

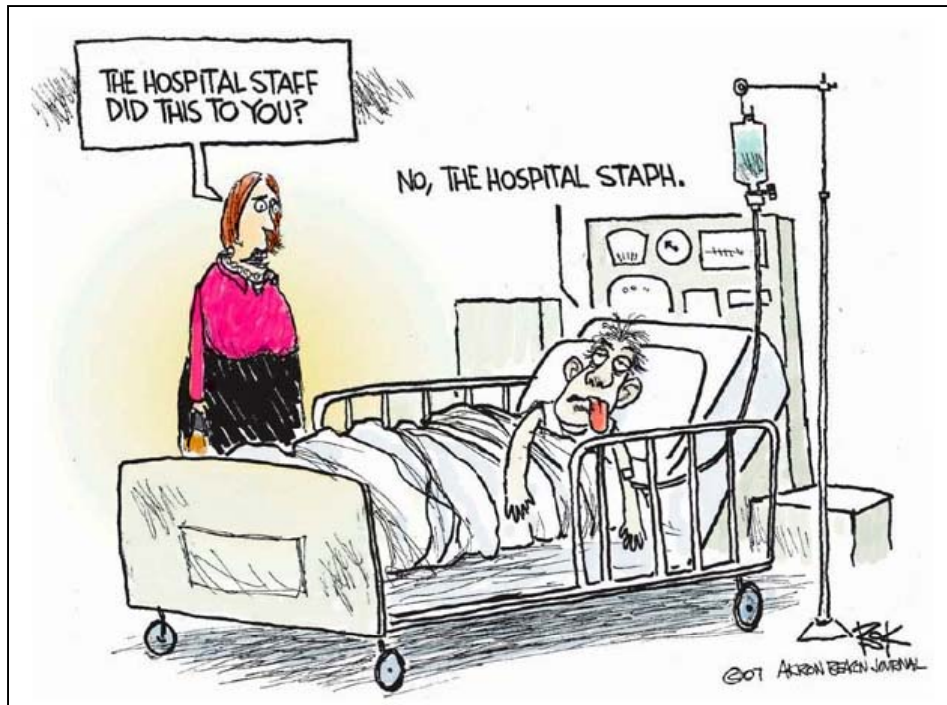
Provincial Infection Control Network (PICNet)

November 25, 2009

Dr. Judith L. Isaac-Renton
Dr. Elizabeth Bryce



PICNet's History



- Established in 2005 by the BC Ministry of Health
- A PHSA province-wide program
- An infection control leadership and knowledge collaborative
- Provides guidance and advice on healthcare-associated infection (HAI) prevention and control in BC.
- Links nationally and internationally

PICNet

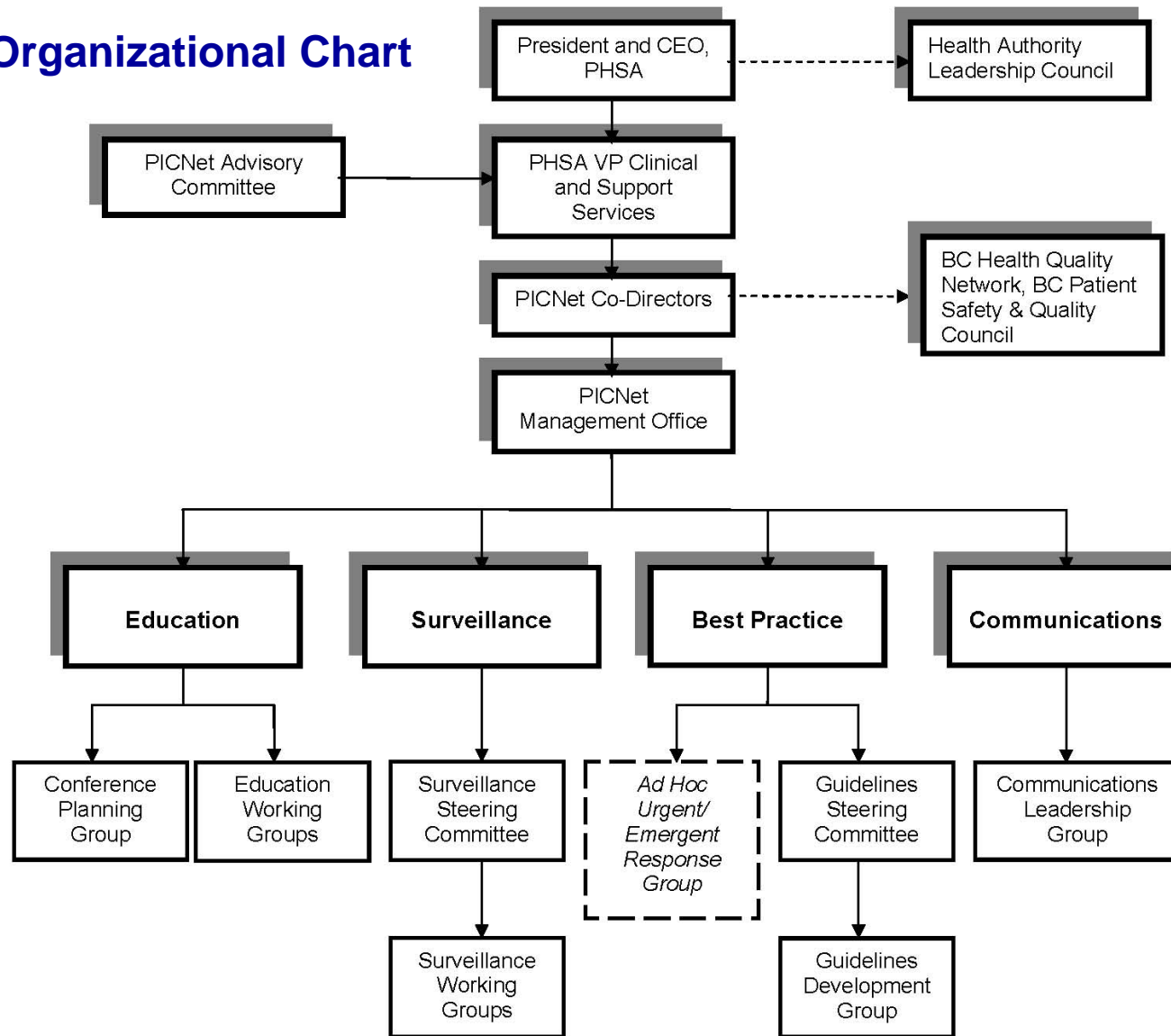
PROVINCIAL INFECTION CONTROL NETWORK OF BRITISH COLUMBIA

What does PICNet do?

- Encourages and facilitates multidisciplinary collaborations
- Works with multidisciplinary Advisory Committee with province-wide representation
- Focuses primarily on surveillance of HAIs, development and communication of evidence-based best practices guidelines, education and training
- Creates opportunities for healthcare professionals to work together to identify priorities and solutions; leading systematic changes needed in BC's health care



PICNet Organizational Chart



PICNet's Community of Practice



infection control professionals
epidemiologists
patient safety leaders
infectious disease physicians
occupational health nurses
occupational health physicians
environmental health officers
management
home care

medical microbiologists
medical health officers
public health nurses
public health physicians
quality assurance experts
communications
policy makers
laboratory

Work to Date

2006

- Province-wide Needs Assessment (just prior to Audit General's Report)
- *Clostridium difficile* (CDI) Surveillance Protocol developed
- Third Annual Stakeholders Summit

2007

- First Annual Education Conference
- Framework for Staffing and Core Competencies for Infection Control Programs
- Proposal for Surveillance for Healthcare Infections Program (SHAIP)
- Respiratory Outbreak Prevention and Control Guidelines

Work to Date (Cont'd)

2008

- Second Annual Education Conference
- Antibiotic Resistant Organisms Prevention and Control Guidelines
- Infection Prevention and Control On-line Education Module
- CDI data sharing and system development
- SSI Pilot: outstanding results
- Leader in Pan-Canadian Network of Networks

2009

- Third Annual Education Conference
- Community Healthcare Infection Prevention and Control Guidelines
- Management of Healthcare Workers Exposed to Mumps
- Protecting the Health of Healthcare Workers - A Global Perspective: host, international meeting
- CDI province-wide surveillance - first report, October

Projects Currently Underway

1. HAI Surveillance Proposal
 - CDI and MRSA Surveillance Underway
2. Long-Term Care Needs Assessment
3. Gastrointestinal Illness Outbreak Prevention and Control Guidelines
4. Surgical Site Infection Prevention E-module
5. Hand Hygiene Toolkit
6. Evaluation Tool for PICNet Guidelines
7. Planning next Education Conference for 2011

Next Steps



- 1) Implement HAI Surveillance Plan
(CDI, MRSA, VRE, BSI, SSI, VAP)
- 2) Clostridium difficile Associated Disease Toolkit
- 3) Management of Healthcare Workers Exposed to Measles and Rubella
- 4) Standardized infection control annual report template (collaborating with all HAs and PSQC)
- 5) Linking with national group - "Network of Networks"
- 6) Plus all other ongoing work.....and linking our incredible Community of Practice to others committed to improving BC's health care sector.

SURGICAL SITE INFECTION SURVEILLANCE PILOT PROJECT

IHA: J. Deheer, M. Blackburn, M. MacMahon

VCHA: L. Dempster, P. O'Connor, L. Harris, L. Forrester, E. Bryce

PICNet: B. Gamage

Some Serious Statistics

- SSI develop in 2-5% of Canadians in the post-operative period
- Average additional cost of each SSI is \$3,700- \$5,000
- Patients with SSI 5X greater chance of re-admission
- Patients with SSI 2X greater chance of death

What Does Surveillance Do?

- Decrease morbidity by 15-35% decrease in SSI
- Meet CCHSA 2008 accreditation requirements
- Detect clusters of organisms or cluster events
- Identify system and operational improvements
- Ultimately decrease HC costs

What is being done now?

- Not every facility conducts surveillance
- Not every surgery is followed
- Use different definitions and methods
- Can't trend over time
- None carry out post-discharge surveillance
- Many SSI's not identified

Background and Objectives

A pilot project to develop a comprehensive surgical site infection (SSI) surveillance program at VCHA and IHA

A feasibility study: NOT for rate comparison

Objectives:

- a) Examine the feasibility of developing standardized surveillance methodology across Health Authorities (HAs) and
- b) Expand the current traditional surveillance to include patient survey phone calls and voluntary physician reporting.

Hip and knee surgeries and simple discectomies selected as the model procedures for three-month project.

Key deliverables

1. Standardized definitions for the classification of SSIs for the selected surgeries
2. Standardized data fields
3. A post-discharge patient surveillance form to be trialed during the project
4. A validated OR audit tool
5. A comprehensive project plan that included surveillance and implementation
6. A report

Other “hard” deliverables

- A data dictionary
- A physician reporting form
- Patient survey tool
- A validated operating room audit tool (used in a pilot project at VGH but not yet cross site validated)

Comparison of Methods

Site	Traditional	Physician Reporting	Patient Phone Survey	Total cases detected
KGH	1 (12.5%)	0	8 (100%)	8
VCHA	6 (33.3%)	5 (27.7%)	11 (66%)	18
Total	7 (26.9%)	5 (19.2%)	19 (73%)	26

Recommendations for survey tools

- Refine the patient phone survey tool to increase specificity
- Selective sampling of outpatients and possible use of Safety System staff to contact patients.
- Automate Voluntary Physician Reporting through existing IS Tools e.g. Sunset
- Develop Toolkits for surgeon and for Infection Control Training on SSI reporting

Post-Operative Survey May 21 2007

Patient	
Patient:	Le, Amy C
DOB:	Oct 06, 1974
Age/Sex:	32 F
MRN:	009903402
Admitted:	May 09, 2007
Discharged:	May 13, 2007

Case Details	
Case #:	526341
Case Type:	Elective
Surgery Date:	May 09, 2007
Surgery Start:	08:52
Surgery Stop:	09:37
ASA:	1 HEALTHY PATIENT
Anesthesia:	2.SPINAL
Implants:	None

Procedures				
Procedure	Start	Stop	Wound	Surgeon
CAESAREAN SECTION	08:52	09:37	CLEAN-CONTAMINATED	ANDERSON, ROBERT

Did the case develop a SSI? Yes No Unknown

Post-Operative Survey May 21 2007

Patient	
Patient:	
DOB:	
Age/Sex:	
MRN:	
Admitted:	
Discharged:	

Case Details	
Case #:	
Case Type:	
Surgery Date:	
Surgery Start:	
Surgery Stop:	
ASA:	
Anesthesia:	
Implants:	

Procedures				
Procedure	Start	Stop	Wound	Surgeon
CAESAREAN SECTION			CLEAN-CONTAMINATED	ANDERSON, ROBERT

Did the case develop a SSI? Yes No Unknown

Anatomical Site
Type of infection [?]
<input type="radio"/> Superficial Primary [?]
<input type="radio"/> Superficial Secondary [?]
<input type="radio"/> Deep Primary [?]
<input type="radio"/> Deep Secondary [?]
<input type="radio"/> Organ Space [?]
Onset Date:
<input type="text"/> <input type="button" value="Calendar"/>
Culture Requested:
Yes <input type="radio"/> No <input type="radio"/> <input checked="" type="radio"/> Unknown
Culture Results
Antibiotic Used:
Yes <input type="radio"/> No <input type="radio"/> <input checked="" type="radio"/> Unknown
Surgery Outcome:
<input type="checkbox"/> VAC Closure <input type="text"/> <input type="button" value="Calendar"/>
<input type="checkbox"/> Incision & Drainage <input type="text"/> <input type="button" value="Calendar"/>
<input type="checkbox"/> Removal of Hardware <input type="text"/> <input type="button" value="Calendar"/>
<input type="checkbox"/> Replacement of Hardware <input type="text"/> <input type="button" value="Calendar"/>
<input type="checkbox"/> Amputation <input type="text"/> <input type="button" value="Calendar"/>
<input type="checkbox"/> Death <input type="text"/> <input type="button" value="Calendar"/>

Recommendations re Reporting

- Report coded surgeon specific results to surgeon and the Department/Division Head. Where surgeon numbers are small and protection of privacy would be difficult, surgeon specific rates would be available only to the Department Head and Infection Control
- SSI review become a regular part of either Morbidity/Mortality or QI process in each Division/Department
- Surgical rates reported to the Infection Control Committee, Medical Advisory Committee and OR Councils (sic) without the surgeon specific rates.

Key findings

- SSI surveillance is both an assessment of perioperative quality as well as an evaluation of the impact of SSIs on the healthcare system.
- No one method of surveillance identified all infections.
- Audits of practice required where small numbers of procedures done (<50 cases/yr) or large volume outpatients e.g. eye centres
- Data quality is key to reliable surveillance and the selection of definitions is very important
- Timely feedback is fundamental to effecting change and ensuring a quality perioperative program, however, surgeon and patient confidentiality must be respected.
- The time and resource commitment for a SSI surveillance project is considerable.

Questions?