

Laboratory Systems Research: Future Activities

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Presentation Overview

- Research objectives and approach
- Summary of new projects
- CLIAC discussion

Laboratory Systems Research

Goal: Develop a comprehensive research agenda that will drive laboratory medicine quality improvement through research and development of evidence-based practices and standards.

Objectives:

- Guide policy decisions, standards development
- Drive evidence-based practices and quality improvement
- Assess effectiveness/appropriateness of regulatory and voluntary practice standards
- Evaluate testing performance and practices to identify gaps and opportunities for improvement

Laboratory Systems Research: A Collaborative Approach



New Projects FY '2008

- Defining Best Practices in Laboratory Medicine
- Evidence-Based Laboratory Medicine: Quality/Performance Measure Evaluation
- The Clinical Laboratory Report as a Decision-Support Tool
- Evaluation of the Use of Rapid Testing for Influenza in Outpatient Medical Settings
- Developing an Agenda for Laboratory Practice Research Based on the 2007 Institute

Defining Best Practices in Laboratory Medicine

- Continuation of work with Battelle
- National report: update and expand with input from stakeholders and the 2007 Institute
- Best practices evaluation process - expert workgroup with CDC staff to:
 - Refine/develop process methods
 - Pilot test process
 - Evaluate organizational structure to support process
- Laboratory network and expert workgroups: to test process, develop studies, identify and evaluate candidate “best practices”

Evidence-Based Laboratory Medicine: Quality/Performance Measure Evaluation

Question: What evidence-based laboratory medicine quality/performance measures associated with pre- and post-analytical processes and consistent with national health care priorities can be used to improve patient outcomes and public health?

Objectives:

- Develop defined performance/quality measures that can be broadly implemented
- Demonstrate associated impacts (clinical and economic)
- Identify interventions effective in improving performance

The Clinical Laboratory Report as a Decision-Support Tool

Reporting DNA-Based Genetic Test Results Applicable to Heritable Conditions and/or Markers of Drug Metabolism

Question: What genetic testing interpretive result reporting framework provides an effective basis for clinical decision support?

Objectives:

- Identify clinical concepts critical to communicate
- Select DNA-based tests as communication models
- Design reports that integrate essential elements
- Identify/develop supportive educational and information technology resources
- Pilot test and evaluate reports and supportive resources

Evaluation of the Use of Rapid Testing for Influenza in Outpatient Medical Settings

Question: How are rapid tests for influenza used in clinical practice in outpatient settings and what guidance may be needed to improve test use and connectivity with the public health system?

Objectives:

- Determine national scope of outpatient rapid flu test use
- Evaluate integration into the health delivery system including testing & QA practices
- Identify gaps and opportunities for improvement
- Assess linkage with local/state public health systems
- Recommend quality improvement interventions

Developing an Agenda for Laboratory Practice Research Based on the 2007 Institute

Purpose: guidance in planning agenda for future research

Awardee: University of Pittsburgh

Approach - In partnership with the *Assoc for Pathology Informatics* and *Am Society for Investigative Pathology*:

- Identify gaps in laboratory-based health care delivery and performance metrics through:
 - Literature review
 - Needs assessment survey
- Conduct a 3-round Delphi consensus-building process
 - Questions resulting from the 2007 Institute, literature reviews and needs assessment survey
 - Prioritization by web-based surveys
- Validate data and publish a white paper/manuscript

Discussion Questions

- What advice do you have to build upon or expand our current research agenda?
- What additional research questions do you think should be considered?
- Who are key stakeholders you think need to be involved?
- What other organizations might provide resources for this type of research and evaluation?