



Infectious disease profiles of pathogens in a shelter environment

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Kennel Cough (canine URI)

Disease name:	Kennel Cough (canine URI)	
Agent:	<i>Bordetella bronchiseptica</i> , canine parainfluenza virus (CpiV, enveloped RNA paramyxovirus), canine adenovirus 2 (CAV-2, unenveloped DNA Virus), others	
Susceptible domestic species	Dogs, Cats- Less common for cats to suffer clinical disease, but they may be carriers. In some cases <i>Bordetella</i> infection may contribute to URI or pneumonia in young kittens.	
Zoonotic?	Yes – rare – most common in immunocompromised people or those with preexisting respiratory disease	
Diagnostic testing:	Culture or PCR of ocular, nasal or oropharyngeal swab for <i>Bordetella</i> . PCR for adenovirus, parainfluenza virus available from some labs.	
Test Sensitivity (false negatives)	Good – improved by careful sample handling	
Test specificity (false positives)	Good – however, <i>Bordetella</i> may be isolated from healthy dogs. Specificity of culture is improved by culturing transtracheal or endotracheal wash fluid rather than oral or nasal swabs.	
Test comments:	Diagnosis almost always made based on clinical signs, r/o of canine distemper in severe cases	
Vaccine available?	Yes – for <i>Bordetella</i> , CpiV, and CAV-2	
Vaccine efficacy:	Moderate: does not completely prevent infection but reduces severity of signs. MLV IN vaccine may cause mild signs including green nasal discharge that can trigger distemper worries.	
Excreted in:	Primarily ocular, nasal and oral secretions	
Mode of transmission:	Highly contagious. Transmitted by aerosolized microdroplets, fomites over moderate time/ distance, direct contact.	
Disinfection:	Routine disinfection adequate for all but CAV-2, which requires bleach 1:32 or potassium peroxymonosulfate to fully inactivate	CAV-2 probably a minor player in most cases of kennel cough
Incubation:	3 -10 days.	
Post recovery shedding?	<i>Bordetella</i> may be shed up to 3 months. Viral agents shed < 2 weeks	Infectious risk is greatly reduced when dogs no longer have discharge or coughing.
Carrier state?	No. Cats may have subclinical infections and transmit disease to dogs.	