



Hospital Waste Management

Spring 2015

Special points of interest:

- **Complying with Ecology's Interim Enforcement Policy: Pharmaceutical Waste in Healthcare**
- **Workplace Hazard Assessments**

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Hospital Waste

When Chemotherapy Drug is Infused into a Patient Cavity During Surgery is it Considered Dangerous Waste?

A new surgical procedure variously called *cytoreductive surgery* followed *heated intraperitoneal lavage* or *intraperitoneal hyperthermic chemotherapy* (Hipec) raises questions about the management and disposal of chemotherapy drug solutions after use. It is similar to another procedure that perfuses the bladder with chemotherapy solution following surgery. These solutions have been in a patient, so when it's removed is it exempt from the dangerous waste regulations under the Domestic Sewage Exclusion (DSE) Rule?

Hipec is being increasingly used after surgical resection of advanced primary or recurrent gastrointestinal cancer, but also for more common colorectal or ovarian cancer. It is occasionally marketed as a hot "chemo bath" or "pick it out, pour it in." After a surgeon clips out recognizable tumors, about three liters of a hot (42° C) chemotherapy/saline solution is pumped into the patient's abdominal cavity through tubes from a recirculator. OR staff then manually massage the patient's abdomen to distribute the solution to as much of the cavity as possible for about 90 minutes. The recirculator pump keeps the solution hot during the Hipec procedure.

The Hipec procedure may have promise because these cancers can slough mucous containing tumor cells into the abdominal cavity. The chemotherapy/saline solution

may lavage this mucous from the abdominal cavity and slow metastasis, although the procedure is still considered experimental. Bladder infusion with chemotherapy drug effects a similar post-surgical result.

Ecology makes a distinction between dangerous waste and waste that has been in a patient, but the line is a thin one.

If the patient voids directly into the toilet, it is exempt from the Dangerous Waste Regulations under the DSE.

If the patient's waste is collected in a Foley catheter bag, bed pan, etc. and the contents are directly disposed of into the toilet, Ecology would typically see this as exempt under the DSE as well since the collection devices are simply aiding the patient in normal bodily functions. While not entering the system directly for disposal by the patient, it is being immediately managed in a similar fashion.

If the patient's waste is collected in a container and stored for management offsite, however, the hospital must now designate this waste; this waste is not being managed as domestic sewage. These solutions should be managed as are other chemotherapy solutions in IV bags; i.e., as pharmaceutical waste.

Know Your Facility's Waste Streams

Healthcare waste stream managers typically wear many hats—they're responsible for not just waste, but commonly safety, security, hazardous materials, staff training, facilities, linen and even procurement.

But when it comes to dangerous waste—waste that is ignitable, corrosive, toxic, reactive, listed or persistent—the Washington Department of Ecology insists that *you really know what waste your facility is generating*. Not knowing can cost you money, headaches, bad publicity, and more.

Dangerous waste streams and volumes should be assessed annually. The practice is known as designating your waste and it is one of the most commonly ignored tasks of waste managers. Ecology requires that you corroborate your facility's generator status—can you prove to an inspector that it is a Small Quantity Generator?

Healthcare facilities generate more dangerous waste than is manifested and hauled away by a licensed vendor. Virtually all healthcare facilities discharge dangerous waste down the drain during normal operations, sometimes treated and sometimes not. Have you documented which of your departments generate and discharge liquid danger-

ous waste? Is it being properly treated before discharge? Is that treatment being logged for every batch of waste so managed?

If your facility does designate as a *Regulated Generator* it must report each dangerous waste stream, the volume, the source, the type of waste, and the management method each year. Most Washington healthcare facilities file a Dangerous Waste Annual Report, many of them as Regulated Generators (Medium or Large Quantity Generators).

You have several options in designating your facility's dangerous waste:

- You can bone up on the Dangerous Waste Regulations, WAC 173-303, and survey your facility.
- You can contact the Washington Department of Ecology and ask for a cooperative visit. These visits will be conducted by a Toxics Reduction Specialist and will not involve punitive actions, *unless* something egregious or deliberate is found.
- You can hire an independent healthcare waste surveyor to survey

your facility. You will receive a confidential written report and can act upon the recommendations or not, as you see fit.

Not knowing what waste streams are being generated in your facility is not a comfortable situation for a waste manager, particularly if one day an Ecology inspector comes in your front door unannounced.

Once you've identified the dangerous waste streams at your facility, keep a spreadsheet updated monthly or quarterly with volumes and management methods. At least once a year re-survey your managers to identify and assess any new waste streams. With an updated document you can answer an Ecology query with honest confidence that you're on top of this task.

If you're not comfortable surveying your facility for hazardous (a federal list of chemicals) or dangerous (a longer Washington state list) waste, you've still got other options. Contact us at Hospital Waste Management and we will work with you to fill in the knowledge gaps.



Hazard Communication vs Personnel Training

Virtually all businesses in Washington have a Hazard Communication Plan (HazComm). This plan is required by the Dept. of Labor & Industries and requires employers to tell their employees about hazards in the workplace, train employees in the new Globally Harmonized System for the Classification & Labeling of Chemicals, provide Safety Data Sheets to employees upon request and provide Right-to-Know centers and PPE in the workplace.

But few businesses have complied with the Dept. of Ecology's requirement for dangerous waste personnel training. This training is required of Large Quantity

Generators, but makes sense for any dangerous waste generator. It begins where HazComm training ends. If your facility generates dangerous waste (waste that is ignitable, corrosive, toxic, reactive, listed or persistent in the environment) then you should have a Dangerous Waste Personnel Training Plan.

To prepare a Personnel Training Plan, first identify which employees work with dangerous waste. These include those staff who:

- Add or remove waste from containers,
- Operate a still,
- Inspect dangerous waste accumulation areas,
- Label containers, and
- Prepare waste contain-

ers for transport offsite.

For each position identified, prepare a written job description of their dangerous waste activities.

Finally, identify the training that will be required for each position. There should be several different levels of training. E.g.,

Level I—adds material to waste containers.

Level II—operates a still, transfers waste, or inspects waste accumulation areas.

Level III—responds to waste or hazmat emergencies. Level III positions—a hospital's Code Orange Team—requires L&I's standard for First Responders / Operations Level, an 8-hr course.



Workplace Hazard Assessments

Most workplaces have hazards of one kind or another. Washington Labor & Industries, in its Safety & Health Core Rules, requires that managers conduct a hazard assessment of their workplaces and complete a written certification (paper or electronic) that includes:

- Name of the workplace,
- Address of workplace,
- Person conducting assessment,
- Date the assessment was done, and

- Statement identifying the document as the certification of the hazard assessment.

Do your employees operate power equipment? Do they lift or move heavy objects? Is noise an issue? Are there fumes or vapors present?

Once a workplace hazard assessment has been conducted, the manager must

- Select PPE for employees,
- Provide that PPE,
- Train employees on the

use of the PPE,

- Re-train employees, if necessary, and
- Document the PPE training.

The employer is responsible for insuring that employees wear appropriate PPE in their job, that the PPE fits properly, and to replace PPE that deteriorates or is defective.

All of this information is available in WAC 296-800-160, Personal Protective Equipment.





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When You Create a Pharmaceutical Waste Profile....

Many Washington hospitals have attempted to comply with Ecology's *Interim Enforcement Policy: Pharmaceutical Waste Management* by creating Pharmaceutical Waste Profiles. These profiles function as generic waste manifests for each offsite shipment of pharmaceutical waste. Together with proper management (incinerating all pharmaceutical waste), this policy exempts pharmaceutical waste from counting towards the facility's dangerous waste generator status and from being reported on the Dangerous Waste Annual Report.

However, some hospitals have neglected to follow through with the paperwork and submit their profiles to Ecology in

Olympia. If the profile doesn't appear in an online folder to which all Ecology inspectors have access, then Ecology does not recognize your facility's compliance with the *Interim Enforcement Policy*.

The notification form is located on page 8 of Ecology's *Profiling and Notification*, Publication # 07-04-026. Complete the notification form, sign it and send it in to Ecology's Hazardous Waste and Toxics Reduction Program, P2 & Regulatory Assistance Section, P. O. Box 47600, Olympia, WA 98504-7600. If you don't complete the documentation, then you don't have a program in place.