# Zoonoses ALTERNATIVE VETERINARY MEDICINE CENTRE Information Sheet WS033/07 Christopher Day - Veterinary Surgeon

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## ZOONOSES

Zoonoses (singular 'zoonosis') are diseases of animals communicable to man. The most well-known examples are rabies, tuberculosis, brucellosis, anthrax and leptospirosis (Weil's disease). In latter times, we have been educated on the subject of <u>BSE</u> and its implications for mankind. <u>Avian Influenza</u> is another recent scare that has occupied much media attention. <u>MRSA</u> has also become an issue, in recent times and it has been found in some dogs, cats, rabbits, horses and farm animals. Food-poisoning organisms, such as Salmonella, also give rise to a form of zoonosis and dog and cat worms are an ever-present source of potential zoonosis in the pet-owning household.

Observing good hygiene around animals is good practice. It is also wise to ensure that children learn basic hygiene methodology, when handling animals, handling animal excreta or being with animals. Similar precautions are necessary or wise for wild or zoo animals, that may be handled for any reason. This is not to say that there should be total asepsis, merely common sense. Man and animals have shared homes for millennia, so there is no need for excessive measures.

Of course, it is important to know if there is a health problem in any animals, before coming into close contact with them. Pet animals, esp. dogs and cats, should be monitored for internal parasites (worms), by sending faeces samples to a laboratory on a regular basis. Routine de-worming is not advocated, since the chemicals involved are very powerful and most adult dogs do not require routine de-worming (all puppies and kittens do).

It stands to reason that imported animals may carry unknown or undetected infections from exotic lands. This is just one powerful reason for not <u>importing</u> <u>exotic animals</u>.

While the **AVMC** does not profess to treat humans, it stands to reason that we believe that humans affected with such diseases should seek homeopathic help

in dealing with them. The **AVMC** will cooperate with any medical practitioner who requires help with zoonoses.

## **The Diseases**

Zoonoses are defined by the World Health Organisation as "Diseases and infections which are naturally transmitted between vertebrate animals and man". The agent of infection may be bacterium (plural: bacteria), virus (plural: viruses), fungus (plural: fungi), parasite or other communicable agent. Zoonoses cover a broad range of diseases, with different clinical and epidemiological features and requiring differing control measures. They are also accompanied by varying contagion risk levels, depending upon prevalence and likelihood of contact.

#### The main ones are:

- Campylobacter
- Chlamydia (Ovine Enzootic Abortion & Avian Psittacosis)
- Cryptosporidium
- Encephalitozoon cuniculi
- E.coli
- Hantavirus
- Hydatid Disease
- Leishmaniosis / Leishmaniasis
- Leptospirosis
- Listeriosis
- Lyme Borreliosis
- MRSA (Methicillin Resistant *Staphylococcus aureus*)
- Ringworm
- Salmonellosis (Salmonella)
- Streptococcus suis
- Tapeworm (Taeniasis)
- Toxocariasis (dog & cat worms)
- Toxoplasmosis
- Trichinosis
- West Nile Virus

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#### Some of the diseases are 'Notifiable Diseases':

- Anthrax
- Avian Influenza
- Bovine Spongiform Encephalopathy (BSE)
- Brucellosis
- Contagious Epididymitis
- Equine Viral Encephalomyelitis
- Glanders and Farcy
- Rabies
- Rift Valley Fever
- Tuberculosis

Some other notifiable diseases such as Newcastle Disease and Foot and Mouth Disease may, in exceptional circumstances, cause infection in humans.

#### Reportable Diseases:

It should be noted that two of the diseases listed above are 'reportable' -Salmonella and Brucellosis. This means that, should these organisms be detected in samples tested in a laboratory, this fact must be reported to the local Veterinary Laboratories Agency (VLA) laboratory (in England and Wales) or to the local Divisional Veterinary Manager (in Scotland).

## Pregnant women and contact with sheep:

The Department of Health, the Department for Environment, Food and Rural Affairs, and the Health and Safety Executive advise that pregnant women should avoid close contact with sheep during the lambing season. The following is an excerpt from the DEFRA web site:

"Pregnant women who come into close contact with sheep during lambing may risk their own health and that of their unborn child, from infections that can occur in some ewes. These include chlamydiosis (enzootic abortion of ewes -EAE), toxoplasmosis and listeriosis, which are common causes of abortion in ewes.

Although the number of reports of these infections and human miscarriages resulting from contact with sheep is extremely small, it is important that pregnant women are aware of the potential risks associated with close contact with sheep during lambing.

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To avoid the possible risk of infection, pregnant women are advised that they should:

- not help to lamb or milk ewes;
- avoid contact with aborted or new-born lambs or with the afterbirth;

- avoid handling clothing, boots etc which have come into contact with ewes or lambs.

Pregnant women should seek medical advice if they experience fever or influenza-like symptoms, or if concerned that they could have acquired infection from a farm environment.

Farmers have a responsibility to minimise the risks to pregnant women, including members of their family, the public and professional staff visiting farms. Any action should be determined by their risk assessment required under the Control of Substances Hazardous to Health (COSHH) Regulations 2002 and also the Management of Health and Safety of Work Regulations 1999.

If a ewe aborts, farmers are advised to consult their veterinary surgeon and arrange for samples to be examined at their local Regional Laboratory of the Veterinary Laboratories Agency to determine the cause. In the interests of hygiene, farmers should dispose of all afterbirths promptly and safely in accordance with relevant legislation. The EU Animal By-Products Regulations 2002 requires animal by-products, including afterbirth material, to be disposed of via an approved route such as rendering, incineration, knackers yards etc.

1. Farmers should consult their veterinary surgeon about suitable vaccination programmes and any other disease control measures in sheep.

2. The Control of Substances Hazardous to Health (COSHH) Regulations 2002 require employers to assess risks to health from harmful substances, including micro-organisms, and to take steps to prevent or control those risks, and *The Management of Health and Safety at Work Regulations 1999* require employers to further assess any risks which affect pregnant women.

3. Further advice is available from HSE Infoline on 0845 3450055. They may put you through to an HSE Occupational Health Professional in your region if necessary.

4. The Department of Health advisory leaflet 'While you are pregnant: How to avoid infection from food and from contact with animals', is available, free of charge to general medical practitioners and midwives from: Department of Health, Prolog, Unit 8, Sherwood Park, Annesley, Nottingham NG15 ODJ

5 Further information is also available from an HSE Information sheet Common Zoonoses in Agriculture and is available on their website at: <u>www.HSE.gov.uk/pubns/ais2.pdf</u>. Also, the 1997 publication Infection risks to new and expectant mothers in the workplace - a guide for employers, by the Advisory Committee on Dangerous Pathogens (ref: ISBN 0-7176-1360-7). Copies are available, price £10.50, from HSE Books, PO Box 1999, Sudbury, Suffolk, CO10 2WA, or by calling 01787 881165, or via their website at <u>http://www.hsebooks.co.uk</u>."

#### The following EU legislation relates to zoonoses:

- EU Zoonoses Directive 2003/99/EC
- EU Zoonoses Regulation 2160/2003/EC

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