Patient Safety Culture

The Truth and Nothing But

Senior Level Leadership

W. Ward Flemons MD, FRCPC
Vice President, Quality, Safety & Health Information
The Plan

Fatal Adverse Events 2º to substantial system failures
- Decision to & Impact of
  - Disclosure
  - Informing

What are your principles? → Creating policy
- James Reason → Person Model and System Model
- The Relationship of
  - Learning ↔ Reporting ↔ Just (and Trusting)
  - Disclosure
  - Informing

Senior Leadership
- Key role
- Domino effect through Informing
- Involving patients & families
Two patients dead in tragic error at Foothills hospital

leaders in health – a partner in care
What Happened?

Feb / March 2004

• Batch Preparation of Dialysis Solution for Patients in ICU → Continuous Renal Replacement Therapy

• Commercial Product not available
  ∴ prepared in Central Pharmacy

• Substitution Error – KCl instead of NaCl
  • Box of KCl
  • 35 bags of dialysate

• Two patients dialyzed & died

• Critical Adverse Event Review (safety analysis)
CONTRIBUTING FACTORS

• Superficially (in retrospect) → a substitution error
• Local workplace – a less than perfectly designed system
  • Workflow sheets
  • Labeling
  • Storage
• Organizational Factors
  • Staffing
  • A Safety Culture?
    – Just / Trusting
    – Reporting → looking for hazards
    – Learning
Human factors

Look alike packaging
Human factors

Look alike product

leaders in health – a partner in care
Disclosing

- **Alberta Evidence Act**
  - ‘QA’ Committees
  - ‘Protects’ the investigation’s findings from discovery

- **Facts**
  - Can you disclose if discovered by the ‘QA’ Committee?

- **Sharing Recommendations**
  - Region ↔ legal counsel
  - Provincial Insurer ↔ legal counsel
  - CMPA ↔ legal counsel
Informing

- Local
  - Other critical care areas
  - Staff in general (not well done)
- National – other healthcare systems
- Regulatory authorities
- Politicians
- Public (Media)
Informing - The Decision

- **Previous public cases**
  - Reactive mode
  - Did not go well
  - 5 – 10 years → later still brought up

- **Growing patient safety awareness**
  - Transparency
  - Trust

- **Opportunity to demonstrate leadership & model behaviour**
Informing the media

Two critically ill patients died recently at the Foothills Medical Centre after they were given an incorrect solution during dialysis treatment.

And Calgary Health Region officials are crediting an "astute" physician for immediately identifying the mistake, reacting quickly and preventing the possibility of many more deaths.

One of the patients has been identified as Kathleen Prowse, who came from a prominent Calgary legal family. She was married to Hubert Prowse, a former Court of Queen's Bench judge in Calgary. The family did not want to talk Thurs-
Informing via the media

Risks

• can’t control the message
• demoralizing to staff
• shakes confidence
• political fallout
• difficult to anticipate where it will go
4 days to find the second patient

Trucker was first victim of medical mix-up

Strathmore man's family won't lay blame

The family of the first victim of a medical mix-up at Foothills Medical Centre isn't blaming the hospital or its doctors for the death of their loved one.

"I have nothing but good words to say about the doctors and everything at the Foothills hospital. Absolutely first class," said the victim's younger brother, Arnit Wassing. "The doctors did everything they could."

Burt Wassing, 53, of Strathmore, died Feb. 29 while staying in the hospital's intensive care unit after receiving a dialysis solution containing potassium chloride instead of sodium chloride.

Kathleen (Kay) Prowse died six days later after receiving the same solution that had been mixed at the Calgary Health Region's central production pharmacy.

Also see: John Graden • Foothills Medical Centre prepares 3,000 prescriptions and 1,000 doses of intravenous medications a day for city hospitals. Two of the facility's 75 staff are pharmacists.

Last week, the Pharmacists Association of Alberta called for a review of hospital procedures to determine if pharmacists should be performing final checks on drugs leaving the centralized pharmacy.

See victim, page A8
Dialysis drug mix-up demands fatality probe

DON BRAID

T

here's never a "right"

victim in a tragedy like

the CHR's lethal double

blunder, but the wrong one

has got to be Kathleen

Prowse, widow of the late Judge

Hubert Prowse.

Kathleen Prowse, 83, was the

second person who died at

Foothills intensive care unit

after being given the wrong

drug.

She is the one who could have

been saved, if only the

CHR had realized the first

person was killed by an improp-

erately mixed medication.

This Prowse family is well

known in judicial offices

around town, including that of

Judge Mandred Delong, who

delivered last year's fatality in-

quiry report that blamed the

health region in the death of

Vince Motta.

Three years earlier, Judge

Brian Stevenson, the final of

Delong's provincial court,

presided over the fatality in-

quiry in the case of 70-year-old

Maren Burkart.

Kathleen Prowse's daughter,

Sharron Prowse O'Beirn, is a

family and youth court judge

in Calgary. Another daughter,

Maureen Prowse, is a doctor in

Ranche Mirage, Calgary.

Hubert Prowse was a Court

of Queen's Bench justice. De-

long and Stevenson are in

provincial court. But Calgary's

court community is a small

world with deep bonds and

tight hierarchies.

When a fatality inquiry into

these latest deaths is in-

evitably held, the biggest

challenge will be finding a local

judge who didn't know the

Prowse family.

By all accounts, Kathleen

Prowse was a warm, energetic

woman who certainly knew

Calgary's medical and legal

systems. And she died because

of one of the most dreadful

medical mistakes ever re-

vealed in Alberta, or all of

Canada.

Vince Motta

Maren Burkart

emergency rooms before be-

ing dead.

Delong's subsequent report

gave the CHR the worst wedd-

ing in its history, but not be-

cause of medical care.

The judge was furious be-

cause he thought the CHR had

obstructed his inquiry by

stalling and failing to produce

documents.

Despite the CHR's constant

public relations assurances, he

tsaid, emergency care was get-

ting worse instead of better.

Now the CHR says that in re-

vealing the two deaths by

medication, it's being open

and transparent.

It's a hell of a way to start.

A fatality inquiry into this

disaster — the CHR's third

major probe in six years —

won't be asking if the system

killed people, only how.
Common mindset (culture)

Facing up to double jeopardy

JOHN GRADON

There is sympathy for those involved in two unfortunate, unnecessary deaths at Foothills Medical Centre in addition to that for the bereaved families.

After all, no one, except maybe professionals in other far darker areas of life, sets out to work in the morning to deliberately cause death.

Nevertheless . . .

The lab technician or technicians involved in the fatal errors that led to 83-year-old Kathleen Prowse and, as the Herald learned Sunday, 53-year-old Bart Wassing of Strathmore, being given a deadly fluid containing potassium chloride instead of sodium chloride must — and, according to Calgary Health Region chief Jack Davis, will — be held accountable.

The degree of that accountability is clear.

A head or heads have to roll.
It's simply a matter of justice, of public safety and public confidence.

In an interview with Herald columnist colleague Don Braid during the paper's coverage of the awful affair that is a tragedy for all concerned, the University of Calgary's Dr. Norm Schachar, a surgeon and leading authority on patient safety, makes some fascinating points on that issue.

He asks: "What are we going to do? Hang a pharmacist?"

"Somebody else would take over and the bottles would still be the same and eventually it would happen again.

"If the focus is on finding someone to blame, someone to hang, the systems won't be fixed."

Ah, there's the rub.

SEE GRADON, PAGE B4
The closet opens

"She screamed at the nurse, ‘My heart’s on fire. My heart’s on fire’"

Gail Thorne, daughter of patient given wrong drug at Peter Lougheed hospital

Medical mix-up occurred before

Family assured problem solved four years ago

the dialysis fluid was being prepared by pharmacist technicians at the hospital’s off-site Central Production Pharmacy in the city’s northeast. CHR spokesman Doug Fraser would not comment on the
Fourth medical mix-up revealed

Potassium chloride given to man in 2000

Don Braid
Calgary Herald

A fourth case of a patient mistakenly being given potassium chloride, the drug that killed two people here in recent weeks, has surfaced in the Calgary Health Region.

Don Lemma, then 39, was administered the fluid in late Au-

also see

Pharmacists' fears confirmed
Liberal wants CHR boss fired

We reviewed the incident with the family and the region took immediate and corrective action to ensure a similar error would not occur in the

53, died in the past month after being given potassium chloride instead of sodium chloride in a dialysis fluid.

The CHR said in a letter to the Evans family on June 28, 2000, that it was correcting its procedures as a result of the incident at the Lougheed.

Last Saturday, chief medical officer Bob Johnston said those changes in 2000 took effect immediately.

"We reviewed the incident with the family and the region took immediate and corrective action to ensure a similar error would not occur in the"
Selling Fear

No matter if it has little or nothing to do with the original event
Then the ‘expert’ critics come out

Pharmacy system needs overhaul: expert

‘Tech check tech’ policy under fire

MARIA CANTON
CALGARY HERALD

The practice of pharmacy technicians checking other’s work at the Calgary Health Region’s main drug dispensing facility must be overhauled, says the head of the Institute of Safe Medication Practices in Canada.

Ontario pharmacist David U says given that the recent patient deaths at the Foothills Medical Centre have been attributed to an error at the pharmacy production level, the local authority needs to revamp its system.

“Are technicians even cognizant of why certain drugs are stored in certain places,” U asked Saturday.

“The (CHR) needs to address its ‘technician checking technician’ policy. It will happen again unless we make the system safer.”

All procedures at the Central Production Pharmacy are already under review after two patients died recently from receiving intravenous solutions of potassium chloride instead of sodium chloride.

However, the director of pharmacy services for city hospitals defended the ‘Tech Check Tech’ process, saying it is accepted industry protocol.

“The current standard practice across the country is to have ‘techs check techs’ in hospital circumstances,” Steve Long said at a rare Saturday press conference.

“The techs) were acting out of the scope of practice that they are supposed to function under.”

Earlier this week, however, the head of the Pharmacists Association of Alberta said full-fledged pharmacists should not be taken out of the mix.

The CHR’s new central pharmacy has only been open a year and has about 35 staff, two of whom are pharmacists, with the rest being pharmacy technicians, assistants and aides.

“The move to the central production facility means there’s now extensive use of the practice of technicians checking other technicians — pharmacists should not be removed from the process,” asked Barry Cavanaugh.

Potassium chloride has been the source of medical mixups around the world and has caused other accidental deaths in Canada.

Just last month, an inquest jury in Ontario issued 32 recommendations after a Peterborough woman died because of a mistake in a local hospital.

A nurse accidentally injected undiluted potassium chloride into the intravenous line of Marie Tanner in 2002. Three years previous, another Peterborough patient, Ruby McConnel, also died after mistakenly receiving potassium chloride.

At Tanner’s inquest this year, the coroner said he knew of at least six similar deaths in Ontario alone.

The issue has also been raised in the United States. In 1995, the Institute for Safe Medication Practices issued a safety message to hospitals about being careful with concentrated potassium chloride.

Despite widespread coverage of potassium chloride-related deaths in professional journals, newsletters, and the lay press — some US hospitals still have not established necessary controls to optimize the safe administration of this drug,” the organization warned in an alert in 1998.

Also See

Druggists feared worst at CHR

Complaints mounting

MARIA CANTON
CALGARY HERALD

The president of the Pharmacists Association of Alberta has been deluged by calls from members claiming their worst fears were realized when the Calgary Health Region admitted two patients died after receiving the wrong intravenous solutions.

Barry Cavanaugh said Monday he has heard from many pharmacists complaining about errors at the hospital system’s central production pharmacy in the northeast.

The facility prepared the
A medical technician who has given thousands of safe doses of potassium chloride says a hospital employee would have to be “blind and illiterate” to confuse it with sodium chloride.

“Potassium chloride is labelled purple and sodium chloride is yellow, and it’s been like that from time immemorial,” says Peter Burrows, 65, a retired cardiovascular perfusionist who worked in operating rooms for more than 30 years.

“It’s a very, very hard mistake to make, because the labelling is also as colours. So you have to both not see and not read in order to make this error.”

He feels that any CHR worker who had confused the drugs must be “so stressed, overworked or distracted that they simply aren’t paying attention.”

Burrows, who worked in Ontario and Saskatchewan hospitals, said he decided to speak out because “this has happened too many times in one city to be ignored or shuffled under the counter.”
DIALYSIS DEATHS

Grit wants Klein to fire CHR boss

Health region board ‘patronage playground’: Taft

GWENDOLYN RICHARDS
CALGARY HERALD

Calling the Calgary Health Region a “political patronage playground,” Liberal health critic Kevin Taft asked the premier Monday to fire the health authority’s CEO in the wake of two deaths at the Foothills Medical Centre.

“Patronage appointments at the top level of the Calgary Health Region are getting in the way,” said Taft after asking Ralph Klein to remove Jack Davis.

Davis, who earns $520,000 as CHR president and CEO, was appointed to the position more than four years ago instead of sodium chloride, mixed at the central production pharmacy.

Families of the two victims were notified last Wednesday of the mix-up.

The central facility, staffed by two pharmacists and 33 technicians, assistants and aides, has technicians checking each other’s work to guard against errors.

Davis said Saturday that those responsible for the mix-up will be held accountable.

But Taft said holding the staff accountable for the mix-up won’t address larger problems within the CHR.

He noted the cases of Vince Motta and Maren Burkhart, who died in the CHR’s care after long emergency waits.

“From the death of Burkhart to Motta to the two dialysis deaths, there is a deeply troubling pattern,” the Liberal said. “If there wasn’t a history, I wouldn’t be making these demands.”
Person Model (#1)

Bad things ← Bad Mistakes ← Bad People
- Focus is on individual unsafe acts
- People are free agents freely willing to choose between safe and unsafe acts
- Errors are shaped by psychological factors
  - Inattention / Forgetfulness
  - Poor Motivation / Carelessness
  - Lack of Knowledge / Skills / Experience
  - Negligence

Countermeasures
- ‘Fear Appeal’ Poster Campaigns
- Rewards / Punishments
- Auditing of Unsafe Acts
- Writing Another Procedure

James Reason, Managing the Risks of Organizational Accidents, 1997
System Model

🌟 Engineer Safety into the System

- Human Errors ← Poor Human Engineering
- Human Errors are a Consequence - Not a Cause
- Failure to Design Systems According to Cognitive Strengths / Weaknesses of Front-Line Workers
- Errors are Symptoms of Latent Conditions

Countermeasures

- Continual process redesign
- Measuring Key Process Measures (Proactive)
- Like TQM

James Reason, Managing the Risks of Organizational Accidents, 1997
System Model - is this supported?
Making Healthcare Systems Safer

HAZARD IDENTIFICATION
ANALYSIS RECOMMENDATIONS

SAFETY MANAGEMENT

PERFORMANCE MEASUREMENT
EVALUATION RESEARCH

SYSTEM IMPROVEMENT
STRATEGIES / DESIGN
TESTING IMPLEMENTATION

leaders in health – a partner in care

Reporting – where is the focus?
Commit to Listening

Reporting System

- Easy to use
- Right Focus
- Show people it makes a difference
  - Feedback
  - Demonstrate positive change
- Deal with the fear of retribution

Confidentiality of reporter protected
Just & Trusting Culture

Two types of Evaluations (Separate)

• **Safety Analysis**
  – Focus on systems
  – Structured analytical approach (‘RCA like’)

• **Administrative Review**
  – Evaluates the actions of healthcare providers
  – Avoid the retrospectoscope (Hindsight bias)
  – Substitution Test
  – Foresight Test
Errors

- The failure of a planned action to be completed as intended

  The Region will not discipline

Non-compliance (Violation)

- Deviations from established policies / standards

  The Region will evaluate - the appropriateness of i) the policies & standards and ii) the circumstances leading to the non-compliance

Willful Intent to Harm (Sabotage)

  The Region will not tolerate - disciplinary action will be taken & criminal investigations may result
Truth ↔ Transparency ↔ Trust

PATIENT SAFETY

Calgary Health Region

Regional HC Providers

Healthcare Organizations

Safety Agencies

Public

INFORMING

Just & Trusting

Patients

Providers | Staff
Disclosure of What?

- ‘Medical’ Errors
- Critical Incidents
- Sentinel Events
- Adverse Event
- Harm

Patient or Provider Focused?

Language is (and therefore definitions are) extremely important → be careful!!
The Disclosure Process includes:

1. Acknowledging the harm to the patient
2. Providing an apology for the harm
3. Disclosing factual information about how the harm occurred

Leadership – when the lawyers are uncomfortable
1. Everyone within the Region has a right to know when there has been a **substantial change in risk** to their health/well-being

2. Maintain **confidence** of our principal health partners when there has been a substantial system failure (transparency → trust)

3. **Learning** about situations when things go wrong (stakeholders)
Informing – other reasons to do it

• It ‘normalizes’ open discussions of system and individual failures

• Can’t learn if we don’t talk

• Provides permission for others to be more transparent

• Important for healing
Informing when you ‘don’t have to’

- Canadian Healthcare Safety Symposium
- ‘Halifax 5’ – held in Calgary, Oct 2005
- Public Forum
  - Discussion of patient safety cases
  - Questions & answer period
  - Media invited
- Desensationalize adverse events
Using the event to transform

- Patient safety strategy
- Safety policies & procedures
  - Disclosure
  - Just & Trusting
  - Reporting
  - Informing
- Changing actions & behaviours
  - Management
  - Providers
  - Legal Counsel
- Involving patients & families
• Created – December 2005
• Many participants in the public forum video
• The Region is prepared to listen and work with you to make improvements
• Reviewed safety policies & strategies
• Code 66 teams (rapid response)
  • Activation by patients & families
Informing → Healing

Deborah Prowse - Healing
Jan 19/2007

leaders in health – a partner in care
Dana Farber Cancer Institute, Boston MA 1995 – Betsy Lehman

- Mother of three young children
- Healthcare reporter for the Boston Globe
- Undergoing experimental chemotherapy regimen for breast cancer
- One of the agents → cardiotoxicity (dose dependent)
- Chemotherapy protocol - to be delivered over 4 days
- Betsy was given the protocol dose each day for 4 days
- **Four fold** overdose
- She died suddenly five days later of cardiac failure
- One other patient – same overdose → intensive care
- Error was not detected for 2 months
Changing Patient Safety Culture

leaders in health – a partner in care
The Patient Safety Journey

It's long – often an uphill climb
Sometimes hard to see the peak
Don't forget to look back (down) every once in awhile to see how far you've come
(enjoy the view for awhile)