

Improving medication use...Advancing patient care
Report of the 2003/2004 APhA Strategic Directions Committee

Report Excerpt

Medication Disposal

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American Pharmacists Association™

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Reducing and Preventing Medication Related Problems

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The Strategic Directions Committee was charged by President Tonrey to develop and implement an APhA strategy for reducing and preventing medication related problems in the areas of: Pharmacist Compounding; Clarity of information transmitted from prescribers to pharmacists; and Tablet Splitting. In addition, the Committee provided guidance to the Association on issues of patient safety and pharmacy practice, such as Medication Disposal, as they arose.

Medication Disposal

1) Adopt the Proposed Guidance to Patients regarding disposal of unused medications:

- ✓ Take all of your medication as directed unless you experience a problem, then talk to your pharmacist and doctor.
- ✓ Keep medications in their original containers because the labels contain safety information, and the caps are typically water tight and child-proof.
- ✓ While flushing unused medications has been recommended, there is some concern that this could contaminate the water supply.
- ✓ If your community offers incineration (burning) of medications, use that service.
- ✓ When discarding medications, do not just throw the product in the trash because it can create a risk of poisoning children and pets. Add a small amount of water to the solid drug or some absorbent material such as kitty litter, sawdust or flour to liquid drugs before recapping (this helps prevent further use of medication).
- ✓ Place the container described above in a bag or any other waste container to prevent immediate identification of a drug or prevent a glass container of a drug from breaking during disposal.
- ✓ APhA is concerned about the impact of medication disposal on the environment and is seeking information and guidance from the manufacturers and the FDA and EPA about how to dispose of various medications.

Summary of Committee Discussion

What's the best way to throw away leftover, expired medicines? A common answer has been to "flush 'em," to ensure children and animals couldn't stumble on the drugs and be poisoned. Now scientists are increasingly warning not to flush drugs. Antibiotics, hormones and other medicines are being found in waterways — raising worrisome questions about potential health and environmental effects. So what should one do?

No one knows just how many unused medications Americans dump each year, or how many are hoarded because patients don't realize the drugs have expired or simply don't know what to do with them. It's a question that arises every time a pharmacist conducts a "clean out your medicine cabinet" campaign.

The US Environmental Protection Agency (EPA) is studying whether to develop formal recommendations for what to do with old drugs. According to EPA officials, "the age-old wisdom of flushing medication down the toilet ... is probably the least desirable of all the alternatives." One of the new contraceptive, a vaginal ring, actually comes with do-not-flush instructions, because it still contains estrogen after it's been used. Women are instructed to wrap the NuvaRing in an accompanying foil patch and put it in a trash can out of reach of children and pets — the idea being that landfill disposal slows drug seepage.

At issue are the "pharmaceutical and personal care pollutants" that defy traditional wastewater treatment. A US Geological Survey found traces of dozens — painkillers, estrogen, antidepressants, blood-pressure medicines — in water samples from 30 states. Long-term effects aren't known, but scientists worry that exposure to even tiny amounts might cause some harm, at

least ecologically. Studies have linked hormone exposure to reproductive side effects in fish, for example, and environmental exposure to antibiotics may encourage development of drug-resistant germs.

Chemicals get into water in myriad ways. There's runoff from farms or factories; indeed, the World Health Organization is pushing for a major decrease in farmers' antibiotic use. Topical chemicals like insect repellent are washed off. Then there's excretion. Drug disposal is starting to get more attention. The Food and Drug Administration is reevaluating its policy for which drugs need the environmental assessments that can spark disposal instructions. Some states are working to allow nursing homes to donate leftover drugs to indigent patients, as long as they weren't opened and were guarded against tampering.

The SDC reviewed current state, national and international activities regarding the appropriate disposal of medications. Medication disposal has become a very complicated issue as communities are faced with disposing medications from health care professionals and individual patients. In addition to the original product format, communities are faced with the challenge of dealing with metabolites of medications as they are excreted into sewerage systems. The SDC believes that APhA should participate in discussions of this issue and provide guidance to pharmacists and the public. The Committee drafted guidance for patients as presented at the beginning of this section.

The SDC had also reviewed several recommendations regarding who should be responsible for disposing of unused medications. Those recommendations included: incineration through re-distributors with a state being responsible for assuring process is legal and can be pursued; requiring manufacturers to address disposal concerns; or having consumers return meds to public health department on a collection day.