NPA BRIEFING

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NPA briefing note on Livestock-associated MRSA

Issue:
Recent reports of LA-MRSA in pigs may cause concern regarding public health and the use of antibiotics in pig production.

Background:
- *Staphylococcus aureus* is a common bacteria that lives on the skin of people and is often carried in the nose without causing any symptoms.
- Nasal carriage of the organism is not the same as being infected. Infection occurs when the bacteria gets into the body through broken skin, such as surgical wounds.
- MRSA refers to any strain of *S. aureus* that is resistant to certain antibiotics.
- In the past, MRSA infection has primarily been associated with hospitals. More recently, a different type of MRSA has emerged. Livestock-associated (LA)-MRSA has been reported in pigs, poultry and cattle in many countries. LA-MRSA causes little to no disease in livestock animals.
- Any MRSA can be shared between humans and animals, in both directions. For example, most MRSA in dogs and cats are the same as the most common human strains, due to owners transmitting the bacteria to their pets.
- LA-MRSA is not easily passed from human to human and is rare in the general human population.
- However, people that have regular close contact with livestock such as vets and farmers are at greater risk of being carriers. These people are encouraged to take precautions such as regular hand-washing and covering open cuts and wounds. The Government has published guidance for farm and abattoir workers on how to reduce their risk of LA-MRSA infection [1].
- A joint statement from the British Veterinary Association and Pig Veterinary Society pointed out that “while antimicrobial use has played a role in the emergence of MRSA, its subsequent spread relates mainly to it being a successful bacterial species, not to antimicrobial use.” Indeed, LA-MRSA has been found in animals in which no antimicrobials have been used [2].
- The European Food Safety Authority has reported that there is currently no evidence for increased risk of human colonisation or infection from touching or eating food contaminated by LA-MRSA [3]. Proper cooking and good kitchen hygiene will also reduce risk.
- This is supported by a recent Food Standards Agency risk assessment on LA-MRSA in the UK food chain [4], which evaluated the risk associated with the preparation, handling and consumption of food which may be contaminated. To the FSA’s knowledge, there have been no reported food borne outbreaks of LA-MRSA in humans in either the UK or worldwide.
The FSA risk assessment concludes the risk to humans of catching LA-MRSA from food is “very low” and based on this the FSA’s current advice remains unchanged, i.e. that raw food should be stored appropriately, handled hygienically and cooked thoroughly to ensure any harmful bacteria present are destroyed.

The FSA risk assessment also concluded that “The prevalence of LA-MRSA in animals in other European countries appears to be significantly higher than in animals in the UK. Current data suggest that the prevalence of food contaminated with LA-MRSA is low in the UK”.

LA-MRSA was only identified for the first time in pigs in the UK in July 2014. To date there has been only a small number of cases of LA-MRSA in pigs – two in England and five in Northern Ireland.

There is no specific UK or EU legislation for the surveillance of MRSA in companion animals or livestock. Government constantly reviews the range of surveillance and control options available for new and emerging disease situations, including those involving resistance bacteria, but clearly such measures must be demonstrably proportionate to the risk to human and animal health.

While no routine surveillance specifically for LA-MRSA in UK pigs is currently in place, anyone importing pigs into the UK that is a member of Red Tractor farm assurance (covering 92% pigs in UK) is required to adhere to the NPA Imports Protocol [5], which recommends that live pigs intended for import and the herds from which they originate are tested for MRSA.

NPA position:

- MRSA remains a significant public health concern; however it is important to consider the risk-factors associated with the different types.
- LA-MRSA is not easily spread between humans and is different to the strain of MRSA associated with healthcare infections.
- Pig farmers and other people with regular close contact with livestock are at increased risk of LA-MRSA carriage, but true infection is rare. The risk to members of the general public of contracting LA-MRSA from a pig or contaminated meat is very low.
- In May 2016 the NPA launched a Pig Industry Antibiotic Stewardship Programme and is committed to following this action plan to monitor and minimise the amount of antibiotics used in British pig production.
- NPA’s position on antibiotic use in the pig industry can be found on our website [6].

END

References


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