Hands-On Workshop: Using Incidents to Improve Patient Care

Moderator: Jean Moran, Brett Miller

- Using Root Cause Analysis When Analyzing Incidents
  - Grace Kim
- Classification of Incidents
  - Jennifer Johnson
- Developing a Corrective Action Plan
  - Leah Schubert
- Hands-On Exercise
Classification of Incidents

Jennifer L Johnson, MS, MBA, FAAPM
UT MD Anderson Cancer Center
Classifying the Whys

Human factors

Hierarchy of causality

Technical
Organizational Management
Procedural Issues

Human Behavior involving Staff
Patient-related circumstances
External factors (beyond facility control)

Technical Whys

- Proper acceptance & commissioning
- Equipment design
- Equipment maintenance
- Facility environment

Organizational Management Whys

- Planning program
- Policies & procedures
- Training
- Communication
- Environment
- Leadership


https://healthcaregovernancereview.files.wordpress.com/2011/07/hgr45_web.jpg
Procedural Issues Whys

- Fail to detect developing problem
- Fail to interpret developing problem
- Fail to select correct rule to address problem
- Fail to develop effective plan
- Fail to execute planned action


https://img.clipartfest.com/a215f8f661a62d494618540062c5393a_kid-detective-clipart-clipart-detective-free_1400-1302.jpeg
Human Behavior Whys

- Scope of practice
- Mental slip
- Poor judgment
- Language and comprehension
- Intentional violations
- Negligence

Patient-related Circumstances Whys

- Misleading
- Cognitive performance
- Non-compliance
- Language and comprehension
- Patient medical conditions


External Factors Whys

- Natural environment
- Hazards

Classifying Incidents

Origin vs. Discovered

ROILS
(09/01/2015 - 04/23/2016)

- Patient assessment
- Simulation
- Treatment Planning
- Pre-Tx Review
- Tx Delivery
- On-Tx QM
- Post-Tx Completion
- Equipment/SW QM

odel: Originated
Red: Discovered

Classifying Incidents

Medical Severity

<table>
<thead>
<tr>
<th>Score</th>
<th>Consequences (actual or predicted)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Premature death</td>
</tr>
<tr>
<td>8/9</td>
<td>Life threatening—intervention essential. Possible recurrence due to underdose.</td>
</tr>
<tr>
<td>7</td>
<td>Permanent major disability (or grade 3/4 permanent toxicity)</td>
</tr>
<tr>
<td>5/6</td>
<td>Permanent minor disability (or grade 1/2 permanent toxicity)</td>
</tr>
<tr>
<td>3/4</td>
<td>Temporary side effects—major treatment/hospitalization</td>
</tr>
<tr>
<td>2</td>
<td>Temporary side effects—intervention indicated</td>
</tr>
<tr>
<td>1</td>
<td>Temporary side effects—intervention not indicated</td>
</tr>
<tr>
<td>0</td>
<td>No harm</td>
</tr>
<tr>
<td>...</td>
<td>Unknown</td>
</tr>
</tbody>
</table>

Dosimetric Severity

<table>
<thead>
<tr>
<th>Score</th>
<th>Dose deviation per course</th>
</tr>
</thead>
<tbody>
<tr>
<td>9/10</td>
<td>&gt;100% absolute dose deviation from the total prescription for any structure</td>
</tr>
<tr>
<td>7/8</td>
<td>&gt;25%–100% absolute dose deviation from the total prescription for any structure</td>
</tr>
<tr>
<td>5/6</td>
<td>&gt;10%–25% absolute dose deviation from the total prescription for any structure</td>
</tr>
<tr>
<td>3/4</td>
<td>&gt;5%–10% absolute dose deviation from the total prescription for any structure</td>
</tr>
<tr>
<td>1/2</td>
<td>&lt;5% absolute dose deviation from the total prescription for any structure</td>
</tr>
<tr>
<td>...</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>
A common mistake that people make when trying to design something completely foolproof is to underestimate the ingenuity of complete fools.

Douglas Adams