

Poison pills for the environment

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When you hear the words "household hazardous waste" you probably think of paint (especially if it's old and lead-based), gasoline, motor oil, paint thinners and similar solvents, batteries, pesticides, etc.

But what about that old bottle of insect repellent with DEET or the prescription medication your doctor took you off but that you still have in your medicine cabinet? Did you know that such items are considered hazardous waste? Now, the tougher question: How do you dispose of these things?

I faced this question when my father died recently in Buffalo. Like many seniors, he was on a number of medications for chronic conditions. So that he never ran out, he had stockpiled many weeks' worth of each. Not knowing how to dispose of them, I asked his pharmacist what he recommends. He told me to flush them down the toilet.

Though I don't know anything about waste-water treatment, dumping medications directly into the water system seemed like a bad idea. Uneasy with the advice, I asked five other pharmacists in Buffalo and all of them told me the same thing. Ultimately, disregarding the advice, I put them in the regular garbage (preferring the idea of them slowly leaching into the soil) and I recycled the pill containers.

Given this experience, I was most interested in a recent story about a report by the Canadian Institute for Environmental Law and Policy on the potential dangers of drug residue tainting water. I was surprised to learn testing for medication and personal-care products ("emerging contaminants") in water did not begin until the late 1990s. I was less surprised that post-1999 testing by the U.S. Geological Survey found such contaminants in surface water, groundwater, and streambed sediments. Canadian testing has been more limited apparently, but a study of samples near sewage treatment plants in 14 Canadian cities found a number of pharmaceutical products present.

The report pointed out that the concentration levels of these contaminants are very low and research has not been extensive enough to yield a widely accepted consensus about the human health impacts of such contaminants ending up in water. But given that pharmaceutical use is rising rapidly and given the potentially far-reaching implications of the issue, the report urges water analysts and

decision-makers to begin addressing the issue.

After reading this, I decided to see what advice I would have got here in Toronto regarding Dad's meds. I started by asking three pharmacists in my neighbourhood. All of them told me they take back unused medications for incineration.

I then checked Environment Canada's website. It was here I learned such products are considered household hazardous waste. Environment Canada directs consumers to return leftover prescriptions and over-the-counter drugs to pharmacies and specifically says they should never be flushed down the toilet.

A bit more research revealed that B.C. has had a formal medication return program since 1996. The program is funded by a pharmaceutical industry stewardship association. In 2005, 18,000 kilos of medications were collected under the program.

Given the advice I got in Buffalo, I was curious about where U.S. officials are on this issue. Maine appears to be taking the lead. Under a 2005 state law, a formal group was set up to implement a program for disposing unused pharmaceuticals.

The recommendations emerging in Maine cover everything from voluntary turn-in "events" to the need for postal regulations to allow for return-mailing of unused medications, from the design of mail-in packages to co-ordination with drug enforcement agencies for proper control of returned narcotics. And there's public education as well.

Though Maine's approach seems a bit over-the-top (or maybe it's just more comprehensive than the Canadian approach), at least the state is doing something.

Clearly, by categorizing unused medications as household hazardous waste our leaders recognize the potential danger associated with disposing of them. But, it's also clear that, as the Canadian Institute for Environmental Law and Policy points out, more research should be done to define the scale and significance of the problem.

As well, more needs to be done to raise public awareness. The current issue of the City of Toronto's Waste Watch newsletter lists medications as hazardous waste eligible for recycling or disposal as part of the 2006 Environment Days program, but doesn't mention the alternative of simply returning them to your local pharmacy.

Laws mandating product stewardship programs, hazardous waste labeling on such products, and perhaps even making it illegal to discard medications in the sewer system, may eventually be warranted. In the meanwhile, however, people should

be educated about the possible dangers and pharmacies should be encouraged to continue voluntarily taking back old medications and publicizing the fact they do.

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