Patient Safety in Canada

The International System Safety Society
Canada Chapter
Thursday, March 25, 2010

Building a Safer Health System
Accroître la sécurité du système de santé

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Botched tests cast doubts on cancer screening

Beverly is one of the first patients lined up to testify at the inquiry. She found a small lump in her breasts in early 2001. At the time, she was told she tested negative for a hormonal treatment that can drastically reduce chances of cancer's reoccurrence in eligible patients. By the time she learned her test results were wrong - six years later -- it was too late for the treatment.
Mission & Vision

**Mission:**
To provide national leadership in building and advancing a safer Canadian health system

**We envision a Canadian health system where:**

- Patients, providers, governments and others work together to build and advance a safer health system
- Providers take pride in their ability to deliver the safest and highest quality of care possible
- Every Canadian in need of healthcare can be confident that the care they receive is the safest in the world

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Milestones of the Modern Era

1991  Harvard Medical Practice Study
1992  Quality in Australian Health Care Study
1996  Annenberg conferences begin
1999  Colorado / Utah Study
1999  IOM Report: To Err is Human
2000  BMA/BMJ London Conference on Medical Error
2000  SAEM: San Francisco Conference on EM Error
2001  British study
2001-3  Halifax Symposia on Medical Error
2001  RCPSC National Steering Committee on Patient Safety
2002  RCPSC Report: Building a Safer System
2003  Canadian Patient Safety Institute & Baker Norton Study
2006  6th Canadian Symposium on Patient Safety (Vancouver)

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Canadian Adverse Events Study

9-24,000
Deaths among patients with preventable adverse events

1,100,000
Extra hospital days associated with adverse events

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What We Know

*One in ten* adults contract infection in hospital

*One in ten* patients receive wrong medication or wrong dose

*More deaths* after experiencing adverse events in hospital than deaths from breast cancer, motor vehicle and HIV combined

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IT SAYS HERE THAT THE RATE OF MEDICAL ERRORS IS STUNNINGLY HIGH.

THAT EXPLAINS MY HISTERECTOMY.
Risky Activities (Adapted by Dr. Philip Hebert)

Dangerous (>1/1000)

15,000 deaths/yr

Regulated

Total Lives Lost per year

100,000

10,000

100

10

Hospitalization

Offshore rig

Driving

Coal Mining

Commercial airlines

Firearms

Rock Climbing for 25 hrs

timber

truckers

construction

Bungee Jumping

Scuba diving

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## How Does Canada Compare?

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>AE Rate (%)</th>
<th>Preventable (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>New York</td>
<td>1984</td>
<td>3.7</td>
<td>n/a</td>
</tr>
<tr>
<td>Utah/Colorado</td>
<td>1992</td>
<td>2.9</td>
<td>n/a</td>
</tr>
<tr>
<td>Australia</td>
<td>1992</td>
<td>16.6</td>
<td>51</td>
</tr>
<tr>
<td>New Zealand</td>
<td>1998</td>
<td>13.1</td>
<td>37</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>1999</td>
<td>10.8</td>
<td>48</td>
</tr>
<tr>
<td>Denmark</td>
<td>2000</td>
<td>9.0</td>
<td>40</td>
</tr>
<tr>
<td>Canada</td>
<td>2001</td>
<td>7.5</td>
<td>37</td>
</tr>
<tr>
<td>Netherlands</td>
<td>2004</td>
<td>5.6</td>
<td>40</td>
</tr>
<tr>
<td>Sweden</td>
<td>2003/4</td>
<td>12.3</td>
<td>70</td>
</tr>
</tbody>
</table>
Patient Safety: **Barriers to Action**

- Access is more urgent in Canada
- Difficulty recognizing errors
- Shortages of clinical professionals
- Lack of information systems to identify errors
- Concern about liability
- Relationship of trust with providers (blame culture)
- Jurisdictional conflicts
- Other
- Delays in building the EHR
- Fragmentation of care delivery hampers system thinking
- Culture of patient safety is lacking
- Victims are nameless & faceless

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### A Culture of Safety

**31,033 Pilots, Surgeons, Nurses and Residents Surveyed**

<table>
<thead>
<tr>
<th>Questions (% Positive Responses)</th>
<th>Pilots</th>
<th>Medical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is there a negative impact of fatigue on your performance?</td>
<td>74%</td>
<td>30%</td>
</tr>
<tr>
<td>Do you reject advice from juniors?</td>
<td>3%</td>
<td>45%</td>
</tr>
<tr>
<td>Is error analysis system-wide?</td>
<td>100%</td>
<td>30%</td>
</tr>
<tr>
<td>Do you think you make mistakes?</td>
<td>100%</td>
<td>30%</td>
</tr>
<tr>
<td>Easy to discuss/report mistakes?</td>
<td>100%</td>
<td>56%</td>
</tr>
</tbody>
</table>


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Human Factors: *Fatigue*

- **24 hours without sleep**
  - Is equivalent to a blood alcohol level of 0.10, a 30% decrease in cognitive processing

- **After 12 hours on the job**
  - Nurses are 3 times more likely to make mistakes

- **When on traditional 24 hour call schedules**
  - Interns made 30% more errors in ICU patients

- **Teamwork** is the best countermeasure for fatigue

- **Three major disasters related to night time workers** - *Exxon Valdez, Chernobyl, and Three Mile Island*


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Association Between Evening Admissions and Higher Mortality Rates in the Pediatric Intensive Care Unit


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Safety Issues:

*Look Alike, Sound Alike Drug Names*

- Epinephrine
- Ephedrine
- Amrinone
- Amiodarone
- Phenylephrine
- Phentolamine
“The point of an investigation is not to find where people went wrong. It is to understand why their assessments and actions made sense at the time.”

“The systems approach is not about changing the human condition but rather the conditions under which humans work.”

Strategic Directions

Why
Purpose

What
Areas of Focus

Prevent & Reduce Harm to Improve Patient Safety

Education
Interventions & Programs

Research
Tools & Resources

How
Core Processes

Informing

Understand the Issues
Engage Stakeholders
Build Capacity
Communicate
Measure & Evaluate
Influence Change

Safer Healthcare System

Continuous Improvement

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Strategic Directions

Why? Purpose

• Prevent and reduce harm to improve patient safety

What? Area of Focus

• Education
• Research
• Interventions & Programs
• Tools & Resources

How? Core Processes

• Understand the issues
• Engage stakeholders
• Build capacity
• Communicate
• Measure & Evaluate
• Influence change

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CPSI Strategic Direction

**Education**
- Executive Patient Safety Series
- Governance for Quality and Safety
- Canadian Patient Safety Officer Course
- Simulation
- Studentships
- Halifax Conference
- Patient Safety Competencies
- Canada’s Forum on QI and Patient Safety

**Research**
- Home Care
- Long Term Care
- Mental Health Services
- Emergency Medical Services
- Primary Health Care
- Building Capacity through Research

**Interventions & Programs**
- World Health Organization High 5’s
- Patients for Patient Safety Canada
- Infection Control
- Hand Hygiene Campaign
- *Safer Healthcare Now!*

**Tools & Resources**
- Event Analysis
- Electronic Health Record
- Canadian Disclosure Guidelines
- Canadian Adverse Event Reporting and Learning System
- WHO Safe Surgery Saves Lives
- Human Factors
- Teamwork and Communication
- Bar Coding

**Building Security**
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Education

- Governance for Quality and Patient Safety
- Canadian Patient Safety Officer Course
- Patient Safety Education Project

The Safety Competencies

Delivering Patient Safety DVD Series

Simulation

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Objective: Support the dissemination and integration of *The Safety Competencies Framework* in health professional education and practice.
Delivering Patient Safety - DVD Series

DVD 1 – Facing the Facts
DVD 2 – Changing the Culture
DVD 3 – Why Things Go Wrong
DVD 4 – Building Resistance to Error
DVD 5 – A Safer System
DVD 6 – Leading & Learning
CD 7 – Support Materials

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Education: Simulation

Objective: to formally promote and endorse the use of simulation as a means to education interprofessional healthcare teams and to establish a national coordinating body for simulation efforts.
Education: Emerging Issues

1. Native, Inuit and Métis Patient Safety
2. Health Literacy
3. Optimal Prescribing

- Identify opportunities to improve patient safety in specific settings/areas
Research: *Building Capacity*

- Over 60 research and demonstration projects have been funded in the last three years
  - Form the basis for new knowledge of Canadian patient safety challenges and solutions
- Development of background papers
  - To identify the current state of knowledge, future research priorities, key issues, strategies and opportunities for action and improvement

**Building a Safer Health System**

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Interventions & Programs

In Canada . . .

• 33 million people
• 10 interventions + 2 pilots
• 1084 teams enrolled
• 80% of acute care hospitals enrolled
• All regional health organizations outside of Quebec enrolled

Aim

• Reduce adverse events by 40-100% according to intervention

www.saferhealthcarenow.ca

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Initial Interventions

• Improve Care for Acute Myocardial Infarction
• Prevention of Central Line Associated Bloodstream Infection
• Medication Reconciliation
• Rapid Response Teams
• Prevention of Surgical Site Infection
• Prevention of Ventilator-Association Pneumonia

New Interventions

• Prevention of Adverse Drug Event in Long-Term Care
• Prevention of Harm from Falls in Long-Term Care
• Prevention of Harm from MRSA
• Improve Care for Venous Thromboembolism (VTE)

Pilot Projects

• Prevent Adverse Drug Events Related to High Risk Medication Delivery in Paediatrics
• Prevent Adverse Drug Events Through Medication Reconciliation in Home Care

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Teams Continue to Enroll

Total at January 20, 2010

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Ventilator-Associated Pneumonia

• Between Nov/05 and Oct/07, Safer Healthcare Now! teams decreased the rate of ventilator-associated pneumonia (VAP) per 1000 ventilator days by more than 50 per cent

• VAP rate has dropped from an average 10.48 to 5.21

• The average number of teams reporting monthly data to Safer Healthcare Now! has increased from 31 in the first two years to 50 last year
Hand Hygiene

Objective: Promote the importance of hand hygiene in reducing healthcare associated infections and provide capacity building and leadership development with tools and resources

- Hand hygiene tool kit
- Human factors hand hygiene tool kit
- DiscoveryCampus online training module
- Hand hygiene compliance audit tool and training
- WHO Patient Safety Challenge May 5, 2010
- Six Sigma Pilot Project

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Tools and Resources

Continuous Improvement and Informing

Prevention of Adverse Events
- Team Work
- Communication
- Prospective Analysis

Identification of Adverse Events and Close Calls
- Reporting
- Surveillance

Learning from Adverse Events and Close Calls to Support Improvement Strategies
- Event Analysis
- Dissemination of Learning

Prevent & Reduce Harm to Improve Patient Safety

Continuous Improvement and Informing

Disclosure
- Canadian Adverse Event Reporting and Learning System (CAERLS)
- Canadian Medication Incident Reporting and Prevention System (CMIRPS)
- Just Culture
Objective: International sharing and learning from adverse events through a shared taxonomy and classification system.

Strategies:

• CPSI lead collaboration on mechanism for identifying, sharing & learning.
• Development of an international framework to share alerts, advisories, & other information related to adverse event reports.
• International collaboration on event analysis.
• CPSI involvement in the creation of the International Classification for Patient Safety.
Disclosure

Goal: The Canadian Disclosure Guidelines were support healthcare providers, organizations, and patients understand the elements of and process for disclosure of an adverse event once it has occurred.

Strategies:

- Through the teamwork and communications working group:
  - Develop a strategy for ensuring disclosure training is available to organizations and frontline providers who require it
  - Further development of multi-party disclosure processes
  - Further promote the Guidelines to patients and providers.
Safe Surgery Saves Lives

Goal:

- sustainable improvement in surgical safety

Strategies:

- Spread the use of the Checklist (+60% of ORs)
- Align the Checklist with other initiatives (SHN)
- Design effective implementation resources
Patients for Patient Safety Canada

Goal: Build a reputable organization that can bring a credible patient voice to healthcare improvement

Strategies:
• Brand and awareness building
• Build partnerships
• Strengthen membership
Marc Bard (n.d.)

“Culture eats strategy for lunch over and over again.”
Commitment to Our Patients

“. . . there are some patients we cannot help, there are none we should harm. . .”

Dr. Ken Stahl

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Want to know more?

tlaylor@cpsi-icsp.ca

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