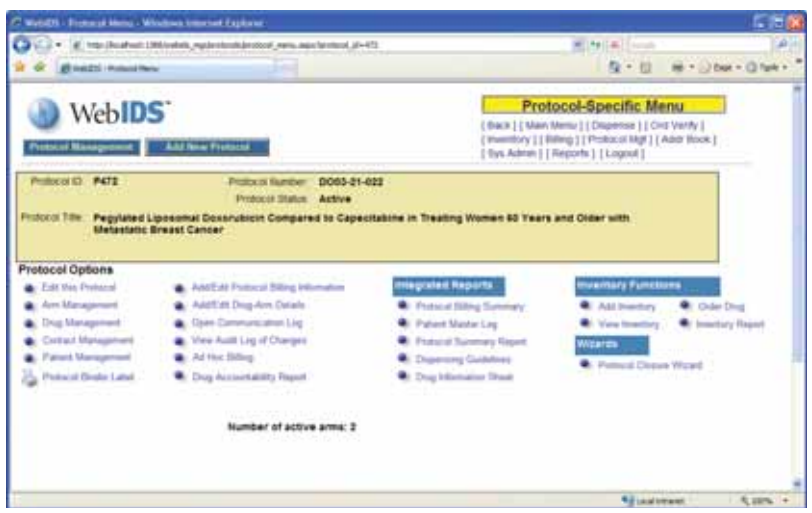
By Kenneth Rockwell Jr., PharmD, MS

WebIDS from McCreadie Group, Inc.



FROM 1995 TO AS RECENTLY AS 2002, the investigational drug service (IDS) at the University of Pennsylvania functioned with just two full-time staff members managing between 80 and 200 trials. Manual records and a simple labeling program, which seemed sufficient at one time, slowed us down as our workload increased. Additionally, invoicing of customers had always been a time-consuming process.

As our dispensing workload grew, we needed to expand and find new ways to generate and collect revenues to fund this expansion. By 2006 the IDS had tripled in staff, protocols had grown to over 400, and outpatient prescriptions alone were over 2,000 per month. The inflow of new staff brought with it many questions, such as how to maintain consistency between staff members and how to train new staff in systems that lacked documentation. Our labeling program, which worked on a single computer, created bottlenecks in the dispensing process. Quarterly invoicing became a huge endeavor, taking days to complete, at a time when it was necessary to turn around charges quickly to meet grant deadlines and avoid non-payment.

During this time, we began to look for solutions to these problems. When a suitable system could not be found, the University of Pennsylvania School of Medicine agreed to budget funds for a computer programmer specifically to work on a program that would assist with recordkeeping, labeling, and invoicing.

At about this time, we learned about a new system called WebIDS, which we soon discovered met many of our needs. We scheduled two demonstrations of the product, one for our IDS staff and one for the school of medicine personnel who would assist in our evaluation of the product. After several discussions with the school and our own staff, the school agreed to purchase the product for us.

We went live with the system in September 2006. We now enter all new trials into the system, while a number of older trials are transitioned into the system each week. WebIDS meets many of our current needs, and we expect it will continue to do so in the years to come. It is a Web-based system, so it can be accessed through a Web browser within our local intranet or remotely through a VPN client.

Entering a new protocol into the system is where the majority of the workload lies. We have learned that thinking through the protocol functions in advance and determining the best way to set up a particular protocol in WebIDS are the keys to achieving consistency and efficiency later. The system uses "arms" to define various treatment regimens to which a patient might be assigned. A medication can then be assigned to a specific arm of the study, so that it only becomes "available" for dispensing if the patient is also enrolled in that arm.

Once a protocol is set up in the system, anyone in the IDS can add medication to inventory – either to a particular study, as a generic supply that is linked to multiple studies, or even as a patient-specific supply. Entering a medication to inventory – or transferring it from one location to another – is quick and simple. A stock label is generated with each transaction, and the label can be attached to the supply to identify the study.

On patient profiles, we are able to track patients across more than one study. We have some patients who frequently volunteer as study subjects, this system allows us to maintain a single profile for those patients. Additionally the system gives us the ability to screen patients seen by one investigator, who might already be enrolled in another investigator's trial.

Dispensing activities can now be dispersed across our staff, with technicians able to enter unverified orders and generate labels. When a pharmacist checks and verifies the order, a new label is generated only if there are any changes made by the pharmacist. Bar codes on the prescription label allow the pharmacist to quickly call up the correct entry for verification. A prescription dispense also generates a label for the prescription itself as well as a "bag label," which we affix to a paper bag for outpatient prescriptions or a transport bag for inpatient doses. Our bag labels are customized to show the short study name or acronym in large bold letters.

Prior to implementing WebIDS, invoicing of customers was a very labor-intensive process. WebIDS promises to reduce our effort considerably. In the past, our invoicing involved manual tallies and the generation of paper invoices, which we had to send to customers. Over the course of some quarters, we would generate over 150 invoices. With WebIDS, we are able to standardize our charging, as the system can automatically generate charges with each dispense, as well as track inventory costs on a monthly basis. Rather than hand-typing invoices, the system generates statements at the end of each billing cycle. We are currently working with the vendor, the McCreadie Group, to expand this into a full accounts-receivable module, which will allow us to track business managers, put expiration dates on account numbers, and track how much was collected from each account.

WebIDS is also able to work out of multiple locations, a function we are very excited about. While we currently handle all dispensing from our single facility, we have plans for an IDS satellite on the other side of campus. This system will allow pharmacists in both locations to see the same data at the same time. We would be able to transfer inventory electronically from one site to the other and generate site-specific dispensing labels.

Over the next few months we expect to have all of our remaining protocols transitioned into WebIDS. We also are pushing hard, with some success to date, for sponsors to accept our electronic records in lieu of paper records. The use of WebIDS will allow us to grow and expand our services to meet the needs of our research community for years to come. ■

Kenneth Rockwell Jr., PharmD, MS, has served as the director of the University of Pennsylvania Investigational Drug Service ITMAT (Institute for Translational Medicine and Therpeutics) since 1994. He received his BS and doctorate in pharmacy from the St. Louis College of Pharmacy, and his MS from the University of Wisconsin at Madison.

WHERE TO FIND IT:

McCreadie Group Inc. . . . . . **Circle reader service number 77**
or visit www.mccreadiegroup.com