



HISS Newsletter



December 1999

The NSW Hospital Infection Epidemiology & Surveillance Unit

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Director's Report: Dr McLaws

The first anniversary of the HISS program passed quietly on 3rd December 1999, and as one does at the end of the year I am reflecting and evaluating the goals of the past twelve months.

The ICPs have worked with unfailing dedication on the application of the standardised definitions and collection of the data, to ensure quality data is available to facilitate the development of clinical thresholds for nosocomial infections.

Another goal is the analysis on the HISS aggregated data due to be performed in the New Year. This will be our inaugural attempt to provide you with statewide thresholds for infections, which are of interest to your patient population.

The HIES Unit wish all the ICPs, Surgeons, Intensivists, Clinicians, Microbiologists, ID Physicians, CEOs and the ICAT team involved in the program a safe and significantly (p<0.000001) happy holiday!

Diary Dates

‡ 10th December 1999:

Extract completed data for

November 1998 – November 1999

These data are due to arrive at the HIES Unit by the 15th December 1999 hiesu@unsw.edu.au

‡‡‡ 5th – 9th March 2000

The 4th Decennial International Conference on Nosocomial Infection

Atlanta Hyatt Regency Georgia USA

Email: <http://www.decennial.org>

‡‡‡ 8th March 2000

Working Safely in 2000

Dates December 1999 - May 2000 (inclusive)

All member sites

‡‡‡ 3rd – 5th May 2000

AICA First Biennial Conference

Conference Secretariat

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President AICA

The Australian Infection Control Association (AICA) Strategic Plan reflects our commitment to speaking with one voice, to this end, elements of infection control such as the surveillance of health care related infection(s) need to be standardised through collaboration and consensus.

The AICA Mission states that AICA provides Infection Control Practitioners with a **professional profile, identifies and promotes professional standards, and lobbies with one voice**. The vision of AICA describes the **importance of recognition and leadership within the specialist practice of infection control**. The AICA Vision outlines an intention to standardise surveillance of clinical indicators by developing a minimum standard for the surveillance of surgical site and the blood stream infections.

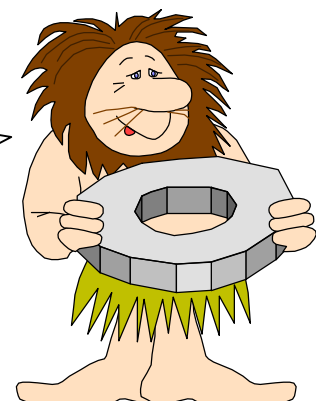
The Surveillance National Consensus Group was initially lead by Ms Glenys Harrington (State President, Victoria Infection Control Nurses Association) in collaboration with the disbanded AICA surveillance sub-committee. They provided the impetus for the AICA Executive to take an essential role in working towards a national surveillance strategy, and the establishment of an AICA Expert Working Group (EWG). The group is comprised of the AICA executive, a representative of the Australian Council on HealthCare Standards (ACHS), and individuals that either have the imprimatur of their State Government, or have shown leadership in the area.

Dr Mary-Louise McLaws, Director of the Hospital Infection Epidemiology and Surveillance Unit (HIES) and her team have lead the way in standardising the surveillance of hospital acquired infection in Australia. This is evidenced through the national prevalence study Dr McLaws conducted approximately ten years ago, and the establishment of the first unit collecting aggregated data within Australia. I congratulate Dr McLaws, our colleagues who work in HIES, and Ms Cathryn Murphy, Senior Policy Analyst – Infection Control, New South Wales Health Department, for undertaking this total quality management activity to reduce the prevalence of adverse outcomes.

The monitoring of health care related infection to minimise adverse events is becoming more complex in a health care environment of increasing day procedures, shorter hospital stays, and limited resources. These factors impel AICA to define minimum goals and objectives for surgical site and blood stream surveillance. The uniform national numerator definitions for infection control clinical indicators, (surgical site infection and health care related bacteraemia), provides every Infection Control Practitioner with an equal opportunity and the confidence, to collect data which meets a benchmark set by the AICA, EWG, and approved by ACHS.

The AICA First Biennial Conference provides the membership with an opportunity to hear the strategy for a national surveillance system. This forum is designed to foster knowledge and collegiality, engender debate, and promote recognition of expertise within the specialist practice of infection control. I look forward to seeing and “bonding” with you in South Australia!

Psst... The Hospital Infection Epidemiology and Surveillance Unit was presented with a 1999 HealthCare Innovation Award by the Australian HealthCare Association, sponsored by Baxter Healthcare, in November. The work of the Infection Control Practitioners at the pilot sites in establishing the Hospital Infection Surveillance System within NSW hospitals was acknowledged at the award ceremony.



Working Together: National Surveillance Definitions

A copy of the standardised definitions developed by the National Consensus Group is provided below. It is essential that the definitions for surveillance purposes are standardised and used consistently, this will reduce the opportunity for inaccurate data being reported and analysed. Changes to both the Sentinel Surgical Surveillance Module and the Intravascular Device-Related Bacteraemia Module have been adopted by the HIES Unit and will be introduced to member sites with Version 2 of the HISS PC Program (ICATv2.2). You are invited to express your views on these suggestions over the next 3 months by writing to: Gabby Robathan, Editor-in-chief, Australian Infection Control Journal, Microbiology Department, Princess Margaret Hospital, GPO Box D184 Perth WA 6001. *This information is reproduced with the permission of the AICA President Dolly Olesen and Gabby Robathan, Editor-in-chief, Australian Infection Control Journal.*

Superficial Surgical Site Infection (Skin or Subcutaneous tissue)

Infection occurs within 30 days of the operation

Superficial surgical site infection is defined as:

Purulence (or laboratory confirmation; e.g. two (2) + or more polymorphs),

Or

- attending consultant diagnosis by two (2) signs and symptoms, as follows:
- pain
- tenderness
- localised swelling
- redness, or
- heat

or

one of the following signs and symptom:

- pain
- tenderness
- localised swelling
- redness, or
- heat

and

- the surgeon reopens the wound
-

Deep Surgical Site Infection (Fascial / Muscle/ Organ Space)

Infection occurs within 30 days of the operation if no implant is left in place, or within 1 year if implant is in place and the infection appears to be related to the operation

Deep surgical site infection is defined as:

- Purulence from drain in stab wound into organ/space,

or

- Organisms isolated from aseptically obtained culture of fluid from deep tissue or organ space,

or

- If a deep incision spontaneously dehisces or surgeon opens and the patient exhibits one of the following signs or symptoms:
 - fever > 38c
 - localised pain or tenderness

or

- abscess or evidence of abscess on direct examination during re-operation , histopathology or radiological examination.
-

Diagnosis of Bacteraemia

A bloodstream infection must meet one (1) of the following criteria.

Criterion 1 (Recognised Pathogens)

Isolation of one (1) or more recognised bacterial or fungal pathogens from one (1) or more blood cultures (e.g. *Staphylococcus aureus*, *Streptococcus pneumoniae*, *Escherichia coli*, *Klebsiella* spp., *Proteus* spp., *Salmonella* spp., *Candida albicans*).

Criterion 2 (Potential Contaminants)

The patient has at least one (1) of the following signs and symptoms within twenty-four (24) hours of a positive blood culture being collected:

- fever ($>38^{\circ}\text{C}$);
- chills
- rigors
- hypotension (systolic blood pressure $\leq 90\text{mm Hg}$)

AND

there is isolation of a potential contaminant * from:

- (a) two (2) or more blood culture sets drawn on separate occasions within a five (5) day period (the organism must be identical),

OR

- (b) a single blood culture set drawn from a patient with an intravascular device in situ (within forty-eight (48) hours of the episode), where:
- either there was a resolution of clinical signs and symptoms after removal of the device or following appropriate antimicrobial therapy,
 - or an identical organism in significant quantity was isolated from the device or part thereof; e.g. catheter tip

Potential contaminants* include the following.

- diphtheroids (*Corynebacterium* spp., etc.).
- coagulase negative staphylococci.
- Micrococci.
- Propionibacteria.
- *Bacillus* spp.
- Alpha haemolytic streptococci.
- Environmental Gram-negative rods.
- Non-pathogenic *Neisseria*.

Notes for criterion 2

- Isolates that take longer than forty-eight (48) hours' incubation to signal are excluded.
- Mixed isolates are excluded.
- Mixed isolates with an accepted pathogen – disregards the potential contaminant* organism.

Site of episode

A Hospital inpatient-associated

- Criterion 1: significant blood stream infection that occurs > forty eight (48) hours after admission (or > forty eight (48) hours after time of birth, if a neonate) and not present or incubating at the time of admission,

OR

- Criterion 2: blood stream infection occurring in patients:
 - readmitted within ten (10) days of discharge,
 - or within thirty (30) days of an inpatient surgical procedure, with a bloodstream infection related to an infection at a surgical site.

B Non-inpatient medically associated

Significant blood stream infection in a non-inpatient (ie. A day-only or outpatient, or situations not specified under 'inpatient') that:

- relates to the presence of an indwelling medical device,

OR

- occurs within thirty (30) days of a surgical procedure, where the bloodstream infection is related to surgical site infection,

OR

- occurs within forty eight (48) hours of any other type of medical procedure (e.g. home haemodialysis, prostate biopsy/cystoscopy in urologist's rooms).

C Community-associated

- event is not medical or procedure-related, and
- does not manifest more than forty eight (48) hours after admission.

Defining the primary site or focus of infection

Bloodstream infection will be allocated to a primary site or focus, based on organ system (e.g. respiratory, gastrointestinal tract, urinary tract or intravascular access device).

While device type/procedure should be specified in all bloodstream infections, the specified criteria by which to diagnose an intravascular device-associated infection are as follows:

- no other apparent primary focus for infection,

AND

- intravascular access device is present within 48 hours of the event,

AND

- EITHER isolation of identical organism from appropriate quantitative culture of the device or part thereof (e.g. catheter tip),

OR

- Resolution of clinical signs and symptoms of infection after removal of the device and/or following appropriate antibiotic therapy,

OR

- Isolation of identical organism(s) from the exit site in the setting of purulent discharge or painful erythema at the exit site or along the tunnel, if such exists.

Repeat episodes of bloodstream infection

Significant bloodstream infection due to the same organism(s) that recurs within 14 days of the original event is disregarded.

Bibliography

1. *PHLS. Nosocomial Infection National Surveillance System Version 1.1. London: Central Public Health Laboratory, March 1998.*
2. *Mangram AG, Horan TC, Pearson ML, Silver CL & Jarvis WR. Hospital Infection Control Practice Advisory Committee. Guidelines for Prevention of Surgical Site Infection 1999. Infect Control Hosp Epidemiol 1999; 20:250-78.*

