Value of Clinical Laboratory Services in Health Care

Introduction

Clinical laboratory professionals and the services they provide contribute to maximizing the effective delivery of care in today's complex healthcare system. Appropriate utilization of clinical laboratory services enhances the ability of clinicians to make evidence-based diagnostic and therapeutic decisions for their patients using the optimal level of resources and minimizing overall healthcare expenditures. Clinical laboratory services are the most cost effective, least invasive source of objective health information in disease prevention and diagnosis, improving patient outcomes, assuring patient safety, and fulfilling essential public health surveillance functions. Thus, clinical laboratory professionals and the services they provide are essential in providing care that is safe, effective, patient-centered, timely, efficient, and equitable.

Background

Within the United States, laboratories are certified by the Centers for Medicare and Medicaid Services (CMS) under the CLIA (Clinical Laboratory Improvement Amendments) program. The hundreds of thousands of certified laboratories registered under CLIA are responsible for performing billions of laboratory tests annually. As the healthcare delivery system continues to evolve and more individuals seek healthcare, the role of clinical laboratory services will become increasingly more vital. Clinical laboratory testing will continue to be a significant component of the healthcare market, due to factors such as the continued improvements in technology, the development of new tests which are more specific to certain diseases, an aging patient population, and expanded consumer access to healthcare. As a result, clinical laboratory information will continue to have a major impact on evidence-based, decision-making strategies utilized in healthcare and public health.

Rationale

Impacting diagnosis, identifying abnormalities: Laboratory professionals produce accurate, sensitive and specific information using the most current technologies to guide clinical decision-making. It is the role of laboratory professionals to inform physicians about which tests have the highest effectiveness in given clinical conditions. Through this partnership, the overall cost of quality care is optimized.

Laboratory information has profound impact on patient diagnosis and prognosis. Tests, whether classified as screening or diagnostic, are essential elements of protocols used to diagnose and manage specific diseases and conditions. Testing algorithms, designed collaboratively with clinicians, are used to guide the diagnostic process, obtain the right information at the right time for a given patient, shorten the time to diagnose, decrease the length of stay and improve utilization in health care. These algorithms assure appropriate patient outcomes by assisting in rapid identification and assessment of disease severity, and creation of a therapeutic plan.

Patient Care Management: The ability of a patient care provider to consistently make timely and evidence-based decisions that impact care management is directly related to the availability of accurate, reliable and timely laboratory testing. Examples that illustrate the laboratory's value and ability to be the primary enabler of therapeutic efficacy include:

- Monitoring the effectiveness of parenteral nutritional treatment
- Ensuring proper dosing of medication
- Monitoring harmful effects of therapeutic drugs
- Identifying the causes of infection
- Determining effective antibiotic therapy
- Monitoring the effectiveness of cancer therapy
- Providing real-time decision support

Clinical laboratory services provide the information required by a physician to start, adjust or discontinue a course of treatment. This allows for the most appropriate, cost effective use of medications and other therapies, and allows the patient to be treated at the most appropriate level of care for the most appropriate period of time. Without laboratory information, these decisions would be compromised.

Downloaded from http://hwmaint.clsjournal.ascls.org/ on October 14 2026

Patient Safety and Impacting Patient Outcomes: Effective use of laboratory services prevents medical errors, assures patient safety and identifies threats to the public. Examples that illustrate this include:

- Bioterrorism surveillance
- Providing testing prior to the initiation of medical interventions which determines the ability of the patient to undergo those treatments
- Assessing the safety of the national blood supply and tissues for transplantation
- Testing that aids in the prevention, identification and tracking of hospital-acquired infections, sexually transmitted disease, and infectious disease epidemics.

Clinical laboratory services are a vital component of ensuring optimal outcomes for all patients accessing health care, whether for simple situations or for complicated, potentially life threatening conditions - including end-of-life care. Patient outcomes are influenced by the laboratory professional's ability to provide the needed information for clinicians to monitor the effectiveness of ongoing treatments and therapies. Laboratory services assure that the health and wellness of patients with chronic illness are managed appropriately and that complications are prevented. As an example, diabetics rely on laboratory support to monitor the long-term effectiveness of their home monitoring systems. Laboratory professionals provide vital information to assist clinicians in making decisions that affect quality of life for their patients.

Patient outcomes are improved through scientific data assessment provided through laboratory services to measure quality performance of physicians and health care provider organizations, establishing care pathways, and enabling research to introduce innovative change into medicine and public health.

Positions

1. ASCLS believes that clinical laboratory services are essential components for ensuring optimal patient health outcomes and enabling safe, effective, patient-centered, timely, efficient, and equitable care.
2. ASCLS believes that interaction between laboratory professionals and healthcare providers establishes the foundation for appropriate utilization of clinical laboratory services and results in efficient and effective clinical decision-making, allowing for improvement in health outcomes.
3. ASCLS believes that laboratory professionals are essential in the ongoing innovation of advanced testing methods, evidence-based processes, information delivery and disease prevention strategies to lead improvements in healthcare and reduce unnecessary spending.
4. ASCLS believes that laboratory professionals play an essential role in wellness and prevention by providing clinical data and educational information to healthcare providers and the public and by identifying risk factors or predisposition to disease to allow for early intervention strategies.
5. ASCLS believes that laboratory professionals must meet the high standards necessary to provide quality services and protect the public's health. To that end, ASCLS supports the continued efforts to establish, in all states, licensure (or personnel standards) of clinical laboratory professionals as a means of assuring that only appropriately educated and qualified individuals are engaged in the total testing process.
6. ASCLS believes that efforts must continue to develop relationships with other healthcare provider organizations, laboratory professional associations and governmental agencies to assure that there is an adequate laboratory workforce to meet the increasing demands of a changing healthcare environment.

References

1. The Value of Laboratory Testing, Advance for Administrators of the Laboratory, 2011;19(4):22
2. Value of Laboratory Screening and Diagnostic Tests for Prevention and Healthcare Improvement, Lewin Group, Inc., Sept 2009.
3. Value of Clinical Laboratory Services, American Clinical Laboratory Association, April 23, 2011.
4. Walcott, J., Schwartz, A., & Goodman, C. Laboratory Medicine: A National Status Report , Prepared for the Centers for Disease Control and Prevention, May 2008.
5. Forsman Rodney S. The Value of the Laboratory Professional in the Continuum of Care. Clinical leadership and management review, 2002;Nov/Dec:370-3.
6. Forsman Rodney S. Why is the laboratory an afterthought for managed care organizations? Clinical Chemistry. 1996;42(5): 813-6.
7. ASCLS Scope of Practice Position Paper, 2001.

This position paper was approved by the 2012 American Society for Clinical Laboratory Science House of Delegates.

Downloaded from http://hwmaint.clsjournal.ascls.org/ on October 14 2026