



The Power of Process™ in Action

Baptist Medical Center's Quest for Process Improvement

Profile:

- Baptist Medical Center, Jacksonville, FL
- Laboratory supports 600-bed hospital
- 105 employees
- 1.2 million reportable tests annually
- 24 hours a day, 7 days a week
- Chemistry area equipped with: two SYNCHRON LX®20 Clinical Systems; two Access® Immunoassay Systems; DataLink™ Data Manager

In March 1999, Baptist St. Vincents Health System began its quest for process improvement – a search that would span nearly six months and end with a solution that was even better than planned.

The health system, now Baptist Health, is comprised of three hospitals — Baptist Medical Center Nassau (Fernandina Beach, FL), Baptist Medical Center (Jacksonville, FL) and Baptist Medical Center Beaches (Jacksonville Beach, FL). The chemistry laboratories of each hospital recognized the need to standardize chemistry systems and consolidate workstations to reduce costs and improve productivity.

Selecting a Partner

Representatives from each hospital formed a selection committee and identified their goals:

- improve lab processes
- consolidate testing through a single review station
- reduce the use of paper in the lab
- reduce computer review time.

Once the criteria were outlined, the selection committee began looking at the different vendors in the marketplace, as well as the types of instruments and data management systems they offered.

"We started by looking at seven different vendors, but we quickly narrowed that pool down to five that we felt could potentially meet our needs," says

James Peele, Ph.D., Clinical Chemist at Baptist Medical Center in Jacksonville. "We then asked all five vendors to make presentations and provide us with a proposal. At the end of the summer, we had three finalists – Beckman Coulter, Vitros and Roche."

The next step for the selection committee was to conduct site visits, gather detailed information about each vendor's systems and talk to customers using each instrument platform. According to Peele, those visits

proved extremely helpful. Committee members got to see how each instrument was performing and explore whether the systems would actually do what the companies claimed they were capable of doing.

"It was becoming very apparent to us at this point that Vitros just didn't seem to have the menu that we would need to consolidate workstations, which was one of our primary goals," says Peele.

"Roche was using a third-party data manager for interfacing to the LIS," adds Peele. "This information management solution was simply not providing the real-time feedback that we were seeing with Beckman Coulter's DataLink."

Laboratory Goals

- Consolidate Testing
- Reduce Use of Paper
- Reduce Computer Review Time

Laboratory Results

- Workstations Reduced From Four to One
- Only Two Percent of Specimens Generate Paper Report
- Improved Operator Focus on Exceptional Samples

Consolidating Systems

"DataLink showed us that there was a way to tie various pieces of equipment together that actually added value to the package," says Peele. "DataLink really differentiated Beckman Coulter systems from the other two contenders. It would allow us to do things that simply weren't possible with any other company."

Baptist Nassau received a SYNCHRON® ALX 1000 (a SYNCHRON CX®9 ALX Chemistry System, an Access® Immunoassay System and a DataLink) and Baptist Beaches received a CX9 ALX and a Access. The laboratory at Baptist Jacksonville, which supports a hospital with more than 600 beds, found the right fit with an LX2000 system (two SYNCHRON LX20 systems, two Access systems and a DataLink).

At Baptist Jacksonville, the workload that was previously being performed on six analyzers from various manufacturers — each with their own Cerner terminal and a printer — were consolidated on one Beckman Coulter workstation (four analyzers) with a DataLink and printer. This 66 percent reduction in number of systems also generated tremendous savings in terms of system maintenance.

"DataLink eliminated the technologists' need to focus on every single sample and drew their attention to the samples that needed their attention."

A New Laboratory Solution In Place

"From the moment we switched our system over to the new workstations and DataLink, it began helping us see things going on within our lab that needed to be corrected," says Peele.

"Samples began showing up on the DataLink samples list before the samples had

returned to our chemistry area, so we had to work with our specimen management area to achieve more timely delivery of specimens.

In addition to DataLink's user-friendly graphical interface, flexible LIS interface, host query, delta checking and reflex testing features, lab technologists especially appreciated the new benefits they found in the auto-verification feature.

"The fact that normal samples are zipping right through allows us to pay more attention to abnormal samples," says Jane Vasileff, chemistry technologist, "and we no longer have to spend time verifying samples in the LIS that contain all normal results."

According to Peele, 80% of his laboratory's chemistry test results are automatically verified, and the 20% that still require manual verification need much less hands-on interaction. "DataLink eliminated the technologists' need to focus on every single sample and drew their attention to the samples that needed their attention."

"With DataLink's auto-validation, we are able to do more things at once because the DataLink computer is working for us instead of us working for the computer," says Elliott Blum, chemistry technologist.

Another benefit of DataLink was this laboratory's realization of a truly "paperless" lab. While technologists were nervous about not having paper results as a backup at first, Peele says the staff was comforted by the fact that DataLink provides the ability to print a result, if desired, with a simple keyboard command.

"After three days, the techs began saying, 'we should have done this years ago!'" says Peele, who cites that only 2 percent of specimens currently have a paper report generated.

Peele also estimates that his lab saves approximately one million keystrokes a year by having DataLink in place. Spread among twenty DataLink users, it's about 136 keystrokes a day per user — a step away from keyboard dependency and a step toward streamlined information management.

Betsy Schifanella, chemistry manager, has carefully monitored the impact of instrumentation changes on laboratory turn-around time. Before the Beckman Coulter equipment was implemented, the Baptist lab performed critical ER testing on a whole blood analyzer. "After changing to the LX2000, we are achieving essentially the same turn-around time, even with centrifugation time added, thanks to duplicate LX20s and DataLink auto-validation. DataLink allows a total accounting of the sample from the time it is received, placed on the instrument and released," states Ms. Schifanella.

Today, the laboratory at Baptist Medical Center in Jacksonville is a whole new place. There are fewer workstations to manage. Technologists are more focused on exceptional specimens. There is less paper to handle, manage and store, and much less hands-on computer interaction.

"Overall, we're very satisfied with our equipment choices—especially the DataLink," says Peele. "I've not seen anything else out there quite like it. It's truly a one-of-a-kind system."



Africa/Middle East/Eastern Europe: Switzerland, Nyon (41) 22 994 0707. Australia, Gladsville (61) 2 9844 6000. Canada, Mississauga (1) 905 819 1234. China, Beijing (86) 10 6515 6028. Hong Kong (852) 2814 7431, 2814 0481. France, Villepinte (33) 1 49 90 90 00. Germany, Krefeld (49) 2151 33 35. Italy, Milan (39) 02 953921. Japan, Tokyo (81) 3 5404 8424. Latin America (1) (305) 380 4709. Mexico, Mexico City (525) 575 6805. Netherlands, Mijdrecht (31) 297 230630. Singapore (65) 339 3633. South Africa, Johannesburg (27) 11 805 2014. Sweden, Bromma (46) 8 564 85 900. Switzerland, Nyon 0800 850 810. Taiwan, Taipei (886) 2 2378 3456. Turkey, Istanbul (90) 216 309 1900. UK, High Wycombe (44) 01494 441181. USA, Brea, CA (1) 800 352 3433, (1) 714 993 5321.