

Agent	<ul style="list-style-type: none"> Type A influenza virus: RNA virus in family Orthomyxoviridae. <ul style="list-style-type: none"> Hemagglutinating antigen (HA) and neuraminidase antigen (NA), are the basis for the serologic identity of the influenza viruses. To date, 16 hemagglutinins (H1 to H16), and 9 neuraminidases (N1 to N9) have been found in viruses from birds Classified as low pathogenic avian influenza (LPAI) and highly pathogenic avian influenza (HPAI) based upon specific diagnostic and/or sequence criteria. Since 1955, all HPAI outbreaks have been attributed to subtypes H5 and H7
Susceptible species	<ul style="list-style-type: none"> Domestic and wild birds. Wild aquatic birds considered reservoir Mammals including humans, horses, pigs, mink, seals, cats, leopards, tigers, civets, dogs
Occurrence in BC and the world	<ul style="list-style-type: none"> Occurs worldwide; different strains are more prevalent in certain areas Outbreaks of notifiable influenza detected in BC poultry in 2004, 2005, 2009, 2014-2015 <ul style="list-style-type: none"> The virus was likely introduced from infected wild birds Two human cases of conjunctivitis detected in the 2004 H7N3 outbreak
Transmission	<ul style="list-style-type: none"> Within farm: transmission occurs via direct and indirect routes: <ul style="list-style-type: none"> <u>Direct</u>: via secretions/excretions from infected birds, such as feces <u>Indirect</u>: via contaminated items such as feed, water, equipment, clothing Between farms: movement of live birds (domestic & wild), people, equipment and vehicular traffic
Diagnosis Clinical Laboratory	<p>Incubation period in birds: 2-7 days</p> <p><u>LPAI</u>: Subclinical or mild infection. Decreased egg production and quality, respiratory signs, lethargy, decreased feed and water consumption, or somewhat increased flock mortality rates may be seen in chickens and turkeys.</p> <p><u>HPAI</u>: High mortality with non specific systemic, respiratory and/or neurological signs, sudden death in chickens and turkeys. Variable severity in other birds.</p> <p><i>Differential diagnoses for HPAI: Newcastle disease, infectious laryngotracheitis, duck plague, acute poisonings, sudden death associated with husbandry issues (eg ventilation, temperature etc)</i></p> <p>Virus isolation from oropharyngeal, tracheal and/or cloacal swabs or organ samples. Detection from real-time RT-PCR.</p>
Prevention in poultry	<ul style="list-style-type: none"> Enforcing strict biosecurity measures on poultry farms, preventing contact with wild birds CFIA surveillance program for H5 and H7 strains of avian influenza
Zoonotic implications	<ul style="list-style-type: none"> Human infection is rare, and should be avoided to minimize the risk of viral reassortment leading to emergence of a new pandemic strain Most cases have direct contact with infected poultry.
Reporting	<ul style="list-style-type: none"> H5 and H7 avian influenza are reportable diseases to the Chief Veterinary Officer (CVO) in BC <ul style="list-style-type: none"> All <u>suspect or confirmed</u> cases should be reported within 24 hours (604-556-3013) Veterinarians may be contacted by public health authorities for follow-up H5 and H7 avian influenza is a reportable disease to the CFIA <ul style="list-style-type: none"> Veterinarians must <i>immediately</i> report <u>suspect and confirmed</u> cases to a CFIA district veterinarian