Medical waste represents a proportion of a veterinary facility's solid waste that should be carefully monitored and controlled at all times. Medical and infectious waste can be any waste generated in the treatment, diagnosis, vaccination, testing, and surgery of animals. Blood-tainted supplies, cultures, feces, urine, isolation waste, sharps and glassware, expired injectables, and protective wear are also considered veterinary medical waste.

Veterinary medical waste should be integrated into a solid waste management program. Specific aspects of the program should include waste recycling and pollution prevention wherever possible. The purpose of this series of articles on veterinary waste management is to familiarize practitioners with concepts of medical recycling and pollution-minimizing techniques.

Categories of Waste

Used products that become veterinary medical waste can be allocated into 2 categories: those that end as disposal products and those that can be recycled. Recycled products can be treated products such as wastewater from a milk house, disinfected materials, or products that are actually recycled for postconsumer use. Wastes are also either nonhazardous or hazardous depending on their initial and final dispositions. Hazardous wastes include radioactive waste, x-ray development fluids, many expired drugs, cleaning and disinfecting agents, pesticides, reactive compounds, inflammable or explosive compounds, and contaminated biological waste. Nonhazardous wastes may become hazardous to the environment because of concentration effects and may have a negative aesthetic impact on the environment.

Separation of Medical and Infectious Waste

Containerization—Medical and infectious waste should be separated from other clinic wastes and placed in distinctive containers (red plastic or metal containers or red plastic bags) that are leak, puncture, and tear resistant. These containers should be labeled as a biohazard. Labeling should also include the words Infectious Waste or Medical Waste as well as the clinic name, address, and final date of containment. Containerization of waste can reduce the spread of infectious diseases. The waste should be containerized as close as possible to the origination source to reduce contamination of clean areas. The containers should be readily available for use throughout the clinic. Medical waste containers should be safe for those who use them as well as those who pick up and transport them. Clear and concise labeling is essential.

Waste storage—Waste may be stored until the appropriate quantity has accumulated to economically justify commercial removal or on-site treatment. Medical waste should be stored in a designated location on the premises. Choose a site for storage near either the treatment site or the pick-up site. Storage areas should be free of vermin and easily cleaned and disinfected. It is essential that the waste is not exposed to the environment and the integrity of the containers is maintained at all times. Ventilation should be adequate, and access to the site should be controlled.

Treatment and disposition—Treatment and final disposition of medical waste are important. Treatment is designed to destroy potential pathogens including bacterial endospores, fungi, and viruses. Medical waste treatment may include steam sterilization, thermal treatment, incineration, chemical treatment, and containerization. After the waste has been effectively treated, it should be acceptable for disposal in a municipal landfill. However, before any waste treatment program is undertaken, the veterinarian should consult with local and state veterinary and public health officials for current regulations.

Recycling and Waste Minimization

For waste reduction and recycling to occur on any level, it is essential that the clinic develop a pollution avoidance and recycling program. Initially, this should...
involve an internal audit of product use. The economics of recycling should be evaluated, because waste audits can actually improve net income by determining how and what types of waste are generated. Cardboard, computer paper, cans, batteries, pill containers, plastic syringe cases, bottles, and other nonmedical waste can compose as much as 80 to 90% of a clinic’s waste and should be recycled if possible.

Additional Information

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