



## Golden Retriever Club of America®

### **Influenza (Flu) and Kennel Cough Vaccines – Does Your Golden Need Them?**

Several exhibitors at the GRCA National Specialty as well as other shows have reported dogs that developed signs of respiratory disease after the show. When some dogs came home, they brought the disease home with them. Some dogs tested positive for canine H3N2 influenza virus. Our members are asking if they should vaccinate their dogs for influenza. The answer is that, as with all veterinary questions, such decisions should be made after discussion between the owner and the attending veterinarian who knows the dog (the veterinarian/client relationship), and the dog's health status and lifestyle. An important start for the discussion may be the recent guidance from the American Animal Hospital Association (AAHA) that vaccines for dogs who attend dog shows should include Bordetella (kennel cough), leptospirosis and a bivalent influenza vaccine (protects from H3N2 and H3N8 influenza) (3). The information below may also be helpful in preparing for the discussion with the attending veterinarian.

Canine H3N2 first began circulating in the US around 2015 (8). Another canine influenza virus, H3N8, emerged about 20 years ago apparently due to adaptation from an influenza virus of horses (4). Today, vaccines are available for H3N2 and H3N8, including a bivalent vaccination that protects against both. Because the viruses are relatively new, many unvaccinated dogs are vulnerable to infection. The 2022 AAHA guidelines emphasize the importance of a dog's lifestyle in determining which vaccination(s) may be as important to an individual dog as the core vaccines recommended for all dogs (unless there is a medical reason to not give them). Core vaccinations for all dogs are distemper, parvovirus, adenovirus (hepatitis), and rabies (1).

Vaccination timing is important. Current vaccinations for canine influenza are killed vaccines that require an initial shot followed by a booster shot 2 to 3 weeks after the initial vaccination. Immunity develops over the next few weeks although the exact timing has not been reported. This means that the vaccination needs to be given well before potential exposure. Boosters are then given at 12-month intervals. For an overdue booster, if it has been more than 18 months since the last booster, many suggest repeating the 2-vaccine series. The manufacturer of the bivalent H3N2/H3N8 vaccination licensed in the US reports that in their study, the vaccine protected against significant respiratory disease from H3N2 and reduced, but did not eliminate, the shedding of H3N2 virus (9).

Additional protection is available for some other pathogens that can increase severity of influenza virus infections. Influenza viruses, in general, damage the lining of the airways of the lung. That not only directly causes illness but sets the lung up for secondary infections (5). Indeed, most bacterial pneumonias in dogs are secondary to either viral infection or aspiration of foreign matter into the lung (6). Thus, canine infectious respiratory disease usually involves more than one pathogen. These include causes of what commonly is called "kennel cough": *Bordetella bronchiseptica*, canine parainfluenza virus (CPIV) and adenovirus type II (CAV-2). AAHA guidelines for dogs with social lifestyles also include vaccines that help protect against these (2). In a recent study of canine infectious respiratory disease, CPIV and the bacteria *Mycoplasma cynos* and *Mycoplasma canis* were among the most commonly identified pathogens

in affected dogs (7). The same study also noted that infections involving more than one pathogen were associated with more severe disease.

Leaving non-competing dogs, dogs who are not well, and exposed dogs at home are also important in limiting the spread of respiratory disease. The good news is that vaccinations are available that can reduce risks for some causes of respiratory disease in social dogs and treatments are available for some of the other causes and complications (1; 6).

## References

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