PATIENT SAFETY · INTRODUCTION 101

Sentinel Events

Definition, alerts, statistics and empirical evidence: the Joint Commission’s 2027 transformation and 42 studies from PubMed

Undergraduate course | Health Management

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BY THE END OF THIS LECTURE

Six learning objectives

Define

Compare the old and the 2027 definition of a sentinel event.

Distinguish

Separate it from adverse events, near misses and no-harm events.

Classify

Place the 31 events into five categories.

Follow

Describe the purpose and topics of the Sentinel Event Alert newsletters.

Interpret

Read the statistics with the limits of voluntary reporting in mind.

Critique

Evaluate the findings and gaps of the empirical studies.

WHY IT MATTERS

In 2024 the Joint Commission reviewed 1,575 sentinel events

21%
ended in death

49%
ended in severe harm

12%
increase on 2023

91.6%
judged preventable (Saudi Arabia, 2012-2015)

Source: Joint Commission (2025); Al Wahabi et al. (2017)

HISTORY

Thirty years of sentinel events enter a new phase in 2027

1996 Joint Commission adopts the Sentinel Event Policy

1998 First Sentinel Event Alert newsletter

2002 NQF Serious Reportable Events (SRE) list

2006 SEE study: 205 intensive care units

2011 Last old update of the SRE list

2024 Suicide window widened from 72 hours to 7 days

2026 Alignment report (January, May update)

2027 New list of 31 events takes effect

Two lines merge: accreditation-based voluntary reporting and legally mandated SRE reporting in more than 30 states.

Source: Joint Commission (n.d.-b); Joint Commission and NQF (2026); Valentin et al. (2006)

DEFINITION

From “how severe was it?” to “was it preventable?”

Until now

Outcome-based definition

A patient safety event, not related to the natural course of illness, that reaches a patient and results in death, severe harm regardless of duration, or permanent harm regardless of severity.

From January 2027

Three-criterion definition

A patient safety event that is clearly tied to a patient encounter, serious and largely preventable. Sentinel events are a subset of adverse events.

The name “sentinel” comes from the signal these events send: investigate and respond now.

Source: Joint Commission (n.d.-b); Joint Commission (2026)

THE 2027 DEFINITION

An event must meet all three criteria

1

Patient encounter

Any interaction for care or assessment: in person, phone, e-mail, health record, telehealth. Inpatients and outpatients alike.

2

Serious

Death or one of four components: physical harm, emotional or psychological harm, major intervention, impaired activities of daily living.

3

Largely preventable

Likely avoidable by means available within generally accepted performance standards (GAPS) of care. No proof required.

Workforce safety events (SE 29-31) are exempt from the patient encounter criterion.

Source: Joint Commission (2026); Joint Commission (n.d.-d)

NEIGHBOURING CONCEPTS

Two questions separate them: did it reach the patient, and how much harm?

Concept	Reached the patient?	Harm	Expected response
Near miss	No	None	Reported for regardless-of-outcome events
No-harm event	Yes	None	Internal review
Minimal harm event	Yes	No intervention needed	Internal review
Moderate harm event	Yes	Temporary, may need intervention	Internal review
Sentinel event	Yes (with exceptions)	Death, severe or permanent	Comprehensive analysis and action plan in 45 business days

Source: Joint Commission (2026)

CLASSIFICATION

The 2027 list: 31 events in five categories

7

Procedural

Wrong site or patient, retained item, MR Zone IV, wrong radiotherapy

4

Product or device

Contaminated product, device failure, medical gas, fire and smoke

5

Patient protection

Suicide, missing patient, restraint, sexual assault, unauthorized discharge

12

Care provision

Falls, medication error, pressure injury, missed test result, birth

3

Workforce safety

Physical assault, sexual assault and homicide of staff

28 come from the NQF SRE list: 9 are **regardless of outcome** (every instance counts), 19 are **patient harm** events (seriousness and preventability tested case by case).

Source: Joint Commission (2026); Joint Commission and NQF (2026)

DECISION MAKING

An event is assessed in five steps

1

Event name

Which listed event does it resemble?

2

Intent and exclusions

Read the guidance and definitions in the alignment report.

3

Encounter

Is the event clearly tied to a patient encounter?

4

Level of harm

Did it reach the patient? Is it serious? If regardless of outcome, every instance is serious.

5

Preventability

Any deviation from standards? If regardless of outcome, every instance is preventable.

Where state or national regulation differs, the legal requirement takes precedence.

Source: Joint Commission (2026); Joint Commission (n.d.-d)

POST-EVENT RESPONSE

It starts within hours and is tracked for months

At once

Stabilize the patient, disclose to patient and family, support staff, notify leaders

48 hours

Investigate: does the event meet the three criteria?

45 days

Comprehensive systematic analysis (root cause analysis) and action plan, in business days

+15 days

Extra time if the Joint Commission finds the analysis inadequate

120 days

Measures of success (SE MOS) tracked; failure can affect accreditation

Action plan rule

At least one “intermediate or stronger” action, with owner, timeline and effectiveness measure.

Confidentiality

Analyses are kept confidential; the database holds no organization, staff or patient identifiers.

Source: Joint Commission (2026); Joint Commission (n.d.-b)

SENTINEL EVENT ALERT

23 newsletters online since 1998: from clinic to system to external risks

Clinical processes

Blood transfusion (10) · Infection control (28) · Infant harm at delivery (30) · Pediatric medication errors (39) · Radiation (47) · Alarm safety (50) · Retained objects (51) · Vial misuse (52) · Falls (55) · DOACs (61) · Infusion pumps (63)

System and culture

Health IT (42) · Violence in health care (45) · Worker fatigue (48) · Leadership and safety culture (57) · Hand-off communication (58) · Violence against workers (59) · Learning from close calls (60)

Inequity and external risks

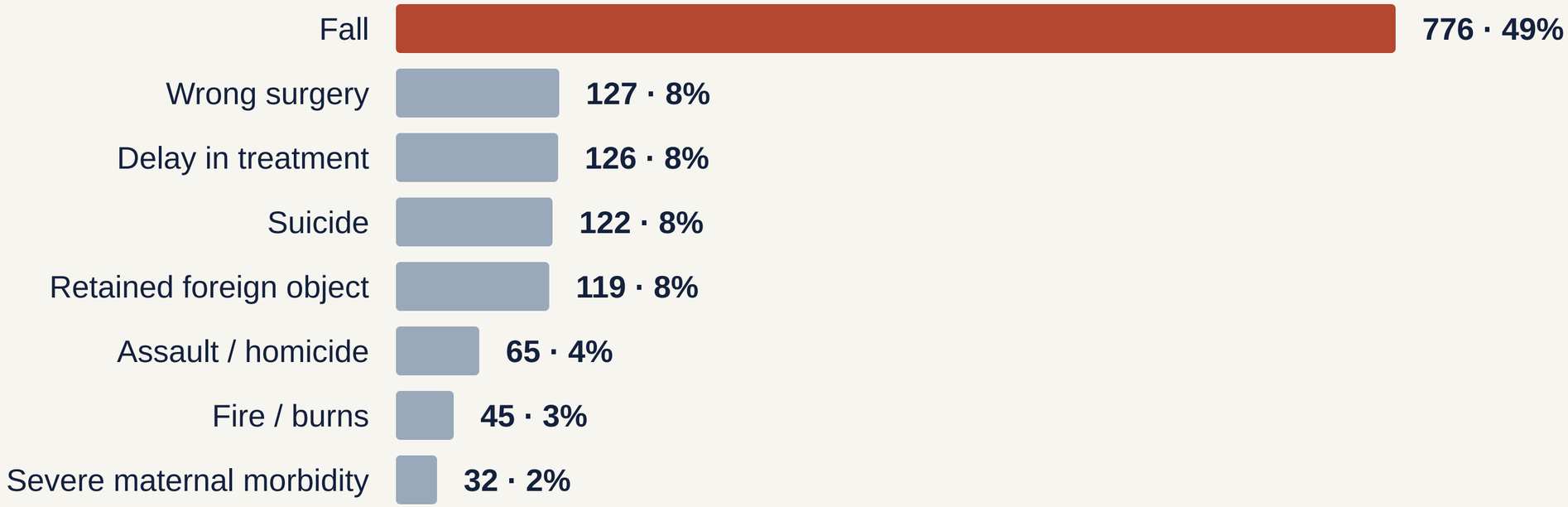
Diagnostic overshadowing (65) · Disparities in pregnancy (66) · Cyberattack (67) · Surgical fire, 2023 update (68) · Environmental disasters and evacuation (69, November 2024)

Each newsletter: event type, common causes, steps to prevent it.

Source: Joint Commission (n.d.-a), newsletters online as of 16 November 2026; numbers in brackets are issue numbers.

STATISTICS · 2024

One in every two reported events is a fall



But 37% of deaths were suicides and 23% delays in treatment.

Source: Joint Commission (2025). Total 1,575 events; reporting is voluntary.

CAUTION: VOLUNTARY REPORTING

Reported falls rose 4.5-fold in five years. Does that mean more falls?

173
falls reported, 2020

776
falls reported, 2024

~99%
self-reported by organizations (2024)

20%
of severe claim events reported as sentinel (Sweden)

The Joint Commission’s own warning: the data cannot show the true frequency of events or trends. The numbers measure reporting culture.

Source: Joint Commission (2025); Öhrn et al. (2011). The 99% is read from a chart in the 2024 report.

CONTRIBUTING FACTORS · 2024

The same two factors lead in every event type

Event type	Policies not followed	No shared understanding	Type-specific factor
Fall	10%	7%	Inadequate patient education 7%
Wrong surgery	12%	10%	Incomplete time-out 10%
Delay in treatment	9%	8%	Competency to recognize signs 9%
Suicide	7%	9%	Communication with outside providers 6%
Retained foreign object	15%	14%	Team communication 6%
Assault / homicide	not in top	8%	Recognizing escalating behavior 8%

Percentages are shares of factors, not events; one event has several factors.

Source: Joint Commission (2025).

EMPIRICAL EVIDENCE · PUBMED

From 313 records to 42 empirical studies

313

Identified

“Sentinel event(s)” in title, 16 November 2026

165

Not empirical

Editorials, news, notices, reviews

92

Homonym

Epidemiological surveillance, perinatal brain injury

14

Single case / no abstract

9 single cases, 5 without abstract

42

Included

2006-2026; two thirds after 2017

Countries

USA 14 · Netherlands 7 · Saudi Arabia 5 · Norway 3 · Türkiye 0

Themes

Specific event types 10 · RCA quality 8 · Causes 6 · Incidence 6 · Culture 5 · Interventions 5

Source: the author’s PubMed search; the full list is in the supplementary file.

FINDING 1 · ROOT CAUSE ANALYSIS

Analyses happen, recommendations are weak

64%

Recommendations failing criteria

442 recommendations in 115 perioperative reports (Bos et al., 2021)

36%

“Person-related” factors

405 factors in 69 cross-hospital reports (Baartmans et al., 2023)

83%

Good recommendations after training

Up from 63.3% before training (Feiter et al., 2025)

- In Hong Kong, analyses of 379 events stayed with proximal causes; 186 involved miscommunication (Watson and Wu, 2022).
- In the Netherlands there were no criteria for choosing recommendations, and similar events recurred (Bos et al., 2020).
- Those leading analyses face role ambiguity and emotional strain (Liepelt and Kirchhoff, 2025).

Source: PubMed corpus; full references on the reference slides.

FINDING 2 · FREQUENCY, CULTURE, INTERVENTION

How often, why, and what works?

Frequency and risk

38.8 events per 100 patient days in intensive care; 205 units (Valentin et al., 2006)

In Saudi Arabia, 58.2% of 433 events were deaths and 91.6% preventable (Al Wahabi et al., 2017)

308 retained objects in the Joint Commission database; 5 deaths (Steelman et al., 2018)

Culture and reporting

Hospitals with higher teamwork and openness scores reported fewer events (Binkheder et al., 2023)

41% of news articles blamed an individual clinician (Li et al., 2015)

Patients and families take little part in analyses (Bouwman et al., 2018)

Interventions

Obstetric safety program: events fell from 5 to 0, payments by about 90% (Grunebaum et al., 2011)

Harm index events fell from 26.7 to 18.3 per 1,000 (Ng et al., 2026)

In Italy, 35.5% of facilities implemented none of 19 national recommendations (Sebastiani et al., 2024)

Source: PubMed corpus, findings at abstract level.

CRITICAL LAYER

Five tensions in the literature

Axis	On one side	On the other side
Outcome or preventability?	The 2027 definition focuses on learning	The preventability judgment is left to the organization; the policy is internally inconsistent
Individual or system?	The Joint Commission treats an event as a system weakness	One third of factors in analyses are “person-related”
Voluntary reporting	Brings transparency and learning	Only one fifth of severe events are reported
Root cause analysis	Successful programs exist	Most recommendations fail criteria; events recur
Patients and families	Disclosure and involvement are expected	Involvement is limited and emotionally hard

Source: Joint Commission (2026); Baartmans et al. (2023); Öhrn et al. (2011); Bos et al. (2021); Grunebaum et al. (2011); Bouwman et al. (2018); Liepelt et al. (2026)

CLASS EXERCISE

Are these sentinel events? Apply the five steps

A

Fall from bed

A 78-year-old patient falls from bed at night and needs hip fracture surgery. No fall risk assessment had been done.

B

Cylinder at the MR door

A non-compatible oxygen cylinder is spotted and stopped at the MR Zone IV door. Nobody is harmed.

C

Natural course

A patient with advanced cancer dies as expected under care that meets all standards.

For each case: category, assessment type, the three criteria, the organization’s obligations.

Cases are constructed for teaching.

SUMMARY

Seven points to remember

1. A sentinel event is a patient safety event with grave consequences that requires immediate investigation.
2. From January 2027, three criteria: patient encounter, seriousness, large preventability.
3. The new list has 31 events in five categories: 28 NQF SRE events and 3 workforce safety events.
4. The organization completes a comprehensive analysis and a plan with at least one strong action within 45 business days.
5. 2024: 1,575 events; half were falls, one fifth ended in death.
6. Reporting is voluntary; the numbers reflect reporting culture.
7. Research: analyses stop at proximal causes, recommendations are weak; no evidence from Türkiye.

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