How Your Lab Can Help Physicians Achieve EHR Meaningful Use

Pat Wolfram, Ignis Systems

Ignis Systems

What We'll Cover

- EMRs and Meaningful Use (MU)
- MU as it pertains to labs
- What's happening in the EMR world
- The physician's expectations
- How you can meet them

But First….

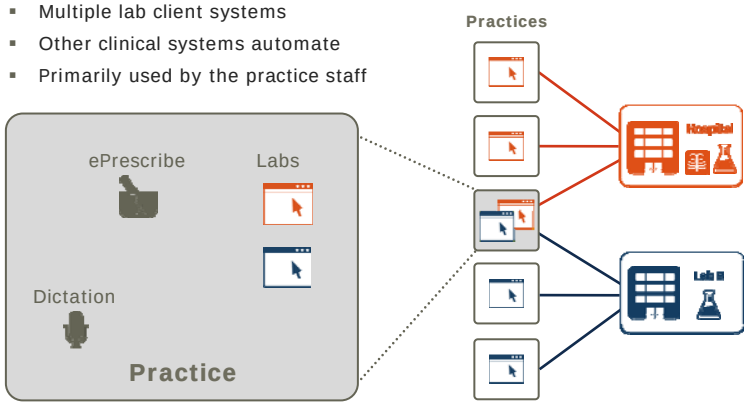
Something about the Dark Report

When A Practice Buys An EMR

Their Whole World Changes

Pre-EMR ---- Pockets Of IT

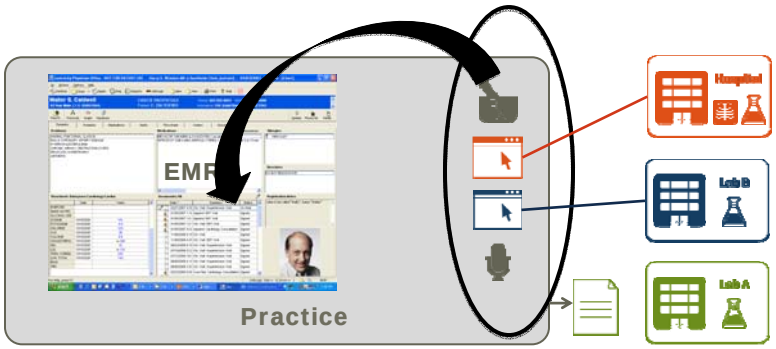
- Patient charts are primarily on paper
- Multiple lab client systems
- Other clinical systems automate
- Primarily used by the practice staff



When The EMR Shows Up

- It's the practice's clinical cockpit—all patient care activities will be managed here
- Goal:
  - Results will flow to the EMR
  - Orders will originate in the EMR

The Expectation



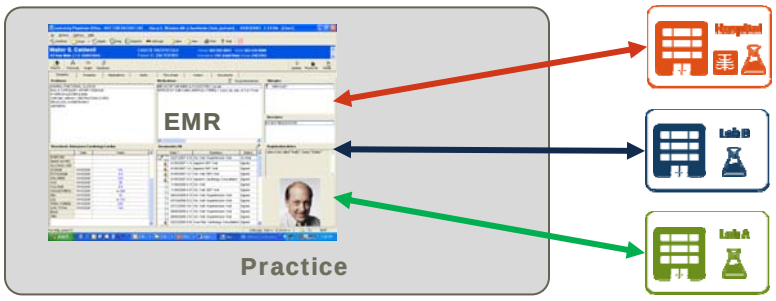
The Physician's Expectation

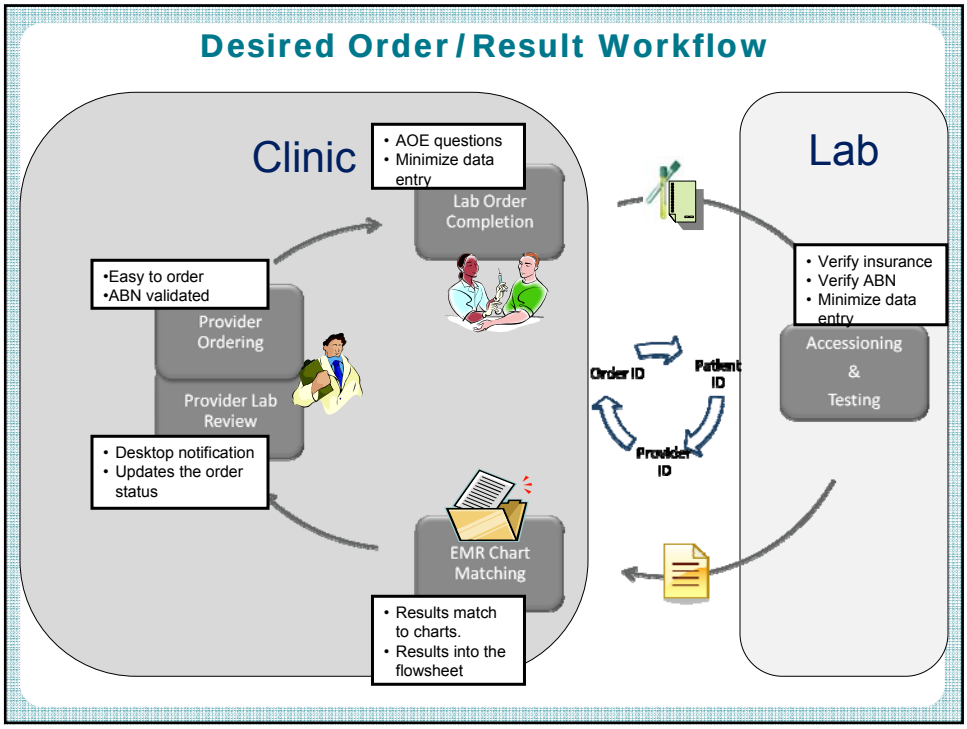
Setup

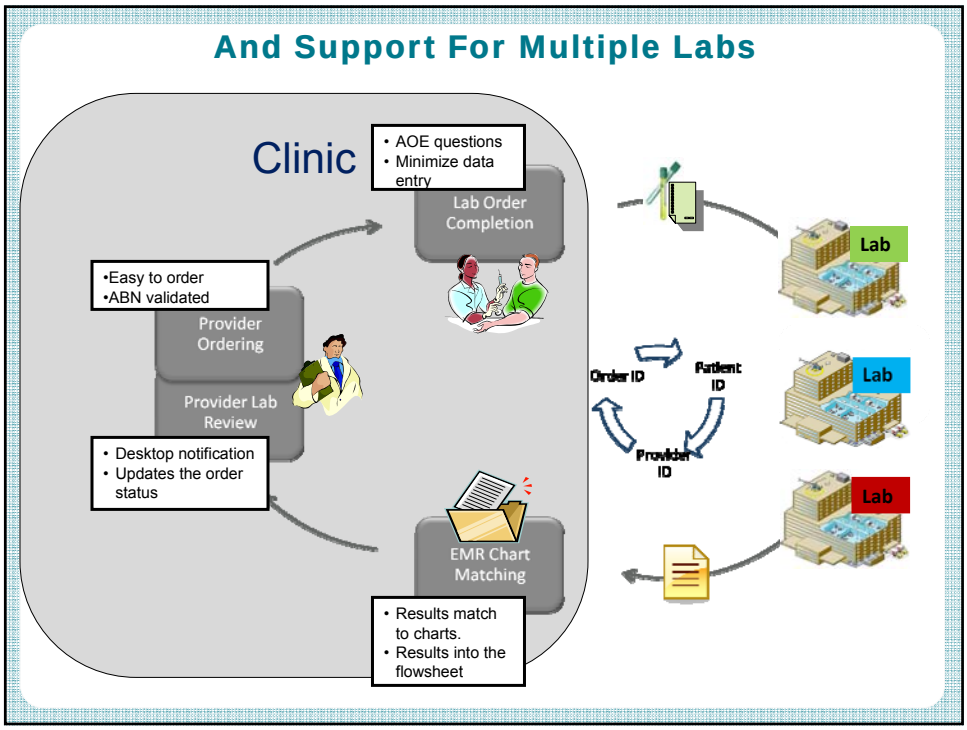
- Load flow-sheet views
- Load test order categories
- Load custom lists, panels, ..
- Complete the testing

Operations

- All labs look the same
- Single order list (not 3)
- Route to the right lab
- Results to same flow-sheet




Desired Order / Result Workflow
Clinic
• AOE questions
• Minimize data entry
Lab Order Completion
•Easy to order
•ABN validated
Provider Ordering
Provider Lab Review
• Desktop notification
• Updates the order status
EMR Chart Matching
• Results match to charts.
• Results into the flowsheet
Lab
• Verify insurance
• Verify ABN
• Minimize data entry
Accessioning & Testing
Order ID
Patient ID
Provider ID


And Support For Multiple Labs
Clinic
• AOE questions
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Lab Order Completion
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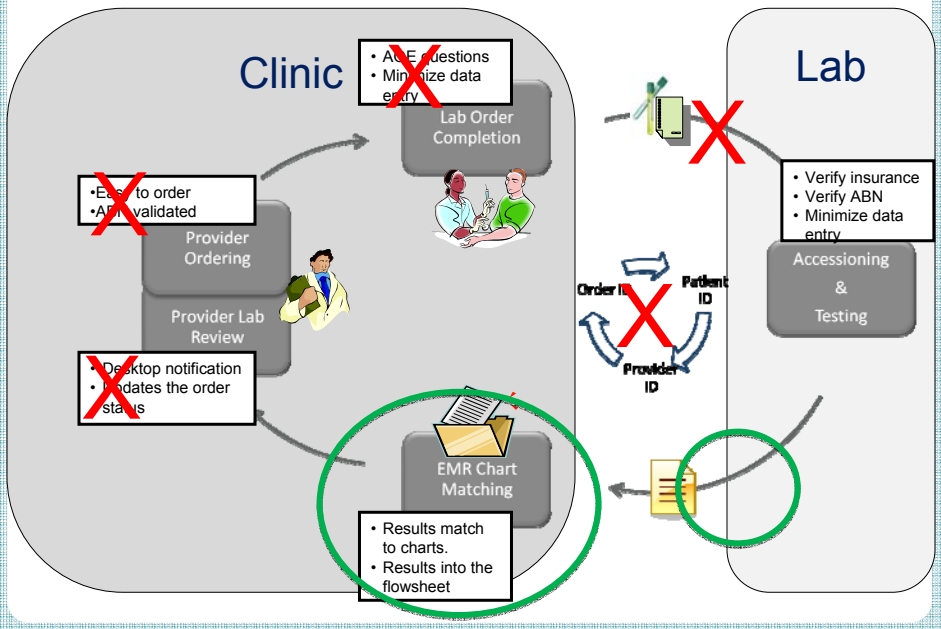
What HITEC Meaningful Use Requires



Meaningful Use

Through incentive payments the HITECH Act promotes the adoption of EHR technologies with the goal to:

- Improve quality, safety, efficiency of health care
- Engage patients and families
- Improve care coordination
- Improve population and public health
- Ensure adequate privacy and security protections for personal health information.

$18,000,000,000 in total

$44,000 per care provider

A Summary of EMR Meaningful Use Measures

- **15 "Core" Measures**

  CPOE , drug-to-drug checks, active problem list, ePrescribe, active med list, active med-allergy list, patient demographics, vital sign capture, smoking status, report quality measures, clinical decision support, patient chart sharing (electronic), patient clinical summary, care provider chart sharing, PHI protection.

- **5 of 10 "Menu Set" Measures**

  Drug formulary, structured lab results, quality improvement patient lists, patient reminders, patient education guidance, medication reconciliation, care summary sharing with colleagues, immunization submission to registries, electronic syndromic surveillance to public agencies.

MU Stages by Payment Year

	2011	2012	2013	2014	2015
2011	Stage 1	Stage 1	Stage 2	Stage 2	*TBD*
2012		Stage 1	Stage 1	Stage 2	*TBD*
2013			Stage 1	*Stage 1*	*TBD*
2014				Stage 1	*TBD*

MU Medicare Payment Amounts

	First CY for which the EP Receives an Incentive Payment				
Calendar Year	2011	2012	2013	2014	2015 and subsequent years
2011	$18,000	---	---	---	---
2012	$12,000	$18,000	---	---	---
2013	$8,000	$12,000	$15,000	---	---
2014	$4,000	$8,000	$12,000	$12,000	---
2015	$2,000	$4,000	$8,000	$8,000	$0
2016	---	$2,000	$4,000	$4,000	$0
TOTAL	$44,000	$44,000	$39,000	$24,000	$0

Important Meaningful Use Dates

- October 1, 2011 – Last day for eligible professionals to begin their 90 day reporting period.
  - Interfaces must be in use at this time
- December 31, 2011 – Reporting year ends for eligible professionals.

Physicians Must Use “Certified EMRs”

Guess how many EMRs are certified today?

Three years ago

about 35

Last year

about 135

Today???
“Fully Certified ” EMRs

304

But wait, that’s not all……..
“Certified Modules”

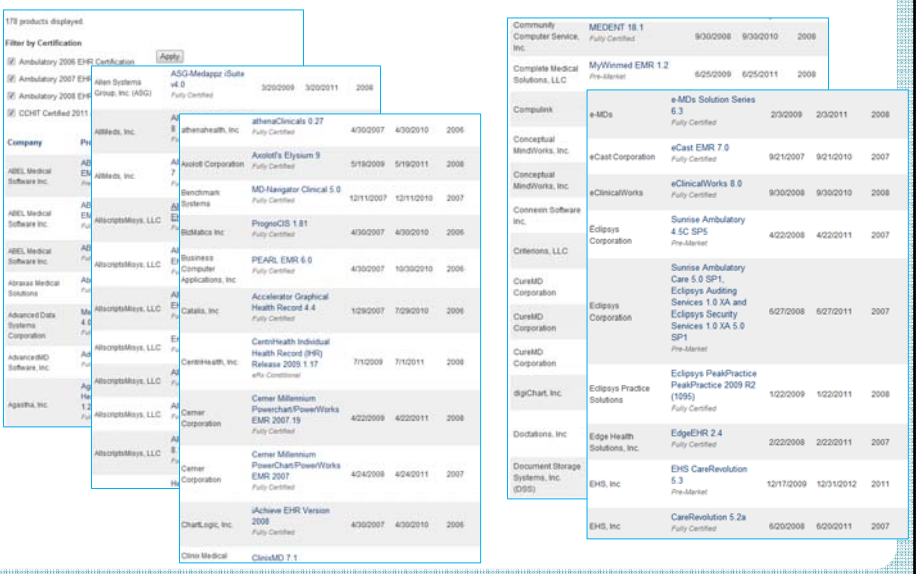
132

Total **436**

…. Sheesh!

304 Fully Certified

http://www.cchit.org/products/Ambulatory



MU Certification -- As It Pertains To Labs

Stage One (2011 and 2012)

1. **Lab Test Results**
   An **optional** menu item (one of 10 menu items)
   Incorporate 40% of clinical lab test results as structured data

2. **Computerized Physician Order Entry (CPOE)**
   Not required for phase one
   But a likely requirement for phase two, starting 2013

Not great news for labs….

- **Orders can be on paper**
- **In the absence of orders, results are less robust (patient chart mismatches, provider ID mismatches, order reconciliation, …..)**

MU As It Pertains To Labs

Stage Two (expected in 2013)

1. **Lab Test Results**
   Becomes a CORE item (now required)
   Probably the same 40% structured data requirement

2. **Computerized Physician Order Entry (CPOE)**
   At least one lab test is ordered for 60% of unique patients that require lab testing.
   Order does not have to be sent electronically

Small relative improvement

- **No real change for results**
- **Orders must be documented in the EMR, not necessarily rules driven. Not sent electronically.**

MU As It Pertains To Labs

Stage Three (expected in 2015)

1. **Lab Test Results**
   90% structured data requirement
   Must reconcile with order if the order was placed

2. **Computerized Physician Order Entry (CPOE)**
   At least one lab test is ordered for **80%** of unique patients that require lab testing.
   Still, does not have to be sent electronically

Small relative improvement

- **Results**
- **Orders are only documented in the EMR, not necessarily rules driven. Not sent electronically.**

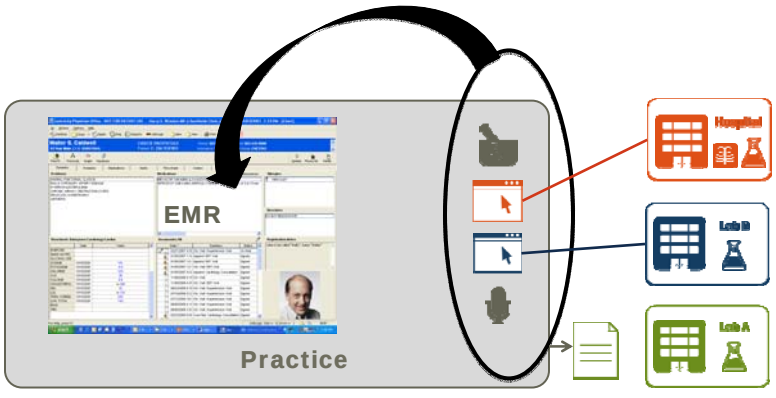
Other Factors You Might Consider

- Volume is up
  - "Adoption is up to 30% in 2011 from 20% in 2010"
    - Dr. Farzad Mostashari, National Coordinator HIT
      Centricity EMR User Group, April 30, 2011
- New EMRs
  - Many with minimal integration experience
  - Differing capabilities
- Practices have vague guidance on choosing an EMR
- During EMR selection, integration gets little diligence
- Thinned out EMR and EMR integration talent
- Is meaningful use even a good metric?

  Orders aren't required
  Only 40% structured results?

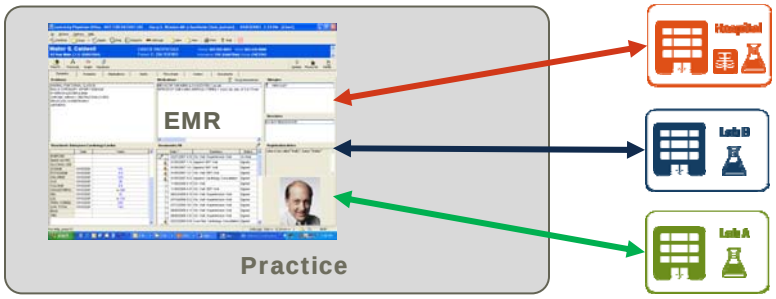
So, The Practice Buys An EMR

The Expectation



What The Practices Hears From EMR Vendors

"We support HL7 – you're good"

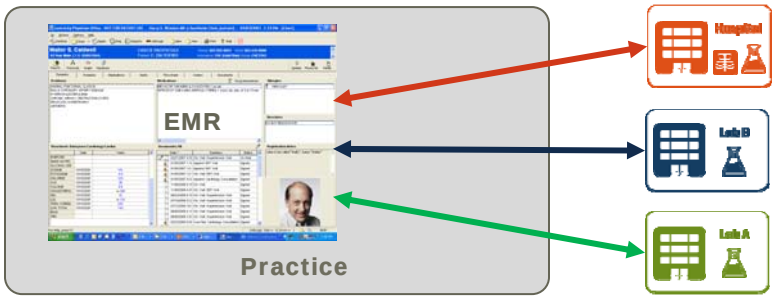


The Physician's Expectation

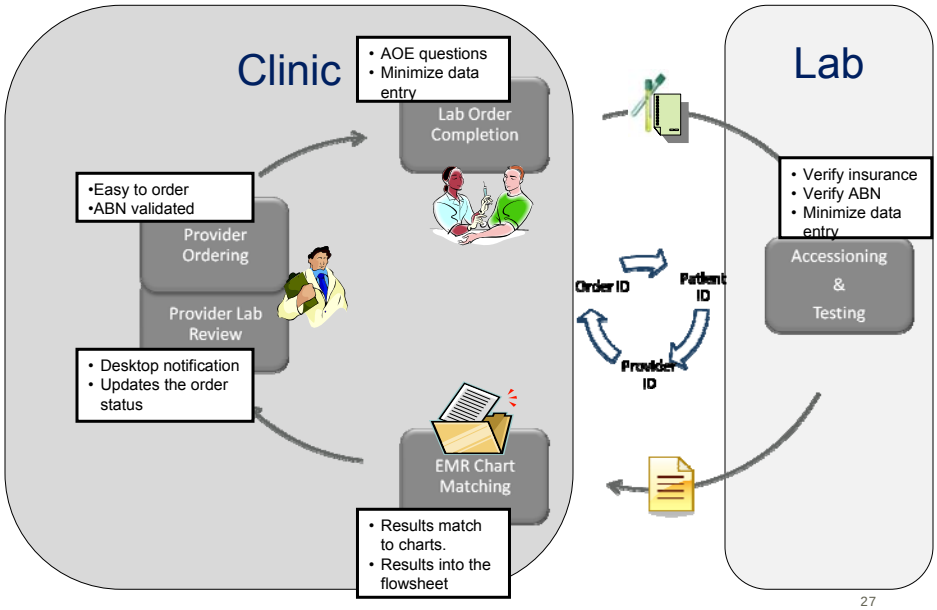
The labs and the EMR vendor will:

- Set up their lab results (the HL7 import, the chart matching criteria, the error resolution methods, the training, …)
- Set up the lab orders (categories, custom lists, panels, billing, ..)
- Load their flow-sheet views
- Complete the testing

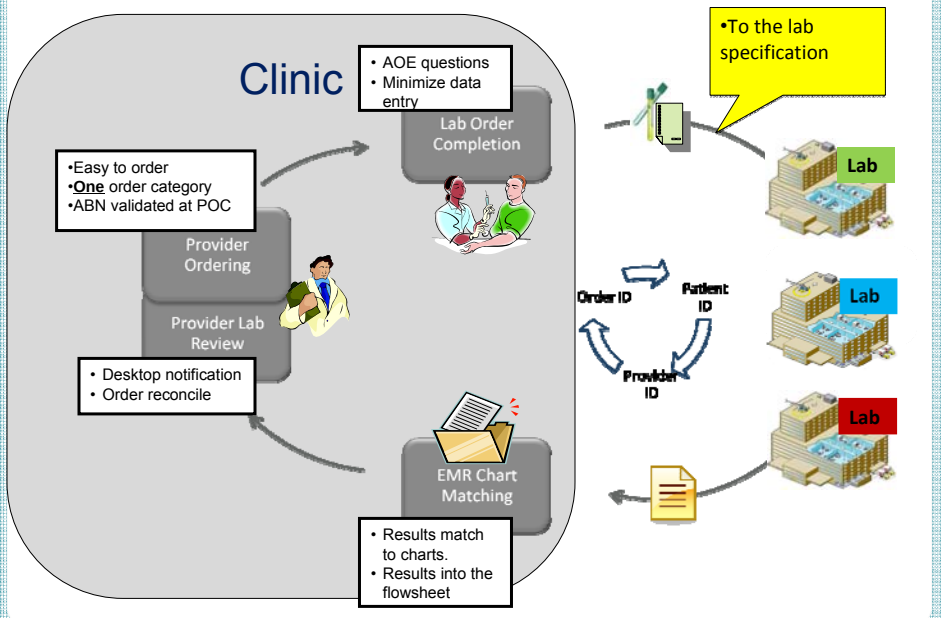
… remember, they're busy with the other 19 EMR MU requirements.



Desired Order / Result Workflow



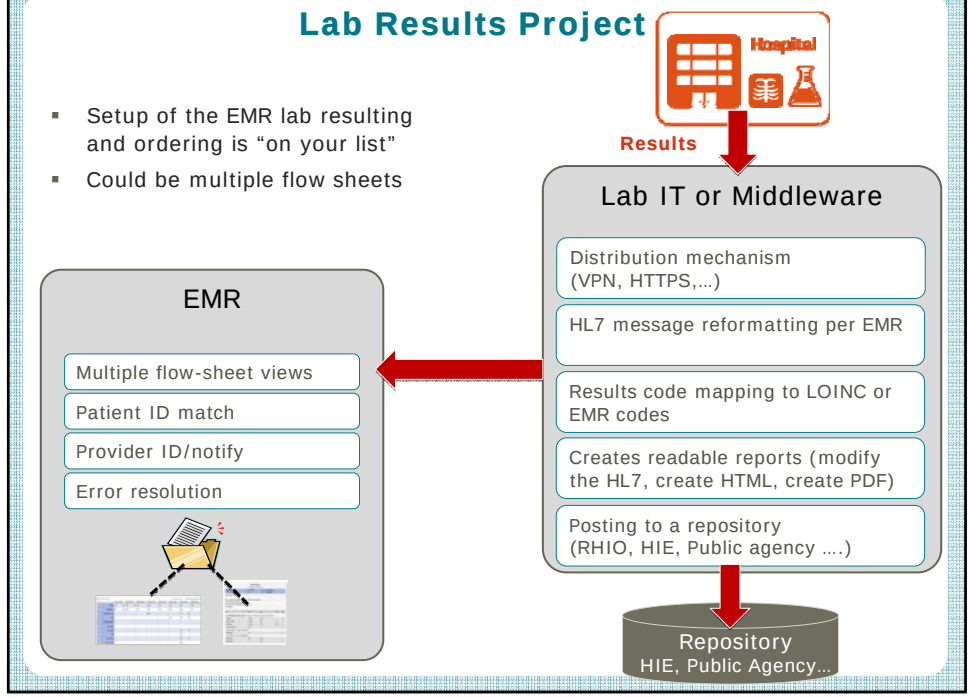
EMR Workflow Supports Multiple Labs



EMR Lab Results

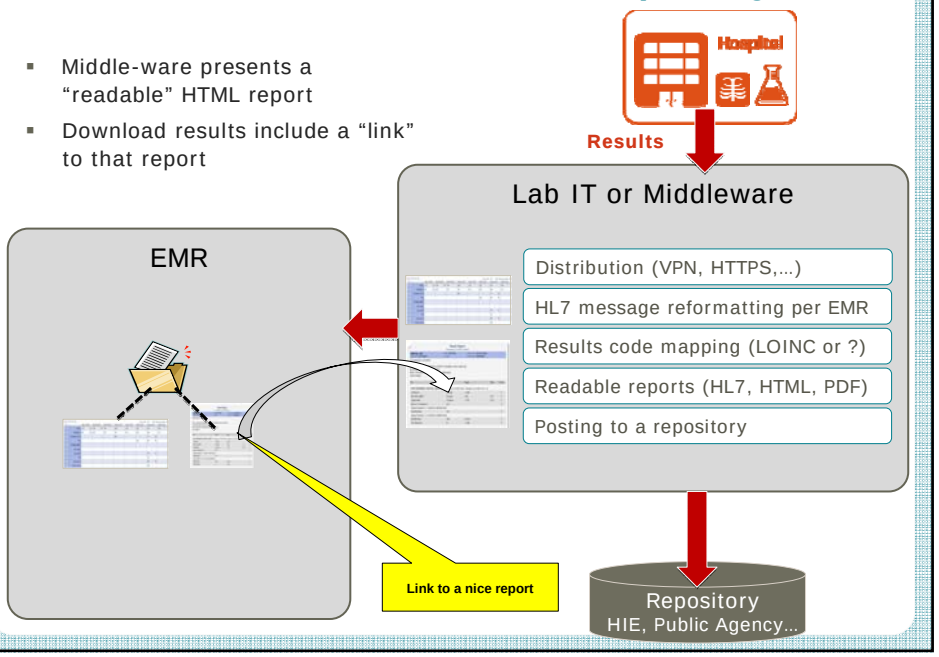
Lab Results Project

- Setup of the EMR lab resulting and ordering is “on your list”
- Could be multiple flow sheets



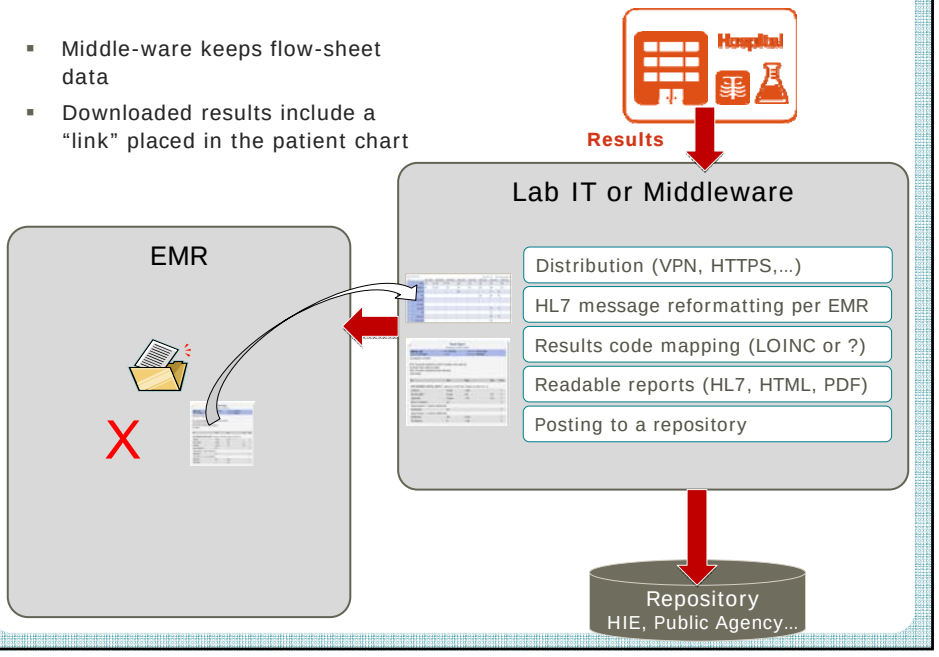
When an EMR has “Weak” Reporting

- Middle-ware presents a “readable” HTML report
- Download results include a “link” to that report



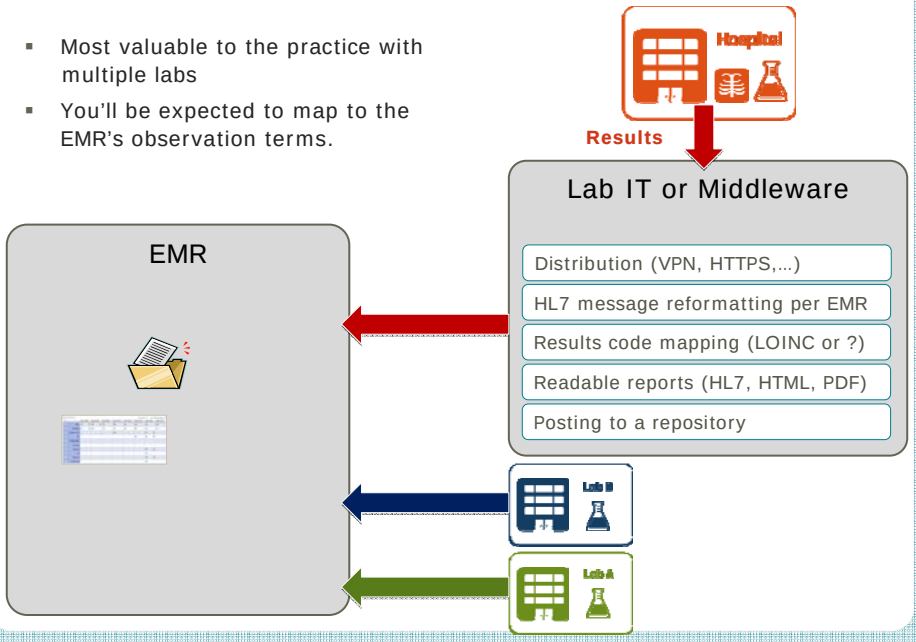
When an EMR has “Weak” Flow-sheets

- Middle-ware keeps flow-sheet data
- Downloaded results include a “link” placed in the patient chart



When an EMR has “Strong” Flow-Sheets

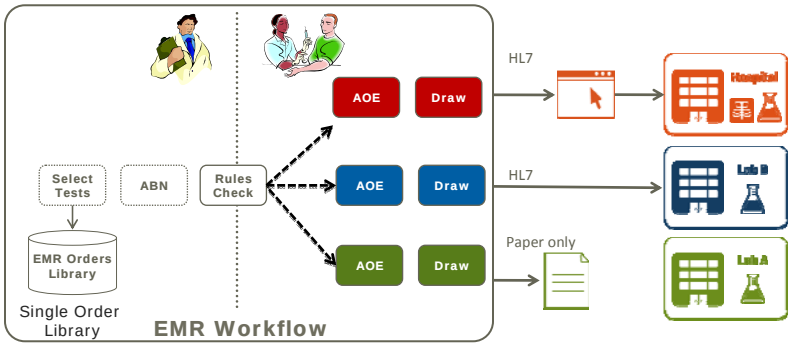
- Most valuable to the practice with multiple labs
- You’ll be expected to map to the EMR’s observation terms.



EMR Lab Orders

Ideal Orders, From The Practice's Perspective

- Easy to use
- A single library to order from
- Exam room ABN checks
  (in the background)
- Lab-specific AOEs
- Requisition splitting
- Insurance-based routing to the right lab
- HL7 orders to the right lab
- Order/result loop insures that all IDs match

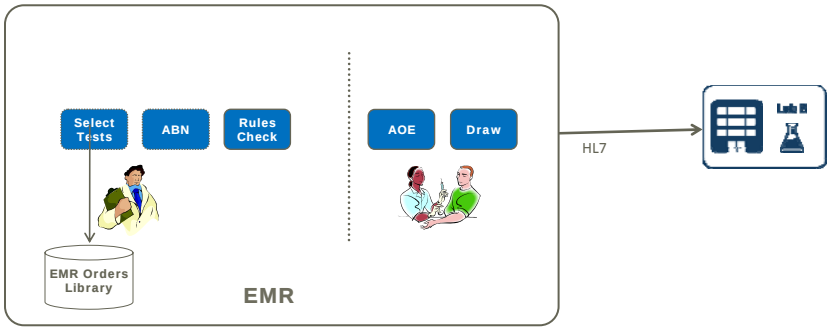


How Close To Ideal Do EMRs Get?

EMR #1:

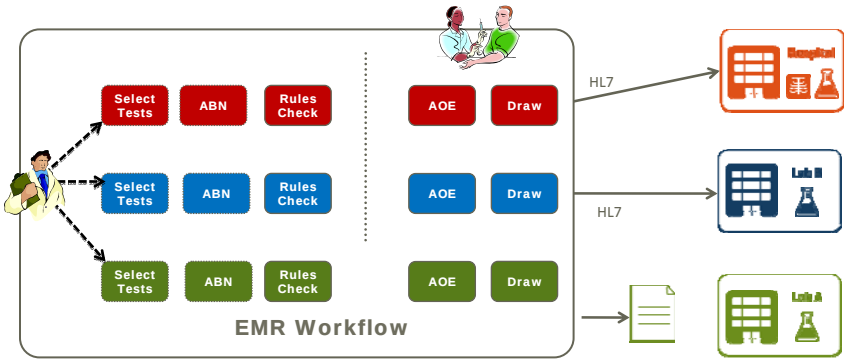
Has full functionality

…… for a single lab



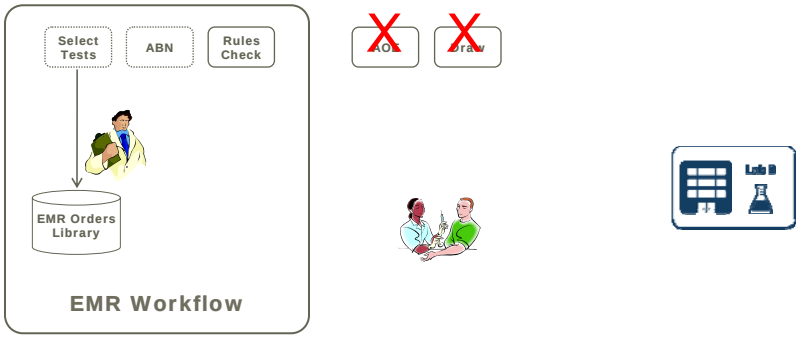
EMR #2:
Multiple Lab Support

- Support for multiple lab libraries, but require that each test library is loaded and orderable separately
- Physicians challenge: Know which lab to order from
- Support team challenge: maintain multiple libraries and rules



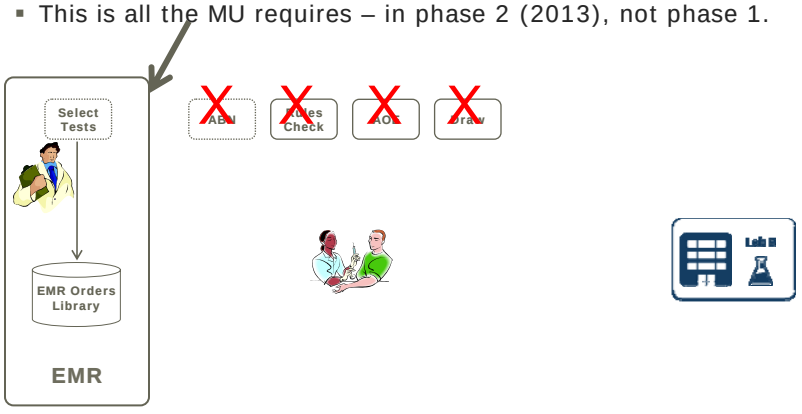
EMR #3

- Some EMRs perform ABN checks, but don't support AOE or draw requirements

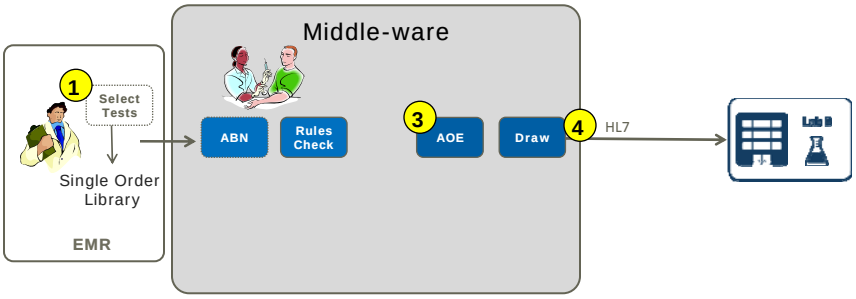


EMR #4

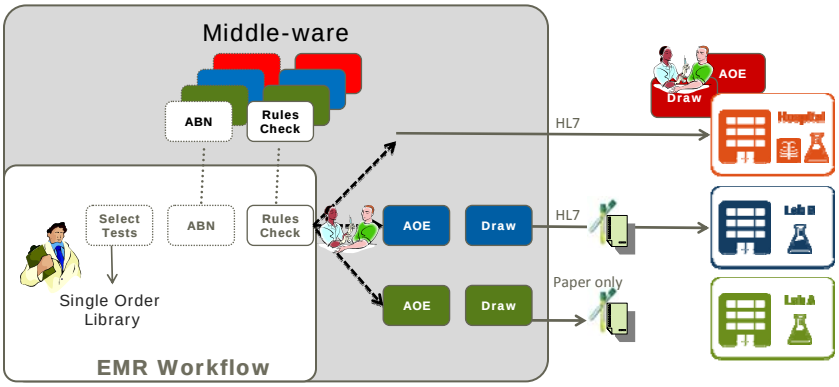
- Can capture the order, but not support ABN, AOE or draw requirements
- This is all the MU requires – in phase 2 (2013), not phase 1.



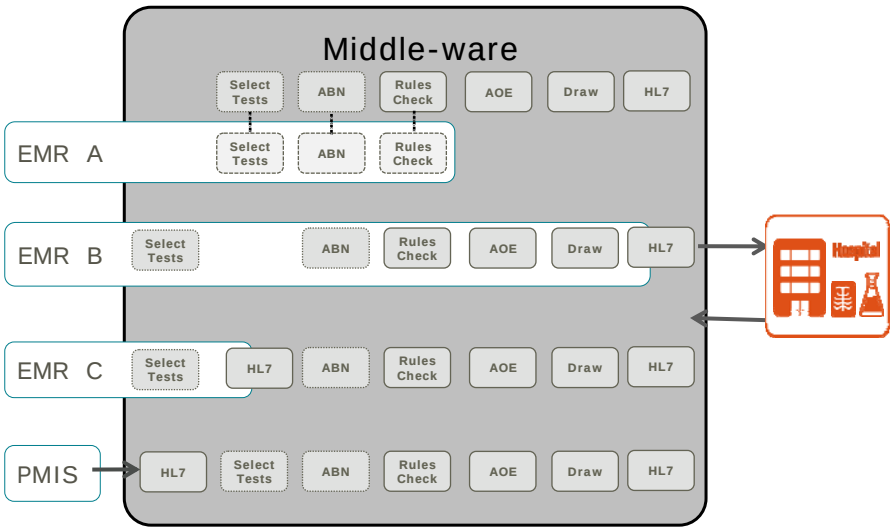
Middle-ware Can Help



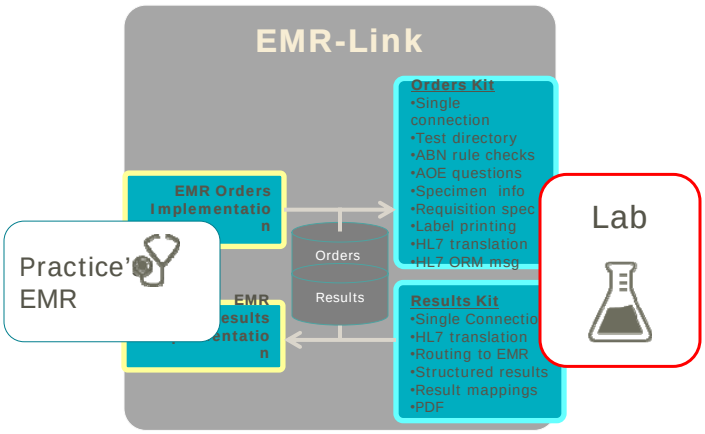
Middle-ware With Workflow Integration



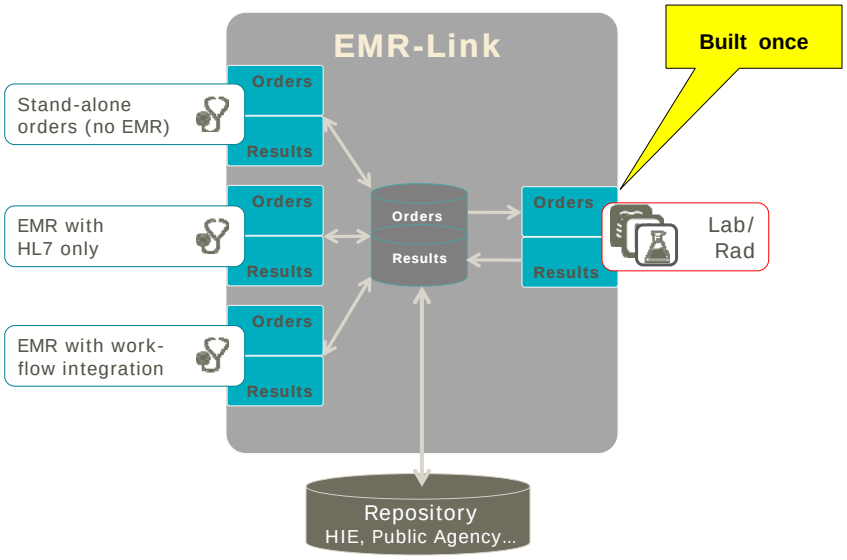
Every Practice's EMR Type Should Be Supported



The Ignis Model



Integrates Your Services To Any EMR (or no EMR)



Lab Setup and Maintenance

EMR Setup and Maintenance

- Ideally the EMR team and processes will
  - Build a flow-sheet from your utilization report
  - Map from your result codes to the EMR's codes (LOINC?)
  - Load your DOS (directory of services) in an automated fashion.
  - Load your ordering rules (requisition splitting, AOE questions, specimen requirements, ..).. from a compendium.
  - Use your utilization report to create custom order lists
- Or is setup customized?
  - Customized order lists. Great for a practice's unique workflow and a valuable EMR feature.
  - But, some EMRs build this from the ground up with templates.

Part of repeatable process

Your Lab Information System Setup and Maintenance

- ❑ Evaluate your LIS
  - ❑ Can it provide a compendium with a full directory of services (DOS)?
    - ❑ Will that compendium include ordering rules, specimen data, ABN cost data
  - ❑ Can your LIS provide a utilization report?
    - ❑ History of tests for this practice
- ❑ Evaluation your resources. Can they
  - ❑ Set up the orders categories in the EMR?
  - ❑ Set up the custom order list in the EMR?
  - ❑ Set up the flow sheet views in the EMR?
  - ❑ Set up the cross-reference files for the result codes

Part of repeatable process

EMR Integration Maintenance

- Results maintenance
  - When you update a results code, what happens in the EMR?
- Orders maintenance
  - When you update an order code, what happens in the EMR?
- Who troubleshoots a missing lab result?

Recommendations

The Situation

- More and Different EMRs – 400+
- Adoption rate increases
- Installing at practices that are less prepared
- Less savvy EMR consultants

Here are some approaches …….

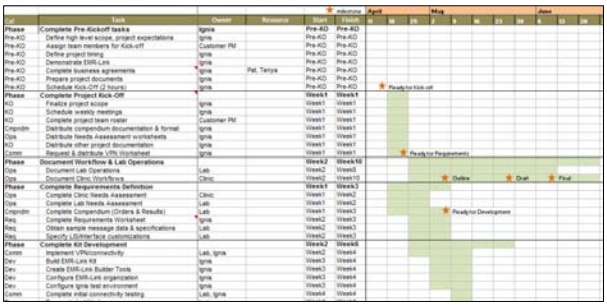
- For your lab
- As an industry group

Your Plan: Review Your Resources

- ❑ Look at your LIS capabilities
  - ❑ Can your LIS provide a utilization report?
  - ❑ Can your LIS provide a compendium with your lab ordering rules?
  - ❑ Can it accept an electronic order from an outpatient EMR?
  - ❑ Must it receive a registration event from the HIS first? Is this really a show-stopper? (it's not for the reference labs)
- ❑ Your interface engine (or middleware) capabilities
  - ❑ Is your team ready for 2X the volume?
  - ❑ Can you map to the result codes of the EMR
  - ❑ Can you map to LOINC?
- ❑ Look at your processes for providing lab-to-EMR integration

*you're welcome to use the Ignis project plan as a starting point.

EMR-to-Lab Integration Project



Cat	Task	Owner
KO	Distribute other project documentation	Ignis
Comm	Request & distribute VPN Worksheet	Ignis
Phase	**Document Workflow & Lab Operations**	
Ops	Document Lab Operations	Lab
Ops	Document Clinic Workflows	Clinic
Phase	**Complete Requirements Definition**	
Ops	Complete Clinic Needs Assessment	Clinic
Ops	Complete Lab Needs Assessment	Lab
Cmpndm	Complete Compendium (Orders & Results)	Lab
Req	Complete Requirements Worksheet	Ignis
Req	Obtain sample message data & specifications	Lab
Req	Specify LIS/Interface customizations	Lab

Your Plan: Get Involved in the EMR Selection

- ❑ Conduct your own EMR assessment
  - ❑ Ask your interface team to rank the EMR that were easiest to deploy and support.
  - ❑ Ask your middleware vendor to rank EMRs for integration (have them to plan bandwidth for your upcoming projects)
- ❑ Partner with your practices. Create an RFP they can use for EMR selection
  (use the Results and Orders checklist in this presentation)

Help Your Practices Choose An EMR

	Results Checklist
√	Does the EMR have its own result code database?
√	Does the vendor provide result code mapping services?
√	How are mismatched results dealt with?
√	How are result codes maintained?
√	Can the EMR support results from multiple labs?
√	Will the result codes from the various labs import to the same flow-sheet?

EMR Orders Checklist

	Orders Checklist
√	Can an HL7 electronic order (HL7) be sent to the lab (or to outreach product)
√	Is ordering easy to use for the physician? If it's installed ,is it being used?
√	Is medical necessity being checked when physician places the order?
√	Lab specific AOE support
√	Can lab specific requisitions be printed?
√	Can the EMR support orders to multiple labs?
√	Must the physician choose the correct lab, or can they choose from a single list and the EMR route to the right lab?
√	Is the staff ordering workflow easy to use?
√	Is the setup automated? Is it derived from lab's utilization report and directory of services?
√	Are order and result codes easy to set up and maintain?

Your Plan: Reach Out To The Practices

- Host an EMR open house
- Tell them you'll help with meaningful use
- Offer to assist them in the evaluation
- Give them your EMR integration "report card"

Your Plan: Tie Into Federal Initiatives/Funding

- Regional Extension Centers
  - Chartered with enabling EMR adoption
- Your state HIE commission. Every state has one
  - Will their HIE solution support "pushing" your structured labs to the EMRs in your area? They should.
- Lab Interoperability Cooperative grant by CDC
  - Awarded to SureScripts, American Hospital Association (AHA), and College American Pathologists (CAP)
- Community Colleges HIT Training

The State HIE Initiatives Can Help

- Each state has an HIE initiative to facilitate access and retrieval of clinical information to improve patient care.
- Each state has $4M - $16M to fund this connectivity effort
- July 6 2011 PIN (Program Information Notice) from ONC modified the HIE directive to focus on:
  - ePharmacy
  - Lab results (structured and "pushed")
  - Clinical summary sharing
- So, labs got into the top three for initial HIE (2011)

Examples of the State HIE work

- Oregon – still shaping their RFP
- Indiana – in some cases, making funds available to the practices
- Florida -- $20M awarded to Harris Corp to set up clinical data sharing infrastructure

…. Contact your state HIE folks.

An Industry Plan

- Drive for standardization of compendiums
  - Already started with the eDOS proposal
  - Insist that EMR vendors import the compendium for setup and maintenance
- Create our own EMR integration score-card
  - Workflow functionality
  - Setup and maintenance

Resources

- ARRA-sponsored Regional Extension Centers
  http://www.hhs.gov/recovery/programs/hitech/factsheet.html
- Oregon State HIE Operational Plan
  http://www.oregon.gov/OHPPR/HITOC/Documents/hitoc_reports.shtml
- About the ARRA
  http://www.himss.org/EconomicStimulus/

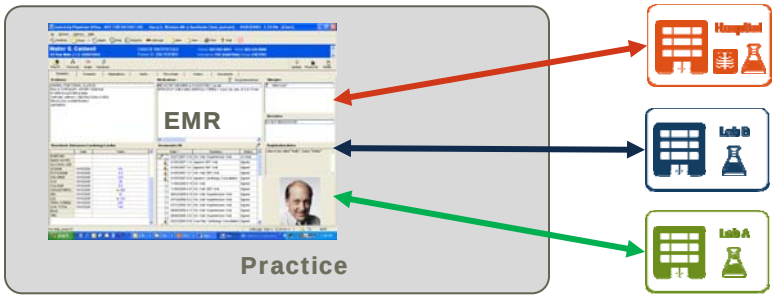
The Physician's Expectation

Setup

- Load flow-sheet views
- Load test order categories
- Load custom lists, panels, ..
- Complete the testing

Operations

- All labs look the same
- Single order list (not 3)
- Route to the right lab
- Results to same flow-sheet



Thank You!

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