

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, 16 hemagglutinin (H) and nine neuraminidase (N) subtype antigens described for Type A influenza viruses • Most common subtypes in swine are H1N1, H1N2, H3N2
Susceptible species	<ul style="list-style-type: none"> • Pigs are reservoir and principal host of swine influenza viruses <ul style="list-style-type: none"> ○ Because pigs are susceptible to both avian and human influenza strains, they can be important in influenza virus reassortment events and interspecies transmission. • Swine influenza viruses have been detected in other species including humans, turkeys and ducks
Occurrence in BC and the world	<ul style="list-style-type: none"> • Enzootic in pigs in Canada, the United States, Mexico, South America, Europe, and parts of Africa and Asia <ul style="list-style-type: none"> ○ H1N1 is the most common cause of swine influenza in North America; up to 40% of herds may contain antibody positive pigs ○ Outbreaks usually in late fall or winter months • 1-3 cases of swine influenza diagnosed in BC herds annually • No cases of human transmission of swine influenza documented in BC
Transmission	<ul style="list-style-type: none"> • Respiratory and indirect transmission
Diagnosis	<p>1-3 day incubation period</p> <ul style="list-style-type: none"> • High morbidity, low mortality; young growing pigs most susceptible. • Acute upper respiratory disease : fever, lethargy, anorexia, weight loss, laboured breathing, coughing, sneezing, nasal discharge <p><i>Differential diagnoses: enzootic pneumonia, hog cholera, inclusion body rhinitis, atrophic rhinitis</i></p>
Clinical	
Laboratory	<p>PCR to detect virus, virus isolation, hemagglutination inhibition test, ELISA</p>
Prevention and control	<ul style="list-style-type: none"> • Vaccination , strict import controls and good biosecurity to prevent infection entering a herd <ul style="list-style-type: none"> ○ Inactivated H1N1 and H3N2 influenza vaccines are available • Treatment to relieve symptoms, antimicrobials may reduce secondary bacterial infections
Zoonotic implications	<ul style="list-style-type: none"> • Zoonotic transmission of swine influenza to humans has occurred worldwide • Swine influenza illness is rare in humans, and is usually mild if it occurs
Reporting	<ul style="list-style-type: none"> • Influenza A in swine is a notifiable disease to the Chief Veterinary Officer (CVO) in BC <ul style="list-style-type: none"> ○All <u>laboratory-confirmed</u> cases should be reported within 24 hours (604-556-3013) ○Veterinarians may be contacted by public health authorities for follow-up