Prevention of Medical Errors and the Optometric Practice

GOLD COAST 2014

Albert D. Woods, M.S., O.D., F.A.A.O.
Associate Professor
Director of Clinical Electrodiagnostic Service
Nova Southeastern University/College of Optometry
albert@nsu.nova.edu

COURSE DESCRIPTION
The different types of medical errors are presented including root cases analysis, error reduction, and future prevention that may be useful within a primary optometric eye-care setting. Also presented are situations where medical error can sometimes lead to medical malpractice.

COURSE OBJECTIVES
1. To become aware of how the need for a medical errors course came about.
2. Describe in general the different types of medical errors that can occur.
3. Review causes of medical errors that can occur within the primary optometric eye-care setting.
4. When can medical errors lead to possible malpractice, and how to reduce the risk of medical/optometric malpractice.

COURSE OUTLINE
A. Why is there a required course in medical errors?
   How did the USA do in 2013…let a case tell the story!
   1. 1999 Institute of Medicine Report
      -the hidden epidemic
      -1 in 25 hospital patients injured by medical errors
      -medication errors cause ~7,000 deaths per year
      -as high as ~98,000 deaths per year secondary to all medical errors (numbers often quoted have a large range from a low of 44,000 to a high of 195,000 in more recent studies)
      -cost of ~$30 billion+ per year
   2. Agency for Healthcare Research and Quality (AHRQ)
      -current state of the problem
      -more frequent a organizational problem than single individual error
   3. Joint Commission on the Accreditation of Healthcare Organizations (JCAHO)
      -where regulations and education come into play
4. Welcome to Florida…our medical errors requirement
   -Statute 64B13-5.001
   -“Licensees are required to complete a 2-hour course relating to prevention of medical errors as part of the licensure and renewal process. The course shall be approved by the Board and shall include a study of root-cause analysis, error reduction and prevention, and patient safety. The 2-hour course shall count towards the total number of continuing education hours required for licensure renewal. If the course is being offered by a facility licensed pursuant to Chapter 395, F.S., for its employees, the Board approves 1 hour of the 2-hour course to be specifically related to error reduction and prevention methods used in that facility.”

5. Reflections on what’s out there on recent medical errors.

B. Types of medical errors
   Sentinel Event: unanticipated event resulting in death or serious physical or psychological injury to a patient, not related to the natural course of the patient's illness → adverse event secondary to a medical error

1. What is an error?
   a. Error of execution
      -planned action in the patient management is not completed
   b. Error of planning
      -use of the wrong plan in the patient management
   c. Adverse event
      -injury secondary to patient management and not due to the underlying medical condition of the patient

2. Active errors
   -error at the level of the operator that was under their direct control

3. Latent errors
   -error that does not occur during the direct control of the operator
   -while not under direct control of the operator it can involve the patient management that the operator selected (i.e. wrong diagnosis)

C. Factors that can lead increased risk of medical errors

1. Fatigue
2. Alcohol/drugs
3. Illness
4. Inattention/distractions
5. Emotional states
6. Unfamiliar situations/conditions
7. Equipment problems
8. Inadequate labeling/instructions
9. Communication problems
10. Handwriting
11. Sound alike drugs
12. Office set-up/record keeping
D. Medication errors
   1. Omission errors
   2. Dosing errors
   3. Unauthorized drug errors
   *To reduce medication errors always remember the “six rights”
      1. Right patient
      2. Right drug
      3. Right dose
      4. Right dosage form
      5. Right route
      6. Right time
   Woods Lucky #7: Right patient medication education
   FL oral formulary – azithromycin and risk of cardiovascular death

E. Root cause analysis
   1. JCAHO requirement
   2. What conditions within the system or practice cause a medical error?
   3. Where can the system or practice set-up be improved to reduce the likelihood of another similar event?
   4. Action plan and outcomes
   SMART- Specific Measurable Accountability Reports Timeframes
   Trigger Tools – identifies adverse events based on medical management triggers

F. Reduction of medical errors
   1. Making the correct diagnosis
   2. Providing the correct treatment based on the diagnosis - evidence-based medicine
   3. Making sure the correct medication is rx’ed
   4. Correct follow-up/automated recall systems - how to deal with the no-show patient
   5. Equipment issues
   6. Special population issues
      a. Elderly patients
      b. Infants and children
      c. Communication
         - language barriers
         - literacy barriers
         - hearing/speech barriers

Reduction of medical errors in optometry
   Making the correct diagnosis
   Providing the correct treatment based on the diagnosis - EBM
   Making sure the correct medication is Rx’ed
   Correct follow-up/automated recall systems - follow-up with no-show patients
   Equipment
      - up to date, maintained, calibration schedules
   Special populations
G. When do you have to report medical errors
   1. Barriers to reporting errors
   2. Statute 395.0197 (FL)
      - when is reporting medical errors is required
        Death
        Brain or spinal damage
        Permanent disfigurement
        Fracture/dislocation bones or joints
        Transfer of patient to more acute level of care
        Surgery on wrong patient
        Surgery on wrong-site
        Wrong surgical procedure
   3. Chapter 463.0135(7) (FL)
      - adverse drug reaction, date of rxn, if referral needed

H. When medical errors become malpractice
   1. How medical errors are, and are not, related to malpractice
   2. Areas of risk in primary optometric eye-care for malpractice
   3. What a student shared about their malpractice case  - DON'T QUOTE SOURCE!
   4. Malpractice prevention
      - Proper work-up and diagnosis
      - Proper chart documentation
      - Proper patient communication
      - Proper clinic protocols – EHR?
      - Proper referrals (and relationships)
      - GOOD patient relationships

I. Optometric Malpractice Claims (Classe’ 1998)
   • Misdiagnosis of Intraocular Disease (58%)
      - POAG, retinal detachment, mass
   • Injuries from Ophthalmic Materials (21%)
      - CL’s (corneal comps), Spectacles (polycarbonate)
   • Misdiagnosis of Ant. Seg. Disease (11%)
      - Corneal dz, FBs
   • Improper Co-Management (5%)
      - Refractive surgery, cataract surgery
   • Injuries from Ophthalmic Drugs (3%)
      - Angle closure
   • Misdiagnosis of Binocular Vision Anomalies
      - Failure to tx amblyopia
J. Reduction of leading disease causes in optometric malpractices

**POAG** - lessons as expert witness
- Applanation IOPs needed, **good** baseline
- Assessment of ONH with dilated pupil
  - drawings, stereo photos, HRT, GDx, OCT
- Sensitive visual field (30-2, 24-2)
- Medications
- Medical history
- Good follow-ups
- Refer for laser/surg if needed
- Current standard of care (Studies – EMGT, OHTS, etc)

**Retinal Detachment**

DFE!

Symptoms

Risk Factors
- Fresh PVD
- Sig. myopia
- Pseudophakia/aphakia
- YAG capsulotomy
- Lattice degeneration
- Proliferative retinopathies
- Trauma
- h/o RD in fellow eye

**Neuro-eye**

Swollen ONH
- GCA associated AION
- “Papilledema”
- Infiltrative Optic Neuropathy

CN III or VI palsy
Rapid Bi-Temporal VF Lost
Optic atrophy

**SUSPECTED GCA →** ALWAYS Note in Chart! (including if neg.)
- headache (cardinal symptom)
- scalp tenderness
- swollen temporal arteries
- jaw claudication
- proximal muscle stiffness and myalgias (PMR)
- weight loss (anorexia)

**STAT referral!**

**STAT ESR, CRP, CBC**
INFILTRATIVE OPTIC NEUROPATHY
Progressive VA/VF/CV loss with/without disc swelling
Unilateral/bilateral
Vitreous cells over ONH
Assoc. major systemic disease:
  - sarcoidosis
  - lymphoma
  - leukemia
  - metastatic neoplasia
  (medical urgency for rad. tx in px's with leukemia/lymphoma/sarcoidosis)

OPTIC ATROPHY and AGE
Young
  - Inflammatory (post-viral first two decades)
  - Demyelinating (after teens)
  - Vascular (assoc. migraines or coagulation dysf.)
  - Compressive!
Middle age
  - Compressive!
  - Vascular/ischemic
Elderly
  - Ischemic (GCA incid. rises dramatically >70 yo)
  - Compressive!

DIPLOPIA
REFERENCES
4. In Hospital Deaths from Medical Errors at 195,000 per Year USA. Medical News Today Aug 9, 2004.

WEB SITES
2. FDA Safety Information and Adverse Event Reporting Program: http://www.fda.gov/medwatch/how.htm
3. MEDERRORS: http://www.mederrors.com