



Immucor, Inc.
Galileo Echo Case Study
1.2 Software Upgrade

Florida Hospital, Orlando

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Background: Florida Hospital System | Orlando, Florida

The Florida Hospital system houses 2,188 beds at seven campus locations in the Orlando, Florida tri-county area. Florida Hospital Orlando is the main campus and is an acute-care, tertiary hospital who serves more than 1.5 million patients each year. Florida Hospital laboratories recently acquired the latest automated technology for their Transfusion Services: one Immucor *Galileo*[®] and seven Immucor *Galileo Echo*[®] instruments. The use of Immucor automation provides the Florida Hospital system an opportunity to standardize pre-transfusion testing across all 7 campus laboratories.

Galileo and Galileo Echo are fully automated blood bank instruments, designed to perform blood typing and antibody screen testing, as well as antibody identifications, Weak D, direct antiglobulin tests, donor confirmations and full anti-human globulin crossmatches.

The Echo provides the industry's quickest turnaround time for a type and screen, coupled with flexible sample and reagent loading. Features that make the Echo cutting edge include linear racks for real time sample loading, STAT priority test scheduling, real time test results and a bidirectional interface to the Laboratory Information System. The Florida Hospital Orlando campus is also utilizing Immucor's Galileo instrument in tandem with the Echo due to a high volume of work at this location. Galileo is Immucor's high volume blood bank instrument which has the industry's highest throughput for blood typing and antibody screen testing. Galileo also offers linear racks for real time sample loading, real time test results and a bidirectional interface to the Laboratory Information system. All Florida Hospital system laboratories are live with a bidirectional interface between their Immucor blood bank instruments and their Sunquest Laboratory Information System.

Process Improvement Initiative

Before installing the Echo, 5 of the 7 Florida Hospital system laboratories performed manual testing using Ortho Clinical Diagnostic's ID-MTS™ Gel Test™ technology. This tied up a technologist on manual processes while trying to perform testing in all other sections of the laboratory. By changing test methods and introducing the Echo to their laboratory, technologists now load tests on the automated instrument which frees them up to perform other laboratory testing. Before installing the Echo and Galileo instruments, the main campus at Florida Hospital Orlando and one additional campus performed automated testing using Ortho Clinical Diagnostic's Provue[®] instrument. The ability to load tests on the Galileo or Echo automated instrument provides Florida Hospital Orlando with the ability to automate more of their high volume workload in a standardized way, especially antibody panels.

Case Study Method

Immucor recently launched a new software upgrade for Echo, software version 1.2, which enhances test processing on the instrument via co-mingling. Co-mingling allows the Echo to process multiple tests and assay configurations more efficiently; providing a quicker turnaround time for intermingled test requests compared to earlier versions of Echo software. Florida Hospital Orlando recently performed time studies to evaluate the impact that Echo's latest software upgrade would bring to their laboratory. For time studies that illustrate the difference in assay scheduling and test processing between Echo 1.1 and Echo 1.2 software conducted at Florida Hospital Orlando, please see Table 1.

The Results: Improved Operational Efficiencies & Patient Care

Mary Ann Womack, Transfusion Service Manager at Florida Hospital Orlando believes that some of the key advantages of the Echo software upgrade are improved turnaround times for test results and the ability to remove the sample from the instrument sooner, if additional testing is required. "Florida Hospital Orlando will utilize the Echo instrument more", says Womack. "Before the upgrade the instrument was used just for STAT type and screens, crossmatches and antibody identifications. Now we have the ability to place more patient samples on the instrument which in turn will help alleviate some stress off of the Galileo's workload and improve turn-around times overall".

An additional enhancement offered with the Echo 1.2 software upgrade is a secondary blood typing assay which provides a confirmatory forward and reverse blood type that can be exported to the LIS under a unique assay name. This assay was added to Echo's test menu per Florida Hospital's request. "This assay addition automated a previously manual process for our facility", states Womack. "In order for patients to be Computer Assisted Crossmatched eligible, they must have 2 full historic blood types on file. Our LIS system must have two different upload codes coming from the instrument in order to appropriately document the 2 blood types through the interface. The new Group2 assay provides that interface capability. With this new assay, our facility has been able to achieve the ability to fully automate all primary blood bank testing".

While the implementation of the Galileo and Echo instruments at Florida Hospital provided improved test processing compared to previous test methods, the implementation of Echo 1.2 software provides further improvements to the laboratory's operations. Womack concludes, "We are very pleased with the Echo 1.2 software upgrade. It is obvious that Immucor invested a lot of time and energy to create a product that is conducive to the customers' needs. We like that Immucor is listening to the customer".

Table 1 Echo 1.1 versus 1.2 Software Test Processing

Location: Florida Hospital

Test Scenario

