

# EHR: Maps for the Journey

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# Ideal Implementation

Vendor

Practice



# Typical Strategy Implementation

Vendor

Implementation  
Services

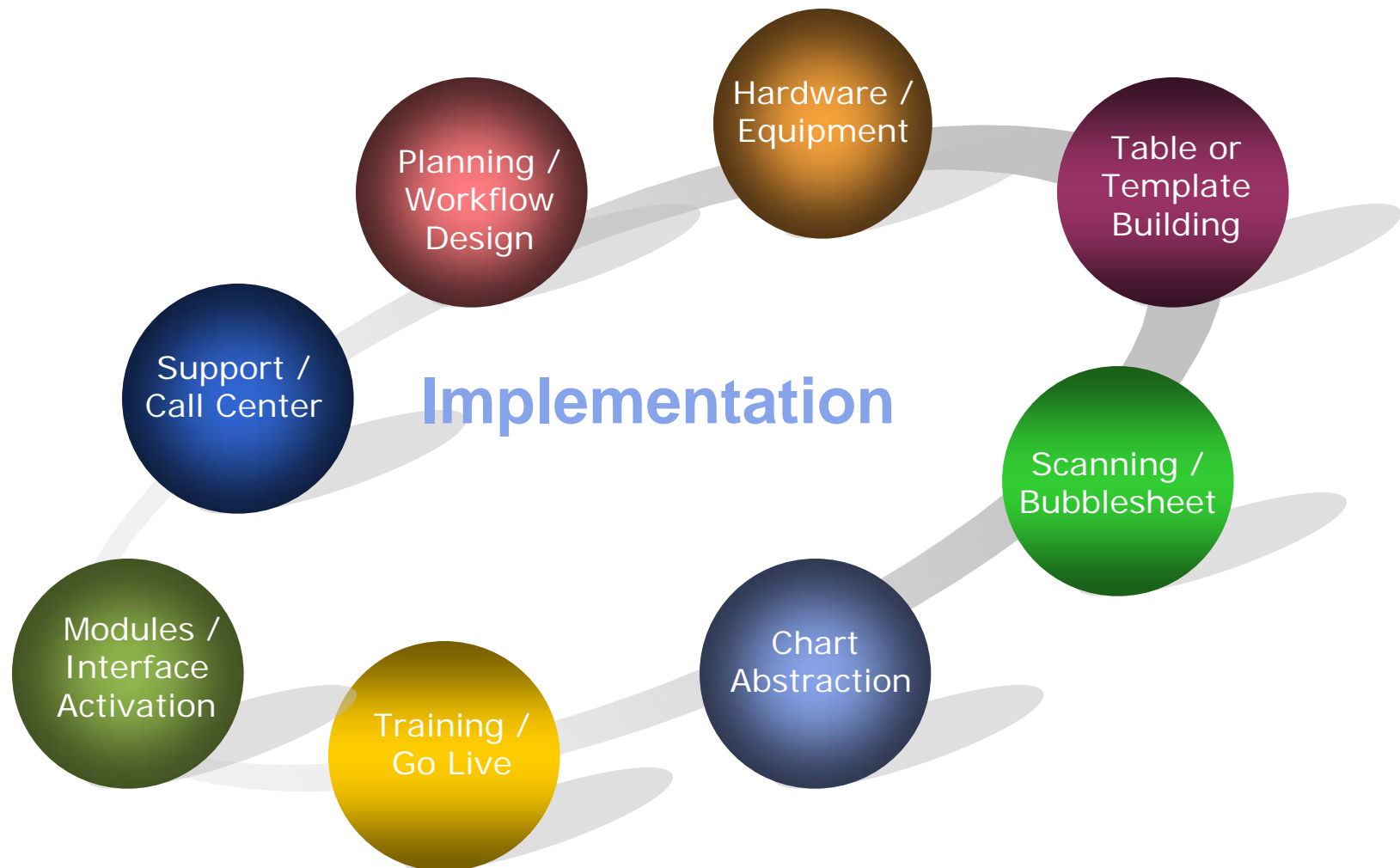
Practice



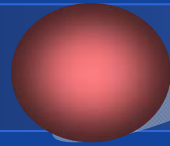
# Implementation

- ❖ There is too much emphasis on EMR functionality and cost while ignoring the critical nature of service, training, implementation, and support. (Adler, 2005)
- ❖ Anyone can buy a system that will provide functionality, but implementation is the factor that can make it or break it. (Rogoski, 2006)
- ❖ The toughest phase of the adoption cycle is the implementation. (Baldwin, 2006)
- ❖ Implementation of an EHR involves changing the entire way the physician practice as an organization functions.

# EMR Implementation



Electronic Health Records: A Practice  
Guide for Professionals and Organizations  
(Amatayakul, 2006)



# Planning

## ❖ Assessment

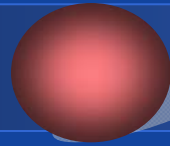
- Information Technology Assessment
- Current State Workflow Assessment

## ❖ Practice readiness for Implementation

- Leadership, Financial, Staffing, Hardware

## ❖ Master Project Plan

- Roll-out methodology
- Milestones and Due Dates
- Ancillary Modules Activation

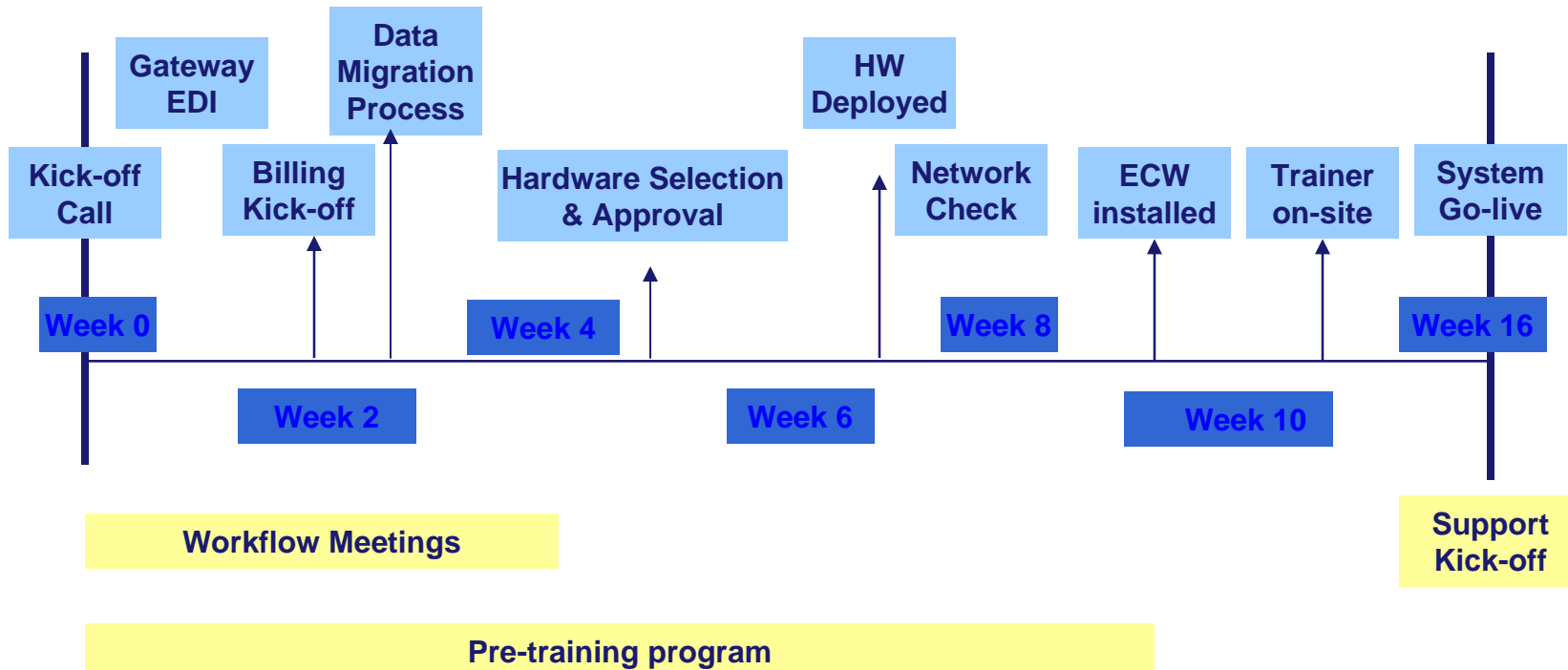


# Planning

## ❖ Responsibilities Assigned

- MedAllies Project Manager
- MedAllies Implementation Specialists / Trainers
- Information Technologist (MedAllies and 3<sup>rd</sup> Party)
- Physician Office
- Special Projects Team Members (Interfacing, Clearinghouse, Billing)

# Implementation Roadmap





# Implementation Roadmap

Chart Abstraction							
		Task #	Task Name	Duration	Start	Finish	Resource Names
1		1	<input type="checkbox"/> Pre-Implementation	121 days	Wed 1/30/08	Tue 7/15/08	
2		2	<input type="checkbox"/> Initial Workflow Analysis	121 days	Wed 1/30/08	Tue 7/15/08	
11	✓	11	<input type="checkbox"/> Hardware	51 days	Mon 3/3/08	Mon 5/12/08	
12	✓	12	Hardware Brand Selection	1 day	Mon 3/3/08	Mon 3/3/08	WHA EMR Committee
13	✓	13	Generate Hardware Order Summary	1 day	Thu 3/20/08	Thu 3/20/08	MedAllies IT Manager
14	✓	14	Finalize Hardware Quote	1 day	Tue 4/1/08	Tue 4/1/08	MedAllies IT Manager, WHA Coordinator
15	✓	15	Hardware Proposal turned over from MedAllies to WHA	1 day	Fri 5/2/08	Fri 5/2/08	MedAllies IT Manager
16	✓	16	Hardware Procurement	1 day	Mon 5/12/08	Mon 5/12/08	WHA Coordinator
17	✓	17	<input type="checkbox"/> Networking / Connectivity	41 days	Wed 4/16/08	Wed 6/11/08	
31	✓	31	Define Governance Model	1 day	Wed 2/13/08	Wed 2/13/08	WHA EMR Committee
32	✓	32	Determine EMR Training Resources (Dedicated Practice Trainer) - Ong	1 day	Mon 5/12/08	Mon 5/12/08	WHA EMR Committee
33	✓	33	HPN Accounts Set-up for e-Rx Controlled Substances Paper	1 day	Tue 5/27/08	Tue 5/27/08	WHA - Angela Mulroy
34		34	<input type="checkbox"/> EMR System Build	106 days?	Tue 1/1/08	Tue 5/27/08	
35		35	<input type="checkbox"/> Database System Check	97 days?	Tue 1/1/08	Wed 5/14/08	
58		58	EMR Chart Abstraction Indicator	1 day	Tue 5/27/08	Tue 5/27/08	WHA EMR Committee
59		59	<input type="checkbox"/> Chart Abstraction	263 days?	Tue 1/1/08	Wed 12/31/08	
60	✓	60	Define Chart Abstraction Elements	1 day	Wed 2/13/08	Wed 2/13/08	WHA EMR Committee
61		61	Chronic Problem List Abstraction - Electronic	44 days	Tue 6/10/08	Fri 8/8/08	NextGen
62	✓	62	<input type="checkbox"/> Develop Chart Abstraction Form	62 days	Tue 2/26/08	Wed 5/21/08	
63	✓	63	CBO	1 day	Fri 5/9/08	Fri 5/9/08	WHA Administrator, WHA - Angela Mu
64	✓	64	Constantine Bakas, DO (Dr. Bakas)	1 day	Wed 5/14/08	Wed 5/14/08	WHA - Dr. Bakas
65	✓	65	David Ennis, MD (Dr. Ennis)	2 days	Tue 5/20/08	Wed 5/21/08	WHA - Dr. Ennis
66	✓	66	Northern Pediatric Associates (Dr. Adler)	1 day	Thu 5/15/08	Thu 5/15/08	WHA - Dr. Adler
67	✓	67	Northern Westchester Cardiology (Dr. Catanese)	1 day	Tue 2/26/08	Tue 2/26/08	WHA - Dr. Catanese
68	✓	68	Yorktown Pediatrics (Dr. Stein)	1 day	Mon 5/5/08	Mon 5/5/08	WHA - Dr. Stein
69	✓	69	<input type="checkbox"/> Define Chart Abstraction Protocols	27 days	Mon 5/5/08	Tue 6/10/08	
70	✓	70	CBO	1 day	Fri 5/9/08	Fri 5/9/08	WHA Administrator, WHA - Angela Mu
71	✓	71	Constantine Bakas, DO (Dr. Bakas)	1 day	Wed 5/14/08	Wed 5/14/08	WHA - Dr. Bakas
72	✓	72	David Ennis, MD (Dr. Ennis)	1 day	Tue 5/20/08	Tue 5/20/08	WHA - Dr. Ennis



# Project Management

## ❖ Basecamp

- Easy web-based tool to track project status
- Communication between the project team and the practice
- Example: Dr. Russell Kamer

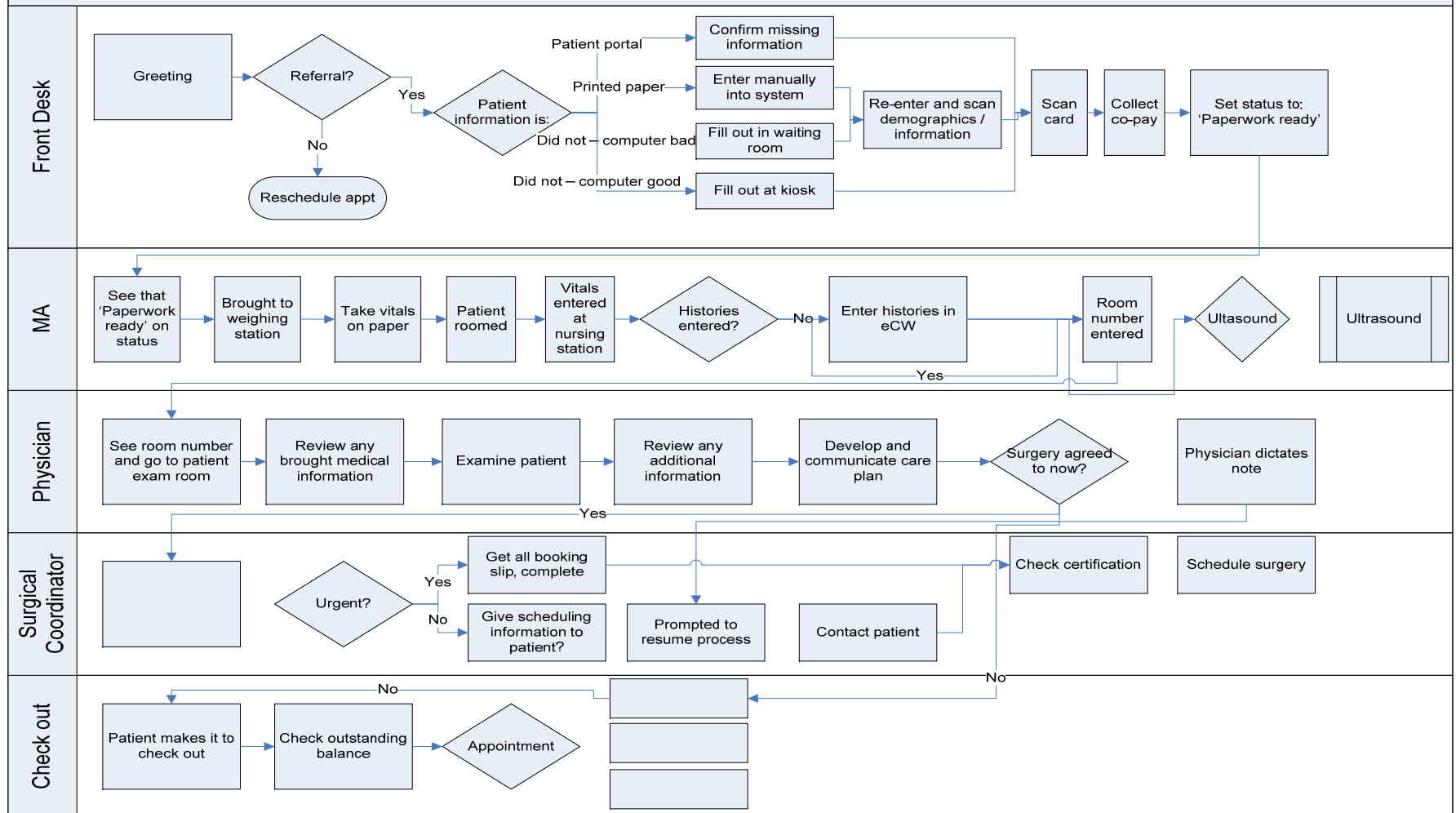


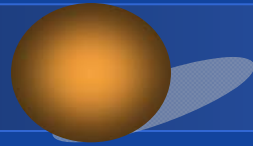
# Workflow Redesign

- ❖ Develop vision and goals
- ❖ Define redesign team
- ❖ Develop workflow list
- ❖ Document current state
- ❖ Analyze
- ❖ Redesign
- ❖ Implement

# Workflow Redesign

## New Patient Visit - Surgical



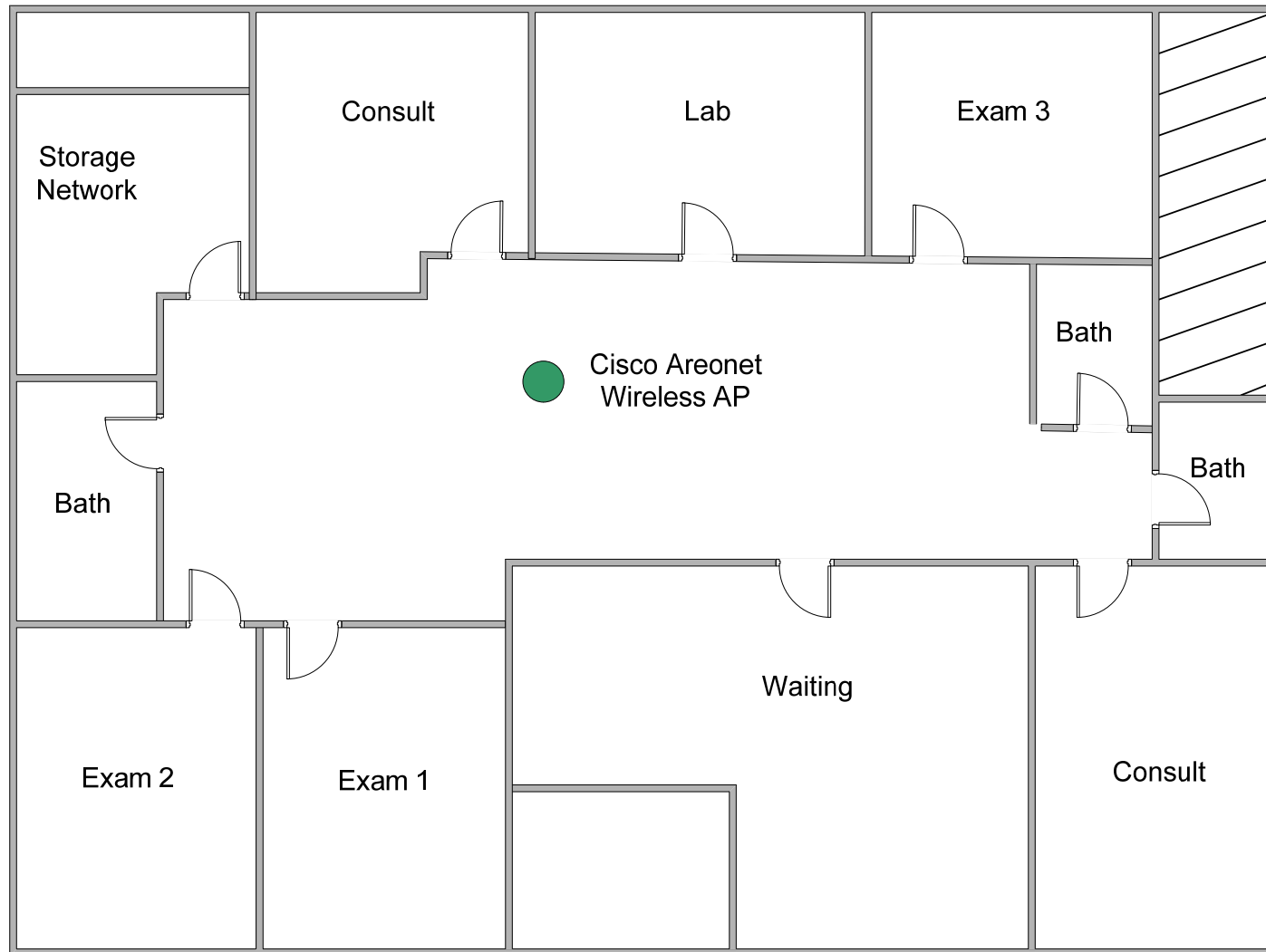


# Hardware

- ❖ Information Technology Assessment
- ❖ Hardware Requirements
- ❖ Network Outage Process
  - Back-up Internet Connections
- ❖ Approved Hardware
  - PCs, Printers, Routers, etc.
- ❖ Configuration of Hardware
- ❖ Testing of Hardware
  - Hardware communication with Remote Servers
- ❖ Go-Live Monitoring and Adjustments
- ❖ Additional Purchases



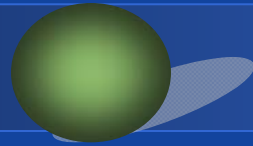
# Hardware Assessment





# Table Building

- ❖ Test and Production Databases Configured
- ❖ Security Roles and Users Configured
- ❖ Table Building
  - General Set-ups
  - Enterprise Tables
  - Practice Tables
- ❖ Forms, Letters, Reports, Labels
- ❖ Pre-Live Database Review



# Template Building

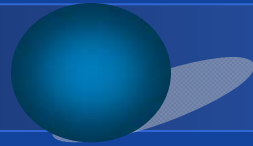
- ❖ Determine top diagnosis codes to be built into templates (depends on product)
- ❖ Build templates into Test Patient
- ❖ Test Templates
- ❖ Modify as needed
- ❖ Practice, practice, practice





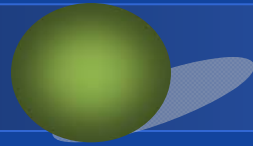
# Training

- ❖ Communication Plan
- ❖ Process Reviews (based on workflow analysis)
  - Front Office, Back Office, Clinical
- ❖ End-user Training
  - Assignment of Groups
  - Agenda for Training
  - Method of Training
    - MedAllies Office
    - Web-based
    - Onsite



# Training

- ❖ Successful practices are those who have had excellent training, uninterrupted, and involving all staff.



# Data Conversion (EPM)

- ❖ Data to be Converted
  - Demographics
  - Insurance
  - Appointments
  - Financial (not recommended)
- ❖ Timeframe of Extraction
  - 3 years of data (recommended)
- ❖ Current Practice Management System
  - Cooperative
  - 3<sup>rd</sup> Party Data Extraction
  - Non-Cooperative
- ❖ Upload of Extracted Data
- ❖ Review of Extracted Data
  - MedAllies assistance
- ❖ Final Upload of Extracted Data



## Claims/Clearinghouse (EPM)

- ❖ Selection of Clearinghouse
- ❖ Administrative Paperwork
- ❖ Claims Testing
  - 2 to 6 weeks
  - Clearinghouse approval of claims file
- ❖ Selection of Statement Processing
- ❖ Administrative Paperwork
- ❖ Statement Testing



# EMR Phased Implementation

## Phase 1

- Telephone Triage
- Workflow
- Medication Lists
- Allergies

## ❖ Phase 2

- Nursing Documentation
- Histories
- Orders
- Scanning

## ❖ Phase 3

- ROS / Treatment Plans / PE
- Templates




# Important Points for Implementation

- ❖ Proper tools
- ❖ Chart Migration
- ❖ Document management
- ❖ Point-of-care (POC) documentation



# Chart Abstraction

<b>CHART ABSTRACTION FACE SHEET</b>					
<b>Medications:</b>					
Name/Dose	Sig	Name/Dose	Sig	Name/Dose	Sig
<b>Past Medical</b>					
<b>Allergies:</b>					
<b>Past Surgical</b>					
Procedure	Date	Procedure	Date	Procedure	Date
<b>Family Histor</b>					
Condition	Relative	Condition	Relative	Condition	Relative

 Done





# Chart Abstraction

## INTERNAL MEDICINE

Case No. \_\_\_\_\_ Patient's Name \_\_\_\_\_  
Address \_\_\_\_\_ Date \_\_\_\_\_  
Tel. No. \_\_\_\_\_ Referred By \_\_\_\_\_ Occupation \_\_\_\_\_ DOB \_\_\_\_\_ Sex \_\_\_\_\_ S.M.L.T.P.W.D.  
Insurance Co. \_\_\_\_\_ ☐ HMO Copay \$ \_\_\_\_\_  
Mail Claim To \_\_\_\_\_ ☐ PPO Copay \$ \_\_\_\_\_  
Policy No. \_\_\_\_\_

### Chief Complaint


### Allergies


### Past History (including Surgery)


### Current Medications

1. _____
2. _____
3. _____
4. _____
5. _____

### Family History


## Review Of Systems

**Head:**  
Headache   Dizziness   Fainting

**Eye – Ear**  
**Nose – Throat**

**Respiratory:**  
Hemoptysis   Cough   Sputum  
Chest Pain   Sinusitis   Chills  
Rhinitis   Epistaxis   Post Nasal  
Discharge   Night Sweats

**Heart:**  
Dyspnea   Orthopnea  
Cyanosis   Puffiness  
Pain Location   Radiation

**Gastro-Intestinal:**  
Pain   Relation To Food  
Radiation   Relieved By Med.?  
Dysphagia   Nausea  
Anorexia   Diarrhea

Case No. \_\_\_\_\_

Patient's Name \_\_\_\_\_



# Chart Abstraction

PATIENT NAME \_\_\_\_\_

<b>Injections:</b>	date	date	date	date	date	date	date
Flu							
Pneumovax							
Tetanus							
<b>Diagnostic testing:</b>							
CXR							
Bone Density							
Mammography							
Colonoscopy							
Pap Smear							
Spirometry							
Hemoccults							
Diabetic Eye Exam							



# Implementation Challenges

- ❖ An organization cannot optimize the technology's benefits without mapping, analyzing, and re-engineering existing workflows. (Piechowski, 2006)
- ❖ Intensive process and workflow analysis involved in preparation for implementation.
- ❖ Practice must be committed to the changes.
  - Timeline / Milestones
  - Accountability / Commitment / Champion(s)
  - Resources / Time
  - Training
  - Contingencies / Recourse



# Implementation Challenges

- ❖ Lack of resources to implement
  - Quantity: Available staff
  - Quality: Understanding connectivity, hardware, project planning, database configurations, workflow redesign, change management
- ❖ Lack of “Best Practice” methodology (MGMA)
  - “Pave the cow path” approach
- ❖ Physician and staff resistance
  - Person’s affect will determine reaction to a learning situation (Norman, 2004)
- ❖ Lack of support
  - Support often unfamiliar with the specific practice and their configurations
  - Customers create groups external to vendors to support each other



# Impact on Staff

- ❖ Application is Windows-based
  - Staff must be familiar with mouse navigation or pen navigation
  - Staff must be familiar with new equipment (tablets, laptops)
- ❖ Implementation impacts all staff
  - More comprehensive software
  - New functions for staff to learn
  - New or changed responsibilities for all staff
- ❖ Entire office workflow must be redesigned to accommodate new system
  - Chart abstraction / scanning / bubble sheets
  - How data is collected and managed
  - How patients are taken through the entire visit process from check-in to check-out
- ❖ Anxiety level high especially during go-live
  - Staff extremely stressed (need to address the psychology behind adaptive change)



# Impact on Patients

- ❖ Visit changes with introduction of computer into the exam room
  - Address patient anxiety over information entered into a computer
- ❖ Physician educates patients on new method of collecting data
  - More structured interview of patient
  - Physicians interact with computer and patient (triangle set-up)
- ❖ More educational material presented to patient
  - 40-80% of information forgotten immediately post-visit
  - Material given to patient upon exit
- ❖ Improvement in patient experience
  - Picking up medications at the pharmacy post-visit



# Impact on Physicians

- ❖ Application is Windows-based
  - Must be familiar with mouse, pen, or touchpad navigation
  - Must be able to perform data entry quickly (typing, voice recognition, mouse/pen input)
  - Must be familiar with new equipment (tablets, laptops)
  - Must be familiar with navigating through the application modules
- ❖ Encounter changes to a more structured interview
- ❖ Physicians have more information available to them at the time of patient visit (latest labs, current medication)
- ❖ Address ergonomics of the office and actual exam room




# Support / Help Desk

- ❖ Go-Live
- ❖ Go-Live Audit
- ❖ Post-Live Training
- ❖ Transition to Help Desk



# Post Live

					
EMR Evaluation Sheet					
	Yes/NO	Rate your comfort Level	Need Tech help/Need training help	Comments	
<b>4 Scheduling</b>					
5 Are you using scheduling?					
6 Are you comfortable setting up your working hours?					
7 How are you looking up available slots ? Are you using multiple search?					
<b>8 Alerts</b>					
9 Did you start using alerts?(Billing and Global)					
10 eRX alerts?					
<b>11 Document Management</b>					
12 How are you scanning the existing patients charts in the system? Are you scanning each patient as they come in? or do you have a designated person who does that? (chart abstraction)					
13 Are you attaching patient documents to patient charts ?					
14 Are you comfortable reviewing documents?					
15 Are you using inking? Are you comfortable inking & editing Documents?					
16 Do you have all the providers signatures loaded?					
<b>17 Progress Notes</b>					
18 Are you still creating templates? If yes , are you comfortable doing that ?					Webinar "Go Li
19 Did you create your CPT & ICD favorites?					
20 Are you comfortable using ecliniforms?					Webinar "eClni
21 Are you comfortable using security settings?					
22 Are you still using paper charts?					
23 Did the percentage of visit cancellation increase after adopting ecw?					

# Post Live

Billing Evaluation				
	A	B	C	D
1	Billing Evaluation			
2	Section	Yes /NO	Rate your comfort level	Need Tech Help /Need training help
3	Claims			
4	Are you comfortable creating claims?			
5	Are you comfortable using claims look up?			
6	Are you comfortable checking claims status?			
7	Are you comfortable viewing Pending claims?			
8	Are you comfortable changing claims statuses?			
9	Are you comfortable submitting claims?			
10	Have you submitted any claims out yet?			
11	How big were the batches you sent?			
12	Did you send the claims for top payors ? Or which payers?			
13	what are the percentages of income per payor ?How many claims submitted for each of those payers?			
14	Are you comfortable running claims IPE from the encounters?			
15	Are you comfortable running claims IPE from the claims window?			
16	Have you downloaded the CLH reports yet?			
17	Are you comfortable reading the CLH reports and reviewing rejected claims?			
18	How many claims were submitted?			
19	How many claims got rejected ?			
20	Are you comfortable resubmitting claims?			
21	Did you start receiving money yet?			
22	From which payors?			
23	For FQHC / CHC practices/RHC			
24	Are you comfortable creating UB92 claims?			
25	Are you comfortable creating split claims?			
26	Are you comfortable printing a UB 92 claims as well as UB92 forms batch?			
27	Have you comfortable downloading your UB92 Report yet?			
28	Have you comfortable downloading the UGS reports?			

# Thank you for your time!

A. John Blair, III, MD  
CEO, MedAllies, Inc.

