



## The Power of Process™ in Action

### Sacred Heart Hospital Adopts Automation To Make Lab Testing Safer, Faster and More Cost Effective

#### Laboratory Profile

- Sacred Heart Hospital, Pensacola, Florida
- 431-bed acute care facility
- Operates 24 hours a day
- Performs 1.5 million tests annually
- Utilizes a Power Processor, CHEMXpress Upgrade and Hematology Outlet. Other lab equipment includes three SYNCHRON LX®20 systems, three Access® immunoassay systems, one COULTER® Gen•S™ hematology analyzer, one COULTER® HmX hematology analyzer and one COULTER Ac•T diff™ 2 hematology analyzer.

*Sacred Heart Hospital is a 431-bed acute care hospital located in Pensacola, Florida. The laboratory processes approximately 1.5 million reportable results per year and recently implemented a laboratory automation solution from Beckman Coulter to automate its high-volume testing.*

*The lab's journey began in 2000, when it sought a way to increase overall efficiency, decrease turnaround time, reduce errors and increase operator safety.*

*The lab was responding to a tremendous growth in testing volume due to increased outpatient volume and a rapid population growth in northwest Florida. In the midst of this tumultuous growth, the lab also had a high employee turnover, which left the lab with insufficient labor resources to process its growing workload.*

*"Our patient volume had skyrocketed," said Craig Wright, Core Lab Supervisor. "But since our lab could not increase its available space, funding or staff, we needed an automation system that would simplify our manual processes and decrease our turnaround time — without increasing cost or forcing us to hire more people."*

#### The Automation Journey

"We chose Beckman Coulter because we needed a company with an instrument platform we could trust," said Wright. "Beckman Coulter chemistry analyzers have the world's fastest electrolyte panel and that's really what physicians want. They want test results as quickly as possible — it's all about speed."



#### Improving Patient Care by Decreasing Turnaround Time

Soon after Sacred Heart acquired its automation system, it needed to make a few changes to its Misys Laboratory system in order to integrate the two systems. According to Steve Gampher, LIS System Specialist, the lab converted to all Windows-based computers; upgraded to Version 5.3 Misys software; and invested in the optional Misys SMART (specimen management routing and tracking) software to gain full LIS functionality.



This integration enables labs to place sample tubes directly on the automation line, thus eliminating time-consuming, manual pre-analytical steps.

Currently, Sacred Heart can load 100 specimens at a time and immediately time-stamp each tube — a significant improvement over its previous method of manually loading each tube and retrieving testing information from the computer. This step, which previously took one hour to complete, now only takes five minutes.

After implementing automation, Sacred Heart experienced a significant drop in overall turnaround time.

“Previously, our turnaround time for routine samples was four to eight hours,” says Wright. “With tubes now being loaded immediately, they can run at a consistent pace and be completed within 30-40 minutes.”

“Plus, if a physician adds on a test to previously run sample, the automation system determines the exact location of the specimen tube and routes it to the right analyzer — as opposed to us manually examining as many as 200 specimens searching for a single test tube,” added Wright. “This is a huge time-saver for us and can potentially expedite a patient discharge.”

### More Automation Benefits

Automation has also had positive effects on staff retention and employee satisfaction.

Before obtaining automation, Sacred Heart struggled with retaining its staff due, in part, because of the stress caused by a manually-driven system. When the lab adopted automation and reengineered its instrument placement, it helped optimize each person's time and energy, thus increasing employee morale.

The Power Processor automatically loads and unloads the centrifuges, performs aliquotting, decaps and recaps specimens, loads samples onto instruments, and automatically retrieves specimens that need to be retested from the online storage stockyards.

Wright also explains that phlebotomists no longer need to input all patient information, collection and receiving times manually. The bar-code reader on the automation system records all this data instantaneously — without any intervention by lab staff.

### Future Automation Goals

In the future, Sacred Heart's laboratory plans to add more automation modules to its Power Processor system, including a separate hematology and coagulation line and a 3,000-tube refrigerated stockyard.

Wright added, “A larger stockyard would give us that many more specimens online and would allow us to quickly perform the increasing number of add-on tests we are asked to perform.”

Laboratory Goals	Laboratory Results
<ul style="list-style-type: none"> <li>• Increase overall efficiency</li> </ul>	<ul style="list-style-type: none"> <li>• Eliminated numerous time-consuming manual steps in the pre-analytical process</li> </ul>
<ul style="list-style-type: none"> <li>• Decrease turnaround time</li> </ul>	<ul style="list-style-type: none"> <li>• Decreased routine TAT from 4 – 8 hours to 30 – 40 minutes</li> </ul>

### Top-Notch Service And Support

Both Wright and Gampher agree that Beckman Coulter's unparalleled level of service and support confirms the lab made the right choice in an instrument partner.

“We work with several large companies and without a doubt Beckman Coulter gives us the best support,” said Gampher. “When we started this project several years ago, Beckman Coulter was the only company that was willing to stay here as long as necessary to get us up and running. We appreciate their unwavering commitment to our lab.”

*Misys Laboratory is a trademark of Misys Healthcare Systems, Inc.*



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