

DRAFT Position Statement
Infection Control in Oncology Patients
June 2009

Issue of concern:

Cancer Voices SA are concerned by recent reports of cancer wards needing to be closed due to the number of patients infected with vancomycin-resistant enterococcus (VRE) (The Advertiser, 15 April 09, article titled "**RAH superbug can't be killed off**" <http://www.news.com.au/adelaidenow/story/0,22606,25336474-5006301,00.html>). More alarming is the suggestion that the hospital needs to be rebuilt or redesigned in order to control such infections, a solution many years 'down the track'. This highlights a broader concern regarding the effectiveness of infection control surveillance and activities addressing all multi-drug resistant organisms.

Oncology patients (in-patients and out-patients) are particularly vulnerable to infections due to aggressive immuno-suppressant chemotherapy treatment regimes, frequent attendance or hospital stays, 'handling' by many different health workers and the high percentage of patients with central venous access lines or other frequent invasive procedures.

Proposed action:

Cancer Voices suggest that the following safety and quality strategies be adopted by public and private health care services:

- o Education and shared responsibility to minimize infection transmission by oncology unit staff (clinical and ancillary), patients and their visitors by hand-washing before entering/touching patients and again before leaving
- o emphasis on thorough attention to cleaning procedures in oncology areas
- o routine equipment cleaning procedures to include stethoscopes, blood pressure cuffs, computer keyboards, phone handsets etc

Cancer Voices believe that adopting these measures alone will not be sufficient to effect substantial or lasting change. Monitoring compliance of these strategies with performance indicators and benchmarks is required, and these performance measures must be made publicly available

Cancer Voices SA suggest that the Safety and Quality in Healthcare Committee in South Australia review the infection control items of the Victorian Public Health Services Performance and Accountability Framework (Safety and Quality section) <http://www.health.vic.gov.au/hospital-performance/index.htm> to assess feasibility of its adoption in South Australia. There may be other examples interstate or overseas for reporting of activities and monitoring outcomes to combat multi-drug resistant infections that Cancer Voices SA are not aware of and may have overlooked. However, Cancer Voices SA wish to see a workable system in place as soon as possible.

Cancer Voices SA Recommendations:

- Adapting key performance indicators (KPI) and benchmarks relating to cleaning standards, infection surveillance data compliance and performance, and hand hygiene program from the Victorian Public Health Services Performance and Accountability Framework and
 - extending the reporting to include oncology (inpatient and outpatient areas).
- Conducting the 'Hand Hygiene Project' of the Victorian Public Health Services Performance and Accountability Framework with
 - an extension to provide information to patients and their visitors. This would support shared responsibility for all stakeholders to participate in infection control. An information sheet from the VICNISS Hospital Acquired Infection Surveillance Coordinating Centre at <http://www.vicniss.org.au/Resources/Consumer/ConsumerMRO1204.pdf>) is recommended as a resource for staff, patients and their visitors.
- Transparent public reporting on these key performance indicators by public and private hospital units. Multi-drug resistant organism infection rates should be reported eg MRSA, VRE. (We are aware of complexity in reporting, but this should not prevent this process from commencing).

Background and Information supporting this position:

An overview of this issue was recently published (15 June 2009): ***Infection control, ethics and accountability***, Gwendolyn L Gilbert, Paul Y Cheung and Ian B Kerridge. Med J Aust 2009; 190 (12): 696-698.

http://www.mja.com.au/public/issues/190_12_150609/gil10962_fm.html.

"In 2005, the estimated annual cost of Healthcare associated infections (HAIs) in Australia was at least \$1 billion. Potentially untreatable infections with multi-resistant organisms are increasing, and respiratory viral infections are a recurring threat to highly immuno-compromised patients. The fact that a significant proportion of HAIs are preventable has serious ethical, as well as medical and economic, implications."

"It was shown over 150 years ago that the hands of health care workers (HCWs) are the main vector for transmission of nosocomial pathogens, and that hand disinfection can reduce HAI rates. Nevertheless, acceptable levels of compliance with recommended hand hygiene practice are difficult to achieve and sustain. Provision of alcohol-based hand-rub at patients' bedsides, education, and leadership from senior clinicians can improve baseline compliance rates, but significant improvement is rarely sustained. Recent campaigns in New South Wales and Victorian public hospitals have led to modest improvements in compliance, from 47% to 62% (30% to 46% among doctors), and from 21% to 48%, respectively. While these results are encouraging, they also indicate room for significant improvement."

"In addition to hand hygiene, these include screening patients for carriage of multi-resistant organisms, isolation and contact precautions, improved environmental cleaning, antibiotic stewardship and optimal management of vascular access devices. Their effective implementation depends on organisational systems — protocols, procedures, facilities, equipment, education, training and communication, as well as adequate staff, leadership and culture change."

"The Australian Commission on Safety and Quality in Health Care has proposed "a national and systematic approach to . . . surveillance, hand hygiene, infection control guidelines and building clinician capacity".

Cancer Voices SA note that one systematic approach currently in place has been evolving in Victoria since 2002. The Victorian Public Health Services Performance and Accountability Framework Business Rules 2008-09 <http://www.health.vic.gov.au/hospital-performance/index.htm> incorporates the VICNISS Nosocomial Infection Surveillance System <http://www.vicniss.org.au/>. This system appears to be well established with a transparent reporting program for monitoring infection control compliance. However, oncology is not one of the areas identified for active monitoring.

The following benchmarks and performance indicators are taken from The 2008-09 Statement of Priorities and Performance Framework Business Rules (<http://www.health.vic.gov.au/hospital-performance/index.htm>), Public Health Services, Department of Human Services, Victoria, September 2008. The Quality and Safety performance indicators (KPI) and benchmarks relating to cleaning standards, infection surveillance data compliance and performance, and hand hygiene program (see Table 1 below KPI# 6-9) are of interest.

Table 1: Key Performance Indicators in the 2008-09 Statement of Priorities

Program	KPI #	KPI	KPI Description	Benchmark	PMF	BFF
Quality and Safety	SERV KPI 5	Accred	Health Service Accreditation	Full Accreditation	X	X
		Resi	Residential Aged Care compliance with accreditation standards	No instances of non-compliance	X	X
	SERV KPI 6	Cleaning	Cleaning Standards	85%	X	X
	SERV KPI 7	VICNISS Data	Infection surveillance data compliance (VICNISS)	Full	X	X
	SERV KPI 8	VICNISS Perf	VICNISS Infection Surveillance performance	No Outlier	X	X
	SERV KPI 9	Hand Hygiene	Hand Hygiene program compliance	Full	X	X

Abbreviations used in the table:

KPI Key Performance Indicator
 PMF Performance Monitoring Framework
 BMF Bonus Funding Framework

Table 7: Data Submission Requirements for Key Performance Indicators

Program	KPIs	Data Source	Data Submission Timeframes
Quality & Safety	Cleaning	November internal audit April external audit	<ul style="list-style-type: none"> 21 November 2008 18 April 2009
Quality & Safety	VICNISS Compliance	VICNISS Coordinating Centre	<ul style="list-style-type: none"> 7 November 2008 6 February 2009 8 May 2009 7 August 2009
Quality & Safety	VICNISS Infection	VICNISS Coordinating Centre	<ul style="list-style-type: none"> 7 November 2008 6 February 2009 8 May 2009 7 August 2009
Quality & Safety	Hand Hygiene	Hand Hygiene Coordinating Centre	<ul style="list-style-type: none"> March, August and November

Details of the performance indicators are described in the following pages.

SERV KPI 6 Cleaning Standards

Cleaning standards aim to improve quality health care provision by ensuring that all risks involving cleaning are identified and managed in an appropriate manner, irrespective of cleaning service provider arrangements. The standards are focused on the outcome or output sought, rather than the method by which it is achieved.

This indicator is expressed as achieved/not achieved.

The assessments will be based on both internal and external audit results submitted to the department. Reporting of cleaning standards is mandatory for all health services.

Calculating Performance

The principle behind the audit scoring system is to use a demerit based system. A campus is given 100 points at the commencement of the audit (both internal and external). Points are deducted on areas that are unacceptable.

Achieved = all campuses within a health service meet the level of acceptable cleaning quality set at 85%

Not Achieved = one or more campuses within a health service fail to meet the level of acceptable cleaning quality set at 85%

2008-09 Statewide Benchmark

Acceptable quality level for campus: 85%

Frequency of Reporting and Data Collection

Results will be reported on a six-monthly basis. The department requires that audit results be provided as follows:

- November internal audit results to be available by 21 November 2008 for the December quarter
- April external audit results need to be made available by 18 April 2009 for the June quarter

This KPI is in the SoP, but not included in the PMF or BFF.

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SERV KPI 7 Submission of data to VICNISS

The infection control data compliance KPI aims to improve the quality of infection control reporting by requiring health services to be fully compliant in their data submission to the Victorian Hospital Acquired Infection Surveillance System (VICNISS) Coordinating Centre. Health services have been providing data to VICNISS since 2002.

This indicator applies to hospitals participating in Type 1 and Type 2 surveillance. Where a health service has multiple campuses, the compliance is aggregated to produce a health service wide result.

This indicator is expressed as achieved/not achieved.

Calculating Performance

- The VICNISS performance indicators are set out in the Surveillance Hospital Participation documents (www.vicniss.org.au) and outline the defined set of surveillance activities and data quality indicators hospitals are required to perform and achieve.
- A public health service's performance will be analysed quarterly by the VICNISS Coordinating Centre.
- The VICNISS Coordinating Centre will provide a report to the Statewide Quality Branch of the department detailing each hospital's performance.

2008-09 Statewide Benchmark

The benchmark for the health service is full compliance with VICNISS reporting requirements.

Frequency of Reporting and Data Collection

The data is reported to the VICNISS Coordinating Centre each quarter. The public health service's performance is provided to the department six weeks later, resulting in a one quarter lag in reporting the KPI in the IPAR.

This KPI is in the SoP, but not included in the PMF or BFF.

NB Type 1 and Type 2 Surveillance is described at <http://www.vicniss.org.au/SurveillanceActivities.aspx>

Briefly, Type 1 and Type 2 surveillance are:

Type 1 (for larger hospitals, 100 beds or more) surveillance of

- surgical site infections
- Infections acquired in intensive care units
- Infections acquired in neonatal intensive care units
- Surgical antibiotic prophylaxis.

Type 2 (for smaller hospitals, less than 100 beds) is predominantly "process" surveillance, which aims to monitor processes that have been demonstrated to affect outcomes, rather than the outcomes (infections) themselves.

- eg handwashing, catheter insertion techniques and staff vaccination programs for influenza and Measles vaccination of healthcare workers
- Surgical antibiotic prophylaxis.
- surgical site infections.

SERV KPI 8 VICNISS Infection Surveillance Indicator

This KPI focuses on surgical procedures and high risk clinical units where evidence suggests there may be an increased risk of hospital acquired infections. In Victoria, data about these infections is managed by the Victorian Hospital Acquired Infection Surveillance System (VICNISS) Coordinating Centre.

VICNISS collects and analyses data from individual hospitals, and reports quarterly to participants and the department on aggregate, risk adjusted, procedure-specific infection rates. This information contributes to the development of accurate and reliable benchmarks against which hospitals and health services can assess their performance. Health services have been providing data to VICNISS since 2002.

The VICNISS infection surveillance KPI aims to improve the patient infection outcomes post surgery and in adult intensive care units. This is a composite KPI with a limited set of specific types of surgical procedures and intensive care, these being:

- Hip Arthroplasty
- Knee Arthroplasty
- Caesarean section,
- Coronary Artery Graft Surgery and
- Adult Intensive Care Unit patients with central lines.

This indicator applies to hospitals participating in Type 1 and Type 2 surveillance. The Surveillance Hospital Participation documents available from the web (www.vicniss.org.au) describe the VICNISS performance indicators and the website also enables hospitals to access their surveillance reports. The following table shows the surgical indicators that apply to each hospital.

This KPI is in the SoP, but not included in the PMF or BFF.

Calculating Performance

The VICNISS Coordinating Centre will provide a report to the department detailing each hospital's performance and outlier status. For each surgery type, where a hospital is found to have a statistically significantly higher infection rate than the VICNISS aggregate rate, they are deemed an outlier.

Statistical significance testing by VICNISS is undertaken each quarter. Data for the most recent four quarters is used for the knee and hip arthroplasty surgery given the length of time that infections with this surgery may take to present. For all other surgery types, data from the most recent two quarters is used. For example, if quarter four performance is the subject of assessment, data for quarter three and quarter four will be used.

Frequency of Reporting and Data Collection

The data is reported to the VICNISS Coordinating Centre each quarter. A public health service's performance will be analysed quarterly by the VICNISS Coordinating Centre.

Six weeks after the quarter, the performance result is to be provided to the department resulting in a one quarter lag in reporting the KPI.

SERV KPI 9 Participation in the Hand Hygiene Project

The hand hygiene project aims to improve the hand hygiene compliance of health care workers when caring for patients, and to reduce hospital acquired infections. Methicillin resistant *Staphylococcus aureus* (MRSA) is used as the marker.

The aim of the KPI is to encourage health services to be fully compliant in their data submission to the Hand Hygiene Coordinating Centre.

This indicator applies to all hospitals and where a health service has multiple campuses, the compliance is aggregated to produce a health service wide result.

This indicator is expressed as achieved/not achieved.

Calculating Performance

- Hospitals are to submit hand hygiene compliance and MRSA data to the hand hygiene coordinating centre by the required dates.
- The Hand Hygiene manual outlines the defined set of compliance audits and MRSA data that hospitals are required to achieve.
- A public health service's performance will be analysed every four months by the Hand Hygiene Coordinating Centre.

2008-09 Statewide Benchmark

The benchmark for the health service is full compliance with hand hygiene reporting requirements.

Frequency of Reporting and Data Collection

The data is reported every four months (March, August and November). The public health services performance is provided to the department four weeks later.

This KPI is in the SoP, but not included in the PMF or BFF.

Cancer Voices SA Executive
15 June 2009.

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