

**Excerpts from cover story in Provider - September '09 issue
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**PILL DISPOSAL
A GROWING CONCERN**

By: Suzanne Struglinski

As a long term facility nurse struggles to get a morphine prescription filled for a resident admitted at 10:30 p.m., another staff member could be witnessing the same medication being flushed down the toilet.

While facility staff aim to give the highest quality care with no eye to harming the environment or denying anyone medication they might desperately need, a complicated web of state and federal laws makes it difficult for them to care for their residents, keep costs down, and be good stewards of the environment all at the same time.

Institutions such as nursing and assisted living facilities and hospitals often “face conflicting advice from authorities because there is no clear guidance on how to dispose of unused drugs,” according to the American Society of Consultant Pharmacists (ASCP). “Not only are there conflicting federal policies, but there may be state policies as well that may be more restrictive.”

AN ENVIRONMENTAL HAZARD

Law enforcement is paying close attention to what happens to leftover pills, as abuse of prescription drugs - particularly painkillers - is on the rise among teenagers, while environmentalists want to curtail medical pollution, observers say. Federal agencies, members of Congress, state leaders, and interested stakeholders are examining ways to keep prescription medications, particularly narcotics and controlled substances, out of the wrong hands as well of out of the country's waterways, while the private sector is coming upon with different methods to stop facilities from being stuck with unused or expired medication.

In March 2008, the Associated Press did a series of articles looking at the effects of pharmaceutical contamination in water on fish and other wildlife. Its five-month study found trace amounts of many of the drugs people take in the water supply, which some researchers believe can harm humans and may already be linked to health problems in fish and birds.

“More than 100 different pharmaceuticals have been detected in surface waters throughout the world,” the Associated Press reported.

A September 2008 follow-up story estimated that the country's 5,700 hospitals and 45,000 long term care facilities generate about 250 million pounds of pharmaceuticals and contaminated packaging waste.

But facilities are not using the toilet as a disposal method solely by choice. A December 2008 report by Avalere Health prepared for King Pharmaceuticals found that at least 12 categories of controlled substances, including the painkillers Oxycontin and Percocet, provide directions to flush leftover pills.

DRUGS POSE SPECIAL PROBLEMS

According to an American Health Care Association (AHCA) survey, facilities estimate that 10 percent to 30 percent of their unused medications are controlled substances.

These are harder to get rid of than regular prescription drugs because of tighter regulations under DEA. Part of the problem is that Congress passes a law in 1970 to prevent drugs from getting into the wrong hands, but it does nothing to address disposal of unused medicine.

Most nursing facilities are not registered with DEA under the Controlled Substances Act (CSA) and do not operate facility-based pharmacies, which limited the amount of drugs that can be ordered or stored and how they can be destroyed.

Rules under the CSA create a “closed” distribution system where anyone who handles controlled substances must be registered with DEA and maintain strict records of all transactions involving them, accounting for when they are received, stored, distributed, dispenses, or disposed of.

The system requires that only DEA registrants, including the manufacturer, distributor, pharmacy, and prescribing physician, may transfer drugs to be dispensed to the “ultimate user,” the person take the drug. Ultimate users do not have to register with DEA to possess the drugs, but under the law they cannot legally distribute them to someone else either.

DEA regulations allow for a “reverse distributor” such as a pharmacy that takes back expired or unneeded controlled substances, but only from other DEA registrants and only for disposal. So once a long term care facility or individual patient that is not registered with DEA gets a controlled substance, the reverse distributor cannot take it back, not can the facility give it out to anyone else but the resident intended to get it.

Members of the public have told DEA that “the inability to use a reverse distributor in the disposal process is one of the reasons that ultimate users have difficulty safely disposing of unwanted medications, especially controlled substances,” according to DEA, which is trying to figure out a way to solve the problem.

PRIVATE SECTOR STEPS UP

As the federal government and the states try to figure out ways to fix regulations or pass new laws to make it easier to dispose of unused or expired medication easily and safely, the health care technology industry is coming up with ways to lower the numbers of unused pills in the first place.

Through different systems, devices, and even business practices, when it comes to pharmaceuticals and long term care, changes are being made for getting the correct medication to residents. At issue is not just waste but making sure patients take their medication as directed and facilities get the drugs they need, when they need them.

Rich Scardina, CEO of Millennium Pharmacy Systems, say facilities that come to his company want to improve their costs, care and compliance.

“They are looking to make their nurses more efficient,” he says.

One of the keys to reducing excess medication is to change the way a facility initially orders its drugs, he says. Dealing with handwritten drug orders from a facility to a pharmacy that need to be interpreted and then entered into a system leaves a lot of room for error. Stocking medication carts with blister-packs, commonly called Bingo cards, and then keeping track of the drugs dispensed is a time-consuming process that is also susceptible to error, Scardina says.

TECHNOLOGY TO THE RESCUE

Millennium offers the “Just-In-Time-Dispensing” service that delivers medication in three or four quantities already sorted per patient and divided by doses throughout the day. So if a patient takes four pills in the morning, four in the afternoon, and three before bed, the nurse would have three packets of all the medications required at the different doses times for each day.

A computer and a bar code scanner on the medication cart allow the nurse to log that the resident has been given the correct pills at the appropriate time. It also allows the nurse to note if the resident does not accept the pill or has problems taking it.

Each pack comes personalized for the resident, Scardina says. The computer on the med cart also includes any special instructions, such as if the pill needs to be crushed or if the resident prefers to take pills with juice rather than water.

The computerized process also nurses “to spend more time with the patients,” Scardina says. The system also helps with record keeping and “streamlines” a facility’s entire drug administration process from ordering to ingestion. Everything is done electronically.

The dispensing system delivers medication to facilities daily and can change orders in the chart as soon as a physician changes a resident’s prescription. The quick turnaround does not leave the facilities with medication the resident no longer needs, either due to a change in prescription, discharge from the facility, or even death.

Millennium combines its ordering system with its In-House Pharmacy, a large medication cabinet that allows facilities to keep some supplies of drugs on site. It can be stocked with up to 350 as-needed medications to allow the facilities to meet immediate resident needs.

“Patients can be admitted any time of day or night,” Scardina says, and sometimes facilities can be left scrambling trying to get the right medication for them, particularly during off hours.

The cabinet is secured and only accessible by approved staff. Some states may limit what drugs the cabinet can include or if facilities can use them at all.

Louis Grimmel, CEO of Lorien Health, a chain of seven facilities in Maryland, who is a Millennium client, says the cost of the drugs he was flushing each month was a big concern for him, particularly because he serves many residents that only stay a short time.

These costs, coupled with the time staff were spending filling out medication administration records (MARs), led him to look for a better way to manage things.

He first came to Millennium for its electronic MARs, but now also uses its dispensing options.

Grimmel estimates the electronic records saved him half a million dollars, and the new, shorter-term dispensing system saved him another half million. "So my 700 beds saved a million dollars moving to Millennium over the traditional pharmacy," Grimmel says. "This is 2009. Do Bingo cards sound like something you should be using today?"