

Protecting You and Your Family from Brucellosis



Introduction

This booklet has been produced by HSENI (Health and Safety Executive for Northern Ireland) after consultation with the members of the Brucellosis Advisory Group. It will help herd keepers, their families and others who work with breeding cattle to understand how brucellosis can be transmitted to humans. It provides information about symptoms and access to treatment as well as good practice on how to minimise the risk of infection. It is especially relevant to farmers who keep breeding cattle, their employees, their families, cattle hauliers, livestock inspectors and vets. Further information on other aspects of health and safety on farms is available in HSENI's Guide to Health and Safety in Agriculture.



The background

In 2002 there were 28 reported cases of human brucellosis in Northern Ireland and since 1998 there have been more than 70 cases reported. Yet, in the period 1985-1997 there had been no reported cases. This disease is normally contracted directly from breeding cattle and this recent upsurge in human brucellosis is directly linked to the current outbreak in Northern Ireland's cattle. Many of these recent cases are farmers who became infected through contact with infected animals. Tackling the disease in cattle is therefore essential if human health is to be protected.

What is brucellosis?

Brucellosis is an infection caused by the bacterium *brucella abortus*. This is the same organism which is currently affecting cattle herds particularly in counties Armagh, Down, East Tyrone and Fermanagh. Person to person spread is extremely rare but the disease can be readily contracted through contact with infected animals.

Who is at risk?

The risk of infection is greatest at calving, particularly in the case of animals calving early or aborting or where afterbirths have been retained. Therefore farmers who work with breeding cattle are at the greatest risk. Abattoir workers, hauliers of infected cattle, veterinarians, their assistants and other people who work directly with cattle are also at risk.

How would I know if I had the infection?

The symptoms of brucellosis are very similar to those of flu. However, brucellosis is more severe and prolonged. People complain of excessive sweating particularly at night, high temperature, chills and shivering, headache, depression, back pain, joint pains, weakness, fatigue and weight loss. Symptoms can come and go over a period (sometimes months), hence brucellosis is sometimes referred to as undulant fever. The infection has resulted in some farmers being unable to work for long periods. Unlike influenza the symptoms can last for weeks or months if untreated.

Can it be treated?

Yes. The disease can be successfully treated with a prolonged course of antibiotics, however, relapses can occur.



How is brucellosis transmitted to people?

There are four possible routes of infection:

- Through the lining of the mouth, nose, lips and eyes (splashes or aerosols of infectious material)
- Ingestion (if infectious material such as unpasteurised milk from an infected animal is swallowed)
- Inhalation
- Through skin wounds (cuts, abrasions and other breaks in the skin).

What should I do if I suspect that I may have the disease?

You should attend your doctor and tell him/her that you work with cattle that may be infected. A blood test will check if you have the disease.

What can be done to avoid people being infected?

- Preventing the infection getting into your herd must be a first priority. Your local Divisional Veterinary Office and your own private veterinary surgeon will give you advice
- Be suspicious: if your animals become ill, their milk yield falls or you have abortions in your cattle you need to seek veterinary advice. Remember you are legally obliged to report all abortions immediately to your local DARD Veterinary Service's Office. Animals which have reacted to the brucellosis test (reactors or inconclusives) are obvious suspects but remember, others may be infected unknown to you
- If your herd becomes infected, keep visitors to a minimum and tell people who must visit the farm that infection is present
- Keep your children away from breeding cattle and their birth products
- Keep people in vulnerable health groups (such as children, older people and pregnant women) away from breeding cattle and their birth products
- Do not drink unpasteurised milk



- Do not eat, drink or smoke while you are working with animals. Wash hands and forearms before doing so
- After working with animals change your clothes before going into the dwelling.

Your risk of infection is likely to be highest when you are helping to calve animals or dealing with aborted calves.

Additional precautions you should take during calving if your farm is in an area where there is brucellosis or if brucellosis is suspected in your herd:

- Before working with breeding cattle, make sure you have a supply of the recommended protective wear (see below) and that it is kept in good condition
- Cover all cuts and abrasions with waterproof dressings - brucella enters the body through uncovered wounds
- - Wear a waterproof overall and wellington boots
- Use long gloves to cover hands and arms
- Wear a visor as there is a risk of body fluids or tissue etc being splashed on your face, lips or eyes
- Wear a FFP3 respirator to protect against the inhalation of liquid aerosols
- Wash down the hind quarters of the cow with an appropriate disinfectant used at the recommended dilution
- Keep to a minimum those who assist or are present at calving and do not give mouth-to-mouth resuscitation to calves
- When you finish work clean and disinfect protective clothing and equipment before you remove your gloves.¹ Wash and disinfect gloves thoroughly before removal and remove them in such a way as to prevent the external surfaces of the gloves having contact with the skin
- Wash hands and arms thoroughly AFTER work and BEFORE eating, drinking or smoking
- Store all your protective wear away from your dwelling.





What does the law say?

- You are legally required to minimise health and safety risks arising from your work activities, to yourself and others
- You are also required to report any confirmed human cases of brucellosis to HSENI
- A herd owner must also notify the Divisional Veterinary Officer when an animal in his herd aborts.

This document is endorsed by the members of the Northern Ireland Brucellosis Advisory Group :-

The Health and Safety Executive for Northern Ireland
Veterinary Service, Department of Agriculture and Rural Development
The Department of Health, Social Services and Public Safety
The Ulster Farmers' Union
Armagh and Dungannon Health Action Zone
The Association of Veterinary Surgeons Practicing in N. Ireland
The Communicable Disease Surveillance Centre (NI)
The Northern Ireland Agricultural Producers' Association

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¹ DARD provides a list of recommended disinfectants