

**Key**

- Brucellosis
- Psittacosis
- Q fever
- Leptospirosis
- Rickettsia

# DIAGNOSIS AND MANAGEMENT OF BRUCELLOSIS, LEPTOSPIROSIS, PSITTACOSIS, Q FEVER AND RICKETTSIA

Presentation with influenza like symptoms, including: Fever >=38c, chills, headache, myalgia, arthralgia, fatigue, chest pain, breathlessness, vomiting plus those listed below

**Consider exposure to:** farm, domestic or wild animals, birds and rodents  
**Works as a:** veterinarian/vet nurse, abattoir/slaughterhouse worker, farmer, wildlife worker, animal breeder

**Consider exposure to:**

- Amateur or professional hunting activities
- Animals including feral pigs and dogs
- Consumption of unpasteurised dairy products, including whilst overseas

**Investigate psittacosis:**

- Dry cough
- Exposure to wild or pet birds
- Exposure to bird faeces and feathers
- Exposure to horses, especially foals/birthing material

**Investigate Q-Fever:**

- Night sweats +/- pneumonia
- Abnormal LFTs
- Weight loss, fatigue
- Exposure to cattle, sheep, goats, kangaroos, especially to birthing materials
- Shearers, wool classers
- Mowing where wildlife are active

**Consider exposure to:**

- Flood waters
- Mud/soil exposed to animals
- Recreational water activities

**Consider exposure to:**

- Fleas, lice, ticks, mites
- Reptiles
- Rodents

**Investigate brucellosis:**

- Inflammation of liver or spleen,
- Gastrointestinal signs
- Inflammation of testicles and epididymis

**Testing for psittacosis:**

- Within 2 weeks of symptom onset, request PCR on blood (EDTA) to forward to Pathology West, Nepean Hospital.
- Request *C.psittaci* PCR
- Request serology for *Chlamydia* species
- Collect convalescent serology in 2-3 weeks.

**Testing for Q-Fever:**

- Within 10 days of symptom onset request PCR on blood (EDTA)
- Request serology for Q fever Phase I and Phase II serology
- Collect convalescent serology in 2-6 weeks (sero-conversion usually takes 7-15 days)

**Investigate leptospirosis:**

- Kidney failure
- Red eyes
- Vomiting
- Exposure to animals and their urine - rodents, cattle, sheep, goats, pigs, horses, dogs

**Investigate Rickettsia:**

- Rash
- Vasculitis
- Respiratory failure, heart failure, renal failure, bleeding, neurological complications

**Testing for brucellosis:**

- PCR on blood sample or sterile site
- Request serology for brucellosis
- Collect convalescent serology
- Request agglutination titre

**Testing for leptospirosis:**

- Request serology for Leptospirosis (IgM, and IgG)
- Collect convalescent serology in 2 weeks
- PCR testing on urine can also be performed by some laboratories—in case of high suspicion contact your local microbiologist to assist

**Testing for Rickettsia:**

- Request PCR on blood sample or skin biopsy if early phase of illness (before antibiotics commenced)
- Request serology for *Rickettsia* spp
- Collect convalescent serology in 2-3 weeks

If confirmed treat appropriately.  
 Liaise with Public Health staff regarding exposure history  
 Consult with ID physician if any queries. Dr Ian Marr **02 6150 7000 (asked to be transferred)** or ID physicians at The Canberra Hospital **02 5124 0000**