

# RUNNING A MODERN LABORATORY WITH LIMITLIS®

**WHITE  
PAPER**

## 01 INTRODUCTION

Today's laboratories face many challenges in their day-to-day operations. Staffing shortages, pressure to reduce turnaround times (TAT), time intensive certification audits, insufficient sample monitoring methods, and billing complications due to incomplete or inaccurate information all must be managed while staying fully compliant with CLIA and HIPAA regulations. For a modern clinical laboratory to remain competitive, adopting a laboratory information system (LIS) has become an economic necessity. The electronic sample and testing management provided by a LIS is essential for meeting regulatory guidelines, providing timely and accurate test results and test result interpretations to physicians, and thriving in the clinical testing market. It is also essential in avoiding extra work and potential negative findings during audits. Identifying your laboratory's needs and challenges will help you in determining which LIS fits your specific requirements.

## 02 GETTING STARTED

To get you started, consider whether you or anyone in your laboratory has ever said:

- A** I can't track progress of my samples through various tests in the lab. Are all of the tests completed?
- B** Entering billing data and sending faxes is taking too much time away from lab work.
- C** Who performed quality checks on this instrument and when?
- D** Where is the final test result report? Did we ever send it to the client?

**“PAPER RECORDS AND SIMPLE SPREADSHEETS ARE NO LONGER SUFFICIENT TO MANAGE MY LABORATORY AND ITS OPERATIONS. I NEED SOMETHING MORE TO EFFECTIVELY SERVE MY CLIENTS.”**

## 03 WHAT IS LIMITLIS®?

LimitLIS® is a modern, automated, and cloud-based laboratory information system designed to manage samples and test orders; track samples and test results in the lab; publish results and reports to your lab's clients in their preferred formats; and integrate directly with analyzers, EHR providers, and billing providers. LimitLIS® centralizes all of your laboratory data and operations information and consolidates it in a single solution accessible to your lab staff and your clients via a portal. Perhaps most importantly, LimitLIS® is built on modern software architecture to offer a streamlined, pleasant lab user experience plus a professional appearance to your customers accessing the system via the Client Portal module. RURO designed LimitLIS® to resolve a multitude of issues impacting your daily laboratory operations.

## 04 LIMITLIS® ADDS VALUE

- 1 Keep valued clients and grow your client base by achieving faster turnaround times (TAT) and delivering reports instantly.
- 2 Improve quality, efficiency, and accuracy by directly integrating instruments.
- 3 Reduce costs by choosing an integrated RCM provider.
- 4 Reduce staffing costs with automated billing and EHR integration and automated system notifications.
- 5 Increase profits by adding and retaining customers who value a modern, professional laboratory
- 6 Manage your laboratory more effectively using the LimitLIS dashboard and built in business logic tools

## How LimitLIS® Helps Reduce Costs

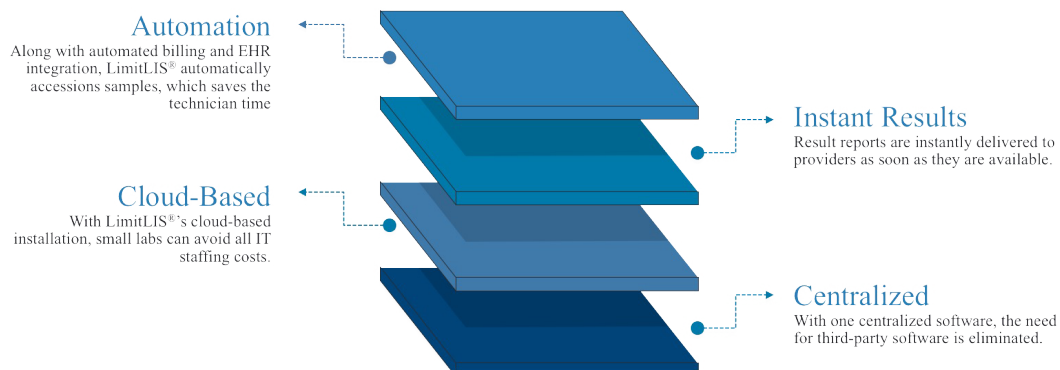


Figure 1: Reducing operational costs with LimitLIS®

Figure 2: How LimitLIS® Helps Increase Client Satisfaction and Improve Data Quality

LimitLIS Feature	Benefit
<b>E-requisitions and test order validation</b>	Validation at the time of ordering ensures orders are complete and free of errors with correct billing data, improving cash flow.
<b>Automatic QC and Levey-Jennings charts</b>	LimitLIS® automatically flags test results that exceed configured QC ranges, facilitating CLIA compliance.
<b>Direct instrument, EMR, billing provider integration</b>	Direct integration eliminates manual data transcription errors.
<b>Sample monitoring</b>	Configurable, real-time email alerts focus staff and customers on areas of need more quickly.
<b>Easily accessible audit logs for every record</b>	Compliance with 21 CFR Part 11.
<b>Client Portal</b>	Providers can retrieve results as soon as they are available, improving turnaround times (TAT).
<b>Role based access control (RBAC)</b>	Easy to use, simplified UI is tailored towards the needs of each user, eliminating visual clutter and allowing staff to find what they need faster.
<b>Patient Portal</b>	Individual patients can securely login and monitor their test results from anywhere in the world.
<b>Client-specific result reports and test panels</b>	Reports and test panels can be configured per client, improving physician satisfaction.
<b>Powerful configurable ad-hoc and reusable saved queries</b>	Data in LimitLIS® can be easily queried, processed, and displayed in user configurable reports and graphs, increasing operational awareness and reducing the time needed to retrieve data.
<b>Electronic patient and physician signatures</b>	Capture and storage of physician and patient signatures reduces paperwork for physicians while remaining compliant with federal regulations.
<b>Rule-based reflex tests</b>	Automatic ordering of follow-up tests may improve the accuracy of diagnoses, patient care, and laboratory efficiency.
<b>Automatic rule-based accessioning</b>	Reduces the number of keystrokes needed to accession a sample, improving turnaround times (TAT).

# 05 ANATOMY OF LIMITLIS®

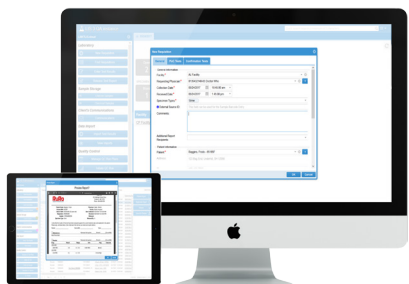
In this section, we highlight a few of the key features of LimitLIS®. A complete listing of all features is available at [www.limitlis.cloud](http://www.limitlis.cloud).

## 1 Patient/Client Portal

LimitLIS® features secure portals for your own clients and/or individual patients, enabling those parties to perform various actions in LimitLIS® via permission-controlled access. Individual patients with system access will login and see only their own test results. Your clients with login access can create orders and submit information directly, minimizing time wasted on manual data entry and minimizing errors. In addition, your clients may view their test results immediately after your lab approves them for release. The time it takes to transfer information, as well as the risk of rework and even loss of customers due to data inaccuracy, is reduced with LimitLIS®.

## 2 Laboratory Dashboard

LimitLIS® laboratory management dashboard features easily understood, key analytical data displays and charts to help you manage your laboratory business. Staff testing volumes, laboratory turnaround time performance (TAT), sample volumes, and EMR/billing report submission statuses are examples of what your lab may select for its home screen dashboard content in LimitLIS®. With these tools, laboratory managers can gain better insight and make decisions to improve the performance of their lab while identifying opportunities to reduce expenses.



## 3 Paperless E-Requisitions

LimitLIS® helps your organization eliminate waste and transcription errors through its paperless e-requisition feature. Your clients submit requisitions securely through the LimitLIS® Client Portal directly to your lab, entering data such as patient information, billing details, ordered tests, and point-of-care test results. LimitLIS® can be configured to hide unnecessary data types and workflows to make its user interface fit your lab and clients.

## 4 Sample Tracking & Storage

Receive samples in the laboratory; assign sample accession numbers; design and print linear, 2D, and RFID barcode labels; and track samples through your entire testing process with LimitLIS®. Once testing is completed, store samples in perpetuity or for a defined timeframe using our Storage Module. With LimitLIS®, lab staff will always know where their samples are at any given moment. LimitLIS® additionally posts a system alert highlighting samples that are past their expiration date, allowing you to review and discard samples kept past their storage deadline. Never struggle with a cluttered freezer again!

## 5 Test Results Acquisition

LimitLIS® supports many types of data entry. With unidirectional and bidirectional integration support, analyzers receive test orders from and report test results back to LimitLIS® automatically. If the auto-verification option is enabled, normal results are automatically finalized, requiring analysts to simply monitor for exceptions or abnormal results. LimitLIS® can additionally process instrument result file uploads or test results can be entered manually by your staff.

## 6 Integration

LimitLIS® supports direct unidirectional and bidirectional integration with a variety of EHR and billing providers through the HL7 Messaging Standard. The HL7 interface designer ensures that LimitLIS® will be able to integrate with your systems. Using bidirectional EHR integration, LimitLIS® receives test orders from your EHR, creates requisitions, and returns results back to the physician and/or EHR as soon as they are released. Integration with billing providers ensures that the patient or their insurance company are automatically billed for completed tests, improving cash flow.

## 7 Quality Control & LJ Charts

LimitLIS® Quality Control Module tracks control sample lots, lot expiration dates, and equipment used in each quality control run with support for both qualitative and quantitative QC result tracking. QC runs can be re-run when out of range and test results that exceed configured QC ranges are automatically flagged for verification. Lab Managers can quickly generate Levey-Jennings charts by specifying a timeframe for the report and filtering by analyte or instrument.

## 8 Scalable, Easy to Use, & Mobile Friendly

LimitLIS® is a cloud-based solution that will grow with your lab and can be accessed anywhere, on any internet-enabled device, by your staff and clients. Your lab saves money because local IT resources and staff are not required for LimitLIS®. Simply enter the URL, login, and start using the system.

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## INTERESTED IN LIMITLIS®?

For additional information on LimitLIS®, please contact RURO at (888) 881-7876 or visit our website at [www.limitlis.cloud](http://www.limitlis.cloud).

A related Features & Benefits document for LimitLIS® is available on [www.ruro.com](http://www.ruro.com) or at [www.limitlis.cloud/product-tour](http://www.limitlis.cloud/product-tour).



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