Doing the Right Thing When You're Wrong &

National Institute of Standards and Testing

International Symposium on Forensic Science Error Management
July 27, 2017

"It's fine to celebrate success but it is more important to heed the lessons of failure."
Bill Gates

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Centre of Forensic Sciences &

- Ontario government forensic laboratory
- 240 staff
- Operational sections:
  - Biology, Chemistry, Physical Sciences and Toxicology

Centre of Forensic Sciences &

Forensic Services and Coroner's Complex

Toronto, Ontario

Northern Regional Laboratory
Sault Ste. Marie, Ontario

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Save the Date: August 21–25, 2017

IAFS 2017

21ST TRIENNIAL MEETING OF THE
INTERNATIONAL ASSOCIATION OF FORENSIC SCIENCES 2017

Inter-Professional Collaboration in Forensic Science

AUGUST 21–25, 2017 ▸ TORONTO, ONTARIO, CANADA

Ontario

Laboratory Medicine & Pathobiology
UNIVERSITY OF TORONTO

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Forensic Failings in Ontario &

A Brief History

1996 — Bernardo Investigation Review, Justice Archie Campbell

1998 — Report of the Kaufman Commission on Proceedings Involving Guy Paul Morin

2008 — Inquiry into Pediatric Forensic Pathology in Ontario

1996 – Campbell Inquiry

Green Ribbon Task Force

Toronto Police Service

Centre of Forensic Sciences

1996- Campbell Inquiry Recommendations

- A “reasonable turnaround time”.
- commitment of resources.
- A system to better co-ordinate the work of forensic scientists and police investigators.

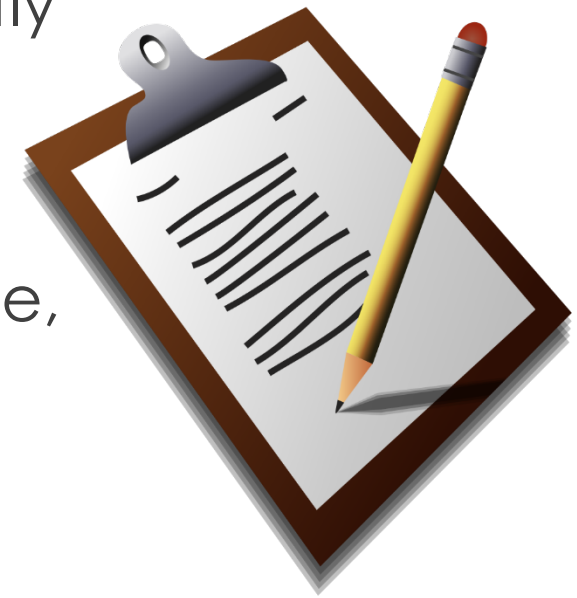
1998-Kaufman Commission &

- Initiated following the wrongful conviction of Guy Paul Morin.
- Reviewed the investigation into the death of 9 year old Christine Jessop and the role of the police, the Crown and defence counsel, and the Centre of Forensic Sciences.
- Forensic findings related to fibre and hair evidence.
- 120 witnesses appeared over 146 days of public hearings.

1998-Kaufman Commission &

Recommendations:

- Two-volume report with 119 recommendations.
- Thirty-three recommendations directly related to forensic science/CFS.
- Evidence handling, contamination detection and reporting, report wording, internal/external communications, contact with police, limitations of conclusions, court testimony review, QMS, etc. etc.



2008 Goudge Inquiry)

Two objectives:

- To determine what went wrong with practice and oversight of forensic pediatric pathology in Ontario, particularly between 1981-2001.
- To make recommendations and restore public confidence in forensic pediatric pathology

2008 Goudge Inquiry)

Recommendations:

- Three volume report detailing 169 recommendations.
- Covered a wide range of areas including: resourcing, training/education, recruitment/retention, enhanced governance oversight and performance management, communication, reporting, court monitoring, etc, etc.

Doing the Right Thing ,

The Path Forward

- How can we learn from the past?
- How do we apply the painful lessons of the past in dealing with current/future forensic science errors?

Example #1

R v. Prosa - Case Overview

- Early morning hours of Aug. 5, 2012
- Head-on collision between two vehicles on ramp connecting two major Toronto highways.
- Two deceased, and one passenger with serious injuries in vehicle #1.
- Driver of vehicle #2 (Prosa) charged with numerous offences including:
  - (2) impaired driving CD, (2) Crim Neg. CD
  - (1) Impaired driving CBH, (1) Crim Neg. CBH

CFS Involvement &

Blood sample from accused received Aug.10, 2012 and tested Aug.23, 2012.

BAC 148mg/100ml

BAC at time of incident was between 148-173mg/100ml

Defence request for further testing, May 2014

Crown grants permission to release the sample to defence for additional testing.

Articling student for defence attends CFS on May 22, 2014 to obtain sample.

Destination of sample unknown to CFS staff.

Letter of Complaint

June18
CFS staff advised by defence counsel that the blood sample had leaked during shipping.

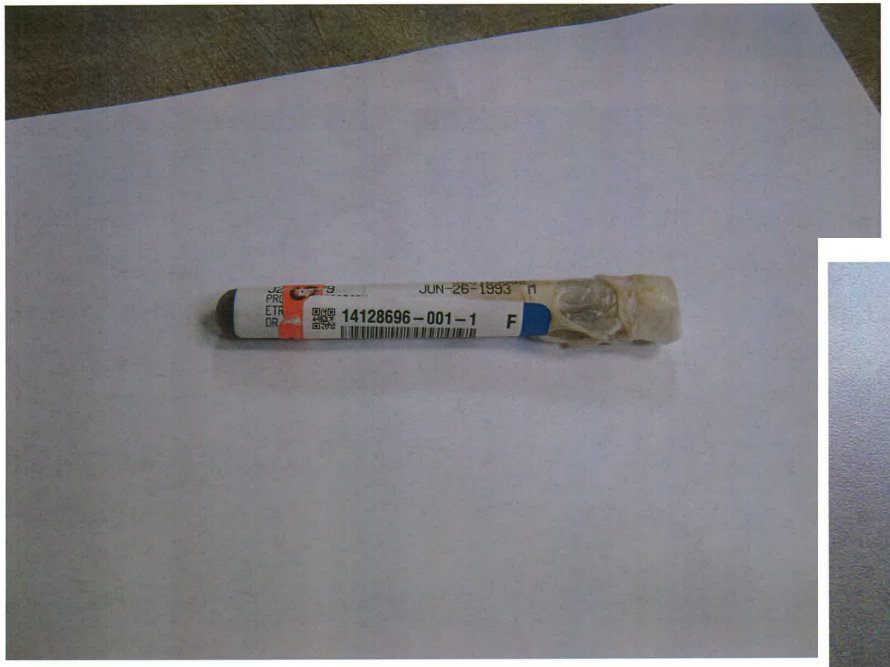
Counsel requests disclosure of all information regarding sample handling.

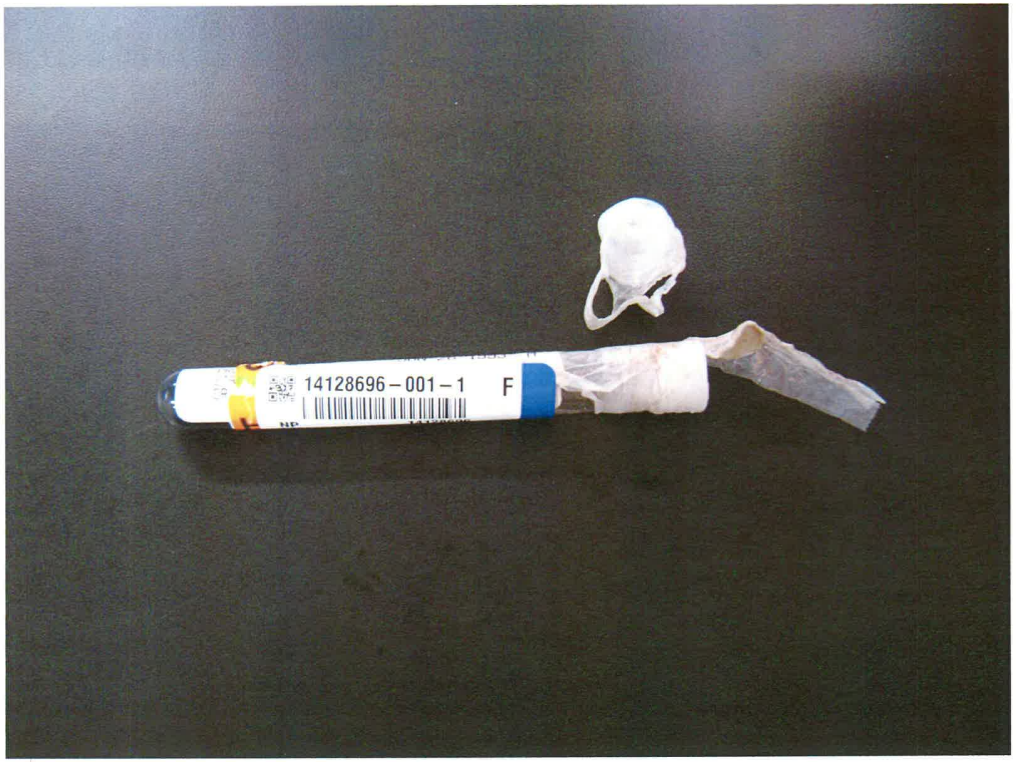
June 20 Toxicology management advised of complaint

Quality Assurance Manager (QM), and Director subsequently notified.

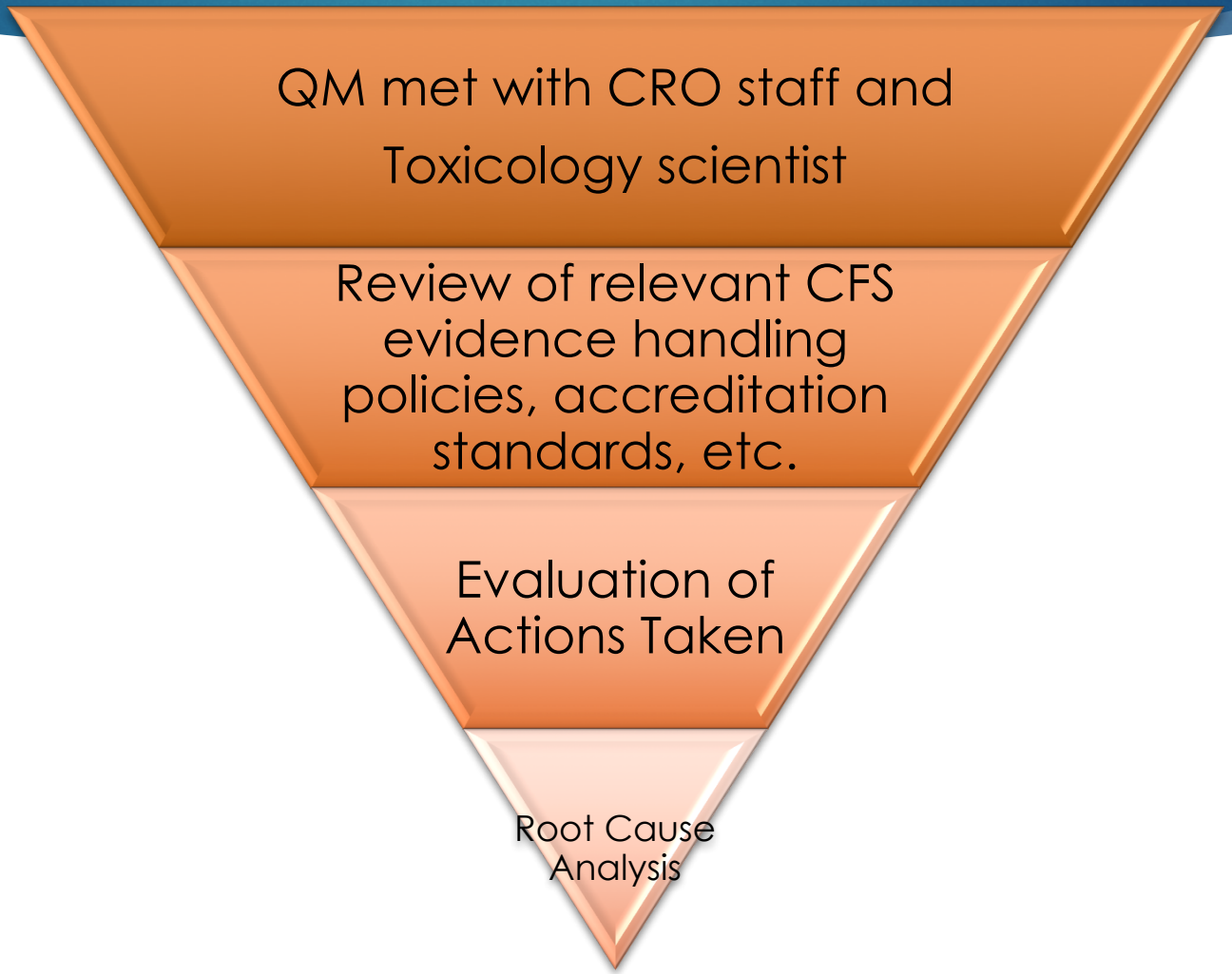
Corrective Action initiated

Blood Tube





Corrective Action Report 1403 &



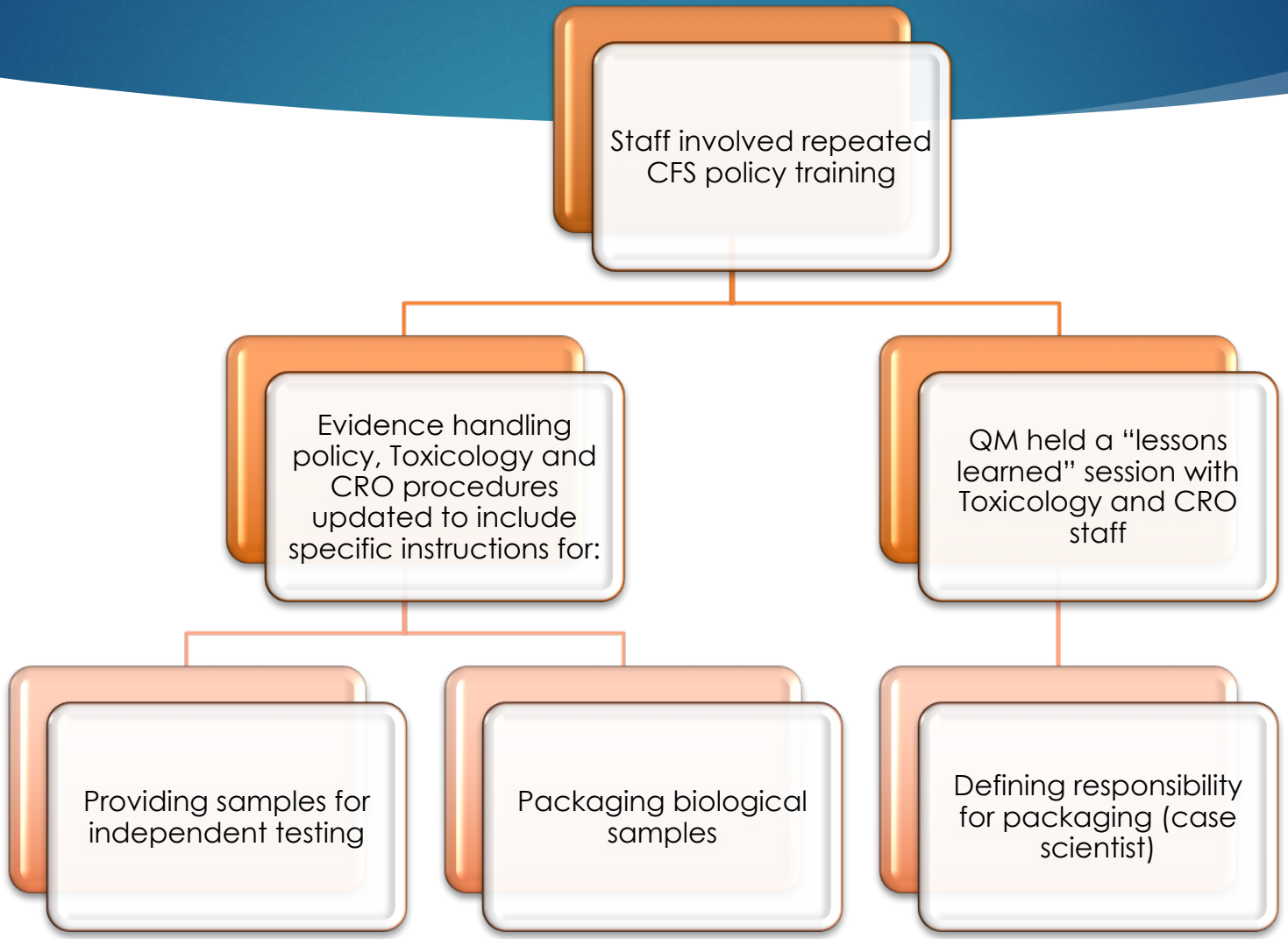
CAR 1403 Findings &

- Staff involved could confirm that the sample was properly capped prior to being released to defence
- Staff did not inquire as to where the sample was going and by what means
- Defence (or Crown) did not inform CFS that the sample was to be shipped
- Sample was not provided in an appropriate container

CAR 1403 “Mitigating” Findings &

- Toxicology samples are not returned to the submitter and are rarely shipped
- CRO Staff assumed when sample delivered from CRO to Toxicology sample “ready” to go out
- CRO assisted with the packaging (added parafilm, assisted defence with packaging)
- Lack of clarity regarding who was responsible for preparing the evidence for release

CAR1403 Actions Taken &



CAR 1403 Conclusion &

- Letter issued July 24, 2014 from CFS Director to Crown summarizing CAR 1403 and actions taken.
- Letter acknowledges that…
  - *"it was determined that the blood sample had not been properly sealed prior to being transferred to Mr. [articling student] on May 22, 2014."*

R v. Prosa

- 2015 ONSC 3122 (CanLII) - Application to Stay Proceedings (20150527)
- 2015 ONSC 4081 (CanLII) – Ruling (20150626)

- Thomas Goddard, for the Crown
- Alan Gold and Melanie Webb for the defendant.
- Hainey, J – Trial Judge

R v. Prosa - Trial &

- Heard: Jan-April, 2015
- CRO/Tox staff called to testify by Crown
- Defence requests full disclosure of CAR documents
- QM called to testify by defence
- Defence requests the proceedings be stayed due to lost evidence and Charter breach.
- Crown's position – "CFS was acting as agent for Mr. Prosa" when it prepared the blood sample for shipment…the Crown is therefore, not responsible for the CFS's actions.

Application to Stay-Judge's Ruling-May 27

- CFS found to be negligent

"I find that the CFS staff's conduct in preparing Mr. Prosa's blood sample for shipment, which resulted in loss, amounted to unacceptable negligence."

- S. Prosa's charter rights were breached

"Because the loss of Mr. Prosa's blood sample was the result of unacceptable negligence it constituted a breach of the Crown's disclosure obligations and resulted in a breach of Mr. Prosa's rights under s. 7 of the Charter"

Application to Stay- Judge's Ruling – May 27,2015

The most compelling evidence about why Mr. Prosa's blood sample leaked in transit is contained in the Draft Corrective Action Report prepared by Dr. Hellman following an internal investigation. The CFS's internal investigation determined the following to be the "root causes" of the blood loss:

- Mr. Prosa's blood sample was "not properly prepared for shipment" by the CFS staff;
- The integrity of the cap on the test tube containing the blood was "not checked" by the CFS staff;
- The blood sample was not "packaged properly to prevent deleterious change";
- The CFS staff "were unfamiliar with proper protocols with regards to providing samples for independent testing";
- The CFS staff did not understand "whom was responsible for packaging the sample";
- The CFS staff "assumed that other staff had 'taken care' of things."

Application to Stay- May 27, 2015

"I do not accept Crown counsel's submission that the CFS was acting as an agent for Mr. Prosa.."

"I cannot conclude that the loss of Mr. Prosa's blood sample resulted from a **systematic disregard** from the Crown, the police or the CFS of their obligation to preserve evidence"

"He (Mr. Prosa) is not precluded from advancing his defence because the blood sample was lost."

Trial Ruling- June 26,2015

The Crown is responsible for the fact that Mr. Prosa was deprived of evidence that may have assisted his defence. However, it could also have confirmed the Crown's case against him or it may have done neither…I find the theory of the defence to be speculative. The lost evidence does not leave me with a reasonable doubt about Mr. Prosa's guilt.

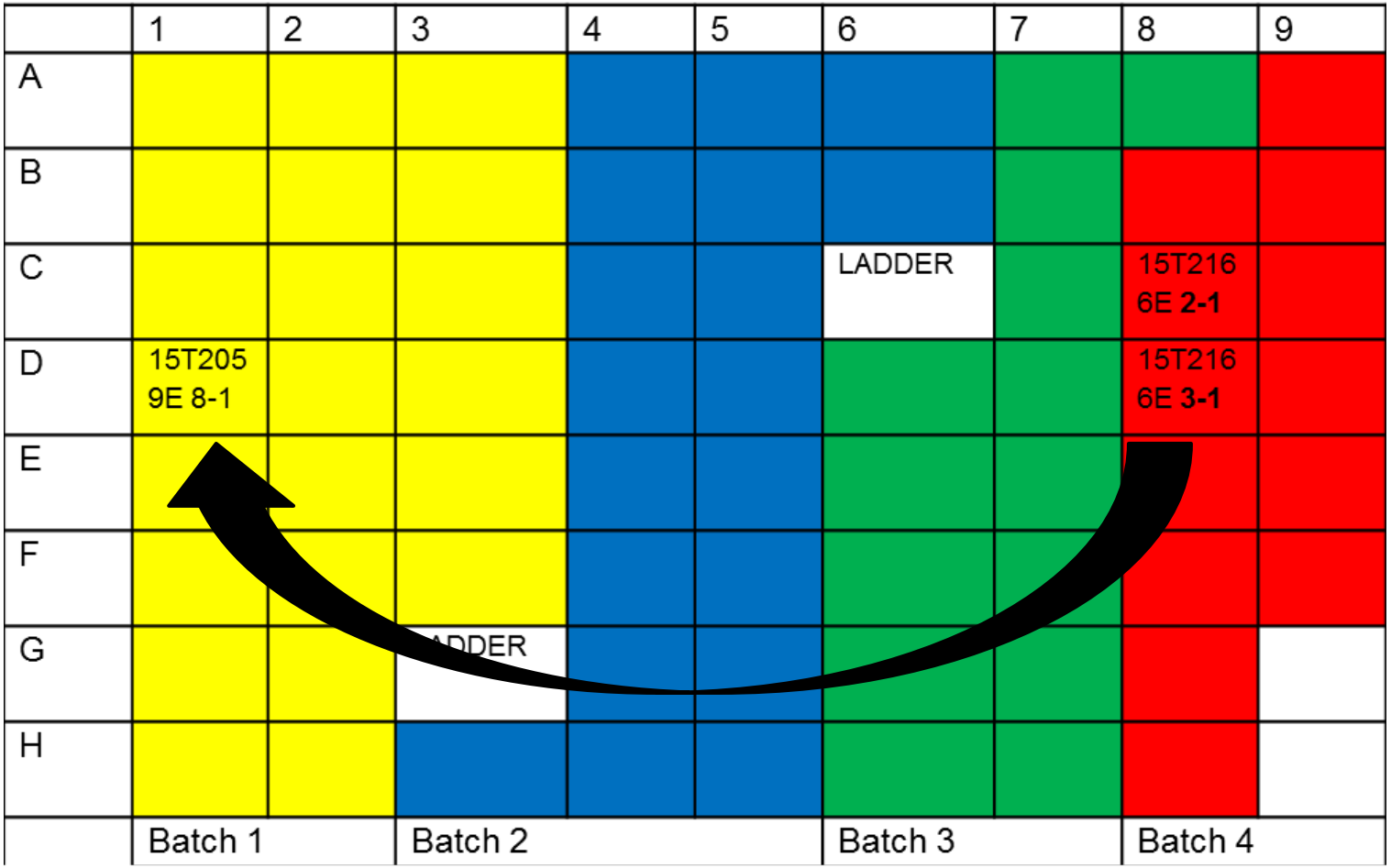
Hainey, J.

Example #2)

DNA Contamination

- DNA linkage reported between two unrelated cases (homicide and sexual assault)
- Linkage determined to be erroneous (6 months after reporting)
- Extensive police efforts expanded during intervening period in an attempt to investigate the linkage
- Error determined to be from cross-contamination during CE plate-loading

Mis-loading of the Sample &



Root Cause Analysis

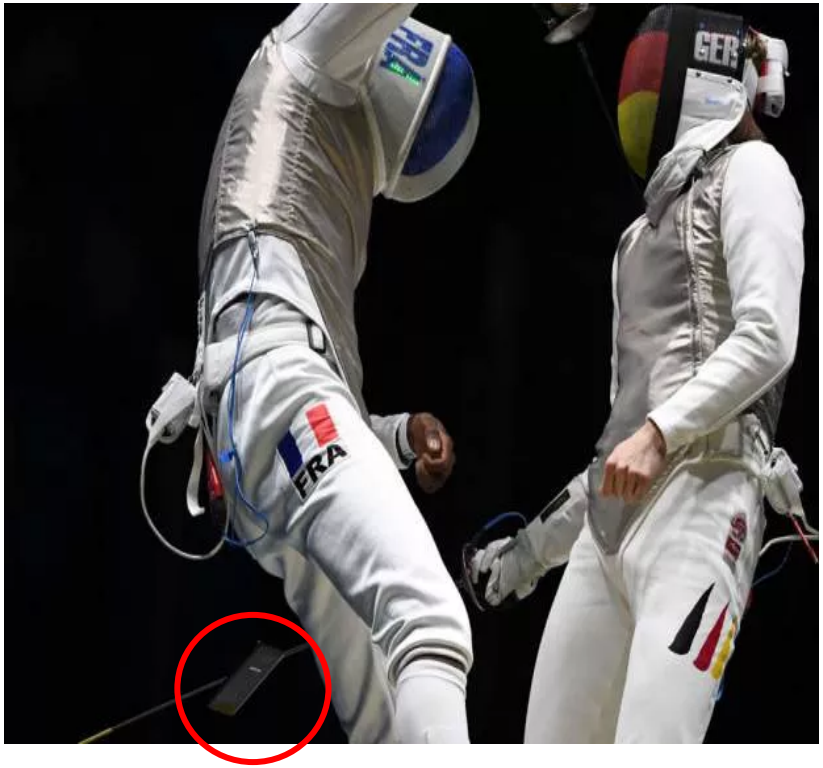
1. Mis-loading of the sample
2. Reloading of only part of the CE plate
3. Lack of notes related to #2
4. Lack of information to relate samples when a hit is generated

Corrective Action Plan &

- Acquisition and introduction of physical pipetting guides.
- Acquisition and introduction of single, large rack for loading all microamp tubes on a CE plate.
- Automated liquid transfer system – in procurement.
- Enhanced documentation
- **Distraction policy…..**

Drivers for a Policy on Distraction

Millenials and the Changing Workplace



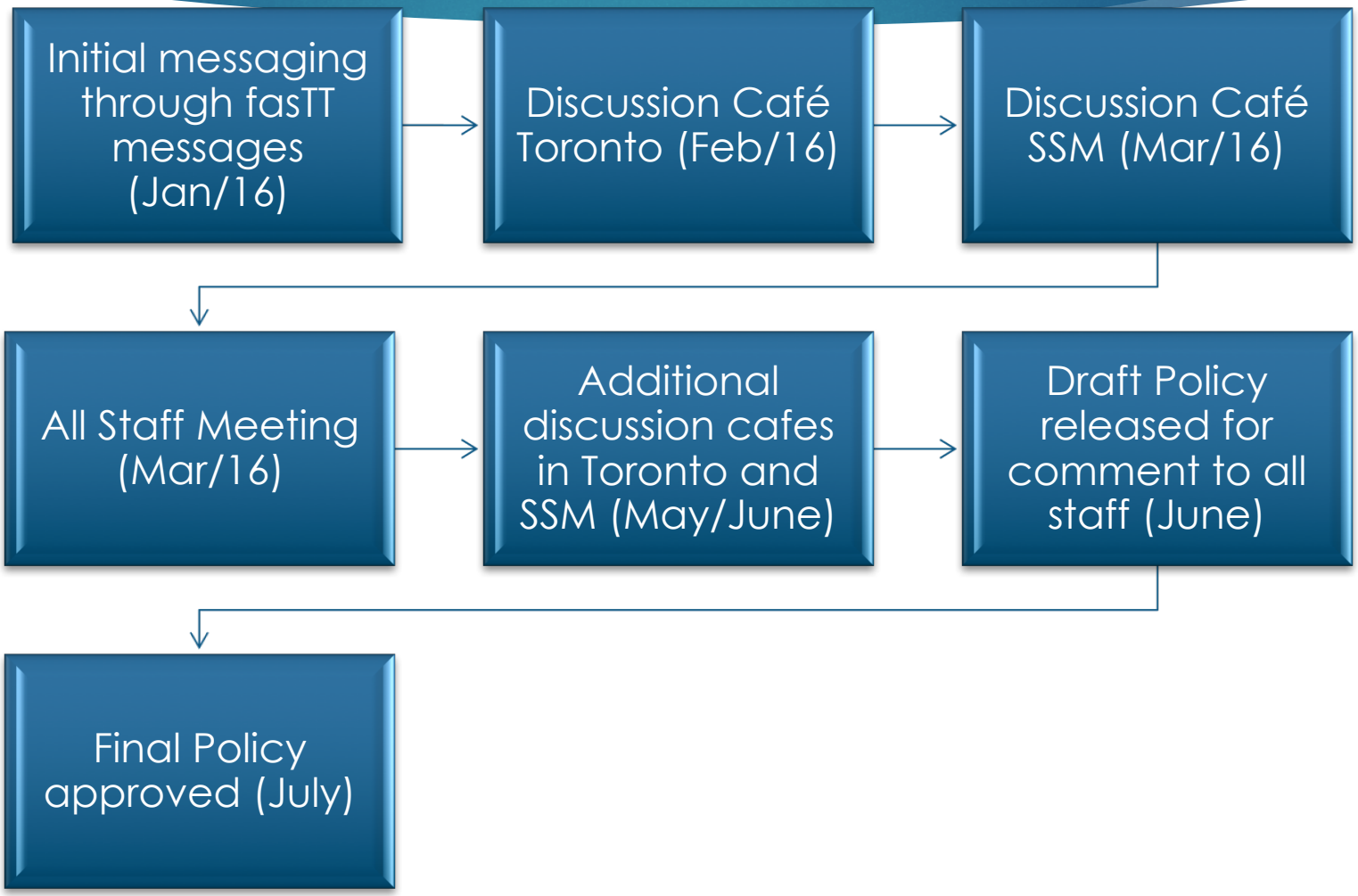
French fencer loses cell phone during match at Rio Olympics, Sunday, Aug. 7, 2016

York Police helicopter tracks Pokemon GO player driving erratically (Toronto Star, August 9, 2016)

Drivers for a Distraction Policy

- Millenials and the changing workplace
- CFS Policy Framework
- Errors and non-conforming work
- Research on cell phone use and distraction

Change Process &



*fas*TT message to staff – Jan. 22/16

- Cell phones are everywhere these days.
- In many homes in Canada and around the world, cell phones have even replaced land lines.
- For many of us, our cell phone is attached, or at least near us, powered up and ready, every waking hour of the day.
- Cell phones have spawned many benefits and conveniences, and they have allowed us to communicate with others instantaneously.
- So it's not surprising that we have grown to rely on them so heavily.
- But they have also become a source of distraction that has led to some horrific outcomes, especially on the roads.
- And that in turn has led to a change in public sentiment, tougher driving laws and increased enforcement.

- What do you do when you're driving or working and you hear the ping or pulse of an incoming text message?
- Do you reach for your phone right away? Or do you try to ignore it?
- And if you manage to ignore it, is that unread message still on your mind?
- Do you wonder who the sender is? Is he/she is expecting an immediate reply from you?
- Or do you wonder if the message is urgent? Are my kids OK?
- And how does all of that impact our ability to focus on what we're doing?
-
- It was with that in mind that I read this question and answer, and many of the comments resonated with me.
- So I thought I would share it with you. Please read it. It's brief. Not as brief as a text message though….

Issues and Obstacles &

- Cell phone as the sole communication tool.
- Expectations of instant availability.
- Concerns about availability during emergency situations.
- Concern that the policy was a performance management replacement (lack of trust).
- Concerns of inequality (scientist vs technologist vs management).
- Distraction is about more than just cell phone use.
- Failure to recognize distraction potential.

Summary

- Accreditation is not a vaccine for preventing errors.
- Elimination of all errors is unrealistic.
- The detection of errors and the response to them is the most critical component of the Quality Management System.

"Success is not final, failure is not fatal: it is the courage to continue that counts."

Winston Churchill

Questions &

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