**Camera Collapse Kills Patient**

**Loose bolts result in Class 1 Recall**

A gamma camera was being used for a diagnostic procedure when it collapsed on a patient, causing his death. Investigation determined the collapse to be caused by loose bolts and the machines were recalled until inspections and, if needed, preventive maintenance could be performed by the manufacturer.

"If no issue is found with the support mechanism fasteners, the site can resume use of the device. If an issue with the support mechanism fasteners is found on a system, the GEHC Field Engineer will coordinate the replacement of impacted parts, and ensure that the system is operating appropriately and meets all specifications."

- Benjamin Fox, spokesperson for scanner manufacturer

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**What**

- **Problem(s)**: Patient death, camera collapse
- **Date**: June 5, 2013
- **Time**: 12:30 PM
- **Facility, site**: New York Veterans Affairs (VA) Medical Center
- **Unit, area, equipment**: Gamma camera/ nuclear medicine scanner
- **Task being performed**: Diagnostic scanning of patient

**Where**

- **Impact to the Goals**:
  - **Patient Safety**: Patient death
  - **Employee Safety**: Risk of employee injury
  - **Environmental**: N/A
  - **Compliance**: "Never event"
  - **Patient Services**: Scanner camera collapse on patient
  - **Schedule/ Operations**: Scanner recall
  - **Property/ Equipment**: Potential damage to scanner, camera
  - **Labor/ Time**: Inspections/recall activities

**Impact to the Goals**

- **Frequency**: Rare; one other known incident where camera fell on a patient

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**Analysis**

**Basic Level Cause Map** - Start with simple Why questions.

**Cause Mapping** is a Root Cause Analysis method that captures basic cause-and-effect relationships supported with evidence.

1. **Problem**
   - What is the Problem?
   - How did it happen?
   - What will be done?

2. **Analysis**
   - Basic Cause-and-Effect
   - What's the Problem? Why did it happen? What will be done?

3. **Solutions**
   - Sites that are using the affected models should have been notified and should stop use until the recommendations of the recall are met. Although details of broader solutions were not available, both the manufacturer of the devices and the healthcare facilities using them will surely take a look at the preventive maintenance schedule to decrease the risk of patient injury from this type of event.

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**Evidence**: Patient death due to device that functions other than intended

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**Investigation conducted shortly after this patient's death determined the collapse was caused by loose bolts. The machines were quickly subject to a Class 1 recall with the FDA. Sites with the recalled equipment were told to discontinue use until inspections and, if needed, preventive maintenance could be performed by the manufacturer. Publicly released information about the incident has not specified who was responsible for the preventive maintenance that may have determined the need for tightening the bolts. However, inspection and maintenance costs were covered by the manufacturer of the devices.**

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**Step 1** Problem

- **What's the Problem?**
- **Why did it happen?**
- **What will be done?**

**Step 2** Analysis

- **Basic Cause-and-Effect**
  - A patient's death was caused by the collapse of a camera on a scanner, which had loose bolts.

**Step 3** Solutions

- **Evidence**: It is unclear whether the equipment was under a service contract with the manufacturer

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