Department of **Health**
Government of **Western Australia**

OPERATIONAL DIRECTIVE

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Date: 26 September 2007
Supersedes: **File No:** 06-05405

Subject: **HEALTHCARE–ASSOCIATED INFECTION SURVEILLANCE IN WESTERN AUSTRALIA**

1. INTRODUCTION

Infections that occur as a result of a healthcare procedure or while in a healthcare facility are significant adverse events. Outcomes include not only morbidity and mortality for patients, but also increased costs for treatment, prolonged hospital stay, lower staff morale and legal risks. Healthcare-associated infection (HAI) prevention has been identified as a major priority by expert groups including the Australian Commission on Safety and Quality in Healthcare, the Australian Council of Healthcare Standards, the National Health Service (NHS UK), the Joint Commission on Accreditation of Healthcare Organisations (USA) and the World Health Organisation (WHO).

Monitoring the incidence of these HAIs is an essential step in assessing the safety and quality of healthcare provided, prioritising targets and evaluating preventive initiatives. WA hospitals have been contributing data to a successful voluntary HAI surveillance program (Healthcare Infection Surveillance WA – HISWA) since 2005. Building on the success of HISWA, key HAI indicators are mandatory for collection and submission by Area Health Services in 2007/08.

The selected indicators mandated in this directive have been selected by a process of review and consultation. They are applicable to a variety of healthcare settings within WA Health, are feasible to collect and are credible indicators of significant adverse events. Improvements in patient care, and evaluation of local infection control program efficiency, will be facilitated by collecting this standardised data throughout WA.

The effectiveness and efficiency of the mandated aspects of the Healthcare-associated Infection Surveillance program will be regularly reviewed by members of the Healthcare Infection Council of WA (HICWA).

2. THE IMPACT OF HEALTHCARE-ASSOCIATED INFECTIONS

HAI prevention has been identified as a priority initiative by WA Health, due in part to the size of the problem. In 2001, the Australian Infection Control Association Expert Working Group estimated that, in Australia, there may be as many as 150,000 HAIs contributing to 7,000 deaths each year. It was further estimated that at least one third of HAIs are preventable, with coordinated monitoring and prevention programs.

If the national HAI and costs data is extrapolated to the WA health system, it is postulated that HAI results in an increased cost of at least $95 million to the WA health system annually for additional treatments and length of stay due to HAIs.

International statistics are similar with the USA reporting HAIs, resulting in 2 million infections, 90,000 deaths and $4.5 billion excess in costs each year (CDC, 2006).

3. HEALTHCARE-ASSOCIATED INFECTION SURVEILLANCE PROGRAM 2007/08

Measuring the size of the problem of HAIs in WA is an essential step to their effective and efficient prevention. This complements other key elements to effective prevention strategies including adequate provision of staff with appropriate training in infection control and prevention, adoption and use of evidenced-based best practice, outbreak identification and management and appropriate infection control education for healthcare workers.

The goals of the Healthcare-associated Infection Surveillance Program are to:

- ensure all WA public hospitals undertake HAI monitoring using standardised methods that facilitate recognition of key infections and identification of clinical practices linked to infection risks;
- enable WA Health to implement changes to clinical care and processes to minimise infection risks;
- identify trends in key HAI rates; and
- evaluate the impact of implemented changes on infection rates in WA.

Results of the program will be collated by the Healthcare-associated Infection Unit at the Communicable Diseases Control Directorate (CDCD), summarised, and then provided to all participating hospitals. Infection rates will be risk adjusted where possible in the report to better reflect differences in clinical case-mix between participating hospitals. Hospitals and Area Health Services are also encouraged to internally review the data more frequently to identify issues and trends in a timely manner.

The indicators included in the Healthcare-associated Infection Surveillance Program will be reviewed regularly and, where appropriate, changes to the monitoring system methodology and priorities may be implemented, according to future trends and feedback from participating facilities.

Healthcare-associated Infection Surveillance WA (HISWA) can collect, analyse and report the indicators listed in Table 1 from any public or private hospital in WA. The indicators mandated for reporting by Area Health Services in 2007/08 and the timeline for implementation is in Table 2. All WA public hospitals and licensed private healthcare facilities providing services for public patients will be required to implement and support systems to monitor clinical indicators as described in the following table.

Table 1: Clinical indicators reported to HISWA

HISWA indicators	Frequency for reporting to HISWA	Requirements for data submission
Rate of healthcare-associated infections due to methicillin-resistant *Staphylococcus aureus*	Monthly	Within 30 days from the end of the reporting month
Rate of infection at the surgical site after elective hip and knee arthroplasty	Quarterly	Within 6 weeks from the end of the reporting quarter
Rate of health-care associated bloodstream infection due to *Staphylococcus aureus*	Quarterly	Within 6 weeks from the end of the reporting quarter
Rate of occupational exposure to blood and/or body fluids	Quarterly	Within 6 weeks from the end of the reporting quarter
Rate of central line associated bloodstream infections in: ICU; Haematology/ Oncology/ Outpatient IV Therapy Units	Quarterly	Within 6 weeks from the end of the reporting quarter
Rate of haemodialysis access-associated bloodstream infections	Quarterly	Within 6 weeks from the end of the reporting quarter

Table 2: Clinical indicators for mandatory reporting by WA public hospitals and licensed private healthcare facilities providing services for public patients

Type of hospital	Clinical Indicators for mandatory reporting	Date for commencement of data collection
Metropolitan at which elective hip and/or knee arthroplasty surgery is performed on public patients.	1. Surgical site infection rate: a. Rate of infection at the surgical site after elective hip arthroplasty. b. Rate of infection at the surgical site after elective knee arthroplasty. 2. Rate of healthcare-associated infection due to methicillin-resistant *Staphylococcus aureus.* 3. Rate of healthcare-associated bloodstream infection due to *Staphylococcus aureus*.	1 October 2007
Type of hospital	**Clinical Indicators for mandatory reporting**	**Date for commencement of data collection**
All other metropolitan hospitals.	1. Rate of healthcare-associated infection due to methicillin-resistant *Staphylococcus aureus.* 2. Rate of healthcare-associated bloodstream infection due to *Staphylococcus aureus.*	1 October 2007
• All metropolitan hospitals *and* • Psychiatric facilities not collocated with an acute care hospital.	1. Rate of occupational exposure to blood and/or body fluid.	1 January 2008
Regional and integrated district hospitals at which elective hip and/or knee arthroplasty is performed on public patients.	1. Surgical site infection rate: a. Rate of infection at the surgical site after elective hip arthroplasty. b. Rate of infection at the surgical site after elective knee arthroplasty. 2. Rate of healthcare-associated infection due to methicillin-resistant *Staphylococcus aureus.* 3. Rate of healthcare-associated bloodstream infection due to *Staphylococcus aureus.* 4. Rate of occupational exposure to blood and/or body fluid.	1 January 2008
All other regional and integrated district hospitals.	1. Rate of healthcare-associated infection due to methicillin-resistant *Staphylococcus aureus.* 2. Rate of healthcare-associated bloodstream infection due to *Staphylococcus aureus.* 3. Rate of occupational exposure to blood and/or body fluid.	1 January 2008

4. ACTIONS REQUIRED TO COMPLY WITH OPERATIONAL DIRECTIVE

- WA public and private hospitals funded to provide care to public patients should use Table 2 to align their current HAI surveillance activities with their requirements under the mandatory component of the HAI Surveillance Program 2007/08.

- WA public and private hospitals funded to provide care to public patients should ensure robust and efficient surveillance systems are in place to collect the data fields required, as stipulated in the document (HISWA User's Surveillance Manual).

- Periodic internal validation of the data collected should also be performed to ensure the continuing validity of data provided by hospital staff to HISWA.

- Hospitals should ensure the reporting of HAI rates reflect organisational clinical governance and reporting structures.

- Data should be reported to HISWA at the frequency referred to in Table 1.

- Relevant data should be submitted to the Healthcare-associated Infection Unit of the CDCD using the secure web-based data submission system (HISWA database) developed by the HCAI Unit. The HCAI Unit will be responsible for ensuring the integrity of the data collection and analysis system.

5. ACCOUNTABILITY

Hospitals and Area Health Services are responsible for ensuring the accuracy and timeliness of data provided, according to the requirements of this directive.

The Healthcare-associated Infection Unit and the Healthcare-associated Infection Council of WA will be available to support implementation of this directive.

Reports of the mandatory component of the Program will be provided annually to:

Director General of WA Health
Chief Executives of Area Health Services
Members of the Healthcare-associated Infection Council of WA Executive Group
Chief Medical Officer
Contributing hospitals

6. CONFIDENTIALITY

Data will be held in strictest confidence by the Healthcare-associated Infection Unit, used only for the purposes stated and not otherwise disclosed without consultation between the Unit and the relevant hospital/Area Health Service.

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