

Infection Control: Essential for a Healthy British Columbia

The Provincial Overview

Infection prevention, surveillance and control programs aim mainly at protecting patients, health care workers and visitors from contracting an illness while in health care facilities. Public Health programs have a similar goal: that of preventing the spread of communicable diseases in the population at large. Data on communicable diseases is readily available in British Columbia but the same is not true of data on the impact of hospital-acquired infections. Yet we know from international and national data that infections have a huge impact on both the individual and the health system. For example, in New Zealand in 2003, it was estimated that about 10% of patients admitted to hospital will acquire an infection as a result of their hospital stay. In the United States it is estimated that nearly 2 million patients a year get an infection in a health care facility and, of those 90,000 or 4.5% die as a result of the infection. In Canada, a report prepared for the Romanow Commission indicated that Canadians contract more than 200,000 hospital-acquired infections annually, with 8,500 - 12,000 deaths per year. The direct costs of hospital-acquired infections were estimated to be approximately \$1 billion annually. More recently in 2006 researchers estimated that an average of one in nine hospital patients in Canada gets an infection that may force a longer stay, greater pain or even death.

Why we did this audit

We conducted this audit to assess whether there were effective systems in place for the prevention, surveillance and control of infections.

Specifically, we wanted to find out whether the Ministry of Health and the Provincial Health Services Authority provide a framework for infection prevention, surveillance and control; and whether each of the health authorities:

- has a workable plan in place for prevention, surveillance and control of infections;
- is demonstrating best practices for infection prevention, surveillance and control;
- has information system support in place for infection prevention, surveillance and control; and
- is reporting on the status of its infection prevention, surveillance and control efforts and is making continuous improvements.

What we concluded

The Ministry of Health has not provided a framework for infection prevention, surveillance and control across the continuum of care (residential care, acute care, mental health, public health, and home and community care). And the health authorities in British Columbia do not have an effective or integrated system in place for infection prevention, surveillance and control across all service delivery responsibilities. Although all of the health authorities have some components of such a system, not one of them has a comprehensive program or system in place to ensure best practices are always being followed.

As the SARS outbreak of 2003 in Toronto showed, there needs to be an integrated and coordinated approach to infectious disease management across the continuum of care.

What we found

Some of the audits key findings and recommendations are outlined below.

A provincial framework for infection prevention, surveillance and control is limited to Public Health

The Ministry of Health has a framework in place for communicable disease control, but not for hospital-acquired infections. The framework for communicable disease control is contained within the Health Act, which outlines the roles and responsibilities as well as reporting requirements.

We recommend that the Ministry of Health:

- Establish and implement a provincial framework for infection prevention, surveillance and control which at a minimum contains: comprehensive legislation, defined roles and responsibilities, surveillance, standards and reporting.
- Establish provincial surveillance for hospital-acquired infections and work with key stakeholders to determine what should be reported.

Demonstrating best practices in infection prevention, surveillance and control needs to be strengthened

All of the health authorities are aware that they are not demonstrating best practices in every aspect of infection prevention, surveillance and control; and the majority are taking steps to remedy the situation. However, the recognition of the need to change and the urgency with which changes are being made, varies from one health authority to another.

We recommend that each health authority:

- Undertake a formal review to estimate their overall requirements for both Infection Control Practitioners and Communicable Disease Nurses, giving consideration to: ratios; the complexity of care provided; needs of other programs such as Home and Community Care, Residential Care and Mental Health; and to the educational needs of staff. They should also ensure adequate medical and clerical support for the program.
- Ensure that all staff receive regular ongoing education in the area of infection control and that medical staff also have access.
- Establish a formal surveillance program appropriate to the programs and services offered.

An integrated information system for infection prevention, surveillance and control is only in place for Public Health.

The health authorities have information management plans in place, but no modules offer direct support for the infection control program. Public Health provincially uses the Integrated Public Health Information System (iPHIS) with the exception of Vancouver Community and Richmond Public Health (within the Vancouver Coastal Health Authority), which use the Primary Access Regional Information System (PARIS).

We recommend that the health authorities:

- Provide information management support to the infection control program for data collection, analysis and reporting.
- Work with the Ministry of Health and other stakeholders to ensure data quality.

Reporting on prevention, surveillance and control of infections varies by health authority and, overall, is not well done.

Reporting on infection control to the Health Authority Medical Advisory Committees, senior executive teams and Boards of Directors varies across the health authorities. In general, however the reporting that is done is usually ad hoc and does not provide a comprehensive picture of infection control in the authorities.

We recommend that each Board of Directors:

- Hold the Medical Advisory Committees accountable for fulfilling their mandates.
- Work with their senior management to determine the infection control indicators they need measured and reported on.

We recommend that the health authorities:

- Ensure that the infection control program issues a comprehensive annual report that includes rates and types of infections. This report should be available to the public.
- Ensure that infection surveillance and audit reports are available and used by all programs to improve practice across the health authority as appropriate.

For further information, please contact:

Office of the Auditor General, 8 Bastion Square, Victoria, B.C. V8V 1X4
Tel: 250 387-6803 or Toll free *Enquiry BC* at 1 800 663-7867 (in Vancouver 604 660-2421)
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