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| Agent | Self replicating prion |
| Susceptible species | <ul style="list-style-type: none"> Primarily affects cattle Can also affect humans, other ruminants, pigs, cats, mink, mice, marmosets |
| Occurrence in BC and the world | <ul style="list-style-type: none"> Most cases have been detected in the United Kingdom 19 cases have been reported in Canada to-date, since the CFIA surveillance program began in 2003 <ul style="list-style-type: none"> 4 cases of BSE in cattle have been diagnosed in BC: 2006 (1), 2007 (1) and 2008 (2). No reported human cases of vCJD in BC. <ul style="list-style-type: none"> There have been 2 reported cases in Canada (2002 and 2011), both attributed to exposure outside Canada |
| Transmission | <ul style="list-style-type: none"> Ingestion of prion-contaminated tissues. No evidence of horizontal transmission <ul style="list-style-type: none"> Most cattle become infected by eating contaminated feed in the first year of life Atypical BSE (caused by H and L strains) believed to develop spontaneously |
| Diagnosis | <p>Incubation period: 2-8 years (average 5 years)</p> <ul style="list-style-type: none"> Behavioral abnormalities: nervousness, aggression, teeth grinding, hesitations at barriers, increased sensitivity to stimuli Physical abnormalities: gait abnormalities, ataxia, weight loss Recumbency, coma and death follow weeks to months after onset of symptoms. <p><i>Differential diagnoses: hypomagnesemia, rabies, nervous acetone, lead poisoning, listeriosis, polioencephalomalacia, tremorogenic toxins</i></p> |
| Clinical | |
| Laboratory | <ul style="list-style-type: none"> There is no live animal test for BSE. Rapid tests are available for screening. Confirmation with immunohistochemistry (IHC) or Scrapie Associated Fibril (SAF) immunoblot on brain tissue |
| Prevention and control | <ul style="list-style-type: none"> Import restrictions and ban on specified risk material from all animal feeds, pet foods and fertilizers CFIA BSE surveillance program samples cattle >30 months of age, that are dead, down, dying or with clinical signs |
| Zoonotic implications | <ul style="list-style-type: none"> Disease in humans called variant Creutzfeldt-Jakob disease (vCJD), caused by eating beef contaminated with BSE CFIA has measures in place to eliminate the risk of contaminated beef entering the foodchain |
| Reporting | <ul style="list-style-type: none"> BSE is a reportable disease 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 BSE is a reportable disease to the CFIA <ul style="list-style-type: none"> Veterinarians must immediately report suspect or confirmed cases of BSE to the CFIA district veterinarian |