Continuing Education (CEU) course for healthcare professionals. View the course online at wildirismedicaleducation.com for accreditation/approval information, course availability and other details, and to take the test for CE credit. The information provided in this course is to be used for educational purposes only. It is not intended as a substitute for professional healthcare.

Contact Hours: **2**

Prevention of Medical Errors for Florida Occupational Therapy

BY Judith Swan, MSN, BSN, ADN, RN; Nancy Evans, BS

LEARNING OUTCOME AND OBJECTIVES: Upon completion of this course, Florida occupational therapists and occupational therapy assistants will understand error reduction and patient safety measures to prevent medical errors in the practice setting. Specific learning objectives to address potential knowledge gaps include:

- Define medical errors and associated terminology.
- Discuss common causes of medical errors.
- Describe root cause analysis.
- Summarize the elements of effective communication and documentation.
- Outline contraindications and indications for occupational therapy management.
- Discuss the pharmacological components of occupational therapy and patient management.
- State Florida's statutory requirements for addressing medical errors.

INTRODUCTION

It would seem obvious and essential that every healthcare encounter a person has should be safe and free from harm. Unfortunately, this is not always the case. Although the vast majority of Americans are having positive experiences with the healthcare system, many report having personally experienced a "medical error." Errors occur in hospitals, clinics, surgery centers, dialysis centers, medical offices, dental offices, nursing homes, pharmacies, and even in patients' homes—anywhere patients receive care.

Medical errors are a serious public health issue, with every patient involved in the healthcare system a potential recipient of harm. Injuries and death can occur, for example, when patients receive a wrong medication or dose of medication, experience mistakes in surgery, receive treatments meant for another patient, experience a fall in the hospital, develop a pressure injury, or are subjected to a misdiagnosis, misinterpreted medical order, or equipment failure.

Errors can occur at any point while in the healthcare system. Analyzing why medical errors happen has traditionally been focused on the human factor, concentrating on individual responsibility for making an error, and the solutions have involved training or retraining, additional supervision, or even disciplinary action. The alternative to this individual-centered approach is a system-centered approach, which assumes that humans are fallible and that systems must be designed so that humans are prevented from making errors.

Acknowledging that errors happen, learning from them, and working to prevent errors in the future are important goals and represent a major change in the culture of healthcare—a shift from blame and punishment to analysis of the root causes of errors and the creation of strategies to reduce the risk of errors. In other words, healthcare organizations must create a culture of safety that views medical errors as opportunities to improve the system. Every person on the healthcare team has a role in making healthcare safer for patients and workers (Rodziewicz et al., 2021).

DEFINING MEDICAL ERRORS

A **medical error** has been defined as the failure of a planned action to be completed as intended or the use of a wrong plan or action to achieve an aim. Errors can include problems in practice, products, procedures, and systems.

Errors are further described as **adverse events**. Important subcategories of adverse events include:

- **Preventable** adverse events can be avoided by any means currently available unless the means is not considered standard care.
- **Unpreventable** adverse events result from a complication that cannot be prevented.
- **Ameliorable** adverse events are not preventable but the severity of injury could have been substantially reduced if different actions or procedures had been performed or followed.
  (AHRQ, 2019a)

In addition to adverse events, other terms used to describe medical errors include *near misses*, *sentinel events*, and *never events*.

Near Misses

A near miss is any event that could have had adverse consequences but did not and was indistinguishable from fully fledged adverse events in all but outcome. In a near miss, an error

was committed, but the patient did not experience clinical harm, either through early detection or sheer luck (AHRQ, 2019a).

Sentinel Events

A sentinel event is identified by the Joint Commission Sentinel Event Policy as an event that reaches a patient and results in any of the following:

- Death
- Permanent harm
- Severe temporary harm and intervention required to sustain life
  (TJC, 2021a)

Not all sentinel events occur because of an error, and not all medical errors result in sentinel events. Sentinel events can include:

- Suicide of any patient receiving care, treatment, or services in a staffed, around-the-clock care setting or within 72 hours of discharge, including from the emergency department
- Unanticipated death of a full-term infant
- Discharge of an infant to the wrong family
- Abduction of any patient receiving care, treatment, or services
- Any elopement of a patient from a staffed, around-the-clock care setting leading to death, permanent harm, or severe temporary harm of the patient
- Rape, assault, or homicide of any patient receiving care, treatment, or services, or any staff member, licensed independent practitioner, visitor, or vendor while on site
- Surgery or other invasive procedure performed at the wrong site, on the wrong patient, or that is the wrong (unintended) procedure for the patient
- Unintended retention of a foreign object in a patient after an invasive procedure, including surgery
- Severe neonatal hyperbilirubinemia
- Prolonged fluoroscopy to a single field or any delivery of radiotherapy to the wrong body regions or delivery of the wrong radiotherapy dose
- Fire, flame, or unanticipated smoke, heat, or flashes occurring during direct patient care caused by equipment operated and used by the hospital (staff do not need to be present)
- Any intrapartum maternal death

- Sexual abuse/assault involving a patient and another patient, staff member, or other perpetrator while being treated or on hospital premises
  (TJC, 2021a)

Never Events

The National Quality Forum has compiled a set of 29 **serious reportable events (SREs)**, which are consequential, largely preventable. Such events are also called *never events*—events that should never happen. SREs can be grouped into seven categories, as follows:

- Surgical SREs (e.g., surgery performed on wrong body parts or the wrong patient, or wrong surgical/invasive procedure performed on a patient)
- Product/device SREs (e.g., patient death/serious injury associated with use of devices provided by the healthcare setting)
- Patient-protective SREs (e.g., patient elopement or suicide while in a healthcare setting)
- Care management SREs (e.g., patient death/serious injury associated with a fall while in a healthcare setting, medication errors)
- Environmental SREs (e.g., patient death/serious injury associated with the use of restraints while in a healthcare setting, burns, electric shock)
- Radiological SREs (e.g., patient/staff death/serious injury associated with the introduction of a metallic object into an MRI area)
- Criminal SREs (e.g., sexual abuse/assault on a patient while in a healthcare setting)
  (NQF, 2021)

Active and Latent Errors

Active errors (human errors) are those that occur at the point of contact between a human and some aspect of a large system (e.g., a machine). They are generally readily apparent (e.g., pushing an incorrect button or ignoring a warning light) and almost always involve someone at the frontline.

Latent errors are accidents waiting to happen. They refer to a less apparent failure of organization or design that contributes to the occurrence of errors or allows them to cause harm to patients. They are errors in system or process design, faulty installation or maintenance of equipment, or ineffective organizational structure.

When a latent error combines with an active human error, an event occurs (AHRQ, 2019b).

CAUSES AND TYPES OF MEDICAL ERRORS

Medical errors are likely to occur in situations where providers are challenged to make decisions in dynamic, fast-paced, complex environments under tight time constraints. Errors stem from technical, organizational, or human factors that set off a chain reaction that could result in an adverse event (Carver et al., 2020).

The ten **most common causes of medical error** include:

1. Altered ability to make good judgments and quick decisions (e.g., misapplying expertise)
2. Ineffective communication (the most common cause)
3. Deficiencies in education, training, orientation, and experience
4. Inadequate methods of identifying patients, incomplete assessment on admission, failing to obtain consent, and failing to provide education to patients
5. Inadequate policies to guide healthcare workers
6. Lack of consistency in procedures
7. Inadequate staffing and/or poor supervision
8. Technical failures associated with medical equipment
9. No audits in the system
10. No one prepared to accept responsibility or change the system
(Rodziewicz et al., 2021)

ROOT CAUSE ANALYSIS

Root cause analysis (RCA) is a structured method used to analyze serious adverse events. When an adverse event occurs, a root cause analysis identifies underlying problems that increase the likelihood of errors while avoiding focusing on mistakes made by individuals. The approach identifies both active errors and latent errors and is one of the most widely used retrospective methods for detecting safety hazards.

RCAs follow a prespecified protocol, beginning with development of a multidisciplinary team that will define and study the problem. This process includes:

- Determining what happened
- Identify contributing factors
- Measuring, collecting and assessing data
- Identifying the root cause
- Designing and implementing a corrective action plan

- Developing measures of effectiveness and ensuring their success
- Evaluating implementation of improvement efforts
- Taking additional action
- Communicating the results

The ultimate goal of RCA is to prevent future harm by eliminating the latent errors that so often underlie adverse events (AHRQ, 2020).

Surgical Errors

Wrong-site, **wrong-procedure**, and **wrong-patient** surgical errors are relatively rare. It is estimated that in the United States such errors occur in approximately 1 of 112,000 surgical procedures and are infrequent enough that an individual hospital would only experience one such incident every 5 to 10 years. However, this includes only procedures performed in an operating room. If procedures performed in other settings such as ambulatory surgery are included, the rate of error may be much higher (AHRQ, 2019d).

Retained foreign bodies (also called *retained surgical items*) and unintentionally retained foreign objects are defined as objects retained after skin closure following an invasive procedure. Most unintended retained foreign bodies are associated with failures in leadership, communication, or other human factors that should be under the control of the operating team (Pellegrini, 2019).

Anesthesia-related adverse events may include inadvertent gas flow change, premature extubation, or breathing circuit connection error (Rayan et al., 2019).

The WHO Surgical Safety Checklist was developed after extensive consultation aimed at decreasing errors and adverse events, and increasing teamwork and communication in surgery. This checklist has gone on to show significant reduction in both morbidity and mortality and is now used by a majority of surgical providers around the world (WHO, 2021).

Medication Errors

Every year in the United States, 7,000 to 9,000 people die due to a medication error. In addition, hundreds of thousands experience but often do not report an adverse reaction or other complication related to a medication. Clinicians have access to more than 10,000 prescription medications, and nearly one third of adults in the United States take five or more medications.

Each year, adverse drug events account for nearly 700,000 emergency department visits and 100,000 hospitalizations. Nearly 5% of hospitalized patients experience an adverse drug event, making them one of the most common types of inpatient errors. Ambulatory patients may experience adverse drug events at even higher rates, and transition in care is also a well-documented source of preventable harm related to medications (Tariq et al., 2021; AHRQ, 2019e).

Medication errors may be due to human errors but often result from a flawed system with inadequate backup to detect mistakes. Most medication errors occur when drugs are being prescribed and transcribed. Medication errors may occur at any step including:

- Ordering/prescribing. The clinician must select the appropriate medication, dose, frequency and duration.
- Transcribing. In a paper-based system, an intermediary must read and interpret the prescription correctly.
- Dispensing. The pharmacist must check for drug-drug interactions and allergies and release the appropriate quantity of the medication in the correct form.
- Administering. The correct medication must be supplied to the correct patient at the correct time, either by a nurse, other trained staff, patient, or caregiver.
- Monitoring. This includes laboratory tests, side effects, effectiveness of therapeutic action, and vital signs.
- Documenting. The name, strength, and quantity of drug; the date and time administered; and the name of the person administering the drug must be entered in the patient's medication administration record in a timely manner.

  (Tariq et al., 2021)

(See also "Occupational Therapy and Medication Management" later in this course.)

Tubing Misconnections

The FDA reports that medical device misconnections can occur when one type of medical device is attached in error to another type of medical device that performs a different function. Tubing misconnections can occur for several reasons, including:

- Similar design of many connectors and the widespread use of connectors with similar shapes and in similar sizes
- Human error arising from conditions such as:
  - Multiple connections for one patient
  - Poor lighting
  - Lack of training
  - Time pressure
  - Fatigue
  - High-stress environment

  (FDA, 2018)

Attempts to prevent device misconnections have included color-coding, labels, tags, and training. However, these methods alone have not effectively solved the problem, because they have not been consistently applied, nor do these methods physically prevent the misconnections.

In order to reduce the chances of tubing misconnections, non-Luer lock connections have been introduced. These include the NR-Fit connector for neuraxial and regional anesthesia catheters and the Enfit connectors for feeding tubes.

Healthcare-Associated Infections (HAIs)

HAIs are infections that occur while receiving healthcare in a hospital or other healthcare facility and that first appear 48 hours or more after admission or within 30 days after having received healthcare. HAIs are considered system failures and are often preventable (CDC, 2020a).

Types of healthcare-associated infections include:

- Catheter-associated urinary tract infections
- Surgical site infections
- Central line-associated bloodstream infections
- Peripheral IV catheter-related bloodstream infections
- *Clostridioides difficile* (*C. diff*) infections
- Multidrug-resistant organism infections

One of the most important reasons in healthcare settings for the spread of infectious bacteria, some of which are antibiotic-resistant and can prove life threatening, is the failure of physicians, nurses, and other caregivers to practice basic hand hygiene. Studies show that on average healthcare providers clean their hands less than half of the times they should, contributing to the spread of HAIs.

Prevention measures include:

- Following infection control policies and procedures
- Practicing hand hygiene measures
- Keeping environment and equipment clean
- Utilizing sterile technique when appropriate
- Using antibiotics when appropriate
  (CDC, 2020b)

Errors Related to Medical Devices and Equipment

Technology is believed to improve healthcare efficiency, increase quality of care, promote safety, and lower cost. This same technology, however, may result in errors and adverse events. Since there are approximately 5,000 types of medical devices used by millions of healthcare providers around the world, device-related errors are inescapable.

Occupational therapists use different types of physical agent modalities, such as therapeutic ultrasound, electrical stimulation (i.e., TENS or NMES), or neurofeedback, that could be hazardous, resulting in a harm to patients. For example, water and electricity mixed may result in shock hazard, and improper use of equipment can result in harm to both patient and therapist.

Therapists and therapy departments must ensure patient safety by establishing protocols to routinely maintain, repair, and monitor the condition of equipment and assistive devices and to address work practices, which should include:

- Visual inspection of cords
- Visual inspection of equipment before using
- Ensuring all electrical service near sources of water is properly grounded
- Ensuring proper technique and body mechanics when using devices/equipment, in order to minimize risk of injury (both acute and chronic) to therapist and/or patient
  (OSHA, 2021)

Each year the FDA receives several hundred thousand reports of suspected device-associated deaths, serious injuries, and malfunctions. Mandatory reporting of such events must be done by manufacturers, importers, and device user facilities. Healthcare professionals, patients, caregivers, and consumers are also encouraged to voluntarily report adverse events to MedWatch, the FDA's safety information and adverse event reporting program.

User facilities **must report suspected medical device-related deaths** to both the FDA and the manufacturer. A user facility is not required to report a device malfunction but can voluntarily advise the FDA of such product problems. The FDA uses the reported information to monitor device performance, detect potential device-related safety issues, and contribute to benefit-risk assessments of these products (FDA, 2020).

(See also "Adverse Incident Reporting Requirements" later in this course.)

Falls

Falls are the most common type of accidents in people 65 years of age and older. Falls in institutional settings occur more frequently and are associated with greater morbidity than falls that occur in the community. Approximately 50% of individuals in the long-term care setting fall yearly (Appeadu & Bordoni, 2020; Kiel, 2020).

Preventing falls involves assessing patients for fall risk, developing a personalized plan of care, and utilizing consistent preventive interventions.

RISK ASSESSMENT

Falls risk can be categorized as either intrinsic or extrinsic. **Intrinsic factors** include issues that are unique to the individual and concern medical, psychological, and physical issues such as advanced age, inner ear disorders, and lower extremity weakness (Appeadu & Bordoni, 2020). **Extrinsic factors** generally can be changed and address environmental risks that patients encounter, such as use of restraints, dim lighting or glare, ill-fitting or inappropriate footwear (AHRQ, 2017).

Older patients are not the only population at risk. Any patient who has had excessive blood loss may experience postural hypotension, increasing the risk of falling. Maternity patients or other patients who have epidural anesthesia are at risk for falls due to decreased lower-body sensation (AHRQ, 2017).

While some institutions have created their own fall risk **assessment tools**, tools that have been extensively studied and recommended include:

- Morse Fall Scale
- STRATIFY Scale
- Schmid Fall Risk Assessment Tool
- Berg Balance Scale

Tailored **prevention interventions** may include:

- Physical therapy evaluation/treatment for gait instability or other risk factors
- Occupational therapy evaluation and intervention
- Toileting schedule for incontinence
- Continuous virtual monitoring for agitation, confusion, or impaired judgment
- Pharmacy consults for medication side effects
  (Dykes et al., 2018)

STEADI (STOP ELDERLY ACCIDENTS, DEATHS AND INJURIES)

The Centers for Disease Control and Prevention's STEADI initiative is a coordinated approach for the implementation of practice guidelines for fall prevention in community-dwelling adults. Recommendations include:

- Screening for fall risk annually, or any time the patient presents with an acute fall

- Assessing those who are found to be at risk
- Intervening to reduce identified risk factors
  (CDC, 2020c)

PREVENTION AND TREATMENT

Occupational therapists address the patient and environment in order to maximize independence, and they work with patients, families, and interdisciplinary team members on ways to support fall prevention initiatives.

Occupational therapists collaborate with patients and caregivers to assess a patient's home environment for safety and to evaluate the person for limitations which may contribute to falls. The therapist makes recommendations that most often include a combination of modifications to the home to remove safety hazards and activities to improve the person's physical abilities to perform daily tasks safely.

OTs can also assist in falls prevention through consultation with staff working in community centers, nursing homes, and assisted living facilities to identify environmental factors that contribute to falls and assist in implementing occupational therapy strategies that can improve safety. Occupational therapists also work with patients to assist in breaking the cycle of inactivity and sedentary lifestyle that increase the risk of falling (AOTA, 2021a).

Some specific **fall risk factors** addressed by occupational therapy include:

- Lower-extremity weakness
- Impaired balance
- Cognitive impairment
- Urinary incontinence
- Sensory impairment
- Fear of falling
- Side effects of medication
- Throw rugs and loose carpeting
- Lighting and glare
- Pets
- Clutter
- Uneven sidewalks and thresholds
- Unstable or nonexistent handrails

Occupational therapists can **review an individual's home** to:

- Make certain it is safe and easy to get items used on a regular basis, placing everyday items on the lowest shelves to avoid using stepstools and chairs
- Arrange furniture to provide room to walk freely
- Keep stairs clutter-free
- Recommend installing railings and grab bars throughout the home, and consider a bed rail to assist when getting out of bed
- Recommend nonslip strips or rubber mat on the floor of tub or shower, and nonskid bath mat on the floor
- Evaluate lighting and recommend additional lighting in potentially unsafe areas or routine work areas
- Ensure lighting provides good illumination while reducing glare
- Help create a plan for cleaning up spills if unable to bend down to do so
- Assist to stay active to maintain overall strength, endurance, and balance
- Recommend ways to safely continue doing enjoyable things
  (AOTA, 2021b)

CULTURE OF SAFETY

Among their efforts to reduce medical errors, healthcare facilities must consider changes in organizational culture. One such strategy involves creating a "culture of safety," which encompasses the following key features:

- Acknowledging the high-risk nature of an organization's activities and the determination to achieve consistently safe operations
- Fostering a blame-free environment where individuals are able to report errors or near misses without fear of reprimand or punishment
- Encouraging collaboration across ranks and disciplines to seek solutions to patient safety problems
- Committing organizational resources to address safety concerns
  (AHRQ, 2019c)

EFFECTIVE DOCUMENTATION AND COMMUNICATION

It is clear that good communication lies at the heart of good practice and thus promotes patient safety. Many errors have been demonstrated to arise from the lack of adequate or accurate communication. There is a great deal of support for the development of effective documentation and communication in the provision of safe patient care.

Documenting to Prevent Errors

Documentation is a tool for the planning and provision of patient care; communication among providers; and demonstration of compliance with federal, state, and local law, third-party payer, facility policy and procedures, as well as other regulations. Documentation should be consistent with the treatment plan(s) and meet all applicable professional and ethical guidelines. Documentation should also reflect established coding and billing procedures.

Guidelines for documenting include:

- Document in the correct chart. Check to make sure that key patient identifiers are accurate, including the spelling of the person's name and date of birth, to ensure effective linking of patient healthcare information records within and across systems.
- Date and sign all entries.
- Document legibly.
- After making an observation or providing care, document actions for more detailed notes. Waiting to the end of the work shift can result in forgetting to include significant information.
- Be accurate, objective, and complete. Document what is seen, heard, and done. Include data relating to all aspects of patient care.
- Track test results and consultation reports to ensure that findings are properly communicated and acknowledged, and document these actions in the patient's medical record.
- Use approved abbreviations. Unfamiliar or seldom-used abbreviations can confuse other providers and lead to potential patient injuries. Consult the facility's list of approved abbreviations and use them consistently.
- Include patient communication. Document patient education regarding treatment and any educational materials, resources, or references provided to the patient.
- Document patient complaints, questions, and other concerns as well as steps taken to resolve concerns.

- Record instances of nonadherence. This may include missed and canceled appointments, refusal to provide information, and rejection of treatment recommendations.
- Document delegated tasks. Include verification that delegated patient care-related tasks are completed by those under one's direction and/or supervision.
- Document discharge planning throughout episodes of care.
- Demonstrate skilled care and medical necessity.
- Correct errors promptly. Correct charting errors in accordance with the facility's policies and procedures, ensuring they are clearly marked as late entries.
- When using documentation software for electronic entry of data, ensure that programs comply with appropriate provisions for security and confidentiality.
  (Reiner, 2021; Sullivan et al., 2019)

Communication Tools to Prevent Errors

Research indicates that poor communication is a root cause of the great majority of all sentinel events.

RISK FACTORS FOR POOR COMMUNICATION

Verbal communication is a common source of medical error. Risk factors for such errors include:

- Disruptive behavior, rudeness, or verbal abuse
- Environmental noise issues
- Cultural differences between patients and providers
- Hierarchy issues
- Providers acting as autonomous agents
- Personality differences
- Language barriers
- Failure to work as a team
- Multiple conversations occurring at the same time
- Education and literacy
  (HIPAA Journal, 2021)

TOOLS FOR EFFECTIVE COMMUNICATION

Communication among healthcare providers using a standard framework and proven tools for reporting and sharing information can enable more effective communication. Examples of such tools include:

- SBAR (see below)
- BATHE protocol (**B**ackground, **A**ffect, **T**rouble, **H**andling, and **E**mpathy) is an interviewing process utilized in outpatient settings to connect with patients, screen for mental health problems, and empower patients to handle identified issues more constructively.
- Ticket-to-Ride for handoffs is a short, in-house document ensuring that transporters and providers unfamiliar with the patient will have important information readily available if problems arise or the patient is away from the unit longer than expected.
- Hourly rounding to each patient's room or bedside is an intervention that helps to proactively anticipate and address each patient's needs.
- Patient teach-back is a technique for healthcare providers to ensure that medical information has been explained clearly so that patients and families understand the information given to them.
- I-PASS is a clinical handoff verbal and written protocol for patient in-house transfer that includes **P**atient summary, **A**ction to-do list, **S**ituation awareness and contingency plan, and **S**ynthesis or **S**ummary of the information by the receiver.
- Technological communication tools:
    - Bedside tablets for patients instead of call lights
    - HIPAA-compliant text messaging platforms for communicating among members of the care team

(HIPAA Journal, 2021)

SBAR

SBAR is one of the most common communication tools used for structured communication to ensure that information is transferred accurately between two clinicians, such as during a shift transfer. *SBAR* stands for Situation (S), Background (B), Assessment (A), and Recommendation (R). It uses prompt questions in four areas to guide a conversation to ensure efficient transfer of concise information (IHI, 2021).

S	Situation	What is happening right now?
B	Background	What are the circumstances that led up to this situation?
A	Assessment	What do I think the problem is with this patient?
R	Recommendation	What should be done to correct the situation?
(IHI, 2021)		

Speak Up

Well-informed patients are better able to avoid serious medical errors. Clinicians should follow protocols that guide care, health education, and communication to help in both their own and their patients' decision-making about appropriate healthcare.

The Joint Commission encourages patient participation through their Speak Up initiative that encourages hospitals to inform patients about the importance of their contributions to the care they receive, making them active participants in avoiding medical errors (Rodziewicz et al., 2021).

S	Speak up if you have questions or concerns.
P	Pay attention to badges worn by healthcare staff and remind staff to wash their hands.
E	Educate yourself about your illness, medical tests, and treatment plan.
A	Ask a trusted family member or friend to be your advocate.
K	Know what medicines you take and why you take them.
U	Use a hospital, clinic, surgery center, or other facility that meets standards of care.
P	Participate in all decisions about your treatment; you are the center of the healthcare team.
(TJC, 2021b)	

CONTRAINDICATIONS AND INDICATIONS FOR OCCUPATIONAL THERAPY MANAGEMENT

Florida Statute 486.021 defines occupational therapy as "the use of purposeful activity or interventions to achieve functional outcomes." Functional outcomes include maximizing independence and the maintenance of health for those limited by a physical injury or illness, cognitive impairment, psychosocial dysfunction, mental illness, developmental or learning disability, or adverse environmental conditions.

Occupational therapists use skilled observation or administration and interpretation of standardized or nonstandardized tests and measures to identify areas for occupational therapy services. Occupational services include, but are not limited to:

- Assessment, treatment, and education of or consultation with the individual, family, or other persons
- Interventions directed toward developing:
    - Daily living skills
    - Work readiness
    - Work performance
    - Play skills
    - Leisure capacities
    - Educational performance skills
- Interventions for development of:
    - Sensory-motor functioning
    - Perceptual or neuromuscular functioning
    - Range of motion
    - Emotional, motivational, cognitive, or psychosocial components of performance
- Use of assistive technology devices
- Orthotic devices
- Physical agent modalities as adjunct to or in preparation for purposeful activity
- Adaptation of environments and processes to enhance functional performance or promote health and wellness

  (FSL, 2020)

A referral to occupational therapy should specify the diagnosis as well as any protocols or specific treatments the referring physician/provider requires to be followed (e.g., weight-bearing status, range of motion restrictions). Additional information provided may include any illness or medication that affects participation in therapy.

In many jurisdictions access to occupational therapy is contingent upon the prescription or referral of a physician. Florida occupational therapy practice laws and rules are silent on this issue. Regulations only state that a licensed Florida OT or OTA with an active, unencumbered license can provide occupational services. Other entities, however, may mandate a physician's prescription for services (FL BOT, 2021).

When **physical agent modalities** are utilized in the practice of occupational therapy, they are always integrated into a broader occupational therapy regimen, such as preparation of an area for other treatment techniques used to improve functional ability. They may also be used along with therapeutic activity or exercise. Modalities may include heat, cold, sound, electricity, mechanical forces, and light in order to obtain a specific therapeutic response. Therapists must be aware of the indications for their use as well as contraindications in order to prevent the occurrence of adverse events.

Superficial Thermal Modalities

HEAT

Superficial heat is the use of a thermogenic agent such as a hot pack that induces a temperature increase and subsequent physiological changes to the superficial layers of the skin, fat, tissues, blood vessels, muscles, nerves, tendons, ligaments, and joints. Superficial heat provides pain relief, increases local blood flow and metabolism, and increases elasticity of connective tissues.

Indications for use of superficial thermal modalities include subacute to chronic conditions, pain and muscle spasms, and joint stiffness.

Superficial heat is **contraindicated** for patients with:

- Peripheral vascular disease
- Bleeding disorders
- Local malignancy
- Acute inflammation or trauma
- Edema
- Infection
- Open wounds
- Over large scars
- Impaired sensation
- Impaired communication or cognition
  (Seidel et al., 2021)

COLD

Cryotherapy includes cold packs and ice and is **indicated** for relief of pain by causing local anesthesia and reduction of edema due to acute injuries or conditions. It also decreases nerve velocities, cellular metabolism, and local blood flow.

Cryotherapy includes:

- Ice packs (most common method)
- Ice spray
- Immersion (simple or whirlpool)
- Ice massage

Cryotherapy is **contraindicated** in patients with:

- Complex regional pain syndrome
- Hemoglobinuria
- Cryoglobulinemia
- Impaired circulation (e.g., Reynaud's disease)
- Urticaria (hives)
- Hypersensitivity to cold
- Skin anesthesia
  (Physiopedia, 2021; Meydam, 2018)

HYDROTHERAPY

Hydrotherapy is the use of water **indicated** for the treatment of chronic diseases of the musculoskeletal system and connective tissues such as arthritis. Hydrotherapy includes:

- Contrast bath, in which the hand or arm is alternately immersed in warm water and cold water or ice; primarily used to reduce edema and increase blood flow

- Whirlpool bath hydrotherapy, used to reduce edema and increase blood flow to an affected area; water temperature can be adjusted based on the needs of the patient

Contraindications for the use of hydrotherapy include:

- Open wounds
- Active infection
- Altered sensation
- Heat or cold intolerance
  (Meydam, 2018)

FLUIDOTHERAPY

Fluidotherapy uses a specially designed machine with a chamber containing small cellulose particles. The unit blows dry heat into the chamber, forcing the particles to move. When a limb is placed in the chamber, the unit provides dry heat and massage. Advantages for this therapy are that patients tolerate a much higher temperature than with other forms of superficial heat and that it permits exercise with relative ease to help increase range of motion.

This modality is often **indicated** for management of pain, edema, chronic inflammatory conditions, postfracture management, Reynaud's syndrome, and desensitization.

Fluidotherapy is **contraindicated** for symptomatic pain relief, unless etiology is established, and in patients with:

- Malignant lesions
- Open wounds
- Serious infectious disease
- Circulatory disorder
- Hemorrhage
- Heat sensitivity
- Fever
  (MacWan, 2018; Meydam, 2018)

HOT WAX

Paraffin, or hot wax, bath is used to heat a hand or foot prior to therapy to increase circulation and reduce pain or stiffness. Paraffin is melted, and the hand or foot is dipped several times to create a thick coating to retain heat. It is then wrapped in plastic wrap and towels to keep the heat in for a set period.

This form of therapy is **indicated** for treatment of rheumatoid and osteoarthritis of hands or feet, fibromyalgia, to soften skin caused by scleroderma, and management of trigger finger pain and muscle spasm.

Hot wax therapy is **contraindicated** in the presence of:

- Varicosities and other circulatory dysfunction
- Phlebitis
- Anesthetic areas
- Open wounds, rashes
- Unreliable patients

- Impaired thermal sensation
- Scar tissue
- Infectious area
  (How to Relief, 2019; Seidel et al., 2021)

INFRARED LIGHT

Infrared light therapy provides electromagnetic radiation to heat an area in preparation for other treatment techniques. It is **indicated** for use in preparation for other forms of therapy for relief of pain and muscle spasm. Infrared light increases:

- Local temperature superficially
- Local metabolism
- Capillary permeability and blood flow
- Lymphatic and venous drainage
- Leukocyte and phagocyte activity
- Stimulation of sensory nerve

Infrared light therapy is **contraindicated** for use over:

- Pregnant uterus
- Malignant tissue
- Eyes

And in patients with:

- Peripheral vascular disease
- Acute inflammation
- Acute infection
- Open wounds
- Impaired sensation
- Acute febrile illness
- Deep X-ray therapy
  (Omar, n.d.; Meydam, 2018)

Deep Thermal Modalities

Deep heat modalities include ultrasound and diathermy (SWD), both of which convert electromagnetic energy to thermal energy. **Indications** for use of deep heat are for treatment of various soft tissue disorders, including bursitis, tendonitis, degenerative arthritis, musculoskeletal pain, contractures, and for promotion of wound healing.

- Ultrasound uses sound waves to produce deep heating to increase blood flow to an infected area to promote healing. Ultrasound is used for phonophoresis, a method used to deliver medication under the skin to provide pain relief and control edema. Hydrocortisone is the most commonly used medication for this treatment.

- Diathermy uses a high frequency electric current to generate heat within body tissues, usually to large areas. It is indicated for use when it is not possible to use more concentrated forms of heat on an area due to positioning limitations or patient comfort. (Seidel et al., 2021)

Contraindications for use of deep heat include those for superficial heat noted above and:

- In areas of malignancy
- In areas of sensory loss
- Over metallic implants or foreign bodies
- Over a pregnant uterus
- Over moist dressings
- In ischemic areas or arteriosclerosis
- In areas with phlebitis
- In areas near a cardiac pacemaker
- Over contact lenses
- Over metal-containing intrauterine contraceptive devices
- Over epiphyseal areas of developing bones
- In patients with active menses

Additional contraindications include conditions in which application of deep heat would require direct exposure of the eye, spine, laminectomy sites, brain, heart, or known ischemic area (Klein, 2019).

Electrotherapeutic Modalities

Electrotherapeutic agents use various forms of electric current to provide treatment to an area and, depending on the type of current used, these modalities can help relieve pain, reduce edema and inflammation, promote tissue healing, and facilitate muscle function and strength.
Indications include:

- Transcutaneous electric nerve stimulation (TENS), for pain reduction by stimulating nerve endings
- Neuromuscular electrical stimulation (NMES), to help strengthen weak muscles and promote normal muscle movement patterns when used along with functional activities
- Functional electrical stimulation (FES), to help a patient initiate a muscle movement when more active movement is present in the muscle
  (Meydam, 2018)

Contraindications for use of electrotherapeutic modalities include:

- Treatment of symptomatic local pain, unless the cause of the pain has been clearly established
- In areas where cancerous lesions are present
- Over skin areas that are swollen, infected, or inflamed
- In patients with serious infectious diseases or diseases that require heat or fevers to be suppressed
- To the anterior neck (carotid sinus) or the head
- In pregnant women
- For patients with cardiac demand pacemakers, battery-operated implant devices, or automatic implantable cardioverter-defibrillators (AICDS)
  (Seidel et al., 2021)

OCCUPATIONAL THERAPY AND MEDICATION MANAGEMENT

Occupational therapists contribute to medication management by identifying problems that make it difficult for patients to adhere to medication routines and by helping them integrate medication administration into their daily life routines. Therapists can also address concerns over safety and performance skill that may be altered by medication side effects.

In inpatient settings, occupational therapists address medication management by issuing adaptive equipment, training patients and/or caregivers, and working with patients to optimize their daily schedules based on medication effects. Occupational therapists develop new routines and provide

external cues, such as using large charts or calendars with written reminders or training clients to use medication reminder alarms upon returning home following discharge (AOTA, 2018).

In all settings of care, occupational therapists can develop a **patient-centered care plan** that provides:

- Health literacy interventions to improve a patient's ability to understand complicated health information
- Support to other team members in creating effective patient education
- Assessment of a patient's performance of medication-related skills to identify the risk of nonadherence and recommend measures to reduce the risks
- Interventions to ensure a patient's medications are being taken as prescribed
- Monitoring of patients' responses to treatment while performing everyday activities

Medication management has historically been considered the domain of physicians, nurses, and pharmacists. However, none of these specifically address a patient's ability to manage medications as a daily occupation.

Medication management is a complex daily living activity, requiring a multidisciplinary approach that includes prescribers, nurses, pharmacists, occupational therapists, and related technicians and assistants. The goal of medication management is to assist patients in attaining perfect or near-perfect medication adherence. Adherence involves filling and refilling a prescription on time and taking a medication on schedule and as prescribed.

However, a review of occupational therapy professional literature fails to offer in-depth discussion of medication management, and a recent survey of occupational therapists demonstrated little consensus concerning their role in medication adherence, suggesting that this important activity of daily living is being overlooked.

Medication management is a service in great demand among geriatric patients, mental health patients, and children and their families, many of whom may be under an occupational therapist's care. Each person's nonadherence is the result of a unique set of factors, many of which are responsive to occupational therapy intervention.

Studies have shown that, although OTs have strong practice skills in improving health literacy, prescribing assistive technology, creating cueing systems, and developing supportive environments, they lack knowledge and skills specific to pharmacology, which has not traditionally been part of the OT curriculum. It is recommended that new and experienced OTs obtain the education required to better understand medications (types, drug actions, and interactions) and the profession's scope of practice regarding them (Schwartz, 2015; Schwartz & Smith, 2017).

FLORIDA STATUTORY REQUIREMENTS

Florida's Comprehensive Medical Malpractice Reform Act of 1985 mandates that each licensed facility implement a risk-management program and that healthcare professionals are obligated to report adverse events to the facility leadership. State oversight is provided by the Florida Agency for Health Care Administration (AHCA). Each licensed facility is required to hire an F.S. 395-10974 licensed risk manager who is responsible for implementation and oversight of the risk management program.

Internal Risk Management Program Requirement

Florida Statutes (F.S., 2019) require every facility licensed under F.S. 395-1097 to establish an internal risk management program that must include the following:

- The investigation and analysis of the frequency and causes of adverse incidents
- The development of appropriate measures to minimize risk, including:
    - Education and training of all non-physician personnel as part of initial orientation and at least one hour of such education and training annually for all personnel working in clinical areas and providing patient care, except for licensed healthcare practitioners who are required to complete continuing education coursework pursuant to chapter 456 or their respective practice act
- The analysis of patient grievances related to patient care
- A system for informing a patient or designee pursuant to state law that the patient was the subject of an adverse event
- Prohibition against a single staff person attending patients in recovery room unless there is live observation, electronic observation, or any other reasonable measure to ensure patient protection and privacy
- Prohibition against any unlicensed person from assisting or participating in any surgical procedure unless authorized to do so
- An incident reporting system to report adverse incidents to the risk manager or designee within three business days after their occurrence

Adverse Incident Requirements

F.S. 395-0197 mandates internal reporting within three business days of any adverse incident (event) over which healthcare personnel could exercise control and that is associated in whole or in part with medical intervention rather than the condition for which such intervention occurred. These include:

1. Adverse events resulting in one of the following injuries:
    - Death
    - Brain or spinal damage
    - Permanent disfigurement
    - Fracture or dislocation of bones or joints
    - Limitation of neurologic, physical, or sensory function which continues after discharge from the facility
    - Any condition that required specialized medical attention or surgical intervention resulting from nonemergency medical intervention, other than an emergency medical condition, to which the patient has not given his or her informed consent
    - Any condition that required the transfer of the patient, within or outside the facility, to a unit providing a more acute level of care due to the adverse incident rather than the patient's condition prior to the adverse incident
2. The performance of a surgical procedure on the wrong patient, a wrong surgical procedure, a wrong-site surgical procedure, or a surgical procedure otherwise unrelated to the patient's diagnosis or medical condition
3. Surgical repair of damage resulting to a patient from a planned surgical procedure, where the damage was not a recognized specific risk, as disclosed to the patient and documented through the informed-consent process
4. A procedure required to remove unplanned foreign objects remaining from a surgical procedure

Licensed facilities in Florida are required to submit two types of reports to AHCA:

An **adverse incident report** must be submitted to the AHCA by mail or by using the online Adverse Incident Reporting System (AIRS) within 15 calendar days after its occurrence, whether occurring in the licensed facility or arising from healthcare prior to admission to the licensed facility.

The annual report summarizes the incident reports that have been filed in the facility for that year and includes:

- The total number of adverse incidents
- Types of adverse events listed by category and number of incidents occurring within each category
- Code numbers of each professional and individual directly involved and number of incidents each has been directly involved in

- Description of all malpractice claims filed against the facility, including number of pending and closed claims, the status and disposition of each claim

CONCLUSION

Everyone has a stake in the safety of the healthcare system—healthcare workers as well as the general public. All healthcare workers are being actively educated about their roles in the prevention of avoidable negative outcomes for all patients. It is essential that all clinicians understand the journey every patient makes through the system, recognizing how the system can fail, and take action to prevent those failures.

To counter errors and safeguard patients, changes must continue to be made in how the workforce is deployed; in how work processes are designed; and in the leadership, management, and the culture of healthcare organizations. Because communication issues are so commonly involved in medical errors, it is crucial that physicians, nurses, therapists, and other healthcare personnel work together as a team, respecting each other's contributions to the well-being of the patients in their care. Collaborative teamwork is essential for optimizing quality and safety in healthcare.

RESOURCES

Florida Agency for Health Care Administration, Division of Health Quality Assurance
http://ahca.myflorida.com/MCHQ/index.shtml#1

Hospital Safety Grade
http://www.hospitalsafetygrade.org

Institute for Healthcare Improvement
http://www.ihi.org

National Quality Forum
http://www.qualityforum.org

Patient Safety Network
http://psnet.ahrq.gov

REFERENCES

Agency for Healthcare Research and Quality (AHRQ). (2020). Root cause analysis in healthcare: A Joint Commission guide to analysis and corrective action of sentinel and adverse events. Retrieved from https://psnet.ahrq.gov/issue/root-cause-analysis-health-care-joint-commission-guide-analysis-and-corrective-action

Agency for Healthcare Research and Quality (AHRQ). (2019a). Adverse events, near misses, and errors. Retrieved from https://psnet.ahrq.gov/primer/adverse-events-near-misses-and-errors

Agency for Healthcare Research and Quality (AHRQ). (2019b). Systems approach. Retrieved from https://psnet.ahrq.gov/primer/systems-approach

Agency for Healthcare Research and Quality (AHRQ). (2019c). Culture of safety. Retrieved from https://psnet.ahrq.gov/primers/primer/5/safety-culture

Agency for Healthcare Research and Quality (AHRQ). (2019d). Wrong-site, wrong-procedure, and wrong-patient surgery. Retrieved from https://psnet.ahrq.gov/primers/primer/18/wrong-site-wrong-procedure-and-wrong-patient-surgery

Agency for Healthcare Research and Quality (AHRQ). (2019e). Diagnostic errors. Retrieved from https://psnet.ahrq.gov/primers/primer/12

Agency for Health Research and Quality (AHRQ). (2017). The falls management program: a quality improvement initiative for nursing facilities. Retrieved from https://www.ahrq.gov/patient-safety/settings/long-term-care/resource/injuries/fallspx.html

American Occupational Therapy Association (AOTA). (2021a). Occupational therapy and prevention of falls. Retrieved from https://www.aota.org/About-Occupational-Therapy/Professionals/PA/Facts/Fall-Prevention.aspx

American Occupational Therapy Association (AOTA). (2021b). How to prevent falls in the home: tips from AOTA and the National Council on Aging. Retrieved from https://www.aota.org/About-Occupational-Therapy/Patients-Clients/Adults/Falls/prevent-falls-in-home-tips.aspx

American Occupational Therapy Association (AOTA). (2018). Occupational therapy's role in medication management. *AJOT, 17*, 7112310025. doi:10.5014/ajot.2017.716502

Appeadu M & Bordoni B. (2020). Falls and falls prevention. Retrieved from https://www.ncbi.nlm.nih.gov/books/NBK560761/

Carver N, Gupta V, & Hipskind. (2020). Medical error. *StatPearls.* Treasure Island, FL: StatPearls Publishing.

Centers for Disease Control and Prevention (CDC). (2020a). Current HAI progress report. Retrieved from https://www.cdc.gov/hai/data/portal/progress-report.html
Centers for Disease Control and Prevention (CDC). (2020b). Patient safety. Retrieved from https://www.cdc.gov/patientsafety/features/clean-hands-count.html

Centers for Disease Control and Prevention (CDC). (2020c). STEADI—older adult fall prevention. Retrieved from https://www.cdc.gov/steadi/materials.html

Dykes P, Adelman J, Adkison L, Bogaisky M, Carroll D, et al. (2018). Preventing falls in hospitalized patients. *American Nurse Today, 13*(9), 8–13.

Florida Board of Occupational Therapy (FL BOT). (2021). Occupational therapy FAQs. Retrieved from https://floridasoccupationaltherapy.gov/occupational-therapy-faqs/

Florida State Legislature (FSL). (2020). Chapter 468. Retrieved from http://www.leg.state.fl.us/statutes/index.cfm?mode=View%20Statutes&SubMenu=1&App_mode=Display_Statute&Search_String=468.203&URL=0400-0499/0468/Sections/0468.203.html

How to Relief. (2019). Wax (paraffin wax bath): indication, contra-indication & dangers. Retrieved from https://www.howtorelief.com/wax-paraffin-wax-bath/

HIPAA Journal (2021). Communication tools in nursing. Retrieved from https://www.hipaajournal.com/communication-tools-in-nursing/

Institute for Healthcare Improvement (IHI). (2021). SBAR tool: situation-background-assessment-recommendation. Retrieved from http://www.ihi.org/resources/Pages/Tools/SBARToolkit.aspx

The Joint Commission (TJC). (2021a). Sentinel event policy and procedures. Retrieved from https://www.jointcommission.org/resources/patient-safety-topics/sentinel-event/sentinel-event-policy-and-procedures/

The Joint Commission (TJC). (2021b). Speak up campaigns. Retrieved from https://www.jointcommission.org/resources/for-consumers/speak-up-campaigns/

Kiel D. (2020). Falls in older persons: risk factors and patient evaluation. *UpToDate*. Retrieved from https://www.uptodate.com/contents/falls-in-older-persons-risk-factors-and-patient-evaluation

Macwan F. (2018). Fluidotherapy. Retrieved from https://www.slideshare.net/FlorenceMacwan/fluidotherapy

Meydam J. (2018). Physical agent modalities: an overview for beginners. Retrieved from https://www.myotspot.com/physical-agent-modalities/

National Quality Forum (NQF). (2021). List of SREs. Retrieved from https://www.qualityforum.org/Topics/SREs/List_of_SREs.aspx

Occupational Safety and Health Administration (OSHA). (2021). Physical therapy. Retrieved from https://www.osha.gov/SLTC/etools/hospital/clinical/pt/pt.html#equipmenthazards

Omar M. (n.d.). Infrared therapy. Retrieved from https://fac.ksu.edu.sa/sites/default/files/3-infrared_radiation.pdf

Pellegrini C. (2019). Retained foreign bodies: can we stem the tide? Retrieved from https://bulletin.facs.org/2019/09/retained-foreign-bodies-can-we-stem-the-tide/

Rayan A, Hemdan S, & Shetaia A. (2019). Root cause analysis of blunders in anesthesia. *Anesth Essays Res, 13*(2), 193–8.

Reiner G. (2021). Defensive documentation: steps nurses can take to improve their charting and reduce their liability. Retrieved from https://www.nso.com/Learning/Artifacts/Articles/Defensive-Documentation-Steps-Nurses-Can-Take-to-Improve-Their-Charting-and-Reduce-Their-Liability

Rodziewicz T, Houseman B, & Hipskind J. (2021). Medical error prevention. *StatPearls*. Treasure Island, FL: StatPearls Publishing.

Schwartz J. (2016). Development and testing of an occupational therapy intervention to promote medication adherence. Retrieved from https://dc.uwm.edu/cgi/viewcontent.cgi?article=1927&context=etd

Schwartz J & Smith R. (2017). Integration of medication management into occupational therapy practice. *American Journal of Occupational Therapy, 71*(4).

Sears B. (2020). Iontophoresis medications used in physical therapy. Retrieved from http://www.verywellhealth.com/medications-used-during-iontophoresis-in-pt-2696486

Seidel B, Chang L, & Greenberg A. (2021). Therapeutic modalities. Retrieved from https://now.aapmr.org/therapeutic-modalities/

Sullivan S, Schmitz T, & Fulk G. (2019). *Physical rehabilitation* (7th ed.). Philadelphia: F. A. Davis Company.

Tariq R, Vashisht R, Sinha A, & Scherbak Y. (2021). Medication dispensing errors and prevention. *StatPearls.* Treasure Island, FL: StatPearls Publishing. Retrieved from https://www.ncbi.nlm.nih.gov/books/NBK519065/

U.S. Food and Drug Administration (FDA). (2020). Medical device reporting (MDR): how to report medical device problems. Retrieved from https://www.fda.gov/medical-devices/medical-device-safety/medical-device-reporting-mdr-how-report-medical-device-problems#requirements

U.S. Food and Drug Administration (FDA). (2018). Medical device connectors. Retrieved from https://www.fda.gov/medical-devices/general-hospital-devices-and-supplies/medical-device-connectors

World Health Organization (WHO). (2021). WHO surgical safety checklist. Retrieved from https://www.who.int/teams/integrated-health-services/patient-safety/research/safe-surgery/tool-and-resources

DISCLOSURE

Wild Iris Medical Education, Inc., provides educational activities that are free from bias. The information provided in this course is to be used for educational purposes only. It is not intended as a substitute for professional healthcare. Neither the planners of this course nor the author have conflicts of interest to disclose. (A conflict of interest exists when the planners and/or authors have financial relationship with providers of goods or services which could influence their objectivity in presenting educational content.) This course is not co-provided. Wild Iris Medical Education, Inc., has not received commercial support for this course. There is no "off-label" use of medications in this course. All doses and dose ranges are for adults, unless otherwise indicated. Trade names, when used, are intended as an example of a class of medication, not an endorsement of a specific medication or manufacturer by Wild Iris Medical Education, Inc., or ANCC. Product trade names or images, when used, are intended as an example of a class of product, not an endorsement of a specific product or manufacturer by Wild Iris Medical Education, Inc., or ANCC. Accreditation does not imply endorsement by Wild Iris Medical Education, Inc., or ANCC of any commercial products or services mentioned in conjunction with this activity.

ABOUT THIS COURSE

You must score 70% or better on the test and complete the course evaluation to earn a certificate of completion for this CE activity.

ABOUT WILD IRIS MEDICAL EDUCATION

Wild Iris Medical Education offers a simple CE process, relevant, evidence-based information, superior customer service, personal accounts, and group account services. We've been providing **online accredited and approved continuing education since 1998**.

ACCREDITATION/APPROVAL INFORMATION FOR WILD IRIS MEDICAL EDUCATION

TEST

[Take the test online at wildirismedicaleducation.com]

1. According to the Joint Commission, a patient safety event that results in death, permanent or severe temporary harm, and intervention required to sustain life is referred to as a(an):

a. Sentinel event.
b. Medical error.
c. Near miss.
d. Adverse event.

2. The most common cause of medical errors is:

a. Inadequate staff or supervision.
b. Technical failure or equipment.
c. Ineffective communication.
d. Deficiency in education and training.

3. The ultimate goal of a root cause analysis is to:

a. Determine who was at fault.
b. Prevent future harm by eliminating latent errors.
c. Reeducate the person who made the error.
d. Determine the impact of the error on the patient.

4. An occupational therapist is completing a home health evaluation with a client returning from a hospital stay for a total hip arthroplasty. Which is **most** applicable for the therapist to assess for this client to help prevent falls in the home?

a. Cognitive impairment
b. Urinary incontinence
c. Arranging furniture for clear pathways
d. Side effects of medication

5. The occupational therapist is preparing to contact a client's physician about a new patient symptom. Which statement would the occupational therapist make when communicating their "assessment" using the SBAR technique?

a. "The client has a contusion to the head with increased confusion."
b. "The patient sustained a fall at home three days ago."
c. "The findings suggest a possible traumatic brain injury or concussion."
d. "Would you like to see the patient in your office for a follow-up?"

6. Electrotherapy treatment is **contraindicated** over:

a. Joint effusions.
b. Wounds.
c. Carotid sinuses.
d. Edema.

7. Occupational therapy's role in preventing medication adverse events include:

a. Administering medications in the home environment.
b. Medication management to promote adherence.
c. Referring all patient questions to a nurse.
d. Ensuring medications match the diagnosis.

8. Florida statutes require adverse incident reports to be submitted within what time period after occurrence?

a. 48 hours
b. 3 days
c. 7 business days
d. 15 calendar days