



Fact Sheets and Information Papers

Smallpox Vaccine Waste – Waste Management Considerations

February 2003

1. Scope. This information paper is intended as general guidance for the classification, management, and disposal of wastes from vaccination events. This guidance pertains primarily to an installation setting rather than a combat or field setting.
2. Classification. The smallpox vaccine has, as its active agent, the vaccinia virus, which is classified as a World Health Organization (WHO) Risk Group 2 virus. The WHO classification of infectious agents ranges from Risk Group 4 (the most severe and profoundly dangerous ones, including variola virus which causes Smallpox) to Risk Group 1 (the least severe and most commonly occurring routine and normally non-lethal and non-debilitating causes of illness). Because the vaccinia poses a lower risk than the smallpox virus, the wastes generated during the vaccination process are classified as **Regulated Medical Waste (RMW)**.
3. Special aspects. The medical literature is clear that exposure to the vaccinia virus is contraindicated (i.e., to be avoided) for some people with specific conditions. Therefore management and disposal of wastes from smallpox vaccination programs should be carefully and thoughtfully managed so that people who should not be exposed to the vaccinia virus do not become accidentally or inadvertently exposed. These people might include custodial workers, waste haulers, and disposal personnel. Also included might be family members who should not come in close contact with a vaccinated person until the vaccination site has healed. For further guidance, contact Preventive Medicine or other medical authorities at your location.
4. Waste containers. At the point of generation, vaccination wastes may be put in the usual receptacles for RMW (i.e., red bags, sharps containers, etc.). These receptacles or packagings **MUST** be managed as **RMW** for transportation, treatment, and disposal purposes. Therefore, sharps containers [holding syringes used to instill the diluent into the vials, bifurcated vaccinating needles, and empty or expired vaccine vials] and red bags [holding any substrate that was splashed or spattered with the vaccine, and any PPE that was used to clean up a spill of vaccine] are managed and transported as **RMW** using the necessary precautions to prevent accidental exposure to people who should not become exposed to the vaccine or the residues from the vaccination process. The following are **not** RMW: Alcohol wipes that were used to cleanse the skin prior to vaccination, items that have never come in contact with the vaccine (such as glove wrappers, boxes, packagings for the supplies and equipment), and those items with no potential for exposure to the vaccine. These non-RMW wastes can and should be managed as ordinary trash and not as RMW. Avoid unnecessary increases in volume (or weight) of RMW because it is much more costly to manage and dispose of than ordinary trash.
5. Movement within the Medical Treatment Facility (MTF). Follow locally developed protocols and good management practices. Use prescribed PPE, specified collection containers, and designated routes through the MTF. Again, this waste must not be handled in a way that poses

an accidental or inadvertent risk of exposure to healthcare workers, support staff, and contractors who provide waste management services.

6. Waste treatment and disposal. The methods currently used to treat and dispose of RMW are satisfactory to inactivate the vaccinia virus. There is no reason to change or modify treatment or disposal procedures for RMW that contains waste from vaccination events.

7. Care of used bandages (at home or in the barracks). Although waste management regulations and transportation requirements do not apply to *household* waste, a few recommendations are offered here. After vaccination, the site is usually covered with a bandage or large self-adhesive gauze covering. When that covering is removed, place it in a “zip-lock” bag and saturate the bandage with household bleach. Seal the bag and place it in the regular trash. These steps should be taken for any bandages removed from the vaccination site until the site has fully scabbed with no remaining oozing or liquid under the scab. It could be up to 10-17 days after vaccination until the site is fully scabbed. These measures will also prevent secondary inoculation of the vaccinia virus to other body sites or other persons who have not been vaccinated (or should not be). The bleach will kill the virus on the bandage. The scab should also be managed in the same manner when it, or portions of it, falls off.

8. Vaccination in outbreak situations. The Centers for Disease Control and Prevention (CDC) has written, “In the event of a Smallpox outbreak, outbreak-specific guidance will be disseminated by CDC regarding populations to be vaccinated and specific contraindications to vaccinations.”

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