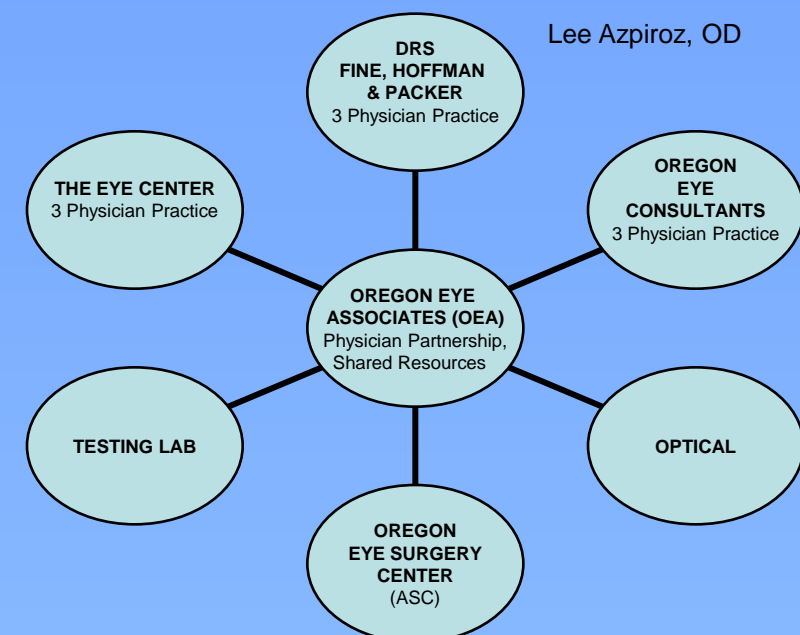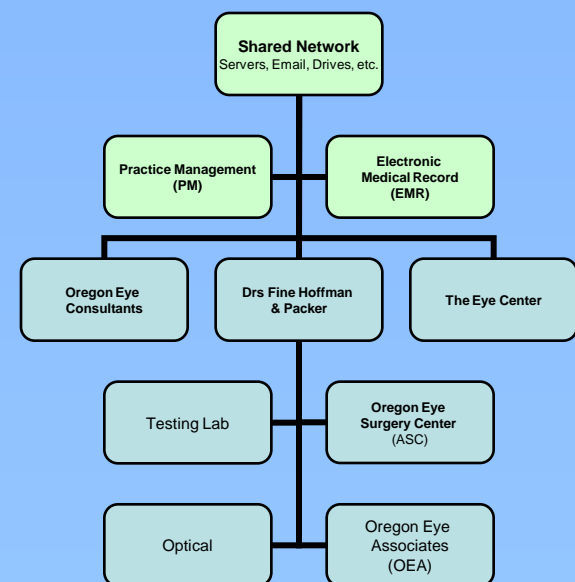# EMR: Steps for Success – A Case Study

Abstract

In reviewing our presentation, you will find the timeline and key steps that proved invaluable to our launch and successful conversion from paper charts to electronic medical records (EMR). Additionally, we have provided our lessons learned so that others may benefit from our experience.
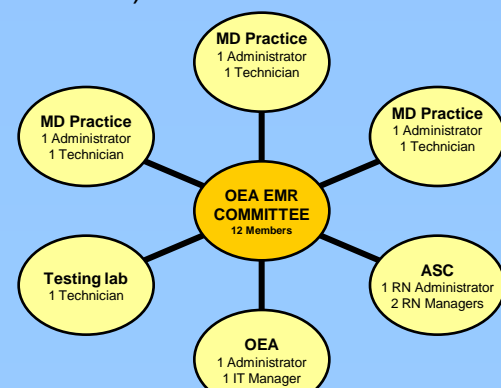
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OEA Shared IT Resources

Shared Network — Servers, Email, Drives, etc.

Practice Management (PM) / Electronic Medical Record (EMR)

Oregon Eye Consultants | Drs Fine Hoffman & Packer | The Eye Center
Testing Lab | Oregon Eye Surgery Center (ASC)
Optical | Oregon Eye Associates (OEA)

OEA EMR Committee (System Super Users)

MD Practice — 1 Administrator, 1 Technician
MD Practice — 1 Administrator, 1 Technician
MD Practice — 1 Administrator, 1 Technician
OEA EMR COMMITTEE (9 Members)
Testing Lab — 1 Technician
OEA — 1 Administrator, 1 IT Manager
ASC — 1 RN Administrator, 2 RN Managers

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Timeline

- **Spring, 2004** Committee formed; Research started
- **Goal set!**
- **2004-2005** Wish list created; Vendors researched
- **Spring, 2005** Site visits completed; Vendor demos viewed
- **Spring, 2005** PM and EMR purchased; PM kickoff
- **Nov, 2005** Staff trained; PM Go live
- **Feb, 2006** Staff computer skills assessed
- **Feb, 2006** Existing practice workflows analyzed
- **Mar, 2006** EMR kickoff
- **May, 2006** EMR committee training on new system
- **Jun, 2006** New hardware installed
- **Jun, 2006** EMR key decisions made
- **Aug, 2006** New EMR workflows created; Subcommittee formed
- **Sep, 2006** Scanning protocol developed; New scanning position approved
- **Oct, 2006** EMR chart documentation analyzed; Transition of paper charts to EMR developed
- **Fall, 2006** Staff trained on EMR software functionality
- **Fall, 2006** Staff workflow scheduled for phase one
- **Fall, 2006** Training material for phase two implementation developed
- **Nov, 2006** Staff trained phase one
- **Dec, 2006** Phase One go live: Flags, Rx refills and phone notes
- **Dec, 2006** Staff trained phase two
- **Jan, 2007** Physicians trained
- **Jan, 2007** Phase three go live: New patients
- **Feb, 2007** Phase two go live: Existing patients
- **Mar, 2007** Phase three go live: Existing patients
- **Apr, 2007** First practice 100% Live!
- **Jun, 2007** ASC go live
- **Oct, 2007** ASC 100% Live
- **Jan, 2008** All Practices 100% Live

INITIATION | PLANNING | EXECUTION

Success Tips: Anticipate the race and prepare the team...
- Be firm, but flexible when setting goals and scheduling milestones, anticipate hurdles.
- When forming a committee, choose members representing all aspects of your practice (i.e. billing,admin,clinic).
- Use your physicians as resources for decision-making.
- Gain commitment from physicians and management to allow 100% support of project and team. Although rewarding, the race will be challenging and will require enormous amounts of time.

BASIC COMPUTER SKILLS / FOR EMR PREPARATION

Primary steps to achieve:
- Turn on/off computer
- Restart
- How to use a mouse
  - Left click/right click function
  - Move/drag
  - Maximize/minimize/close windows
- Outlook email incl. attachments

Windows:
- Open program
- Open document
- Windows Explorer
- My Computer
- My Documents
- Settings
- Microsoft Word, Excel

- When developing workflows, consider using a sub-committee. Select members on your team who exhibit good problem-solving skills and can see the "big picture".

Success Tips: Key coaching decisions....
- The "Patient Locator" allows something physical to follow the patient during their office visit. The "Locator" is a paper protector with a printed patient demographic sheet, scanning instructions, and outside software tips.
- Makers of EMR administrative decisions must have a comprehensive knowledge of the software system before making recommendations.

EMR Committee / Goals & Vision — We will....
- Be a patient resource for complete eye care
- Maintain an efficient clinical flow during the transition
- Allow our patients to recognize and benefit from the efficiencies of our processes
- Combine resources as appropriate to benefit all departments and patients
- Strive for the highest standard of professionalism, ethics, quality, integrity, and confidentiality during this change
- Consider each department's needs, the care of our patient, and the requests of our physicians
- Be responsible for communicating decisions back to our entities

Success Tips: Strive to improve your time...
- Always look for a software vs. manual solution, even if the initial process is time consuming. Use implementation of EMR as an opportunity to make other manual process changes.
- You will quickly realize the value of a scribe when using an EMR solution.

- Consider exam room layouts and how EMR hardware will affect patient experience, and the workflow of staff and physicians
- i.e. space issues, patient eye contact during communication, technician/scribe ergonomic considerations

Workflow / Analysis
1. Learn the software inside and out (Functionality)
2. Look at current workflows
3. Apply new concepts to current workflows
4. Identify areas to gain efficiency

**When analyzing workflows one must consider the effect of the entire practice. (ie. front office, business office, clinic)

Success Tips: Set the new record...
- Early work pays off - Analyze and create solutions for form/template development, custom lists (meds, problems, allergies), pick lists (drop downs), handouts, health history form, libraries (providers, pharmacies, etc) to gain maximum efficiencies from the starting line.
- Examine software tools and embrace those that make work more efficient. Disregard tools that don't increase quality or efficiency.

Success Tips: Pre-season work-out...
- Don't underestimate the value of site visits when choosing an EMR vendor.
- Consider choosing a practice management (PM) system and EMR that are integrated.
- Start assessing staff computer skills early!
- If you convert to a new PM system, use this as an opportunity for your clinical staff to gain additional computer experience.
- Write a step by step description of current workflows to use as a reference when developing new EMR workflows.

CAUTION! Watch your step
- "Think outside the box" really, there is not a perfect system. When designing a wish list, set criteria for tasks to complete NOT necessarily HOW it will look
- Be cautious of a vendor that seems to meet all your needs and task lots of questions (i.e. cost of equipment integration, or flexibility of template design).

CAUTION! Don't Miss a step
- Don't make decisions and changes without your committee. If you have ideas, bring them to the entire committee for discussion and final decision.
- Remember, even the "smallest" changes may have a "huge" impact.
- Take the time to contact other administrators, clinics, and physicians that have already instituted EMR. They will share their successes and lessons learned!

Success Tips: Conduct tryouts for team positions....
- A full-time IT position is ideal; at the very least, consider assigning a key employee the role of technical point person.
- Remember, just because your office is electronic doesn't mean the rest of the world is, and not all paper documents are EMR "worthy"
- Consider a central scanning department or person dedicated to maintain chart consistency. Create and provide a written scanning protocol, which includes indexing and archiving instruction.
- "Pre-loading" (entering key data directly into the EMR prior to visit) should be considered to minimize scanning and maximize efficiency. This process requires a point person for coordination.

CAUTION! Keep your mind focused on the finish line
- Avoid performing tasks manually that can be done more efficiently or accurately using the available technology.
- Don't assume all your staff will easily understand the system concepts. Give them time to adjust and learn.
- When working through this transition, do not forget to delegate. Look around you and recruit staff to help.

CAUTION! Don't stumble your almost there
- "Cookie-cutter" training material and workflows from your vendor may not be the best way to train your staff. However, they are a great place to start.
- Don't get frustrated with the staff if everything doesn't go smoothly. You may need different tools for different employees.
- Your main goal is to make the practice run smoothly and to make your physicians more efficient.

Warm up...
- Communicate goal to staff: EMR is the future.
- Get input from your staff! They know their workflow and will have great ideas. Encourage them to self-evaluate for improvement.
- Communicate enthusiasm at every moment!
- Never be too busy to answer an EMR question; your staff have nowhere else to go for answers.

IT: Choose your running shoes...
- Assess your network:
  - Do you have an adequate network in place?
  - Can you add workstations and printers so staff can continue to function efficiently?
- Think about:
  - Workflow and choose equipment based on ease of function.
  - Consider a mix of Thins & PCs for easy admin. and flexibility.
  - Use caution when considering wireless in an ophthalmology practice. Other electronic equipment is likely to interfere with the signal causing inconsistent performance.
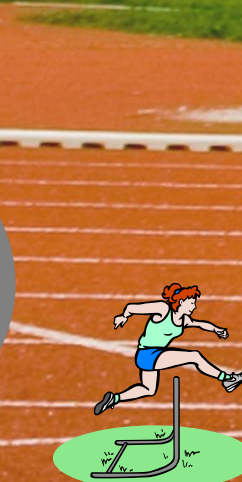
Stretching...
- Always be available to staff – make time!
- Listen calmly and completely as all questions are meaningful and give you information. Smart people ask good questions that help to improve the system function.
- Communicate with all staff at every opportunity, ie. staff meetings, special EMR meetings, email updates, etc.
- Encourage staff to voice their concerns, work on their concerns and keep staff informed of the solutions.
- Communication builds trust and the staff needs to trust you!

IT: Pick your race...
- Consider security needs and structure when choosing your EMR system:
  - Do you have multiple companies which need separate security?
- Ask your vendor about:
  - Security needs and get answers confirmed
  - Database options that are available
  - Remember, multiple databases means more interoperability and interfacing.
- Build your EMR so that your options are open to add interface and automation.
- Go for standards and avoid customized solutions

Good Coaching...
- Communicate that processes will change. There may be more steps in a few areas but great efficiency in many more!
- Communicate with all staff at every opportunity, ie. staff meetings, special EMR meetings, email updates, etc.
- Encourage staff to become familiar with the system. Encourage staff to learn and practice EMR dictionary and keyboard shortcuts, etc.

IT: Head to the start...
- Utilize your resources:
  - Plan on using computer savvy staff to help train and support your project. Find a good group of users who can field simple problems. This will preserve your entire staff's nerves.
- Promote a calm environment.
- Teach "Super Users" how to be flexible and work around issues they cannot resolve right away. This will keep everyone working smoothly.

Carbo loading...
- Communicate the planned timeline to all staff to ensure no one gets left behind. Each team member will help the other to be successful!
- Turn on system pieces sequentially as they are ready so staff can experience success with each piece.

IT: Give it all you got...
- Take the minimum system requirements and double them.
- Be sure to communicate and understand expectations of current and future applications and plan accordingly. Don't overlook the simple details, make sure you have PDF viewer to see scanned images, and image capture software for your front desk scanners.
- Giving users lots of control and freedom is nice, but it can also backfire. Put into place a good system for deploying updates and service packs with minimum IT time and interference with clinic time.

Pace Yourselves...
- Continually evaluate your conversion phases, making adjustments to maintain clinic efficiency.
- Identify expectations and milestones to be reached, create the reasons to celebrate – then celebrate!
- Praise in public!
- Get feedback on each individual's EMR comfort level. Don't hold staff members back, but concentrate on keeping them all up to date.

IT: Know your own race...
- Don't rely too much on the vendor:
  - Make sure you have a handle on what the project entails and what is involved with each milestone. If you are not familiar with something, research it.
  - EMR vendors may not fully understand your specific environment and this could potentially have a ripple effect that can set your project back.

Second wind...
- Communicate no changes for 90 days, this enables everyone to learn the system as designed and prevents a moving target for success.
- Every change request is a potential opportunity for more training!

IT: Space your hurdles...
- Test all clinical content before putting it in your "live" database.
- Take the extra time to build your templates as standardized as possible, document and discreet data capture.
- Design your content to be reused in different types of patient visits to keep things consistent for users and minimize design time.
- Carefully consider what types of discrete data you want to capture.
- Plan ahead; If you think you might want it, plan for it.

Keep your eyes on the prize...
- Publish every positive comment heard:
  - "No waiting for charts to be pulled!"
  - "Surgery scheduling is so much easier now!"
  - "On call work is much easier now!"
  - "Patient care is definitely enhanced by remote access!"
  - "Data gathering is a breeze!"
  - "EMR is such a time saver!"

IT: Crossing the finish line...
- You will soon realize that your project is never really "finished."
- Use automation whenever possible, for rolling out new workstations, inventory, etc.
- Continue to prioritize and support your implementation.
- Push forward with the next thing that will make your organization more efficient!
- Use written workflows, do this by creating a knowledgebase that will educate your users. This helps reduce your time for support.

Patient needs surgery, exam completed → Tech writes physician orders on forms, using chart as a reference → Patient scheduled for cataract surgery? → YES → Tech prepares lens order

Surgery Coordinator notified verbally, by email, or note on chart → Paperwork delivered to surgery center

Surgery paperwork needs to be completed

Have the paper chart? → YES → Locate chart / → NO → Attach surgery flow sheet in paper protector, place in technician inbox

Technician prepares patient health history form → Technician puts completed paperwork in protector, attaches to chart → Chart & paperwork placed in MD inbox by tech → MD reviews documents & signs them → Chart and paperwork placed in MD inbox

MD reviews paperwork

Technician writes H & P on forms, using chart as reference

Paperwork needs revision? → Technician prepares corrected document (s)

Workflow After EMR: Preparing surgery paperwork (11 Steps)

Patient needs surgery, exam completed → Technician sends EMR order to Surgery Coordinator desktop → MD reviews exam, signs document in EMR (creates discrete data for H&P)

Patient scheduled for cataract surgery? → Yes → Surgery Coordinator starts surgery flow sheet document in EMR; routes it to technician desktop

Technician starts H&P update in EMR, completes it (Creates discrete data for H&P/exam)

Technician starts lens order update in EMR (Discrete data pulls from H&P/exam)

Surgery Coordinator starts physician orders & patient health history update in EMR (Discrete data pulls from H&P/exam)

MD reviews documents, makes any revisions and signs documents

All documents are routed to MD EMR desktop

Surgery Coordinator electronically routes all documents to surgery center

- Using the EMR demo will help your employees feel comfortable with the system.
- THIN client hardware was much better for us both for cost and space efficiency.
- Make sure your "Super Users" are knowledgeable of the system.
- Have a central scanning area and someone designated to this job.
- Allow time to plan and analyze workflows.
- Workflows, workflows, workflows!

Lessons Learned
- Allow ninety days after 'go live' before making any form/template changes.
- Allow plenty of time and opportunities for staff training.
- Do not go completely 'live' all at once. Allow multiple phases to ensure success and maintain clinic efficiency.
- Drawing pads are to hard to use, the mouse will do just fine.
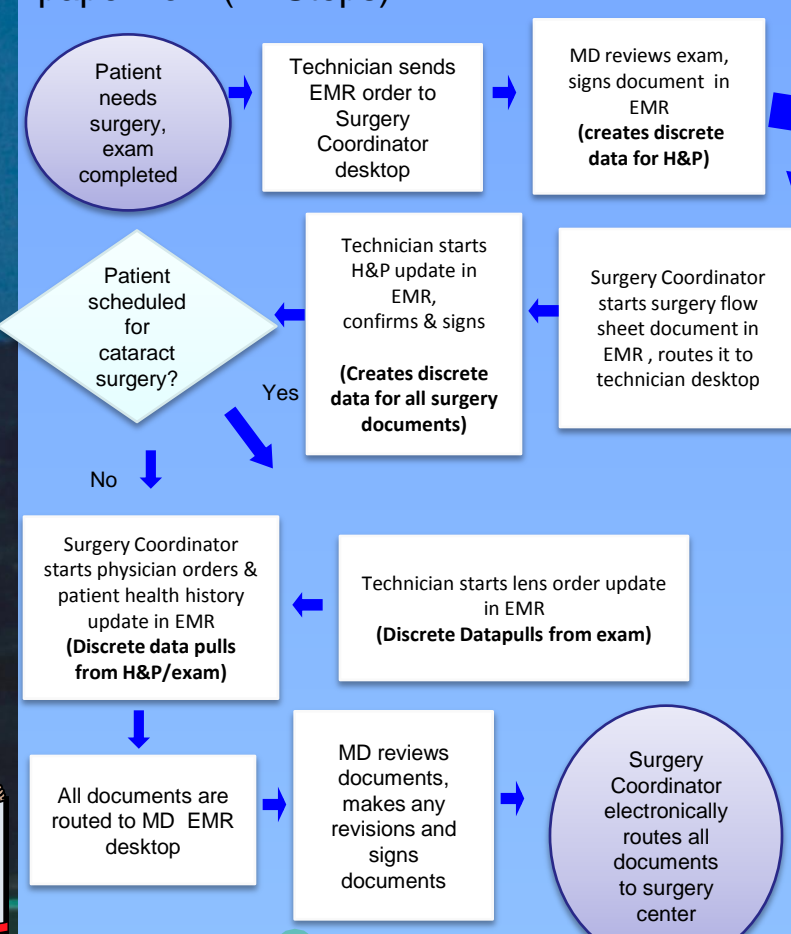
Current Projects
- Expanding reporting
- Equipment integration
- Outcome analysis
- Updating employee training material
- Review workflows for increased efficiency

Future Goals
- Patient portal with secure messaging
- Expanding flow sheet views
- Considering care reminder protocols
- Optical integration