

INFORMATION PAPER

ADVISORY COMMITTEE ON THE MICROBIOLOGICAL SAFETY OF FOOD (ACMSF)

Epidemiology of Foodborne Infections Group (EFIG) : progress report and data on human and animal surveillance

Introduction

1. The Epidemiology of Foodborne Infections Group met on 19 July 2002. The minutes of the meeting have not yet been finalised. This paper provides an overview of the group's discussions.

Animal data

2. Data from the final quarter of 2001 and the first quarter of 2002 were reviewed. The Foot and Mouth Disease epidemic had a major effect on submissions to VLA during 2001, making comparisons with previous years difficult. In the first quarter of 2002, submissions began to rise but remained slightly below the level for the same quarter in 2001. This is set against an overall 50 % decrease in submissions over the last 5 years.
3. Incidents of both *Salmonella* Enteritidis and *Salmonella* Typhimurium decreased. There was an increase in reports of *S.* Typhimurium U308 and U310. The latter is a daughter strain of DT104 but is rarely seen in humans. *S.* Dublin remains the most common serotype in cattle and *S.* Diarizonae in sheep.
4. *Salmonella* Newport reports were at an all time low, with only 8 incidents in the first quarter of 2002. All cattle isolates were fully sensitive. One broiler flock is under investigation from which an isolate with ACSSuT resistance, plus resistance to neomycin, trimethoprim and furazolidone, was obtained. This is being compared with isolates from the USA. However, in addition to its being of poultry rather than bovine origin, it lacks the cephalosporin resistance seen in those isolates.
5. An increase in *S.* Agona in turkeys was also noted, but there has been no associated increase in human cases of infection.

Human data

6. Data for 2001 and the first quarter of 2002 were reviewed. The main features were:
 - a divergence in national *Salmonella* trends, with increased reporting in England and Wales and decreases in Northern Ireland and Scotland. This resulted in a net UK increase of 13%, largely due to non PT4 *S.* enteritidis.

- a continued stability in reports of *Campylobacter*, which has now shown no further upward trend since 1998.
 - a flattening out in the reporting of VTEC O157, which also reflected a plateau effect possibly dating back to 1995.
7. There was some discussion of the different serotypes of *Salmonella* associated with various holiday destinations and of some outbreaks associated with imported eggs. Attention was drawn to the need for collecting more complete and detailed data on infection associated with foreign travel. This highlighted the potential usefulness of a surveillance system using standardised EHO reports, since these data are routinely collected by EHOs. SCIEH are in the process of putting such a system together. PHLS and SCIEH have agreed to produce summary reports scoping what travel-related data are currently available.

Salmonella

8. Summaries of presentations from the International *Salmonella* Conference in Ploufragen, France, and a *Salmonella* workshop at VLA were presented.
9. Papers on the multidrug resistant *Salmonella* Newport reported from the USA were presented to the group, together with the VLA risk assessments. The group agreed that this organism does pose an important threat to the UK agricultural industry and underlined the importance of continuing collaboration between DEFRA, VLA, FSA and PHLS/SCIEH so that action could be taken should the organism be detected in the UK. There is no evidence to suggest that the strains are more invasive in humans than other salmonellas, although they do have the potential to cause a serious human problem.
10. Information on a pilot intervention study targeting *Salmonella* in pigs was provided to the group. This is using meat juice ELISA tests on finisher pigs at slaughter to identify farms with a high prevalence of infected pigs, with the aim of providing them with remedial advice.

Other matters

11. Plans are currently in hand to repeat the cattle, sheep and pig abattoir surveys.

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September 2002

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