Using Event Reporting to Improve Patient Safety

SAMs Session

AAPM 2015 Spring Clinical Meeting, St. Louis, MO
Sunday 7:30-9:30 am
March 8, 2015
Outline

• Eric Ford, PhD, University of Washington
  – Incident learning and the AAPM/ASTRO RO-ILS system
• Susan Richardson, PhD, Swedish Cancer Center
  – Case studies
• Suzanne Evans, MD, Yale University
  – Barriers and buy-in
Disclosures

• R18 HS22244-01
• Chair ASTRO MDQA committee
• Vice-chair AAPM QASC
• Vice-chair AAPM WGPE
• Member ROHAC
Incident Learning: Three types of reports

1. Incident
   • Impacted the patient in some way
   • May or may not cause harm
2. Near-miss
   • Event is stopped by some safety barrier
Incident Learning: Three types of reports

3. Unsafe condition
Any circumstance that increases the probability of a patient safety event.
Incident Learning: Three types of reports

1. Incident – reached patient
2. Near-miss
3. Unsafe condition

All three types of events are recorded and analyzed in incident learning.

Systematically analyzing events presents a learning opportunity.

Agency for Healthcare Quality and Research (pso.ahrq.gov)
Incident Learning in RO

What does it look like today?

- An official recommendation of ASTRO (c.f. “Safety is No Accident” report and Safety White papers)
- Requirement for practice accreditation
- Can be part of ABR board maintenance of certification (via a PQI project)
Incident Learning in RO

What does it look like today?

Most centers are engaged in incident learning

<table>
<thead>
<tr>
<th>2. What system is used to log and review reports?</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percent</td>
</tr>
<tr>
<td>Hospital incident reporting system</td>
<td>58.18%</td>
</tr>
<tr>
<td>Electronic system within the department</td>
<td>12.73%</td>
</tr>
<tr>
<td>Other system within the department (e.g. paper)</td>
<td>23.64%</td>
</tr>
<tr>
<td>No formal system for reporting</td>
<td>1.82%</td>
</tr>
<tr>
<td>--</td>
<td>3.64%</td>
</tr>
<tr>
<td>Totals</td>
<td>100%</td>
</tr>
</tbody>
</table>

Some system to incident reporting

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Incident Learning in RO

What does it look like today?

Low volume of reports

4. How many reports are registered per month?

<table>
<thead>
<tr>
<th>Responses</th>
<th>Percent</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;40</td>
<td>1.67%</td>
<td>1</td>
</tr>
<tr>
<td>20-40</td>
<td>3.33%</td>
<td>2</td>
</tr>
<tr>
<td>4-20</td>
<td>11.67%</td>
<td>7</td>
</tr>
<tr>
<td>&lt;4</td>
<td>71.67%</td>
<td>43</td>
</tr>
</tbody>
</table>

Don't know / No experience: 11.67% | 7

Totals: 100% | 60

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The RO-ILS mission is to facilitate safer and higher quality care in radiation oncology by providing a mechanism for shared learning in a secure and non-punitive environment.

RO-ILS is the only medical-specialty-sponsored radiation oncology PSO. Data collected from RO-ILS will educate the radiation oncology community on how to improve safety and patient care.

For more information, visit: www.astro.org/ROILS
Email: ROILS@astro.org
RO-ILS Launch

June 19, 2014
Incident Learning in RO

What does it look like today?

Departmental ILS

Reportable Events
Incident Learning in RO

What does it look like today?

- Departmental ILS
- Hospital System
- Reportable Events
RO-ILS System

A “how to” overview

- Structure and contracting process
- Live demo of the portal
- Use as an institutional QI tool

First year of experience

- Statistics and overview
Structure of RO-ILS

Sign Contract

Download RO-ILS Users’ Guide (astro.org/roils)
Incident Learning in RO

What does it look like today?

- Departmental ILS
- Hospital System
- Reportable Events
Incident Learning in RO

RO-ILS

Departmental ILS

Reportable Events
Structure of RO-ILS

Patient Safety Organization (PSO)
Clarity Inc.

Incident Reports

Advisory Council

AAPM
ASTRO
LIVE DEMO

- Demo of web-portal reporting and analysis
Incident Learning in RO

What does it look like today?

Departmental ILS

Hospital System

Reportable Events
Incident Learning in RO

- RO-ILS
- Departmental ILS
- Reportable Events
LIVE DEMO

Further demo of use as a departmental ILS tool
RO-ILS: Year 1

Launched June 19, 2014

Current status (Feb 24, 2015)

- 46 contracts. 33 pending.
- 358 reports to PSO.
- Quarterly reports being issued to participants.
<table>
<thead>
<tr>
<th>Metric</th>
<th>Aggregate Previous Quarter</th>
<th>Aggregate Current Quarter</th>
<th>Provider Historical Quarter/Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of Events</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient Incident</td>
<td>60</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>Near Miss</td>
<td>25</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>Unsafe Conditions</td>
<td>11</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>Not patient related</td>
<td>0</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Most Commonly Identified Characteristic Event</td>
<td></td>
<td></td>
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<tr>
<td>Desired Procedure Inadvertently Omitted: 19% (15/81)</td>
<td></td>
<td></td>
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<tr>
<td>Unanswered/Not Sure: 53% (43/81)</td>
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<tr>
<td>Treatment Planning: 16% (13/81)</td>
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<tr>
<td>Unanswered: 65% (53/81)</td>
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<tr>
<td>Most Commonly Identified Workflow Step Where Event Occurred</td>
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CASE REVIEWS

Case reviews offer an opportunity to learn about patient safety through sharing of actual events. Below are two events reported that were identified as opportunities for reflection and learning.

CASE REVIEW 1

- Two patients with similar disease/dose/fractionation were treated out of order and the incorrect plan (i.e. other patient’s plan) was treated on the first patient. The pretreatment “time-out” process used to verify correct patient, site and procedure did not prevent this incident. Two other cases this quarter included the incorrect extremity imaged or planned for treatment, but these incidents were identified and corrected before radiotherapy began.
  - These incidents highlight the importance of performing a robust pre-procedure verification and “time-out” process before every simulation and every fraction.
  - Such incidents share commonalities with wrong site surgery cases
  - The Joint Commission (TJC) includes the use of a “time-out” immediately prior to surgeries and “other invasive procedures that expose patients to harm.”
  - Every radiotherapy clinic should implement a formal time-out process. TJC Universal Protocol for Preventing Wrong Site, Wrong Procedure and Wrong Person Surgery is available as a resource at http://www.jointcommission.org/standards_information/up.aspx.