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Preventing Medical Errors

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Preventing Medical Errors

Understanding medical errors, their causes, their impact on the health system and the specialized ways SLPs can prevent them.

- **Presenter Disclosure:** Financial: Lorelei O'Hara was paid an honorarium for this presentation by SpeechPathology.com. Non-financial: No non-financial relationships to disclose.
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Learning Outcomes

After this course, participants will be able to:

- Identify the most common types of medical errors and their underlying causes.
- Identify the impact of medical errors on clinicians and on patient safety.
- Identify multiple strategies to reduce medical errors.

The Brutal Truth

10% of all deaths in the United States are due to medical error.

Hard Stats

According to a 2016 study by John's Hopkins:

- More than 250,000 deaths per year are due to medical error
- According to the CDC, during the same years as the study:
  - 611,105 people died of heart disease
  - 584,881 died of cancer
  - 149,205 died of chronic respiratory disease

This puts deaths due to medical errors at #3

What counts?

Per Rodziewicz and Hipskind:

- "The answer to this basic question has not been clearly established. Due to unclear definitions, "medical errors" are difficult to scientifically measure. A lack of standardized nomenclature and overlapping definitions of medical errors has hindered data analysis, synthesis, and evaluation."

Medical Error Prevention
Statpearl Publishing, 2020

Two Principle Types

- Errors of Omission:
  - Errors that occurs as a result of actions not taken. Examples include not strapping a patient into a wheelchair or not stabilizing a gurney prior to patient transfer, not relaying a laboratory finding.
- Errors of Commission:
  - Errors that occur as a result of the wrong action taken. Examples include administering a medication to which a patient has a known allergy or not labeling a laboratory specimen that is subsequently ascribed to the wrong patient.

Q3

Subtypes of Errors

- Active Error:
  - An active error is the type of error that occurs during points of contact between a person and the health care system; errors that occur during direct care with a clinician.
- Latent Error:
  - Errors in a system or process design
  - Could include faulty equipment, poor maintenance, or disorganized organizational structure
  - Often hidden until triggered by a human error
  - Considered “Accidents waiting to happen.”

Subtypes of Errors

- Medical Error:
  - Failure to complete an intended treatment plan, or implementing the wrong plan.
- Negligence:
  - Failure to meet reasonable medical standards. This could occur at both at the clinician level (a pre-op nurse failing to assess vitals in a patient before a procedure) or an organizational level (placing insufficiently trained personnel in positions of clinical oversight or decision making).

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Subtypes of Errors

- Near Miss:
  - An event that *could have* created harm but did not.
    - Harm could be prevented by chance, or by an individual intervening to interrupt the error
    - Near Misses are exceptional opportunities to investigate root causes and develop preventative strategies
- Never Events:
  - Events that should simply never occur.
    - Wrong site surgery/wrong surgery performed
    - Development of pressure ulcers
    - Wrong infant discharged with parents

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Sentinel Events

- A Joint Commission definition:

  "Any unexpected occurrence involving death or serious physical or psychological injury, or the risk thereof...The phrase 'or the risk thereof' includes any process variation for which a recurrence would carry a significant chance of a serious adverse outcome." (JCAHO, 2017)

A sentinel event indicates the need for immediate action, typically including investigation, discovery of cause and a corrective response.

Q5

Errors in Office Based Settings

- The most common error type in ambulatory settings are **diagnostic errors**
- The Institute of Medicine (IOM) defines a diagnostic error as:

  the failure to (a) establish an accurate and timely explanation of the patient's health problem(s) or (b) communicate that explanation to the patient

Q6

Errors in Office Based Settings

Other errors that are most commonly present in ambulatory/office/outpatient settings are:

- Adverse drug events and medication errors – any error of omission or commission between the prescribing of a medication and the patient receiving the medication
- Communication/Flow of information errors: when poor communication contributes to any error type and/or causes barriers or delays in the delivery of preventative care

Causal Factors

- The Joint Commission's Sentinel Event Database in 2012 reported that **communication errors** were a factor in **59% of serious adverse events**
- According to The Doctors Company, a risk management and malpractice prevention consulting company, **communication breakdown** is a frequent risk management finding, contributing to errors in **27% of claims** filed between 2012 and 2016

Causal Factors

A study published by the Mayo Clinic listed the following top three contributors to medical errors:

- Illegible handwriting
- Nonstandard abbreviations
- Cognitive bias

Q1

Causal Factors

- The Institute of Medicine identifies the following factors as contributing to medical errors:
  - Fragmented Health System
  - Licensing and accreditation systems that do not emphasize error prevention
  - A “deny and defend” liability system
  - Lack of incentives from payers to address errors

Q7

Risk Areas

- The WHO identifies the following areas potential sources of medical errors:
  - Communication between HCP’s and patients
  - Teamwork Issues
  - Laboratory and imaging services
  - Data management
  - Patient transitions between HCPs
  - Chart/patient record completeness

Risk Areas

The American Society of Health System Pharmacists identify the following critical areas:

- High risk populations
- High risk processes
- High alert medications
- Easily confused drug names (aka, LASA, look-alike, sound-alike medications)

Causal Factors

- Patients in Isolation
  - Less likely to be assessed by physicians
  - Higher incidence of incomplete or erroneous vitals
  - Eight times more likely to experience a fall, pressure ulcer or fluid/electrolyte imbalance
    - From Critical Care Nursing, April 2010

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Causal Factors: Reluctance to Report

The American College of Physicians note that clinicians who commit medical errors are often reluctant to report them due to anxiety over:

- Disciplinary Action
- Legal action
- Job Loss

Q4

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Medical Errors due to the EHR

- A 2019 study in the Journal of Patient Safety noted the following episodes where the electronic health record contributed to adverse patient outcomes:
  - A primary care provider could not access the patient's radiology studies at the time of a patient's visit; the paper results were filed without the MD seeing these. The patient experienced delayed diagnosis of lung cancer
  - A physician was unable to access the nursing ED triage note, which would have changed management; the patient died of subarachnoid hemorrhage

Medical Errors due to the EHR

- Test results and evaluations were filed in multiple locations, contributing to the failure to note the overall decline of a patient's vital signs and lab tests; the patient died of sepsis
- An obstetrician did not have EHR access and could not access a patient's clinic notes documenting abnormal fetal size; the clinician stated he/she never received training or a password
- A patient developed amiodarone toxicity because the patient's history and medications were copied from a previous note that did not document that the patient was already on the medication

Medical Errors due to LEP

- Limited English Proficiency patients are more likely than English-speaking patients to experience an adverse event
- Among those who experienced an event, LEP patients were more likely to suffer harm *and* the event was more likely to be caused by a communication failure
  - Joint Commission Sentinel Event database, 2012

Medical Errors due to LEP

- Errors with the LEP patient were most commonly attributed to:
  - Use of family members or friends as interpreters
  - Provider use of "get by" level of language proficiency
  - Poor HCP understanding of cultural considerations that affect medical decision making. Eg:
    - Willingness to express pain or state complaints
    - Gender roles
    - Willingness to question authority

Medication Errors in Patients with Dysphagia

- A UK study from 2011 found that patients with dysphagia were much more likely to be on the receiving end of a medication error:
  - 21.1% error rate with dysphagia patients compared to 5.9% of patients without
  - The majority of the errors included crushing medications that should not be crushed or combining medications that should not be combined
- Consider this in the context of SNF patients where nearly 45% have some degree of swallowing impairment and 40% take 9 or more medications

Q2

Root Causes

From *Medical Error Prevention,* Rodziewicz and Hipskind

- Conducting healthcare in an automatic fashion, not seeking advice from peers, misapplying expertise, not formulating a plan, or not considering the most obvious diagnosis
- Communication issues, having no insight into the hierarchy, having no solid leadership, not knowing whom to report the problem, failing to disclose the issues, or having a disjointed system with no problem-solving ability
- Deficiencies in education, training, orientation, and experience

Root Causes

From *Medical Error Prevention,* Rodziewicz and Hipskind

- Inadequate methods of identifying patients, incomplete assessment on admission, failing to obtain consent, and failing to provide education to patients
- Inadequate policies to guide healthcare workers
- Lack of consistency in procedures
- Inadequate staffing and/or poor supervision
- Technical failures associated with medical equipment
- No audits in the system
- No one prepared to accept blame or change the system

Impact on Patients

- 250,000 deaths per year due to medical error
- 12,000,000 adults are misdiagnosed every year
- Medical errors cost approximately $20 billion dollars each year

Impact on Patients

- An IHI national survey from 2017 found that 73 percent of the patients who experienced harmful events reported some type of long-term impact
  - Psychological impact
  - Social and behavioral impact
  - Prolonged physical impact
  - Financial impact

The "Second Victim"

- A 2009 Quality Safety and Health Care Journal article states:
  - *"Second victims are health care providers who are involved in an unanticipated adverse patient event, in a medical error and/or a patient related injury and become victimized in the sense that the provider is traumatized by the event. Frequently, these individuals feel personally responsible for the patient outcome. Many feel as though they have failed the patient, second guessing their clinical skills and knowledge base."*

Q10

The Second Victim

From Perspectives on Safety, 2011:

- Six stages of second victim recovery:
  - Chaos and accident response
  - Intrusive reflections
  - Restoring personal integrity
  - Enduring the inquisition
  - Obtaining emotional first aid
  - Moving on

The Second Victim

- A 2011 University of Missouri Health Care (MUHC) study reported that one in seven staff members reported they'd experienced a patient safety event that caused adverse personal response (including anxiety, depressions, failure in professional confidence) and that 68% of those clinicians reported they didn't get institutional support

Prevention Strategies

The National Patient Safety Foundation developed the "Ask Me 3" tool to allow patients to engage in their own health care:

1. What is my main problem?
2. What do I need to do?
3. Why is it important for me to do this?

Preventions Strategies

Many risk management experts recommend the SBAR tool to improve efficacy during communication interfaces:

- Situation
- Background
- Assessment
- Recommendation

Prevention Strategies

The American College of Physicians recommends the following strategies:

- Embed patient safety goals into daily activity
- Develop an accurate, confidential, non-punitive system for reporting both events and near-misses
- Adopt liability protections that protect HCP's from being penalized for reporting errors

Q8

Prevention Strategies

The Agency for Healthcare Research and Quality have published several models to reduce errors with the LEP population. Recommendations include:

- Education regarding the heightened safety risks for the LEP population
- Education regarding the need for qualified interpreters
- Structure communication tools

SLP's Role in Prevention

Consider how many times **communication** was cited as a contributing factor

- From the American College of Physicians: Communication/Flow of information errors: when poor communication contributes to any error type and/or causes barriers or delays in the delivery of preventative care.
- From the World Health Organization: Communication between patients and HCPs is a weak point where errors can happen.
- From the WHO: Communication problems are contributory to 59% of medical errors.
- From The Doctor's Company: Communication breakdowns contributed to 27% of medical malpractice claims.
- From *Preventing Medical Errors:* Communication errors are a fundamental root cause of medical errors

SLP's Role in Prevention

SLPs are the front line providers who:

- Assess and treat receptive and expressive communication
- Assess and treat impairments in speech intelligibility
- Assess and treat impairments in cognition
- Develop adaptive and compensatory communication systems

Q9

Error Reductions in PWD

SLPs have a critical role in the prevention of medical errors for patients with dysphagia

- Understanding and improving institutional systems for texture management including both the creation and delivery of altered texture items
- Robust communication systems for care staff for management of texture alterations and adaptive/compensatory technique during non-meal food/fluid delivery
- Risk assessment with hybrid textures or environment specific diet liberalization

Error Reductions in PWD (cont)

- Ensure adequate patient/caregiver understanding of community management of texture alterations and compensatory/adaptive technique
- Develop systems for management of adapted delivery of medications and collaboration with MD's/pharmacists for:
  - Medication alterations (crushing)
  - Medication alternatives (liquid meds, time release vs. non time release, dose delivery alternatives)
  - Medication interaction risks with simultaneous delivery

SLP's Role in Organization Improvements

SLPs core skills can contribute meaningfully to systemic/organization initiatives for error prevention:

- Ability to identify trigger points communication disruptions
- Ability to assess bidirectional comprehension
- Ability to asses health literacy
- Ability to facilitate advocacy
- Ability to develop multi-modal communication practices
- Education in cultural plurality's impact on communication

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