

# Lessons from Sentinel Events

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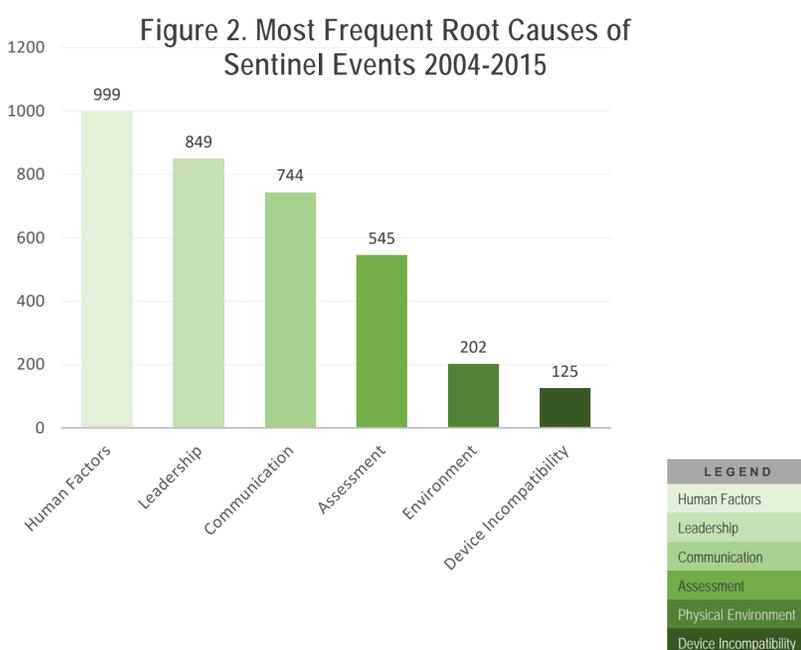
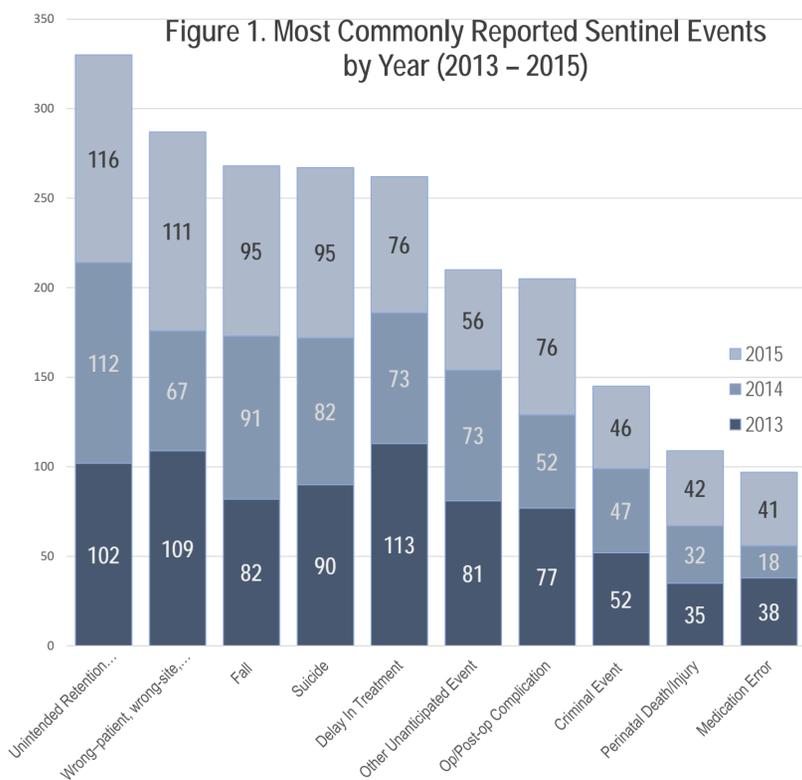
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## OBJECTIVES

A sentinel event is a patient safety event that is an unexpected occurrence involving death or serious physical or psychological injury. Serious injury specifically includes loss of limb or function. Sentinel event data are voluntarily reported by organizations accredited by The Joint Commission (TJC) and Joint Commission International (JCI). For each sentinel event, organizations conduct a root cause analysis (RCA), which is a process for identifying the causal factors that underlie the occurrence of the event.

We sought to map the most frequent types of root causes of sentinel events to standards from the *JCI Accreditation Standards for Hospitals, 6th Edition*. Identifying standards that address root causes of sentinel events may help accredited organizations discover systems issues that are potential risks and implement strategies to provide safer care for their patients.

## RESULTS



## METHODS

- Sentinel event data are voluntarily reported by accredited organizations who are required to conduct and submit a root cause analysis for each event.
- TJC and JCI collect, de-identify, enter into a database, and aggregate the sentinel event and root cause data.
- The database represents a small portion of actual events given that reporting is voluntary.
- TJC compiles a report that identifies common-cause categories and underlying issues contributing to sentinel events.
- We reviewed a TJC report of sentinel event data collected from 2004 through 2015 to identify the most frequent root causes of events; we then focused our review on the most recent data from 2015 to identify 6<sup>th</sup> Edition JCI Hospital Standards related to the most frequent causes.

- Of the ten most common sentinel events (SEs) reported to TJC from 2013 to 2015, the top two SEs reported most were *unintended retention of a foreign body* and *wrong-patient, wrong-site, wrong-procedure* (see Figure 1).
- The majority of SEs had multiple root causes (see Figure 2) with *human factors* as the most frequently reported root cause.
- Underlying issues that contributed to each of the root causes are shown in Table 1 along with examples of relevant standards from the *JCI Accreditation Standards for Hospitals, 6<sup>th</sup> Edition*.

Table 1. Underlying Issues and Related JCI Hospital Standards

Underlying Contributing Issues	Related Standard(s) from the JCI 6 <sup>th</sup> Edition Hospital Standards
Staffing levels and skill mix	SQE.2 (Leaders identify numbers/qualifications); SQE.6 – SQE.6.1 (Staffing strategy and ongoing review of strategy)
Staff orientation and in-service education	SQE.7 (Orientation to hospital, department/unit, specific responsibilities)
Competency assessment	SQE.3 – SQE.4 (Knowledge/skills consistent with patient needs) (Job descriptions specific to specialties)
Supervision	SQE.1.1 (Staff practicing within job description)
Other – Culture of Safety	GLD.13 – GLD.13.1 (Culture of Safety) Rushing/distraction, fatigue, complacency
Non-compliance with policies and procedures	GLD.2/GLD.3 (CEO and leadership ensure compliance with policies and procedures)
Organizational planning and culture	GLD.3 (Leadership defines mission, creates program/policies, develops staff structure re Mission)
Collaboration and integration of services	GLD.10 (Leaders integrates/coordinate services with other departments)
Performance improvements	GLD.5 (Leadership prioritizes hospital improvements) GLD.11 (Department/service leaders /identify improvements for their area)
Poor communication	IPSG.2.2 (Handover communication with/among physicians/other staff) PFR.2 – PFR.2.1 – PFR.2.2 (Communication with the patients and/or family)
Assessments for special populations	AOP.1.6 (Assessments for special populations meet patients' needs)
Care decisions based on assessments	AOP.4 (All Disciplines collaborate to analyze/ integrate patient assessments)
Clinical, laboratory, or radiology results	IPSG.2.1 (The hospital has a process for reporting critical results of diagnostic tests)
Emergency management	FMS.6 (Program for emergency management) PCI.8.1 – PCI.8.2 (Manage a sudden influx of patients with airborne infections/Response to global infections)
Fire Safety	FMS.7 – PCI.7.1 (Development/ implementation/testing of a fire/smoke safety program)
Availability of information	ACC.3 (Continuity of care and coordination of services) – ACC.4.4 (Outpatient profiles ACC.3 – ACC.3.2 (The patient's record is available to practitioners and transferred with patient)
Medical records	MOI.10 – MOI.10.1 (Every patient has a standardized clinical record that contains sufficient information)
Data definitions	MOI.4 (Standardized abbreviations, codes, symbols, and definitions are used)
Information technology	COP.2.2 (Texting patient information) MOI.11.1.1 (Copy/paste and auto-complete) – MOI.14 (Planned and unplanned downtime)
Programs for medical equipment	FMS.8 – FMS.8.1 (Medical equipment program) FMS.11.2 ME#1 (Staff are trained to operate medical equipment) COP.3 (High risk patients and services/proper use of alarms)
Software design and other software/hardware problems	MOI.13 ME#1 (Participation in selection, implementation and evaluation of IT) MMU.5.1 (Computer software is current/updated)

## CONCLUSIONS

Data indicate that sentinel events are a frequent occurrence; however, these events may be underreported due to organizations' reluctance to report to their accrediting body. Important information is learned from root cause analysis of sentinel events. Reporting sentinel events and submitting root cause analyses are important steps in identifying ways in which to prevent events from occurring. Standards that address the causes, trends, settings, and outcomes of sentinel events can help accredited organizations identify potential systems risks and implement strategies to provide safer care for their patients in a safer environment.