



Trivergent Health Alliance®

Three hospital labs, part of Trivergent Health Alliance Management Services Organization in Maryland, operate independently while also sharing and insourcing tests and reducing reference lab costs. How do they do it? Atlas Medical's Multi-Lab Networking, integrating with Data Innovations'® Instrument Manager™ middleware, makes it possible for the labs, each with a common laboratory information system, to integrate equipment. Labs create a batch list, and send instrument-ready specimens. Test results turnaround faster. And the labs are on their way to reducing reference lab costs by about \$2.5 million over three years. Trivergent plans to build on the recent successful launch of Multi-Lab Networking by identifying more tests to be shared and expanding offerings to include molecular diagnostics.

Success Story

Hospital Labs Share and Insource Tests, Reduce Costs & Increase Efficiencies After Turning to Atlas Medical & Its Partnership with Data Innovations Introducing Trivergent Health Alliance & Its Challenges

Trivergent Health Alliance, a management services organization (MSO), provides regional healthcare services to Frederick Regional Health System, Meritus Health, and Western Maryland Health System. The Hagerstown, Md.-based alliance aims to increase operational efficiencies, reduce costs, and enhance quality of care in areas including laboratory services.

Together, the three hospital labs annually perform about 6.5 million tests. Each lab uses a version of Medical Information Technology, Inc. (MEDITECH) laboratory information system (LIS). Also, each lab has engaged Data Innovations Instrument Manager middleware.

While Trivergent was established in July 2014, the lab leaders began discussions among each other in September 2013: What can we do together? How will a relationship look?

“Administration looked to us to form that unified laboratory but still continue working as three separate labs licensed under the hospital names,” recalls Bruce Williams, corporate director of Laboratory Services, Trivergent Health Alliance.

The lab leadership team articulated these goals:

- Share tests among the three hospital labs;
- Send specimens between the labs with instrument-ready barcode labels available at time of collection;

- Reduce reference lab costs by \$1 million annually in the second year by insourcing 60 to 70 different tests, representing 50,000 patient tests orders.

To reach the ambitious goals, more technology and lab network expertise were needed. “We wanted a connection to enable us to share tests and share specimens. We never wanted to reaccession patient information. We didn’t want to relabel specimens. So we started to shop around,” Williams says.

Trivergent implemented Atlas Medical’s Multi-Lab Networking solution. Labs have often selected Atlas Medical for lab test orders and results reporting technology, electronic medical record connectivity, and workflow software solutions. Now, as healthcare alliances and MSOs form at an increasing pace, many are turning to Atlas Medical. Multi-Lab Networking, powered by the ATLAS Coordinated Diagnostics Platform™, helps healthcare systems build and manage diagnostic testing networks, automate test sharing, provide centralized catalogs, and reach other goals.

Trivergent leaders said they liked out-of-the-box thinking by ATLAS professionals and their knowledge and experience with Data Innovations’ middleware connectivity potential. “ATLAS understood what we needed to do,” Williams says. “They never said, ‘We can’t do that.’ With other companies, we were kind of hitting a brick wall.”

Data Innovations is a worldwide leading laboratory middleware company. The company’s Instrument Manager solution is designed to improve lab workflow and efficiency by enabling connections to interface automation, instrumentation, and information systems at multiple locations.

“Data Innovations is our link to MEDITECH at each of the three lab sites. And ATLAS is our link between the three hospitals. We needed Data Innovations. We needed ATLAS. We needed MEDITECH to all come together to enable our vision,” explains Rita Dirkes, Trivergent project manager.

The Solution at Work

So, when Atlas Medical came to the Trivergent table, so to speak, it made a new workflow possible for the three labs. It did so in partnership with Data Innovations while acknowledging the LIS.

Here are key elements of Trivergent’s new lab workflow:

- Each hospital lab has its own interface engine and gateway server, where ATLAS Multi-Lab Networking and the Platform is connected;
- Inside each lab is a unique configuration; each essentially has its LIS connect to Data Innovations Instrument Manager;
- Data Innovations Instrument Manager connects through the gateway server into ATLAS;

“Atlas Medical ran with our vision. They never said, ‘We can’t do that.’

With other companies we talked to, we were kind of hitting a brick wall ,” says

Bruce Williams, corporate director of Laboratory Services,

Trivergent Health Alliance.

- The LIS has established a unique prefix for each of the three labs; it serves as a barcode identifier and specimen identifier;
- ATLAS tracks, through the unique prefix, where specimens come from and directs test results back to the original Trivergent ordering labs for delivery to ordering physicians.

Ultimately, the partnership among the companies and integration of technologies enables the labs to share and in-source tests, create a batch list, and send specimens affixed with instrument-ready barcode labels. Upon receipt at any of the three labs, tubes are directly placed on analyzers. No specimen reaccessioning or relabeling required.

A \$1 million reduction in reference lab costs is anticipated in year two.

“What we did here, with Atlas Medical, was integrate *the equipment*. Data Innovations played a key part. All the other companies (considered for the project) talked about integrating the LIS,” Williams explains.

Trivergent Achieves

Results and Benefits

Soon after the project’s launch, Trivergent was on its way to achieving quality of care and financial goals. Alliance leaders report operational efficiencies, less costs, and faster test turnaround. Here are some details on results:

Test sharing: Trivergent is meeting its goal to share tests among the three labs. Tests shared include: Cancer Antigen 15-3 and 19-2; Epstein-Barr Virus antibodies; Homocysteine; Progesterone; Prostate Specific Antigen Free and Total; Rheumatoid Factor, Rubella Antibodies IgG (see sidebar on the next page for a list of more shared tests).

How does Trivergent decide how tests are shared and directed? Technology guides the decisions, according to Williams. The lab with the equipment and experience (in doing the test as a reference for another lab) is likely to be the performing lab for those diagnostics.

Lab equipment runs at full tilt: The labs use specialized equipment at higher capacity. New equipment purchases are already being planned as the cost can be split among three labs.

Batch and send: Labs tap Multi-Lab Networking to create a batch list or manifest that is sent with the instrument-ready specimens to the performing lab. Included on the list is information about orders and samples.

Instrument-ready specimens and patient safety: Specimens arrive at the performing lab with instrument-ready barcode labels, helping to ensure accurate patient identification. “It is a huge patient safety factor and time-saver for personnel. I am so happy we have been able to do this,” Dirkes says of the instrument-ready tubes.

The Challenge:

In creating the Trivergent Health Alliance, leaders of the three Maryland-based hospitals envisioned each hospital lab continuing to operate on its own. Still, integration of the labs was important to the management services organization’s goals related to costs savings and increasing efficiencies. But the labs had hardly anything in common save for the laboratory information system (LIS) supplier. Equipment differed. So did procedures and policies. At first, leaders thought integration of the LIS was needed. But they discovered in Atlas Medical another approach to allow Trivergent to surmount perceived barriers.

The Solution:

Trivergent Health Alliance engaged Atlas Medical’s Multi-Lab Networking solution. ATLAS, in partnership with Data Innovations, made instrument interfaces possible among three hospital labs and their diverse equipment. Multi-Lab Networking, powered by the ATLAS Coordinated Diagnostics Platform, is designed for healthcare systems seeking to build and manage diagnostic testing networks, automate test sharing, and reach other alliance or consolidation goals. Data Innovations, a laboratory middleware company, offers Instrument Manager, which aims to improve a lab’s workflow and efficiency by enabling connections to interface automation, instrumentation, and information systems.

Staff efficiencies: Employees do not have to spend time on an evening shift re-cessioning and relabeling arriving specimens. At least two hours are saved daily due to the specimens' instrument-readiness.

Insourcing tests and reducing reference lab costs: A \$1 million reduction in reference lab costs is anticipated in year two. The savings are based on 50,000 patient tests and insourcing 60 to 70 different tests. Tests brought in, so far, each cost, on average, \$10 to process, as compared to \$25 at a reference lab. Over a three-year time horizon, Trivergent anticipates saving nearly \$2.5 million by bringing in-house tests that were done by reference labs.

Faster test turnaround times: An outside reference lab could take, on average, 48 hours to share test results. That's partially due to specimen transport. Now, the labs release most test results to providers and patients within 24 hours.

New courier service: In fact, the labs employ a driver to pick-up and deliver specimens between the labs—an overall distance of about 100 miles. The new courier service replaces costs associated with a transportation company two of the labs previously used. "Now the driver does one loop per day. But that will change soon to two loops, and then we will have three loops daily," says Williams.

Goals to Optimize Utilization,

Add Tests

The alliance also plans to further engage Atlas Medical. Utilization Optimization, also powered by the ATLAS Coordinated Diagnostics Platform, will make it possi-

ble for labs to electronically share important test cost messages and more content about best practices with ordering doctors. The real-time aspects of the ATLAS solution are especially appealing. For example, pop-up messages occur at the time of order placement, informing a doctor that a test was just ordered or what it costs.

"Other companies give you utilization reports about what doctors are ordering. But what ATLAS will provide is different. It's integrated into a system. So, if a doctor is limited to ordering a CBC to one every six hours and orders one two hours later, he/she will get a message, 'The CBC was ordered two hours ago, and here are the results,'" Williams explains.

Trivergent anticipates buying molecular equipment, a high-end expense that each lab could not justify on its own. The estimated cost of \$152,000—for the instrument, analyzer, and data station—may be split among the three hospitals. Molecular tests likely to be insourced and shared are: HIV viral load, HCV viral load, Hepatitis C, and flow cytometry tests, among others. "And we would reduce the cost per report because we are only doing this on one platform instead of three," says Williams, who envisions still more opportunities as a result of the successful launch of ATLAS Multi-Lab Networking and the Coordinated Diagnostics Platform.

"We have just begun. We are in our infancy," Williams says. "And now that we have these connections and as the project continues, there is no holding back. There are no limitations."

Atlas Medical & Data Innovations Enable Three Labs To Share and Insource Tests Including:

Antinuclear Antibody IFA
w/Pattern
Antithymocyte Globulin
Cancer Antigen 15-3 and 19-9
Chlamydia/GC PCR
Epstein-Barr Virus Antibodies
Follicle Stimulating Hormone
Homocysteine
Immunofixation
Lead
Luteinizing Hormone
Lyme AB
Progesterone
Prolactin
Prostate Specific Antigen Free
and Total
Protein C and S
Rheumatoid Factor
Rubella IgG
Tacrolimus
Testosterone Free and Total
Thyroglobulin
Thyroperoxidase (TPO) Antibodies
Total Triiodothyronine
Vitamin D 25



Contact us:
26679 West Agoura Road, Suite 200
Calabasas, CA 91302
800.333.0070
818.340.7080
sales@AtlasMedical.com
www.AtlasMedical.com