

6/22/2011

### HEALTH ALERT: Q fever among Washington residents with exposure to goats

In April 2011, a goat herd in Grant County, Washington, tested positive for *Coxiella burnetii*, the agent that causes Q fever. Human illnesses in Washington and Montana have been identified in individuals exposed to goats sold from this herd. To date, **3 probable human cases and 2 asymptomatic infections have been identified in Washington**. All had contact with goats from the original goat herd.

Goats sold from the original herd or at the original farm for breeding since July 2010 have been traced within Grant County and to nine additional Washington counties: Thurston, Clark, Franklin, Pend Oreille, Walla Walla, Kittitas, Chelan, Adams, and Spokane. In collaboration with local health jurisdictions, the CDC and a WA ST DOH team are contacting owners of goats that had contact with the original herd to let them know they and their goats may have been exposed to Q fever.

#### Recommendations for Healthcare Providers

- Be aware that Q fever cases associated with goats have been identified in Washington and Montana.
- Patients exposed to goats from this herd or with illnesses consistent with Q fever should have serologic testing.
  - Request immunofluorescence assay (IFA) phase I and II titers for *C. burnetii* IgG and IgM antibodies.
  - A four-fold rise in IgG phase II antibody by IFA between acute and convalescent sera taken 2-4 weeks apart is the gold standard for diagnosis of acute infection.
  - Testing may be done at commercial laboratories, or at CDC after consultation with your local health jurisdiction. CDC can perform PCR assays on whole blood samples taken in the first week of illness and prior to initiation of antibiotic therapy, with prior arrangements.
- If patients are symptomatic and have been exposed, **do not delay treatment** while awaiting laboratory results. The recommended treatment for acute Q fever is doxycycline. Additional treatment guidance is available at: [www.cdc.gov/qfever/symptoms/index.html](http://www.cdc.gov/qfever/symptoms/index.html)
- **Report any suspected Q fever cases immediately to 360-786-5470**

#### Background on Q fever

Q fever in humans is a zoonotic disease caused by the bacteria *C. burnetii*.

- Illness onset is typically 2-3 weeks after exposure.
- The clinical presentation typically is an unexplained febrile illness, sometimes accompanied by pneumonia and/or hepatitis.
- Symptoms vary from person to person, but may include fever, chills and/or sweats, severe headache, malaise, myalgia, non-productive cough, chest pain, and possibly gastrointestinal symptoms such as nausea, vomiting, diarrhea, or abdominal pain.
- The mortality rate for acute Q fever is low (1-2%), though pregnant women are at risk for miscarriage.
- Antibiotic treatment may shorten the duration of illness and lessen the risk of complications.

#### *Coxiella burnetii* In animals

- Cattle, sheep and goats are the primary animal reservoirs of *C. burnetii*.
- Bacteria are shed in high numbers in placental tissues and amniotic fluids during birthing, and also excreted in milk, urine, and feces of infected animals. These fluids can contaminate the environment and barnyard dust.
- Animals may not show symptoms.

# PUBLIC HEALTH ADVISORY

THURSTON COUNTY PUBLIC HEALTH AND SOCIAL SERVICES DEPARTMENT  
 412 LILLY RD NE  
 OLYMPIA, WA, 98506-5132  
 DISEASE REPORTING: (360)786-5470 INFORMATION: (360) 867-2500  
 Diana T. Yu, MD, MSPH, Health Officer



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- People are infected through inhalation of aerosols during the birthing process or by contaminated dust.
- Direct animal contact is not required for transmission to occur as the organism may be spread by dust or wind.
- Infections via ingestion of contaminated raw (unpasteurized) dairy products occur.
- Human-to-human transmission via sexual contact has rarely been reported.
- *C. burnetii* is known to be present in roughly 20-30% of goat herds. It is also endemic in similar proportions in cattle and sheep herds. However, human cases are rare. Fewer than 200 human Q fever cases are reported annually in the United States. In Washington State, 0-3 human cases are typically reported each year.

### To Report a Notifiable Condition in Thurston County

	Phone	Fax
Voice mail for reporting <b>Non-immediately reportable conditions (24 hours a day)</b>	(360) 786-5470	(360) 867-2601
<b>Day time immediately reportable conditions</b>	(360) 867-2500 ask staff to locate Communicable Disease staff	
<b>After hours immediately and 24 hour reportable conditions or a public health emergency</b>	Call 911 and ask staff to locate the Health Officer.	
No one is available with Thurston County Public Health and condition is <b>immediately notifiable</b>	1-877-539-4344	

Thank you for your continued support. Without your diligence reporting notifiable conditions our job of managing them in the Thurston County community would be considerably more difficult. Thank you for your continued help protecting the publics' health.