ZOONOSES

Zoonoses, or diseases of animal origin, affect thousands of people each year in Australia. Those at high risk include abattoir workers, veterinarians and farmers who have regular and close contact with animals. Examples include Q Fever, cryptosporidiosis and Leptospirosis. Symptoms may be mild or lead to serious illness with long term health effects.

Q FEVER

Q fever infection is the most common zoonotic disease in Australia. The bacteria responsible (Coxiella Burnetti) can survive for long periods in animal environments. People are generally infected by inhaling air or particles contaminated with the excreta or birth fluids of infected animals. Cattle, sheep, goats, domestic pets, rodents and kangaroos are known carriers of the disease. Whilst some cases are limited to mild, flu-like symptoms, others progress to affect the heart, lungs or liver. Chronic fatigue can also develop, with disabling consequences.

LEPTOSPIROSIS

Leptospirosis is also a flu-like illness, which, along with other farmers, commonly occurs in dairy workers, banana and sugarcane growers. Humans contract the disease when skin and mucous membranes are exposed to the infected urine of cattle, rats, pigs and dogs. Again symptoms range from mild to severe, with some effected persons developing abnormal liver and kidney function.

If you regularly handle cattle, sheep, goats or feral animals, see your doctor if you develop the following flu-like symptoms. Your doctor may arrange testing for Q fever and Leptospirosis.

Symptoms of Q Fever or leptospirosis include:

- ☐ fever or chills
- ☐ headache
- ☐ profuse sweating
- ☐ weakness or malaise
- ☐ nausea
- ☐ muscle and joint pain
- ☐ rash
- ☐ jaundice
- ☐ severe coughing or breathing problems

MEDICAL TREATMENT AND PREVENTION

Antibiotics are usually prescribed for Q fever and leptospirosis, to prevent the more disabling consequences of these illnesses. A vaccine is available for Q Fever (QVax) but it does require a sensitivity test before administration.

ASK YOUR DOCTOR ABOUT Q FEVER VACCINATION

ZOONOSES

Other zoonotic diseases:

CRYPTOSPORIDIOSIS

Cryptosporidiosis is caused by a parasite that is more common in warmer months and in wet conditions (eg. watercourses, dams, troughs). It is passed onto humans through drinking water contaminated with animal faeces; and through handling of infected animals - such as scouring calves.

Symptoms include watery diarrhoea, cramps, fever, nausea and vomiting which can last up to two weeks. If kept well hydrated, the illness usually resolves itself, but can result in considerable discomfort and downtime. It is easily spread through close contact with other workers, families, schools, daycare centres and public swimming pools. Affected persons should avoid public contact and not handle food until 1-2 days after diarrhoea subsides.

HYDATID DISEASE

Hydatid disease is caused by the tapeworm *Echinococcus granulosis*. Its primary hosts are dogs and foxes, that eat offal containing hydatid cysts. Eggs are shed in dog faeces and eaten by grazing livestock and kangaroos. Humans ingest eggs through handling these animals. Eggs travel through the gut wall into the bloodstream to organs such as the liver, lungs and brain, disrupting organ function sometimes years later. Surgery is required to remove cysts.

ON FARM PREVENTION

Reducing the risk of contracting a zoonotic illness, needs to include a range of measures – starting with elimination of the risk where possible. Consider these on-farm prevention measures:

- Elimination through vaccination programs in:
  - Animals eg. brucellosis in cattle, de-worming dogs
  - Humans eg. Q fever vaccination
- Separation or isolation of workers from physical contact with animal body fluids:
  - Use of machinery (preferably cabined) to clear manure and feed waste build-up in sheds, yards and lane areas where animals are regularly kept or moved
  - Limit unnecessary physical contacts with animals (eg. mechanised crushes, good yard design, no children or bystanders in yards)
- Use of personal protective equipment (PPE) - gloves, masks, waterproof boots, overalls
- Attention to thorough hand washing after handling animals and before handling food - including provision of hand washing facilities for all workers

For farm safety checklists and other information on farm safety risks and controls, can be downloaded from the AgHealth Australia website **aghealth.sydney.edu.au** or contact:

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