

Introduction to Laboratory Informatics: Life of a Specimen

Who is Involved in Laboratory Informatics?

Everyone in the laboratory and even some people outside of the laboratory have important roles to play in laboratory informatics. The extent of the role and specific responsibilities will vary. Laboratory informaticians are formally or informally subject matter experts in the application and functionality of informatics in the laboratory. Informaticians ensure quality data and efficient processes within the information flow supporting the laboratory functions. They conduct and manage the steps of laboratory testing and laboratory information management system or LIMS processing. This includes the tracking of physical specimens through the laboratory, laboratory test scheduling, and the electronic exchange of laboratory data with data partners. The laboratory director, managers, and administrators ensure the sustainability and functionality of laboratory operations including budgeting and funding policies and procedures as it relates to informatics systems. They also oversee or support the laboratory operations to manage human resources, billing for laboratory services, and implementation of security programs to meet regulatory requirements and standards. All of these tasks support the laboratory in their daily operations. Information technology, or IT, and information systems, or IS support, and security personnel are responsible for the core IT hardware, software, and services from a maintenance and troubleshooting standpoint. They also help to ensure the integration of the LIMS with third-party data systems and ensure that information security meets regulatory requirements and established standards. Other laboratory professionals are users of the information systems and ensure that standards for laboratory testing, quality control, safety, and training are met. These individuals make up the majority of stakeholders in the laboratory. Roles may include testing personnel, quality managers, laboratory safety personnel, and training personnel.