

Animal Decontamination Procedures

Wyoming Department of Health

Adapted from “**Veterinary Decontamination Procedures**” by Wayne E. Wingfield, MS, DVM, Colorado State University

Animal Decontamination

Decontamination procedures should be established before allowing entrance into the contamination area (hot zone) for any reason, including rescue. As animals and people exit the hot zone, they must be decontaminated. Decontamination will precede any sort of medical treatment. This is because we must reduce the spread of contamination by decontaminating before moving the victim(s). Contaminated equipment (leashes, halters, saddles, etc.) must also be decontaminated as it leaves the hot zone.

Who should decontaminate victims of WMDs (Weapons of Mass Destruction)?

- Only personnel with appropriate hazardous materials training should be allowed to participate in animal decontamination operations.
- Animal owners should **not** decontaminate their own animals.
 - If the owner is also contaminated it is important that they themselves be effectively decontaminated, something that is less likely to occur if they are instead participating in the decontamination of their animals.
 - In order to provide comfort and reassurance to an animal owner that does not want to become separated from their animal, the owner and animal(s) should be commonly identified before proceeding through the respective decontamination lines so they can be more easily reunited afterwards.
- Working animals are the **exception** to this general rule.
 - Working dogs are sometimes not safely separated from their handlers and search-and-rescue or other detection dogs (bombs, cadaver, arson, etc.) may belong to handlers who are themselves hazmat-trained, emergency first responders.
 - Personal assistance dogs are service animals, and removing them from their owner may not be possible due to the severe distress this may cause both individuals in an already stressful situation. In these cases, normal human decontamination procedures will need to be altered to accommodate them.

Decontamination Station Layout:

Working animals are considered responders and are thus processed through the technical decontamination station. In the ideal world, a separate decontamination station for animals, away from human personnel, is desired. There are 6 components to the veterinary decontamination station:

1. **Equipment drop** (area where equipment (leashes, muzzles, leashes, leads, halters, bridles, saddles, blankets, etc. can be dropped and decontaminated);
- 2) **Primary decontamination site** (water supply, long-handled soft bristle brushes, soap, and multiple hoses, water proof tarps or tubs are used in decontamination);
- 3) **Secondary decontamination** (water supply, long-handled soft bristle brushes, soap, and multiple hoses are used to again reduce contaminants on the victim);
- 4) **Drying station** (dry animals with towels, paper towels, blow dryers, etc.);

- 5) **Veterinary evaluation station** (exit point to the cold zone where veterinary medical personnel may attend to illnesses or injuries of the animal(s) and monitor for hypo- and hyperthermia); and
- 6) **Recovery and rehabilitation station** (animals and humans need periodic rest times in order to prepare to return to home, the mission, or farm).

Decontamination Solutions:

- 1) **Liquid dishwashing detergent and water:** When comparing risks to benefits, soap and water is the best all around choice as a decontamination solution. The liquid soap can be spread liberally over the animal, worked under the hair coat using a soft bristle brush or gloved fingers. Work the soap through the hair using an S-pattern beginning at the neck, working down the back, ending up on ventral abdomen and legs. The soap is then rinsed off with copious volumes of warm water. Don't overlook the using a swimming pool for dogs or a body of water (lake, ocean, etc.) as possible means of providing decontamination for animals. The types of soaps recommended are either baby shampoo (to reduce effects on the eyes), good old fashioned "green soap, or liquid dishwasher detergent (do not use powdered dishwasher soap!).
- 2) **Hypochlorite/bleach solution:** diluted bleach solutions, in the past have been recommended for decontamination of animals. The effect this agent has on the animal varies from animal to animal and will depend upon the concentration of the solution. In order to minimize effects on the animal the dilution is often to a level that the desired decontamination effect is lost. To counter this loss of effectiveness, greater contact time is required. This in turn leads to more adverse health effects on the animal. These effects are on the skin and through inhalation.
- 3) **Betadine:** diluted betadine was also promoted as the best solution when decontaminating the animals exposed to a biological agent. As with hypochlorite solutions, the dilution to make the solution effective is likely ineffective on the biological agent.
- 4) **Chlorhexidine solution:** in order to get the full effect from chlorhexidine solution, it would have to be left on the animal for several minutes. Time is not often a luxury when dealing with decontamination.