

# CASE STUDY: LIS

## Keys to Successful Installation

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**P**ressures to increase productivity, lab technologist shortages and HIPAA compliance are just a few of the many issues lab managers confront on a daily basis. One tool to help lab managers face these demands is the laboratory information system (LIS). While many LIS advantages are obvious, the transition and installation of a new system is difficult and could, in fact, prevent the users from experiencing all of the benefits of the new LIS.



The Buffalo (NY) Medical Group recently transitioned from an older LIS to Orchard Software's Harvest™ LIS. Buffalo Medical is a multi-specialty practice of 105

physicians and 19 sites, with three lab sites (one main lab and two stat labs) performing hematology, chemistry, urinalysis, immunoassay and manual testing. We needed to find an LIS system that would grow with our practice, be user friendly and tie all 19 locations together.

When it came time to shop for and install the new LIS, there were several key factors considered to ensure success. Whether a large multi-specialty clinic, small POL, rural hospital or large metropolitan medical center, the key components remain the same—preparedness, acceptance of change and ownership.

### Key 1: Preparedness

Some of the most important variables to consider when preparing for an LIS installation are space planning, interfacing instrumentation, systems networking and computer hardware.

- Space Planning (Where do you want your workstations?)

Consider workflow and space issues when determining the number of workstations and the location for each. We involved the staff in determining space and workflow changes and let them know what to expect from the new system once it was operational. It was our objective to get them so excited about the new system that they couldn't wait to use it.

Plan for satellite facilities, nurses' stations and doctors' offices. If you are going to be tight on space, look at what you can change or move to make more room so that the staff will be able to work in these areas comfortably and efficiently.

- Interfacing Instrumentation (Can your analyzers talk to your new LIS?)

If your instruments are interfaced to an LIS, then your instruments can most likely be interfaced to your new system. However, if your lab is installing its first LIS, then it is important to check with each of your instrument and analyzer vendors to verify their ability to communicate with your new system. Make sure your instruments have the latest software version they need, and check to see if they have barcode readers that will allow you to use your LIS host query function.

If you purchase a new analyzer during your LIS installation, make sure the new instrument is onsite and functioning, and that your staff has been trained on its operation. Don't require your staff to learn how to use a new LIS and a new analyzer at the same time.

- Systems Networking (Are the wires and connections in place?)

It is important for the Information Technology (IT) staff to be involved in this project from its onset. If your new LIS is going to share information with your current practice management or hospital information system, is your network ready? Are your connections ready? Your IT department should provide network connections where you will place your new workstations and assist you and your LIS vendor with connectivity to your network.

- Computer Hardware (Is your computer hardware big enough?)

Will you be using existing computers or will you purchase new computers for your new LIS? Before deciding on buying the minimum required, consider exceeding those recommendations. This will ensure that your system will have room to grow as your lab grows. If, however, you are putting your new system on existing hardware, make sure it meets your LIS vendor's minimum specifications.

### Key 2: Acceptance of Change

It is important to get "buy-in" and prepare your staff for change. The best way is to include them in the process. Ask staff to develop their own wish list, and ask physicians for input.

Make your staffs aware that changes are inevitable; however, make sure they understand that the LIS will make their jobs easier.

It is also important to get your organization's support. Educate them on the changes and ask their input. If you want them to use your system, they need to be part of the process.

### Key 3: Ownership

Your LIS vendor cannot complete the installation alone. The vendor will do everything to make the installation proceed smoothly; however, you and your staff must take ownership of the system and be prepared for the associated changes. The individual assigned to installing your LIS will be most effective if he/she knows how your facility operates and the special needs you may have. At Buffalo Medical, diagrams of the current workflow were reviewed collectively with Orchard and new diagrams were developed based on the changes and features of the new LIS. Communication prior to the installation and taking time to introduce the installer to the inner workings of your lab will go a long way to a smooth transition.

Finally, the lab manager is typically responsible for collecting and entering the clinical data your facility requires into the new system. Learn everything you can about how information is entered, changed or edited in your new lab system. Work closely with your LIS installer to learn the intricacies of data entry to enter your data in a way that meets your requirements. This knowledge allows you to customize your laboratory's information to fit your facility's needs. It gives you the knowledge to make any necessary changes as you introduce new tests to your test menu.

### Summary

The Orchard Harvest™ LIS was installed at Buffalo Medical Group in 2003. By following these three keys, installation was accomplished three weeks ahead of schedule. Be involved in your installation, from the planning phase through the physical installation to the post-installation process. ■

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