Sysmex Remote Monitoring: Paving the Way for e-Tools

Sysmex America, Inc. (SAI) has developed a suite of capabilities, called e-Tools, to provide a range of support for customers’ instruments and operational efficiency. Utilizing the speed and connectivity of today’s Internet, Sysmex supports customers in their efforts to assure the quality of their clinical laboratory results and to optimize instrument performance.

- **Insight™ IQAP**
- **e-Verify calibration verification**
- **Remote system monitoring**
- **Cycle-based maintenance**

Many of Sysmex America’s customers are already benefiting from e-Tools’ innovative services, such as 24 x 7 IQAP reports on demand, or cycle-based maintenance. The full suite of Sysmex’s e-Tools includes Insight™ IQAP, e-Verify calibration verification, cycle-based maintenance and remote system monitoring. All of these e-Tools are accessed using Sysmex’s SNCS™ (Sysmex Network Communications Systems) connectivity.

e-Tools help laboratories to:
- Ensure system quality and confidence in results
- Automate system management
- Reduce downtime
- Reduce non-testing, task time and costs
- Readily document processes to meet regulatory needs

While continuous real-time capture and analysis of instrument performance data enables a proactive response to potential instrument problems, other electronic tools within the Sysmex suite of e-Tools contribute to the generation of accurate patient results that aid in patient assessment and treatment. An expanded explanation of these e-Tools follows.

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**Insight™ IQAP**

*Insight* IQAP is Sysmex’s web-based, inter-laboratory quality assessment program for X-Series hematology analyzers. It allows customers to meet their regulatory requirements by documenting peer comparison analyzer data, while eliminating manual steps. *Insight* eliminates the tedious, time consuming process of manually copying data by utilizing an easy, electronic upload process as needed, at the laboratory’s convenience. The system’s concise, easy-to-read reports can be generated on demand (24 x 7). Lot-to-date, end-of-lot, or month-to-date reports can be quickly generated based on the laboratories’ choice.

=e-Verify Calibration Verification=

*e-Verify* enables Sysmex instrument operators the convenience of managing and scheduling semi-annual calibration verification to fit laboratory staffing and workflow constraints. Sysmex notifies the laboratory well in advance of this event, schedules a convenient appointment and sends along the materials and reminders for the event(s). When verifying calibration, the analyzer is in use for approximately 20 minutes, thus minimizing downtime and maximizing labor utilization. *e-Verify* also assures compliance with laboratory accrediting agencies, providing full documentation of the process for laboratory records and inspections, while providing the laboratory with peace-of-mind.

**Cycle-based Maintenance**

Cycle-based instrument maintenance is triggered automatically, based on cycle count rather than on static time intervals. Preventive maintenance, when linked to system use and test volume, is performed when needed.

**Remote Monitoring - SNCS™**

SNCS uses secure connectivity and internet speed to capture and analyze Sysmex instrument performance data that links to the Sysmex monitoring and dispatch system in Mundelein, Illinois. SNCS provides quick, proactive response to potential problems, reducing the number of unscheduled service calls. An alert signals SAI’s Technical Assistance Center for process review and handling of the condition. This may result in a variety of responses from the Sysmex service, field engineering, and applications specialist teams.

SNCS helps manage QC data. Another way SNCS can help is by enabling instrument operators to directly upload instrument QC data for *Insight* analysis and print reports directly on the instrument’s printer. This saves time by eliminating the manual steps of saving data to a flash drive or floppy drive and transferring it to another computer for review. This feature is used daily by many Sysmex customers.

Faster Turnaround Time in the laboratory depends on instrument reliability and uptime. With SNCS, Sysmex is able to provide 24-hour real-time capture and analysis of instrument performance data which enables a proactive response to potential instrument problems. Since implementing SNCS connectivity our customers have reported a reduction in instrument downtime and a reduction in unscheduled service calls.

“We are seeing the momentum build as more and more laboratories are connecting every day to SNCS,” explains Steve Postma, Technical Services Assistant Director at Sysmex. "We are expecting to see 50% more new instruments being monitored than we did last year. With more customers enabling SNCS connections, we are also looking for more ways that SNCS can be used to support the lab’s service delivery.”

**SNCS Helps Manage QC Data.** Another way SNCS can help is by enabling instrument operators to directly upload instrument QC data for *Insight* analysis and print reports directly on the instrument’s printer. This saves time by eliminating the manual steps of saving data to a flash drive or floppy drive and transferring it to another computer for review. This feature is used daily by many Sysmex customers.

To find out how you can keep your clinical laboratory operating at peak efficiency with the use of the Sysmex suite of *e-Tools*, contact your Sysmex Account Manager.
Security. SNCS-enabled instruments require only outbound communication permission via port 443. SNCS complies with relevant firewall requirements, without the need for modification, by initiating all communications from behind the firewall. Communications are secured by using encryption, SSL authentication and multi-level access privileges. The SNCS connection is valid only to the Sysmex applications remote server.

Learn More About SNCS. For additional information about SNCS, Sysmex customers may want to visit Sysmex America’s online Customer Resource Center (CRC). The CRC offers a wealth of support tools designed to educate and empower clinical laboratories about SNCS and other Sysmex products and services.

Getting Connected to SNCS. Set up is easy and quick. “SNCS was very simple to set up. Our IT department supported us and our Sysmex Field Service Representative had it up and going within a day,” said Megan LaPlant, Hematologist, Calais Hospital, Calais, Maine.

SNCS Qualified Instruments & Systems

- XE-Series hematology analyzers
- XT-Series hematology analyzers
- XS-Series hematology analyzers
- HST-N - Series Hematology Automation System
- SP-Series slidemaker/stainer
- Cellavision™ digital morphology system
- Sysmex WAM (for remote support access)

Getting Instruments Connected to SNCS. Connecting to SNCS is straightforward and can be accomplished immediately once the lab’s IT team has completed the following requirements:

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<tr>
<th>Instruments Require Who</th>
<th>Who</th>
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<tbody>
<tr>
<td>Network IP address assigned (one per instrument)</td>
<td>Customer’s IT Department</td>
</tr>
<tr>
<td>Connection to the network (active RJ45 jack)</td>
<td>Customer’s IT Department</td>
</tr>
<tr>
<td>Outbound access to Sysmex via your network port 443</td>
<td>Customer’s IT Department</td>
</tr>
<tr>
<td>Anti-virus software installed on each instrument’s PC</td>
<td>Customer’s IT Department</td>
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Getting Started.

To get started, call the Sysmex Technical Assistance Center (TAC) at 1-888-8-SYSMEX.

IT Department Questions and Sysmex Support.

For any IT-related questions, call the Sysmex Technical Assistance Center (TAC) at 1-888-8-SYSMEX.

Building SNCS for Tomorrow. The success of SNCS technology has led Sysmex to develop service-related enhancements as well as new features that help support the laboratory’s clinical and operational objectives by enhancing your Sysmex equipment and reducing service interventions. Recently introduced, e-Verify is a remote calibration verification program designed to help laboratories meet CLIA, CAP and state requirements for calibration verification. Sysmex also now offers cycle-based instrument maintenance, which aligns preventive maintenance activity based on instrument cycle monitoring through SNCS, rather than preventive maintenance based on static time intervals.

Sysmex America, Inc. Awarded Highest Vendor Designation by MedAssets Supply Chain Systems

Customer Savings and Satisfaction Key Factors

Sysmex America has once again earned MedAssets Supply Chain Systems Platinum Vendor award. Award criteria is based on improving customer savings and customer satisfaction, timely processing of reports’ filing and fee schedules’ submissions, continuous purchase volume growth and MedAssets’ philanthropic support.

“As evidenced by Sysmex America’s sales growth, it is clear that our customers have embraced the reliability and performance of Sysmex products, enabling them to turn to the highest quality of care in their communities. Sysmex also has proven to be a responsible clinical laboratory partner in meeting the operational and financial needs of our customers,” said Mary Ellen Kimmeth, MedAssets Supply Chain Systems Vice President, Laboratory Division & Outreach Services.

“Sysmex America is honored to be recognized among some of the nation’s best healthcare vendors as a MedAssets Supply Chain Systems Platinum Vendor designation recipient. We also have found MedAssets to be a committed partner and trust that our continued working relationship will be beneficial to the mutual customers we serve,” said Tom Tojo, National Account Manager, Sysmex America. Previously, SAI has won Bronze, Silver, Gold and Platinum Vendor designations from MedAssets Supply Chain Systems. Sysmex America and other MedAssets Supply Chain Systems award recipients were honored during the GPO’s annual Healthcare Business Summit in the spring.

MedAssets partners with healthcare providers to improve their financial strength by implementing spend management and revenue cycle solutions that help control cost, improve margins and cash flow, increase regulatory compliance, and optimize operational efficiency. MedAssets serves more than 125 health systems, 3,300 hospitals and 30,000 non-acute care healthcare providers. For more information, go to www.medassets.com.
Center for Companies That Care is an independent, not-for-profit organization dedicated to enhancing the well-being of employees, families and communities by engaging employers in cultivating supportive working conditions and strengthening local communities. Recently, the Center announced Sysmex America’s selection to its 2009 Companies That Care Honor Roll – an announcement that was heralded in a New York Times May advertisement.

“As an organization, we are keenly aware of our employees’ contributions to our business success and of our society’s need for corporate citizenship,” said Karen Stoneman, Vice President of Human Resources, Sysmex America, Inc. Sysmex America’s 400 employees are among the nearly 4,000 employees worldwide that make up the Sysmex team of professionals.

Sysmex America’s selection was based on the company’s consistent practice of the “10 Characteristics of a Company That Cares”. Also considered in the selection process were Sysmex America’s employee survey data and an overall review of company practices by the Honor Roll Independent Review Panel consisting of human resources, community relations, academia and organizational development professionals.

“The Sysmex Way, our company philosophy, succinctly defines our core behaviors toward our employees and society, among which support the mission, value and mind of Sysmex Corporation. We are honored that our philosophy and the Center’s ‘10 Characteristics of a Company That Cares’ are in alignment,” said John Kershaw, President and CEO, Sysmex America, Inc.

When Sysmex America employees from the Information Systems, Customer Service and Operations departments assembled their collective “design” talents, a new shipping form for Sysmex America’s customers was created that benefits customers and SAI’s shipping partners. Customers receive the SAP-generated form in an email with their order that provides a direct hyperlink to the appropriate web site for shipment tracking.

“Currently our customer service representatives’ field about 2,500 calls a month with more than 1,000 of those calls attributed to shipment tracking requests. This form now frees our customer service representatives to perform additional value-added services such as shipping or volume consultation to reduce customers’ costs associated with inventory and shipping charges,” said Judy Bosko, Sysmex America’s Vice President of Operations.

Developed as a result of feedback obtained from SAI’s customer service team and its shipping partners, SAI customers now have all of the information they need to efficiently track their orders in one easy-to-use document. The form includes need-to-know information such as PO numbers, items and quantities ordered, shipping company, and tracking numbers. “Customer response has been overwhelmingly positive with requests to expand the form design to include additional features such as multiple email addresses,” said Bosko.

10 Characteristics of a Company That Cares

Companies That Care prize employees and are committed to community service. To sustain these values, Companies That Care consistently demonstrate the following 10 Characteristics in their work environment. These 10 Characteristics define the standard for all organizations desiring to be recognized as caring, responsible organizations.

1. Sustain a work environment founded on dignity and respect for all employees
2. Make employees feel their jobs are important
3. Cultivate the full potential of all employees
4. Encourage individual pursuit of work/life balance
5. Enable the well-being of individuals and their families through compensation, benefits, policies and practices
6. Develop great leaders, at all levels, who excel at managing people as well as results
7. Appreciate and recognize the contributions of people who work there
8. Establish and communicate standards for ethical behavior and integrity
9. Get involved in community endeavors and/or public policy
10. Consider the human toll when making business decisions
A study titled “Day-to-Day, Week-to-Week, and Day-of-the-Week Variations in Tests of Anemia and Iron Status in Hemodialysis Patients” has identified Sysmex’s Reticulocyte Hemoglobin Equivalent (RET-He) parameter result as key input used by physicians to assist in Anemia treatment decisions in ESRD patients on hemodialysis. David Van Wyck, M.D., Vice President of Clinical Affairs at DaVita Inc., and Emeritus Professor of Medicine and Surgery at the University of Arizona College of Medicine, in Tucson et al. followed five hematologic parameters in 30 patients undergoing hemodialysis three times a week. The patients were followed for 12 consecutive treatment days. The parameters studied were Hb, Hct, reticulocyte Hb (RET-He or CHr), TSAT and ferritin levels.

The purpose of the DaVita study was to evaluate the clinical value of these five parameters for supporting the physician’s ability to make informed dosing decisions for ESA and IV iron therapy. According to Dr. Van Wyck, “It has been difficult to know if the observed variability is within the ‘expected ranges’ for these patients or if changes in these markers signify a trend. Prior to this study, little information was available on expected day-to-day, within-patient variability among patients undergoing dialysis.”

Over the course of the study, ESA doses were held constant and IV iron therapy was withheld. Same-sample analytic variability was measured, as was within-patient “biologic” variability. The number of sampling days needed to determine the true average value for each analyte was calculated with a 5% significance level and an 80% level of accuracy.

The authors concluded that because of the high “biologic” variation observed, multiple test days are needed to achieve clinically meaningful accuracy and that Hb, Hct and reticulocyte Hb (RET-He or CHr) were useful analytes to guide ESA and IV iron therapy, whereas ferritin and TSAT were not reliable guides for month to month dose adjustments for ESA or IV iron. They may, however, be useful for assessing iron status or setting broad therapeutic targets in large patient populations. Day of the week effects are minimal for Hb and Hct, and undetectable for other analytes.

“The advantages inherent in directly assessing immature cells are potentially under-recognized. The publication of this study supports our belief that the advantages of direct cellular analysis versus indirect assumptions on iron status [storage or transport protein measurement, serum iron, or algorithms] may well be a means of refining complex anemia treatment decisions,” said Ian Giles, M.D., Director of Scientific Affairs, Sysmex America, Inc.

The study poster was presented at the recent 2009 National Kidney Foundation Spring Clinical Meeting held in Nashville, TN and attended by nearly 2,500 attendees including physicians, fellows and residents, physician assistants, nurse practitioners, nurses and technicians, renal and clinical dietitians, and social workers.

About DaVita Inc.

DaVita Inc., a FORTUNE 500 company, is a leading provider of kidney care in the United States, providing dialysis services and education for patients with chronic kidney failure and end stage renal disease. Recognized as the only FORTUNE 500 company on WorldBlu’s annual List of Most Democratic Work Places®, DaVita manages more than 1,475 outpatient facilities and acute units in more than 700 hospitals located in 43 states and the District of Columbia, serving approximately 114,000 patients – nearly one-in-three of all dialysis patients in the United States. As part of DaVita’s commitment to building a healthy, caring community, DaVita develops, participates in and donates to numerous programs dedicated to transforming communities and creating positive, sustainable change for children, families and our environment. For more information about DaVita, its kidney education materials and its community programs, please visit www.davita.com.
Sysmex recently exhibited at the AACC/ASCLS 2009 Clinical Lab Expo held July 21-23. More than 17,000 people converged at the McCormick Place in Chicago, IL to see the latest offerings for the clinical laboratory products and services. Sysmex showcased our Lavender Top Management® powered by Intelligent Automation Solution, among other products. Photos of the booth are shown below.