Query Fever
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

Q Fever - Colorado State University Extension
https://extension.colostate.edu/docs/pubs/livestk/08022.pdf

Q Fever in Dairy Animals - SAO/NASA ADS
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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?