

Efficiency by automation – high throughput sample processing



(left to right) Pat Felton, Steve Harkins, Roberta Provencal and Krysti Pinard with the Tecan platform

CMC's diagnostics laboratory previously handled only in-patient blood samples and outsourced much of its out-patient blood testing. The hospital is building a new, purpose-built full-service blood diagnostics laboratory due for completion by the Spring of 2009 and, in anticipation, the laboratory has started processing the huge number of outpatient samples in-house. Roberta Provencal, Director of Laboratory Services, explained: "We recently converted from a stat lab to a full-service laboratory, covering a number of services including blood banking, chemistry with immunoassays, hematology, serology, mycology and microbiology, by completely restructuring the way the samples are handled. Now we also receive all the outpatient samples from the hospital's lab collection station as well as various collection sites around the community, which has tripled sample throughput. We couldn't really do anything to increase working area until the new facilities are complete, so we had to make the most of every inch of available space within our existing premises."

"I had previously worked with a Tecan system for several years where it saved us

so much personnel time, and I knew that it would be the perfect solution. Without Tecan's Genesis FE500 workstation, we would have to use a bank of centrifuges, and employ many people to manually process the specimens – we simply didn't have the room to work that way."

"With the current system, samples are assigned a barcode and entered into the laboratory information system (LIS) during collection, which has eliminated the potential for manual errors in sample handling," continued Roberta. "The barcoded sample tubes arrive at the specimen processing area in our laboratory, and all we need to do is put tubes onto the Genesis FE500 system. The barcodes contain information about the tests that have been ordered for the samples, and the Genesis FE500 can process each sample, placing each tube into frozen, refrigerated or ambient output lanes as appropriate. Samples can be processed immediately with this set-up, and this has both decreased the risk of handling errors and improved our specimen integrity. We can now have routine test results within three hours of receiving the specimens."

The diagnostics laboratory at the Catholic Medical Center (CMC) in Manchester, New Hampshire, USA, has chosen the Genesis FE500™ platform to automate sample handling, successfully turning its 'stat lab' into a full service laboratory and processing three times the previous volume in the same laboratory space.



(left to right) Kristi Pinard, Muriel Chabot, Doug Cloutier and Pat Felton, with the Genesis FE500

"The system is easy to use and maintain. The decapping feature is popular with our technicians, because it has minimized manual handling of specimens and aerosol exposure of personnel, and removed the tedious need to manually uncap large numbers of tubes." Roberta concluded: "Tecan set up the Genesis FE500 for us and the workstation was operational in just one week – the Genesis FE500 system is the best thing since sliced bread!"

For more information on Tecan's Genesis FE500, visit www.tecan.com/genesisfe500