

Deploy LIMS to fast-track the healthcare system

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LIMS deployment can meaningfully reduce the processing and manpower, reducing risks and fast-tracking the healthcare system



The alarming gallop of COVID-19 cases is disrupting healthcare systems like never before. Governments and organisations globally are scaling up COVID-19 testing to ensure people infected with the virus are traced and treated. The country is experiencing a spike in demand for medical attention while encountering workforce challenges and error-prone healthcare machinery. Unprecedented supply challenges, low testing turnaround time, lack of laboratory integration, manual collection and processing of patient data are some of the biggest hurdles that the industry is facing today.

For nationwide testing success, the urgency to implement reliable and scalable testing workflows is clear. Software used to manage the workflow, as well as to drive data integrity by enabling automated transfer is critical to success. Challenges arise when the system used to request the test are not connected to the laboratory, and manual data transfer at any point causes delays and potential errors. As testing centres are getting overwhelmed with the number of samples collected daily, delays in releasing test reports can pose an immense threat to the delivery of timely healthcare assistance to the patients.

Laboratory Information Management System (LIMS) with established connectivity across instruments and systems is the need of the hour. Instrument connectivity is often the most time consuming and technically challenging component of a laboratory setup or for LIMS implementation. For laboratories on the front line of the COVID-19 fight, LIMS have proved to be instrumental. Whether running a diagnostic laboratory, academic research focussed on developing a vaccine or treatment for COVID-19, or a laboratory supporting the vaccine manufacturing process, an end-to-end solution can significantly improve lab speed, quality, and productivity.

Thermo Fisher Scientific offers pre-configured LIMS solutions to accelerate testing and implementation. The SampleManager LIMS software offers a complete, comprehensive solution for lab, data, and process management, and is one of the most widely deployed LIMS in the world. The SampleManager LIMS software is developed, designed, and supported in an ISO 9001 environment and enables users to have a solution that is built for compliance and data integrity.

The Thermo Scientific SampleManager LIMS software COVID-19 Testing Solution comprises functionality for high throughput COVID-19 testing labs. This solution manages the complete COVID-19 testing workflow, from sample collection to results reporting. The solution creates an uninterrupted flow of sample accessioning, nucleic acid extraction, real-time PCR, 96-well and 384-well plate preparation, robust report management, sample control management and more. This pre-configured solution can be quickly deployed and help in increasing laboratory throughput by eliminating data management bottlenecks, human errors, and reducing the total turnaround time. Laboratories equipped with LIMS have constantly performed the diagnostics quicker with reducing turnaround times and significant impact on reducing the quarantine period of suspected patients as well as facilitating proper treatment for COVID-19 positive patients.

Streamlined vaccination cycles are also a big contributor to the increased adoption of cloud-based LIMS among healthcare institutions. Large volumes of data generated due to the rise in inpatient cases have increased workflow management complexities, particularly compliances that LIMS can help simplify. As healthcare institutions are ramping capabilities to test and vaccinate their population, LIMS deployment can meaningfully reduce the processing and manpower, reducing risks and fast-tracking the healthcare system.

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