

Zoonotic disease risk assessment

When assessing livestock or wildlife, you must take precautions to reduce the risk of contracting a zoonotic disease. Always practice good hygiene and use appropriate Personal protective equipment (PPE) including gloves when handling biological samples.

Before the field visit

1. Is it a routine visit or a disease investigation?

Disease investigations bear higher risks. Remember, the absence of apparent disease does not preclude the possibility of an animal harbouring a zoonotic disease agent.

2. Collect relevant information.

Check clinical signs, previous history, origin of animals, risk factors and sick people to determine if a zoonotic disease may be present. With referred cases (from a private vet or one of our staff) contact the producer or the referrer to collect information.

Note: information on history/clinical signs may not be conveyed comprehensively or accurately.

3. Prepare appropriate PPE.

If significant body or aerosolised fluids are present:

- protect against splashes using goggles and a face shield
- wear a P2 mask to protect against aerosolisation when using a bandsaw or other machinery
- wear an impermeable apron over overalls or disposable impermeable overalls to protect against splashes
- consider environmental contaminants like soil.

Infection control precautions must be complied with at all times.

- Cover skin cuts or abrasions
- Wear closed in, waterproof footwear and protective outerwear around mud, soil and areas of pooled water
- Wear gloves when handling soil or mud-soaked items and when sampling.
- Use hand hygiene and remember sharps safety
- Ensure your vaccinations are up to date:
 - Q-fever if working with cattle, sheep and goats
 - Influenza if working with poultry.
- Always presume that specimens are infectious
- Decontaminate containers.

If you suspect an exotic or reportable disease, contact the EAD hotline on 1800 675 888, your local Field Veterinary Officer, or our Diagnostics and Laboratory Services Duty Pathologist on 08 9368 3351.

Zoonotic disease risk in ruminants

Disease cannot be determined based on syndromic presentation alone. Use this guide when assessing if a zoonotic disease may be present and additional precautions may be required. **Do not use this guide in isolation.** Weigh up the context, risk factors, likelihood and consequences of each scenario when deciding which risk mitigations to apply.

Syndrome	Reproductive	<p>Cattle: Bovine brucellosis; Leptospirosis; Listeriosis; Q fever,</p> <p>Sheep: <i>Brucella melitensis</i></p> <ul style="list-style-type: none"> • This is considered a syndromic presentation with a high risk of zoonotic disease. • Avoid or reduce contact with placenta, birth tissues, foetal membranes and aborted fetuses. • Pregnant staff must not attend.
	Gastrointestinal	<p>Cattle: Campylobacteriosis; Cryptosporidiosis; Yersiniosis; Colibacillosis; Salmonellosis</p> <ul style="list-style-type: none"> • Most zoonotic diseases that present with diarrhoea are transmitted via contact/ingestion of faecal contaminated material. Risk effectively mitigated with PPE.
	Neurological	<p>Cattle: Bovine Spongiform Encephalopathy (BSE); Listeriosis</p> <p>Sheep: Scrapie; Listeriosis; Infection with hydatids</p> <ul style="list-style-type: none"> • Extreme care. Caution with handling nervous tissue. Wear PPE for necropsy.
	Pruritis/skin lesions	<p>Cattle: Ringworm; Pseudocowpox</p> <p>Sheep: Dermatophilosis; Orf (Scabby Mouth)</p> <ul style="list-style-type: none"> • Most zoonotic diseases that present with pruritus or skin lesions and are transmitted via broken skin. • Risk can be effectively mitigated by using PPE. • Wash hands and equipment.
	Respiratory	<p>Cattle: Bovine Tuberculosis</p> <p>Sheep: Tuberculosis (exotic)</p> <ul style="list-style-type: none"> • Remove suspect animals from food chain. Wear PPE for examination of animals and necropsy.
	Sudden death	<p>Sheep and Cattle: Anthrax</p> <ul style="list-style-type: none"> • Requires further risk assessment – if bleeding from orifices present do not open carcass and seek further advice.