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Sanitation in the Animal Shelter

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INTRODUCTION

There is an increasing effort on the part of animal shelters in the United States to keep animals for longer periods of time. This may in part be due to a stabilization of the number of incoming animals and an increase in the number of acceptable homes. It may be influenced by the trends established by "no-kill" shelters and by the incorporation of increasingly progressive adoption programs. It may have something to do with greater visibility of local animal shelters to their communities over the past few years. In any case, animals are staying longer in animal shelters.

This trend toward providing longer-term refuge for dogs and cats forces the shelters to give greater consideration to maintaining the health of the animals under their care. After all, keeping animals healthy in a shelter environment is difficult to manage for even short durations. To do so with a large shelter population and for longer time periods requires a strong health care program. One of the key elements of that program includes effective cleaning and disinfection regimens.

While it is expected that all animal shelters clean and disinfect their facilities on a regular basis, the advent of animal sanctuaries, shelters that focus solely on adoption programs, and humane organizations that choose to rehabilitate sick animals (as opposed to euthanasia) means that disinfection programs must be aggressive, well-executed, and take advantage of the best disinfectants, cleaning tools and techniques. Keeping animals with different health profiles in close proximity forces shelter administrators to accept nothing but the most stringent protocols in the cleaning regimen if the organization expects to keep diseases at bay. While there are modern and effective disinfectants and cleaning tools, it is the animal care staff's attention to detail that will make a critical difference in the health of the shelter animals. In addition to staff awareness of principles of disease transmission and cleaning practices, volunteers and the public must also be made aware of the role they have to play in maintaining a healthy shelter environment.

For the purposes of this chapter, the four levels of cleaning an animal shelter will be as follows:

1. Physical Cleaning—This process is the removal of gross wastes and organic materials from the environment. Physical cleaning will not, in itself, kill pathogens but will remove some of the medium in which contagions can grow.
2. Sanitation—This process is the killing or removal of "the number of bacterial contaminants to a safe level" (Greene, 1998). Sanitation is usually accomplished through an application of a chemical, but it does not achieve the same level of kill as disinfection.
3. Disinfection—This process will kill most of the contaminants in a given area. With the exception of bacterial spores, disinfection will kill all the pathogens that can cause the onset of disease. However, it should be noted that true disinfection rarely is achieved in the animal shelter environment.
4. Sterilization—This process is the killing of all life forms at all levels, including bacterial spores. It is typically achieved through chemical or ther-

mal means. With the exception of surgical instruments put through an autoclave cycle, true sterilization does not occur at an animal shelter.

Although animal shelters have staff who are prepared to work hard and perhaps to a high level of attention to detail, and in spite of modern disinfectants, most shelters achieve little more than good cleaning or mild sanitation on a daily basis in their animal care areas. For example, most disinfectants used by animal care facilities require 10 minutes of contact time to achieve disinfection. However, the general practice in cat care rooms is to spray a disinfectant into a cage and to wipe the surface clean almost immediately. It is arguable whether this has any chemical effect whatsoever, much less to achieve true disinfection. The reality of shelter work is that attendants often do not have the time to allow disinfectant to sit for the full 10 minutes. Yet in the face of a disease outbreak, this overlooked step may be the critical one that was key to helping prevent or control the spread of the disease.

In dog runs, on the other hand, the disinfectant is often left on the kennel floors for the recommended 10 minutes. However, a shelter's flooring surfaces are often in poor condition or are porous, and thus retain organic matter that can harbor disease organisms. These conditions, which are common to shelters, will severely compromise the effectiveness of disinfectants. Again, we can assume that cleaning or sanitation has taken place, but it would be rare for true disinfection to take place in an animal shelter. This, by no means, should discourage the practice of using disinfectants to achieve cleaning or sanitization levels. The goal of the shelter staff should be to seek true disinfection through the utilization of techniques, chemicals and equipment that are appropriate for each shelter's unique set of circumstances.

Resource allocation is important in designing a sanitation protocol that will address the condition of the shelter, budget, labor force, characteristics of the shelter animal population and diseases commonly encountered in the shelter and surrounding areas. Even if such practices fail to achieve true disinfection, pathogens are reduced and the facility does not suffer from repellent odors.

Odors are more than a deterrent to good public relations. While the source of many odors may be microbial and not viral, the presence of odors indicates the presence of a medium in which noxious organisms and contagions can grow. Covering up the odor with masking sprays is not a solution. It should be generally accepted by the cleaning staff that odors are indicative of an unhealthy environment.

The importance of good physical cleaning of the shelter cannot be stressed enough. It is essential for maintaining a healthy and sanitary environment. A facility cannot be disinfected without being properly cleaned first due to the inability of most disinfectants to penetrate and kill disease organisms in organic debris. In addition, some of the organisms that cause serious health problems in shelter animals are highly resistant to disinfection, so their physical removal is critical to ensure the best possible opportunity for minimizing disease contamination and spread. Among some of the most resistant disease organisms are parvovirus, calici virus, ringworm spores, coccidia, and other protozoans. Without proper cleaning and disinfection, some of these contaminants can survive in the environment for months to even years.

THE ANIMAL SHELTER ENVIRONMENT

Unfortunately, not all animal shelters are designed to be easily cleaned. The materials, floors, drains, and air-handling systems should be designed to move contagions out of the environment as quickly as possible and to make cleaning uncomplicated, but this is not always the case. Furthermore, shelters that have dirt, grass, and gravel runs should be aware that these surfaces cannot be effectively disinfected. There are cleaning techniques that animal care attendants can use even in poorly designed shelters to keep disease rates down.

Creating a Healthier Shelter Environment

Some form of cleaning and disinfection must occur on a daily basis. If shelter staff time allows, twice daily cleaning and disinfection is preferable for shelters that are experiencing regular disease outbreaks or for shelters that have a very high turnover of animals. Animal care facilities that have stable and healthy populations and relatively low animal turnover rates, such as some sanctuaries, may