



# Sentinel Event Data

## *Root Causes by Event Type*

2004 – June 2013

# Joint Commission Root Cause Information

[www.jointcommission.org/Sentinel Event Policy and Procedures/](http://www.jointcommission.org/Sentinel_Event_Policy_and_Procedures/)

- ▶ *Sentinel Events are reported to The Joint Commission voluntarily by an accredited organization [www.jointcommission.org/self\\_report\\_form/](http://www.jointcommission.org/self_report_form/) OR reported via the complaint process. [www.jointcommission.org/report\\_a\\_complaint.aspx](http://www.jointcommission.org/report_a_complaint.aspx)*
- ▶ *When a reviewable sentinel event is reported to The Joint Commission:*
  - *The health care organization is required to share its root cause analysis.*
  - *The root cause analysis is thoroughly reviewed by a specially trained Joint Commission clinician who then conducts a dialogue with the accredited organization to identify the root causes contributing to the event.*

[www.jointcommission.org/Framework for Conducting a Root Cause Analysis and Action Plan/](http://www.jointcommission.org/Framework_for_Conducting_a_Root_Cause_Analysis_and_Action_Plan/)

- ▶ *The events and their root causes are recorded in a de-identified database.*

# Root Cause Definition

- ▶ *Fundamental reason(s) for the failure or inefficiency of one or more processes.*
- ▶ *Point(s) in the process where an intervention could reasonably be implemented to change performance and prevent an undesirable outcome.*
- ▶ *The majority of events have multiple root causes.*

# Data Limitations

- ▶ *The reporting of most sentinel events to The Joint Commission is voluntary and represents only a small proportion of actual events. Therefore, these root cause data are not an epidemiologic data set and no conclusions should be drawn about the actual relative frequency of root causes or trends in root causes over time.*

# Commonly Identified Root Cause Categories and Subcategories



➤ **Anesthesia Care**

Planning, monitoring and/or discharge

➤ **Assessment**

Adequacy, timing, or scope of; assessment; pediatric, psychiatric, alcohol/drug, and/or abuse/neglect assessments; patient observation; clinical laboratory testing; care decisions

➤ **Care Planning**

Planning and/or collaboration

➤ **Communication**

Oral, written, electronic, among staff, with/among physicians, with administration, with patient or family

➤ **Continuum of Care**

Access to care, setting of care, continuity of care, transfer of patient, and/or discharge of patient

➤ **Human Factors**

Staffing levels, staffing skill mix, staff orientation, in-service education, competency assessment, staff supervision, resident supervision, medical staff credentialing/privileging, medical staff peer review, other (e.g., rushing, fatigue, distraction, complacency, bias)

# Commonly Identified Root Cause Categories and Subcategories *continued...*

## ➤ **Information Management**

Information management needs assessment, confidentiality, security of information, data definitions, availability of information, technical systems, patient identification, medical records, aggregation of data

## ➤ **Leadership**

Organizational planning, organizational culture, community relations, service availability, priority setting, resource allocation, complaint resolution, leadership collaboration, standardization (e.g., clinical practice guidelines), directing department/services, integration of services, inadequate policies and procedures, non-compliance with policies and procedures, performance improvement, medical staff organization, nursing leadership

## ➤ **Medication Use**

Formulary, storage/control, labeling, ordering, preparing/distributing, administering, and/or patient monitoring

## ➤ **Nutrition Care**

Nutrition care planning, timing, storage, and/or patient monitoring

## ➤ **Operative Care**

Operative care planning, blood use, and/or patient monitoring

# Commonly Identified Root Cause Categories and Subcategories *continued...*



## ➤ **Patient Education**

Planning education, providing education, effectiveness of education

## ➤ **Patient Rights**

Informed consent, participation in care, end-of-life care, pain management, privacy

## ➤ **Performance Improvement**

Improvement planning, design/redesign testing, design/redesign measurement, data collection, data analysis, improvement actions

## ➤ **Physical Environment**

General safety, fire safety, security systems, hazardous materials, emergency management, smoking management, equipment management, utilities management

## ➤ **Rehabilitation**

Rehabilitation care planning, patient monitoring

## ➤ **Special Interventions**

Special intervention planning, assessment, restraint equipment, patient monitoring

## ➤ **Surveillance, Prevention, and Control of Infection**

Sterilization/contamination, universal precautions

# Most Frequently Identified Root Causes of Sentinel Events Reviewed by The Joint Commission by Year

*The majority of events have multiple root causes  
(Please refer to subcategories listed on slides 5-7)*

2011 (N=1243)		2012 (N=901)		Jan to Jun 2013 (N=446)	
Human Factors	899	Human Factors	614	Human Factors	314
Leadership	815	Leadership	557	Communication	292
Communication	760	Communication	532	Leadership	276
Assessment	689	Assessment	482	Assessment	246
Physical Environment	309	Information Management	203	Information Management	101
Information Management	233	Physical Environment	150	Physical Environment	70
Operative Care	207	Continuum of Care	95	Care Planning	49
Care Planning	144	Operative Care	93	Continuum of Care	48
Continuum of Care	137	Medication Use	91	Medication Use	48
Medication Use	97	Care Planning	81	Operative Care	45

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# Root Cause Information for Anesthesia-related Events Reviewed by The Joint Commission

(Resulting in death or permanent loss of function)

<b>2004 through Jun 2013 (N=96)</b> <i>The majority of events have multiple root causes</i>	
Anesthesia Care	57
Assessment	53
Human Factors	50
Communication	49
Leadership	42
Information Management	16
Medication Use	15
Physical Environment	15
No Root Cause Identified	10
Continuum of Care	8

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# Root Cause Information for Criminal Events-- Assault/Rape/Homicide Reviewed by The Joint Commission

(Rape defined as un-consented sexual contact.

One or more of the following must be present to determine reviewability: Any staff witnessed sexual contact; or sufficient clinical evidence; or admission by the perpetrator)

## 2004 through Jun 2013 (N=306) *The majority of events have multiple root causes*

Human Factors	192
Leadership	192
Assessment	180
Communication	166
Physical Environment	103
Patient Rights	55
Care Planning	40
Information Management	38
Continuum of Care	32
Special Interventions	14

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# Root Cause Information for Delay in Treatment Events Reviewed by The Joint Commission

(Resulting in death or permanent loss of function)

<b>2004 through Jun 2013 (N=846)</b> <i>The majority of events have multiple root causes</i>	
Communication	634
Assessment	619
Human Factors	545
Leadership	535
Information Management	247
Continuum of Care	212
Care Planning	141
Physical Environment	134
Medication Use	61
Patient Rights	20

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# Root Cause Information for Elopement-related Events Reviewed by The Joint Commission

(Resulting in death or permanent loss of function)

<b>2004 through Jun 2013 (N=81)</b> <i>The majority of events have multiple root causes</i>	
Communication	58
Assessment	55
Physical Environment	54
Leadership	53
Human Factors	41
Care Planning	17
Continuum of Care	11
Information Management	7
Special Interventions	7
Medication Use	5

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# Root Cause Information for Fall-related Events Reviewed by The Joint Commission

(Resulting in death or permanent loss of function)

<b>2004 through Jun 2013 (N=586)</b> <i>The majority of events have multiple root causes</i>	
Assessment	436
Leadership	335
Communication	329
Human Factors	323
Physical Environment	219
Care Planning	125
Information Management	77
Continuum of Care	48
Special Interventions	42
Patient Education	41

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# Root Cause Information for Fire-related Events Reviewed by The Joint Commission

(Resulting in death or permanent loss of function)

<b>2004 through Jun 2013 (N=104)</b> <i>The majority of events have multiple root causes</i>	
Communication	51
Leadership	47
Physical Environment	43
Human Factors	40
Assessment	35
Operative Care	30
Patient Education	22
Care Planning	20
Anesthesia Care	14
Information Management	12

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# Root Cause Information for Infant Abduction Events Reviewed by The Joint Commission

(Any individual receiving care, treatment or services)

<b>2004 through Jun 2013 (N=27)</b> <i>The majority of events have multiple root causes</i>	
Leadership	22
Communication	21
Physical Environment	21
Human Factors	13
Assessment	12
Information Management	9
Care Planning	4
Continuum of Care	4
Performance Improvement	3
Patient Education	1

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# Root Cause Information for Infection-related Events Reviewed by The Joint Commission

(Resulting in death or permanent loss of function)

<b>2004 through Jun 2013 (N=160)</b> <i>The majority of events have multiple root causes</i>	
Leadership	80
Human Factors	77
Communication	74
Surveillance, Prevent. & Ctrl of Infect.	74
Assessment	55
Information Management	35
Physical Environment	27
Care Planning	26
Continuum of Care	17
Medication Use	16

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# Root Cause Information for Maternal Events Reviewed by The Joint Commission

(Resulting in death or permanent loss of function)

<b>2004 through Jun 2013 (N=112)</b> <i>The majority of events have multiple root causes</i>	
Human Factors	57
Communication	54
Assessment	46
Leadership	45
No Root Cause Identified	23
Information Management	22
Physical Environment	17
Continuum of Care	16
Care Planning	13
Medication Use	12

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# Root Cause Information for Medical Equipment-related Events Reviewed by The Joint Commission

(Resulting in death or permanent loss of function)

<b>2004 through Jun 2013 (N=202)</b> <i>The majority of events have multiple root causes</i>	
Human Factors	152
Leadership	129
Physical Environment	126
Communication	117
Assessment	111
Information Management	27
Care Planning	22
Operative Care	11
Medication Use	9
Patient Education	7

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# Root Cause Information for Medication Error Events Reviewed by The Joint Commission

(Resulting in death or permanent loss of function)

<b>2004 through Jun 2013 (N=398)</b> <i>The majority of events have multiple root causes</i>	
Medication Use	352
Leadership	297
Human Factors	290
Communication	282
Assessment	169
Information Management	153
Physical Environment	68
Continuum of Care	40
Care Planning	39
Patient Education	9

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# Root Cause Information for Op/Post-op Complication Events Reviewed by The Joint Commission

(Resulting in death or permanent loss of function)

<b>2004 through Jun 2013 (N=756)</b> <i>The majority of events have multiple root causes</i>	
Human Factors	464
Communication	407
Assessment	370
Leadership	309
Information Management	145
Operative Care	106
Physical Environment	85
No Root Cause Identified	80
Care Planning	79
Medication Use	73

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# Root Cause Information for Perinatal Events Reviewed by The Joint Commission

(Full-term infant 2500g or > and absence of obvious congenital abnormality; resulting in death or permanent loss of function)

<b>2004 through Jun 2013 (N=254)</b> <i>The majority of events have multiple root causes</i>	
Human Factors	189
Communication	170
Assessment	168
Leadership	149
Information Management	56
Physical Environment	43
Care Planning	28
Medication Use	23
Continuum of Care	21
Patient Education	9

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# Root Cause Information for Radiation Overdose Events Reviewed by The Joint Commission

(Cumulative dose > 1500 rads to a single field, or any delivery of radiotherapy to the wrong body region or > 25% above the planned radiotherapy dose)

<b>2004 through Jun 2013 (N=33)</b> <i>The majority of events have multiple root causes</i>	
Human Factors	28
Leadership	28
Communication	21
Information Management	17
Assessment	12
Physical Environment	12
Care Planning	5
Operative Care	4
Medication Use	1
Patient Education	1

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# Root Cause Information for Restraint-related Events Reviewed by The Joint Commission

(Resulting in death or permanent loss of function)

<b>2004 through Jun 2013 (N=119)</b> <i>The majority of events have multiple root causes</i>	
Human Factors	95
Communication	81
Assessment	75
Special Interventions	74
Leadership	74
Physical Environment	47
Care Planning	24
Information Management	23
Medication Use	17
Continuum of Care	13

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# Root Cause Information for Suicide Events Reviewed by The Joint Commission

(Suicide of any individual receiving care, treatment or services in a staffed around-the-clock care setting or within 72 hours of discharge)

<b>2004 through Jun 2013 (N=720)</b> <i>The majority of events have multiple root causes</i>	
Assessment	579
Communication	419
Human Factors	381
Leadership	358
Physical Environment	318
Information Management	171
Continuum of Care	139
Care Planning	130
No Root Cause Identified	40
Medication Use	22

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# Root Cause Information for Transfer-related Events Reviewed by The Joint Commission

(Resulting in death or permanent loss of function)

<b>2004 through Jun 2013 (N=24)</b> <i>The majority of events have multiple root causes</i>	
Continuum of Care	19
Communication	18
Leadership	15
Assessment	13
Human Factors	12
Care Planning	6
Information Management	4
Physical Environment	3
Special Interventions	2
Anesthesia Care	1

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# Root Cause Information for Transfusion-related Events Reviewed by The Joint Commission

(Hemolytic transfusion reaction involving administration of blood or blood products having major blood group incompatibilities)

<b>2004 through Jun 2013 (N=118)</b> <i>The majority of events have multiple root causes</i>	
Leadership	97
Information Management	83
Human Factors	82
Communication	64
Medication Use	44
Assessment	40
Physical Environment	13
Operative Care	6
Continuum of Care	4
Care Planning	4

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# Root Cause Information for Unintended Retention of Foreign Object Events

## Reviewed by The Joint Commission

<b>2004 through Jun 2013 (N=829)</b> <i>The majority of events have multiple root causes</i>	
Leadership	654
Human Factors	546
Communication	529
Operative Care	458
Assessment	207
Physical Environment	186
Information Management	131
Continuum of Care	22
Performance Improvement	14
Care Planning	9

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# Root Cause Information for Ventilator-related Events Reviewed by The Joint Commission

(Resulting in death or permanent loss of function)

<b>2004 through Jun 2013 (N=46)</b> <i>The majority of events have multiple root causes</i>	
Human Factors	36
Leadership	27
Communication	26
Physical Environment	26
Assessment	23
Information Management	10
Special Interventions	7
Care Planning	6
Continuum of Care	6
Anesthesia Care	4

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# Root Cause Information for Wrong-patient, Wrong-site, Wrong-procedure Events Reviewed by The Joint Commission

(Regardless of the magnitude of the procedure)

<b>2004 through Jun 2013 (N=988)</b> <i>The majority of events have multiple root causes</i>	
Leadership	812
Communication	674
Human Factors	666
Information Management	364
Operative Care	339
Assessment	325
Physical Environment	94
Patient Rights	60
Anesthesia Care	52
Continuum of Care	36

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