

Canine Influenza, A New Threat?

Canine Influenza has been in the news a lot as of late. Mainly due to an outbreak that started in the San Jose/San Francisco bay area in January of this year. From there it has spread to multiple other counties throughout the state. According to IDEXX Laboratories there have been 486 confirmed cases of Canine Influenza in California since January, 2018. The vast majority of these cases have been in the bay area and San Jose region, but a significant number of cases have been confirmed in the central valley region with 51 cases in Fresno alone. Given the close proximity of these cases to Tehachapi, there is a legitimate concern for the outbreak reaching Kern County. In response, the veterinary community made the decision to proactively vaccinate all at-risk dogs in attempt to stop its spread.

As a cause of respiratory disease, Canine Influenza is relatively new. It first appeared in 2004 when the original strain (H3N8) moved from horses to dogs. The current outbreak in California is due to a new Asian strain from birds (H3N2). Both strains are transmitted by close contact with an infected dog, most commonly in enclosed environments such as grooming and boarding facilities, shelters, or any locations where dogs may congregate such as dog shows, field trials, training classes, dog parks, etc... It is known the virus can be transmitted on fomites (clothing, mops, fencing, bedding) as well, so proper sanitation in those facilities is a must.

Clinical signs can include coughing, lethargy, fever, and runny nose, developing 2-3 days after exposure. Once clinical signs develop, the infected dog is contagious to other dogs. Shedding of the virus for the new strain (H3N2) can continue for up to a month after the onset of clinical signs. Some dogs may continue to cough for several weeks after the initial acute infection, making isolation of infected dogs imperative. In and of itself, Influenza historically has a low mortality rate, but the virus can cause significant lung damage opening the dog up for secondary bacterial pneumonias which can have a higher mortality rate. Unfortunately, in this most recent outbreak of the H3N2 strain, the mortality rates have been alarmingly high (3-8%). A presumptive diagnosis is based upon signs, physical exam, and history (exposure and vaccine status). Diagnosis is confirmed with PCR testing or virus isolation of nasal or pharyngeal swabs.

Treatment is largely supportive using nebulization and coughage. If a secondary bacterial pneumonia is suspected or confirmed with testing (PCR or culture), antibiotics may be utilized as well. For very ill patients, hospitalization in an ICU setting may be needed.

Vaccination of both at-risk dogs and their house companions is recommended, as even vaccinated dogs with no clinical signs can shed the virus after exposure and "bring home" the virus. Because the virus can be transmitted on fomites, the dogs of people that work in boarding facilities, animal hospitals, shelters, & dog trainers should also be vaccinated. Currently a bivalent vaccine that covers both strains is available and recommended. A series of two vaccines 2-4 weeks apart is administered initially, then boosted annually. Protective immunity is present two weeks after the second vaccine. Only at that time would dogs be considered protected.

For additional information regarding Canine Influenza and to see if your dog is at risk, check-out Cornell University, School of Veterinary Medicine website (www.ahdc.vet.cornell.edu/news/civchicago.cfm), www.DogFlu.com, AAHA Vaccine Guidelines (www.aaha.org/guidelines/canine_vaccination_guidelines.aspx), or contact your veterinarian.

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