

MRSA (METHICILLIN RESISTANT STAPHYLOCOCCUS AUREUS)

Introduction

MRSA is often termed the ‘hospital bug’ as infection is more likely to occur among an individual whose immune system is already compromised through disease, surgery or injury and have been hospitalised. It does not normally affect healthy people.

However, there have also been a small number of cases of community-acquired MRSA (ca-MRSA), which has been spread among people who have not been in contact with hospitals. If you are not in hospital, it is still very important to take basic hygiene precautions. This includes covering cuts and broken skin with waterproof plasters and washing hands frequently and thoroughly.

MRSA is not typically found in animals, although researchers in Toronto have discovered a small number of cases of MRSA in pets. They have termed it a “humanotic” disease – that which can be passed from people to animals. In the UK the incidence in companion animals is largely unknown. Small scale, referral hospital based studies suggest that up to 10% of dogs (around 30% of humans are carriers) may carry MRSA and approximately 3% of recent submissions to veterinary laboratories have involved MRSA, but these are obviously selected groups of animals.

What is MRSA?

Staphylococcus aureus is a bacterium that may be found in the noses and throats of healthy people and is commonly found on people’s skin. Some strains of the bacterium have developed resistance to the antibiotic methicillin and are therefore called “methicillin resistant Staphylococcus aureus”, MRSA.

Infection in MRSA

Occasionally the bacteria can breach the body's defences and cause an infection. In these cases the individual may become unwell.

MRSA rarely presents a danger to the general public and healthy people, including children, are currently at low risk.

Source of Infection in MRSA

Typically, MRSA is passed through contact with body surfaces. Infection usually occurs in hospital patients who are elderly or very unwell, or who have an open wound or tube entering their body. Other people who are more susceptible to MRSA colonisation include intravenous drug users or persons with skin diseases. However, a small number of cases of healthy patients contracting the infection in hospital have been recorded.

Diagnosis

Diagnosis can be made by taking a bacteriological swab from the nose, throat, skin or wound. All types of *Staphylococcus aureus* can cause, skin rashes, spots and boils, blood infections and pneumonia.

Treatment and Prevention in Humans

Although MRSA is resistant to most antibiotics, a few antibiotics can still successfully cure MRSA infections. Patients who are only colonised – i.e. not infected – with MRSA, can be treated with topical antibiotics and special antiseptic washes.

Stringent hand hygiene practice is the single most important infection control measure for MRSA. When caring for a person infected with MRSA at home, carers should wear gloves and wash hands when touching the person or handling body substances. The infected person's room and personal items should be disinfected with an approved material at regular intervals. People who are themselves very ill or who have weak immune systems should avoid close contact with, and handling the body substances of, people with MRSA.

MRSA and Pets

While MRSA infection in humans is not a new problem – strains first appeared in the 1960's – a small Toronto study (2002) showed for the first time that MRSA diagnosis in animals can be made.

There are no proven cases of MRSA jumping from animals to humans, the more likely path is from humans to animals. However this risk is thought to be low as the bacteria adapt themselves to their preferred hosts. In the same way that cases of MRSA in healthy people are isolated, it is likely that cases affecting healthy animals would be rare.

Treatment and Prevention in Pets

As with humans, the focus should remain on prevention and control. Stringent hand hygiene practice is the single most important infection control measure. Pet owners should always wear gloves when handling body fluids. Extra care should be taken when pet or owner has a weak immune system, is recovering from an illness or has an open wound.

If a human patient has recurrent MRSA infections, contact with pets or other animals should be reviewed, and veterinary advice sought, particularly if the pet or animal is ill, wounded or in a post operative recovery phase.

Accredited Therapy Animals

Those animals that may regularly enter the healthcare environment, i.e. accredited therapy animals such as PAT dogs and cats, are advised that they and their handlers be regarded the same as staff members of the healthcare institutions. They should therefore adopt the same precautionary protocol as staff in that healthcare unit.

Defra's Actions

Defra is considering initiatives such as developing a code of practice for veterinary hospitals, and funding research to better understand the epidemiology of MRSA in companion animals and livestock and any role it may play in human infections. These actions will be taken forward by Defra's

New, Endemic and Zoonotic Disease Division with provision of advice from the Veterinary Laboratories Agency (VLA) expert on Antimicrobial Resistance.

Conclusion

The risk of MRSA infection in humans and pets remains only slight and does not usually affect those who are in good health. Pet owners who are concerned about the risk of disease in their pet should consult their veterinary surgeon.

Pets are Good for People

Pets provide us with loyalty, companionship, love and affection, as well as the many physical and psychological benefits. The least we can do to repay this is to ensure that we keep them in the best of health. A healthy pet is a happy pet and a happy pet can help us enjoy a much fuller and more rewarding life.

- ends -

For further information, please contact the Pet Health Council on:

Telephone: 020 7379 6545

Email: enquiries@pethealthcouncil.co.uk

Website: www.pethealthcouncil.co.uk

For more information from DEFRA please go to -

<http://www.defra.gov.uk/animalh/diseases/zoonoses/mrsa.htm>

For more information on MRSA in humans please go to -

<http://www.nhsdirect.nhs.uk>