Training individuals to use voluntary reporting systems

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Conflict of Interest

- **Sasa Mutic:**
  - **Partner - AQUSI, LLC (aqusi.org)**
  - **Grant on patient safety - Varian Medical Systems**

Learning Objectives

1. **Describe different approaches to incident learning systems**
2. **Describe training objectives for different members of RT team**
3. **Describe continuing education needs for sustainability of reporting culture**

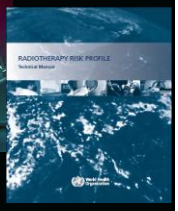
Outline

- **Introduction**
- **Statutory and voluntary reporting**
- **Institutional approaches to event reporting**
- **Training for:**
  - **Initial reporters**
  - **Supervisors**
  - **Process improvement committee**
  - **Administration**

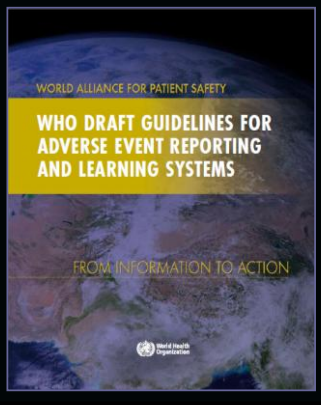
Background
Global Problem

- "…it calls into question the integrity of hospital systems and their ability to pick up errors and the capability to make sustainable changes."
- Sir Liam Donaldson, Chief Medical Officer, Department of Health

Towards Safer Radiotherapy. London: The Royal College of Radiologists, 2008.



Radiotherapy Risk Profile, Geneva: World Health Organization, 2009.



Event Reporting

- Mandatory (statutory)
  - Reporting required by law
  - NRC and certain states in U.S.
  - Well defined *treatment delivery* errors
  - Near-miss reporting typically not included
- Voluntary
  - Mainly at institutional level
  - Some states in the U.S. have voluntary reporting systems – utility for RT unclear
  - A spectrum of issues tracked

Statutory Reporting

- Largely independent of culture – motivated by law
- Training well defined and mandated
- Support resources mandated
- Standardized approach

Voluntary Reporting
Dependent on Many Factors

- Culture
- Reporting guidelines
- Reporting system
- Competence to interpret reported data
- Commitment to improvement
- Feedback and benefits to the reporting community

Voluntary Reporting
Training Requirements

- The role of reporting in enhancing patient safety
- General Safety Training
  - WHO Guidelines
  - Cooke, D.L., et al., *A Reference guide for learning from incidents in radiation treatment*, in *Initiative Series*. 2006
  - Reason, J., *Managing the risks of organizational accidents*. 1997
    - » Safety culture
      - Reporting culture
      - Just culture

Voluntary Reporting
Training Requirements

- Institutional culture training and reinforcement
  - What are our collective beliefs
  - Reporting and safety culture
  - Consequences to me
  - Consequences to my coworkers
  - How is data used
- Components of reporting system
  - What, how, who, when, where,…

Radiation oncology safety survey

- Multi-institutional*, IRB-approved
  - Surveymonkey®, anonymous, Dec-Jan 2011
    - Reporting patterns
    - Barriers to reporting
    - Perceptions about reporting
    - Reporting culture
- Overall response rate: 76%

*Johns Hopkins, Washington University, University of Miami, North Shore-Long Island Jewish Hospital

Harris, Terezakis, et al.

Error reporting:

- It's my responsibility 96%
- I know how to do it 81%
- I know what to report 83%

- I'm too busy to report 27%
- Should be anonymous 37%

Harris, Terezakis, et al.

Actual reports *, Dec-Jan 2011	
Role	**% of all reports**
Attending physician	0
Resident	0
Dosimetrist	1%
Physicist	5%
Nurse	20%
Radiation therapist	73%

***Combined data from all four department sites**

Harris, Terezakis, et al.

Lessons Learned
Naming a Voluntary Reporting System

- We often name our homegrown software by what it does
- Our brand new web-based system, back in 2007, was named **"Process Improvement Logs"**
- Our staff provided a nickname

"E-Snitch"

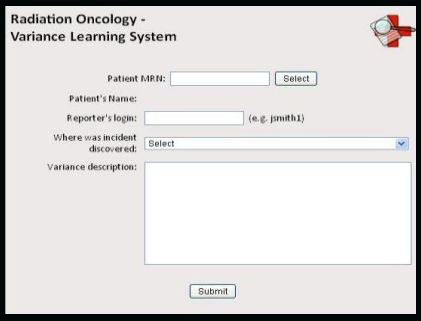
Training for individual groups

- Initial reporters
- Supervisors
- Teams
- Administration

Training
Initial Reporter

- How – Easy
- What – Harder
- Why – Very hard and continuous

How - Initial Reporter Screen

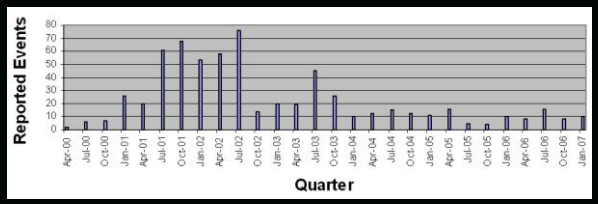


WGEP – Ford *et al,* Consensus recommendations for incident learning database structures in radiation oncology, 2011

Initial Reporter Training

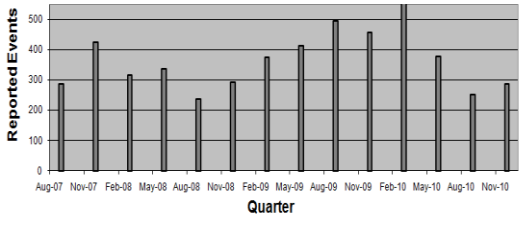
- What:
  - –Explicit events – frequent events
  - –Random events
  - –Actual errors
  - –Potential errors (near misses)
- Culture - Why:
  - –Feedback
  - –Actions\changes\improvement
  - –Leadership message and reinforcement

System Acceptance
Voluntary - Paper



Mutic et al, Event (error and near miss) reporting and learning system for process improvement in radiation oncology, Med. Phys. 37, 5027-36, (2010).

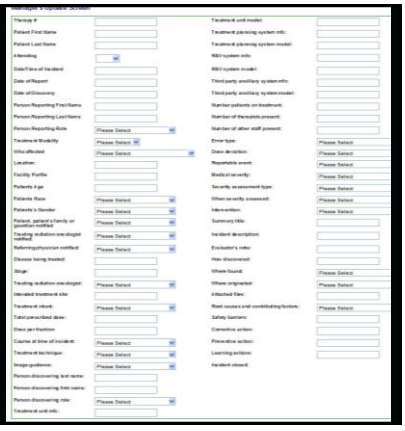
System Acceptance
Voluntary Web-based



Training
Evaluator (supervisors)

- Data classification
- Data analysis
- Culture message
- Error prevention
  - Human factors
  - Incident learning
  - Preventive measures
  - RCA
  - FMEA
  - FTA
  - QM

Data elements
Evaluator's Form



Data elements
Why Common Data Elements

- RCA
- Standardization
- Benchmarking
- Data trending
- Problem area identification
- Effective area identification

Data elements
Level

- Required
- Recommended
- Optional

Minimal Detail → Full Detail

Individual patient
Local facility

Correlation analysis
Trending/benchmarking

Training
Process Improvement Team

- At least one expert leader
- Error prevention
  - Human factors
  - Preventive measures
  - RCA
  - FMEA
  - FTA
  - QM

Training
Administration

- Organizational culture
- Organizational learning
- Organizational change
- Safety Culture
- Quality management

Conclusions

- Different levels of training
- Cultural/organizational training
- Operational training
- Initial training
- Continuous reinforcement

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