THE DARK SIDE OF EHR
What you don't know CAN hurt you

Gerald E Meltzer, MD, MSHA
Kirk Mack, COMT, CPC, COE, CPMA
Hans Bruhn, OMIC Risk Management

Purpose of this program

- To identify potential risks of EHR that might threaten patient safety
- To increase awareness of common pitfalls of electronic documentation
- To reduce risk of inadequate documentation commonly found in EHR
- To increase awareness of liability risks associated with EHR

Financial Disclosure

- Gerald Meltzer, MD is a consultant for iMedicWare
- Kirk Mack is a Senior Consultant for Corcoran Consulting Group
- Hans Bruhn is a risk analyst for OMIC
- None of the presenters have any financial interest in the subject being presented

EHR – Friend or Foe

- Errors – induce or reduce?
- Malpractice Claims – induce or reduce?
- Legal Defense – help or hinder?
- Relationship between errors and liability claims is complex…we will explore that today

"I will never go back to paper charts—clearly electronic records are better, but while they are good, they are so far from great, that it is astonishing

Leora Horwitz, M.D., Yale University School of Medicine

EHR are devices

- Valuable
  - Can improve safety and workflow
  - Augment your capabilities
- Vulnerable
  - Newton's first law of computing – for every function, there is an equal and opposite *malfunction*
  - For each capability, imagine what would happen if it worked wrong

Liability Risks

- Malpractice
- Privacy (HIPAA)
- Cyber liability
- Data Loss
- Defamation

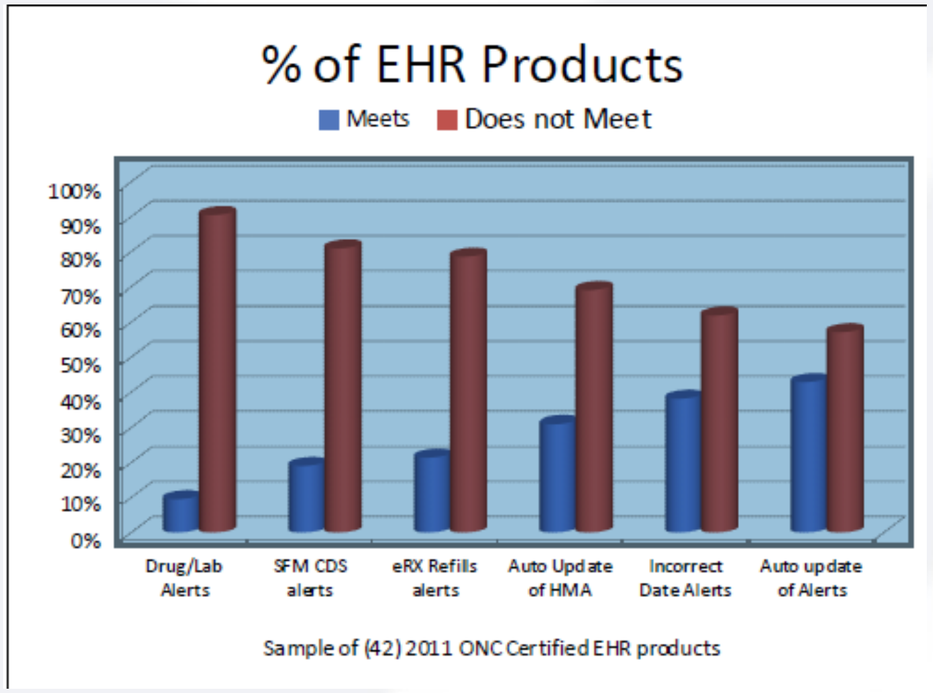
Electronic Communications

- You are responsible for any medical information for which you have reasonable access
  - eRX alerts
  - Patient information in questionnaires
  - Clinical Decision Support

Data Overload

This is probably the most important hazard of the EHR because it can interfere with almost any other healthcare function by almost any provider

How does your EHR Function?



SO LETS TALK ABOUT THE ISSUES

THE ISSUES

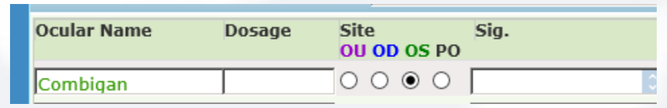
- eRX/CPOE
- Charting/Documentation
- Clinical Decision Support Systems
- HIPAA
  - Privacy
  - Security
- Liability Risk Analysis
- Communications/Patient Portal
- eDiscovery

eRX/CPOE

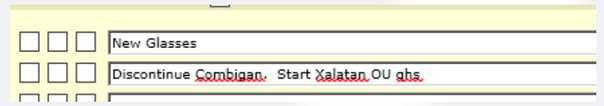
- Information Errors – accepting information presented on screen which may lead to:
  - Wrong Medication being prescribed
  - Wrong dosage
- Community Medication Histories
- Failure to record medication was discontinued

t

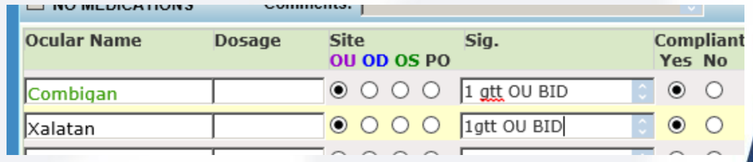
Patient on Combigan



Combigan Discontinued



But on next visit Combigan still in medication list



Emerging Risks

- Alert Technology
  - Medication alerts warn prescribers of potential drug interactions and allergies
  - “Alert Fatigue” – too many irrelevant alerts lead prescribers to ignore or turn them off
  - In event of litigation – difficult to explain why a warning was ignored

Clinical Decision Support Systems

- Required in MU2
  - Standard order sets
  - Best Practices
  - Prompts, Reminders, Alerts
  - Diagnostic Suggestions
- What if ignored and injury occurred

CHARTING AND DOCUMENTATION ISSUES

Risks during implementation

- Inadequate Training
  - Liability for letting users use a device for which they have not be properly trained
  - See one, do one……..hmmmmmm
  - Competency Training?
  - Documentation of training and competency?

Risks During Implementation

- Paper VS EHR
- Incomplete Documentation
- Absent/missing information
- No error checking
- Incorrect Data Entry

Copy/Paste Issues

- Use caution in copying and pasting patient notes
- Avoid incorrect information in your EHR
- Auto-populated fields lead to incorrect patient information in the EHR

Copy and Paste Issues

- January 2014 January 2015

Prv		
Drawing	Clear	Clear
	Clear	Clear
	Deep and quiet	Deep and quiet
	WNL	WNL
	+2 Nuclear Sclerosis	+1 Nuclear Sclerosis
NC		
Drawing	0.15 C:D	0.15 C:D
Peri not ex.	Pink & Sharp	Pink & Sharp
	Clear	Clear
	Macula normal, vessels normal course and caliber, periphery normal	Macula normal, vessels normal course and caliber, periphery normal

Copy/Paste Issues

- 72% of PIAA Companies concerned
- Incorrect Findings
- Discredit entire record
- Discredit care
- Make legal defense problematic
- Use of incorrect defaults

So what is wrong with this chart note?

Security Risk Analysis

- HIPAA – conduct accurate and thorough analysis related to
  - Confidentiality
  - Integrity
  - Availability

- http://www.hhs.gov/ocr/privacy/hipaa/administrative

Security Risk Analysis

- Every covered entity is subject to an audit
- Conduct an accurate and thorough assessment of the potential risks and vulnerabilities to PHI
- Decide how to address findings
- Document what you did or implement alternate methods to reduce risk

Security Analysis

- Threat Analysis
  - Something that can damage an asset
  - Human error
  - Hardware Failure
  - Data Corruption
  - Theft
  - Malware
  - Natural Disaster
- http://csrc.nist.gov

Security Risk Analysis

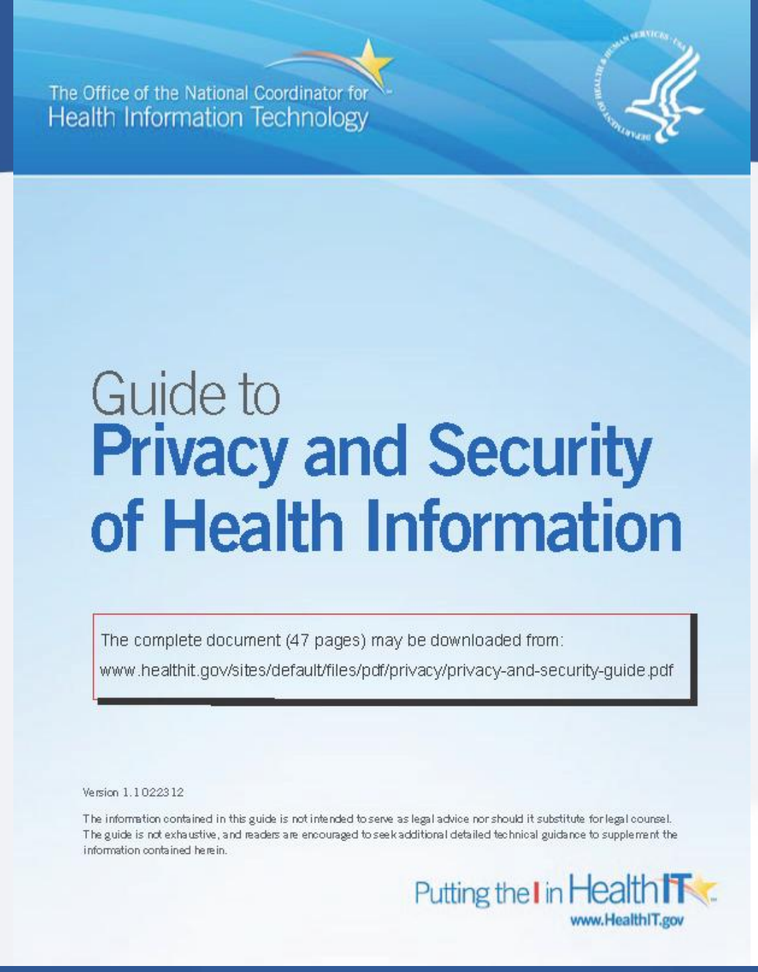
- Business Associate Agreements
- Review Current System Risk
- Identify EHR vulnerabilities
- Document Corrective Actions
- Education of Staff
- Sanction Policies
- Repeat on ongoing basis

Security Risk Analysis

- If a problem was not identified – information may be filed. Keep for at least 6 years
- If problem identified – what was done. If nothing was done considered willful neglect

Security Risk Analysis - Training

- Written manuals not enough
- Keep records of Training
- ALL employees must be trained
  - Retrain old employees annually
  - All new employees must be trained
  - If changes in law, all employees must be retrained



Liability Risk Analysis

- Backup
- Disaster Preparedness and Test
- Physical Security
- Update Testing
- User manual and training
- Encryption

Email Liability Issues

- Don’t use for medical emergencies
- Document all online patient communication.
- Limit Communications to existing patients
- You are responsible for information shared on your patient portal.

Practice Web Site Considerations

- You are responsible for any information you make available to your patients online
  - Either on website
  - Or in your email
- Marketing Information on website
  - Implicit guarantees
  - Implied warrantee
- Third Party Links - disclaimer

Patient Portal

- Secure
- Verify Identity
- Password validation
- Respond promptly to requests
- If used for acquiring patient data – make sure it is reviewed and validated
- Patients will read your notes … libel, defamation (demanding, non-compliant)

Social Media

- Sermo, You Tube, Facebook are public. You are on National TV
- Consumer Protection Laws
- Investigations have been triggered by:
  - Citing misleading information about outcomes
  - Using patient images without consent
  - Misrepresenting credential

Electronic Discovery

- Printed Record of EHR
- Raw data for metadata analytics
  - Log time
  - What was reviewed and for how long
  - Changes
- Smartphone and email also discoverable
- Remember all interactions with EHR are time tracked and discoverable

Why Cyber Risk Insurance

- Data Breach
- Sharing of Passwords leading to data corruption
- Removing Patient Data
- Lost Thumb Drive/Laptop
- HIPAA Complaints
  - Inadvertent release of information

Are example of events not covered by your malpractice insurance

Cyber Risk Insurance

- Multimedia Insurance
- Security and Privacy Insurance
- Privacy Regulatory Defense
- Network Asset Protection
- Cyber extortion/Cyber Terrorism
- Privacy breach response
- Customer notification expenses

EHR Benefits, Risks

- Benefits:
  - More inclusive chart entries
  - More entered in less time
  - Readability
  - Chart sharing
  - “Suggestions” for testing
  - Ease of communication with referring MD
  - Automatic time entries

EHR Benefits, Risks

- Risks:
  - Autofill incorrect information
  - Fill incorrect information – ease of entry
  - Decreases connection with patient
  - Transitioning can be troublesome
  - Printing out complete file – for patient and/or litigation
  - Loss of data
  - Inability to find new data
  - Physician doesn’t see new information
  - What to do with paper data (A-scan IOL printout)

Changing the Patient-Caregiver Dynamic

- Something new is in the room
- Demanding – MUST be attended to
- Can’t attend simultaneously to both the patient and the device
- Picking from menus while the patient is talking
- Communication – Words are a small fraction, where does intonation, body language fit in?
- The importance of the Human Touch

Integrating EHR Into the Practice

- Training
- Understanding Limitations – What it can and cannot do
- Proper use of Access Portals and Passwords
- Accessing and incorporating prior data

What EHR Cannot Do

- Won’t do your thinking for you
- Won’t do the examination for you
- Won’t do the informed consent for you
  - (but may document it better)

What EHR Cannot Do

- Clinical Decision Support (CDS) provides alerts, warnings or reminder – “prompts”
- Prompts in the record may be overridden or ignored
  - Any time a “prompt” is ignored or overridden, document WHY it was
  - Discovery during litigation will print out “prompts” in “native” format

What EHR Cannot Do

- So DON'T forget to keep your curiosity
- DON'T let the EHR supplant your judgment
- The EHR doesn't know everything, either

What EHR Cannot Do

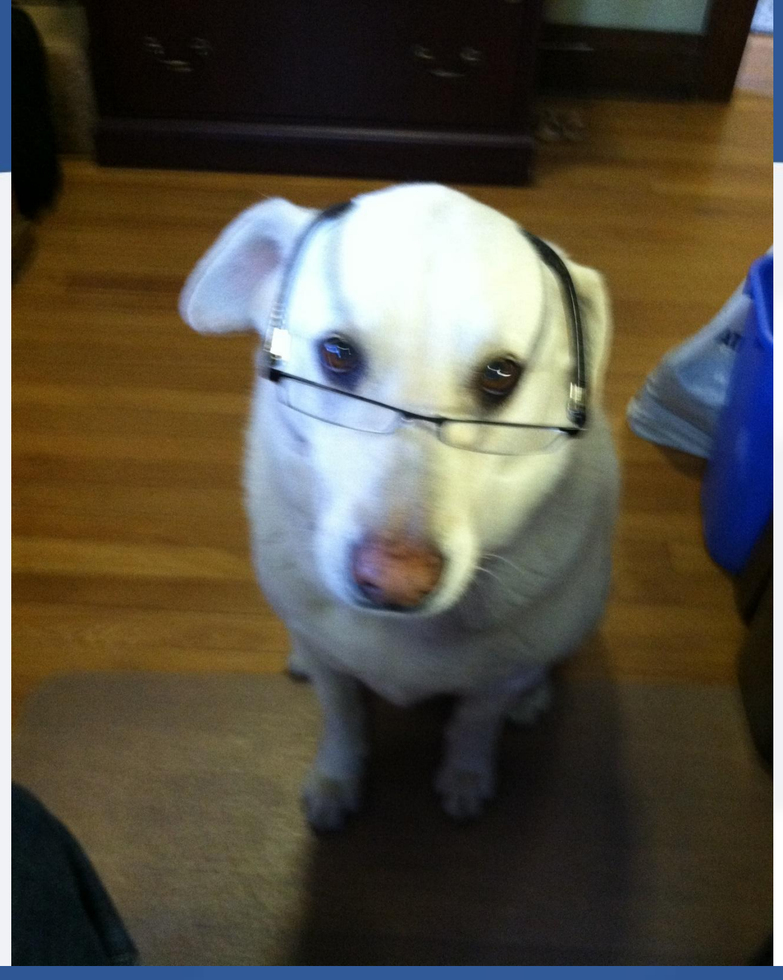
- Won't do your examination for you
- Clicking a button that "forwards" prior history and exam data completes the form, but not the exam
- "no change in vision" when primary complaint is complete loss of vision.

What EHR Cannot Do

- Follow-up on patient complaints
- "Do you feel safe at home?"
  - What is your plan to follow-up on a negative response?
  - Call social services?
- "Have you had recent falls"
  - What is your plan to follow-up on an affirmative response?
  - Arrange for neurologic/orthopedic referral?

What EHR Cannot Do

- Provide Informed Consent
  - Legal requirement
  - But it will also:
    - Establish rapport with patient
    - Reduce surprises for the patient
- Clicking the menu does not inform the patient
- Handing the patient a form or an iPad may inform the patient, may not



True Story #1

- Child presented to ER with dilated, non-reactive pupil with shallow laceration in the lower lid conjunctiva
- Diagnosed with traumatic hyphema
- ER physician contacted eye MD, who instructed him to send child for next day outpatient appointment

True Story #1

- Eye MD’s office EHR indicates normal findings of round, reactive pupil, no APD, white and quiet conjunctiva
- Only abnormal finding cell and flare in anterior chamber
- Diagnosis: traumatic iritis
- Follow-up appointment scheduled to monitor condition

True Story #1

- Before appointment, parents called another eye MD when child lost vision
- That MD elicited history of sickle cell anemia on phone so told to bring child in
- Pupil fixed and dilated, IOP 46, 4+ APD
- Parents sued when child ended up HM

True Story #1

- EHR issues
  - **System populated his note with normal findings**
  - Child vomited just after noted high IOP
  - Intended to finish note and enter abnormal findings later
  - Clinic got busy
  - Never even signed note

True Story #1

- Outcome of lawsuit
- Condition of records and decision to see in office rather than ER led to **$380,000 settlement**

True Story #2

- Autofill – the Time Saver!
- (Unless something has changed)
- 35 year old body mechanic, gave story about hitting eye with autobody hammer – supposedly waswearing protective glasses
- Illegal immigrant, concerned about losing job

True Story #2

- In reliance on patient information (and no insurance), MD did not order CT scan or x-ray
- Followed patient periodically
- 2 months later, vision deteriorating
- Anterior segment exam filled in at each visit – “Lens Clear”
- Day of referral to retinal specialist for 20/400 vision – “Lens Clear”
- Had 3+ cataract per retinal doc

True Story #2

- A clearly incorrect entry makes it more difficult to use the data to support the care.
  - Doc was monitoring patient, no significant problems until 2 months
  - But if, at 2 mos, lens data is indisputably wrong, cannot rely on prior lens condition data.

True Story #3

- Plaintiff alleged delay in diagnosis of RD
- Decisions contradicted findings
  - Cell and flare but discontinued steroid drops and gave a long follow-up period
  - Normal retinal vessels and clear vitreous yet diagnosis of retinal vasculitis and referral to retina specialist

True Story #3

- Eye MD deposition
  - Would never stop steroids if eye showed cell and flare
  - **EHR Issues**
  - **EHR‘s carry forward function automatically populated records with previous exam’s findings**

True Story #3

- Lawsuit outcome
- Testimony of retina specialist indicated RD was present for long time but not detected by defendant
- Failure to diagnose RD and state of records led to decision to settle for **$290,000**

COMMUNICATION

- Mostly non-verbal
- Nuanced
- What does EHR provide?
  - Canned, sometimes awkward language
  - Words and phrasing that EHR elects, not what patient used
  - Failure to diagnose cases often turn on subtleties of language used in the chart

COMMUNICATION

- EHR improves legibility and thoroughness of documentation, BUT:
- Chart is full of irrelevant documentation
- Risk of loss of NARRATIVE documentation
  - UCHSC EHR format – meeting with expert
- End up with a chart full of repetitive, formulaic statements about patient's History, Physical exam

COMMUNICATION

- What would YOU think if your were on a jury?
-

COMMUNICATION

- How does patient respond to questions?
- What are they communicating non-verbally?
- What does patient think about a caregiver who is asking questions, but not looking at them?
  - Reassuring?
  - Feel understood?

STRAY PAPER

- If get some data via paper, how integrate it, and when?
  - A-scan IOL sheet taken to OR
  - Left in stack, circulator uses it to pick NEXT patient's IOL
  - Doctor recognized error
- Correspondence from another office arrives, is scanned, and entered into patient file
  - Doctor can't "see" it, as with a paper file, misses data when patient comes in.

INCORRECT INFORMATION

- Use of drop-down menus can facilitate improper data selection
  - QD becomes QID
  - Amoxapine becomes Amoxicillin
- Once it's in the system, may not be corrected
- "Errata" supplements may not change data spread to other areas of the chart
  - Correct it in the "current meds", but not in the "medication list"?

DOCUMENTATION ISSUES

- *Garbage In – Garbage Out*

Problematic Chief Complaints

- "Decreased vision in both ears"
- "Patient complains, no complaints"
- "Diabetes in both eyes 4 years"
- "Borderline diabetes, it affects vision, not affected"
- "IOL eval in both eyes for one year"

HPI Challenges

- Expands on the CC
- Develops the CC
- Some EMR create a “narrative” or “paragraph”
- Read the final product – DOES IT MAKE SENSE?

HPI Challenges

They told me:

“I MUST GET 4 HPI ELEMENTS”

- Location
- Duration
- Timing
- Quality
- Severity
- Context
- Modifying factors
- Associated signs and symptoms

HPI Challenges

- CC
  - Location
  - Duration
  - Timing
  - Quality
  - Severity
  - Context
  - Modifying Factors
  - Associated Signs and Symptoms
- I GOT 7!!!!!!!

HPI EMR “hic-ups”

THE FINAL PRODUCT:

- 58 year old male presented for evaluation of Diabetes for 3 months. It affects vision not affected. The problem is constant. It occurs primarily when driving at night. Quality is fixed. Patient described the following signs and symptoms: **none currently to report**

- **NOT OUR BEST EFFORT!!!**

HPI EMR “hic-ups”

- 53 year old female complains of growth in left eye for 1 year. The timing is described as **constant.**

- 66 year old female presented for evaluation of existing condition, ARMD. Timing is described as **all the time**. Severity is described as **unknown.**

HPI EMR “hic-ups”

- 64 year old male presents for evaluation of existing condition, GLAUCOMA in both eyes for several years. The timing is described as constant. Severity is described as unknown. **Relief is experienced from timolol BID, latanprost in the evenings**. Pt is here for IOP check and VF.

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HPI EMR “hic-cups

- 66 year old male presented for evaluation of existing condition, lattice degeneration in both eyes for a few years. The timing is described as constant. Severity is described as faint

Problematic Exam Documentation

- CVF – fixes and follows OU – patient is monocular
- Lens – “clear OD” – patient is scheduled for cataract surgery OD
- External / lids – “WNL OS” – Procedure note for epilation of lashes LLL
- SLE – *blank* – impression indicates corneal ulcer OD
- VA = 20/20 OS – Patient had enucleation OS 3 mos. Prior
- Retinal periphery – “360 degrees, no holes, detachments, breaks” (Patient not dilated.)

EMR Consequences

- What do these examples say about our records?
- Quality of the work?
- Integrity of the record?
- Is it believable?
- Can you defend it?

Target for Scrutiny
E/M: Potentially Inappropriate Payments

"We will assess the extent to which CMS made potentially inappropriate payments for E/M services and the consistency of E/M medical review determinations. We will also review multiple E/M services for the same providers and beneficiaries to identify electronic health records (EHR) documentation practices associated with potentially improper payments. ***Medicare contractors have noted an increased frequency of medical records with identical documentation across services****. Medicare requires providers to select the code for the service based upon the content of the service and have documentation to support the level of service reported."* Source: HHS OIG FY 2012 Work Plan

RAC Audits of E/M Services

- EHR users increase utilization of 99214, 99215 because physicians are able to document better
- RAC audits of these codes based on HHS OIG report – *Coding Trends of Medicare Evaluation and Management Services, May 2012*
- OIG states: *"Although many EHR systems can assist physicians in assigning codes for E/M services, we found that most Medicare physicians manually assign E/M codes."*

Office Visits
Medicare Utilization Patterns Ophthalmology (18)

CPT	New Patients	λ	CPT	Established Patients	λ
99205	Level 5 E/M	**2%**	99215	Level 5 E/M	**1%**
99204	Level 4 E/M	**29%**	99214 92014	Level 4 E/M Comprehensive Eye	**54%***
99203 92004	Level 3 E/M Comprehensive Eye	**62%***	99213 92012	Level 3 E/M Intermediate Eye	**42%***
992029 2002	Level 2 E/M Intermediate Eye	**6%***	99212	Level 2 E/M	**3%**
99201	Level 1 E/M	**<1%**	99211	Level 1 E/M	**<1%**

*Combined utilization of E/M and eye codes

Source: CMS data 2014, 18 - Ophthalmology

Office Visits

Medicare Utilization Patterns Ophthalmology (18)

CPT	New Patients	λ		CPT	Established Patients	λ
99203	Level 3 E/M	**8%**		99214	Level 4 E/M	**8%**
92004	Comp Eye Exam	**54%**		92014	Comp Eye Exam	**46%**
99202	Level 2 E/M	**1%**		99213	Level 3 E/M	**12%**
92002	Intermediate Eye	**5%**		92012	Intermediate Eye	**30%**

Source: CMS data 2014, 18 - Ophthalmology

"It codes for us!"

- Multi-specialty Eye Care practice
  - 6 MDs (Cornea, Glaucoma, Plastics, Comp)
  - 5 ODs
- Implemented EMR – December 2011
- EMR company told practice to let the EMR choose the codes
- EMR chose only E/M codes
  - Ignored Eye Codes

"It codes for us!"

- Significant increase in E/M 99215
  - 2011 - 99215 used 138 times
  - 2012 – 99215 used 5,889 times
  - 42X increase in 1 year

Office Visit – Established

Blepharitis

CC: *Red Eyes (last exam 12 mo)*

HPI: *Patient c/o of very itchy & burny eyes x 3 days . AT help but not much . D/C CL wear. Red eye, OD x 2 days*

Dx: *Blepharitis OU*

Tx: *Lid scrubs and AT, NO CL for 2 weeks. RTC 2 weeks*

Hx: *ROS, PFHS unremarkable*

Exam: *Comp Exam, DFE*

WHAT CODE DID THE EMR CHOOSE?

“It codes for us!”

- What did the EMR choose for the blepharitis patient?

- A. 99211
- B. 99212
- C. 99213
- D. 99214
- E. 99215

“It codes for us!”

- What did the EMR choose for the blepharitis patient?

- Of course - 99215

“It codes for us!”

- Moral of the story:
  - **Most EMRs do not identify medical necessity**
    - Do you need comprehensive history for itchy eyes?
    - Do you need comprehensive exam for itchy eyes?
  - Medical decision making **must** be considered
  - What would you have chosen in the world of paper?
  - If it sounds to good to be true – it is
  - You are ultimately responsible

TAKE AWAYS

- Document ONLY what you do
- Use Shortcuts Carefully
- Careful Regular Chart Reviews
- Document Training
- Think Security – Remember TARGET
- Document Security Analysis
- Cyber Insurance

TAKE AWAYS

- Like all technology (such as the autocorrect that turned EHR into HER on this presentation), sometimes it is helpful, sometimes not
- Need to be TRAINED in how to enter and retrieve data
- Need to be CAREFUL about selecting entries

TAKE AWAYS

- Need to be ATTENTIVE to what is entered
- Be careful about using COPY and PASTE
- And finally - Don’t forget the PATIENT!

And Finally

CONTACT INFORMATION

- Gerald Meltzer 303-921-8880
  gemeltzer@gmail.com
- Kirk Mack 800.399.6565 ext 226
  kmack@corcoranccg.com
- Gregory Tiemeier (303) 531-0022
  gtiemeier@tslawpc.com