10 Steps to Developing a Pharmaceutical Waste Program

1) GETTING STARTED

- Treat as a multidisciplinary process
- Obtain support from senior management
- Establish a multidisciplinary committee and include pharmacy, environmental services, safety, nursing, education and infection control
- Secure budgetary needs

2) UNDERSTAND THE REGULATIONS

- Locate regulatory standards (U.S. EPA, U.S. DOT, U.S. DEA, OSHA, MDEQ, POTW, state pharmacy boards)
- Define waste categories (listed, characteristic, universal, controlled substances, medical waste, dual waste)
- Distinguish between trace and bulk chemotherapy waste, including spill clean up materials
- Understand hazardous waste management requirements (generator status, drain disposal, land disposal restrictions)

3) CONSIDERING BEST MANAGEMENT PRACTICES FOR NON-REGULATED

- Formulations with a listed active ingredient that is not the “sole active ingredient”
- All chemotherapy agents
- Drugs meeting NIOSH hazardous drug criteria
- Drugs listed in Appendix VI of OSHA Technical Manual
- Drugs with low level lethal doses
- Carcinogenic drugs
- Drugs containing heavy metals
- Endocrine disruptors

4) REVIEW DRUG INVENTORY

- Review drug purchasing records for a complete list of pharmacy stock (national drug code, brand & generic names, manufacturer, strength, dosage, package size consider compounded items and re-formulations).
- Make waste determination (hazardous, liquid industrial, universal, non-hazardous solid, controlled, etc.)
- Make best management practice decisions
- Document your waste decisions and keep the review current

5) MINIMIZE PHARMACEUTICAL WASTE

- Implement purchase policy that considers lifecycle
- Maximize use of multi-use chemotherapy vials
- Control physician samples (hold pharmaceutical reps accountable to maintain stock or use sample scripts)
- Label single patient items for home use
- Conduct routine survey examining container size/use
- Replace prepackaged unit dose with patient specific oral syringes, single dose syringes, insulin pens
- Monitor and date of emergency syringes three months prior to outdates to avoid waste

6) REVIEW CURRENT PRACTICES

- Perform department reviews to estimate potential volumes and weights (helps with generator status and cost estimates)
- Analyze which drugs are dispensed to each unit and in what quantities over a specific time frame
- Confirm generator status

7) DETERMINE COMMUNICATION/LABELING NEEDS

- Automate and incorporate waste collection/disposal data into pharmacy dispensing software (bar-codes)
- Manually label in pharmacy
- Provide guidance on floor using stickers on containers
- Display guidance posters
- Select label message easy to understand that relays all pertinent information

8) CONSIDER MANAGEMENT OPTIONS

- Segregate at point of generation (bed side)
- Collect all drugs and segregate at a central location
- Manage all drug waste as hazardous

9) GET READY TO IMPLEMENT

- Locate satellite accumulation areas
- Ensure storage area meets generator size requirements
- Select permitted/registered vendor to transport waste (hazardous, liquid industrial or universal)
- Understand reverse distributor handling & responsibility
- Conduct pilot program in high volume areas
- Develop pharmaceutical waste management policies and procedures, including ones for spills

10) LAUNCH THE PROGRAM

- Educate and train staff on policies and procedures
- Stage roll-out and include input of all the parties
- Provide training prior to a “go-live” date
- Fill-out manifest and land restrictions understanding hazardous waste and DOT requirements
- Track, measure and record progress

FOR MORE INFORMATION

Contact the DEQ Environmental Assistance Center by calling **800-662-9278** or emailing ***deq-assist@michigan.gov.*** You can also contact your Office of Waste Management and Radiological Protection District Office with waste management questions.

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