

Streamline laboratory workflows with automated processes

Oracle Health laboratory



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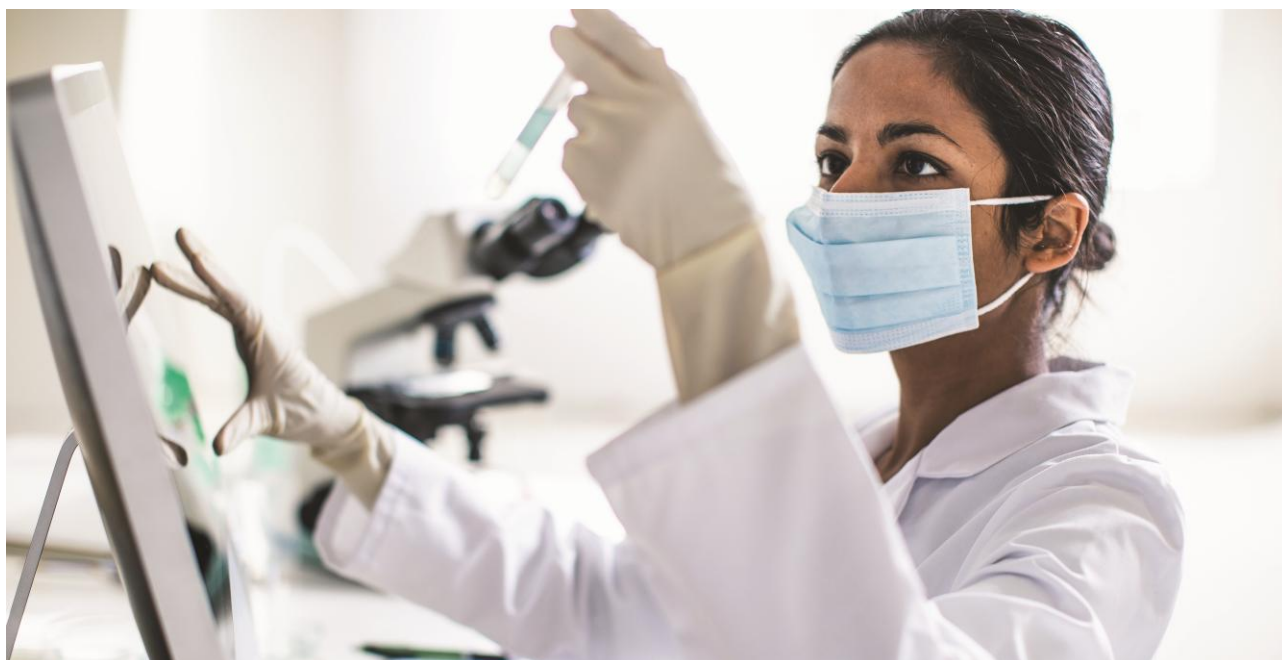
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Help drive efficient, accurate laboratory workflows

Laboratories also face challenges, such as turnaround times, throughput and capacity, high costs, and manual workflows. These challenges can expend additional time and effort and prevent laboratory professionals from performing at their highest levels of expertise. Automated solutions can help limit manual processes and support clinical and operational standardization by streamlining routine maintenance, quality control, advanced sample handling, and data analysis.¹ Oracle Health laboratory solutions support clinicians in obtaining clinical findings that help inform the diagnosis and management of a patient's condition with efficient laboratory results, helping them make informed care decisions.



Enhance anatomic pathology diagnostic accuracies

Anatomic pathology laboratories are under mounting pressure from multiple fronts: increasing service demands, evolving techniques, and strict regulations.² They must manage higher biopsy volumes, comply with stringent cancer case reporting guidelines, and accelerate turnaround times to support effective clinical management.² Oracle Health Anatomic Pathology transforms how laboratory staff manages and tracks pathology cases, enabling pathologists to efficiently deliver precise reports for timely patient follow-up and treatment.

Oracle Health Anatomic Pathology uses barcode scanning and item matching for various steps in the workflow. Our barcode scanning feature streamlines the laboratory process,

¹<https://www.smartbrief.com/original/labs-can-thrive-in-the-face-of-challenges>

²<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3074674/>

limiting the risk of errors and enhancing productivity. In addition, our solution uses synoptic worksheets for reporting cancer, which enables the capture of discrete results for each field within the worksheet, providing a comprehensive and detailed record of the results.

Our solution also offers the ability to incorporate images in reports and print image-enhanced charts to boost reporting. A printed image-enhanced chart can be used with patients to explain, educate, and discuss the pathology result, course of treatment, and provides a visual, engaging way to present results. Moreover, Oracle Health Anatomic Pathology supports integration with a variety of devices, such as cassette engravers, stainers, digital pathology image management systems, and cameras. These integrations enable you to leverage your existing equipment and infrastructure, helping drive efficiencies.



Optimize blood bank operations

In today's fast-paced and highly regulated blood bank environment, maintaining comprehensive oversight of the entire transfusion process is crucial. This oversight supports safe management of blood products from receipt to final disposition and helps facilitate thorough recording, review, and verification of patient and product testing results. Oracle Health Blood Bank empowers blood bank technologists to accurately record patient and product testing results and seamlessly track blood products from receipt to final disposition, supporting the delivery of safe, reliable blood products to patients.



Our solution enables recording, reviewing, and verifying test results, facilitating dispensing blood and blood products to patients for the treatment and prevention of a disease or condition, and creating reports to provide an overview of blood bank activity.

Oracle Health Blood Bank

- Provides multi-location inventory management, including shipping, transferring, and integrating with blood tracking systems, helping provide timely care to patients with critical needs
- Sends alerts to blood bank technologists to help identify errors and patient/unit mismatches, helping limit errors and enhance care quality
- Offers a blood bank inventory tracking interface, compatible with Haemonetics BloodTrack, driving efficiencies in stocking remote inventory devices for transfusions
- Provides reporting with an overview of blood bank activities, helping identify workflow improvements

“We did a project with Oracle Health to look at our blood bank and our blood utilization. Today, we have rules in place for how blood can be ordered, and we have saved a tremendous amount of money (over the \$2 million range!), just from looking at that product and how we could improve our algorithms.”

Linda Reed, Vice President, Information Technology and Chief Information Officer

St. Joseph's Regional Medical Center

Enhance specimen quality and patient safety

The biggest challenge faced by clinical laboratories with specimen collection is maintaining specimen quality throughout the process of specimen collection, preservation, and transportation. For any diagnostic test to produce accurate and reliable results, specimen quality is crucial and depends on the time spent between collection and processing, temperature maintained during transportation, and effectiveness of the transport preservative.³ Oracle Health Bridge Specimen Collection promotes patient safety by positively identifying patients before specimen collection with positive patient identification

³<https://www.clinicalab.com/increased-production-capacity-for-specimen-collection-will-help-clinical-labs-meet-high-testing-demands-27092>



(PPID) and confirming specimens with positive accession identification (PAID) to minimize errors.

Oracle Health Bridge Specimen Collections offers a range of features to enhance the specimen collection process, including barcode scanning to provide PPID, which limits patient identification errors. With remote label printing at the bedside, clinicians can positively identify specimens, limiting redraws due to labeling errors.

Additionally, our solution:

- Provides near real-time order updates at the point of care through an EHR-agnostic interface, helping streamline the specimen collection workflow and enhance care quality
- Provides access to collection list information, supporting informed care decisions
- Offers compliance reports to provide quality assurance of personnel aggregated data to act on specimen collection errors, helping enhance the specimen collection process

Streamline laboratory operations

Organizations struggle with fragmented data systems, preventing clinicians from accessing comprehensive patient health information. This fragmentation often leads to delayed diagnoses, redundant testing, and administrative inefficiencies. Oracle Health General Laboratory drives operational efficiencies by streamlining workflows, enabling laboratory staff to accurately provide and evaluate test information.

Oracle Health General Laboratory offers features to enhance efficiencies and accuracy of laboratory operations. One key feature is the auto-verification of results from interfaced instruments based on site-defined parameters. This feature helps minimize turnaround times and drive operational efficiencies, enabling laboratories to process results timely and effectively.

Oracle Health General Laboratory also supports clinical validation to route results to a queue for a secondary review before the result is released outside the laboratory, helping enhance the accuracy of diagnostic tests by thoroughly reviewing and validating results before being shared with clinicians. Our solution provides customized reference ranges to support relevant ranges for the patient population, enabling accurate interpretation of results.

The quality control system in Oracle Health General Laboratory monitors analytical systems and detects statistically significant errors, promoting reliable test results, which is critical for making informed clinical decisions. Our solution also includes turnaround time monitoring, which enables clinicians to proactively observe pending tests and help optimize turnaround times, helping limit delays and enhancing overall efficiencies of laboratory operations.



Additionally, Oracle Health General Laboratory includes features to support revenue cycle management and integration with reference laboratories. For example, our solution captures procedure charging events during the result verification process, helping drive revenue opportunities and support accurate billing. The integration provides the ability to send orders to a reference laboratory and receive results through the interface, driving operational efficiencies with the integration of laboratory testing results.

Streamline laboratory outreach operations

Laboratory outreach faces multiple challenges, including staffing shortages and rising costs for laboratory equipment, supplies, and technology. Additionally, laboratory-specific regulatory and compliance requirements, along with coding and billing complexities, create further obstacles for outreach operations. Oracle Health Laboratory Outreach streamlines and monitors workflows for couriers, community providers, supply distribution, and phlebotomy departments by providing a single source of operational data to help optimize workflows.

Oracle Health Laboratory Outreach features a mobile application that provides couriers an electronic route sheet against which they can document the activities performed at each stop, as well as any problems encountered at the stop. Additionally, Oracle Health Laboratory Outreach provides supply management features that enable tracking the use of supplies provided to affiliated/unaffiliated providers and manage the laboratory's supply inventory.

Our solution provides laboratory-specific workflows for documenting inbound and outbound calls, assigning, and tracking affiliated/unaffiliated providers' requests for service, including callbacks, courier, phlebotomy, test-add and supply requests, customer complaints and problems, and custom request types that requesters create and manage.

Oracle Health Laboratory Outreach helps enhance laboratory's outreach phlebotomy operations by providing an electronic method for tracking standing orders for skilled nursing facilities and home collections. Our solution assigns phlebotomists' daily draw schedules and generates requisitions, collection lists, and renewal letters for expiring orders, as well as dispatches phlebotomists for unscheduled draws. Additionally, Oracle Health Laboratory Outreach manages personnel and resources and collects required patient demographic and billing information before collection.



Streamline molecular diagnosis and genomics sequencing



Genomic testing is a complex process involving multiple steps and devices, with many complex data sets that must be managed from the time the specimen is received until the final report is rendered. Oracle Health Laboratory Sequence revolutionizes molecular diagnostics, cytogenetics, and gene sequencing with a comprehensive laboratory information management system (LIMS) that helps drive efficiencies and accuracy and facilitates security of the genetic testing processes.

Oracle Health Laboratory Sequence supports complex workflows by enabling customization of laboratory processes and embedding logic to help automate tasks achieved through various features that work together to streamline laboratory operations. For instance, Oracle Health Laboratory Sequence automates data entry and transfers data between laboratory devices and software in near real time to help drive efficiencies and accuracy. Oracle Health Laboratory Sequence embeds complex decision points into workflows, helping laboratory staff make informed decisions and perform tasks efficiently.

Our solution provides flexible platemap documentation, including customizable fill patterns, entry of plate map dimensions, and plate identification, enabling clear visual representation of sample and control placement across the plate to support accurate data entry and provide traceability. Additionally, Oracle Health Laboratory Sequence offers configurable reports that can be built as a template by inserting different report sections, such as order details, variant data, and auto texts, to streamline the clinician's workflow. This level of customization enables laboratories to tailor their workflows to meet specific needs and requirements.

Oracle Health Laboratory Sequence also features multiple layer review queues that support accurate results and electronic signature prior to final report verification, helping enhance the result and report accuracy, compliance, and data integrity. Furthermore, our solution provides application programming interfaces (APIs) for external systems, such as bioinformatics pipelines, to interact with it for near real-time data access and enhanced data integration, workflow efficiencies, and data accuracy.

Our solution provides analytical reports for orders, results, reports, turnaround time, reagent inventory reports, and control inventory reports, which enable laboratory supervisors to manage the laboratory workload, enhancing operational efficiencies and supporting informed decisions.





Drive workflow efficiencies in microbiology laboratories

Microbiology laboratories continue to rely heavily on manual processes due to slow automation adoption, creating workflow inefficiencies and staffing difficulties. Oracle Health Microbiology equips microbiology laboratories with automated processes and provides reporting features that help limit medical errors and drive staff efficiencies.

Oracle Health Microbiology uses an electronic work card to streamline organism work up by enabling comprehensive documentation of culture information, including growth patterns, biochemical observations, and susceptibility results, enhancing efficiencies throughout the microbiology laboratory workflow.

Our solution features an automatic no-growth capability, which issues no-growth reports automatically and releases reports when no growth has been seen on a culture to enhance the microbiology workflow. This automated process also helps to limit manual errors and enhance productivity in the laboratory.

Oracle Health Microbiology offers online reporting capabilities that generate antibiograms, statistics, historical data, and infection control reports. These reports help identify areas for workflow improvements, enabling laboratories to optimize their processes and make data-driven decisions.

Oracle Health Microbiology provides interfaces to automated instrument lines, including BD Kiestra and Copan WASPLab, to help drive efficiencies in microbiology workflows. By integrating these instruments, laboratories can streamline their workflows, limit manual labor, and enhance overall efficiencies, ultimately leading to quality patient care.



Facilitate efficient laboratory sample management

Effective sample receipt and tracking throughout the testing lifecycle is fundamental to laboratory success. Process disruptions can compromise sample integrity, affect results accuracy, and threaten the laboratory's core objectives, making efficient sample management essential.⁴ Oracle Health Specimen Management drives operational efficiencies by enhancing specimen collection and tracking workflows to enable laboratory staff to collect and process specimens.



Oracle Health Specimen Management enables the tracking of containers as they are put into storage and processed through a robotics line, enabling laboratory staff to locate specimen containers for repeat testing or add-on orders, which in turn streamlines workflows. By having a clear and efficient solution in place, laboratory staff can efficiently manage specimens to limit the risk of errors and enhance overall productivity.

Our solution's generation of aliquot containers enables separate processing and tracking of specimens, helping drive efficiencies by enabling laboratory staff to process specimens in a way tailored to their specific needs. The collections resolution feature is available to limit unnecessary patient draws and the manage the add-on order workflow helps enhance patient care by limiting the need for repeat draws and minimizing delays in testing.

Oracle Health Specimen Management also provides the ability to document receipt of specimens collected in multiple acceptable containers through alternate containers, helping enhance documentation accuracy by capturing and recording with all relevant information. The foreign accession feature provides the ability to take a specimen container identifier of a container collected from an external organization and use it as the primary accession, limiting relabeling and helping drive efficiencies.

Support timely and accurate transfusion management

Blood transfusion is a complex, multi-step process that involves coordination across various professionals as well as the donors and recipients themselves. The many steps result in several risk points. Throughout the process, mistakes may be made that put patients' lives at risk.⁵ Most transfusion errors occur at patient bedside and are attributed to either phlebotomy error or failure of ward staff to correctly identify the patient and/or unit before starting a blood transfusion.⁶ Oracle Health Transfusion Administration promotes patient

⁴<https://www.linkedin.com/pulse/overcoming-challenges-laboratory-sample-management-alex-anderson/>

⁵<https://pmc.ncbi.nlm.nih.gov/articles/PMC3935404/#:~:text=Transfusion%20is%20a%20complex%20multistep,else%20is%20responsible%20for%20safety>

⁶ <https://pmc.ncbi.nlm.nih.gov/articles/PMC5850694/#:~:text=Linden%20et%20al.,before%20starting%20a%20blood%20transfusion>

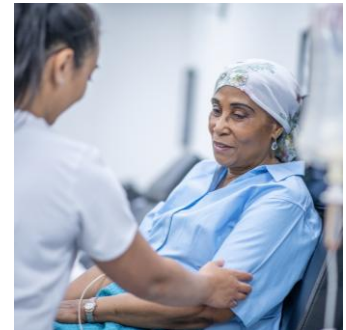


safety by positively identifying patients and validating the administration of blood products using barcode technology at the bedside, limiting identification errors.

Oracle Health Transfusion Administration helps clinicians identify the patient and validate the correct blood products are administered. To help limit identification errors, before a transfusion can begin the transfusionist scans the:

- User identification badge
- Patient's wristband barcode
- Blood bank product component label
- Blood bag barcode

Oracle Health Transfusion Administration validates transfusion orders by scanning blood product labels and comparing them to patient orders, facilitating patients receiving the correct blood products. At transfusion completion, staff must scan the patient's wristband barcode, unit number, and product code on the blood bag. Our solution can also require volume documentation to capture complete transfusion information.



Our solution identifies and documents potential administration errors to support process improvements. Throughout the transfusion process, it provides reminders and warnings about transfusion start times and vital signs to limit errors and standardize workflows. For operating rooms and scenarios involving multiple blood products, the multi-unit transfusion feature enables staff to pre-load multiple products into our solution, streamlining the workflow.

Oracle Health Transfusion Administration provides comprehensive reporting that provides managers with detailed transfusion activity information. Solution-level reports deliver scanning compliance data and patient/user activity, while transfusion administration reports include barcode utilization, transfusion summaries, detailed transfusion records, and vital sign information.



Conclusion

Oracle Health laboratory solutions help optimize laboratory operations and laboratory data analysis, enabling seamless integration with our EHR. Our solutions help limit the manual steps in the lab workflow, making information easy to share across the care team.

Find solutions for everyday laboratory challenges

Explore now

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