Tell us about the recent outbreak of canine influenza and why the circumstances are so concerning.

The outbreak of canine influenza virus (CIV) in the Chicago area is of concern primarily because the strain of virus causing the respiratory disease is of a foreign source. Many diagnostic labs were not capable of detecting this strain of influenza virus, making the cause of the outbreak unknown for several weeks, and this somewhat delayed the relay of accurate information to the veterinary community, postponing initiation of appropriate measures.

The second issue that arises with this foreign introduction is the relatively lax rules (and their poor enforcement) regarding importation of companion animals. For instance, when it comes to food animals, the rules for importation are strictly enforced by the U.S. Department of Agriculture, but we must recognize that companion animals can carry disease agents we certainly don’t need in the U.S. Finally, the H3N2 virus responsible for the Chicago outbreak may be more pathogenic than the H3N8 virus that already exists here in the U.S.

How is this particular strain of influenza different from the H3N8 epizootics in 2005?

While I indicated that this strain of flu may be more pathogenic than the U.S. H3N8, the data for this is still somewhat lacking. In the current situation, we have a heightened awareness of an unusual increase in respiratory disease in dogs, and we have excellent diagnostic services that can detect most pathogens involved in canine respiratory disease, including Influenza A viruses, such as the H3N8 and H3N2 strains. Hundreds of dogs have been tested, and a high percentage of these were positive for Influenza A virus.

Various media sources were quick to report the unusual level of respiratory disease being seen by veterinarians in the affected area, so we are left with the impression that the spread of the H3N2 strain of flu was explosive and clearly different from what had been seen with H3N8. That impression may not be correct because none of the testing and surveillance capabilities in use now were available when H3N8 entered the New York City (NYC) area in 2005. It was not until September of 2005 that the first isolation of H3N8 was made, long after the epizootic had begun.

Would we be seeing essentially the same characteristics in both the NYC and Chicago outbreaks if the conditions that exist today were in place in 2005? Probably, in my opinion. The factors that permitted rapid spread of CIV in 2005 are still in effect today, with essentially 100% of dogs being susceptible to infection with no evidence of breed or age discrimination. The difference today is we may have more dog parks and day care centers, where the chances of contracting an infection are enhanced by close contact.

What is the best way for veterinary professionals to learn more about this virus, and answer questions from the public and media?

The standard media sources frequently are limited to what can be presented, and in the process of editing, important nuances can be lost. I would recommend periodically visiting more "academic" websites for the latest information. The AVMA has a site that is frequently updated (avma.org), and the Animal Health Diagnostic Center website (ahdc.vet.cornell.edu/news/civchicago.cfm) is hosting an effort to collect canine Influenza A virus (CIV) data from multiple sources in order to track CIV cases. This is a voluntary effort, so invited labs can choose not to participate but, in the end, this should be the most accurate reflection of the canine influenza situation.
If a clinic identifies a patient with this strain of CIV, what procedures and precautions should be taken?

The difficult situation with CIV is, with an individual patient, it is not possible to accurately determine by clinical signs whether an infection is due to CIV or a different respiratory pathogen. If a patient's history includes a recent stay at a kennel where multiple dogs have similar signs, this strongly indicates a CIV infection. Handling a dog with suspected CIV infection should be done under standard “universal precautions” for any infectious disease possibility. If one has standard practices to inactivate canine parvovirus in the clinic setting, these are more than adequate to handle influenza virus. Transmission by fomites is a real possibility, so changing gloves and outerwear between patient visits should be a routine practice. One should also remember that dogs will be shedding influenza virus prior to the onset of significant clinical signs. Thus, a patient in for a “well” check could be incubating and shedding the virus.

How can veterinarians respond to clients’ fears about boarding or doggy day care risks?

This is a difficult question because curbing the spread of CIV largely depends on the ethical behavior of dog owners due to the lack of data on the protection provided by available H3N8 vaccines. No one should bring a pet to a boarding kennel or day care center if the animal is not behaving normally. Fortunately, influenza virus infections in mammals do not produce a chronic infection state (ie, this virus is shed for a brief period of time and then the animal is free from infection). In theory, the epizootic could be stopped by preventing all dog movement for several weeks. While this is not practical, one would hope that responsible pet owners would restrict movement of sick dogs.