



The Power of Process™ in Action

DL2000 Revamps Workflow, Improves Efficiency for Laboratory at Community Hospital of the Monterey Peninsula

Laboratory Profile

- Community Hospital of the Monterey Peninsula, Monterey, California
- Laboratory supports 175-bed hospital and satellite patient care centers
- Operates 24 hours a day, seven days a week
- Employs 140 staff members
- Performs 1.5 million tests per year
- Laboratory equipped with two SYNCHRON LX®20 Clinical Chemistry Systems, two Access® 2 Immunoassay Systems, two COULTER® Gen-S™ Hematology Analyzers with SlideMakers and SlideStainers, and DL2000 Data Manager

Situation Overview

Every day shortly after 6:30 a.m., hundreds of sample tubes pour into the laboratory at Community Hospital of the Monterey Peninsula in Monterey, California. In the past, this morning rush sent laboratorians dashing from instrument to instrument, trying to monitor stat tests, qualify results and keep track of add-on tests. Meanwhile, more specimen tubes arrived and the list of “pending” samples grew longer and longer.

Today, it’s a different story. “I can tell you at any moment where each sample is, exactly what’s pending and the status of all stat tests and add-on tests,” says Susan Ricketson, Chemistry Supervisor.

The source of this knowledge: DL2000, the latest release of Beckman Coulter’s data management software. By acting as an interface between Beckman Coulter instruments and the Laboratory Information System (LIS), DL2000 offers a real-time, comprehensive look at how work is moving through the lab. The software is a boon to efficiency and patient care and has also helped the lab in Monterey double its workload without changing staffing patterns.

Discovering DL2000

In 1998, instruments from five different manufacturers crowded the laboratory floor at Community Hospital of the Monterey Peninsula. Each platform required its own reagents, calibrators, rules and service protocols.

In other words, says Jay Wilkerson, Laboratory Director, it was time for consolidation.

“We considered three different vendors when we consolidated our lab,” he says. “Beckman Coulter was in the lead and when we heard about the data management capabilities, that tipped the scales for us.”

Soon, the chemistry department was up and running with two SYNCHRON LX®20 analyzers and two Access® 2 Immunoassay Systems. The lab installed DataLink software to connect these instruments to the LIS, then later upgraded to DL2000.

With a user-friendly interface, DL2000 gathers and sorts information critical to the lab’s operation, and provides a real-time picture of samples moving through the lab. Pop-up messages alert technologists to important information and pending results are organized for easy review.



“DL2000 has definitely improved productivity and lowered our operating costs,” says Jay Wilkerson, Laboratory Director (right), pictured with Susan Ricketson, Chemistry Supervisor.



The consolidation of the lab and the integration of DL2000 occurred just in time. Workload has grown at a rapid clip in the past five years – doubling from 750,000 to 1.5 million tests per year. With its new technology, the lab was able to absorb this increase smoothly, without changing its hiring patterns.

"We operate so much more efficiently today," says Wilkerson. "DL2000 has definitely improved productivity and lowered our operating costs. Now, other labs and vendors visit us to see how work flows here."

Following the Samples

DL2000 has absolutely transformed the lab's ability to track samples, says Ricketson.

Armed with this technology, the lab has significantly reduced the number of phone calls from physicians. And when a call does come in, technologists can provide detailed information quickly.

In fact, says Wilkerson, working with DL2000 has allowed the lab to provide the best possible service to its customers – and this translates into better patient care.

Patients Benefit From Speed, Reliability

Ricketson notes that DL2000 is especially effective when it comes to monitoring stat tests. These tests are highlighted in the system so technologists can check their status at any time. The lab is also alerted when a stat test is on the way and when results are ready.

Laboratory Goals	Laboratory Results
<ul style="list-style-type: none"> Improve process for tracking samples 	<ul style="list-style-type: none"> All samples accessioned into the LIS are downloaded into DL2000. Laboratorians can easily track tubes.
<ul style="list-style-type: none"> Increase workload without changing staffing patterns 	<ul style="list-style-type: none"> Increased tests-per-year from 750,000 to 1.5 million without changing staffing patterns.
<ul style="list-style-type: none"> Provide the highest quality patient care 	<ul style="list-style-type: none"> Stat tests receive priority attention and decision rules standardize the review process. Patients benefit from fast, consistent test results.

"Recently, we received a specimen from the emergency room that tested extremely high in glucose," says Ricketson. "DL2000 alerted me and told me where to find the specimen tube. I was able to grab the sample, dilute it and get the results out the door in about 10 minutes. Before DL2000, that process would have easily taken twice as long."

Labs can also improve turnaround time by activating DL2000's autovalidation feature. By automatically releasing normal results to physicians, DL2000 allows technologists to zero in on only those samples requiring critical analysis. Though California law precludes Wilkerson's laboratory from using the technology, the lab still benefits from DL2000's review features – especially the decision rules.

"It was so hard to keep up with our samples before," she recalls. "At the end of each shift we would have to resolve lengthy pending logs and, if needed, search for specimen tubes."

Now, when samples are accessioned into the LIS, they are automatically downloaded into DL2000. If a tube doesn't make it to the intended analyzer, DL2000 tells the technologist. When a physician adds a test, an alert pops up and directs the technologist to the right tube.

DL2000 also helps the lab manage results. Partial, non-stat results are held in the system and only released to the LIS when they are complete. And if a test result is questionable, DL2000 sets it aside for review. In essence, DL2000 becomes a well-organized "parking lot" for exceptions and pending tests.

"We program decision rules into DL2000, so the same testing guidelines apply across every shift, seven days a week," says Wilkerson. "With this level of standardization, there is far less risk of human error. Plus, we know that results sent to the LIS are normal, so we can scan them and release them quickly."

Patients benefit from these fast, consistent results, and the lab benefits from improved productivity. "I can't imagine working without DL2000," says Ricketson. "It's made such an impact on our lab."

"DL2000 has filled the functional gaps in our LIS," adds Wilkerson. "And it's allowed us to increase our workload significantly and work smarter. Overall, it has far exceeded our expectations."



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