PARVOVIRUS INFECTION FACT SHEET

What is Canine Parvovirus disease?
Canine parvovirus (CPV) infection is a relatively new disease that first appeared in 1978. Because of the severity of the disease and its rapid spread through the canine population, CPV has aroused a great deal of public interest. The virus that causes it is very similar to feline enteritis, and the two diseases are almost identical. Therefore, it has been speculated that the canine virus is a mutation of the feline virus. However, that has never been proven.

How does a dog become infected with parvovirus?
The causative agent of CPV disease, as the name infers, is a virus. The main source of the virus is the faeces of infected dogs. The faeces of an infected dog can have a high concentration of viral particles. Susceptible animals become infected by ingesting the virus. Subsequently, the virus is carried to the intestine where it invades the intestinal wall and causes inflammation.

Unlike most other viruses, CPV is stable in the environment and is resistant to the effects of heat, detergents, and alcohol. CPV has been recovered from dog faeces even after three months at room temperature. Due to its stability, the virus is easily transmitted via the hair or feet of infected dogs, contaminated shoes, clothes, and other objects. Direct contact between dogs is not required to spread the virus. Dogs that become infected with the virus and show clinical signs will usually become ill within 7-10 days of the initial infection.

How does this disease affect the dog?
The clinical manifestations of CPV disease are somewhat variable, but generally take the form of severe vomiting and diarrhoea. The diarrhoea may or may not contain blood. Additionally, affected dogs often exhibit a lack of appetite, depression, and fever. It is important to note that many dogs may not show every clinical sign, but vomiting and diarrhoea are the most common signs; vomiting usually begins first. Parvo may affect dogs of all ages, but is most common in dogs less than one year of age. Young puppies less than five months of age are often the most severely affected and the most difficult to treat.

How is it diagnosed?
The clinical signs of CPV infection can mimic other diseases causing vomiting and diarrhoea; consequently, the diagnosis of CPV is often a challenge for the veterinary surgeon. The positive confirmation of CPV infection requires the demonstration of antigens to the virus in the faeces. This is achieved by taking a swab of the patient's rectum and using a simple test kit that takes a total of around 10 minutes to perform. Occasionally, a dog will have parvovirus but test negative for antigens to the virus in the faeces. Fortunately, this is not a common occurrence.

Can it be treated successfully?
As with any virus disease there is no treatment to kill the virus once it infects the dog. However, the virus does not directly cause death; rather, it causes loss of the lining of the intestinal tract. This results in severe dehydration, electrolyte (sodium and potassium) imbalances, and infection in the bloodstream (septicaemia). It is when the bacteria that normally live in the intestinal tract are able to get into the blood stream that it becomes more likely that the animal will die.

The first step in treatment is to correct dehydration and electrolyte imbalances. This requires the administration of intravenous fluids containing electrolytes. Antibiotics and anti- inflammatory drugs are given to prevent or control septicemia. Antispasmodic drugs are used to inhibit the diarrhoea and vomiting that perpetuate the problems.

What is the survival rate?
Most dogs with CPV infection recover if aggressive treatment is used and if therapy is begun before severe septicaemia and dehydration occur. For reasons not fully understood, some breeds, notably the Rottweiler, have a much higher fatality rate than other breeds.

Can it be prevented?
The best method of protecting your dog against CPV infection is proper vaccination. Puppies receive a parvo vaccination as part of the vaccines given at 6, 12 and 16 weeks of age. After the initial series of vaccinations when the dog is a puppy, all dogs should be boosted at least once a year. Bitches should be boosted before mating or immediately before whelping in order to transfer protective antibodies to the puppies. The final decision about a proper vaccination schedule should be made by your veterinary surgeon.

Is there a way to kill the virus in the environment?
The stability of the CPV in the environment makes it important to properly disinfect contaminated areas. This can be accomplished by cleaning food bowls, water bowls, and other contaminated items with a solution of 250 mL of chlorine bleach in 5 litres of water. It is important that chlorine bleach or glutaraldehyde based disinfectants be used because many other "viricidal" disinfectants will not kill the canine parvovirus.

Does parvovirus pose a health risk for me? How about for my cats?
It is important to note that at the present time, there is no evidence to indicate that CPV is transmissible to cats or humans.

Although not fully understood, Rottweilers have a much higher fatility rates than other breeds.

Australian Pesticides & Veterinary Medicines Authority
The APVMA is an Australian government statutory authority established in 1993 to centralise the registration of all agricultural and veterinary chemical products into the Australian marketplace. This includes disinfectants being used in animal related industries. You can search their PUBCRIS database to check and see if any disinfectant product is APVMA registered in Australia. www.apvma.gov.au

Animal Health Australia
Animal Health Australia is an innovative partnership involving the Australian Government, state and territory governments, major livestock industries and other stakeholders. We work with our members and stakeholders to strengthen Australia's national animal health system and maximise confidence in the safety and quality of Australia's livestock products in domestic and overseas markets. www.aahc.com.au

National Pest and Disease Outbreaks
This website was developed collaboratively across state & territory and Australian government agricultural agencies to provide a single, user-friendly website through which stakeholders can find access to local, state and national information in relation to Australian responses to current outbreaks of animal (including aquatic), plant and marine pests and diseases. www.outbreak.gov.au