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Finding Safer Ways to Dispose of Medications

# FINDING SAFER WAYS TO DISPOSE OF MEDICATIONS

A series of environmental investigations in recent years have revealed impactful quantities of pharmaceuticals in much of the nation's drinking water supply. Are there safer ways for our patients to dispose of unused medication?

You are listening to ReachMD, The Channel for Medical Professionals. Welcome to Focus On Pharmacy. I am your host Dr. Charles Turck, PharmD. Our guest is Dr. Shirley Reitz, PharmD, Associate Director of Pharmacy Clinical Services for the Group Health Cooperative, a consumer-governed, non-profit healthcare system based in Seattle, Washington.

DR. CHARLES TURCK:

Welcome, Dr. Reitz.

## DR. SHIRLEY REITZ:

Thank you, it's good to be here.

## DR. CHARLES TURCK:

Dr. Reitz, would you tell us a little bit about the project. Whose idea was it and what does it involve?

### DR. SHIRLEY REITZ:

Just as the medication disposal or another term is gone by is medication take-back program for consumers to remove unwanted or expired medications from their household and return it in a safe and secured way. That keeps the medications out of the environment and also keeps them out of people's homes where there could be potential poisoning or toxicity or confusion about medication use issues. So, it started approximately a year and a half ago and actually it started probably about 3 years ago when a group got together here in the State of Washington, looking at this issue and the group involved not only folks from some environmental groups, for example King County Local Hazardous Waste, Snohomish County Waste Management Group, State Department Of Ecology or Washington State Board of Pharmacy, but also some non-profit groups including Washington Citizens For Resource Conservation, the



Northwest Pollution Prevention Resource Center. This group all came together to look at ways to keep medications out of the environment. I joined it approximately a year later, in 2005, looking at it from not only an ecology point of view, but also from a patient's safety point of view because we know that medications in people's households have the potential for causing risk to either other people in the household or to the patients themselves who might get confused about the meds that they are supposed to be on. So, I came together with the group and we actually developed this pilot project that was then implemented at Group Health Cooperative. We started in 2006, late in the year. We opened up in 7 of our clinics and have since expanded to 25 clinics across the State of Washington, both in Seattle and Sequim and have been collecting medications from patients since then.

## DR. CHARLES TURCK:

Just to provide some background, how have consumers traditionally dispose of undesired medication?

#### DR. SHIRLEY REITZ:

Well, consumers dispose of medications in a number of ways. There haven't been a lot of good guidance out in the community prior to this, but if you look traditionally at ways of patients getting rid of medications, it involves them throwing them into their household garbage. It could involve pouring, for example, liquids down the sink or flushing medications down the toilet and what we are finding is that a number of people actually keep their medications in their house because it seems to me that intuitively they know that it's not optimal to throw them in the garbage or to flush them down the toilet, but they don't know what to do with that, so they kind of hang on to them until they can figure out what to do with them and some people have taken them back to pharmacies or the physician's offices, although the number of people using that resources are very low.

#### DR. CHARLES TURCK:

And they may not have necessarily met success with the physicians or pharmacist taking the medications back. Is that right?

### DR. SHIRLEY REITZ:

That is correct because there is no system for the pharmacist or the physician to really accept those medications or to dispose them properly.

### DR. CHARLES TURCK:

Are unused pharmaceuticals considered hazardous waste?

# DR. SHIRLEY REITZ:

Certainly, they can be considered hazardous waste if a business for example of a pharmacy or a physician's office had to dispose of them by themselves if they were medications that were within their control and they needed to dispose of them, they would be considered hazardous waste. That's why we use hazardous waste processes to get rid of the medications that we take back from the consumers. However, because laws regarding medications that are in consumer's hands, so if I am dispensed a medication from a pharmacy and I take at home, it really falls under a whole different set of hazardous waste laws and so, you know, legally you could say



well, it's really not a hazardous waste, but it's still the same chemical and so we really should still handle it in more appropriate ways.

#### DR. CHARLES TURCK:

Could you give listeners the sense of this problem's scope and perhaps why the program is so important? Do you have any sense of just how much medication waste exists in US households?

#### DR. SHIRLEY REITZ:

We do know that the number of prescriptions purchased by American consumers have significantly increased over the last approximately 10 years, from 2.1 billion up to 3.6 billions and we do know that now, there was a recent study that came out that showed the majority of insured Americans, over 51%, are now at least on 1 prescription medication to treat a chronic health condition. So, the use of medication continues to climb. We also know that non-prescription drug purchases are around 3.3 billion dollars worth, so there is lot of medications out there. The estimates on the volume of waste pharmaceuticals, however, is not quite as clear. There have been some studies. A recent study by the Environmental Protection Agency estimated that there was probably close to 18 metric tons of medicines that are disposed of annually into the sewage system, just from the diseased population alone. So, these are people who have died and they no longer need their medication and the family members are disposing them in the sewage system. There are some estimates that PhRMA, the Pharmaceutical Research and Manufacturers of America Association, has put out that suggests somewhere between 3% and 12% of products sold in the United States goes unused. However, in Germany and Austria, research suggests that it could be as high as 25% to 33% of drugs go unused. So, the estimates vary. Even if we say that 10% is the rate, we do know that given that this is a multi-trillion dollar industry that there are many, many billions of dollars of drugs that are being wasted every year in the United States.

### DR. CHARLES TURCK:

If you are just joining us, you are listening to Focus On Pharmacy. I am your host, Dr. Charles Turck. Our guest is Dr. Shirley Reitz, PharmD, Associate Director of Pharmacy Clinical Services for the Group Health Cooperative, a consumer governed, non-profit healthcare system based in Seattle, Washington. We are discussing a medication disposal program being piloted in Washington State.

Dr. Reitz, could you give us some details about how the Group Health Medication Disposal Program works. What do patients see when they walk into one of your pharmacies?

## DR. SHIRLEY REITZ:

So, when they walk into our clinic, again where setup is clinic, where we have doctors' offices, there is lab, there is a pharmacy in there and when they walk in, in the pharmacy waiting, there is a fairly large blue bin. It looks sort of like a mailbox that you would see out on the corner where you drop your mail into it. The top of that bin has a shoot in it similar to a mailbox shoot that patient would walk over to and they can drop their medications down to the inside and on the inside is a 5-gallon bucket that the medications drop into. These blue bins are bolted to the floor or to the wall to provide security. They are also within viewing distance, direct line of sight from the pharmacy counters and we have security cameras. So, we have taken some precautions to provide some additional security within our waiting areas to make sure that those medications are kept safe. Once the medications drop down into the 5-gallon bucket, there is a way for the pharmacy staff then to observe if that bucket is getting full and then on an interim basis, they will change that bucket out, put a new bucket in. That bucket is then sealed and tagged and using very precise inventory methods, they will send it back to a central location where it's locked and stored before it is send off for disposal.

## DR. CHARLES TURCK:

Do patients participating in the program need to take extra care to mark out their personal information on their prescription bottles?

## DR. SHIRLEY REITZ:

Well, in this program, as in any other disposal program, the patient should always take care to remove or obscure with a black marker any personal information on the prescription boxes or bottles that they would not care to share with others. Although, within our system, because it's internal, once we have taken those meds in and it stays internal within our system, we are less concerned about that because these medications would never be in an area where there would be concern about security.

## DR. CHARLES TURCK:

And if you are able to discuss it, how was it that the Group Health was selected to be the pilot so?

### DR. SHIRLEY REITZ:

Group Health was selected, I think, because of my involvement in this project. I worked with the American Society of Health-System Pharmacists. I chaired a policy recommending council several years ago and in this council, we looked at the issue of what pharmacists could or should tell patients about how to dispose their medications and we realized that there wasn't very good information or good resources for pharmacists out there. So, when I came back from that meeting, I thought man this is a really important topic given that we live in the State of Washington, a very green state, given that Group Health Cooperative is a very community-oriented organization and it just felt like it was a right fit, so I came back to the State of Washington and I started looking around to see what else is happening in the state regarding medication disposal and in that process, I ran across this group of environmentalists that were looking at it from an environmental point of view and with my interest in the patient's safety, we kind of joined forces and developed this oversight group, which then ultimately led to the pilot being a Group Health.

#### DR. CHARLES TURCK:

It's a marriage of interest.

### DR. SHIRLEY REITZ:

It's a very nice marriage of interest because really those 2 interests mesh very nicely to provide an excellent community service for a patient.

# DR. CHARLES TURCK:

Are you able to discuss how it is that the program obtained funds to operate?

# DR. SHIRLEY REITZ:

Well, this is a pilot program at this point and as a pilot, we are funded through grant dollars and the grant dollars have come from a number of different agencies – local, county, states, governmental as well as some non-profit organization that have funneled money into this to look at this pilot project. The pilot project will be completed at the end of October and so at this point, we are in the stage of looking at perhaps interim funding. The long-term funding that we are working with state legislators on regard what's called the product stewardship approach and the product stewardship approach is similar to what we see in electronics for example or where at least in the State of Washington the manufacturers of computers and electronic equipment are actually funding the disposal or removal of unwanted or broken computer or electronic equipment as part of the funding process for allowing that to happen and so we are looking at perhaps the same type of mechanism for disposal of pharmaceuticals. We are looking at the manufacturers of these pharmaceuticals to help fund the ongoing removal and disposal of medications as well. It's based off an ongoing program in Vancouver in British Columbia that's been in that province for well over 10 years and working very effectively in which pharmaceutical manufacturers in Canada actually fund the program there.

#### DR. CHARLES TURCK:

There have been proposals in the past to have similar programs overseen by for example law enforcement agencies or community collection programs or mail back programs. Why is it that you feel that having a medication waste program in the setting of a pharmacy is perhaps better than the other ideas that have been floated around in the past?

#### DR. SHIRLEY REITZ:

Well, there have been a number of 1-day events that have been offered in communities where a licensed health law officer needs to be present in order to accept controlled substances. The problem with the 1-day events is that they are 1-day events in that you have to be there during a certain time to be able to drop off your medication. They are costly to run because you need licensed staff there to take that medication and they are really unpredictable with the turnout. Some days you can get great turnout, other days you might get just a handful. Other communities tell consumers to take their controlled substances particularly to police stations or sheriff's offices and our State Law Enforcement Agency that we have worked with have basically informed us that they don't really want their law officers to be in the business of taking controlled substances from consumers, that's not what their core work is. So, we wanted to make a process that it was as easy to dispose of your medications, as it was to purchase them.

### DR. CHARLES TURCK:

We have been talking with Dr. Shirley Reitz about the medication disposal program being piloted in Washington State. Thank you, Dr. Reitz for being our guest.

## DR. SHIRLEY REITZ:

You are welcome.

I am Dr. Charles Turck, you have been listening to Focus On Pharmacy on ReachMD, the Channel for Medical Professionals. Be sure to



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