of Anesthesiology and Critical Care Medicine, Johns Hopkins University Schools of Medicine and Nursing, Baltimore, Maryland; <sup>14</sup>Division of Infectious Diseases, University of Michigan Health System, Ann Arbor; <sup>15</sup>Department of Emergency Medicine, University of California, Davis; <sup>16</sup>Department of Emergency Medicine, David Geffen School of Medicine, University of California, Los Angeles Medical Center, Sijmanc; <sup>17</sup>Department of Veterans Affairs, Hines, Illinois; <sup>18</sup>Department of Pediatrics, Washington University School of Medicine in St. Louis, Missouri; <sup>19</sup>Section on Infectious Diseases, Wake Forest University School of Medicine, Winston-Salem, North Carolina; <sup>20</sup>Department of Veterans Affairs and University of Utah, Salt Lake City; <sup>21</sup>Infectious Diseases, Memorial Sloan-Kettering Cancer Center, New York

Evidence-based guidelines for implementation and measurement of antibiotic stewardship interventions in inpatient populations including long-term care were prepared by a multidisciplinary expert panel of the Infectious Diseases Society of America and the Society for Healthcare Epidemiology of America. The panel included clinicians and investigators representing internal medicine, emergency medicine, microbiology, critical care, surgery, epidemiology, pharmacy, and adult and pediatric infectious diseases specialties. These recommendations address the best approaches for antibiotic stewardship programs to influence the optimal use of antibiotics.

**Keywords:** antibiotic stewardship, antibiotic stewardship programs, antibiotics, implementation.

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### INTRODUCTION OR BACKGROUND

- First section of text that readers will look at; concise but informative
- Start broadly and narrow to your specific question
- Should provide information to set the context for your manuscript:
  - What is the issue?
  - What is already known about the subject?
  - What is the (unknown) question that you are trying to answer?
- Clearly state the study objective / hypothesis, and study design




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## Hospital-acquired gastroenteritis at a referral hospital in Gaborone, Botswana

Henry D. Welch<sup>1</sup>, David M. Goldfarb<sup>2,3,4,5</sup>, Banno Moorad<sup>2</sup>, Margaret Mokomane<sup>1</sup>, Marek Smieja<sup>1</sup>, Unoda Chakalisa<sup>1</sup>, Andrew P. Steenhof<sup>1,2,3</sup>, Rodney Finalle<sup>1</sup>, Susan E. Coffin<sup>1</sup>

<sup>1</sup>Children's Hospital of Philadelphia, Philadelphia, PA, United States  
<sup>2</sup>Botswana-UPenn Partnership, Gaborone, Botswana  
<sup>3</sup>The University of Botswana, Gaborone, Botswana  
<sup>4</sup>McMaster University, Hamilton, Canada  
<sup>5</sup>University of British Columbia, Vancouver, Canada  
<sup>6</sup>Botswana Harvard AIDS Institute, Gaborone, Botswana

Welch HD et al. *Int J Infect Control* 2017;13

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#### Background

Hospital-acquired infections (HAI), including hospital-acquired gastroenteritis (HAGE) are well documented in European and Western countries.<sup>11</sup> Although less frequently studied than HAI due to medical device or surgical procedures, HAGE occurs frequently related to both endemic transmission as well as outbreaks. A United Kingdom study found 30% of all episodes of acute gastroenteritis (AGE) among hospitalized patients were healthcare acquired and that rotavirus was the most common cause (31%).<sup>12</sup> Other studies documented that rotaviruses accounted for up to 87% of pediatric HAGE cases.<sup>13</sup> A recent meta-analysis found that the incidence of healthcare-associated rotavirus infections was 8.1 per 100 hospitalizations for children under two years of age during epidemic months,<sup>14</sup> however a single centre study suggested that the introduction of the rotavirus vaccine was associated with a substantial reduction in the incidence of both community and hospital-acquired rotavirus.<sup>15</sup> Our understanding of the aetiology of pediatric HAGE other than rotavirus is limited.

Few studies have examined the epidemiology of paediatric HAI in Africa or other regions of the developing world. One prospective study performed in South Africa found that 14.3% of hospitalized children developed an HAI and that GE was the second most common type of HAI, accounting for 13.4% of paediatric HAI cases.<sup>16</sup> However, this study did not report the etiological agents causing HAGE or examine potential modifiable risk factors for implementing World Health Organization's (WHO) generic protocols for hospital and community-based

surveillance of rotavirus GE found a rotavirus infection rate of 4.6 per 1000 child-days.<sup>17</sup>

The aim of this prospective cohort study of children hospitalized at a large academic hospital in Botswana was to determine the incidence and aetiology of HAGE, and explore potential modifiable risk factors for infection. This project was conducted in parallel with an ongoing study of community-acquired gastroenteritis (CAGE).<sup>18</sup>

Welch HD et al. *Int J Infect Control* 2017;13

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**METHODS**

- Well written methods will allow your study to be clearly understood by others
- Depending on the study, include items such as:
  - Study design
  - Setting (describe; where, what unit, time frame)
  - Participants or subjects: eligibility criteria and exclusion criteria
  - Subject recruitment or selection, randomization, blinding (single, double)
  - Treatment regimens or intervention – also safety monitoring



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**METHODS**


- May include items such as:
  - Laboratory methods
  - Outcomes (primary, secondary, defined if required) – what are they and how are they to be measured or assessed?
  - Statistical methods including sample size
- Always include an ethics statement



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**Methods**

*Study design, setting, and population*

*Case finding*

*Data collection*

*Measured outcomes*

*Statistical analysis*

paediatric ward. This study was approved by Ethics Boards of Botswana's Ministry of Health, Princess Marina Hospital, and The Children's Hospital of Philadelphia. Written informed consent was obtained from a caregiver for each participant.

Welch HD et al, Int J Infect Control 2017;13

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Meyers CL et al. Can J Infect Control. 2018;33:188

**MATERIALS AND METHODS**

The research and data collection methods reported in this paper took place within the context of a more complex Design-Based Research (DBR) study described in the second paper in this series [15]. The data analyzed in this paper were collected over six months (from mid-April to mid-October 2016) within the AHS IPAC program. An online survey questionnaire, a focus group interview, and field observations of ICP education sessions were used to collect data. Study participants for the survey were recruited via email from a convenience sample of all full-time ICPs employed by AHS. Participants for the focus group and field observations consisted of a smaller subset of ICPs who were recruited separately by email from the same convenience sample to participate in a Community of Learning educational professional development experience.

The survey included a mix of demographic, structured, and closed and open-ended questions. Modifications were made to the survey based on feedback from pilot testing. The focus group was conducted with a small group of ICPs who were participating in an educational professional development experience using a guide with open-ended questions. Focus group questions were designed to align with and build upon survey questions to gain a deeper understanding of ICP educational experiences, expertise, beliefs, attitudes, and educational practices. This alignment allowed for cross-checking of ideas and interpretations of findings that emerged from the survey.

Survey and focus group data, which are based on self-report, were subject to the risk of participants under- or over-reporting issues. To address this concern, field observations of the educational activities of the subset of ICPs who participated in

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### METHODS: GUIDELINES / CHECKLISTS

- Studies may be (some are required to be) registered and use reporting guidelines (some studies and journals may require these):
  - Search strategies (e.g. for systematic reviews)
  - Study registration (e.g. PROSPERO, clinical trials registries)
  - Application of reporting guidelines ([www.equator-network.org](http://www.equator-network.org))




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### REPORTING GUIDELINES

- Use reporting guidelines where appropriate ([www.equator-network.org](http://www.equator-network.org))

The screenshot shows the EQUATOR network website. At the top, it says "Enhancing the QUALity and Transparency Of health Research". Below that is a navigation menu with "Home", "Library", "Toolkits", "Courses & events", "News", "Blog", "About us", and "Contact". The main content area is titled "Essential resources for writing and publishing health research". It features a "Library for health research reporting" section with a search bar and a "Reporting guidelines for main study types" section. This section lists various study types and their corresponding reporting guidelines:

Randomised trials	CONSORT	Extensions	Other
Observational studies	STROBE	Extensions	Other
Systematic reviews	PRISMA	Extensions	Other
Case reports	CARE	Extensions	Other
Qualitative research	SRQR	COREQ	Other
Diagnostic / prognostic studies	STARD	TRIPOD	Other
Quality improvement studies	SQUIRE		Other
Economic evaluations	CHEERS		Other
Animal pre-clinical studies	ARRIVE		Other

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http://www.equator-network.org/wp-content/uploads/2012/12/SQUIRE-2.0-checklist.pdf

Methods	What did you do?
7. Context	Contextual elements considered important at the outset of introducing the intervention(s)
8. Interventions(s)	a. Description of the intervention(s) in sufficient detail that others could reproduce it b. Specifics of the team involved in the work
9. Study of the Intervention(s)	a. Approach chosen for assessing the impact of the intervention(s) b. Approach used to establish whether the observed outcomes were due to the intervention(s)
10. Measures	a. Measures chosen for studying processes and outcomes of the intervention(s), including rationale for choosing them, their operational definitions, and their validity and reliability b. Description of the approach to the ongoing assessment of contextual elements that contributed to the success, failure, efficiency, and cost c. Methods employed for assessing completeness and accuracy of data
11. Analysis	a. Qualitative and quantitative methods used to draw inferences from the data b. Methods for understanding variation within the data, including the effects of time as a variable
12. Ethical Considerations	Ethical aspects of implementing and studying the intervention(s) and how they were addressed, including, but not limited to, formal ethics review and potential conflict(s) of interest
Results	What did you find?

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### RESULTS

- Do not include additional methods or interpretation in Results section
- Flow charts and algorithms may help
- Tables may help
- Findings: ensure that the outcomes reported reflect what the goal of the study is, and the outcomes of interest identified in the Methods
  - Measures of statistical significance: 95% CIs (or P-value)



Affiliated with: Affiliés à:  46

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### A WORD ABOUT TABLES AND FIGURES

- Tables and figures should supplement your text but should not reiterate what you have written (or vice versa)
  - More is not better!**

All children had diarrhoea at the time of onset of HAGE and 14 (44%) also had vomiting. Mucus in the stool was reported by the parents of 25 (78%) children. Only two (6%) had blood in the stool. The median length of stay prior to onset of HAGE was six days (IQR 4, 12) (Table III). Of the 32 children who developed HAGE, 10 (31%) were admitted for respiratory conditions. Other reasons for admissions are shown in Table II.

Characteristic	Overall
Vomiting	14 (44%)
Diarrhea	32 (100%)
Blood in stool	2 (6%)
Mucous in stool	25 (78%)
Number of days in hospital until gastroenteritis started	
Mean (SD)	10.4 (10.1)
Median (IQR)	6 (4,12)

Welch HD et al, Int J Infect Control 2017;13

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### TABLES AND FIGURES

- Decide which content is suitable for Tables and Figures (note set limits)
- Tables and Figures should be "stand alone"
- Provide a legend for abbreviations used in both
- Tables:
  - Often for abundant information that cannot be readily summarized in writing
- Figures:
  - Axis labels and legends for graphs



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### DISCUSSION

- Summarize your main findings (results) – answer your research question!
  - Do not repeat all of your results or present new results in the Discussion
- Interpret your findings and put them into context with those of other similar studies
  - Why might your results differ from those of other authors
  - Discuss reasons why your results may not have been as expected



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### DISCUSSION

- Strengths and limitations of your research
- Implications of your findings
- "In conclusion, ....."



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**Discussion**

In this paediatric ward in sub-Saharan Africa, we found that HAGE was relatively common and appeared to be associated with severe outcomes, including death. Although limited resources, including space and hand hygiene stations, were common during the three days prior to most cases of HAGE, only the number of CAGE admissions was significantly associated with risk of HAGE. Additional studies will be needed to identify whether these factors were associated with an increased risk of HAGE onset.

The aim of this prospective cohort study of children hospitalized at a large academic hospital in Botswana was to determine the incidence and aetiology of HAGE, and explore potential modifiable risk factors for infection. This project was conducted in parallel with an ongoing study of community-acquired gastroenteritis (CAGE).<sup>9</sup>

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**Discussion**

In this paediatric ward in sub-Saharan Africa, we found that HAGE was relatively common and appeared to be associated with severe outcomes, including death. Although limited resources, including space and hand hygiene stations, were common during the three days prior to most cases of HAGE, only the number of CAGE admissions was significantly associated with risk of HAGE. Additional studies will be needed to identify whether these factors were associated with an increased risk of HAGE onset.

Most children with HAGE were under two years old (94%). Viral pathogens (norovirus and rotavirus) were the most common pathogens isolated. Not surprisingly, the incidence of HAGE increased from June to November (Figure 1) mirroring the peak season for CAGE cases and corresponding to the rotavirus season in Botswana.<sup>9</sup> Of note, 18% of the tested stools were positive for rotavirus, suggesting that rotavirus HAGE may arise as a consequence of patient-to-patient transmission during times of

The aim of this prospective cohort study of children hospitalized at a large academic hospital in Botswana was to determine the incidence and aetiology of HAGE, and explore potential modifiable risk factors for infection. This project was conducted in parallel with an ongoing study of community-acquired gastroenteritis (CAGE).<sup>9</sup>

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**REFERENCES**

- Some journals or manuscript formats will have limits
- Statements in your manuscript derived from other original research should be referenced in the text
  - Reference the original publication
- Verify your references
- Format according to Instructions for Authors
  - Many journals will use the ICMJE Recommendations

 The Ottawa Hospital | L'Hôpital d'Ottawa

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### PRACTICES TO AVOID

- Publishing previously published work (by you, or others)
- **Plagiarism**
- **Falsified results**
- Undeclared conflict(s) of interest
- Lack of ethics approval for any research (qualitative, quantitative) involving human subjects
- Concerns re: treatment of human or animal subjects during research
- Author conflicts



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### PAY ATTENTION!!!

- Format your submission as outlined in Instructions for Authors
- Use correct grammar and consistent tenses
- Use consistent language – i.e. do not introduce synonyms (hand hygiene, hand washing; specimen, culture, swab)
- Be consistent with reporting of results (e.g. number of decimal points, formatting, formatting tables, etc.)



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### OTHER COMMENTS

- Simple language is better
  - Shorter words, shorter sentences



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### A FICTITIOUS EXAMPLE

- Surgical site infections, which were highest in patients undergoing cardiac surgery and in whom antibiotic prophylaxis was not utilized, occurred at a rate of 8.3 per 100 procedures and most (75%) developed within the first 30 days of surgery, with the risk being lowest in patients who had elective surgery and who had not been hospitalized in the past 30 days.
- Surgical site infections (SSIs) occurred at a rate of 8.3 per 100 procedures. Most (75%) developed within 30 days of surgery. Infections were most common in cardiac surgery patients and those who did not receive antibiotic prophylaxis. The risk of SSI was lowest in patients who had elective surgery and had



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### OTHER COMMENTS

- Simple language is better
  - Shorter words, shorter sentences
- Longer text is not better
  - Avoid repetition for sake of lengthening a manuscript
  - Be as concise as possible
- More tables, figures, references are not better
  - Exhaustive tables, reference lists and citations do not indicate a stronger quality manuscript

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### OTHER COMMENTS

- Language (or content) review
  - Especially if the journal language is not your first language!
- Formatting

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## SELECTING A JOURNAL

- ▶ Who is the audience for your research?
  - Where has similar research been published previously?
  - General interest or specialty interest?
  - Impact factor?
  - Indexed or not?
  - Open access or not?
  - Will it cost you money?
- ▶ Make sure your journal is legitimate




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The screenshot shows the PubMed website interface. At the top, there is a search bar with 'PubMed' entered and a 'Search' button. Below the search bar, a banner reads: 'PubMed comprises more than 29 million citations for biomedical literature from MEDLINE, life science journals, and online books. Citations may include links to full-text content from PubMed Central and publisher web sites.' The main content area is divided into three columns: 'Using PubMed' (with links like 'PubMed Quick Start Guide', 'Full Text Articles', 'PubMed FAQs', 'PubMed Tutorials', 'New and Noteworthy'), 'PubMed Tools' (with links like 'PubMed Mobile', 'Single Citation Matcher', 'Batch Citation Matcher', 'Citation Quizzes', 'Topic-Specific Quizzes'), and 'More Resources' (with links like 'MeSH Database', 'Journals in NCBI Databases', 'Clinical Trials', 'EUtilities (API)', 'LinkOut'). There are also sections for 'Latest Literature' and 'Trending Articles'.

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The screenshot shows the NLM Catalog search results for 'infection control'. The page title is 'NLM Catalog | infection control'. It includes a search bar and a 'Create alert' button. The search results are displayed in a list format. The first result is 'Infection, disease & health' with a sub-entry for 'Australasian College for Infection Prevention and Control'. The second result is 'GMS hygiene and infection control' with a sub-entry for 'Deutsche Gesellschaft für Krankenhaushygiene'. The third result is 'Antimicrobial resistance and infection control' with a sub-entry for 'Antimicrob Resist Infect Control'. The page also shows filters for 'Currently indexed' and 'Referenced in the NCBI DBs'. The page number '62' is visible at the bottom right.

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**IMPACT FACTOR**

- Does not reflect the quality of a paper; simply identifies a measure of how widely cited it was (proxy)
- Nature, 2017:

$$IF_{2017} = \frac{Citations_{2016} + Citations_{2015}}{Publications_{2016} + Publications_{2015}} = \frac{32389 + 41701}{880 + 902} = 41.577$$




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**SUBMITTING YOUR MANUSCRIPT**

- Ensure that manuscript is formatted as required by the journal
- Most journals have electronic editorial platforms accessible on the journal's website
  - Step by step guide with instructions
- Include a cover letter asking for review (briefly state why this manuscript is important and why it is relevant to the journal)




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**IF YOU ARE ASKED FOR REVISIONS:**

- Read reviewer comments and address all comments:
  - Make changes if indicated, and respond to reviewer queries
  - Journals may request tracked changes, and a "clean" copy
  - Ensure all coauthors are included in revisions
  - Resubmit as per website instructions, within allotted timeframe (if given)
- Include letter to editor responding to reviewer comments
  - Be polite and respectful, even if you disagree with their comments




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### IF YOUR MANUSCRIPT IS REJECTED

- Don't give up – most of us have been rejected at some point!
- If you received reviewer comments, use these to improve your manuscript and try again elsewhere



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### IF YOUR MANUSCRIPT IS ACCEPTED

- You will receive notification from the journal
- Manuscript will be sent for copy editing
- You will receive proofs prior to publication – last chance to correct significant errors
  - Confirmation of authors



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### OBJECTIVES

- Understand why your work should be published!
- Outline steps to maximize your chance of publication:
  - Preparing your manuscript
  - Practices to avoid
  - Dealing with rejection, and getting a second chance (revisions)



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### USEFUL REFERENCES

- Equator network: [www.equator-network.org](http://www.equator-network.org)
- International Committee of Medical Journal Editors: [www.icmje.org](http://www.icmje.org)
- MacDonald NE et al. Preparing a manuscript for publication: A user-friendly guide. Paediatr Child Health 2006;11:339.
- Kotz D and Kals JWL. Writing tips series parts I-XII. J Clin Epidemiology 2013-2014
  - These are one page tips on each step of manuscript preparation



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### JOURNALS AND WEBSITES

- Canadian Journal of Infection Control: <https://ipac-canada.org/online-journal.php>
- International Journal of Infection Control: [www.ijic.info](http://www.ijic.info)
- American Journal of Infection Control: [www.ajicjournal.org](http://www.ajicjournal.org)
- Journal of Infection Prevention: <https://journals.sagepub.com/pubs/bj>
- Other considerations: Infection Control and Hospital Epidemiology, Journal of AMMI (Canada), Journal of Hospital Infection, Antimicrobial Resistance and Infection Control, Canadian Communicable Diseases Report.....



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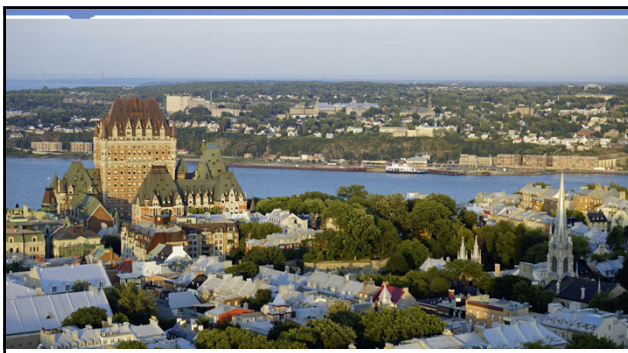
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