Bovine Anthrax

JUNE 2015

Cause	*Bacillus anthracis* bacteria
Risk of Exposure in Illinois	Low
Risk of Transmission to exposed people	High
Mode of Transmission	Ingestion or inhalation of spores; handling contaminated carcass, hide or hair
Incubation Period	Human: Cutaneous form: 3-10 days Inhalation form: 1-5 days Gastrointestinal form: 2-5 days Animal: 3-7 days (can range from 1-20 days)
Clinical Signs-Human	***Cutaneous form*** accounts for most human cases-red, raised lesion; blister ***Pulmonary form***- fever; general ill-being; muscle pain; cough; respiratory distress; sweating; shock; death ***Gastrointestinal form***- fever; vomiting; bloody diarrhea; general ill-being
Clinical Signs-Animal	***Acute form***- sudden fever; incoordination; tremors; respiratory distress; blood-tinged diarrhea; blood in urine and milk; convulsions and *death ***Peracute form***- *sudden death *Failure to achieve rigor mortis after death
Control and Prevention	Vaccinate livestock in endemic areas; Vaccinate individuals in high risk occupations; deep burial/burn infected carcass
Comments	Reportable disease in Illinois If anthrax is suspected, do ***NOT*** perform a necropsy; potential bioterrorist agent
Additional Information	http://emergency.cdc.gov/agent/anthrax/index.asp http://www.cfsph.iastate.edu/Factsheets/pdfs/anthrax.pdf

Bovine Arcanobacterium pyogenes

JUNE 2015

Cause	*Arcanobacterium pyogenes* bacteria (previously known as *Actinomyces pyogenes and Corynebacterium pyogenes* bacteria)
Risk of Exposure in Illinois	Moderate
Risk of Transmission to exposed people	Low
Mode of Transmission	Direct contact; fly vector
Incubation Period	Humans: Unknown Animals: Organism colonizes mucous membranes of cattle
Clinical Signs-Humans	Abscesses on extremities; sore throat; pneumonia; arthritis; septicemia (blood poisoning); endocarditis (inflammation of heart valves); meningitis
Clinical Signs-Animals	Mastitis that does not respond well to treatment; enlarged lymph nodes; weight loss; liver abscesses; skin abscesses; pneumonia
Control and Prevention	Fly control; clean/dry calving areas; dry off of affected cows; wear gloves to protect open wounds
Comments	None
Additional Information	http://www.phac-aspc.gc.ca/lab-bio/res/psds-ftss/msds2e-eng.php http://c.ymcdn.com/sites/www.aazv.org/resource/resmgr/IDM/IDM_Actinomycosis_2013.pdf

Bovine Brucellosis

JUNE 2015

BANG'S DISEASE

Cause	*Brucella abortus* bacteria
Risk of Exposure in Illinois	Low (Illinois is currently Brucellosis free)
Risk of Transmission to exposed people	High
Mode of Transmission	Contact with infected animals especially aborted fetuses, uterine fluids or membranes, and urine; inhalation or ingestion; accidental injection with vaccine strain; contact with objects capable of harboring bacteria
Incubation Period	Humans: 1 week- several months after infection Animals: Variable; stillbirths and abortion can be seen 2 weeks-5 months after infection
Clinical Signs-Humans	Fever; headache; chills; generalized weakness; nausea; weight loss; enlarged lymph nodes and spleen Asymptomatic infections can occur. Symptoms may persist for years either intermittently or continuously.
Clinical Signs-Animals	Late term abortion or birth of weak calves; decreased fertility; poor conception rate; retained afterbirths; decrease in milk production; inflammation of testis; testicular atrophy; cystic swelling on knee joints
Control and Prevention	Wear protective clothing around suspect animals; use cautious vaccination techniques; avoid non-pasteurized dairy products and undercooked meat.
Comments	Reportable disease in Illinois; potential bioterrorist agent
Additional Information	http://www.cdc.gov/brucellosis/ http://www.cfsph.iastate.edu/Factsheets/pdfs/brucellosis.pdf

Bovine Vibriosis

JUNE 2015

BOVINE CAMPYLOBACTERIOSIS

Cause	*Campylobacter* spp. bacteria
Risk of Exposure in Illinois	High
Risk of Transmission to exposed people	Moderate/High
Mode of Transmission	Ingestion (contaminated food/water, raw milk, fecal-oral) Direct contact
Incubation Period	Humans: 1-11 days (3-5 days most common) Animals: 3-25 days (although most cases are asymptomatic)
Clinical Signs-Humans	***Systemic form*** (*C. fetus*)-chills; sweats; fever; cough; weight loss; anorexia; vomiting; diarrhea; late term abortion ***Intestinal form*** (*C. jejuni*)-acute diarrhea +/- blood; abdominal pain; vomiting; headache; vague sense of ill-being
Clinical Signs-Animals	*C. fetus*-infertility; abortion of early fetus *C. jejuni*-ocassional diarrhea
Control and Prevention	Dispose of aborted fetuses and placentas promptly; pasteurize milk; good personal hygiene
Comments	Person to person transmission has been observed.
Additional Information	http://www.cdc.gov/nczved/divisions/dfbmd/diseases/campylobacter/ http://www.cfsph.iastate.edu/Factsheets/pdfs/campylobacteriosis.pdf http://coloradodisasterhelp.colostate.edu/prefair/disease/dz/Campylobacteriosis.html

Bovine Cryptosporidiosis

JUNE 2015

BOVINE CRYPTO

Cause	*Cryptosporidium parvum* protozoa parasite
Risk of Exposure in Illinois	High
Risk of Transmission to exposed people	High
Mode of Transmission	Fecal-oral; waterborne; airborne; foodborne
Incubation Period	Humans: 1-12 days (average is 7 days) Animals: 4-9 days; oocysts shed for up to 10 days
Clinical Signs-Human	Cramping; abdominal pain; profuse watery diarrhea; anorexia; weight loss; vomiting; headache; immunosuppressed patients exhibit more severe illness
Clinical Signs-Animals	Loss of appetite; mild to severe watery diarrhea; debilitation; dehydration; loss of body fat; feces may contain blood and/or mucus; symptoms most common in young calves and not affected by conventional antimicrobial therapy; many infections asymptomatic
Control and Prevention	Good personal hygiene, avoid contact with calves, especially calves with diarrhea; proper fecal waste disposal
Comments	Person to person transmission has been observed.
Additional Information	http://www.cfsph.iastate.edu/Factsheets/pdfs/cryptosporidiosis.pdf http://www.cdc.gov/parasites/crypto/ http://coloradodisasterhelp.colostate.edu/prefair/disease/dz/Cryptosporidiosis.html

Bovine Ringworm

JUNE 2015 | DERMATOPHYTOSIS

Cause	*Trichophyton* spp.*; Microsporum* spp. fungi
Risk of Exposure in Illinois	Moderate
Risk of Transmission to exposed people	High
Mode of Transmission	Direct contact with infected animal, or indirect contact with contaminated objects capable of harboring the fungi
Incubation period	Humans: 7-14 days (can last from several days to few weeks) Animals: 2-4 weeks
Clinical Signs-Humans	Fungi generally grow in keratinized tissue such as hair, nails and outer layer of skin; mucous membranes not affected. Itching; "ringworm" lesion; hair loss; inflammation
Clinical Signs-Animals	Focal areas of hair loss; raised, circular, non-itching skin lesions of variable size; occasionally generalized skin involvement. Most often around eyes in calves. Animals may have lesions on chest, limbs, dewlap, or face. Lesions usually resolve spontaneously in 2-4 months.
Control and Prevention	Sanitation; good personal hygiene; wear gloves when handling suspect animals or contaminated objects capable of harboring the fungi.
Comments	Person to person transmission has been observed.
Additional Information	http://www.cfsph.iastate.edu/Factsheets/pdfs/dermatophytosis.pdf http://www.vetmed.wisc.edu/pbs/zoonoses/systemic%20mycoses/dermatsporoindex.html http://www.cdc.gov/healthypets/diseases/ringworm.html

Bovine E. Coli O157:H7

JUNE 2015

E. COLI

Cause	*Escherichia coli O157:H7* bacteria
Risk of Exposure in Illinois	Moderate
Risk of Transmission to exposed people	Variable
Mode of Transmission	Ingestion (undercooked meat, contaminated water, raw milk); direct contact less often
Incubation Period	Humans: 2-9 days (3-4 days most common) Animals: Uncertain; fecal shedding weeks to months
Clinical Signs-Humans	Acute bloody diarrhea; cramps with little or no fever; vomiting. (Commonly lasts about one week.) Occasionally hemolytic uremic syndrome (HUS) which is a combination of symptoms that includes kidney failure, anemia, and blood clotting problems. Children <5 yrs of age, elderly and immunosuppressed individuals are at serious risk.
Clinical Signs-Animals	This organism (0157:H7) generally does not cause disease in cattle; *E. coli* can cause diarrhea in calves and mastitis in cows.
Control and Prevention	Good personal hygiene; thoroughly cook meat
Comments	Person to person transmission has been observed.
Additional Information	http://www.cfsph.iastate.edu/FastFacts/pdfs/ecoli_F.pdf http://www.cdc.gov/ecoli/index.html

Bovine Giardiasis

JUNE 2015

Cause	*Giardia* spp. protozoa parasite
Risk of Exposure in Illinois	Low/Moderate
Risk of Transmission to exposed people	High
Mode of Transmission	Ingestion (contaminated water, fecal-oral)
Incubation Period	Human: 1-25 days Animal: 5-14 days
Clinical Signs-Human	Sudden onset of diarrhea with foul-smelling stools; abdominal cramps; bloating; flatulence; nausea; fatigue; dehydration; chronic infections may occur.
Clinical Signs-Animal	Adult animals may be asymptomatic; young animals-diarrhea or soft stools; poor hair coat; flatulence; weight loss or failure to gain weight
Control and Prevention	Good personal hygiene; thoroughly cook food; boil contaminated water; chlorine will not kill cysts.
Comments	Person to person transmission has been observed.
Additional Information	http://www.cfsph.iastate.edu/Factsheets/pdfs/giardiasis.pdf http://www.cdc.gov/parasites/giardia/index.html

Bovine Johne's Disease

JUNE 2015

PARATUBERCULOSIS

Cause	*Mycobacterium avium (paratuberculosis)* bacteria
Risk of Exposure in Illinois	Moderate
Risk of Transmission to exposed people	Low (uncertain if zoonotic transmission occurs)
Mode of Transmission	Direct contact; ingestion (routes of transmission not proven)
Incubation Period	Human: Uncertain Animal: 1.5-5 years or longer
Clinical Signs-Human	It has been suggested that Johne's disease is linked to Crohn's disease in humans, which causes chronic inflammatory intestinal disease and diarrhea.
Clinical Signs-Animal	Chronic profuse watery diarrhea and weight loss despite good appetite.
Control and Prevention	Good personal hygiene
Comments	Reportable disease in Illinois http://www.cfsph.iastate.edu/Factsheets/pdfs/paratuberculosis.pdf
Additional Information	http://www.aphis.usda.gov/wps/portal/footer/topicsofinterest/applyingforpermit?1dmy&urile=wcm%3apath%3a%2Faphis_content_library%2Fsa_our_focus%2Fsa_animal_health%2Fsa_animal_disease_information%2Fsa_cattle_health%2Fsa_johnes%2Fct_johnes_disease

Bovine Leptospirosis

JUNE 2015 | LEPTO

Cause	*Leptospira* spp. bacterial spirochete
Risk of Exposure in Illinois	Moderate
Risk of Transmission to exposed people	High
Mode of Transmission	Ingestion of contaminated water; inhalation; direct contact with urine or through skin lesions; walking barefoot
Incubation Period	Human: 2 days-4 weeks Animal: 3-7 days; abortion several weeks in cattle
Clinical Signs-Human	Fever; headache; chills; cough; difficulty breathing; severe muscle pain or tenderness; reddening of the eyes; jaundice; meningitis; acute kidney failure; abortion
Clinical Signs-Animal	Usually asymptomatic; abortions often with retention of placenta; decreased fertility; fever; anorexia with rapid decline in milk yield and atypical mastitis; jaundice; blood in urine
Control and Prevention	Pasture drainage; protect water supply from animal contamination; wear protective clothing.
Comments	Person to person transmission has been observed.
Additional Information	http://www.cdc.gov/leptospirosis/index.html http://www.cfsph.iastate.edu/Factsheets/pdfs/leptospirosis.pdf

Bovine Listeriosis

JUNE 2015

CIRCLING DISEASE

Cause	*Listeria monocytogenes* bacteria
Risk of Exposure in Illinois	Moderate
Risk of Transmission to exposed people	Low (unless foodborne)
Mode of Transmission	Ingestion; direct contact; aerosol
Incubation Period	Human: Uncertain but considered to range from 3-70 days Animal: 10 days-3 weeks
Clinical Signs-Human	Flu-like symptoms: fever; diarrhea; headache; muscle aches; stiff neck; abortion, premature birth or sick newborn; meningitis; asymptomatic fecal carriers common; pregnant women, elderly and immunosuppressed individuals at increased risk
Clinical Signs-Animal	Encephalitis (circling, head tilt, ear droop, excessive salivation, incoordination, depression, etc); abortion; septicemia (blood poisoning); many cases are asymptomatic.
Control and Prevention	Use only good quality silage; control rodents; cook meat; pasteurize milk; good sanitation
Comments	Person to person transmission has been observed.
Additional Information	http://www.cfsph.iastate.edu/Factsheets/pdfs/listeriosis.pdf http://www.cdc.gov/listeria/index.html

Bovine Lyme Disease

JUNE 2015

BORRELIOSES

Cause	*Borrelia* bacterial spirochete
Risk of Exposure in Illinois	High in endemic areas
Risk of Transmission to exposed people	High
Mode of Transmission	Transmitted by ticks (not by cattle)
Incubation Period	Human: Uncertain but thought to range from 3 days- several weeks Animal: Variable
Clinical Signs-Human	Rash; flu-like symptoms (fever, headache, abdominal pain, vomiting); arthritis; meningitis; myocarditis (inflammation of heart muscle); persistent asymptomatic infection is possible.
Clinical Signs-Animal	Symptoms in cattle are nonspecific: arthritis, myocarditis, pneumonia and stillbirths
Control and Prevention	Application of insect repellent; wear light colored clothes; Avoid areas likely infected with ticks.
Comments	None
Additional Information	http://www.cdc.gov/lyme/index.html http://www.cfsph.iastate.edu/Factsheets/pdfs/lyme_disease.pdf

Bovine Papular Stomatitis

JUNE 2015

BOVINE PARAPOXVIRUS

Cause	Pox virus
Risk of Exposure in Illinois	Low
Risk of Transmission to exposed people	High if open wounds on skin
Mode of Transmission	Direct contact with lesion or mucous membranes of infected animals; contact with contaminated objects capable of harboring virus
Incubation Period	Human: 3-7 days Animal: 2-3 days
Clinical Signs-Human	Most infected people develop a single lesion although generalized infections have been reported. Small, firm papule at site of inoculation progressing to a weeping (can be painful) nodule that develops into a thick crust; low-grade fever; enlarged lymph nodes; secondary bacterial infection may occur.
Clinical Signs-Animal	Nodule, blister or pustule in oral cavity of calf. Occasionally affects teats or results in thick crusts on lips, nose, ears, eyelids, feet, or tail region.
Control and Prevention	Good personal hygiene; wear gloves if lesions are seen or when handling the mouth of susceptible calves.
Comments	Person to person transmission has been observed.
Additional Information	http://coloradodisasterhelp.colostate.edu/prefair/disease/dz/Bovine%20Papular%20Stomatitis.html

Bovine Shipping Fever

JUNE 2015

PASTEURELLOSIS

Cause	*Mannheimia hemolytica (*previously *Pasteurella hemolytica), Pasteurella multocida* bacteria
Risk of Exposure in Illinois	High
Risk of Transmission to exposed people	Low
Mode of Transmission	Wound contamination; inhalation; ingestion
Incubation Period	Human: Via wound-less than 24 hours (up to 14 days) Animal: Approx. 1-3 weeks after being introduced to stressful situation
Clinical Signs-Human	Local redness; swelling; skin infection and abscess; less commonly chronic pneumonia; meningitis and generalized illness
Clinical Signs-Animal	Symptoms start out vague with slight depression, anorexia and fever; labored breathing and cough may be present; thick nasal discharge; generalized illness
Control and Prevention	Vaccinate livestock; minimize stress; good personal hygiene; avoid bites/scratches
Comments	None
Additional Information	http://cmr.asm.org/content/26/3/631.full http://www.brdcomplex.org/files/bacterialpathogens.pdf

Bovine Milker's Nodules

JUNE 2015

PSEUDOCOWPOX

Cause	Pox virus
Risk of Exposure in Illinois	Low
Risk of Transmission to exposed people	High if open wounds on skin
Mode of Transmission	Direct contact with infected lesion
Incubation Period	Human: Several days Animal: 5-14 days
Clinical Signs-Human	Milker's nodules usually appear on the fingers, hands, or forearms of people who milk cows. May see nodules, blisters or pustules that scab over and may be painful. Healing can take up to several weeks often without a scar.
Clinical Signs-Animal	Area of redness on the teat or udder followed by the development of a pustule or blister that ruptures in approx. 48 hrs. leaving a scab; scab usually circular or horseshoe-shaped.
Control and Prevention	Wear gloves when milking suspect cows; thorough handwashing after milking.
Comments	Person to person transmission has been observed.
Additional Information	http://coloradodisasterhelp.colostate.edu/prefair/disease/dz/Psuedocowpox.html http://www.cfsph.iastate.edu/FastFacts/pdfs/pseudocowpox_F.pdf

Bovine Q-Fever

JUNE 2015

Cause	*Coxiella burnetti* rickettsial bacteria
Risk of Exposure in Illinois	Moderate
Risk of Transmission to exposed people	High
Mode of Transmission	Inhalation (aerosol); ingestion; direct contact- organism is shed in placenta, vaginal secretions, urine, feces, milk; can be spread by ticks
Incubation Period	Human: 2-5 weeks Animal: Variable
Clinical Signs-Human	Most cases are asymptomatic; sudden onset of fever; chills; frontal headache; weakness; muscle spasms; profuse sweating. Less commonly, hepatitis, endocarditis (inflammation of the innermost covering of the heart), premature birth, stillbirth, abortion, nonproductive cough or chest pain
Clinical Signs-Animal	Most infections are asymptomatic; reproductive failure may be the only symptom; abortions late in pregnancy; stillbirths; retained placenta; uterine infection; infertility
Control and Prevention	Wear protective clothing/gloves when assisting with calving or milking if infection is suspected in herd; appropriately dispose of placenta and aborted fetuses; drink only pasteurized milk; good personal hygiene
Comments	Reportable disease in Illinois; potential bioterrorist agent
Additional Information	http://www.cdc.gov/qfever/ http://www.cfsph.iastate.edu/Factsheets/pdfs/q_fever.pdf

Bovine Rabies

JUNE 2015

Cause	Rhabdovirus
Risk of Exposure in Illinois	Low
Risk of Transmission to exposed people	High
Mode of Transmission	Direct contact with infected saliva into break in skin or mucous membranes; animal bite
Incubation Period	Human: 10 days-3 months (up to years; depends on location of bite/exposure) Animal: 10 days-6 months
Clinical Signs-Human	Headache; fever; general ill-being; abnormal behavior; weakness or paralysis; difficulty swallowing; delirium; convulsions; death
Clinical Signs-Animal	Restlessness; anorexia or increased appetite; any abnormal behavior or neurological signs (ataxia, incoordination, aggression, paralysis, etc); fever; abnormal bellowing; death
Control and Prevention	Wear gloves when handling suspect animals; vaccination program for animals and individuals at high risk
Comments	Reportable disease in Illinois; seek medical attention immediately if exposure is suspected; person to person transmission has been observed.
Additional Information	http://www.cdc.gov/rabies/ http://www.cfsph.iastate.edu/Factsheets/pdfs/rabies.pdf

Bovine Salmonellosis

JUNE 20015

Cause	*Salmonella* spp. bacteria
Risk of Exposure in Illinois	High
Risk of Transmission to exposed people	Moderate
Mode of Transmission	Ingestion (fecal-oral); contaminated food and water; direct contact
Incubation Period	Human: 12 hours-3 days Animal: Highly variable; often symptoms do not appear until the animal is stressed; commonly 1-5 days
Clinical Signs-Human	Varies from self-limiting gastroenteritis to generalized illness; vomiting; watery diarrhea; low grade fever; abdominal pain
Clinical Signs-Animal	Diarrhea; dehydration and generalized illness which may lead to death; dairy cows-acute drop in milk yield; abortion and uterine infection with temporary infertility; asymptomatic infections common
Control and Prevention	Wash hands after contact with animal feces; wear protective clothing when working with diarrheic cattle; do not consume unpasteurized or raw dairy products; cook meat thoroughly.
Comments	Person to person transmission has been observed.
Additional Information	http://www.cdc.gov/salmonella/ http://www.cfsph.iastate.edu/Factsheets/pdfs/nontyphoidal_salmonellosis.pdf

Bovine Sarcosporidiosis

JUNE 2015

SARCOCYSTOSIS

Cause	*Sarcocystis* spp. protozoal parasite
Risk of Exposure in Illinois	Not transmitted from cattle to humans except in meat; exposure to feces of definitive hosts is high on livestock farms
Risk of Transmission to exposed people	High
Mode of Transmission	Ingestion of undercooked meat; fecal-oral transmission from definitive hosts (dogs, cats, wildlife, birds); fly transmission possible
Incubation Period	Human: 3 hours-18 days Animal: 10 days-years
Clinical Signs-Human	May be asymptomatic; reddening of skin; muscle weakness or pain; fever; abdominal pain; diarrhea; vomiting
Clinical Signs-Animal	Usually asymptomatic; in heavily infected cattle-fever; anorexia; diarrhea; abortion; neurological signs; muscle spasms; pneumonia, anemia; jaundice; death
Control and Prevention	Cook meat thoroughly; wash hands thoroughly; good sanitation and hygiene
Comments	Disease is more common in cultures where raw meat is commonly eaten.
Additional Information	http://www.cfsph.iastate.edu/Factsheets/pdfs/sarcocystosis.pdf http://www.michigan.gov/dnr/0,1607,7-153-10370_12150_12220-27272--,00.html

Bovine *Staphylococcus aureus*

JUNE 2015

STAPH. AUREUS

Cause	*Staphylococcus aureus* bacteria
Risk of Exposure in Illinois	High (*S. aureus* is natural skin organism)
Risk of Transmission to exposed people	Low (unless foodborne)
Mode of Transmission	Ingestion; wound contamination
Incubation Period	Human: 1-12 hours Animal: 4-10 days
Clinical Signs-Human	Predominantly asymptomatic infections; abdominal cramps, diarrhea, vomiting; boils, impetigo, abscesses in skin; occasionally pneumonia, endocarditis (inflammation of the innermost covering of the heart), bone infections
Clinical Signs-Animal	Clinical or asymptomatic mastitis; decreased milk production
Control and Prevention	Good milking techniques; identify and treat or cull infected animals; sample new cows; good personal hygiene; pasteurize milk
Comments	Human to cow transmission possible.
Additional Information	http://www.cdc.gov/ncidod/dbmd/diseaseinfo/staphylococcus_food_g.htm http://www.cfsph.iastate.edu/Factsheets/pdfs/staphylococcal_enterotoxin_b.pdf

Bovine *Streptococcus*

JUNE 2015 | STREP

Cause	*Streptococcus* spp. bacteria
Risk of Exposure in Illinois	High
Risk of Transmission to exposed people	Low unless foodborne
Mode of Transmission	Direct contact; consumption of raw milk/dairy products
Incubation Period	Human: 1-3 days; variable Animal: Variable
Clinical Signs-Human	Sore throat; scarlet fever; rheumatic fever; difficult breathing; generalized illness; urinary tract infection
Clinical Signs-Animal	Clinical or asymptomatic mastitis; decreased milk production
Control and Prevention	Good milking techniques; identify and treat infected animals; sample new cows; good personal hygiene; pasteurize milk
Comments	Neonates and infants highly susceptible; human to cow transmission possible
Additional Information	http://www.cfsph.iastate.edu/Factsheets/pdfs/streptococcosis.pdf http://www.vetmed.wisc.edu/pbs/zoonoses/Streptococcus/streptBCDGLM.html

Bovine Tetanus

JUNE 2015

Cause	*Clostridium tetani* bacteria
Risk of Exposure in Illinois	Low
Risk of Transmission to exposed people	High if open wounds on skin
Mode of Transmission	Direct contact; penetrating wound
Incubation Period	Human: 8 days (ranges from 3 days-21 days) Animal: Variable (3 days-3 weeks)
Clinical Signs-Human	Headache; muscle stiffness in jaw (lock jaw) followed by stiffness in neck; difficulty swallowing; rigidity of abdominal muscles; spasms; sweating; fever; death
Clinical Signs-Animal	Muscle stiffness; lack of coordination; inability to eat or drink; bloat; death
Control and Prevention	Immunization; appropriate treatment of wounds; wear gloves when working with affected animals.
Comments	Tetanus vaccination recommended for farm workers.
Additional Information	http://www.health.state.ny.us/nysdoh/communicable_diseases/en/tetanus.htm http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/tetanus.pdf

Bovine Toxoplasmosis

JUNE 2015 | TOXO

Cause	*Toxoplasma gondii* protozoa parasite
Risk of Exposure in Illinois	Not transmitted from cattle to humans except in meat; exposure to feces of definitive hosts is high on livestock farms.
Risk of Transmission to exposed people	High
Mode of Transmission	Ingestion of undercooked meat; fecal oral transmission from cats on farm
Incubation Period	Human: 5-23 days Animal: Suspect similar to humans
Clinical Signs-Human	Infection is common but clinical illness is low; flu-like symptoms: fever; headache; weakness; also fetal death; congenital abnormalities; encephalitis; immunocompromised patients are at high risk.
Clinical Signs-Animal	Most infections asymptomatic; abortions; stillbirths; fever; respiratory distress
Control and Prevention	Cook meat thoroughly; good personal hygiene; avoid contact with cat feces, esp. if pregnant.
Comments	Person to person transmission only *in utero.*
Additional Information	http://www.cfsph.iastate.edu/Factsheets/pdfs/toxocariasis.pdf http://www.cdc.gov/toxoplasmosis/

Bovine Transmissible Spongioform Encephalopathy

JUNE 2015

TSE/BSE

Cause	Prion
Risk of Exposure in Illinois	Negligible
Risk of Transmission to exposed people	Low
Mode of Transmission	Ingestion
Incubation Period	Human: More than 16 years Animal: 3-8 years
Clinical Signs-Human	Confusion; personality changes; behavioral changes; weakness; muscle spasms; changes in vision
Clinical Signs-Animal	Behavioral disturbances; neurological signs; wasting and paralysis; death
Control and Prevention	Slaughtered animals may be tested for BSE before released for consumption; necropsy cattle with neurological signs.
Comments	Reportable disease in Illinois; person to person transmission has been observed; potential bioterrorist agent
Additional Information	http://www.cdc.gov/ncidod/dvrd/bse/ http://www.cfsph.iastate.edu/Factsheets/pdfs/transmissible_spongiform_encephalopathy.pdf

Bovine Tuberculosis

JUNE 2015 | TB

Cause	*Mycobacterium bovis* bacteria
Risk of Exposure in Illinois	Low (Illinois is currently TB free)
Risk of Transmission to exposed people	High
Mode of Transmission	Ingestion (unpasteurized milk or dairy products); inhalation; aerosol; direct injury to skin/mucous membranes
Incubation Period	Humans: 4-6 weeks Animals: Variable
Clinical Signs-Human	Clinical signs depend on route of infection and may be asymptomatic; cough; cervical adenitis (inflammation of lymph node or gland in neck); genitourinary infection (organs of reproduction and urination); lesions in bones and joints; meningitis; pneumonia; may be severe in immunosuppressed patients.
Clinical Signs-Animal	Chronic condition; may be asymptomatic; weakness; anorexia; weight loss; enlarged lymph nodes; bronchopneumonia; dyspnea (difficulty in breathing); death
Control and Prevention	Pasteurize milk; depopulate positive herds; test/treat human cases
Comments	Reportable disease in Illinois
Additional Information	http://www.cdc.gov/tb/ http://www.cfsph.iastate.edu/Factsheets/pdfs/bovine_tuberculosis.pdf

Bovine Vesicular Stomatitis

JUNE 2015

Cause	Rhabdovirus
Risk of Exposure in Illinois	Low
Risk of Transmission to exposed people	Low/Moderate
Mode of Transmission	Animal contact; contact with contaminated objects capable of harboring virus; insect vectors; aerosol
Incubation Period	Humans: 1-6 days (30 hours average) Animals: 2-8 days
Clinical Signs-Human	Acute influenza-like illness; fever; muscle aches; headaches; general ill-being; nausea
Clinical Signs-Animal	Vesicles on mouth, dental pad, hooves and teats; fever; excessive salivation; vesicles will rupture and will leave open, raw wounds. Virus particles disappear within a week after the vesicles rupture.
Control and Prevention	Good sanitation and quarantine practices; on farm insect control; disinfection program
Comments	Reportable disease in Illinois
Additional Information	http://www.cfsph.iastate.edu/Factsheets/pdfs/vesicular_stomatitis.pdf https://www.cvmbs.colostate.edu/ilm/proinfo/cdn/2005/VS_webinfo.pdf

Bovine Yersiniosis

JUNE 2015

YERSINIA

Cause	*Yersinia* spp. bacteria
Risk of Exposure in Illinois	Low
Risk of Transmission to exposed people	High
Mode of Transmission	Ingestion of food, milk, or water contaminated by feces of carriers; infection of rodents transmitted to humans by bite of infected flea; direct contact with infected blood or tissues
Incubation Period	Human: 2 to 8 days Animal: Uncertain
Clinical Signs-Human	Mimics clinical signs similar to appendicitis; fever; abdominal tenderness; anorexia; vomiting; enteritis with diarrhea; respiratory illness
Clinical Signs-Animals	Acute septicemia; enteritis with diarrhea; abortion; may be fatal; asymptomatic carriers
Control and Prevention	Prevent fecal contamination of food and drinking water; pasteurize milk; good personal hygiene
Comments	Potential bioterrorist agent; Person to person transmission has been observed.
Additional Information	https://www.avma.org/News/Journals/Collections/Documents/javma_222_4_444.pdf http://www.cdc.gov/nczved/divisions/dfbmd/diseases/yersinia/