Selection and Implementation of an Electronic Medical Record Seminar 4004

Richard L. Wasserman, MD, PhD
Clinical Professor of Pediatrics
University of Texas
Southwestern Medical School

Disclosures

- I use Meditab's IMS EMR/PM/Shot Module
- I used GE's Centricity Medical Office EMR/PM January, 1996 to November 2011

Educational Objectives

- Demonstrate that an office EMR is part of a workflow solution, not just documentation
- Explain how to plan for implementing EMR systems
- Illustrate how staged implementation of EMR increases the likelihood of success

My Background

- Early adopter
- Interested in functional utility of computers – what can they do for me?
- Last programmed in Fortran on cards in 1969

You Can't Be Wrong For Long!

- The road to success is always under construction.
- Children learn quickly from video games that standing still will get you killed.
- Technology is NOT the goal.

The Decision Has Been Made

- Contract signed
  - Determine the vendor's recommended implementation plan, contracted training hours
- Product chosen, contract not signed
  - Discuss the vendor's recommended implementation plan, contracted training hours
  - Speak to recently implemented customers

Understand That An EMR Is For Life

- It is very difficult to switch EMR systems a few years from now.
- Practices do not want to keep legacy systems around for a long time. With an EMR legacy system, they just might have to.
- EMR implementations can be long. Anyone that has been through one will tell you they do not want to do it again.

Join Your Vendor's User Group

- Others have gone before you – leverage their experience
- Join at the earliest possible moment – groups are very tolerant of "newbies"
- Benefits include
  - Learning what to ask your vendor
  - Problem solving outside the box
  - Knowing when to give up

Goals of Implementing an EMR
What Do You Want to Accomplish?

- Better documentation of office visits, SCIT, phone messages, refills
- Doctors see more patients, faster patient throughput, point of care decision support
- Coding support
- Decrease staff costs, eliminate dictation
- Facilitate research
- Federal Incentives

Rank order what is important!

Customization

- If your system facilitates end user customization, have a staff member take the course – PA, NP or senior RN
- Work with the vendor to establish style standards or learn the vendor's standards

Training

- You need a CIO – even if you're solo (In which case it will probably be you!) – a contact person
- Don't purchase too little training no matter how smart you and your staff are
- Plan post-implementation training
- Train trainers

Identify The Players

- Knowing the champions and anchors is absolutely critical
  - Without the champion, no one will take ownership of the project.
  - If the anchor is the managing partner or the senior partner, office manager or clinical supervisor, every day will be a challenge until they adapt to the system or leave.
- Depends on the number of doctors and number of staff
- Doctors
- Front office
- Back office

Lessons Learned – Champions

- Being an early adopter is fun but has a price
- A Physician Champion is crucial
  - Doesn't need to be a computer expert
  - Does need expert support
  - Does need to be accessible
    - Anyone in the organization can request a change or enhancement with minimum effort – the best ideas come from the users
  - Does need to be able to delegate

Lessons Learned – Anchors

- Anchors must be identified as early as possible
  - Anchors must be floated or cut loose
- Because our system developed with the practice, anchors were avoided
- New staff spend one hour per day training on EMR during their orientation/training period

Physician Anchors

- Change phobic – senior manager problem
- Can't/won't type
  - Medical degree, specialty certification…can't learn to type?
- Dictates because that is the way it has always been done
  - Dictation is an anachronism
  - Most of the advantages of EMR are lost – MU, quality measures
  - Voice recognition impedes progress

Physician Anchors – Solutions

- Education
  - Typing programs
- Dictation is an anachronism that should be minimized
  - Most of the advantages of EMR are lost, no data structure
  - Voice recognition impedes progress
  - If your vendor pushed dictation to overcome resistance, ask for their help
- Scribes

Monitor and report operational costs by physician

Staff Anchors

- During implementation
  - Identify early
  - Educate
  - Clearly define expectations and monitor performance
- Staff Anchor solution - termination
  - The only “crucial” employee is the doctor
    - **The more senior the staff anchor, the more disruptive**
- After implementation
  - Don’t hire new anchors

Herb

- Herb is the computer department of our medium sized accounting firm
  - Manages the networks of several small banks
- Supplies and manages the network and all the hardware
- Installs software and upgrades, troubleshoots – rapid response
- Invaluable resource – part of the family, holiday recognition

What Herb Has Taught Me

- A local IT partner is crucial if the doctor(s) in a small practice need to see patients to pay for the IT
- Redundancy is good
- Parts fail but the system can't be allowed to fail
- RESULT: No downtime due to hardware failure January 1996 to Fall, 2013

Plan for Support

- Hardware
  - Workstations, network, internet and interfaced equipment will need to be installed and supported.
- Software
  - These systems are complex.
  - vendor will support their software
  - EMR/PM updates may require interfaced modifications
  - VARs (value added resellers) may offer comprehensive support
- Using one vendor has big advantages.

Hardware – Network

- Do not under purchase, it will cost more in long run. Be sure it is expandable.
- Will your software be purchased or will you use an ASP (application service provider) model? Cloud storage?
- Hardwired vs wireless network
- Internet connectivity
  - You will need it
  - VPN
  - DSL will be too slow, consider a T1 or T3 line
- Redundancy
- Backup system – confirm restore

Implementation Planning

- Workflow analysis
- The vendor's plan
  - Rapid implementation to reach payment goal
- Your practice
  - The goal should be productivity and happiness, not paperless or speed of completion

Implementation Considerations

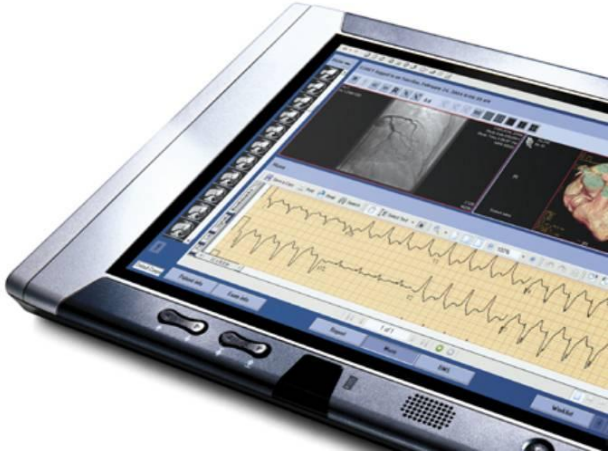
- What are you going to do with the old chart?
- How and when are you going to move financial records?
- How and when will you enter SCIT history and prescriptions?

Leaving Paper Behind

- You need a plan for your old records
- My recommendation:
  - Doctors must participate
  - Deal with old records as you see the patient
  - Abstract the history, summarize and enter it into the EMR
  - Enter key lab, x-ray or other results
  - Scan the remainder of the chart in sections – office visits, phone records, allergy testing, IT, lab

Develop a Project Plan

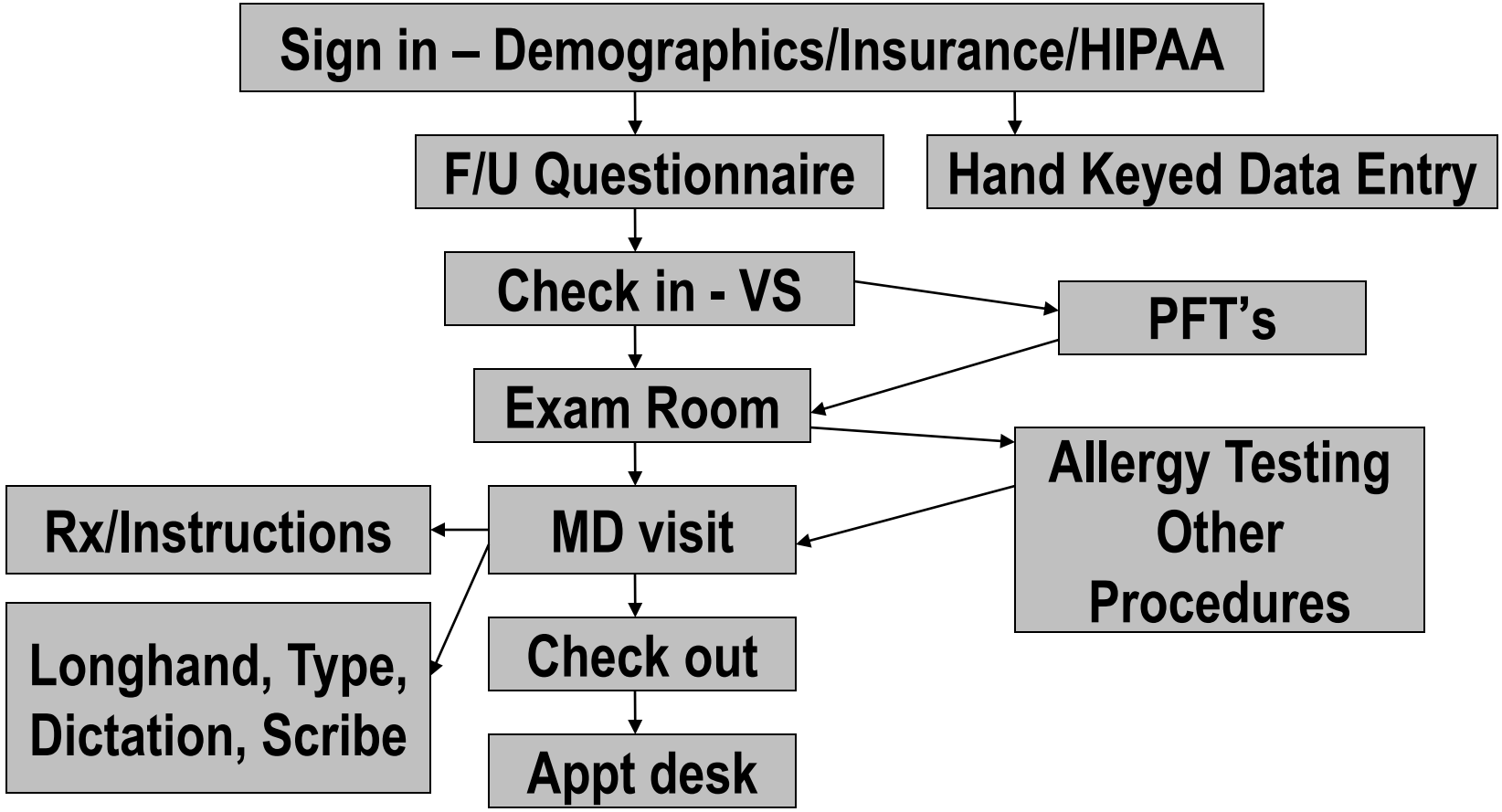
- Outline the scope of work and a timeline for implementation
- The more input you get the better
  - Facilitating participation at every level will enhance buy-in
- Be flexible, revise often
- Find and hire Herb



Characterize Current Patient Flow

- Include pre-visit tasks – scheduling, insurance and demographics
- Track where the patient goes in the office
- How many stops are there between sign in and check out?
- Where do your records travel?
- Who does what to the patient?
- History, VS, PE, med and allergy check, instructions and prescriptions
- Benchmark to compare efficiency before and after

Sample Workflow



What is the chart doing during this process?

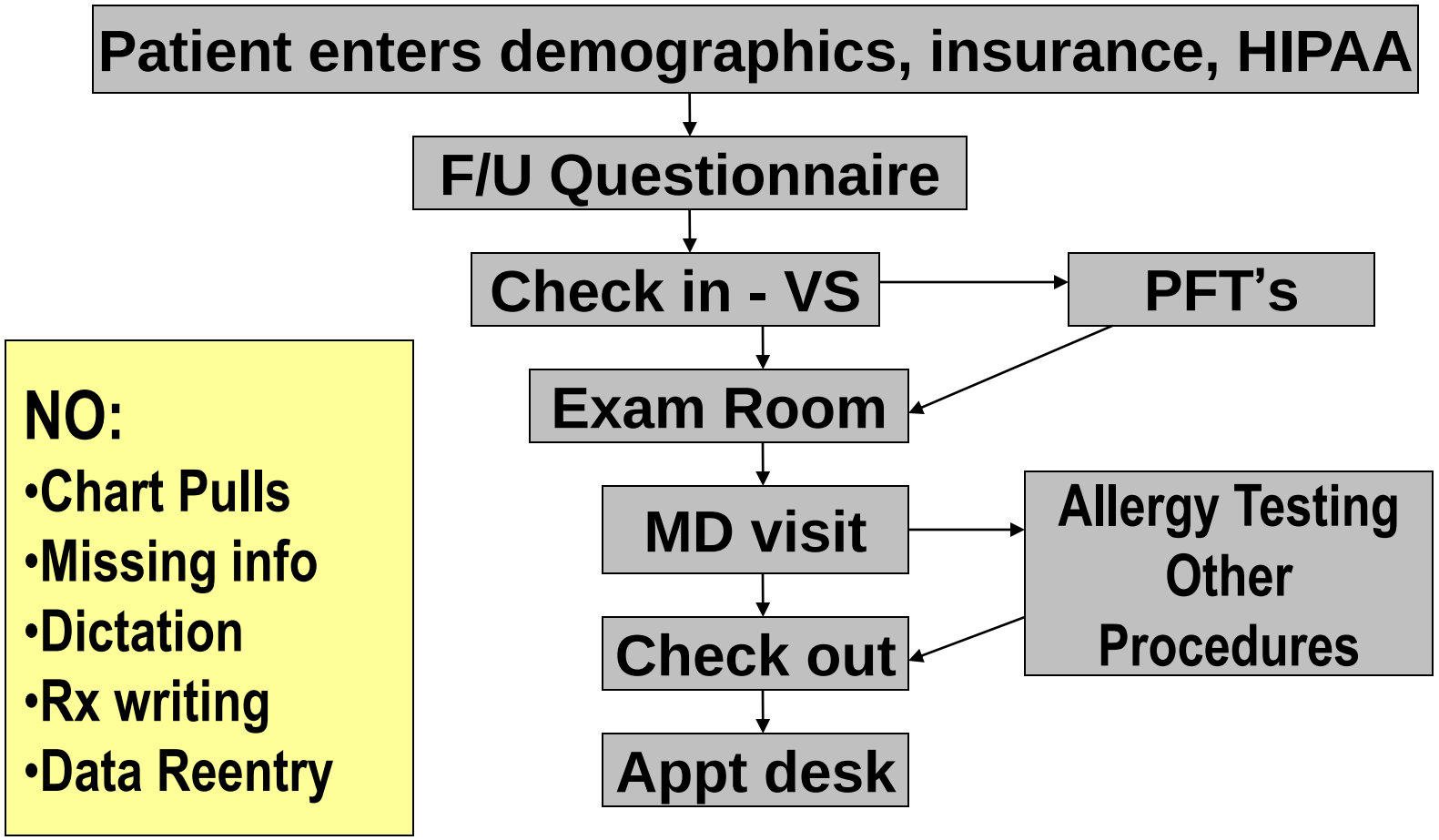
Workflow Goals

- The provider does only what can't be done by someone else because only the provider generates income
  - History – patient entered
  - Physical exam – one button normals
  - Assessment/Impression – structured input of common data elements
  - Plan – expedited instructions to patients and staff
  - Follow up – Rx's and letters faxed or emailed

Reengineering Workflow

- Examine each step and the people involved in the context of your goals for EMR
- Consider currently available and customizable electronic solutions
- Rank the importance of each solution
- Review your new EMR with the vendor to see what matches out of the box
- Do missing elements in the system require only minor adjustments or are they enhancement requests that need a work around for now?

Reengineer the Workflow with EMR



Initial Productivity

- Physician productivity will fall 20-33% for at least one month, maybe three months. Everyone must understand this.
- If the group is large, a few physician anchors can be accommodated with special arrangements.
  - Scribes
  - Dictation
  - Physicians requiring accommodation should bear the financial burden

The Perfect EMR

- Do not expect this
  - Everyone's definition will be different
  - No system can meet 100% of anyone's goals
- Recognize the difference between being productive and being 100% electronic

Don't sacrifice the good on the alter of the perfect!

“All or Nothing” Is a Losing Proposition

- Meeting one or two goals is better than none
- Accept the incremental benefits
- Waiting for the “next upgrade” or the “next release” delays all benefits
- Transferring 30% of incoming phone calls to web communications is better than 0%

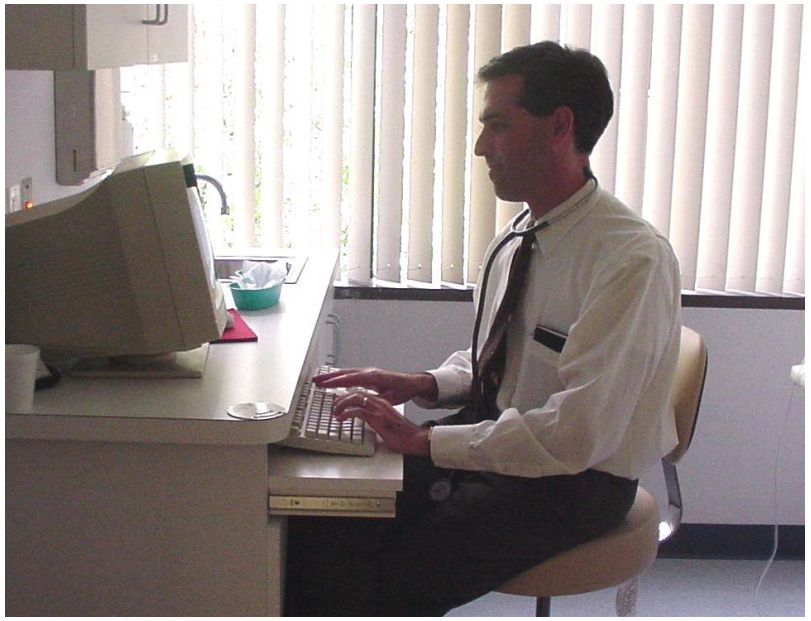
Adapted from Rosemarie Nelson, 2005 AAAAI Practice Management Symposium

Where Is the Workstation?

- Using a computer in the exam room changes workflow
  - Improves/hinders patient relationship
  - No dictation
  - Doctor moves faster
  - Communication with staff is asynchronous
    - Improves efficiency
    - Separates the doctor and the staff and may hurt morale
- Consequences
  - Dictation for visits and letters eliminated
  - See more patients per session
  - Patients get more face time and teaching
  - We struggle to give staff the contact with the doctors that boosts morale

Physician In The Exam Room

- Fixed workstation
  - Wired or wireless
  - Easiest documentation
- Tablet
  - Wireless
  - Software optimized for touch
  - Versatile
  - To mouse or not to mouse?
- iPad or similar
  - Depends on software
  - Unlikely to be adequate



Interfaces and Integrations

- Make sure the interfaces and integrations you need are available.
  - Separate claims from reality, talk to a user.
- Labs and hospitals may fund part or all of the development cost of the interface.

Document Management

- All letters and reports are scanned before going to the doctor
  - Scanned documents are indexed and linked to the patient's record in the EMR by the scan queen
  - The scanned document, in the EMR, is put on the doctor's desktop for review and signing
- Medical records from other sources should be culled and summarized before scanning

Paper Is Not Evil – The Intake Sheet

Medication Record - Please review the list below. In order to insure that you receive the most appropriate treatment we need to know about all the medications that you are using.

- The list includes daily medications and medications that are added when problems occur.
- Draw a line through medicines that have been stopped. Do not cross out a medication that is used on an as needed basis even if you are not using it today.
- If you are using a medication that is not on the list, please add it. Be sure to list All Medications (nasal sprays, inhaled medications, creams, etc.)

KEY: QD=daily, QOD=every other day, BID=twice a day, TID=three times a day, QID=four times a day, Q4H=every four hours, QAM=every morning, HS=at bedtime, AC=before each meal, PRN=as needed. **Note that medications are often prescribed for more than are actually used to allow for additional medication use during problem times.**

Please place an "X" to the left of medications that need to be refilled

If you need 3mo or 90d prescriptions to MAIL IN, check here_____

NASONEX SUS 50MCG/AC (MOMETASONE FUROATE) 2 each side daily
DUONEB 2.5-0.5 MG/3ML SOLN (ALBUTEROL-IPRATROPIUM) 1 ampule nebulized Q4h
ATARAX TAB 25MG (HYDROXYZINE HCL) 1- 2 tabs at bedtime
COMBIVENT AER (ALBUTEROL-IPRATROPIUM) 2 puffs before exercise and prn
PULMICORT AER 200MCG (BUDESONIDE (INHALATION)) 2-4 inhalations bid as directed
FORADIL AEROLIZER 12 MCG CAP (FORMOTEROL FUMARATE) 1 inhalation bid
ALLEGRA 60 MG CAPS (FEXOFENADINE HCL) bid
STRATTERA 60 MG CAPS (ATOMOXETINE HCL) 80 mg qd

Go Live

- Choose the slowest patient month of the year
- If possible, use the system for phone calls and prescriptions for at least a month so that people get comfortable
- Consider starting with follow up visits and procedures only
- Initial schedule reduced by 50% – time of return to full schedule varies by doctor
- Each staff member and physician has a pad to note problems, questions and enhancement requests

Go Live – The Transition

- Plan to have both paper and EMR for 1-3 months
- Preload diagnoses, medications, and allergies the week before the patient visit
- Ideally, the doctor will create a brief summary for each old record
- Do not print the EMR record and add it to the chart
- Treat the EMR as your primary record and the old chart as a supplement that will phase out

Workarounds

- Hidden functionality
- Alternative approach to the workflow
- Workaround
- Enhancement request

The Internet Is a Mixed Blessing

- Enhances patient communications
  - Appointment requests
  - Prescription refills
  - Patient history
  - Non-urgent medical questions
- Point of care information for physicians
- The temptation for staff to misuse internet access can not be overestimated

Conclusions

- EHR improves the quality of documentation
- EHR improves efficiency for most physicians
- EHR enhances workflow increasing patient thruput
- EHR can create distance between physicians and staff that can impair morale
- Physicians and staff want the EMR to think the way they do; there must be accommodation on both sides

EMR Can…

- Drive you to distraction
  - Decrease productivity
  - Increase overhead
  - Alienate colleagues and staff
- Improve your practice
  - Enhance patient care and patient safety
  - Increase revenue
  - Decrease overhead

What happens is up to you !