

The Information Source for Correctional Management Professionals **CORRECTIONS FORUM**

BY LAURA GATER, CONTRIBUTING EDITOR

PHARMACY SOLUTIONS: A REMOTE DISPENSING SYSTEM FOR PILLS

Until recently, undelivered medications were regularly thrown away at West Valley Detention Center (WVDC), Rancho Cucamonga, Calif. Although this practice was required by law, it was a huge waste of money for San Bernardino County. More waste occurred when four nurses each spent four hours daily setting up the medications by hand for delivery to inmates.

A few years ago the facility decided it was time to overhaul the entire pharmacy process or hire more nurses to help with it.

In fall 2007, after rethinking the entire process and adding technology, San Bernardino County Sheriff's Dept. was the first agency in the country to use a remote dispensing system to package and distribute prescription medication to inmates. Today, WVDC is one of seven facilities in the county that utilizes a remote dispensing system.

San Bernardino County is one of the first to use a technology to manage inmate pills.

Approximately 10,000 doses of medicine are administered to more than 2,650 inmates daily at WVDC, six times a day, and a shortage of qualified nurses meant that this was an overwhelming task. Now the remote dispensing unit can accomplish the same task in about 45 minutes while the nurses prepare the liquids, injectables and other exception medications.

"We realized that we needed a better way of administering medication," explains Terry Fillman, RN, MBA, CCHP, who is health services supervisor for the West Valley Detention Center. "What we needed was state-of-the-art computer interfaces between the correctional booking system and the pharmacy system, with an on-site remote dispensing unit. Our county has seven separate facilities that are miles apart, so for us to run a centralized pharmacy was not the best solution to our problem. Today, we can't waste money. We needed an accurate, efficient way to set up and deliver medications to a large amount of patients that are continually changing locations in a correctional environment."

West Valley Detention Center is one of seven run by the San Bernardino Sheriff's Dept. to use this innovative pharmacy technology.



“Our remote dispensing model has enabled the San Bernadino Sheriff’s Department to provide accurate tracking and delivery of more than 1.5 million pills per year.”
—Terry Fillman

\$17M Healthcare Cost

WVDC is home to 3,200 adult inmates. The facility provides medical, dental and psychiatric treatment to high acuity patients. More than half the inmates are on medication. WVDC offers on-site dialysis to inmates, along with a Coumadin clinic, minor orthopedic surgery, and oral surgery. Nurses, physicians, psychiatrists, psychologists, social workers, nurse practitioners, physician assistants, health service assistants, and ancillary staff all provide needed medical, dental and psychiatric services to inmates. West Valley is also home to approximately 120 high-acuity medical and mental health patients. Total annual healthcare costs for jailed inmates exceed \$17 million annually, with \$3.3 million of that amount used for medication (excluding labor costs).

How It Started

Approximately two years ago, the county probation department needed to be automated, and decided to purchase a medical packaging system. Talyst, a

provider of automated medication management systems in Bellevue, Wash., responded to the Request for Proposal, and as a team, the other departments and services talked about what else was needed. The San Bernardino County Board of Supervisors approved the \$3.8 million purchase of the system, which was developed as a collaboration of the probation department, Arrowhead Regional Medical Center (ARMC), the Sheriff’s Department and multiple information departments. The finished product is called InSite for Corrections.

The remote dispensing system is linked together by CIPS (Correctional Pharmacy Software), a program developed by KALOS of

Topeka, Kan. CIPS is simple-to-use corrections-specific pharmacy software for data entry of medication orders, but also maintains the flow of medication and housing information from the multiple correctional sites to the pharmacy.

When a medication order is changed or a patient is moved to another facility or gets out of custody, CIPS updates that data in real time to all locations for the InSite remote dispensing unit to process.

The project was custom created by customer and vendor.

“We took the project from square one and developed it,” says Fillman. Exploring medication systems being used elsewhere, includ-

ing nearby Orange County and Los Angeles County jails, together they decided which components would work well for corrections and which ones did not. They also looked at possible workflows that would provide the best facility specific, on-site, accurate medications without having to hire a pharmacist 24 hours a day at each of its seven remote sites. "Thus," Fillman says, "the Remote Dispensing model was born."

Remote Pill Automation

ARMC, Sheriff's, Probation, and County information systems departments were able to establish multiple interfaces. These interfaces are the keys to how well the remote dispensing system works to maintain all the current active medications orders written and entered into CIPS by clinicians and approved by the pharmacist in the same system. It is constantly updated with current housing information from the corrections Jail Information Management System (JIMS) in real time, and all data is available to the medication packagers for dispensing. It thus eliminates enormous amounts of wasted time and money for patients no longer in custody or moved to another location. The medication packet is printed with all required information including patient name, booking number, date of birth, medication name, dose, time (hour of administration), date, prescription number, lot number, and most helpful, according to Fillman, the color and shape description of each pill, then are printed out in housing order for easy delivery.

Today, InSite and CIPS are fully implemented in all four of the county's adult correctional facilities and its three juvenile correctional facilities. The system completes the process of dispensing medication in just 45 minutes, with a 0.1% predicted error rate. The nurses still check the medications before they are distributed to inmates, but that is just a brief process now compared to the lengthy process it used to be. Now it takes four nurses half an hour each to set up the medication for delivery, and the remote



Medication canisters are taken from secure storage, verified with a barcode scan, and installed in the Talyst InSite Remote Dispensing Unit. Specific inmate prescriptions, which are sealed and sorted, are dispensed in printed packets, and organized by housing section.

dispensing system is linked to other departments and facilities, so it is able to locate inmates who have been transferred within the county and print their new addresses on the medication labels.

"Our remote dispensing model has enabled the San Bernardino Sheriff's Department to provide accurate tracking and delivery of more than 1.5 million pills per year," says Fillman.

InSite uses computer chips to recognize the medication in individual canisters loaded into its consoles, then it matches the pills to specific inmate prescriptions, seals and sorts them, and dispenses the drugs in printed packets, organized by housing sections. Since the system updates itself in real time, delivery to the inmates' correct locations has

never been easier or more accurate.

Thanks to the new system, an inmate who has just been moved from one facility to another within the county will get his medication, helping to ensure continuity, an important aspect of medication administration. Inmates can also begin their medication right away, the same day it is prescribed. Before, inmates might have had to wait

days to begin medication, due to manual prescription ordering and approval processes. All prescription orders are reviewed and approved quickly by pharmacists at the nearby ARMC. The pharmacists are located off-site and are responsible for all of the county's correctional facility medication.

ARMC pharmacists are also responsible for filling, sealing,

West Valley Detention Center Pertinent Facts

Location: Rancho Cucamonga, California
 Number of Inmates: 3,200
 Security Level: Type II jail
 Number of Employees: 500
 Number of Years in Service: 18
 Number of Medical Beds: 200 high acuity medical and mental health
 Number of Pills Dispensed (2008): more than 1.5 million
 Director: Rod Hoops, San Bernardino County Sheriff-Coroner; Kathy Wild, RN, MPA, CCHP, Health Care Administrator



A nurse with the San Bernardino Sheriff's Dept. enters medication orders electronically; they are then approved by a remote pharmacy, and dispensed minutes later on site.

labeling, transport and tracking of the medication canisters with the Talyst InSite computer chip utilizing Automated Canister Recognition System (ACRS). The medical staff at each facility merely scan the barcoded canisters into inventory and place them in any empty slot inside the medication packager.

Talyst's InSite remote dispensing system is specifically designed to operate in a corrections environment. It works with current jail management software and systems to provide medication for inmates by enabling communication between medical, correctional, and pharmacy staff. It enables real-time integration with current jail management software and electronic health record systems, and provides clinical decision support to help deter medication errors. InSite physician order entry allows

monthly and quarterly updates of its comprehensive drug database, and it can print medication administration record reports. It allows pharmacists to oversee automatic inventory monitoring, and track medication expiration dates in order to ensure that expired or recalled medication is not distributed to inmates.

As for security, there is restricted access to stored medications, which are kept in password-protected and electronically-controlled locking cabinets.

How It Works

Inmates each receive a medical assessment during the booking process, and also as needed while they are jailed. If medication is needed, the prescription is submitted electronically through the CIPS order entry system. The order is

reviewed by a pharmacist and if approved, is submitted to the pharmacy to fill. The medication is then dispensed through the InSite Oral Solid Packager or Secure Medication Cabinet.

"We produce 3,200 scripts a day from the packager at WVDC alone and now that we have it, living without this technology would be really difficult. Numerous backup systems and 24/7 vendor support have been developed to keep it running smoothly," Fillman says. One of the most important keys to our backup system is that each packager is interfaced to over 100 computers at nine separate locations, so if one is down, then others can take over," he adds. "Recently, WVDC went totally black when a transformer blew and our generators didn't come on for more than 24 hours. The nurses were understandably upset about the possibility of setting up over 3,000 medications by hand for delivery by flashlight, but we called another one of our facilities and had them produce a 24-hour supply of medications from their packager for us, which we picked up within an hour. Our nurses were happy and the patients received great healthcare during potentially stressful times."

Fillman believes that the use of InSite and CIPS for remote medication dispensing will revolutionize the industry in economic hard times, when automation and technology can save time and money.

Other correctional facilities that have committed to purchasing the Talyst InSite pharmacy system include facilities in Texas and Pennsylvania, but to date, San Bernardino County is the only one nationwide that utilizes it. ✪

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