



## Fact Sheets and Information Papers

### Smallpox Vaccine and Waste: Transport Considerations

February 2003

**1. Scope.** This information paper is **intended for students and graduates** of USACHPPM's Transport of Biomedical (TBM) course and the TBM Refresher training course.

**2. Transportation of the vaccine.** Be aware of how the vaccine is shipped by the Manufacturer to your organization. Even though it is a Biological Product, it probably will arrive at your organization packaged, marked, labeled, and described as an Infectious Substance [49 CFR 173.134(a)(5)]. If you need to ship some or all of it, using a commercial carrier, to a subordinate MTF that is considerable distance from your organization, do ship it in the same manner that your organization received it. For example, if your MTF received it as an Infectious Substance, then ship it as an Infectious Substance to the MTF you support. However, if your organization has received the vaccine and is moving it with a vaccination team to vaccinate people, then the vaccine can be moved in a safe manner using a government vehicle without need to mark, label, or describe it as an Infectious Substance. It must be contained in combination packaging. This allowance is based on the Materials of Trade exception in 49 CFR 173.6(a)(4).

**3. Classification for Transport.** The Smallpox virus, the variola virus, is classified as a World Health Organization (WHO) Risk Group 4 infectious agent. For transportation purposes, Risk Group 4 agents are classified as Infectious Substances. Therefore, wastes from hospitalized patients diagnosed with Smallpox are not considered Regulated Medical Waste, but Infectious Substances. Since these wastes are classified as infectious substances, personnel packaging and transporting these waste materials must follow all applicable the Hazardous Material (HAZMAT) transportation requirements specified in the Title 49, Code of Federal Regulations, Parts 171-180 and International transportation regulations.

**4. Classification for Vaccination.** The Smallpox vaccine has, as its active agent, the vaccinia virus, which is classified as a Risk Group 2 virus. Because the vaccinia poses a lower risk than the virus itself, wastes generated during the vaccination process are classified as Regulated Medical Waste. Sharps in sharps containers with residues from the Smallpox vaccination program and any "Red Bag" wastes from the vaccination program are managed and transported as Regulated Medical Waste.

**5. Clarification of Risk Groups.** The World Health Organization (WHO) defines risk groups. You will find a detailed explanation of Risk Groups at 49 CFR 173.134 (a)(6). For a complete listing of specific infectious substances (biohazardous agents) that belong in each Risk Group, see Appendix 3 (Guide to Risk Group Assignments) to Part 2 of Canada's Transportation of Dangerous Goods Regulations. This information is available at the following link: [http://www.tc.gc.ca/acts-regulations/general/t/tdg/regulations/tdg001/part\\_2.htm](http://www.tc.gc.ca/acts-regulations/general/t/tdg/regulations/tdg001/part_2.htm). You may also obtain an alphabetical listing of biohazardous agents in Risk Groups 2 and 3 at the following

Stanford University website: <http://somsafety.stanford.edu/biosafety/bac.html>. (The agents in Risk Group 4 are not shown at that Stanford site as experiments with them are forbidden at Stanford.)

**6. Care of Used Bandages.** 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 at home, place it in a "zip-lock" bag and saturate the bandage with household bleach. Seal the bag and place in the trash. This action will help assure that other people who have not been vaccinated (or should not be) are not exposed to the vaccinia virus. The bleach will kill the virus on the bandage. If patients with smallpox receive care at home, the local Public Health authorities will determine the classification and management of the waste.

---

*Hazardous and Medical Waste Program, Mr. Michael Diem  
5158 Blackhawk Road, ATTN: MCHB-TS-EHM  
Aberdeen Proving Ground, MD 21010-5403  
(410) 436-3651, DSN 584-3651*