



Disposal of Chemotherapy Waste

Technical Guidance

The Pima County Department of Environmental Quality (PDEQ) has been conducting RCRA compliance inspections of hospitals located within Pima County. One issue that warrants special attention is the disposal of hazardous chemotherapy waste. In some cases, hazardous chemotherapy waste is being added to biomedical waste and handled as such. Biomedical waste contractors are permitted to accept biomedical waste only and are not permitted to accept hazardous waste in any amount, which is usually specified in your contract. PDEQ found that some chemotherapy wastes were neither stored nor transported in containers labeled as hazardous waste and the biomedical waste contractors did not have an EPA Identification Number as a transporter of hazardous waste.

Biomedical waste is defined in the Arizona Administrative Code [AAC R18-13-1401 \(5.\)](#) as being composed of one or more of the following:

- a. Cultures and stocks: Discarded cultures and stocks generated in the diagnosis, treatment or immunization of a human being or animal or in any research relating to that diagnosis, treatment or immunization, or in the production or testing of biologicals.
- b. Human blood and blood products: Discarded products and materials containing free-flowing blood or free-flowing blood components.
- c. Human pathologic wastes: Discarded organs and body parts removed during surgery. Human pathologic wastes do not include the head or spinal column.
- d. Medical sharps: Discarded sharps used in animal or human patient care, medical research, or clinical laboratories. This includes hypodermic needles; syringes; pipettes; scalpel blades; blood vials; needles attached to tubing; broken and unbroken glassware; and slides and coverslips.
- e. Research animal wastes: Animal carcasses, body parts, and bedding of animals that have been infected with agents that produce, or may produce, human infection.

Biomedical waste consists of human tissue, body parts, blood, body fluids, cultures and stocks of infectious agents, needles, IV tubing, syringes with needles attached, and scalpel blades.

Syringes and IV bags that contain unused hazardous chemotherapy wastes should not be disposed of as biomedical waste.

WHAT QUESTIONS SHOULD YOU ASK?

1. Do you dispose of the following chemotherapy drugs, contaminated personal protective equipment, wipes and pads from the pharmacy, patient room, or oncology clinic?

Arsenic Trioxide	P012
Carmustine (BiCNU®)	D001
Chlorambucil	U035
Chlornaphazin	U026
Cyclophosphamide	U058
Daunomycin	U059
Diethylstilbestrol	U089
Docetaxel (Taxotere®)	D001
Etoposide (Vespid)	D001
Fulvestrant (Faslodex®)	D001
Melphalan	U150
Mitomycin C	U010
Paclitaxel (Taxol®)	D001
Streptozotocin	U206
Uracil Mustard	U237

Note: The letter and three numbers beside the chemical name is the EPA hazardous waste number. This is not a complete list of U-listed and P-listed chemicals. For a complete list, refer to [Title 40 of the Code of Federal Regulations, Sections 261.33 \(e\) and \(f\)](#).

<p>2. Do you have Material Safety Data Sheets (MSDS's) for all chemotherapy drugs used and have you examined the MSDS waste disposal information to determine if it is a hazardous waste?</p> <p>3. Do you generate a total of 220 pounds or more per month of non-acute hazardous waste (or 2.2 pounds of P-listed acute hazardous waste)?</p>	<p>If so, your hospital is required to have an EPA Identification Number and comply with storage and shipping requirements. For additional information you may refer to the TGD HW14 - Management of Hospital Hazardous Wastes technical guidance document, located on the PDEQ website.</p> <p>4. Does your hospital ship hazardous waste off-site? If so, your waste hauler is required to have an EPA Identification Number.</p>
---	---

For additional information regarding proper management of solid or hazardous waste in Pima County, you may contact the Pima County Department of Environmental Quality (PDEQ) at (520) 724-7400, or the address at the beginning of this document, or visit the PDEQ website at <http://www.deq.pima.gov/waste/index.html> for access to the PDEQ Hazardous Waste Generators Handbook and waste or generator specific, technical guidance documents.