Integrating Lab Services into Patient Care through Clinical Effectiveness

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June 13, 2016

Objectives
- Understand why The Joint Commission became an ICE partner
- Learn about CLMA’s Increasing Clinical Effectiveness (ICE) initiative
- Learn how to submit an abstract
- Review previous winner topics
The Joint Commission

- Joint Commission accredited hospitals must have their lab accredited
- A Joint Commission lab survey highlights the role the lab plays in providing patient care
- Tracer Methodology changes the focus of the lab survey to be on the patient
- Joint Commission initiatives:
  - High Reliability
  - Zero Patient Harm

The Joint Commission Lab Accreditation

To learn more and receive a Laboratory Accreditation Guide contact us at:

qualitylabs@jointcommission.org
Integrating Lab Services into Patient Care through Increased Clinical Effectiveness

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The Traditional Mission of the Clinical Lab

To provide accurate, timely test results at the lowest possible cost

What’s Missing?

The Link to Patient Care
Why Has This Happened?

- Declining reimbursement
- Competing on laboratory cost
  - Reductions in personnel, including change in workforce qualifications
  - Increase in automation
  - Centralization of testing locations
- Shrinking number of clinical pathologists leading to increased isolation

The Rise of the Factory-Model of Laboratory Medicine (“tube-in, number-out”)

The C-Suite Sees Rising Volume And Costs

*Figure 1. Rates of Use of Imaging Services, as Compared with Rates of Other Physician-Ordered Services, per Medicare Beneficiary (2000–2007). Data are from the Medicare Payment Advisory Commission’s analysis of physician claims for Medicare beneficiaries. Included are services paid under the physician fee schedule.*

And The Payers Promote A Narrow Look At The Problem

Unnecessary Blood Tests Plunge After Cost Reminders: Study

HealthDay
Robert Preidt
May 18, 2011

Weekly reports to surgical staff on phlebotomy charges had desired effect, researchers say.

Reminding surgical staff about the expense of taking daily blood samples (phlebotomy) from patients for routine blood work appears to reduce the practice, a new study finds.

“The use of laboratory tests has been rapidly increasing over the past few decades to the point where phlebotomy is a substantial proportion of hospital expenditure, and much of it is unwarranted,” wrote Dr. Elizabeth A. Stuebing, of the University of Miami, and Dr. Thomas J. Miner, of Brown University in Providence, R.I.

They obtained data on daily phlebotomy and associated charges for non-intensive care unit patients in three surgical services at Rhode Island Hospital. They calculated the amount spent on taking blood samples and laboratory tests per patient and for all patients.

For 11 weeks, the researchers made weekly announcements to surgical staff and attending physicians about total phlebotomy costs and charges per patient per day averaged over the previous week.

At the start of the study, average per-patient daily cost was about $148 and the overall weekly cost was $36,875. During the study, the lowest per-patient phlebotomy charge was $108 (27 percent lower) and the.

Many Others Reinforce The Over-Testing Story

AARP Bulletin
The Focus On Lab Cost Is Unjustified

National Health Expenditure (2014)
$3,000 billion

Medical Laboratory Expenditure (2014)
$73.4 billion
MLE/NHE=2.4%

Focus Solely On Reduced Test Volume Is Not Right For Patients Either

• Overutilization is common (mean=20.6%) but varies systematically (n=38)
  ▪ by clinical setting – initial (43.9%) vs. repeat (7.4%)
  ▪ By test volume – low volume tests (32.2%) vs. high (10.2%)
  ▪ measurement – restrictive (44.2%) vs. permissive (12.0%)
• Underutilization is likely more widespread, but is understudied (mean=44.8%), (n=8)

Other Factors Support A Re-Look At The Lab

- Reimbursement is changing
- Health outcomes, patient safety, and system performance matter
- Clinical laboratory professionals are an untapped and significant source of improved outcomes
- Failure to redefine our role will continue, and potentially accelerate, the consequences

Reimbursement is Changing

CMS Payment Changes 2015-2018
Medicare's commitment towards quality-based payments grows.
Why Is Change So Difficult?

Laboratory professionals have failed to articulate what’s broken; what consequences exist with the current approach; and what opportunities are being missed.

Strategy For Change

- Define testing-related value in terms of outcomes that matter to patients and care-delivery systems
- Develop measures and assessment tools
- Identify and disseminate best practices
Testing-Related Value

- Outcome-oriented definitions of value are in development
  - Increased patient-centeredness
    - Rapid, accurate and cost-effective diagnosis and monitoring
    - Patient engagement and empowerment
  - Increased effectiveness of our care delivery system
  - Reduced healthcare burden in our communities
  - Expanded, disseminated and utilized evidence

The New Paradigm Requires Rebalanced Priorities

- Operational efficiency is focused on reducing cost and systematic errors
- Clinical effectiveness is focused on improving patient outcomes
Testing-Related Value

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- Measures and assessment tools are on the drawing board
- A platform for identifying and sharing best practices exists – ICE™

ICE showcases case studies of clinical laboratories positively impacting patient, population or healthsystem outcomes
The ICE initiative demonstrates the value of clinical laboratory physicians and scientists in improving patient outcomes. It accomplishes this by providing training, guidance and incentives for the collection of evidence that will in turn link testing-related interventions, regardless of where they occur, to patient benefits. ICE then acts as a platform for the sharing of the best practices that result.

Increasing Clinical Effectiveness - 2015

- From Order to Result: Helping the Patient Get the Right Test
  - Jessie Conta, Seattle Children’s Hospital

- The Future of Transfusion Medicine at UnityPoint Health
  - Carol Collingsworth, Unity Point Health

- How Technology Contributed Dramatically to Decreasing HAI's and Delivering High Value Outcomes
  - Denise Geiger, Mather Hospital

- Central Ohio Primary Care and Local Specialty Group Working Hand in Glove for Better Patient Outcomes
  - Rebecca Burk, Central Ohio Urology Group
### 2016 Submissions Came from Eight Countries

- Canada (1)
- Ethiopia (2)
- India (1)
- Italy (2)
- Turkey (2)
- Uganda (1)
- United Kingdom (5)
- United States (9)

### Increasing Clinical Effectiveness - 2016

<table>
<thead>
<tr>
<th>Title</th>
<th>Author/Institution</th>
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<tbody>
<tr>
<td>High sensitivity cardiac troponin I at presentation enables early safe discharge of patients</td>
<td>Clare Ford, Royal Wolverhampton NHS Trust</td>
</tr>
<tr>
<td>Improving Stat Protime Turn Around to Improve Emergency Department Patient Throughput</td>
<td>Susan Traub, Kaiser Permanente South Sacramento Medical Center</td>
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<tr>
<td>GeneXpert MTB/RIF® assay for the diagnosis of smear-negative pulmonary tuberculosis</td>
<td>Mulualem Tadesse, Jimma University</td>
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Many More Proven Interventions Exist

- Utilization Appropriateness
  - CPOE design and monitoring
  - Algorithms, clinical pathways, guidelines
  - Reflex testing
  - Data mining
  - Inter-physician variance analysis

- Process Robustness
  - Process monitor
  - Discharge monitor

- Interpretation and Action Appropriateness
  - Interpretive comments
  - Data mining
  - EMR interface
  - Trigger tools

2016-17 ICE Details

- Submission period: July – October 2016
- Web-based resources from CLMA and CDC
  - Webinars
  - Reading list
  - Published scoring criteria
  - Library of accepted submissions
- International panel of reviewers
- Opportunities to promote the best work
ICE 2015-16 Reviewers

- Julian H Barth, MD
  Consultant in Chemical Pathology & Metabolic Medicine, Leeds General Infirmary

- Julie A. Gayken
  Senior Director of Laboratory Services (Retired), HealthPartners/Regions Hospital

- Michael J Hallworth FRCPath
  Consultant Biochemist (retired), Royal Shrewsbury Hospital

- Brian R. Jackson, MD, MS
  Vice President, Chief Medical Informatics Officer, ARUP Laboratories
ICE 2015-16 Reviewers

- Michael Kanter, M.D.
- Regional Medical Director of Quality & Clinical Analysis, Southern California Permanente Medical Group

- Mary Nix, MS, PMP
- Health Scientist Administrator, Agency for Healthcare Research and Quality (AHRQ)

- Rick Panning, MBA, MLS(ASCP)CM
- Senior Administrative Director, HealthPartners and Park Nicollet Care Group Laboratories

- Tim Skelton, MD, PhD
- Medical Director Core Laboratory & Laboratory Informatics, Lahey Hospital & Medical Center

CDC Seeks & Offers Help

- Reduction in blood culture contamination
- Reduction in blood sample hemolysis in ED’s.
- Pre-analytical practices that improve urine culture results
- Timely and accurate reporting of critical values
- Improved laboratory test selection using clinical decision support (especially due to confusing lab test names)
- Laboratory triggers that improve patient safety
The Five Components Of Submitted Abstracts

- Session Title
- Problem and Background
- Intervention/Study Plan/Measures
- Data Analysis and Results
- Discussion and Lessons Learned

Abstract Deficiencies

- The intervention has not been put into clinical practice
- The study population being analyzed (patients, specimens, etc.) is poorly defined
- Sample size or test period is inadequate to allow a robust analysis of the practice
- Data collection/sampling method is inadequately described
- The intervention isn’t sufficiently defined
- Outcome measure is inadequately described
- The results reported cannot be clearly attributed to the intervention
KnowledgeLab – Executive War College
EuroMedLab

The CLMA-led Innovative Program has Attracted Important Partners
In summary, we can provide Testing-related value in many ways

- Increased patient-centeredness
  - Rapid, accurate and cost-effective diagnosis and monitoring
  - Patient engagement and empowerment
- Increased effectiveness of our care delivery system
- Reduced healthcare burden in our communities
- Expanded, disseminated and utilized evidence

We just must choose to do it!
Final Thought: The Goal

The clinical lab’s mission **should not just be:**

To provide accurate, timely, low cost test results

Although necessary, it is not sufficient

The clinical lab’s mission **should be:**

To rapidly and efficiently enable the accurate **diagnosis** of conditions, the **selection** of appropriate treatments and the effective **monitoring** of health status*

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* Epner, Paul, “Impact of Laboratory Services on Diagnostic Errors,” ThinkLab ’11

QUESTIONS?

For more information, contact Paul Epner at Paul.Epner@ImproveDiagnosis.org