Prevention of Medical Errors: 2012

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Introductory Remarks

Goals
Course Overview and Format
Medical Errors

- Statistics
- Types/definitions
- Root cause analysis and prevention

Medication Errors

Special populations
Preventing medication errors
EMR and its implications

Florida's requirements

Florida Rule 64B13-5.001 (8)
Last updated 2006
"Must include a study of root-cause analysis, error reduction and prevention, and patient safety"

Case examples from the literature

Hindsight Bias, and excuses

"How could that have happened?"
"What idiot could have done that?"
This was a "blessing in disguise" and/or "would have happened anyway"

Systems Errors vs. Individual Errors

IOM, 1999: To Err Is Human: Building a Safer Health System

How many people in the U.S. die each year due to errors in inpatient hospital treatment?

Between 44,000 and 98,000

Putting that into perspective…

Responses to IOM Report:

CE requirements

Mandatory or voluntary systems for reporting medical errors (National Quality Forum, 2007)

Joint Commission (JCAHO) requires healthcare institutions to analyze errors using root cause analysis

Agency for Healthcare Research and Quality (AHRQ) - $50 million annually to research patient safety

Patient Safety and Quality Improvement Act (database)

Centers for Medicare and Medicaid Services – will not reimburse hospitals for treatment of 8 preventable errors

Medicaid, Aetna, BCBS, etc. following suit

HealthGrades Patient Safety (2004)

Study of 37 million patient records, all Medicare, in 50 states + DC.

195,000 deaths annually due to in-hospital medical errors (2000-2002)

Health Grades Safety 2004-2006

Patient safety incidents cost federal Medicare $8.8 billion and resulted in 238,337 potentially preventable deaths

Top-performing hospitals had 43% lower incidence of errors than poorest-performing hospitals

If all hospitals were equivalent to top performers, 37,214 Medicare deaths could have been avoided, saving $2 billion

Cost to the economy:

Billions of dollars a year in direct and indirect costs
$29 B – $37.5 B/year

Patient perceptions of hospital and medical safety is poor

42% of respondents had been affected by a medical error, either personally or through friend or relative

32% said the error had a permanent negative effect on the patient's health

Overall rating of "moderately safe" – 4.9 on a 1 to 7 scale

Another study by pharmacists

61% Americans very concerned about being given the wrong medicine

58% very concerned about being given 2 or more meds that interact negatively

56% very concerned about complications from a medical procedure

Adding to the problem

Why do medical errors occur?

"Systems" errors
Fatigue*
Lack of knowledge
Poor charting
Impaired care providers

Definitions of Terms

Medical Error:

The failure of a planned action to be completed as intended (error of execution) or

The use of a wrong plan to achieve an aim (error of planning)

Adverse event: an injury caused by medical management, NOT the underlying condition of the patient

An adverse event attributable to error is a *preventable* adverse event

Root Cause Analysis

"A process for identifying the basic factors that underlie variation in performance, including the possible occurrence of a sentinel event."

Focuses on systems and processes, not on individual performances

Sentinel event: any unexpected occurrence involving death or serious physical or psychological injury, OR THE RISK THEREOF

Reviewable Sentinel Events

Suicide during hospitalization or within 72 hours of stay

Unanticipated death of full term infant

Abduction of a patient

Discharge of an infant to the wrong family

Rape

Hemolytic transfusion with wrong blood type

Surgery on the wrong patient or body part

Unintended retention of foreign object during surgery

Nonreviewable events

Any “near miss”

Full or expected return of bodily function within 2 weeks of loss of function

Medication errors that do not result in death or major permanent damage

Death or loss of function following AMA d/c

Unsuccessful suicide attempts

Statistics: Medical Errors and Sentinel Events in U.S. hospitals Reducing Medical Errors: As a patient…..

Appoint a patient advocate!
Protect the patient from infection
Avoid wrong-site surgery
Don’t distract the care provider
If you have a choice, choose a hospital using bar-coding to verify patient identity, medication instructions, etc.

If permitted, label everything you can with patient’s name

Lesser-known ways to protect yourself

Don’t get your prescription filled the first week of the month
Time your illness or accident well
Reducing Medical Errors: Hospitals…..

MAME, Lewis Blackman story
“Systems”
Patient advocacy

Medication Errors

Statistics in Medication Errors

What causes Medication Errors?

Wrong diagnosis
Prescribing errors
Illegibility
Improper dose (e.g. 5 mg vs 0.5 mg)
Drug-drug interactions
Dose miscalculations
Incorrect drug administration
Name confusion
Lack of appropriate patient education
Language issues

Examples of Medication Error Cases

Preventing Medican Errors in the Optometric Practice

Charting tips
Prescription writing tips
Compliance issues
Special populations

What about EMR?

Benefits of EMR and e-prescribing

Potential pitfalls of EMR and e-prescribing

Case examples