AC-10 CANINE PARVOVIRUS

**Purpose**

To define the process of diagnosing, treating and preventing the spread of Parvovirus in dogs while at the shelter

**Policy**

At Humane Society of West Michigan, the policy for dogs and puppies with suspected/confirmed canine parvovirus infection will be as follows:

Dogs and puppies with suspected/confirmed canine parvovirus infection:

• Will be admitted to the shelter

• May be treated (determined by veterinary staff)

• Will not be treated at an off-site facility

• Will be placed for adoption only if/when clinically recovered

• Will be placed for rescue/transfer/transport only if/when clinically recovered

• Your state/municipal legal holding status laws must be taken into consideration independent of this Standard Operating Procedure (SOP)

**Staff /Areas Affected**

• Animal Care staff

• Veterinary Care staff

**Definitions**

**Canine Parvovirus** – a highly contagious viral illness that can affect all dogs but unvaccinated dogs and puppies are the most at risk.

**Segregation/Quarantine –** all animals possibly exposed to parvovirus will be isolated from the general population until deemed healthy and relocated by Veterinary Care staff.

**ShelterLuv** – Database used by HSWM for all tracking of customers, animals and associated service

**Responsibilities**

Director of Animal Care and Director of Animal Logistics are responsible for making sure this process if followed.

**Procedures**

**General information for staff/volunteers when there is suspect Parvo in the building:**

Staff should limit their visits to that room to a minimum.  Gather all of the things that you will need (blankets, toys, food, etc.) prior to entering the area/room.  Crates and kennels are to be foamed with bleach.  Soiled linens and toys are to be thrown out.  Bleach food and water bowls as well.

Best practice would be to wear shoe covers while in the area/room and wear exam gloves when handling dogs/puppies in suspect area.  Change gloves between kennels.

Parvo symptoms include vomiting, diarrhea, lethargy, and lack of appetite.  If any of these are noticed please place a stool sample in the med room fridge, write your concerns on the sick list AND email/tell vet staff immediately.

Normal cleaning protocol is sufficient to limit the spread of this disease we are just being overly cautious by quarantining these dogs/puppies.

If the public inquires about the dogs/puppies, please just let them know that we are monitoring their health.  No additional information is needed

**General Information:**

Canine parvovirus is highly contagious, durable in nature, and capable of producing severe or life-threatening disease in dogs.  It first appeared in the late 1970s, and is one of the most frequent serious dog disease problems encountered in animal shelters.  It is reported in coyotes, foxes and wolves and probably affects most, if not all, members of the canine family.  Inevitably, canine parvovirus will be introduced into shelters from the surrounding community from time to time.  It is critical that our shelter follows this protocol to appropriately identify and care for infected animals in order to protect other dogs within the shelter.

Puppies less than six months of age are most likely to show severe clinical signs.  However, adult dogs can also be affected.  Affected dogs may have mild to severe diarrhea (often bloody), may be dehydrated, lethargic, be anorexic, have vomiting, or can develop severe to fatal secondary bacterial infections.  Young puppies who acquire parvovirus will often die without aggressive medical treatment.  The virus is shed mainly in feces and is very hardy and can live in the environment for long periods of time without proper disinfection.

**Clinical Signs:**

* Lethargy
* Vomiting
* Profuse diarrhea (with or without blood)
* Affected dogs/pups are usually anorexic, have a fever, and are dehydrated
* Clinical signs may be worse in young puppies or those with concurrent disease/parasites/stress
* Sudden death

\*Diarrhea in an otherwise bright, alert, eating, drinking dog is more likely due to diet change, stress, parasites, or dietary indiscretion.

\*\*Subclinical infection IS possible where few signs are able to be noted.

**Disease Transmission:**

* Canine parvovirus is spread from dog to dog mainly through exposure to contaminated feces but other body fluids can transmit the virus
* It is also spread through contact with fomites (contaminated objects).  Common fomites include hands, instruments, clothing, food and water dishes, toys and bedding
* Insects and rodents can also provide a means for disease spread
* The virus can remain on a dog’s hair coat (even if they do not become ill) and serve as a means of transmission long after dogs have recovered from clinical disease
* The virus can remain viable in the environment for months to years
* The incubations period, or period between contact with the virus and the appearance of symptoms varies between three days and two weeks but is usually four to six days
* Canine parvovirus can be shed in the feces three to four days after infection with the virus, which is generally before clinical signs of illness appear.  The virus will also be shed in the feces for around 14 days post infection

**Preventive Measures:**

**Vaccination:**

* Vaccinate all dogs at intake.  The modified live Da2PP vaccine is an excellent vaccine that provides fairly rapid protection against viral challenge.
* Dogs over 4 months of age will require a boostering of the vaccine in 2-4 week for year-long protection.
* Vaccinate puppies in the shelter starting at four to six weeks of age with a modified live Da2PP vaccine, boostering every 2-3 weeks until they are 20 weeks of age.

**Segregation:**

* Segregate ALL puppies by litter and age groups, and always from adults
* Quarantine exposed (animals that have been in contact with sick animals) for two weeks if possible
* Isolate sick animals immediately

**Sanitation:**

Sanitation is the root of a healthy animal shelter environment and a key component in maintaining the health of the animals housed within.  Proper sanitation involves thorough cleaning before appropriate disinfecting – *cleaning and disinfecting are not the same thing.*Cleaning does not kill pathogens, but mechanically removes them or reduces their presence.  Disinfecting is usually a second step and inactivates the pathogens that were not removed in the cleaning process.  Without proper cleaning and disinfecting, disease can quickly spread.  In animal shelters, there are many factors that can contribute to poor sanitation and spread of disease.  Understanding these factors can help to prevent or detect problems in any sanitation program.  Whenever the level of disease in a facility increases, reviewing sanitation procedures should be a priority.

* Instruct staff, volunteers and visitors about the dangers of spreading disease via fomites, particularly on hands and clothing
* Clean in order of most susceptible to disease to most likely to spread disease.  In most shelters this means cleaning healthy puppies and moms with puppies, healthy adults, and then unhealthy animals last
* Use disposable toys and food dishes when possible.
* Items that cannot be sanitized (blankets, fabric toys), etc. must be disposed of after use.
* Not all disinfectants are parvocidal (kill parvovirus).  Ensure use of a product that is parvocidal
	+ Bleach will kill canine parvovirus, but only in correct dilutions (1:32) and only if there is no organic matter (i.e. dirt, grass, feces, food particles, etc.), which inactivates the bleach.  Once diluted, the mixture is effective for 24 hours.
	+ Trifectant or Accel are other parvocidal alternatives
	+ Quaternary ammonium products are not considered reliable
	+ The manufacturer’s instructions should be followed for dilution, for application and for required contact time in order for proper disinfection to occur.

**Diagnosis:**

Rapid in-clinic parvovirus tests that use ELISA technology (enzyme-linked immunosorbent assay) are useful screens for canine parvovirus.  This test utilizes a fecal swab to detect viral antigen, and can be run in 10-15 minutes.  While no test is 100% sensitive or specific, positive test results on a symptomatic animal are worth heeding.  Negative results may occur even when animals are infected depending on timing of sampling.  An ill animal with negative results may still require further testing and care.

* Isolation may occur before positive test results are obtained
* A positive ELISA canine parvovirus test in conjunction with low complete blood count is considered canine parvovirus positive
* A negative ELISA canine parvovirus test in conjunction with clinical signs may be considered canine parvovirus positive

**Assessing Risk to the Population:**

* When an adult dog is diagnosed with parvovirus, a single kennel-mate is considered high risk
* When a puppy is diagnosed with canine parvovirus, littermates are considered at high risk
* Any puppies transported in the same vehicle as infected puppies may be subject to quarantine.

**Quarantine and Isolation:**

Quarantine houses animals exposed to infectious disease but not yet clinical.

Isolation houses animals who are symptomatic and infected with a communicable disease.

* Exposed population will require 10 day quarantine without a new case of canine parvovirus in the population.  If any dog is diagnosed during the quarantine, the quarantine will restart.
* This shelter does not have the resources for titer testing exposed dogs
* Dogs and puppies with canine parvovirus will be isolated from the general population
* When a canine parvovirus outbreak occurs, the shelter may stop admitting new dogs and puppies.
* Positive cases will be isolated for 14 days after symptoms subside.

**Treatment:**

* Dogs/puppies with parvovirus are isolated and treated at the shelter.
* Vet staff administers treatments until the puppy is eating on its own.
* Animal care cleans and feeds puppy once they are eating on their own.,

**Outcome and Recovery:**

Dogs and puppies will be considered “recovered” and able to move to surgery, adoption, or other live outcome after the following criteria are met:

1. Minimum of 10 days in isolation (ideally 14 days)
2. Negative ELISA canine parvovirus test
3. Bathed
4. No clinical signs (no diarrhea or vomiting and eating on own)

Dogs and puppies diagnosed with canine parvovirus may be euthanized for the following reasons:

1. No space to treat (clinical cases exceed isolation capacity)
2. Not an adoption candidate due to infection with canine parvovirus
3. Failure to improve with treatment as determined by veterinary discretion
4. Canine parvovirus in addition to other illness or issues
5. Advanced parvovirus infection, recovery not likely as determined by veterinarian

\*Please note:  This Standard Operating Protocol (SOP) is intended to be used as written and reflects general best practices based upon the information provided by the user.  This SOP is not intended as medical advice or a prescription for treatment of any specific animal, nor to substitute for veterinary advice.  By using this tool, you acknowledge and agree that there may also be local and state laws governing the subject matter of this SOP, and the ASPCA cannot be held liable for results of its implementation.

**Reference Documents**

• ASPCA Parvovirus SOP•

**Revision History**

V1 - Created 1/24/18

V2 - Revised 12/5/18

V3 – Revised 4/28/21