

Health management in shelters and pounds

Stephen Cutter

Abstract

Disease management in shelters and pounds is huge challenge. Infectious disease is often endemic and constantly being introduced by new arrivals. Considerable time effort and money can be spent on disease control. This talk will cover some of the more general principles in disease management and prevention as well as some practical examples of some of the more common diseases encountered. Good disease control is not only best practice but also less work and less costly than ignoring it.

Background

In many ways a shelter or pound is a recipe for disaster as far as infectious diseases are concerned. Most animals that end up at shelters or pounds are the least cared for in society. Many are unvaccinated, malnourished, poorly trained and often already diseased. This may be combined at the shelter or pound with a high turn over of large numbers of animals, poor equipment and resources, and limited funds available to treat ill animals. Sick animals, especially those at shelters, may also have a high emotional value to shelter staff and the public who are keen to save them.

Shelters and pounds should have a close and ongoing relationship with a skilled and experienced veterinarian who is interested in shelter/pound medicine. It is important to find the right veterinarian. They need to be both compassionate and rational. Good communication between the veterinarian and other staff is vital for effective disease control. Health management of shelters and pounds is very different to private companion animal practice and can be extremely challenging. The vet should be involved in developing and monitoring *cleaning, disinfecting, vaccination, quarantine, assessment and treatment protocols*.

There are three main areas in the management of infectious diseases in shelters and pounds

- Disinfection and cleaning
- Quarantine and isolation
- Knowledge and treatment of specific disease.

Hygiene and disinfection

Cleaning and disinfection are not cosmetic concerns in shelters and pounds but of vital importance. Diligent and thorough cleaning can literally be life saving. Additionally a clean shelter will improve public perception of the way animals are cared for and increase rehoming rates. If the pound is clean when owners pick up their animals then there is less chance of complaints or the assumption of inadequate care.

Appropriate protocols for cleaning and disinfecting the shelter/pound need to be developed and followed at all times. A lapse can have disastrous consequences. While it may appear to be expensive and time consuming, money and effort spent on cleaning and disinfecting is more than offset by decreased costs caused by disease.

Disinfectants and soaps/detergents are different and do different jobs. Disinfectants specifically kill infectious organisms. Soaps and detergents remove grease and dirt. Both are important in shelters/pounds. General cleaning products should be used to remove built up grease and dirt to allow adequate

penetration and effect of the disinfectants. Some disinfectants are deactivated by organic material and build up so a thorough clean is essential to allow disinfectants to work. The infectious agents that cause most concern – Parvovirus, feline respiratory viruses (cat flu) and the organisms that cause canine (kennel) cough - can be extremely tenacious and difficult to remove or kill.

Disinfectants must be used at the **correct concentration**. Simply guessing the correct dose can be expensive and wasteful, but worse can be ineffective. Follow the directions!

Disinfectants require adequate **contact time** to be able to work. At least 10 minutes is required for pretty much any disinfectant to work. A quick flush or wipe with a disinfectant will not help in controlling disease but may lead to a false sense of security.

In addition to adequate time, disinfectants work best on a clean, **non-porous surface** that is free of organic matter. Porous surfaces such as wood, carpeting, unsealed or cracking concrete, grass, dirt, bedding and towels can't be completely disinfected by disinfectants. Parvo in particular is a very difficult to adequately disinfect and contaminated bedding etc is best thrown out.

It is not just the dog and cat runs that need to be cleaned and disinfected. Hands, boots protective clothing, pet transport carriers and vehicles, leads, toys, beds, dog catching equipment, food and water bowls all need to be regularly disinfected and cleaned.

To avoid dragging disease from sick to healthy animals, cleaning should proceed from the most vulnerable to the least vulnerable or most contaminated animals.

Isolation and quarantine

Due to the ease with which a disease can spread and become a problem in a shelter/pound, rapidly identifying infected animals and isolation is important in limiting establishment or spread of an infectious disease. The identification of infected animals can be relatively easy for some diseases but next to impossible for others. Veterinary assistance and guidance, as well as training for other staff in commonly encountered diseases, will greatly improve the ability to identify animals that need to be isolated. Unfortunately, due to cost constraints, many shelters have no or inadequate facilities to isolate sick animals. Ideally young animals should be isolated from adult animals and newly arrived animals should be separated from long term animals. Infected animals obviously need to be isolated from healthy ones. Very young or unvaccinated puppies and kittens are especially vulnerable and need protection from any potentially infected adults, and require the strictest hygiene.

New arrivals should be quarantined until their health status is known. Ideally they should be treated for internal and external parasites and vaccinated on arrival. Adequate quarantine and vigilant screening for diseases will help minimise bringing in any new diseases to the main population of the shelter or pound.

Specific diseases

There are two main groups of infectious diseases that are common problems for shelters and pounds: respiratory diseases and diarrhoea.

Infectious respiratory diseases in dogs are called canine or kennel cough. In cats they are cat flu. Both these names cover many different disease causing organisms and a variety of signs. Both are major and ongoing problems to most shelters and pounds.

“Cat flu” is by far the most common and visible disease of cats in shelters. Signs include sneezing, coughing, discharge eyes and nose, ulcers on the tongue. Young kittens in particular can die as a result of catching it. There are many different strains and varieties of cat flu and the clinical signs and severity can vary enormously. There are many different organisms that can cause or contribute to “cat flu” (although the flu group of viruses isn’t one of them!) “Cat flu” can cause an epidemic with most or all of the shelter’s cats being affected shortly after. Unfortunately many shelter’s cat population have endemic cat flu (that is, persistent in the shelter) and it is often impossible for any cat not to catch it.

Often individuals are already infected when brought into the shelter so adequate quarantine and rapid isolation of infected individuals is vital. Some of the organisms are very resistant and difficult to adequately disinfect for. Quite a number of cats can carry the organisms that cause cat flu without showing any external signs and may appear quite healthy until they enter the shelter. Then stress may cause the disease to break out, and they start showing signs and/or shedding infectious organisms.

Canine cough was called kennel cough because that is where most dogs caught it. Any good boarding kennel now requires dogs to be vaccinated against it before boarding so now the most common place for dogs to catch it is from spending time in a shelter or pound. It is endemic in many pounds and shelters with, in many cases, most unvaccinated dogs who visit them acquiring canine cough. Infected dogs develop a harsh honking cough, they may also develop a snotty nose or fever. In rare cases it can develop into pneumonia.

Respiratory diseases are best managed by separating infected individuals and healthy animals. This is especially important for vulnerable animals like the very young or unvaccinated. Vaccination is not instant protection but significant benefits can be made by increasing “herd” immunity by vaccinating all animals on arrival or as soon as possible. It does not provide instant protection and vaccinated animals can still catch the disease. In dogs there is a vaccine available that goes down the nose (intranasal) rather than under the skin. The intranasal vaccine provides much better and faster protection so is preferable in a shelter or pound situation despite being more difficult to give. A similar situation exists in cats with an intraocular vaccine (drops onto the eyelid) against cat flu being more protective than the injectable ones. Unfortunately this vaccine is not currently available in Australia.

Gastrointestinal (GI) diseases are common in shelters and pounds. They are more common in tropical areas but are common everywhere. Diarrhoea is the most common sign but vomiting is not uncommon. There is a very long list of potential organisms that can cause GI diseases, but most have similar control principles.

Parvovirus (“parvo”) is one of the most common and the most serious causes of diarrhoea. In young puppies parvo can cause an explosive outbreak with many puppies dying. Parvo is very common, difficult and expensive to treat, resistant to prevention and easy to introduce. Parvo should be suspected and tested for in any dog under 6 months of age with diarrhoea especially if they are also vomiting, lethargic, not eating, dehydrated, or if there is any blood in either the vomit or diarrhoea. Puppies who suddenly die should also be tested. The tests should not be used alone as both false positives and false negatives can occur. Parvo often works in combination with other diseases such as

corona virus and parasites, so even if the pups do have parvo it does not mean they don’t also have other diseases.

Adult dogs especially unvaccinated dogs can sometimes contract parvo although it is much rarer. Rottweilers are especially sensitive to it and any sick rotti should be suspect.

Preventing parvo from spreading in the shelter is vital. Good hygiene, appropriate disinfectants and vaccinating susceptible animals are the cornerstones of parvo prevention.

Parvo virus is an extremely small and robust virus. Not all disinfectants will kill it. Ensure that the one used, especially in areas of most concern such as puppy pens, do. Some, like bleach are deactivated by organic material but all do better with removal of grime so through cleaning in addition to disinfection is essential.

Stress and diarrhoea are the two other most common causes of diarrhoea in shelters and pounds. There is no denying that living in a shelter or pound would be stressful for any animal. Additionally, many shelters and pounds feed their animals on cheap or donated foods. Feeding a good quality, constant and appropriate diet will greatly reduce the incidence of diarrhoea.

Other diseases that can or cause ongoing issues in shelters and pounds include (but are not limited to) Mange, ticks, fleas, hookworms, roundworms, tapeworms, heartworm ringworm (dermatophytosis), leptospirosis, FIV, Coccidiosis etc..

In addition to these infectious diseases animals usually arrive in the shelter in less than optimal health. Often they are malnourished, with emotional and behavioural issues, and some times injured. Wounds and injuries from other dogs and cats or from being injured by a car are common. Some times the injuries have been inflicted by their previous owner.

Conclusion

Every shelter is different as is every pound. The challenge of managing diseases in them is an endless struggle. Preventative medicine, good facilities, good staff and good vets can, when combined with lots of hard work, make a significant impact on disease levels and thereby greatly improve the pound or shelter’s standing in the community and the welfare of the animals in our care.

Further reading: I strongly recommend the text: Shelter Medicine for veterinarians and staff / edited by Lila Miller and Stephen Zawistowski. Blackwell Publishing.

Dr Stephen Cutter BVSc(Hons)

Stephen is veterinary advisor to RSCPA (Darwin branch) and principal of Palm City and the Ark Veterinary Hospitals (in Berrimah and Humpty Doo). Stephen also provides veterinary services to a number of aboriginal communities, and is on the executive of AMRRIC (Animal Management in Remote and Rural Indigenous Communities).