

## The Power of Process™ in Action

### Oakwood Healthcare System Increases Efficiency and Decreases Costs With Beckman Coulter

#### Integrated Health Network Profile

- Oakwood Healthcare System, Dearborn, Michigan
- Established in 1985
- Serves a 500-square-mile service area with a population of 1.2 million
- Serves four acute care hospitals, 44 primary care/specialty care sites and a free-standing emergency clinic

*Established in 1985, the Oakwood Healthcare System is one of Southeast Michigan's leading providers of healthcare services. This integrated healthcare network is comprised of four acute care hospitals and 44 primary care/specialty care sites. With its broad network of services, Oakwood Healthcare System provides care to 1.2 million people spread across 35 communities in Southeast Michigan.*

#### Acute Care Hospitals Include:

- Oakwood Hospital & Medical Center (Dearborn): 600 beds; annual testing volume of 3.3 million billable tests across multiple laboratory departments.
- Oakwood Annapolis Hospital (Wayne): 250 beds; annual testing volume of approximately 365,000 billable tests.
- Oakwood Heritage Hospital (Taylor): 175 beds; annual testing volume of approximately 285,000 billable tests.
- Oakwood Seaway Hospital (Trenton): 90 beds; annual testing volume of approximately 135,000 billable tests.

#### The Search for A Process Improvement Partner

The health system network has relied on numerous Beckman Coulter products over the years. But in 1998 it standardized chemistry and immunochemistry product lines to become more cost-effective and usher in a host of long-term process improvements.

"We were looking for a true vendor partnership – one that crossed all product disciplines and could help us maximize our use of equipment and assays," said Vic Pound, Vice President at Park City Solutions, Laboratory Services Group (the company contracted by Oakwood Healthcare System to manage the laboratory operation and grow its outreach business segment). "We anticipated that the health system would witness some strong economic benefits."

During the evaluation period, Oakwood Healthcare System considered partnering with several manufacturers including Beckman Coulter, Olympus and Roche.

Health System Goals	Health System Results
<ul style="list-style-type: none"> <li>• Reduce overall costs</li> </ul>	<ul style="list-style-type: none"> <li>• Decreased overall expenses by nearly \$4 million</li> <li>• Realized a unit cost reduction of 46 percent</li> </ul>
<ul style="list-style-type: none"> <li>• Improve efficiency and competitive advantage</li> </ul>	<ul style="list-style-type: none"> <li>• Doubled outreach test volume</li> <li>• Achieved an overall increase in test volume of 30 percent</li> </ul>

"We found that all of these vendors met our technical requirements," said Pound. "But Beckman Coulter presented us with an excellent front-end automation solution, a very low cost-per-test solution, as well as additional risk/reward programs. As it turned out, automation was the key decision maker."

"There simply were not many manufacturers that were able to offer a good connection with their automation systems and provide a high degree of stability and reliability," said Pound. "It was also fairly difficult to connect anything but the manufacturer's own equipment."

Consequently, Oakwood Healthcare System chose Beckman Coulter as its partner and signed an exclusive agreement that applied to each laboratory within the network.

### Achieving Positive Outcomes

Today, the core laboratory at Oakwood Hospital & Medical Center is equipped with a Power Processor Automation System, four SYNCHRON LX®20 systems, five Access® Immunoassay Systems, two COULTER® Gen•S™ Hematology Systems and two ACL® Futura\* Coagulation Analyzers.

The laboratories in the other three hospitals each rely on chemistry, immunochemistry and hematology systems. Plus, the free-standing emergency clinic, Oakwood Healthcare Center (Canton) is equipped with all of this equipment.

"At this point, all of our routine chemistries, immunochemistries, coagulation tests, hematology tests and proteins are standardized throughout our system," said Pound. "We have exactly the same methodologies and normal ranges within those disciplines, which accounts for about 90 percent of our total lab volume."

At Oakwood Hospital & Medical Center's core laboratory, the workload is evenly split between inpatient and outpatient (including commercial) outreach work, and the LX20 systems are specially configured to accommodate those respective patient populations.

\* ACL is a registered trademark of Instrumentation Laboratory

"We've been on a growth track in the outreach segment of about 35 percent a year for the last three years," said Pound. "We have essentially doubled our outreach volume and increased our overall volume by approximately 30 percent. If we look at a four-year period (including 2001 on a projected basis), we have seen a growth in test count of approximately 45 percent and we've seen a decrease in expenses by almost 4 million dollars. The result of these two factors combined is a unit cost reduction of 46 percent."

"A significant portion of that unit cost reduction can be attributed to Beckman Coulter equipment," he said.

And when it comes to service and support, Beckman Coulter is always ready to help. "The company steps up to the plate when necessary," said Pound. "It is customer oriented, listens carefully to customer problems and has reacted very proactively to Oakwood Healthcare System."

### The Benefits of Automation

"With automation, we've been able to take the time required to receive, process and return specimens to the workstations and basically cut it in half," said Pound. "As a result of this process improvement and increased efficiency, we were able to facilitate FTE reduction across all testing sites and dramatically reduce our labor costs."

According to Pound, the healthcare system's next step is to maximize its automation productivity by connecting the chemistry and immunochemistry analyzers directly to the Power Processor.

"When we connect our chemistry and immunochemistry analyzers and have our LIS system release normal results automatically, we will effectively run 60 percent of our test volume through our core lab with no additional handling, once the samples are placed on the automation line," he said.

### Conclusion

"I can honestly say that my expectations for process improvement have been exceeded with Beckman Coulter," said Pound. "There is absolutely no question that Oakwood Healthcare System is more competitive today as a result of our partnership with Beckman Coulter."

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