CANADIAN PATIENT SAFETY INSTITUTE

Antimicrobial Resistance; A Serious Public Health and Patient Safety Issue

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Antimicrobial Resistance; A serious threat to public health and patient safety

Introduction

Patients should never have to worry about acquiring an infection in a hospital, and those that do shouldn't have to worry that treatment may be ineffective.

Resistance to antimicrobial medications is happening in all parts of the world for a broad range of microorganisms, with an increasing prevalence that threatens public health and patient safety. In Canada, hospital acquired infections are rising and the rates of Antimicrobial Resistance (AMR) continue to exceed those of the early 2000s, placing more Canadians at risk of these preventable patient safety incidents.

Every year, 220,000 Canadian patients (approximately one in nine) will develop a hospital-acquired infection during their stay, and an estimated 8,000 of those patients will lose their lives. Furthermore, the cost to treat hospital-acquired infections is estimated to be more than $100 million annually.

Why is AMR critical to patient safety?

The direct consequences of Healthcare Associated Infections (HAI) with resistant microorganisms, is a significant patient safety issue; AMR infections can lead to longer illnesses, prolonged stays in hospital, further medical complications and increased mortality rates.

The indirect impact of AMR, however, extends beyond increased health risks and has many consequences with wide implications, including increased costs to the health care system, constraints on hospital resources, increased wait times and risks to the health of other patients, visitors and families.

What is Canada doing to address AMR?

In October 2014, the Government of Canada launched the *Antimicrobial Resistance and Use in Canada: A Federal Framework for Action*. The Framework maps out a coordinated, collaborative federal approach to responding to the threat of AMR.

While a significant amount of work has been undertaken through this Action Plan, including contributions from the Canadian Patient Safety Institute (CPSI), the Public Health Agency of Canada, HealthCare*CAN*, Infection Prevention and Control Canada and other national organizations, Canada has seen slow progress on reducing risks of AMR. Additionally, coordination with provincial and territorial governments has been inconsistent.

How CPSI is supporting the AMR challenge

CPSI works with governments, health organizations, leaders, healthcare providers, patients and the public to inspire extraordinary improvement in patient safety and quality. CPSI's primary roles are as collaborator, partner, knowledge broker and educator. Through our awareness campaigns, quality improvement offerings and capacity building activities, CPSI spreads information and supports the implementation of best practices with all jurisdictions across the country and is contributing patient safety expertise and support to national AMR activities.

CPSI's recent efforts focused on infection prevention and control and AMR include;

- Infection Prevention and Control Expert Working Group; CPSI contributes by offering advice in the development of infection prevention and control measures that assist healthcare organizations and complement provincial / territorial public health efforts.

- Antimicrobial Stewardship (AMS) Canada Steering Committee is developing a Canadian multi-sectoral Antimicrobial Stewardship Action Plan, spanning hospital, long-term care and community settings.

- AMR Prevention and Control Task Group; as an active member, CPSI is supporting the development of the pan-Canadian framework and action plan which is guided by an F/P/T steering committee.

- STOP! Clean Your Hands Day; a national public awareness campaign aimed at care providers and the public to raise awareness of the importance of proper hand hygiene – a proven method of infection prevention.

Next Steps

Every infection prevented is one that needs no treatment. Prevention of infection can be cost effective and implemented in all settings and sectors, even where resources are limited. CPSI, along with our partners have identified 'good data' as one of our top priorities in the battle against infections.

Strengthening AMR surveillance is critical, as it is the basis for informing strategies, monitoring the effectiveness of interventions and detecting new trends and threats (WHO, 2014)[1]. In Canada, there are multiple surveillance systems at different levels of government collecting data on infections in various settings such as hospitals and long term care facilities. However, based on expert stakeholder consensus achieved through CPSI's Infection Prevention and Control Action Plan[2], these systems could benefit from better integration and coordination, to reduce the gaps in current assessments of HAIs and AMR.

Recommendations

CPSI believes that a better understanding of the challenges with existing data and data sources is needed in order to develop a pan-Canadian approach to resolving AMR. Consistent methodology defining HAI's, and a central pan-Canadian repository for the collection and analysis of infections are essential. It is essential for the proper assessment of the impact of HAI and antimicrobial resistance, and to generate data that are comparable across sectors/provinces/territories. These data can be used to focus resources and improvement efforts at both systems and local levels.

For this goal to become a reality, several steps need to be achieved:

1. Identification of a standardized pan-Canadian set of case definitions for healthcare-associated infections. Currently, data collection is inconsistent between organizations.

2. Widespread adoption and application of these definitions across the country. Currently, there is not a consistent approach across provinces/territories or within some provinces for how infections are defined and measured.

3. Once there is consistency across the Canadian health system on how infections are defined, the next goal would be to establish a pan-Canadian repository to collect, analyze and report healthcare-associated infections.

Successful implementation of these measures will require a commitment from the federal government in order to obtain provincial buy-in.

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[1] http://www.who.int/antimicrobial-resistance/publications/surveillancereport/en/

[2] http://www.patientsafetyinstitute.ca/en/About/PatientSafetyForwardWith4/Documents/Infection%20Prevention%20and%20Control%20%28IPAC%29%20Action%20Plan.pdf

About the Canadian Patient Safety Institute (CPSI)

The Canadian Patient Safety Institute was established as the result of a rallying cry led by dedicated individuals working within the healthcare system that couldn't experience one more incident of a patient getting harmed. In December 2003, Health Canada officially created and announced funding for the Canadian Patient Safety Institute (CPSI) with a mandate to provide national leadership on developing evidence based tools and resources to educate and inspire safer care.

The Canadian Patient Safety Institute is the only national organization solely dedicated to reducing preventable harm and improving the safety of healthcare.

This is accomplished by a focus on:

PREVENTING:
We build capacity and awareness by educating healthcare providers, leaders and patients to ensure safe care in Canada.

RESPONDING:
We provide tools to examine errors and to disclose to patients, families and the public in a way that fosters trust and accountability.

LEARNING:
We freely share information and recommendations to ensure that healthcare providers, leaders and patients learn from harm and what they can do about it.

But we still have work to do! Today in Canada, every 17 minutes someone dies in a hospital from an adverse event. That's about 31,000 people a year. We also know 1 out of 18 hospital visits results in preventable harm or even death. It's no better in the community – up to 13% of people receiving home care experience a harmful adverse event like a fall or medication error. This level of harm is simply unacceptable.

We need to continue to work with patients, providers and leaders to **prevent** these events from happening.

As policy makers, healthcare administrators and elected officials make difficult decisions about where to invest money, we know the work of the Canadian Patient Safety Institute is necessary for preventing harm from happening, responding to harm when it does happen and learning from harm so that it doesn't happen again. Canadians deserve no less!

For information about the programs and services available through the Canadian Patient Safety Institute visit:
www.patientsafetyinstitute.ca
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