Disease Management:
Don't Make the Same Mistakes I Did

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No financial disclosures

The key to making the right diagnosis

- 1. Take a careful history
- 2. Gather the appropriate information
- 3. Put all the facts together
- 4. Keep your fingers crossed that you were right

What do medical errors have to do with optometry?

- Hospital based ODs have been required to attend CQI courses for years.
- 3rd parties have quality incentives to reimbursement & documentation.
- Ongoing consumer demand for quality.
- HIPAA

64B13-5.001

- Florida rule requires all initial health care licensees & bi-annual renewals to have completed a 2 hr course on prevention of medical errors including:
  - Root cause analysis
  - Error reduction & prevention
  - Patient safety

How many deaths a year are believed to be caused by medical errors?

50,000 to 100,000

How medical errors rank as cause of mortality


Heart
616,067


Accidents
123,706


Cancer
562,875


Medical Errors
~100,000


Stroke
135,952


Alzheimer's
74,632


Lung
127,924

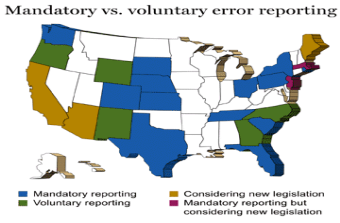

Diabetes
71,382

www.cdc.gov/nchs/fastats. Accessed Jan 2012. Based on 2007 data.

What a Waste!!!!

- Total national cost (lost income, lost household production, disability, medical care) estimated to be $17 to $29 billion for preventable adverse events.

Reporting Medical Errors



What is a medical error?

A medical error is a **preventable** adverse effect of care, whether or not it is evident or harmful to the patient.

This might include an inaccurate or incomplete diagnosis or treatment of a disease, injury, syndrome, behavior, infection, or other ailment.

Adverse Event

- An injury caused by medical management rather than by the underlying disease
- Not all adverse events are preventable
  - For example, an allergic reaction to a medication in a patient with no previous history or knowledge of the allergy

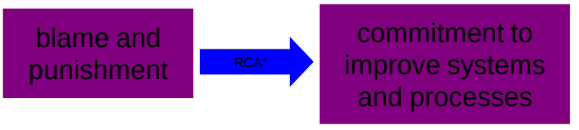
IOM

- The Institute of Medicine (IOM) is an independent, nonprofit organization that works outside of government to provide unbiased and authoritative advice to decision makers and the public.

Root Cause Analysis (RCA)

- Tool to identify impartial strategies for preventing errors.
- Process for discovering basic & contributing causes of error with the goal of preventing recurrence.
- Involves asking why at each level of cause & effect.

Analyzing Medical Errors: Must first change culture



* Root cause analysis

Papilledema Causes

- Intracranial mass lesions
- Infection
- Malignant hypertension
- Inflammatory/autoimmune
- Pseudo tumor Cerebri

Pseudotumor Cerebri (PC)

- Also known as:
  - Idiopathic Intracranial Hypertension
  - Benign Intracranial Hypertension
- Condition (or group of conditions) characterized by the presence of elevated intracranial pressure (>20 cm H20) with no obvious underlying cause
- This is a diagnosis of EXCLUSION.

PC clinical presentation

- The classic patient is an overweight female of child-bearing age who presents with retro-ocular, pulsatile headache. Headache is worsened by any type of maneuver that would otherwise increase ICP (Valsalva, bending over to pick something up, etc.).

Etiology/Pathogensis of PC

- Not well understood; many hypotheses.
- ? – Elevated central venous pressure causes decreased CSF absorption into dural venous sinuses through arachnoid granulations, leading to increased ICP ?
- ? – Hormonal changes ultimately result in increased CSF production ?

PC – Visual Loss

- Visual loss occurs in ~50% of patients
  - It can occur at any time during the course of PC, insidiously or suddenly, etc. There is no correlation between signs/symptoms and onset/degree of visual loss.
- Early changes include loss of peripheral fields and loss of color vision

PC – treatment recommendations

- **Weight loss is recommended for all patients with Pseudotumor Cerebri.**
- **This is a cornerstone of long term management**

PC – treatment recommendations

- For patients with visual loss but no headache:
  - Medical management and "aggressive observation"
    - Optic Nerve Sheath Fenestration (ONSF) if vision deteriorates

PC – treatment recommendations

- For patients with both visual loss and headache:
  - If refractory to medical management, serial LPs, and/or deteriorating vision, either shunt placement and/or ONSF is advised.
  - In general, ONSF is better treatment for vision; shunt is better treatment for headache.

Lumbar Puncture in PC

- Can be diagnostic AND therapeutic.
  - Often, patients experience significant relief of symptoms with CSF removal. This strongly hints at the diagnosis of Pseudotumor.
- As many as 25% of patients may experience remission of symptoms after one LP!

Pseudotumor Cerebri - prognosis

- In general, prognosis is good.
- For most patients, the condition is self-limited and remission occurs within a year.
- As many as 25% of patients experience some degree of permanent visual loss!
- For a minority of patients, course is chronic.

In General, Who Can Be Held Responsible for Prescription Errors?

- The Physician or other Licensed Prescriber
- The Pharmacist who Dispensed or Compounded the Medication
- A Nurse who Administered the Medication
- Any Employing Institution (e.g., hospital, clinic, practice)

Institute of Medicine (IOM) estimates:

- Medication errors are believed to cause 7K deaths annually compared to 6K workplace related deaths.
- Annual cost of medication errors is $2 billion.

Hospital Medication Doses

(Barker, Ph.D. Pharm, *Arch of Int Med*, 9 Sept 02)

- **19% of 3,216 hospital doses were in error.**
  - 43% of meds given at wrong time
  - 30% not given at all
  - 17% wrong dose given
  - 4% unauthorized drug given

Educate Patients

- Do not rely on the pharmacist.
- What medication does and how it should be taken
- Likely side effects, contraindications & drug interactions.
- Coordinate care with patient's PCP.
- Check meds when picking up at pharmacy.
- Have patient bring ALL medications with them at each visit

Sound-a-like meds

–Tobrex vs. Tobradex

–Vexol vs. Vosol

Look-A-Like Packaging

- **Tobramycin, Neomycin, Sulfacetamide**
- **Dexacidin vs. Vasocidin**
- **Precision Glucose Control Sol. vs. Timolol**

Six “Rights”

- Right patient
- Right drug
- Right dose
- Right route of administration
- Right time
- Right allergies

Use “TALL MAN” lettering

- Not FDA required
- Uses mixed case letters to emphasize and distinguish drug name similarities

Avoid using abbreviations

- Latin truly is a “dead” language

- Spell it out plainly – K.I.S.S.

Mind your decimals….

- 1 mg NOT 1.0 mg
- 0.5 mg NOT .5 mg

NEVER abbreviate drug names

- Pred
- E Pred
- Tbdx

Avoid “prn” dosing

- Don’t say “every 3 hours as needed”
- Instead, write “up to every three hours if needed for itching of the eyes; do not exceed six drops per day per eye”
- Put a limit on daily or total use
- “Discard unused portion”

Include indication where possible

- “One drop in both eyes every night at bedtime for glaucoma”
- “One drop in the right eye every eight hours to treat infection”

Management

- ST: Treat corneal abrasion again
- LT: What are your options?

Muro 128

Bandage CL

Other options for RCE

Superficial keratectomy

PTK

Anterior Stromal Puncture

Other options for RCE

- Oral tetracyclines (Doxycycline)

Amniotic membrane

Amniotic membrane is an avascular fetal membrane that lies deep to the chorion and is harvested in a sterile environment from placental tissue obtained during elective cesarean sections.

Donors are screened for transmissible diseases, and the AM is further treated with broad-spectrum antibiotics immediately after collection.

Types of AM on the market

- **Cryopreserved AM.**
- Involves slow freezing at –80°C using DMEM/glycerol preservation media to allow for slow-rate freezing without ice formation. The tissue is stored in a –80°C freezer and brought to room temperature when needed for use.
- ProKera (BioTissue) is a cryopreserved form of AM in which the membrane is secured around a polycarbonate ring or an elastomeric band. This form of AM has been cleared by the FDA as a class II medical device, and product claims approved by the FDA include protective, wound healing, and antiinflammatory effects.

Types of AM on the market

- **Dehydrated AM.** Dehydrated AM is preserved using vacuum with low temperature heat to retain devitalized cellular components. FDA-approved claims for this type of AM are limited to wound coverage. Unlike cryopreserved tissue, dehydrated AM is kept at room temperature, but it must be rehydrated for clinical use.
- AmbioDisk (IOP Ophthalmics) is a dehydrated AM commercially available for in-office use; it is applied directly to the ocular surface and covered with an overlying bandage contact lens.

Billing: Amniotic membrane

- CPT 65778 (Placement of amniotic membrane on ocular surface without sutures)
- Cost: $500 to $900
- Reimbursement: $870 to $1400

For this patient…

Successfully treated (ST and LT)

No more outbreaks of the RCE

5 Steps of the legal elements of a Negligence Claim

- A Physician-Patient Relationship
- The Provider Owes a Duty (of reasonable care) to the Patient
- The Physician's conduct was below acceptable Standards of Care
- The Patient was injured (damages)
- The Negligence was the "Proximate Cause" of the patient's damages.

What is standard of care?

- the watchfulness, attention, caution and prudence that most doctors in the circumstances would exercise.
- If a doctor's actions do not meet this standard of care, then his/her acts fail to meet the duty of care which is required for health care providers

Which state has the highest number of optometric malpractice claims?

- **What is the peak age of an optometrist at the time of an event leading to malpractice litigation?**

  A. 20-30

  B. 40-49

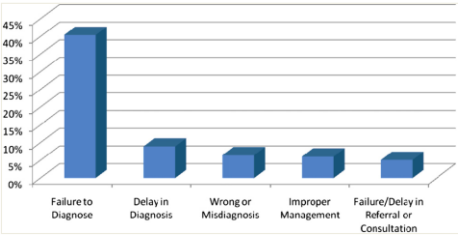
  C. 60-69

In any given year, 99.9 percent of us are practicing good optometry….

Lifetime Risk for Getting Sued

6%

What is the most common reason optometrists get sued?



What are the 3 most common conditions we fail to diagnose?

- **Failure to Dx retinal detachment**
- **Failure to diagnose glaucoma**
- **Failure to diagnose iritis**

Diagnosing RD

- Dilate any new onset flashes, floaters, any high myope
- Extended ophthalmoscopy AND follow up ophthalmoscopy in 4-6 weeks
- Patient education on signs and symptoms of RD

Diagnosing Iritis

- Always check IOP on red eye patients
  - Recheck IOP if you prescribe a steroid
- Always check and document corneal staining
- Always check and document anterior chamber
  - Deep
  - No Cells
  - No Flare

Talk to your patients

- Brochures and the internet are not a substitute for your expertise

Special Populations

- Always try to have a family member for children and the elderly. Document who was there
- If patient doesn't speak English, have them bring a translator

Realize that optometry school was an investment

Our investment

- **4 years of our life after a B.S. when we could have been making money but were in optometry school instead**

Stop Giving It Away

Increase Patient Flow

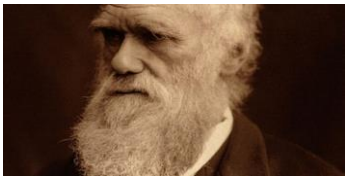
- You have a choice:
- 1. See more patients per day for the cheap vision exams
- 2. See less patients per day for the higher reimbursing medical plans

#3: Remember 20/20 is still the gold standard

This NEEDS to be worked up

- Amblyopia is a diagnosis of exclusion – work up needs to be done first
- Amblyopia by history is poor patient care
- The younger the child, the more extensive the work up needs to be

This should be everyone's best friend



Thank you
for being here.
See you next year!