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LabDAQ Helps the UNC Project Improve Patient Care For People Living with HIV and AIDS in Malawi, Africa

Overview

In February, 2005, **Antek HealthWare LLC** (Reisterstown, MD) was contacted by the University of North Carolina Project regarding their requirements for a Laboratory Information System (LIS) to support their laboratory in Malawi, Africa. Our corporate culture, which encourages curiosity and innovation, allowed us to think beyond the significant hurdles of geographical distance and cultural differences. That in turn crystallized our focus on "How can we help the UNC Project accomplish their goals?" As a result, the custom LabDAQ system that Antek developed and proposed was successfully installed in December 2005.

Context/Customer Need

The University of North Carolina Project is a collaborative effort between the University of North Carolina and the Kamuzu Central Hospital (KCH) of the Malawi Ministry of Health in Lilongwe, Malawi, Africa.

"The UNC Project mission is to identify innovative, culturally acceptable, and relatively inexpensive methods of reducing the risk of HIV and STD transmission through research; strengthen the local research capacity through training and technology transfers; and to improve patient care for people living with HIV and AIDS," says—Robert Krysiak, Research Associate, University of North Carolina, Center for Infectious Diseases.

The laboratory started its operations in 1992 with a team of 2 technicians, carrying out HIV testing and sample preparation at the Kamuzu Central Hospital. Now the laboratory has five sites and a team of dedicated and competent professionals comprising of 19 technicians and two managers. The main laboratory in the Tidziwe Centre at KCH consists of a specimen reception area, as well as hematology, serology, chemistry, microbiology, and molecular biology sections. The off-site laboratories consist of a molecular virology lab (RNA PCR), a PBMC cell separation lab, and a laboratory at Bottom Hospital.

Several factors were important for the UNC Project in choosing an LIS for their facility. One was the ability to have a communications link between the main laboratory and the remote sites. Having several lab sites required a user-friendly and flexible system to track both patient specimens and test results more efficiently and rapidly. Project Managers also needed

a Windows-based system that could work on their existing on-site computers. In addition, it was necessary that the new LIS system would allow results from their automated instruments to download directly into the LIS to avoid transcriptional errors. With their funding based mainly on research grants, cost-effectiveness was another key criterion in the selection. Lastly, they needed a system that had intuitive software to help monitor quality control and quality assurance.

The Solution, LabDAQ

"I reviewed about 12 different LIS systems, and there was no comparison that LabDAQ was the best match for our facility. It was the only system that met all five of our criteria. The degree of flexibility and strength in this LIS exceeded our expectations. As our project continues to grow, this LIS has the ability to meet all of our needs. Work in the laboratory has become incredibly efficient due to LabDAQ. The staff appreciates its ease of use and the ability to retrieve the information needed in a few simple clicks. One of the great features of LabDAQ that works for our site is that the engineers for Antek in the USA are able to help us tailor the LIS in Malawi to our needs through remote access as we integrate the system," Robert Krysiak said.

Another advanced feature of LabDAQ that has value in a research environment is the ability to segment patients into user-definable special population groups; this feature enables the lab to mine epidemiology data by group. As an example, a user/research associate can review the average INR for patients that belong to the Coumadin Therapy group and that are males between 40-60 years of age; they can then segment that specific group and analyze test results accordingly.

Conclusion

Robert Krysiak concludes, "I have to commend the two application engineers from Antek who performed the installation at our facility in Malawi. I am sure they have a new appreciation for

the difficulties in managing the infrastructure for such a project in this part of the world. Their experience was put to the test, and their dedication and professionalism was greatly appreciated. The choice of a LIS was the remaining factor for our project, and we have no doubts we made the right choice with Antek's LabDAQ."

"We thank Robert Krysiak and the entire team at the UNC Project for their contributions toward making our project partnership a success for all concerned. We are pleased to support such a worthwhile project whose goal is to improve patient care for people living with HIV and AIDS," says Paul Taylor, Director, Sales & Marketing, Antek HealthWare, LLC.

For more information concerning Antek HealthWare LLC, call 1-800-359-0911, or visit the company's Web site at www.antekhealthware.com.