

# Prevention of Medical Errors

## Course Description:

This course will present information on medical errors from the 1999 IOM report as well as supplemental reports from 5, 10 and 15 years after original report. It will include root cause analysis, error reduction and case studies highlighting specific errors within the optometric and medical field. Lastly, we will address specific issues towards the optometric community.

## Course Objectives:

1. Why are we here?
2. What was the catalyst that prompted law?
3. Define medical errors
4. Root cause analysis
5. Discuss cases and specific errors
6. How to prevent errors within the Optometric Community

## Course Outline:

- A. Why are we here?
  1. Florida Requirement
  2. Statue 64B13-5.001
- B. What was the catalyst for the new law?
- C. 1999 Institute of Medicine (IOM) Report
  1. 44,000-98,000 preventable deaths per year
  2. Associated cost of \$17-\$29 billion per year
  3. 2006 report – medication errors in hospitals cost \$3.5 billion per year
- D. Four Key Factors Identified
  1. Fragmentation and decentralization of the health care system
  2. Licensing and accreditation process
  3. Medical liability system
  4. Third party purchasers of health care
- E. Goal of IOM Report (1999)
  1. 50% reduction of errors by 2004
  2. Four-Tiered strategy
- F. 5 years later

1. Not possible to quantify the number of errors
  2. 1999 report focused on hospitals
- G. 10 years later
1. Report titled "To Err is Human- To Delay is Deadly"
  2. Failing grade
  3. Drug confusion errors
  4. Accountability through transparency
- H. FDA 101
1. Definition of medication error – preventable event that may cause or lead to inappropriate medication use or harm to a patient.
  2. MedWatch – FDA's adverse event reporting program
  3. 95,000 report of errors from 2000-2009
- I. Root Cause Analysis
1. Joint commission requires organizations to have a process in place to recognize events, conduct thorough and credible root cause analysis, document a risk-reduction strategy and internal corrective plan.
  2. Process must be complete within 45 days of the organization being aware of the event.
  3. The root cause analysis should focus on systems and process NOT individuals.
  4. The Analysis is required to be thorough and credible
  5. To be thorough:
  6. To be credible:
  7. The action plan would be accepted if it identifies changes that can be implemented to reduce risk or formulate a rationale for not undertaking such changes, and where improvement actions are planned, it identifies who is responsible for implementation, when the action will be implemented, and how the effectiveness of the action will be evaluated.
- J. Types of Medical Errors
1. Diagnostic Errors
  2. Treatment
  3. Prevention
  4. Other
- K. Cases
1. Lewis Blackman
    - a. Elective surgery
    - b. Died 4 days later
    - c. Medical Error – failure to order indicated tests
  2. 72 yo female
    - a. Died 11.24.2010

- b. Medical Error – deviation from accepted standard of care.
  - c. Awarded \$1,250,000
- 3. Rhode Island Hospital
  - a. Surgery on wrong side of head – 3 times
- 4. Newborns given accidental overdose
  - a. 3 patients received 1000 times the prescribed Heparin  
Dennis Quaid
  - b. Instead of 10 units/mL, patients received 10,000 units/mL
  - c. Medication orders for kids in hospital – error rate 6%
  - d. Majority of errors with IV drugs
  - e. Medical Error – institutional/system failure.  
Nurses grabbed vials of Heparin for adults instead of Hep-Lock for children. Two medications are nearly identical
    - 1. Pharmacy technician mistakenly stocked the cabinet with the wrong vials
- 5. Wrong Site Surgery
  - a. 47 yo Air Force Veteran
  - b. West Los Angeles VA Medical Center
  - c. Medical Error – error on consent form, medical personnel to mark proper surgical site prior to surgery
- 6. Girl dies after receiving wrong heart/lungs
  - a. 17 yo female
  - b. Died 02.23.2003
  - c. Wrong blood type
  - d. Medical Error – hospital blamed human error as well as lack of safeguards to ensure a compatible transplant. Dr. James Jagers, transplant surgeon, accepted responsibility for mistake
- L. Optometry
  - 1. Dilate pupil
  - 2. Determine cause of decreased vision
  - 3. Proper referral
  - 4. Offer proper protective eyewear (polycarbonate) when indicated
  - 5. Perform health exams on contact lens wearers
  - 6. Discuss all findings
  - 7. Informed consent
  - 8. Visual field testing on children
  - 9. Follow proper co-management protocols
  - 10. Records

