

Merck Animal Health Assists Chicago Area Veterinarians with Diagnosis Confirmation the Canine Infectious Respiratory Disease Outbreak

Almost 80% of sampled cases in the Chicago area were positive for Dog Flu (Canine Influenza)

MADISON, NEW JERSEY, March 30, 2015- A few weeks ago, veterinarians in the Chicago area noticed an increase in the number of dogs presented to their clinics for respiratory illness. “Our patients’ signs mainly involved the respiratory system and included coughing, nasal and ocular discharge, lethargy, and inappetence,” says Dr. David Gonsky, Medical Director, West Loop Veterinary Care. Dr. Gonsky notes that “We have diagnosed at least a dozen cases of pneumonia.” Other Chicago area veterinarians suspected these cases were infectious in nature, since most of the dogs involved had recently been in contact with other dogs at a kennel, doggie day care, or dog park.

In order to identify the cause of the infectious disease, veterinarians send samples from sick dogs to diagnostic laboratories to help identify the pathogen causing the issues; however, many of the samples submitted returned inconclusive findings. To help support the veterinary community, Merck Animal Health sponsored a diagnostic sampling program to help identify the cause of the dogs’ illnesses. Nasal and pharyngeal swabs were sent to Cornell University Veterinary Diagnostic Laboratory to help identify the causative pathogen. Over a period of roughly two weeks, March 16 through March 26, forty-three samples were analyzed from Chicago and surrounding suburbs. Of these, thirty-four dogs tested positive for Canine Influenza.

In addition to those results, there were three cases of Mycoplasma, three cases of canine respiratory Coronavirus, three cases of Pneumovirus, one case of Bordetella, and one case of Parainfluenza. Dr. Denise Chow of Family Pet Animal Hospital reported that they also identified two cases of adenovirus while battling the outbreak.

Canine influenza virus (CIV) causes a respiratory infection in dogs that is often referred to as canine influenza or “dog flu.” Canine influenza virus was first isolated in Florida in 2004 at a Greyhound racing facility. Since then, the virus has been confirmed in dogs across 40 states and the District of Columbia. Since CIV is a relatively new virus, almost all dogs are susceptible to infection when they are newly exposed because they have not built up natural immunity.

Most CIV-infected dogs show only mild symptoms, but some dogs become very sick and require veterinary treatment. The clinical signs of canine influenza virus (CIV) infection usually begin less than 5 days after infection and are very similar to those of infectious tracheobronchitis or canine cough.

The most common clinical presentation of CIV infection is a mild upper respiratory tract infection. Most common clinical signs include lethargy, anorexia, low-grade fever, nasal discharge, and cough. Dogs with more severe disease usually present with high fever, an increased respiratory rate, and pneumonia.

Several laboratory testing methods are available for detection of influenza infection, including virus isolation, virus antigen detection by immunoassays, virus nucleic acid detection by polymerase chain reaction (PCR), and serology for virus-specific antibody. Most accredited veterinary diagnostic laboratory can confirm Canine Influenza through these tests. “Timing is critical with testing for Canine Influenza,” says Dr. Edward Dubovi, Professor of Virology, Cornell University’s Animal Health Diagnostic Center, “samples must be taken within the first 3 days of the dog’s illness.”

CIV infection is more prevalent than ever before, and continues to spread rapidly. 20% of dogs have the potential to develop a severe disease course. Veterinarians and other pet care professionals should suspect CIV infection in dogs presenting with persistent cough, nasal discharge, and fever, or in dogs with pneumonia or clinical signs of more severe respiratory illness.

Routine infection control precautions are critical for preventing the spread of viral diseases within veterinary and other animal care facilities. CIV is easily killed by disinfectants that are commonly used in veterinary clinics (e.g., quaternary ammonium compounds, bleach solutions at a 1 to 30 dilution, or potassium peroxymonosulfate).

“From the very early onset we implemented strict sanitation and disinfection protocols for the hospital in general,” notes Dr. Gonsky, “we have implemented a vaccination program against CIV to try to prevent future illness”

It is important that facilities establish clear protocols for thoroughly cleaning and disinfecting cages, bowls, and other surfaces between uses. In addition, employees should wash their hands with soap and water (or use an alcohol-based hand cleaner if soap and water are unavailable) before and after handling each dog; after coming into contact with a dog’s saliva, urine, feces, or blood; after cleaning cages; and upon arriving at and before leaving the facility.

Merck Animal Health offers these tips for controlling the spread of CIV in a veterinary facility

- Dogs with suspected CIV infection that enter the facility should be isolated immediately and evaluated in a separate room.
- After evaluation, the floors, walls, and tables in the room used should be thoroughly disinfected. Particular attention should be given to doorknobs and other objects that were touched by humans who were in contact with the dog.
- Hospitalized dogs should be isolated for the protection of other dogs.

- The air supply should be as separate as possible, ideally by a full wall and door; a designated area within a common air space may not be adequate to prevent transmission of the virus.
- At a minimum, gloves and a gown should be worn while handling dogs with CIV infection.
- Staff should wash their hands with soap and water or disinfect them with an alcohol-based hand sanitizer after handling the animal.
- Shoes should be disinfected with an appropriately maintained disinfectant footbath when exiting the isolation room.
- Viral disease is best prevented by effective vaccination.
- Dogs that are at risk for infectious respiratory disease would be those dogs that visit dog parks, doggie day cares, groomers, and kennels.
- Merck Animal Health launched the first vaccine for Canine Influenza in 2009, Nobivac® Canine Flu H3N8. The vaccine has been shown to protect dogs against CIV infection by significantly decreasing clinical signs, reducing viral shedding, and reducing CIV-induced lung consolidation.
- Vaccines are also commercially available to control of parainfluenza, adenovirus, and bordetella, such as Nobivac® Intra-Trac 3.
- Currently, there are no vaccines for pneumovirus or canine respiratory corona virus.

For more information about Canine Influenza, visit www.doginfluenza.com or contact Merck Animal Health Technical Services at 800-224-5318.

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