

UW Clinical Laboratory Initiative News

A Newsletter for Laboratory Professionals, Clinicians, and Policy Makers • January 2005

The goal of the Clinical Laboratory Initiative is to improve patient care and disease surveillance and to prevent medical errors through improved laboratory testing.

2005 Institute for Quality in Laboratory Medicine Conference – April 28-30

CDC has announced the dates for the Institute for Quality in Laboratory Medicine (IQLM) Conference, to be held in Atlanta, GA. The IQLM is a new public-private partnership organization being formed to engage the health care community in improving the use of laboratory tests and services. The IQLM seeks to bring together clinicians, laboratory professionals, patients, manufacturers, government, and accrediting bodies to work on advancing substantial improvements in quality, effectiveness, safety and appropriateness over the broad spectrum of laboratory testing. Sessions in the conference will address: 1) Translating laboratory practice research into practical strategies for improving health care; 2) Perspectives on best practices that have promoted quality healthcare; and 3) Updates on Indicators for measuring the quality of laboratory services. For additional information visit the IQLM Web site: www.phppo.cdc.gov/dls/iqlm/default.asp.

- Objectives of the IQLM are:
- Create an independent public-private partnership that speaks broadly for lab medicine
- Demonstrate labs' role in systematic improvement in health care
- Promote evidence-based lab practices that lead to improvement in quality, effectiveness, and safety
- Provide a forum for collaboration for lab and clinical partners in health
- Support research in design and delivery of effective lab services
- Develop and promote the best indicators for measuring quality of lab services

- Develop sentinel networks of labs that provide regular, factual, information on the state of lab practice
- Present a driving force for continuous quality improvement in lab tests and services
- Recognize best practices in lab medicine

Clinical Laboratory Improvement Advisory Committee Meeting

During their year-end meeting in September 2004, the Clinical Laboratory Advisory Committee (CLIAC) has begun to address non regulatory approaches to improve laboratory services (i.e., ISO standards, Six Sigma, laboratory practice guidelines—NCCLS, CDC, APHL, ASM Cumitechs). For additional information on this topic and other issues addressed by CLIAC, visit their Web site at

www.phppo.cdc.gov/cliac/default.aspx.



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Interim Guidelines for Evaluation and Management of Community-Associated Methicillin Resistant *Staphylococcus aureus* Skin and Soft Tissue Infections in Outpatient Settings (Sept. 2004)

The guidelines were developed collaboratively by the Infectious Diseases Society of Washington, Public Health – Seattle and King County, Tacoma-Pierce County Health Dept., and the Washington State Dept. of Health. They are available for review through the DOH Web site at www.doh.wa.gov/Topics/Antibiotics/providers.htm. For additional information, contact Jo Hofmann, MD, jo.hofmann@doh.wa.gov 206-418-5510, or Jeff Duchin, MD, 206 296-4774, jeff.duchin@metrokc.gov. Additional practice and prescribing guidelines for Acute Pharyngitis, Acute Uncomplicated Sinusitis, Community Acquired Pneumonia, Otitis Media, Acute Uncomplicated Bronchitis, and annual antibiotic resistance data for 2001- 2003 are available on the Web site.

Web Sites of Interest

Mike Haas, Clinical Microbiology Manager, Harborview Medical Center has developed a new Web site for the Puget Sound Medical Microbiologists (PSMM): [Http://staff.washington.edu/mjhaas/Main_Page](http://staff.washington.edu/mjhaas/Main_Page). The site offers notices and meetings, including their “Show and Tell” presentations. For additional information contact Mike at clinmic@u.washington.edu.

Medical Laboratory Observer Web site: www.mlo-online.com (Dec. 2004 issue) has published two articles (“Responsible reporting in microbiology” and When a “good lab goes “bad”: Where do we go from here?), which I encourage every laboratory director/manager and microbiology supervisor to read.

UW Clinical Laboratory Initiative — Studies to Be Initiated in 2005

The university-based model, directed by Dr. Jon Counts, emphasizes assessment of laboratory practice, focused educational intervention strategies, and continuous monitoring of quality to improve laboratory testing that is consistent with consensus standards. The goal of this project is to strengthen critical laboratory testing to 1) improve patient outcome and disease surveillance and to prevent medical errors through systematic improvement in laboratory practice and the laboratory delivery system, 2) enhance communication between laboratories and health care providers, and 3) improve collaboration and coordination between public and private laboratories.

In 2005 the following studies will be initiated:

Clinical Laboratories

A questionnaire survey will be distributed in early 2005 to clinical microbiology laboratories to evaluate the effectiveness of educational intervention strategies that have been initiated since 2001 to improve antimicrobial susceptibility testing. The survey will ask laboratories to provide their assessment of the quality of microbiology and customer service provided by public health, hospital, and commercial laboratories. The survey will study the use of voluntary laboratory practice guidelines and standards by clinical microbiology laboratories

Clinicians

A separate questionnaire survey will be distributed to approximately 5000 physicians (family practice, internal medicine, and infectious disease specialists) to evaluate their use of laboratory practice guidelines in the management of infectious disease. It will also be used to evaluate clinician use of a computerized physician

order entry (CPOE) in their practice setting. In addition, infectious disease specialists will be asked for their recommendations regarding antimicrobial susceptibility testing and reporting as well as their assessment of the laboratory delivery system in WA.

Ready or Not? States Struggle to Prepare for Bioterrorism

Trust for America's Health (TFAH) second annual study of preparedness against public health emergencies (December, 2004) finds that, despite incremental progress, three years after September 11, 2001, there is still a long way to go to protect the American people from a bioterrorism attack. The report examined 10 key indicators to gauge state preparedness and determine America's overall readiness to respond to bioterrorist attacks and other health emergencies. This is the second year in a row that TFAH conducted a review of bioterrorism and public health preparedness, while the federal government's efforts to release performance measures have stalled.

Over two-thirds of states and D.C. achieved a score of six or less. Florida and North Carolina scored the highest, achieving nine out of the possible 10 indicators, and Alaska and Massachusetts scored the lowest, at three out of 10. **Washington achieved a score of six.** Although direct comparisons are difficult because the indicators were modified to reflect the changed expectations of additional time and funding, in this year's report, 34 states and D.C. obtained higher scores, nine scores remained the same, and seven scores declined.

The scores demonstrate continued incremental progress; however, preparedness is still lagging behind goals and expectations. With most states still in the middle range of the scale and no states meeting all of the indicators, there are still

major areas of vulnerability that leave Americans at risk. Overall, the report found that many basic bioterrorism detection, diagnosis, and response capabilities are still not in place.

Some of the report's major concerns include:

- Reduction in public health budgets
- Shifting federal priorities and programs, lack of accountability to the public
- Only six states are recognized as being adequately prepared to distribute vaccines and antidotes
- Only 5 public health labs report sufficient capabilities (facilities, technology, and/or equipment) to fully respond to a chemical terrorism threat, and only 1/3 of states report sufficient bioterrorism lab response capabilities
- Nearly 60% of states do not have adequate numbers of laboratory scientists to test for anthrax or plague
- Two-thirds of states do not track disease outbreak information electronically, causing serious delays in reporting

Hospital Ratings Prompt Shock, Fixes

The federal government is now telling patients whether their local hospitals are doing what they should. For now the effort involves the following diseases: **heart attacks, heart failure, and pneumonia** and asks about lifesaving treatments that everyone agrees should be given but that hospitals and doctors often forget to give. The expectation, though, is that this is just the beginning—other diseases, other treatments, and surgery are next. **Within a few years, individual doctors will be rated as well.** Hospital ratings are being done by Medicare and posted on the Internet at www.cms.hhs.gov/quality/hospital.

Source: *New York Times*, Dec. 25, 2004

The End of the Beginning: Patient Safety Five Years After *To Err Is Human*

Five years ago, the Institute of Medicine (IOM) galvanized the U.S. public and medical community with *To Err Is Human*, its report on medical errors. The report's now-famous finding, that 44,000 to 98,000 Americans die each year as a result of medical mistakes, spawned intense media scrutiny and a flurry of congressional hearings—as well as heightened anxiety among many Americans.

Since the paper's publication in 1999, there has been some, but not sufficient, progress in making health care safer, says Robert Wachter, M.D., professor of medicine and chief of the medical service, University of California San Francisco Medical Center. In "The End of the Beginning: Patient Safety Five Years After *To Err Is Human*" (*Health Affairs* Web Exclusive, Nov. 30, 2004), Wachter, a leading authority on medical errors and author of the book *Internal Bleeding*, assesses the scope of the problem, the impact of the IOM report, and the advancements of the past five years. "At this point, I would give our efforts an overall grade of C+, with striking areas of progress tempered by clear opportunities for improvement," Wachter says.

How Did Health Care Become So Unsafe?

The problem of medical errors has swelled, as technological and medical progress has created a far more specialized, complex environment, both within and outside the hospital, Wachter says. For example, a patient in intensive care may receive hundreds of tests and medications and be seen by dozens of physician and non-physician providers each day. The following forces limit the medical profession's ability to create a system in which patients can feel secure that they will not be harmed by medical mistakes: a mental model focused

more on individual blame than system safety, a reimbursement system that provides no incentives for error reduction, and a structure that often separates physicians from the hospitals in which they practice.

Are We Making Progress?

In an informal survey of practicing hospitalists (i.e., physicians specializing in hospital inpatient care), Wachter found the majority of the group (55%) felt their hospitals had a "culture of safety," with nearly one-half attributing improvements to an overall increase in sensitivity to the issue. To assess progress made to date, Wachter categorized and graded the five major areas related to advancements in patient safety: regulation, error reporting systems, information technology, the malpractice system and other vehicles for accountability, and workforce and training issues.

Regulation: A- Wachter agrees with many hospital leaders who view the Joint Commission on Accreditation of Healthcare Organization (JCAHO) as the most important driver of progress in patient safety. In a health system in which physicians remain highly individualistic and hospitals continue to lack robust financial incentives, regulatory solutions have been the most important early step. Many of these have been common-sense measures; for example, requiring read-backs of patient names and oral orders to improve communications and standardizing the marking of body parts prior to surgeries. While additional regulation is likely, other drivers will become increasingly important, Wachter says.

Error reporting systems: C. Error-reporting systems can be powerful tools, but the results must be used to improve systems or educate providers. They can be particularly valuable when the individuals who submit reports learn that their submissions made a

difference. However, many states and hospitals point with pride to growing numbers of error reports as evidence of improved safety, despite the lack of any organized programs to follow up on reports and turn them into meaningful changes. To translate data into action, new models and greater resources are needed.

Information technology: B- There has been a marked uptick in implementation of clinical information systems, with many good results. There have also been reports of problems, from IT system crashes, to faulty systems that actually introduce errors, to physicians rebelling against computer interfaces that are not user-friendly. While the issue is clearly important to the federal government—as evidenced by the appointment of David Brailer, M.D., as National Health Information Technology Coordinator—hospitals must understand that patient safety is not synonymous with clinical IT, particularly if process change, standardization, and cultural issues are left unaddressed.

The malpractice system and other vehicles for accountability: D+ The malpractice system is broken, Wachter says, but its impact on patient safety, both positive and negative, has been overstated. The lack of accountability for poor performance is of greater importance. While Wachter supports the IOM-recommended shift from individual blame to systems improvement, a safe system must also deal effectively with bad doctors and nurses or with providers who willfully violate reasonable safety rules. This issue raises exceedingly complex questions for providers, patients, and institutions, Wachter says, and few solutions have been offered. “I believe we have made virtually no progress in tackling these exceptionally thorny questions in the past five years,” he writes.

Workforce and training issues: B. In the inpatient arena, an important development has been the advent of hospitalists, who specialize in coordinating care and focus on patient safety. The national nursing shortage, however, has presented a challenge. In the ambulatory arena, a growing issue is the demoralization of many primary care doctors and a resulting absence of leadership on safety. Efforts have been made to enforce limits on residents’ duty hours, a reform that will ultimately improve safety by decreasing fatigue. In addition, more specialty medical boards are now requiring periodic recertification. However, two training strategies that received much attention after the IOM report—teamwork and simulation—have been largely neglected, despite their potential to improve performance and create a safer, more collaborative culture.

Conclusion

Wachter believes that overall efforts to improve patient safety earn a grade of only C+, primarily owing to missed opportunities. Institutions are still generally underinvested in patient safety. The federal government’s investment in safety through the Agency for Healthcare Research and Quality, for example, is about 1/500th of its general medical research investment, as reflected in the budget of the National Institutes of Health. Going forward, the right mix of financial, education, research, regulatory, organizational, and cultural activities will be needed to make health care significantly safer.

Citation: The End of the Beginning: Patient Safety Five Years After *To Err Is Human*, Robert M. Wachter, M.D., *Health Affairs* Web Exclusive, November, 30, 2004

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