

Query Fever

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Query Fever or “Q” Fever

- Q fever is a disease caused by the bacteria *Coxiella burnetii*
- This bacteria naturally infects ruminants, such as goats, sheep, and cattle
- People often become exposed

Animals and Humans

- Q fever was first recognized as a human disease in Australia in 1935 and in the United States in the early 1940s
- The “Q” stands for “query”
- *C. burnetii* can survive for long periods of time in the environment and may be carried long distances by wind.

Transmission

- Sheep appear to be infected most frequently, followed by goats
- *Coxiella burnetii* can be shed in feces, urine, and milk of infected animals.
- the vaginal secretions and uterine fluids released from infected ewes and does during birthing carry the highest number of *Coxiella burnetii*

What to Look For

- Shedding of *Coxiella burnetii* in the vaginal secretions can continue for days to weeks after birthing
- the dam, offspring, and birthing membranes can appear perfectly healthy while the organism is being shed in these materials
- Occasionally, animals may abort or give birth to weak offspring, and Q fever should be considered as a possible cause of outbreaks of abortion in flocks and goat herds

Abortion Outbreak = Loss

- Q fever can be diagnosed via blood tests
- Q Fever can be treated with Veterinarian prescribed Antibiotics
- A vaccine to prevent Q fever is commercially available but only in Australia

Contagious to Humans

- Q fever was made a nationally notifiable human disease in the United States in 1999
- The number of Q fever cases reported to CDC has increased, from 19 cases reported in 2000, to 173 cases reported in 2007
- Some people never get sick; however, those who do usually develop flu-like symptoms. The infection can resurface years later.

Human Symptoms

- High fever, up to 105 F (41 C)
- Severe headache
- Fatigue
- Chills
- Cough
- Nausea
- Vomiting
- Diarrhea
- Sensitivity to light

Q fever can cause Complications

- Endocarditis... Damaged heart valves
- Lung issues... acute respiratory distress
- Pregnancy problems... Increased risk of miscarriage, low birth weight, premature birth and stillbirth.
- Liver damage... Some may develop hepatitis
- Meningitis... an inflammation of the membrane surrounding brain and spinal cord

Who is at the Greatest Risk?

- Those who are exposed to animals and animal products as part of your job
- At-risk occupations include veterinary medicine, meat processing, livestock farming and animal research
- Simply being near a farm or farming facility because the bacteria can travel long distances, accompanying dust particles in the air

Prevention

- Animal Testing and Treatment
- Do Not Handle Birthing fluids and clean birthing areas
- Only consume pasteurized milk and milk products

Sources

Q Fever in dairy animals – NCBI

<https://www.ncbi.nlm.nih.gov/pubmed/19538267>

Q Fever - Colorado State University Extension

<https://extension.colostate.edu/docs/pubs/livestk/08022.pdf>

Q Fever in Dairy Animals - SAO/NASA ADS

<adsabs.harvard.edu/abs/2009NYASA1166...90R>

Q Fever in Pregnant Goats: Pathogenesis and Excretion of Coxiella ...

<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0048949>

Q-Fever - waddl - Washington State University

<https://waddl.vetmed.wsu.edu/animal-disease-faq/q-fever>

Q fever - Symptoms and causes - Mayo Clinic

<https://www.mayoclinic.org/diseases-conditions/q-fever/symptoms.../syc-20352995>

Signs and Symptoms | Q Fever | CDC

<https://www.cdc.gov/qfever/symptoms/index.html>

Q fever - NORD (National Organization for Rare Disorders)

<https://rarediseases.org › For Patients and Families › Rare Disease Information>



Are there any questions?