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Florida: Medical Errors (384)

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Cost: $24
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Course Summary

Medical errors represent an urgent public health crisis, historically causing up to 98,000 U.S. hospital deaths annually and driving massive financial costs, legal liabilities, and clinician burnout. Defined as any deviation from standard care—whether by omission or commission—errors range from mild incidents to catastrophic Sentinel Events and Serious Reportable Events or "Never Events".

Errors typically occur when system weaknesses align with human vulnerabilities like fatigue, inexperience, and cognitive overload, manifesting as diagnostic errors or procedural treatment errors. Treatment errors include medication slip-ups driven by look-alike/sound-alike (LASA) abbreviations, surgical mishaps like retained foreign objects, equipment issues like electronic "alert fatigue," and monitoring failures where a patient's slow physiological decline goes completely unnoticed. Communication failures during vulnerable shift handoffs further compound these risks.

To mitigate this, healthcare facilities must transition from an individual blame culture to a proactive system of hazard identification. Safety strategies include "No Interruption Zones" for medication preparation, mandating strict read-back protocols for verbal orders, and deploying objective screening tools like the Beers Criteria or Early Warning Scoring Systems (MEWS) to prevent monitoring failures. Organizations must utilize proactive risk assessments and cultivate a Just Culture that treats "near-misses" as valuable, non-punitive learning opportunities to permanently fix underlying systems.

Course Objectives

When you finish this course, you will be able to:

1. Define medical errors.

2. Describe the 4 main types of medical errors.

3. Describe 4 of the most error-prone situations in the healthcare setting.

4. Define root cause analysis.

5. Describe 2 specific criteria that define an adverse event in Florida.

6. Discuss 4 populations that are particularly vulnerable to the effects of medical errors.

7. Explain 3 ways in which patient portals enhance both patient satisfaction and patient safety.

1. Medical Errors

> Human beings, in all lines of work, make errors. Errors can be prevented by designing systems that make it hard for people to do the wrong thing and easy for people to do the right thing.
>
> Institute of Medicine,* 1999
>
> *To Err Is Human: Building a Safer Health System*

* The Institute of Medicine (IOM) is now called the National Academy of Medicine.

It is estimated that as many as 98,000 people die in any given year from medical errors that occur in hospitals. A significant number of those deaths is due to medication errors. That number is greater than deaths from motor vehicle accidents, breast cancer, or AIDS—three causes that receive far more public attention. Indeed, more people die annually from medication errors than from workplace injuries. Add the financial cost to the human tragedy, and medical error easily rises to the top ranks of urgent, widespread public problems (NCCMERP, 2026).

Medical errors are often preventable, yet they continue to affect millions of lives, undermine public trust, and impose a heavy burden on health systems worldwide. Despite increasing visibility, medical errors remain a complex and under-addressed phenomenon, especially when considering their broader impact beyond the individual level (Sarquis Rivera et al., 2026).

Along with being among the leading causes of death across all age groups in the United States, medical errors can result in long-term morbidity and disability. This translates into prolonged hospital stays and additional treatments, further increasing risks for secondary conditions and creating complex clinical scenarios (Sanchez and Corvalan, 2025).

Years after the Institute of Medicine's renowned report, "To Err is Human," which for the first time addressed the importance of medical errors, there are still serious concerns about patient safety. Similar mistakes occur in different settings and unknowingly patients continue to be affected by the adverse outcomes of preventable errors (Aghighi et al., 2024).

From an economic perspective, medical errors significantly impact the public perception of healthcare systems, eroding patient trust and reducing the likelihood of seeking necessary medical care. They can cause irreparable damage to the professional reputation of healthcare providers and institutions, who must bear costs associated with additional treatments and legal compensations, alongside indirect costs such as decreased productivity and personnel burnout (Sanchez and Corvalan, 2025).

Direct costs include expenses related to treating complications and adverse events, as well as medical malpractice compensation. Indirect costs, including lost productivity and broader social costs, are equally significant. Medical errors represent a complex, multifactorial problem affecting patients, healthcare professionals, and healthcare systems worldwide, with public health and economic implications that underscore the urgent need for effective intervention (Sanchez and Corvalan, 2025).

Medical Errors

A medical error is an act of omission or commission in planning or execution that contributes to, or has the potential to contribute to, an unintended outcome. It is a failure in the healthcare delivery process—whether or not it actually hurts the patient. A medical error is a deviation from standard care. For example:

- A nurse misreads a medication label and administers the wrong dose.
- A physician fails to follow up on a critical lab result.
- A surgeon makes an incorrect incision.

Medical errors can produce wide-ranging consequences, from minor and temporary to severe and permanent.

According to severity, medical errors can be classified as (Sanchez and Corvalan, 2025):

- Mild adverse events: Errors causing minimal or temporary harm, such as mild allergic reactions to medications or minor injection site infections.
- Moderate adverse events: Errors causing significant but reversible harm, such as bone fractures from hospital falls or adverse medication reactions requiring hospitalization.
- Severe adverse events: Errors causing permanent or life-threatening harm, such as brain injuries during surgery or severe allergic reactions with anaphylactic shock.
- Fatal adverse events: Errors resulting in patient death, such as fatal medication errors or serious nosocomial infections.
- Near-miss events: Adverse events that occurred due to errors but caused no actual harm.

Sentinel Events

In 1996, The Joint Commission adopted the *Sentinel Event Policy* to support hospitals in investigating and analyzing severe patient safety incidents. Sentinel events are defined as patient-safety events that result in death, permanent harm, or severe temporary harm. Sentinel events serve as warning signals of potential systemic issues that could lead to future harm if unaddressed. The policy supports healthcare organizations through in-depth systemic evaluations (Liepelt and Kirchhoff, 2025).

A sentinel event is a subcategory of medical errors and adverse events as specifically defined by The Joint Commission. It is an unexpected occurrence involving death, permanent harm, or severe temporary harm. The word *sentinel* is used because these events signal the need for immediate investigation and response to prevent them from ever happening again.

Under the Sentinel Event Policy, healthcare organizations must have a policy detailing how the organization addresses sentinel events; they are encouraged to report voluntarily any event that meets this definition, regardless of whether it is specifically listed in the Sentinel Events Policy (JC/NQF, 2026, May).

Sentinel events focus on the severity of the outcome (or a high-risk near-miss that signals a critical system weakness). For example:

- an inpatient suicide
- an infant abduction
- surgery performed on the wrong patient or wrong body part (often called a "Never Event")
- a medication error that leads directly to patient death

The outcome is always catastrophic or extremely high-risk. All sentinel events caused by care delivery failures are medical errors.

The most common sentinel events are (Joint Commission, 2025):

- patient falls (49%)
- wrong surgery (8%)
- delay in treatment (8%)
- patient suicide/death by self-inflicted injurious behavior (8%)
- unintended retention of foreign objects (8%)
- healthcare workplace violence-related events (4%)

Serious Reportable Events

A Serious Reportable Event (SRE) bridges the gap between a medical error and a sentinel event. Commonly known as a "*Never Event*," the term SRE was coined by the *National Quality Forum* (NQF) to describe a specific list of non-negotiable, largely preventable adverse events that should simply never happen if proper safety protocols are followed.

Serious Reportable Events are patient safety events deemed serious, harmful, preventable, and therefore indicative of vulnerabilities in a healthcare setting's safety systems. Since 2002, the purpose of the National Quality Forum's SRE List has included facilitating consistent reporting, driving national improvement via shared learning, and preventing the recurrence of these events. By assessing the underlying causes of these events, healthcare organizations can identify causative factors and bolster their quality improvement efforts (NQF, 2026, January).

To qualify as an SRE, an event must be *serious* and *largely preventable*. Serious means an event results in death or contributes to physical, emotional, or psychological patient harm. A serious event requires a major intervention such as surgery, a higher level of care, or treatment post discharge, or impairs a patient's ability to perform activities of daily living(NQF, 2026, January).

Largely preventable means an event that is likely avoidable by means currently available within the generally accepted performance standards of care. A largely preventable event triggers further investigation into causative factors (NQF, 2026, January).

Comparison Cross-Over

In healthcare, the terms *medical error* and *sentinel event* are closely related, but they are not the same thing. The easiest way to think about the difference is that one describes a mistake, while the other describes a catastrophic outcome.

An event can be both a Serious Reportable Event and a Sentinel Event. For example, if a surgeon operates on the wrong leg, it is an SRE (it is on the NQF's explicit list) and it is a Sentinel Event (it causes severe, permanent harm).

An SRE might not be a Sentinel Event. For example, if an infant is discharged to the wrong family but the mistake is realized and corrected the next day without permanent psychological or physical harm, it is still an SRE (infant discharge to the wrong person is on the NQF list), but it may not meet The Joint Commission's threshold for a sentinel event if no permanent harm occurred.

A Sentinel Event might not be an SRE. For example, if a patient commits suicide within 72 hours of discharge from an inpatient behavioral health unit, The Joint Commission considers this a sentinel event requiring an immediate investigation. However, because it happened post discharge, it may not fit the strict criteria of the NQF's healthcare-facility SRE list.

2. Factors That Impact the Occurrence of Medical Errors

Medical errors are rarely the fault of a single "bad apple" clinician. Instead, they are almost always the result of multiple system weaknesses aligning at the wrong moment. Nevertheless, human factors and individual vulnerabilities heavily influence safety. For example:

- Fatigue, sleep deprivation, extended shifts, and night shifts significantly degrade clinical decision-making, reaction times, and situational awareness.
- Cognitive overload and interruptions, such as a nurse being interrupted mid-way through a medication administration sequence, is far more likely to cause a missed safety check.
- Inexperience, lack of training, complex equipment, specialized electronic health record workflows, or a lack of familiarity with specific clinical protocols creates a high-risk environment for newer staff.

Errors can occur at any point throughout the patient care process. The most prevalent types include diagnostic errors, treatment errors, prevention errors, and communication errors (Sanchez and Corvalan, 2025).

Diagnostic Errors

A diagnostic error is defined as the failure to establish an accurate and timely explanation of the patient's health problem or failure to communicate that explanation to the patient. Diagnostic errors rarely happen due to simple incompetence. Instead, they stem from a mix of cognitive biases (how clinicians think) and systemic flaws (how healthcare environments operate).

Diagnostic errors are a grossly under-assessed patient safety and quality-of-care threat. Annual estimates of diagnostic error vary widely, from 40,000 to 4 million cases nationwide. Over half are related to cardiovascular events, infections, and cancers, and over 6% of these result in serious harm to patients (Hunter et al., 2024).

Diagnostic errors include:

- delayed diagnosis
- wrong diagnosis
- missed diagnosis

Diagnostic errors also include overdiagnosis, which can lead to unnecessary and potentially harmful treatments.

Diagnostic errors, such as misdiagnoses, unaddressed abnormal test results, delays in care or response, and missed diagnoses, can result in death or severe permanent patient harm. Delays in treatment increased by 56% between 2023 and 2024, with patient death reported as the most common outcome (Patel and Goldin, 2026).

The top five most misdiagnosed medical conditions in *outpatient* primary care clinical practice are pneumonia (6.7%), decompensated congestive heart failure (5.7%), acute renal failure (5.3%), cancer (5.3%), and urinary tract infection or pyelonephritis (4.8%). Alternatively, *hospitalized* patients show higher rates of missed vascular events (pulmonary embolism and myocardial infarction) and opportunistic infections (Patel and Goldin, 2026).

Over the past two decades, research has consistently shown that diagnostic errors are a significant concern in every healthcare setting. Epidemiologic studies show that diagnostic errors nearly always have multifaceted causes and arise from an interplay of contributing factors, including issues related to cognitive reasoning (inadequate data gathering, data interpretation, or clinical assessment), patient factors, and communication. Rates of diagnostic errors in acute care, ambulatory care, and emergency care remain unacceptably high (Khan et al., 2025).

Treatment Errors

Treatment errors occur after a diagnosis has been established. They are mistakes that happen during the administration of a chosen therapy, the performance of a surgical or clinical procedure, or the ongoing management of a patient's care. Unlike diagnostic errors, which are heavily rooted in cognitive reasoning, treatment errors are highly procedural and frequently linked to operational bottlenecks, system design flaws, and communication gaps.

Treatment errors span every phase of patient care, but they are most commonly concentrated in four specific areas: medication errors, surgical and procedural errors, equipment and technology failures, and monitoring and delay failures.

Medication Errors

Medication errors are a type of treatment error that can occur during prescribing, dispensing, or administration of medications. *National Coordinating Council for Medication Error Reporting and Prevention* defines a *medication error* as follows (NCCMERP, 2026):

"Any preventable event that may cause or lead to inappropriate medication use or patient harm while the medication is in the control of the healthcare professional, patient, or consumer. Such events may be related to professional practice, healthcare products, procedures, and systems, including prescribing, order communication, product labeling, packaging, and nomenclature, compounding, dispensing, distribution, administration, education, monitoring, and use."

The misuse of therapeutic agents can lead to adverse drug events (ADEs) ranging from minor discomfort to life-threatening complications. Adverse drug events are broadly defined as injuries resulting from medical interventions related to drugs, including medication errors, adverse drug reactions, allergic responses, and overdoses. ADEs impose a significant burden on healthcare systems, with wide-ranging implications for patient safety, clinical outcomes, and resource utilization.

In the United States, ADEs contribute to approximately two million hospital admissions annually, resulting in extended lengths of stay and substantially increased healthcare expenditures. Additionally, ADEs account for approximately one million emergency department visits and 3.5 million physician office consultations each year, representing a significant strain on healthcare resources and capacity (Ye and Bronstein, 2025).

Look-alike/sound-alike (LASA) issues represent one of the most persistent hurdles in clinical documentation and pharmacy safety. When abbreviations look identical in hasty handwriting or sound nearly indistinguishable during a verbal or telephone order, the consequences can be immediate. The most common and problematic LASA abbreviations, acronyms, and shorthand symbols are broken down below.

Examples of Look-Alike, Sound-Alike, and Error Prone Abbreviations

- IU (International Unit) can be confused with IV (intravenous)
- Trailing zero (.5 mg) can be confused with 5 mg
- Misleading shorthand such as BID, TID, PO
- OD (right eye) can be confused with overdose
- QD (every day) can be confused with QOD (every other day)
- MS (morphine sulfate) can be confused with magnesium sulfate
- KCL (potassium chloride) can be confused with HCL (hydrochloride)
- Mg (milligram) can be confused with mcg (microgram)

In almost all cases, these types of orders should be written out with words.

Prescribing errors are a significant contributor to ADEs, occurring at multiple stages, including prescribing, transcription, dispensing, and administration. Common prescribing errors include inappropriate medication selection, incorrect dosing calculations, and failure to consider patient-specific factors such as renal or hepatic function, age-related physiologic changes, and concurrent medications. A study found that nearly 94% of hospitalized patients experienced at least one prescribing error during their admission, underscoring the pervasive nature of this problem (Ye and Bronstein, 2025).

Medication administration errors constitute another major cause of adverse drug events, occurring when incorrect medications are administered, correct medications are given in wrong doses or via inappropriate routes, or medications are administered at incorrect times. Contributing factors include clinical interruptions during medication preparation and administration, similar packaging or labeling of different pharmaceutical products, and increasingly complex medication regimens that challenge a healthcare provider's cognitive capacity and attention to detail (Ye and Bronstein, 2025).

For healthcare providers, polypharmacy (>5 medications) should be a trigger for a thorough therapeutic review. Every patient's medication regimen should be reviewed during each visit and coordinated with the patient's other providers (NCCMERP, 2026).

Providers should make sure that each prescribed medication has a matching diagnosis and fits within the treatment plan. A patient-centered approach to medication management assures that medications are appropriate, safe, affordable, and easy to use. It also considers a patient's ability and willingness to adhere to the medication plan (NCCMERP, 2026).

When a medication is added, the risks and benefits should be evaluated in context with other medications the patient is taking. Using standardized tools, such as the *Beers Criteria** and *STOPP/START Criteria*** for use with older adults, allows a healthcare provider to screen patients carefully for potentially inappropriate medications (NCCMERP, 2026).

*Beers Criteria: Maintained by the American Geriatric Society, it catalogs medications that should generally be avoided or used with extreme caution in older populations.

**Stopp/Start Criteria: (Screening Tool of Older Persons' Prescriptions / Screening Tool to Alert to Right Treatment). This tool lists clinical scenarios where specific medications should be stopped due to high risk or explicitly started because they are under-utilized.

Medications that have been identified as potentially harmful should be discontinued unless there are no clinical alternatives and the medication provides appropriate benefit to the patient. Inform the patient's other providers of any medication changes (NCCMERP, 2026).

Ensure medication side effects and toxicities are included in the differential diagnosis of every new symptom until ruled out. Use a risk versus benefit approach to find the most appropriate therapy given the patient's values and ability to adhere to the chosen regimen (NCCMERP, 2026).

Surgical and Procedural Errors

Surgical and procedural errors are treatment errors that can occur as a result of breakdowns in communication, fatigue, and understaffing, issues related to poor surgical planning. The most common surgical errors are:

- wrong site / wrong procedure / wrong patient surgeries
- accidentally leaving a foreign object in a person after surgery
- accidentally lacerating a nearby organ during surgery or misplacing a medical device

Wrong site/wrong procedure/ wrong patient surgical errors usually stem from communication failures, a rushed environment, or a breakdown in the preoperative verification process. They are considered to be entirely preventable.

The most common type of wrong site event occurs when the correct procedure is performed on the correct patient, but at the wrong anatomic location. For example, removing the left kidney instead of the right, the wrong finger or toe, or operating on the wrong vertebrae. The most common causes are preoperative failing to mark the surgical site physically, misinterpreting flipped diagnostic radiology images, or relying on standard "left/right" charting notes without confirming with the patient.

Accidentally leaving a foreign object inside a patient after closing a surgical incision is formally known as a Retained Foreign Object (RFO) or a Retained Surgical Item (RSI). Like wrong-site surgeries, it is classified as a Never Event—a serious, preventable medical error that indicates a major breakdown in hospital safety systems.

Items left behind during surgery are usually materials that easily blend into wet human tissue. Surgical sponges account for a large percentage of foreign objects left behind after surgery. This is because sponges become saturated with blood, mimicking the color, texture, and feel of internal organs, making them incredibly difficult to spot visually inside an open surgery.

Surgical instruments such as clamps, forceps, retractor components, and scissors are more likely to be left behind during deep-cavity surgeries or massive chest/abdominal procedures. Small hardware and fragments such as needles used for suturing, catheter tips, guide wires, or broken pieces of surgical drill bits and blades can also be left behind.

Accidental laceration of a nearby organ (iatrogenic perforation) and the misplacement of a medical device are two distinct types of surgical complications. While they are sometimes completely accidental due to complex patient anatomy, they frequently stem from blind insertion techniques, improper imaging verification, or mechanical miscalculations.

Unlike Never Events (such as operating on the wrong leg), accidental cuts or device misplacements are recognized risks of complex procedures. However, their timely recognition and repair is what separates a manageable complication from a life-threatening crisis.

Equipment and Technology Failures

Equipment and technology failures occur when devices fail or are improperly programmed or when devices subtly differ between manufacturers. While technology is designed to reduce error, it frequently introduces new, unforeseen failure modes. For example:

- Alert fatigue can occur when the electronic health record (EHR) system triggers meaningless pop-up warnings for every minor drug interaction. This can cause clinicians to subconsciously click through critical, life-saving alerts.
- Poor human-factors engineering occurs when medical devices have non-intuitive user interfaces, identical-looking packaging for entirely different medications (look-alike/sound-alike drugs), or confusing menu structures on IV smart pumps.
- System interoperability issues can occur when a laboratory system doesn't seamlessly push critical values into a provider's mobile and stalls delivery of time-critical interventions (like sepsis protocols) stalls.

Adverse events involving medical devices can also be caused by technical malfunction, improper use, inadequate maintenance, or the patient's clinical condition. Given this complexity, each event should prompt an investigation to identify the root cause, ensure accountability, and prevent recurrence (Mishali et al., 2025).

Identifying the root cause of a medical error is not always straightforward. When the cause is unclear, parties may seek to distance themselves from responsibility: healthcare professionals may attribute the problem to a device malfunction, while manufacturers, who invest heavily in designing reliable equipment, often emphasize issues related to maintenance or use (Mishali et al., 2025).

Monitoring and Delay Failures

Missing early, progressive signs of clinical deterioration is a common and damaging failure in inpatient medical care. This phenomenon is widely known as Failure to Rescue (FTR).

Failure to rescue does not mean the clinician actively caused a new injury (like an accidental surgical laceration). Instead, it means the healthcare system failed to recognize and react to a patient who was slowly and predictably breaking down from an underlying condition, such as internal bleeding, respiratory failure, or sepsis.

The most common drivers of clinical deterioration are sepsis, arrythmias, congestive heart failure/volume overload, hypoxemia, electrolyte abnormalities, hypovolemia, and hemorrhage. The early signs of deterioration include changes in respiratory rate, oxygen saturation, blood pressure, heart rate, temperature and conscious/mental status which may go unrecognized.

Prevention Errors

Prevention errors involve the failure to implement appropriate preventive measures, such as vaccination or disease screening programs, potentially increasing the risk of complications and preventable diseases. Prevention errors are particularly common in acute care hospital settings, long-term care facilities, and outpatient preventative medicine.

The most common types of prevention errors:

- Hospital-aquired conditions such as pressure ulcers, deep vein thrombosis, or pulmonary embolisms.
- Healthcare-associated infections such as Catheter-Associated Urinary Tract Infections (CAUTIs) and Central Line-Associated Bloodstream Infections (CLABSIs).
- Outpatient and screening failures: missed screenings, inadequate follow-up care, and missed immunizations.

Communication Errors

Communication failure is cited by The Joint Commission as a root cause for the majority of serious adverse events and sentinel events. Shift changes, handoffs, and transitions in care are a common source of communication breakdowns, which can include:

- failures in communication between healthcare providers and patients
- inter-professional communication breakdowns
- misunderstandings and erroneous clinical decisions
- vague verbal orders, poorly written orders, mishearing an order
- hierarchical barriers, discomfort questioning another provider's decisions
- dropping crucial information during shift changes or transfers between departments

It is crucial to recognize that medical errors are not usually the result of negligence or incompetence. Rather, they often arise from complex interactions among multiple factors, including healthcare system limitations, resource constraints, personnel fatigue, care delivery pressures, and cognitive biases (Sanchez and Corvalan, 2025).

Environmental and Organizational Factors

The structural framework of the facility itself dictates how safely care can be delivered. Understaffing, high workloads, and high nurse-to-patient ratios restrict the time a clinician can dedicate to double-checking high-alert medications or properly monitoring high-fall-risk individuals.

Physical workspace design such as poor lighting in medication rooms, noisy environments that induce alarm fatigue, or disorganized supply carts all create physical bottlenecks that invite errors. When a "blame" culture punishes individuals for honest system-driven mistakes, staff will hide near-misses. Without reporting, the organization cannot address system weaknesses before they lead to real patient harm.

3. Recognizing Error-Prone Situations

Recognizing error-prone situations in healthcare requires moving away from the old mindset of looking for a single "bad apple" clinician. Instead, it is about identifying system vulnerabilities and human factors before they align to cause harm.

To identify error-prone situations before they result in patient harm, healthcare organizations use a combination of reactive strategies (learning from things that already went wrong) and proactive strategies (searching for vulnerabilities before they fail). Rather than waiting for a medical error or a sentinel event to occur, risk managers and quality improvement teams must systematically hunt for system weaknesses using several core methods.

Identify Cognitive Limits

Human beings have predictable cognitive limits. Proactively identifying error-prone situations means looking for environments where these limits are pushed to the brink. For example:

- Track where clinicians are most frequently interrupted. A nurse interrupted during medication preparation is statistically far more likely to miss a safety check.
- Designate "No Interruption Zones" using physical visual cues (like floor tape or colored vests) around medication dispensing machines.
- Scan schedules for extended shifts, back-to-back night rotations, or low staffing ratios.
- Implement mandatory peer-checks for high-alert medications specifically during the "circadian trough" (usually between 2:00 AM and 6:00 AM) when decision-making and reaction times naturally degrade.
- Identify staff who are new, floating from another department, or using unfamiliar electronic health record (EHR) workflows and complex medical machinery.

Evaluate Clinical "Failure to Rescue" Triggers

Inpatient clinical deterioration is usually a slow, predictable breakdown that goes unnoticed until a crisis occurs. Proactively identifying a Failure to Rescue (FTR) scenario involves tracking physiologic trends. For example:

- A single abnormal vital sign is often dismissed as an anomaly. A situation becomes highly error-prone when a patient's worsening respiratory rate, dropping oxygen saturation, or subtle changes in conscious/mental status are viewed in isolation rather than as a progressive trend.
- Patients admitted with or at risk for sepsis, internal hemorrhage, or decompensated congestive heart failure are high-risk by default.
- Use Early Warning Scoring Systems like the Modified Early Warning Score (MEWS) or automated sepsis screening algorithms within the electronic health record (EHR) to synthesize vital signs into an objective risk score, removing reliance on subjective clinical intuition alone.

Screen for Communication Gaps During Handoffs

The Joint Commission consistently identifies communication failure as a root cause for serious adverse events. The most error-prone moments in medicine occur when care is transferred. To address these communication gaps:

- Look closely at shift changes, department transfers (e.g., Emergency Department to Intensive Care), and verbal order sequences.
- Identify hierarchical barriers such as when a nurse or resident feels uncomfortable questioning a senior attending's decisions.
- Replace vague verbal orders and hasty handwriting with structured communication tools.
- For any verbal or telephone orders involving high-alert medications, require an immediate, formal read-back procedure where the receiving clinician spells out drug names and dosages to eliminate look-alike/sound-alike errors.

Run Proactive System Vulnerability Assessments

Don't wait for a sentinel event to investigate your workflows. Use established quality improvement tools to dissect your systems under calm conditions. For example, conduct healthcare failure mode and effects analysis (HFMEA), a systematic, proactive method used to take a clinical process (such as a surgical preoperative verification sequence or a chemotherapy dispensing workflow) and ask:

- Where could this process step fail?
- What would cause it to fail?
- What would the effect be on the patient?

Review "near-misses" rigorously: A near-miss is a free lesson. If a pharmacist catches a wrong dose before it leaves the pharmacy, or a surgeon catches an unmarked site before the incision, treat it with the same diagnostic gravity as an actual error.

Cultivate a Just Culture recognizing that a "blame" culture causes staff to hide mistakes and near-misses out of fear of punishment. A Just Culture distinguishes between human error (an unintentional slip), risky behavior (taking a shortcut), and reckless behavior (intentional disregard for safety). If staff trust that honest, system-driven mistakes will not be punished, they will actively report system weaknesses before they harm a patient.

4. Processes to Improve Patient Outcomes

To improve patient outcomes, it is essential to understand the frequency and cause of medical errors using data collected through error-reporting systems. A regular reporting system is necessary, and awareness of the occurrence of medical errors is the right of patients and duty of healthcare providers (Aghighi et al., 2024). Key strategies include root cause analysis, improving communication, providing ongoing training and system support, implementing and improving technology, and empowering patients (Sanchez and Corvalan, 2025).

Root Cause Analysis

Root cause analysis (RCA) is a tool for identifying prevention strategies. It is a process that is part of the effort to build a culture of safety and move beyond the culture of blame. In an RCA, basic and contributing causes are discovered in a process similar to diagnosis of disease—with the goal always in mind of preventing recurrence (USVA, 2025, October 2).

RCA shifts the focus from "Who made the mistake?" to "Why did the system allow this mistake to happen?" Instead of simply correcting the immediate symptom (like reprimanding a distracted nurse), an RCA digs deep to uncover the latent organizational flaws that set the stage for failure.

The goal of a root cause analysis is to find out (USVA, 2025, October 2):

- what happened
- why did it happen
- how to prevent it from happening again

The analysis should be interdisciplinary, involving those who are the most familiar with the situation. The process continually asks why, why, why at each level of cause and effect. Root cause analysis seeks to identify changes that need to be made to existing systems using a process that is as impartial as possible (USVA, 2025, October 2).

When an event triggers an RCA, a team of risk managers, quality officers, doctors, nurses, and pharmacists execute a specific sequence of steps:

1. Form and stabilize the team.
2. Gather data and establish a timeline.
3. Identify critical causal factors.
4. Develop and implement an action plan.
5. Measure and evaluate success.

The Joint Commission requires organizational leadership participation, defined timelines, and documented corrective action plans with measurable outcomes. The goal is to avoid superficial or "checkbox" RCAs by holding institutions accountable for implementing and sustaining system changes rather than merely identifying problems (Patel and Goldin, 2026).

Many clinicians receive limited formal training in root cause analysis, leading to superficial investigations or normalization of unsafe practices over time. Organizational and leadership shortcomings, such as inadequate engagement, poor follow-through, and lack of accountability, can fail to produce durable system changes (Patel and Goldin, 2026).

Common RCA pitfalls include overemphasis on individual blame, exclusion of frontline staff, incomplete data collection, and corrective action plans that lack measurable outcomes or sustainability. Confusion between quality improvement processes and disciplinary actions can also erode trust (Patel and Goldin, 2026).

Improving Communication

Good communication between healthcare team members promotes a healthy work environment that is focused on patient safety. Open communication with patients includes using clear and understandable language, active listening, open-ended questions, empathy and validation, continually checking patient understanding, and encouraging patient participation in decision-making (Sanchez and Corvalan, 2025).

Good communication practices include:

- asking patients to reiterate what you've shared (teach back)
- sharing information about diagnoses and treatments with the patient (warm handoff)
- discussing the complete list of medications the patient is taking (medication review)

Continuous Training and Support

Healthcare organizations must provide ongoing training to healthcare professionals on patient safety, effective communication, teamwork, and error management. Training in clinical reasoning and decision-making skills can help reduce cognitive biases and improve diagnostic accuracy. It is also important to keep professionals trained in electronic healthcare tools so they are aware of updates and modifications (Sanchez and Corvalan, 2025).

Improving the healthcare system's organization and management involves ensuring adequate resources, clear protocol implementation, and care continuity. Fostering a culture of safety in which mistakes are seen as learning and improvement *opportunities*, rather than causes for blame or punishment, is an important part of organizational support (Sanchez and Corvalan, 2025).

Technology Implementation

Technology can improve patient safety through the use of electronic medical records, early warning systems, and decision support tools, as well as mandatory double checks for decision making. With advances in medicine and medical technology, it is easier to catch errors before they turn into adverse events (Sanchez and Corvalan, 2025).

By automating repetitive tasks, forcing clinical double-checks, and bridging communication gaps, technology can remove a significant amount of reliance on imperfect human memory and performance. Here are examples of how modern technology directly prevents medical errors and improves patient safety:

- Computerized provider order entry systems eliminate handwritten prescriptions, removing the risk of misinterpreting poor handwriting or ambiguous abbreviations.
- Bar-coded medication administration allows healthcare providers to scan a patient's ID band and then scan the barcode on the medication. The system automatically verifies the "Five Rights" (Right Patient, Right Drug, Right Dose, Right Route, Right Time). If there is a mismatch, the system locks the workflow and triggers an immediate warning.
- Smart infusion pumps utilize built-in *Dose Error Reduction Systems*. These are pre-programmed drug libraries that define safe dosing parameters. If a clinician accidentally types an extra zero into the pump, the system triggers a hard stop, preventing a lethal overdose.

Patient Empowerment

The term *patient empowerment* has become an important concept within healthcare and rehabilitation models that target specific diseases, dysfunction, impairments, risks, and associated disabilities. Patient empowerment marks a fundamental cultural shift in modern healthcare. Moving away from the traditional, hierarchical "compliance-oriented" model, empowerment treats patients as active, self-determining partners in their own clinical journey (Varela et al., 2025).

Preventing medical errors is an ongoing process requiring everyone involved in a patient's care. Once we understand causes, we can make collective efforts to improve healthcare systems and take patient-based approaches in all decisions, bearing in mind that patient safety is not a destination but an everyday journey (Sanchez and Corvalan, 2025).

Healthcare providers can promote treatment adherence and encourage patients to participate actively in their care by providing understandable information about diseases and treatments (Sanchez and Corvalan, 2025).

5. Responsibilities for Reporting

The immediate priority when a medical error occurs is to mitigate further harm to the patient. Once the patient is clinically stable, the provider must notify institutional leadership and disclose the error honestly with the patient and their family. Providers are required to log errors, near-misses, and adverse events into an internal reporting program (such as Quantros or Midas). The majority of states mandate that facilities report specific adverse events directly to the state's Department of Health within strict windows (often 24 to 72 hours).

Under the *Patient Safety and Quality Improvement Act*, providers can voluntarily report error data to federally listed Patient Safety Organizations (PSOs). This framework provides strict legal privilege and confidentiality, protecting the data from being used in civil malpractice lawsuits, thereby fostering a "just culture" focused on learning rather than punishment.

If a medical error or sentinel event was caused by a malfunctioning medical device, equipment failure, or a specific drug product defect, providers and facilities are obligated to report the event to the FDA's MedWatch system.

A common weakness highlighted by the Office of Inspector General (OIG) is that, while hospitals excel at catching errors via internal incident logs, they frequently under-report those same events to external state and federal oversight bodies. Compliance relies on treating external reporting not as an administrative burden but as a legal and ethical extension of patient advocacy (OIG, 2025).

The *ISMP National Medication Errors Reporting Program* (ISMP MERP) is an internationally recognized program for healthcare professionals to share potential or actual medication errors that occurred at their workplace. Reporting an error or hazardous condition is simple and confidential. When making a report, provide as much detail, including causes and contributing factors. After submitting a confidential report, ISMP staff will follow up with additional questions to clarify what went wrong and to identify the causes and factors that contributed to the reported event (ECRI, 2026).

An error reporting system must be confidential and non-punitive to promote a culture of safety and organizational learning. Errors must be analyzed systematically to identify root causes and develop effective prevention strategies (Sanchez and Corvalan, 2025).

Patient safety improvement efforts are often hampered by fear of discovery, under-reporting of medical errors, and an inability to collect sufficient data to analyze adverse events. Many states have developed electronic methods for collecting and reporting data, and there is a push toward standardization to make data comparisons more meaningful.

Reporting requirements diverge sharply depending on the state and the specific nature of the event. Patient safety training should be an integral part of professional health education and training. Students and residents must learn to identify, report, and analyze errors, and actively participate in improving patient safety (Sanchez and Corvalan, 2025).

Florida Law

In Florida, patient safety and error reporting are governed by some of the strictest state laws in the country. The state operates under a centralized regulatory model managed by the Agency for Health Care Administration (AHCA) and the Florida Department of Health (DOH).

Under Florida Statutes (specifically for hospitals/ambulatory centers, nursing homes, and assisted living facilities), an adverse incident is defined as an event meeting two specific criteria:

1. It is an event over which healthcare personnel could exercise control, associated in whole or in part with medical intervention rather than the patient's underlying condition.

2. It results in a specific list of injuries.

The *Florida Statutory Injury List* includes:

- death
- brain or spinal damage
- permanent disfigurement
- fracture or dislocation of bones or joints
- a limitation of neurologic, physical, or sensory function that continues post discharge
- any condition requiring specialized medical or surgical intervention to which the patient did not give informed consent
- an event that requires transferring the patient to a unit providing a more acute level of care

Every licensed healthcare provider, agent, and employee in a Florida facility has a duty to report an adverse incident to the facility's licensed risk manager within three business days of its occurrence. Once the risk manager receives the internal log, the facility must submit a full electronic report to AHCA within 15 calendar days of the event.

Florida also connects facility data to individual professional licenses. When AHCA receives a report containing the license numbers of involved practitioners, the agency is legally required to review the data. If they find evidence of negligence or conduct violating the professional practice act, AHCA must refer the individual provider to the Florida Department of Health for disciplinary action against their personal license.

Unique to Florida's legal landscape, Florida Amendment 7 gives patients a constitutional right to access any records made or received by a healthcare facility relating to any adverse incident, medical error, or sentinel event. In many other states, internal incident reports are typically protected as privileged "attorney work product," while in Florida, patients can request these reports, increasing organizational transparency.

Underreporting of Medical Errors

Reporting of mistakes by healthcare providers is expected of honest and ethical professionals. Organizations rely on reports to improve their processes and ensure patient safety. Nevertheless, fearing punishment or disciplinary action, a healthcare provider may not report medication errors that they suspect could jeopardize their employment, reputation, or license. Failing to report an error for any reason, however, exposes the institution to risk and can threaten patient safety (Dekeseredy et al., 2024).

The Theory of Planned Behavior can help us understand whether a healthcare provider reports an error or does not. These are (1) beliefs about the consequences of the behavior, (2) beliefs about the expectations of others, and (3) beliefs about factors that influence the performance of the behavior. These beliefs influence both favorable and unfavorable behavior (Dekeseredy et al., 2024).

For example, if nurses view error reporting as a favorable behavior, they are more apt to make a report. Conversely, if nurses feel that reporting will result in negative consequences, they may not report the error. While most healthcare professionals favor reporting errors, a gap does exist between reporting and actual practice (Dekeseredy et al., 2024).

6. Safety Needs of Special Populations

While systemic factors like high workloads, understaffing, and communication breakdowns drive medical errors across all of healthcare, special populations face unique, compounded vulnerabilities. For these groups, standard safety protocols are often insufficient because their physiologic, cognitive, communication, or socioeconomic needs deviate differ from those of an "average" patient.

Some medications and procedures can be harmful for any given patient. There are some groups, however, that have an increased risk of adverse events. Children, elders, and those with limited English skills and/or poor health literacy are at a high risk for adverse events. Addressing these risks requires tailored, population-specific interventions.

Pediatric Patients: Dosing and Dependency

The landmark *To Err Is Human* report highlighted that children are at a particularly high risk for medication errors, primarily related to weight-based calculations.

Unlike adults, pediatric medication requires complex calculations based on weight (mg/kg), body surface area, or age. A simple misplaced decimal point can easily result in a 10-fold (10x) dosing error. Furthermore, hospitalized children under five years are physiologically fragile and have a narrower therapeutic window to tolerate adverse drug events.

Mandating the use of the metric system (grams/milligrams and milliliters) across all electronic health records can eliminate confusion and provide precise clinical measurements. Because children are entirely dependent on caregivers to relay history and monitor symptoms, systems must actively integrate parents into the "time-out" and bedside handoff processes.

Geriatric and Frail Elderly Patients: Polypharmacy and Functional Decline

Adverse drug reactions (ADRs) in older adults are a significant, largely preventable public health challenge. As the body ages, its relationship with pharmaceuticals changes due to a combination of physiologic shifts and complex medical profiles. The single greatest predictor of an adverse drug reaction is polypharmacy, typically defined as taking five or more daily medications.

For older adults, preventing unnecessary adverse drug events associated with the use of inappropriate medications or polypharmacy is especially important. *Deprescribing** to reduce polypharmacy and use of the STOPP criteria to reduce potentially inappropriate medications are two important approaches. Deprescribing has the potential to help providers adjust down or eliminate medications based on the condition and needs of a patient (Earl et al., 2020).

*Deprescribing: tapering or stopping medications where the potential harms outweigh the clinical benefits within the context of an individual patient's current life expectancy and care goals.

Many medications—including over the counter (OTC) antihistamines, tricyclic antidepressants, and drugs for urinary incontinence—possess strong anticholinergic properties. They block acetylcholine, a critical neurotransmitter for memory and muscle function. In older adults, this creates an anticholinergic burden characterized by:

- central effects: confusion, memory impairment, delirium, and hallucinations
- peripheral effects: dry mouth, blurred vision, constipation, and acute urinary retention

Routine utilization of screening tools like the Beers Criteria helps healthcare providers identify and if needed, discontinue potentially inappropriate medications.

Patient falls are one of the most common adverse events in hospitals. They are typically the result of a convergence of risk factors, with pharmacology being one of the most modifiable variables. Medications that significantly elevate fall risk include:

- psychotropics (benzodiazepines, sedatives, hypnotics, antipsychotics, antidepressants)
- cardiovascular agents (antihypertensives, diuretics, nitrates)
- anticholinergics (older antihistamines, overactive bladder medications)

Limited English Proficiency

Nearly 26 million individuals in the United States have limited English proficiency, defined as the ability to speak English "less than very well." In the United States, individuals with limited English proficiency have a legal right to access healthcare in their preferred language. Title VI of the Civil Rights Act of 1964 prohibits discrimination based on race, color, or national origin and mandates the provision of interpreter services by agencies receiving federal financial assistance, which includes hospitals that receive Medicaid and Medicare reimbursement (Sliwinski et al., 2024).

Language barriers can affect communication between patients and healthcare staff and are associated with lower quality of care. Individuals with limited English proficiency experience lower satisfaction with care, longer lengths of stay, and increased hospital readmissions compared with those who are English-proficient (Sliwinski et al., 2024).

Historically Marginalized and Low-Income Populations

When we look at how historically marginalized and low-income populations experience healthcare, the harm isn't just about an individual having a bad experience with a healthcare provider. It is a compounding systemic issue where social factors, financial barriers, and implicit biases intersect to produce vastly different health outcomes.

People from marginalized ethnic backgrounds are more likely to be harmed by healthcare because of interpersonal and structural factors that shape their care experiences. These factors include ineffective communication during clinical care, implicit biases among healthcare providers, and medical educational and clinical treatment approaches designed around White patient populations as the norm (Wade et al., 2022).

For low-income and marginalized individuals, the harm often starts long before they even see a healthcare provider. A person who is uninsured or under-insured is at a disadvantage; high deductibles and co-pays also force many to ration their care. This leads to delayed diagnoses, wherein preventable conditions (like hypertension or early-stage cancers) go untreated until they become life-threatening emergencies.

Many people live in neighborhoods or rural areas with few hospitals, clinics, and pharmacies. A resident in a low-income urban area might have transportation costs to reach a specialist, creating barriers and complicating follow-up care.

Once inside the clinic or hospital, marginalized and low-income people frequently receive a lower standard of care due to systemic racism, cultural disconnects, and implicit biases. Language and cultural barriers can lead to a higher rate of diagnostic and medication errors.

A striking example of systemic harm is related to maternal mortality. Pregnancy-related mortality rates among Black women are over three times higher than the rate for White women. Black, American Indian, Alaska Native, and Native Hawaiian or Pacific Islander women also have a higher percentage of preterm births, low birthweight births, or births for which they received late or no prenatal care compared to White women. Theses infants have markedly higher mortality rates than those born to White people (Hill et al., 2025).

Crucially, this disparity persists even when controlling for income and education, proving that clinical bias—such as providers minimizing or ignoring the self-reported symptoms of Black patients—plays a direct role.

7. Public Education

Patient education serves as one of the most effective, under-utilized defenses against medical errors. When patients understand their diagnoses, medications, and care plan, they shift from a passive recipient of care to an active participant in clinical quality control. Research shows that engaging patients in their healthcare leads to measurable improvements in safety and quality (AHRQ, 2023, March).

Medication errors are the most common type of medical mistake, occurring during prescribing, dispensing, or administration. A significant portion of medication errors occurs post discharge due to confusion over complex regimens. Patient education directly reduces these errors in several ways:

- Educate patients about what their medication looks like—its name, dose, and purpose.
- Provide clear information on dosing schedules, food interactions, and high-alert side effects to prevent self-administration errors at home.
- Encourage patients to provide an updated medication list at every clinical encounter to help prevent therapeutic duplication and dangerous drug-drug interactions when moving between specialists or facilities.

Patients' participation in their own care improves diagnostic accuracy and reduces errors. Patients need to feel safe sharing their concerns and should be encouraged to share details about their medical history, symptoms—anything they feel is related to the current situation. Once a diagnosis is made, providers must communicate timely and sensitively, explaining in ways easy for patients to understand; informing them about treatment options, risks, and benefits; while giving them the opportunity to ask questions and express their preferences (Sanchez and Corvalan, 2025).

Electronic medical records systems and patient interfaces (portals) that patient access anytime are excellent ways to empower them to participate in their care. These tools provide accessible information, explanations, and ways to communicate with providers, and can even help patients provide information they might not feel comfortable sharing face-to-face, thereby improving provider-patient relationships and lowering the chance of missing or mistaking diagnoses (Sanchez and Corvalan, 2025).

Safety Recommendations for Patients

For patients, open communication reduces anxiety and uncertainty. Knowing what happened, and why, helps them better understand their situations and feel more in control.

Informed decision-making helps patients understand the consequences of medical errors. It can also help them to make informed decisions about their care. Honesty and transparency fosters trust and mutual respect, which is essential for a good therapeutic relationship (Sanchez and Corvalan, 2025).

Family members and caregivers can avoid medication errors by asking the healthcare provider if a medication is appropriate considering a person's age, medical condition, and current medications. They can learn about the purpose and side-effects of each medication and communicate any side-effects to the provider so the treatment plan can be changed or improved as needed (NCCMERP, 2026).

Patients and caregivers should watch for any cognitive changes that may make it difficult to adhere properly to a medication regiment. If a person's ability to self-manage medications decreases, it is necessary to identify someone who can coordinate care, track and manage medications (NCCMERP, 2026).

Patients should carry up-to-date medication list and present it to each healthcare provider at every visit. Work with providers to limit medications to those that will provide the best outcome. More medications are not always better (NCCMERP, 2026).

When a new drug is discussed or prescribed, ask if it has the potential to interact with other medications. Ask if any medications should be discontinued. Consider utilizing only one pharmacy so that the pharmacist has access to a complete medication history and current regimen (NCCMERP, 2026).

Public Education Recommendations for Healthcare Providers

Healthcare providers always have the duty to inform. In a highly competitive healthcare environment, acknowledging mistakes is incredibly difficult—it not only gives feelings of inadequacy but also affects a person's self-image. Nevertheless, patient safety must prevail, and healthcare professionals have duties to inform, regardless of personal conflicts, so that adverse events can be addressed as quickly as possible. Despite the difficulty of communicating errors to patients, this approach is beneficial for both parties (Sanchez and Corvalan, 2025).

When adverse events occur, the most important step is transparent communication. All errors must be communicated honestly and in timely manner, allowing patients to make decisions about steps required to recover their health (Sanchez and Corvalan, 2025).

For healthcare providers, open communication:

- Relieves emotional burdens: Admitting mistakes and apologizing can help healthcare providers deal with guilt and prevent burnout.
- Encourages learning and improvement: Recognizing errors and analyzing their causes can help healthcare providers learn from them and take steps to prevent future errors.
- Improve reputations: Honesty and transparency can strengthen patients' trust in healthcare providers and health institutions once they have taken steps to correct errors.

A doctor discusses care goals with the patient and her husband. Source: AHRQ, 2023 March.

From https://www.ahrq.gov/patient-safety/patients-families/engagingfamilies/index.html

The *Guide to Patient and Family Engagement in Hospital Quality and Safety* focuses on four primary strategies for promoting patient/family engagement in hospital safety and quality of care (AHRQ, 2023, March):

1. Encourage patients and family members to participate as advisors.
2. Promote better communication among patients, family members, and healthcare professionals from the point of admission.
3. Implement safe continuity of care by keeping the patient and family informed through nurse bedside change-of-shift reports.
4. Engage patients and families in discharge planning throughout the hospital stay.

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[Continue to next page to start quiz]

Quiz: Florida Medical Errors (384)

A patient falls in the hospital and suffers a bone fracture that requires an extended stay and an unexpected surgery, but they eventually make a full recovery with no lasting disability. How would this event be classified based on its severity?

a. Severe adverse event
b. Moderate adverse event
c. Near-miss event
d. Mild adverse event

2. An infant is accidentally discharged from a hospital to the wrong family. The mistake is identified and corrected the following day, and the infant suffers no permanent physical or psychological harm.

a. It is neither a Serious Reportable Event (SRE) nor a Sentinel Event.
b. It is a Serious Reportable Event (SRE) but may not be a Sentinel Event.
c. It is both a Serious Reportable Event (SRE) and a Sentinel Event.
d. It is a Sentinel Event but not a Serious Reportable Event (SRE).

3. Which of the following statements best captures the foundational intersection between medical errors and sentinel events as described in the material?

a. All sentinel events caused by care delivery failures are considered medical errors.
b. A patient safety event must stem from the natural course of an illness to be considered a sentinel event.
c. All medical errors are classified as sentinel events, regardless of whether harm occurs.
d. Sentinel events and medical errors are entirely mutually exclusive categories.

4. Unlike diagnostic errors, treatment errors are heavily rooted in cognitive reasoning and are rarely linked to operational bottlenecks or system design flaws.

a. True b. False

5. Accidental lacerations of nearby organs and the misplacement of medical devices during complex procedures are classified as "Never Events."

a. True b. False

6. In the context of look-alike/sound-alike (LASA) abbreviations, the shorthand symbol 'OD' is prone to being confused with an overdose.

a. True b. False

7. A "Failure to Rescue" (FTR) situation becomes highly error-prone because clinical deterioration is usually a sudden, unpredictable crisis rather than a slow breakdown.

a. True b. False

8. "Just Culture" distinguishes between human error (an unintentional slip), risky behavior (taking a shortcut), and reckless behavior (intentional disregard for safety).

a. True b. False

9. Which of the following describes a primary pitfall of a Root Cause Analysis (RCA) that can erode trust among clinical staff?

a. Utilizing an interdisciplinary team including doctors, nurses, and pharmacists.

b. Implementing a defined timeline and documented corrective actions.
c. Confusing quality improvement processes with disciplinary actions.
d. Shifting the focus from "Who made the mistake?" to "Why did the system allow it?"

10. The primary goal of a Root Cause Analysis (RCA) is to identify the specific individual responsible for an error so that management can issue an appropriate reprimand.

a. True b. False

11. Patient empowerment marks a cultural shift that treats patients as active, self-determining partners in their clinical journey rather than passive followers of a compliance-oriented model.

a. True b. False

12. According to Florida Statutes, if an employee at a licensed healthcare facility witnesses an adverse incident, what is the maximum timeframe required to report this event internally to the facility's licensed risk manager?

a. Within 24 hours of the occurrence.
b. Within 3 business days of the occurrence.
c. Within 15 calendar days of the occurrence.
d. Immediately upon stabilizing the patient.

13. What legal protection is granted to providers who voluntarily report error data to federally listed Patient Safety Organizations (PSOs) under the Patient Safety and Quality Improvement Act?

a. Protection from disciplinary action against their personal license by the state's Department of Health.
b. Immunity from being referred to the FDA's MedWatch system.
c. Strict legal privilege and confidentiality, preventing the data from being used in civil malpractice lawsuits.
d. Complete exemption from having to log the event into internal reporting programs like Quantros or Midas.

14. The risk of pregnancy-related mortality among Black women is more than three times higher than the rate for white women, and this disparity persists even when controlling for factors like income and education.

a. True b. False

15. In geriatric care, polypharmacy is typically defined as a patient taking three or more daily medications.

a. True b. False

16. Utilizing multiple pharmacies is recommended so that various pharmacists can independently review and verify pieces of a patient's medication history.

a. True b. False

17. AHRQ outlines four primary strategies for promoting patient and family engagement. Which of the following is one of these core strategies?

a. Allowing family members to independently adjust medication dosages at the bedside.
b. Implementing safe continuity of care through nurse bedside change-of-shift reports.
c. Requiring patients to memorize their complete medication list prior to clinical admission.
d. Restricted family involvement during the discharge planning process to reduce noise levels.

[Continue to next page for answer sheet]

Answer Sheet: Florida Med Errors (384)

Name (Please print)_____

Date_____

Passing score is 80%

1. _____	10. _____
2. _____	11. _____
3. _____	12. _____
4. _____	13. _____
5. _____	14. _____
6. _____	15. _____
7. _____	16. _____
8. _____	17. _____
9. _____	

[Continue to next page for course evaluation]

Course Evaluation: FL Med Errors (384)

Please use this scale for your course evaluation. Items with asterisks * are required.

1 = Strongly agree 2 = Agree 3 = Neutral 4 = Disagree 5 = Strongly disagree

*Upon completion of the course, I was able to:

1. Define medical errors.	1 2 3 4 5
2. Describe the 4 main types of medical errors.	1 2 3 4 5
3. Describe 4 of the most error-prone situations in the healthcare setting.	1 2 3 4 5
4. Define root cause analysis.	1 2 3 4 5
5. Describe 2 specific criteria that define an adverse event in Florida.	1 2 3 4 5
6. Discuss 4 populations that are vulnerable to the effects of medical errors.	1 2 3 4 5
7. Explain 3 ways in which patient portals enhance patient satisfaction and safety.	1 2 3 4 5
*The author(s) are knowledgeable about the subject matter.	1 2 3 4 5
*The author(s) cited evidence that supported the material presented.	1 2 3 4 5
*Did this course contain discriminatory or prejudicial language?	Yes No
*Was this course free of commercial bias and product promotion?	Yes No
*As a result of what you have learned, will make any changes in your practice?	Yes No

If you answered Yes above, what changes do you intend to make? If you answered No, please explain why.

*Do you intend to return to ATrain for your ongoing CE needs?

_____Yes, within the next 30 days. _____Yes, during my next renewal cycle.

_____Maybe, not sure. _____No, I only needed this one course.

*Would you recommend ATrain Education to a friend, co-worker, or colleague?

_____Yes, definitely. _____Possibly. _____No, not at this time.

*What is your overall satisfaction with this learning activity? 1 2 3 4 5

*Navigating the ATrain Education website was:

_____Easy. _____Somewhat easy. _____Not at all easy.

*How long did it take you to complete this course, quiz, and course evaluation?

_____60 minutes (or more) per contact hour _____59 minutes per contact hour

_____40-49 minutes per contact hour _____30-39 minutes per contact hour

_____Less than 30 minutes per contact hour

I heard about ATrain Education from:

_____Government or Department of Health website. _____State board or professional association.

_____Searching the Internet. _____A friend.

_____An advertisement. _____I am a returning customer.

_____My employer. _____Social Media

_____Other _____

Please let us know your age group to help us meet your professional needs

_____18 to 30 _____31 to 45 _____46+

I completed this course on:

_____My own or a friend's computer. _____A computer at work.

_____A library computer. _____A tablet.

_____A cellphone. _____A paper copy of the course.

Please enter your comments or suggestions here:

[Continue to next page for registration and payment]

Registration

Please answer all of the following questions (* required).

*Name: _____

*Email: _____

*Address: _____

*City and State: _____

*Zip: _____

*Country: _____

*Phone: _____

*Professional Credentials/Designations:

_____

*License Number and State: _____

Payment Options

You may pay by credit card, check or money order.

Fill out this section only if you are paying by credit card.

2 contact hours: $24

Credit card information

*Name: _____

Address (if different from above):

*City and State: _____

*Zip: _____

*Card type: Visa Master Card American Express Discover

*Card number: _____

*CVS#: _____ *Expiration date: _____