

Bremerton Setting the Standard for Medical Waste Disposal

Command-wide Pilot Program to End Improper Flushing & Dumping

JUST AS WATER seeks its own level, so does the disposal of medical waste products and hazardous pharmaceutical waste. Naval Hospital Bremerton's (NHB) Environmental Division is making sure that water and waste don't mix. NHB has implemented a ambitious command-wide pharmaceutical waste pilot program

Hallmark states the three main concerns for the pilot program are to:

1. Protect human health;
2. Protect natural resources such as water, ground and air; and
3. Promote environmental stewardship.

Reduction Specialist for the Washington State Department of Ecology Hazardous Waste & Toxics Reduction Program. Fisher notes that the Washington State Department of Ecology has provided statewide technical assistance for pharmaceutical waste management over the last couple years, including two site visits to NHB.

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—Chad Fisher, Washington State Department of Ecology

to effectively end the flushing, dumping and removal of medical and pharmaceutical waste that could pollute the local environment.

"Instead of throwing pills or some liquid medicine down the nearest drain or dumping into a landfill, we're ensuring that anything that is not going to go back to the pharmacy goes into containers specifically set up in ten places throughout the hospital," explained Jean Hallmark, NHB Environmental Protection Specialist and Pharmaceutical Waste Program Manager.

To that end, since February 2009, over 1,200 pounds of pharmaceutical waste from NHB has been diverted from a landfill or a local water source. Approximately every three months a load out is shipped to a site in Utah for incineration. "It's a great start to keeping our environment clean and changing our mindset," said Hallmark.

"I am impressed with the continued progress in implementing the pharmaceutical waste program as part of NHB's overall effort to ensure a safe working environment for staff and others," stated Chad Fisher, Toxics

"NHB has a well developed pharmaceutical waste program," he said. "Significant improvements have been made over time. The NHB Environmental Division staff of Robert Mitchell, Jean Hallmark and Ramon Calantas are committed to a proactive approach and continuous improvement of the program. Toward that end, they have an open and engaged relationship with the Washington State Department of Ecology."

Examples of hazardous pharmaceutical waste include absorbents used in the cleanup of pharmaceutical spills;



NHB's command-wide pharmaceutical waste pilot program is designed to provide a viable option for the safe and effective removal of medical and pharmaceutical waste.

Douglas Stutz

powders; tablets and pills; test strips; throat and nasal sprays and syringes. There are also creams, pastes and ointments, eye drops, inhalers, intravenous (IV) bags and tubings and lotions. "But if an IV and IV tubing have normal saline, dextrose, dextrose with saline or lactate ringers, it is not considered hazardous pharmaceutical waste," said Hallmark, "and neither are outside baggies, unit dose packaging or container caps."

"It's extremely important to prevent pharmaceutical waste products from getting into our water," observed Hallmark. "There have been water samples taken in the past from several Puget Sound areas that have proved that medications have been hazardous to aquatic life and impact water quality."

Fisher added that nationwide there have been U.S. Geological Survey

studies that have shown multiple pharmaceutical compounds and/or their metabolites in virtually every waterway tested. These compounds can enter waterways in various ways including agricultural uses, animal wastes and wastewater treatment plant effluent. Wastewater treatment plants have multiple sources as well, including the unused pharmaceuticals dumped and flushed to the sewer. The business practice of flushing and dumping unused pharmaceuticals in the sewer is not only illegal but introduces unnecessary chemicals into our waters. Diverting pharmaceutical waste from the sewer system can only help the aquatic environment.

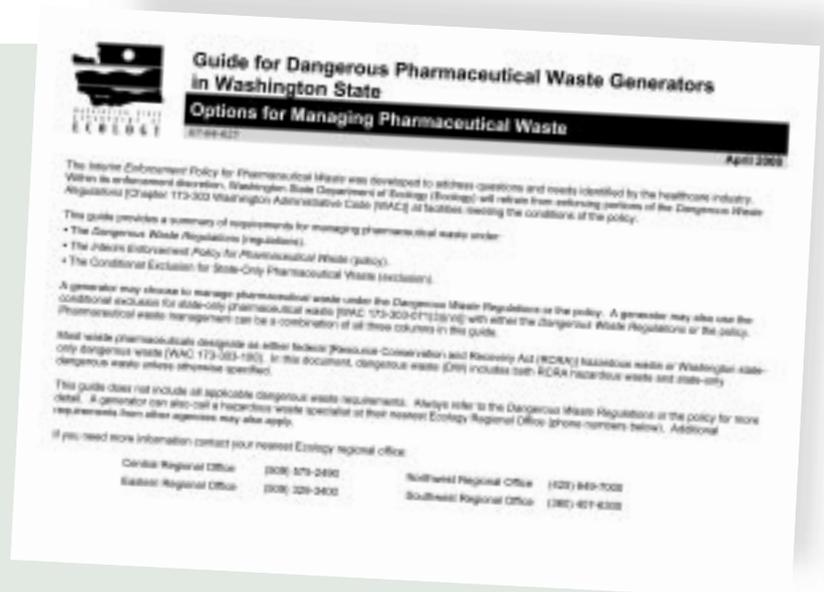
"It will take the collective effort of individuals and the business community to reduce and eventually eliminate that

concern," stressed Fisher. "Education and outreach at all levels will help promote proper management. For example, a recent Washington State program for unwanted household medicines has collected and disposed of nearly 21,000 pounds of pharmaceutical waste. NHB is making similar strides. Together, we can promote and expand pollution prevention programs to eliminate the concern posed by pharmaceutical waste in the first place."

According to Robert Mitchell, NHB Environmental Program Manager, this pilot program will not only comply with state and federal pharmaceutical waste handling regulations, but having such a program in place is also a Joint Commission (JC) mandate. And the Washington State Department of Ecology is considering NHB's program

Managing Pharmaceutical Waste in Washington State

BUSINESSES, INCLUDING HOSPITALS, have options for managing pharmaceutical waste in Washington State—all currently focus on incineration as the method of disposal. Incineration ensures that pharmaceutical waste is managed properly to prevent poisoning, abuse and contamination of local and regional waters.



For a summary of the requirements for managing pharmaceutical waste in Washington State, visit www.ecy.wa.gov/pubs/0704025.pdf.

More information on how pharmaceuticals enter the environment and related concerns is available at www.ecy.wa.gov/programs/hwtr/pharmaceuticals/pages/pie.html.

as a blueprint for other programs. “They were impressed that we were doing the right thing,” said Mitchell, noting that the JC requires an organization to have a program for the management of hazardous materials and waste, including medication waste.

“Getting the correct items into the receptacles is important,” Mitchell said. “Segregation is very important. Each waste stream disposal has a cost. Materials such as aluminum cans and product wrappers can be improperly placed in medical waste containers. Fortunately, we haven’t had any concerns like that—duly noted by the Washington State Department of Ecology.”

“The staff has been very supportive of where we have placed the pharmaceutical waste container boxes,” Hallmark commented, noting that the process is

a simple one for staff members. Every location with a container has a waste coordinator and is periodically inspected by Environmental Division staff. Ongoing training on the importance of using the program and the supplied resources is also provided.

Waste container boxes are located at the Intensive Care Unit, Inpatient Pharmacy, Operating Room, Emergency Department, Family Medicine, Multi-Service Ward, Same Day Surgery, Obstetrics-Gynecology, Recovery Room and Physical Therapy. Once filled, the Environmental Division transfers the container to a secure storage area where it is safety sealed and stored until ready to be shipped.

“The proper management of pharmaceutical waste ensures that people and the environment are protected,” commented Fisher, who noted that

NHB’s pharmaceutical waste management program dovetails nicely with related efforts to collect household pharmaceutical waste. (Visit www.medicinere turn.com for more information.) He continued, “Together, these programs will minimize the impact on the aquatic environment, and ensure that the pharmaceuticals are not abused.”

With NHB’s Environmental Division making such an effort to mitigate the spread of waste today, the water of tomorrow will be able to continue to seek its own level, unfettered by harmful medicines and pharmaceuticals. [⤵](#)

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