

EDITORIAL

Infection Control: why our journals are important

Suzanne F. Bradley, M.D.¹

¹Program Director, Infection Control & Physician Scientist Infectious Diseases Section & Geriatric Research Education and Clinical Center. VA Ann Arbor Healthcare System. Professor of Internal Medicine Divisions of Infectious Diseases & Geriatric Medicine and Palliative Care Department of Internal Medicine University of Michigan Medical School Ann Arbor, Michigan.

sbradley@umich.edu

Many societies have sought to improve the health of its citizens through major public health initiatives with the ultimate goal of providing universal access to health care. Increased access can lead to improvement in health, but at substantial cost and often with unintended consequences. It has been shown that hospitals consume a disproportionate amount of public healthcare expenditures particularly in low and middle-income countries¹.

Healthcare associated infections (HAIs) are a significant patient-safety issue. Per the World Health Organization, 1.4 million people worldwide will have an HAI at any given time.² In the United States (US), 5-10% of hospitalized patients will acquire an HAI during their stay.³ These infections account for 2 million patients and 90,000 deaths per year at a cost of \$4.5-5.7 billion US dollars.³ HAIs are one of the most common adverse outcomes world-wide. It has been estimated that 6-17% of patients in resource-limited countries will develop an HAI and the risk of HAIs in those settings may be 2-20 fold higher than in the developed world.^{1,4}

Data from a national program for monitoring and control in Brazil suggests that HAIs are an important problem that is only likely to increase as access to healthcare continues to improve.^{1,5} In three teaching hospitals from the State of Rio de Janeiro, 7.6% of patients had an adverse event, 14.6% of events were due to a health-care associated infection (HAIs), and 67% of events were deemed preventable.^{6,7} Antimicrobial resistance has been a major and increasing problem. Efforts to reduce over-the-counter use and improve antimicrobial use through antimicrobial stewardship are pressing issues.⁸ In the past, it was estimated that \$1.4 billion per year could be saved in South America and 2.3 excess days of hospital stay in Brazil if effective infection control programs were established across the continent and nationwide.⁹ While the situation has

improved since 1983, and most hospitals have some infection control activity and trained personnel, access to surveillance data, microbiology support, and resources to implement control measures effectively is still limited in some regions.^{8,10,11}

Healthcare infections can be prevented with significant reductions in cost, and the message has been slowly spreading worldwide. Since the 1970's, it has been shown that more than one-third of all hospital infections can be prevented by a program that includes: surveillance for HAIs and methods to prevent and control them, feedback of infection rates to surgeons, provision of an infection control nurse for every 250 acute care beds, and presence of a physician with training in infection control.^{1,12,13} National surveillance studies and infection control guidelines that began in the US gained momentum at national levels in Europe in the 1990s and regionally thereafter.¹⁴ Through the collaborative effort of 18 countries using a standard surveillance network, the International Nosocomial Infection Control Consortium has greatly increased our understanding of the incidence and prevalence of HAIs in resource-limited settings.⁴ In 2005, WHO launched its "Clean Care is Safer Care" campaign for resource-limited healthcare facilities through improvements in hand hygiene, blood safety, immunization and injection practices, emergency and surgical procedures, and sanitation, water, and waste management.^{9,15}

How can peer-reviewed journals help improve infection control programs and reduce HAIs? The discipline of Infection Control is, by its very nature, data-driven and evidence-based. Journals can provide information that can be used to convince hospital leaders and governmental authorities that evidence-based infection control resources and interventions reduce HAIs and the cost of those infections.^{4,16} Data from journal articles can

be used as a reference for the development of infection control policies, procedures, and educational initiatives. Information from journal articles can be used to understand how infection rates at one institution compares with benchmark rates from similar institutions. Finally, peer-review journals can appraise its readership about studies that advance the field of infection control.

One might think that a small discipline such as Infection Control would require few journals, but that assumption is erroneous. Healthcare systems are not the same. They reflect cultural and socio-economic preferences and differ widely in their organizational structure and scope, management style, resources, priorities, and needs.¹⁷ The prevalence of microorganisms and the problems caused by them can change from state to state, region to region, and country to country. All infection control interventions may not work in different settings or may need to be implemented in different ways. Journals may not be readily available or translated so that all infection control practitioners and healthcare epidemiologists have access to that information.^{4,11,14} The emergence of the electronic

journal has increased access to information for many, but not all.

It is therefore important to “think globally, but act locally” (Marcel). As Professor Wey said almost 15 years ago, that “...the development of local research in all areas of infection control is an important link in adapting data from the literature to local reality”.¹¹ The productivity of Brazilian scientists has increased markedly over the past decade exceeding the output of China, India, Mexico, and the Russian Federation and accounting for 2.7% of global publications in peer-review journals.¹⁸ Brazil has been the leading contributor outside of North America to *Infection Control and Hospital Epidemiology*. So, there clearly is an abundance of infection control data that needs to be published. This information needs to be disseminated as widely and as quickly as possible to all infection control practitioners at local as well as international levels. When armed with the evidence, infection control experts will be prepared to make a case for infection control in their workplaces and improve the quality and safety of the care delivered to their patients.

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