Primary Care Laboratory Communication Performance Metrics

Project Update

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Performance Period: 9/10/2010 – 9/9/2014

Disclosure statement

- I have no financial investments in and receive no funding from any of the companies mentioned in this presentation.
- No off label medication use will be discussed.
- I have made many mistakes in my professional career, and expect to continue doing so.

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Points to Cover

- Project Synopsis and Aims and Very Brief Review
  - Literature Review
  - Practice Survey
  - Toolkit Design
- Pilot-testing and Implementation: Lessons Learned
- A word from Drs. Eder and West about future efforts

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Project Synopsis and Aims

Aims:

1) Develop performance/quality communication indicators for clinically important gaps in pre- and post-analytic lab medicine, in primary care

1) Pilot test and evaluate these indicators in six SNOCAP practices

3) Create toolkit* and test/evaluate in additional SNOCAP practices

*Building on the work of Dr. Eder

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Literature Review

Main themes for communication process errors:

- Breakdowns occur in pre and post analytic processes
- Delays in Diagnoses
- Communication gaps

Other findings:

- Adverse events occur because of multiple errors
- Metrics to improve process:
  - Implement systematic processes
  - Improve communication between providers and with laboratory
  - Patient centeredness/Develop benchmark for timely patient notification of results

Smith ML, et al. (2012) *Evaluating the Connections Between Primary Care Practice and Clinical Laboratory Testing: a review of the literature and call for laboratory involvement in the solutions.* Manuscript accepted and pending publication in *Archives of Pathology and Laboratory Medicine.*

Key Findings

- Most significant issues/concerns are lab tracking/reminding and patient notification
- “No news is good news” still exists in many practices
- There is a need to clearly identify roles and procedures throughout pre and post analytic lab process

Frequency with which personnel reported that the practice directly notifies patients of laboratory test results.			
	Reported Percentage of Patients Notified Directly		
Normal Result	Less than 96% of the time	Between 96-100% of the time	P -value
Clinician (n=135)	91 (68%)	43 (32%)	P =0.07
Staff (n=192)	128 (67%)	62 (33%)	P =0.09
Clinically Insignificant Abnormal Result			
Clinician (n=135)	88 (66%)	46 (34%)	P =0.09
Staff (n=192)	107 (56%)	83 (44%)	P =0.15
Clinically Significant Abnormal Result			
Clinician (n=135)	35 (26%)	99 (74%)	P =0.04
Staff (n=192)	74 (39%)	116 (61%)	P =0.03

Method to Report Normal and clinically insignificant abnormal results	Always/Often n, (%)		
Method	Clinician	Staff/Mgr	P-value
Personal call from clinician	36 (27%)	82 (42%)	P =0.06
Medical assistant/nurse phone call to patient	44 (33%)	105 (53%)	P =0.07
Patient instructed to call	16 (12%)	50 (26%)	P =0.42
Patient to assume test is normal if not notified	31 (23%)	62 (31%)	P =0.64
Send personal note	23 (17)%	54 (28%)	P =0.23
Send form letter to patient	58 (43%)	93 (45%)	P =0.67
Mail copy of test results	51 (38%)	77 (39%)	P =0.70
Results available on secure website for patients to access	13 (10%)	29 (15%)	P =0.33
Results emailed to patients	6 (4%)	6 (3%)	P =0.81
Results available on automated phone-in system	1 (1%)	1 (<1%)	P =0.84
Results available during patient visit	52 (39%)	113 (57%)	P =0.07
Laboratory center directly notifies patient	1 (1%)	4 (2%)	P=0.84

Clinically significant abnormal results	Clinician	Staff/Mgr	P-value
Personal call from clinician	112 (83%)	130 (65%)	P =0.05
Medical assistant/nurse phone call to patient	47 (35%)	105 (54%)	P =0.01
Patient instructed to call	17 (13%)	41 (21%)	P =0.14
Send personal note	17 (13%)	25 (13%)	P =0.92
Results available on secure website for patients to access	18 (13%)	45 (23%)	P =0.22
Results emailed to patients	29 (21%)	60 (31%)	P =0.23
Results available on automated phone-in system	11 (8%)	23 (12%)	P =0.38
Send form letter to patient	5 (4%)	10 (5%)	P =0.79
Mail copy of test results	2 (2%)	4 (2%)	P =0.88
Results available during patient visit	43 (32%)	92 (45%)	P =0.04
Laboratory center directly notifies patient	1 (1%)	5 (3%)	P =0.70

	Perception of Laboratory Process				
	Very Well	Well	Adequate	Poor	No-Response
Test Ordering					
Staff/Managers	34 (16%)	70 (33%)	76 (36%)	10 (5%)	20 (10%)
Clinicians	30 (22%)	45 (33%)	53 (39%)	6 (4%)	1 (1%)
Test Tracking					
Staff/Managers	14 (7%)	32 (15%)	53 (25%)[a]	52 (25%)	59 (28%)
Clinicians	17 (13%)	38 (28%)	51 (38%)	29 (21%)	0
Test Result Notification for Normal or Clinically Insignificant Abnormal Results					
Staff/Managers	29 (14%)	60 (29%)	73 (35%)	23 (11%)	24 (11%)
Clinicians	18 (13%)	37 (27%)	51 (38%)	27 (20%)	2 (1%)
Test Results Notification of Clinically Significant Abnormal Results					
Staff/Managers	52 (25%)	71 (34%)	51 (24%)	10 (5%)	26 (12%)
Clinicians	27 (20%)	48 (36%)	48 (36%)	12 (8%)	0
Patient Follow-up					
Staff/Managers	16 (8%)	67 (32%)[b]	76 (36%)	25 (12%)[b]	26 (12%)
Clinicians	6 (4%)	23 (17%)	65 (48%)	40 (30%)	1 (1%)

Perceptions of the laboratory process in primary care by Clinicians and Staff and Managers (n=210)

[a] Indicates statistical significance (*P=0.01*)

[b] Indicates statistical significance (*P=0.007*)

Pilot-testing: Lessons Learned

Specific Aim: Pilot test and evaluate tracking and patient notification interventions and develop performance indicators in six SNOCAP practices

- Perceived Need for redesign of lab-related processes are enormous
- Inability to self start process improvement efforts
- Most Significant self-identified issues: lab tracking and patient notification
- With time and attention – improvements are readily achieved

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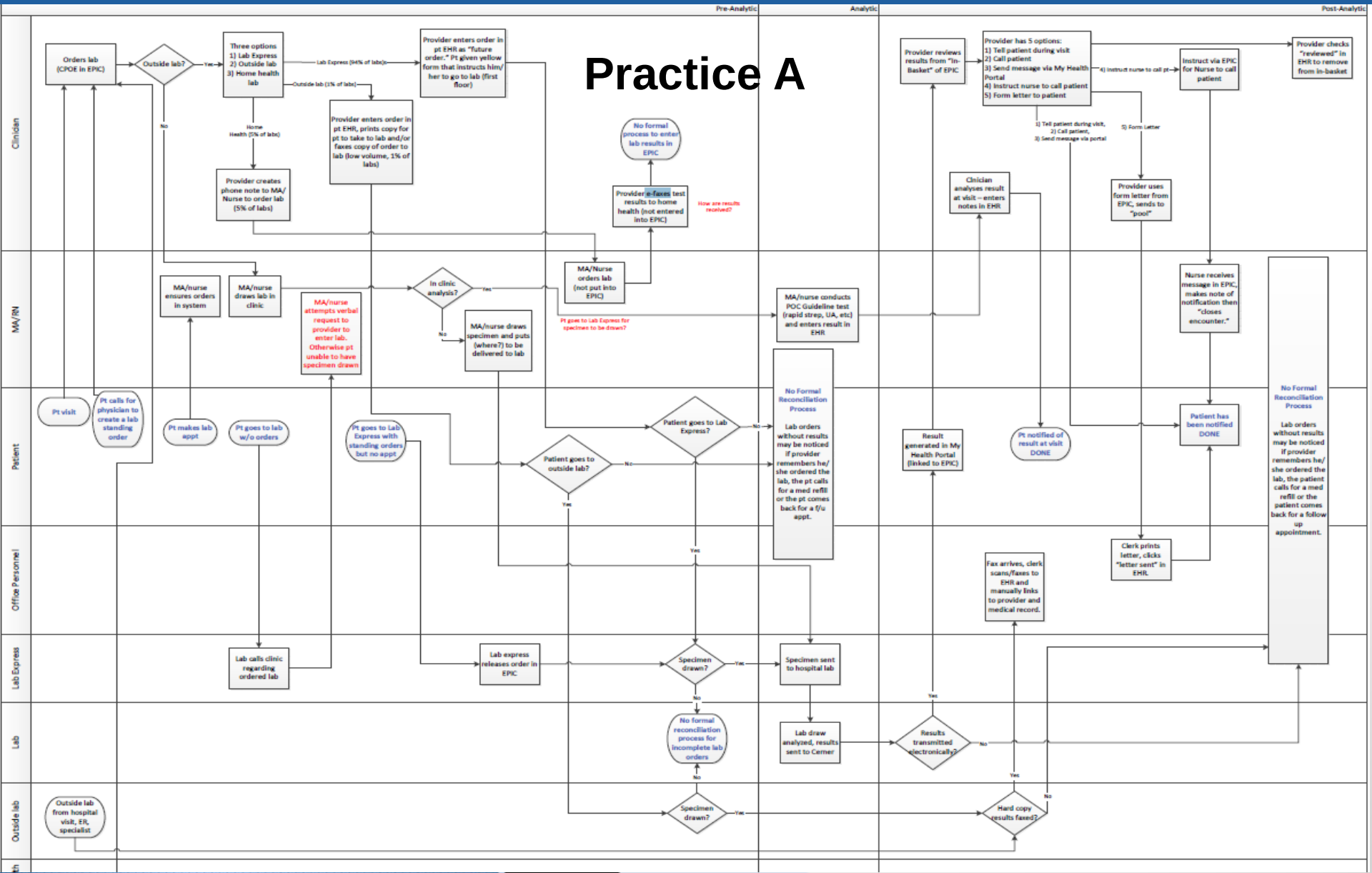
Pilot-testing and Lessons Learned



Phase Three

Aim: Develop a draft **Toolkit** and evaluate feasibility of our performance indicators in additional SNOCAP practices

- Tools developed from Tracking and Notification Pilots (data/information, process improvement instructions/facilitation/measures/report templates, MOC & MU processes, etc.)
- IRB protocol secured
- Roll-out in about two dozen practices

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Results

- The toolkit was well-received and generally considered as providing a:

- “nice framework for our project”. “Sequencing of steps “made sense”, and the toolkit was “straightforward, easy to use, easy to read, and led the practice team through the discussion to achieve consensus – very effective”.

- Some editing suggestions provided that were useful, e.g., “make less wordy – more bullets”.

Results[2]

- Some revelations in practices:
  - We have no way to capture metrics
  - our coding was out of synch with the lab – leading to numerous errors
  - patients weren't getting drawn in a timely manner – and some were lost. Immediate draws remedied the problem
  - We weren’t entering lab order in to the EHR – and the lab had no authority to draw – so sent patients away
  - We weren’t notifying patients of results, and fielding confused calls from them
  - We needed to set up systems for “Here and Now” processes
  - We had to build automated reports from HER to assure daily notification of patients for all tests
  - Working with Lab to set up comparisons of orders vs. Lab manifests, manifests vs. results received; and tracking the differences

Conclusions

We have identified threats to safety and quality that persist in contemporary primary care practice and that track to IOM Domains, with implications for Maintenance of Certification and Meaningful Use

EHR technology can be part of the solution, but also part of the problem

Practices are not spontaneously developing solutions, but are generally aware of and concerned about the problems

Developing solutions takes time, effort, and resources – all of which are scarce commodities

Unrealistic to expect spontaneous improvements without extrinsic influences and resources

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Incentives through MOC

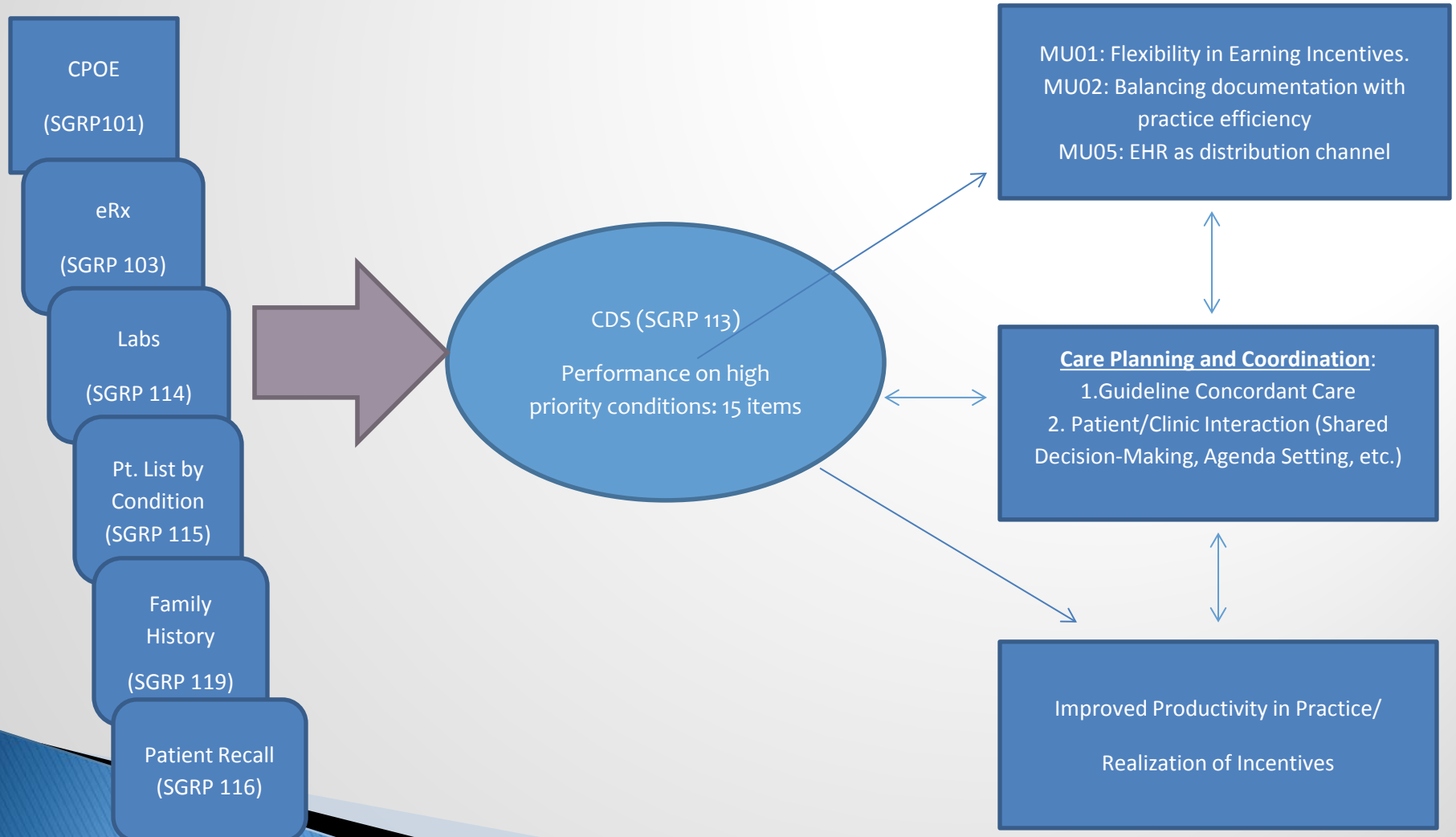
- ABFM and ABIM collaborating with the Centers for Medicare & Medicaid Services (CMS) to provide Board Certified physicians with an opportunity to earn a monetary benefit for participating in Maintenance of Certification (MOC) during the 2014 calendar year.
- Board Certified physicians who successfully participate in CMS's PQRS program can also earn an additional incentive payment by participating in ABIM's MOC program in 2014 (up to 1% Part B bonus)

Incentives through Meaningful Use

Penalties up to 3% by 2017

- CPOE for lab ordering
- Patient tracking/Results and notifications
- Structured data from hospital labs to ambulatory providers

Meaningful Use Stage 3: Clinical Decision Support



Drs. Eder and West: Future Directions?

Quality and safety module for use in primary care:

- Facilitation Component – possible link with country extension agent concept
- MOC Module (Emulate the CDC STEADI Program to provide MOC credit in primary care offices?)
- Meaningful Use Module

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Questions?