

## Hazardous Conditions

The ANA, nurses work to inform colleagues about safer drug handling.

**D**espite its many rewards, the practice of nursing can be risky business. Nurses may encounter antibiotic-resistant bacteria and infectious diseases, or they may face injury if their facility lacks appropriate patient-lifting equipment.

Against the backdrop of such familiar hazards, however, RNs may be less familiar with—or unprepared to address—the health risks posed by exposure to hazardous drugs.

“Many nurses receive OSHA [Occupational Safety and Health Administration] training about chemicals in the workplace, but it’s very general,” says Marty Polovich, MN, RN, AOCN, an oncology clinical nurse specialist and member of a federal working group that examined hazardous drugs and worker safety. “Also, nurses and others in health care don’t tend to look at drugs in the same way they look at chemicals, such as solvents. But drugs are chemicals.”

Polovich describes hazardous drug exposure as a long-standing, “invisible” risk for nurses—and one that extends beyond oncology units to many health care settings.

“What you don’t know can hurt you,” says Polovich, a Georgia Nurses Association member. Research has shown that unintended exposure to hazardous drugs has been linked to serious health issues, such as cancer, infertility, and birth defects. However, Polovich is quick to point out that she isn’t out to frighten nurses,

but to inform them.

To that end, Polovich, the ANA, and other nurse health and safety experts are stepping up efforts to create greater awareness among RNs and other health care professionals about safer practices for handling hazardous drugs.

The target of these efforts is not only nurses but employers. The culture of safety varies by facility. “Administrators at one may be more proactive in helping to implement education programs and workplace practices to protect their employees, while those at another are not so inclined,” says Marian Condon, MS, RN, senior staff specialist in the ANA’s Center for Occupational and Environmental Health. “But when nurses are fully informed, they are empowered to make changes in their own practice and the broader workplace culture.”

Condon notes that RNs and other health care workers are exposed to many chemicals, including disinfectants and sterilants. While these may have safer substitutes, hazardous drugs do not. Therefore, says Condon, “nurses need to protect themselves to the fullest extent possible.”

### THE EXTENT OF THE PROBLEM

An estimated 5.5 million U.S. health care workers, including nurses and pharmacists, may be putting their health at risk when they prepare or administer hazardous drugs, according to a 2004 National Institute for Occupational Safety and Health (NIOSH) alert.

The alert, called *Preventing*

*Occupational Exposure to Anti-neoplastic and Other Hazardous Drugs in Health Care Settings*, is a comprehensive document that includes information on conditions that can lead to harmful exposures, health effects in exposed workers, and protective measures for handling hazardous drugs. The alert, which is available on the NIOSH Web site, also provides a sample list of drugs considered hazardous. Among those drugs are ganciclovir (Cytovene, Vitrasert), interferons, oxytocin (Pitocin), and tamoxifen (Nolvadex).

The alert is one of the major accomplishments of the NIOSH Hazardous Drug Safety Working Group, first convened in 2000. The group includes representatives from government agencies, pharmacy, nursing, research, and safety-equipment manufacturing.

“Much of the information that is in the alert, such as the need for protective equipment when handling these drugs, has been around for 20 years,” says Melissa Leone, BSN, RN, a member of the working group and national director of nursing for Apria Healthcare, a home care company that offers infusion therapy. “But in general, practices haven’t changed. It’s alarming how cavalier some companies are about putting nurses at risk—as well as the health care workers, themselves, when they’re working with these drugs.”

Polovich, who’s given chemotherapy to patients since 1980, agrees. Although OSHA issued guidelines—rather than enforceable standards—for handling hazardous drugs in 1986,

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adherence to them has been spotty.

From talking to thousands of nurses around the country about safe drug handling, Polovich is acutely aware of the great need for this information.

For example, she says that a group of rheumatology nurses recently told her that they were unaware that methotrexate, (Rheumatrex, Trexall) used to treat arthritis, requires special handling. And as Polovich has interacted with oncology nurses taking her online safety course, she has learned that it's often the experienced nurses who use less protection. Says Polovich, "Their attitude is 'I've been a nurse for 35 years. How bad can the risks be?'"

"All nurses have the potential to handle hazardous drugs, so they all need training at their facilities," she adds. "And although knowledge is key, it's only the first step. Nurses

also need appropriate personal protective equipment readily available to them."

Depending on which drug is being handled, that equipment can include a face shield; two pairs of powder-free chemotherapy gloves; a disposable, nonabsorbent gown that closes in back; and a NIOSH-approved certified respirator. According to the alert, this equipment is needed because health care workers can be exposed to hazardous drugs when some of the materials enter the air or are spilled, or when the workers touch contaminated surfaces when preparing, administering, or disposing of the drugs.

Another problem the working group uncovered is that not all hazardous drugs, particularly oral medications, are labeled as such.

"We've been working with the Food and Drug Administration

to update the package inserts for hazardous drugs," Leone says.

"Most of the current package inserts do not identify the drugs as occupational hazards."

Polovich adds that once those warnings in the package inserts are required, the *Physicians' Desk Reference*—the standard drug book in most settings—will include that information in its listings. The working group also is committed to creating, promoting, and distributing ancillary reports that address aspects of the alert.

"We really wanted to break down the information, so health care workers and their managers can easily access the information they need," Leone says. The documents then would be available as part of the Workplace Solutions section of the NIOSH Web site.

For example, Leone says, one supporting document would focus on developing safer workplace practices, including the disposal of hazardous waste. Another would center on medical surveillance, which addresses strategies to detect and minimize the physiologic effects of hazardous drug exposures in the workplace.

### **PARTING ADVICE**

Leone hopes that once hazardous drug handling is seen as an important issue by nurses and others in health care—akin to the way safer needle systems are now viewed—RNs can win effective measures. Specifically, say nurse experts, having OSHA regulations would help ensure safer workplace practices.

Both Leone and Polovich also urge RNs to learn about their employers' policies and

procedures regarding safe drug handling and lobby for—and use—the personal protective equipment they need.

“Sometimes nurses are willing to sacrifice their own safety to avoid what they perceive as a negative reaction from their patients when they put on protective gear,” Condon says. “But patients will understand and appreciate procedures that are aimed at keeping everyone safe. It’s just a matter of educating them.”

“We also need to look at the disposal of hazardous waste and make sure it’s handled appropriately,” Leone says. “We want to avoid contaminating the environment, which undoubtedly can affect more than health care workers.”

In the meantime, the ANA will continue to promote the efforts of the working group and the need for safe drug handling, according to Condon. The ANA also is involved in a related initiative that promotes using safer alternatives to dangerous chemicals and continues its work with Health Care Without Harm ([www.noharm.org](http://www.noharm.org)) and Hospitals for a Healthy Environment ([www.h2e-online.org](http://www.h2e-online.org)). Both groups focus on reducing the negative effects of health care practices and products on the environment.

Adds Condon, “We know that the health care setting is an inherently stressful, fast-paced environment, and sometimes RNs sacrifice safety in the interest of getting the job done. So we also are working to address the other factors that can affect nurses’ health and safety—such as working on units that are not fully staffed.”

For more information on the alert, go to [www.cdc.gov/niosh](http://www.cdc.gov/niosh). The American Society of Health-System Pharmacists also has a position paper on hazardous drug handling available online at [www.ashp.org](http://www.ashp.org).