

# Safety and health alert

# 11/99 Leptospirosis in the dairy and meat industry

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## Incident

1. A young station hand at a cattle and sheep property north of Perth became seriously ill in August 1998. She was hospitalised for 10 days with high fevers, neck stiffness, severe headaches, vomiting, joint pains, muscle aches and loss of appetite. In the period leading up to the illness, the employee had been "pulling calves" during which she was splashed with animal urine.
2. A young offal barrow labourer on the slaughter floor of a beef and sheep abattoir in the South-West of WA was ill for 3 weeks with fever, vomiting, diarrhoea and tiredness during October 1998. Skin contamination with animal urine and offal fluids was a common occurrence at work.
3. A dairy farmer in the South-West of WA was hospitalised in December 1998 for 3 days with dehydration, fevers, vomiting and back pain. He had often been splashed with urine from dairy animals and had cuts on his hands from framework. His dairy herd had not been vaccinated against leptospirosis but showed no sign of ill health.

All three cases were confirmed by blood tests to have leptospirosis infection.

## LEPTOSPIROSIS

Leptospirosis is a zoonotic disease that can be transmitted from animals to humans. Infection in humans in WA has been due mainly to bacteria strains *L. interrogans hardjo* and *L. interrogans pomona*, which are carried by beef and dairy cattle, sheep and pigs. Other strains of the bacteria may be carried by rats and dogs. The bacteria are concentrated in the urine, kidneys and bladders of infected animals or the reproductive organs of pigs. The bacteria usually enter the human body through cuts or abrasions in the skin or mucous membranes and sometimes through inhalation or ingestion. Walking barefoot on contaminated soil or swimming in contaminated water may also lead to infection.

The illness often resembles "flu" with fever, headache, muscle or joint pains, nausea and vomiting which leaves the person feeling weak and tired. The infection must be treated with antibiotics. Untreated, serious complications can develop including kidney failure, liver damage, meningitis and heart disease, all of which may be fatal. Infection confers immunity to the specific strain causing the infection, but not to other strains. In Australia vaccination against leptospirosis is available only for disease in livestock.

Occupational groups at most risk are those that involve handling animals or carcasses such as abattoir workers, meat inspectors, veterinarians, animal laboratory workers, animal handlers, and cattle, sheep, pig and dairy farmers.



## Factors

1. Lack of awareness among workers of the potential risks of leptospirosis.
2. Human contamination with infected animal urine or fluid from animal tissues and organs during handling of livestock, carcasses or offal.
3. Inadequate personal hygiene, inadequate washing facilities, and inadequate care and protection of open wounds on workers.
4. Lack of personal protective equipment, e.g., gloves, eye protection, rubber boots.
5. Close contact with sick or ill animals.

## Recommendations

1. Leptospirosis is an occupational zoonoses that must be notified forthwith to WorkSafe Western Australia (section 19(3)(b) and regulation 2.5 of the Occupational Safety and Health Act and Regulations).
2. Employers (and self-employed persons) in workplaces where there is contact with livestock or their carcasses, must provide a safe system of work to ensure:
  - Training and education of employees on the hazards of leptospirosis, i.e. nature of the disease; its mode of transmission; control measures to minimise the risk of infection;
  - Reporting by employees of any such illnesses to their employer;
  - Prompt treatment of abrasions and wounds which must be protected by waterproof dressings;
  - Avoidance (or minimisation) of contamination of skin, mucous membranes, eyes and mouth with animal urine and tissue fluids;
  - The use of personal protective equipment such as gloves, aprons, boots and eye protection as appropriate;
  - High level of personal hygiene by providing facilities to enable prompt washing of any skin or mucous membrane contamination, showering and changes of clothing as required;
  - Vaccination of livestock against leptospirosis in consultation with veterinary advice; and
  - Rodent control in the workplace.
3. Workers in at-risk industries should be issued with an Occupational Health Alert Card to alert their doctor(s) to the possibility of a zoonotic infection when they present with a febrile illness. An example is available on Safetyline Solutions in "Safety on the Farm" on [www.safetyline.wa.gov.au](http://www.safetyline.wa.gov.au)

## Further Information

Further information can be obtained from the WorkSafe internet site [www.worksafe.wa.gov.au](http://www.worksafe.wa.gov.au), or by contacting customer service on 1300 307 877 or email: [safety@docep.wa.gov.au](mailto:safety@docep.wa.gov.au).

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