



## **NINETY NINTH MEETING OF THE SPONGIFORM ENCEPHALOPATHY ADVISORY COMMITTEE**

The Spongiform Encephalopathy Advisory Committee held its 99<sup>th</sup> meeting in Cardiff on 14<sup>th</sup> December 2007, and discussed the following:

### **CURRENT ISSUES**

SEAC agreed on a process to reassess previous SEAC opinions in light of new data prior to their use by government departments to develop policy or legislation.

SEAC was informed about an unexpected case of atypical scrapie that been identified recently during an Institute of Animal Health (IAH) research study. The animal had been imported from New Zealand during its first year of life then spent a short period of time in a Veterinary Laboratories Agency research flock before being moved to IAH. The case is under further investigation.

SEAC considered a report describing a case of Creutzfeldt-Jakob Disease (CJD) with unusual neuropathological and molecular features<sup>1</sup>. SEAC noted the clinical and neuropathological features were within the range previously observed with sporadic CJD. Strain typing mouse bioassays may enable the causative transmissible spongiform encephalopathy (TSE) agent to be identified.

SEAC was informed that the Department for Environment, Food and Rural Affairs (Defra) is consulting on cost and responsibility sharing in relation to animal health and welfare<sup>2</sup>.

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<sup>1</sup> Mead *et al.* (2007) Creutzfeldt-Jakob disease, prion protein gene codon 129VV, and a novel PrP<sup>Sc</sup> type in a young British women. *Arch. Neurol.* 64, 1780-1784.

<sup>2</sup> Defra consultation on sharing costs and responsibility: animal health and welfare. <http://www.defra.gov.uk/news/latest/2007/animal-1211.htm>

## **SEAC SHEEP SUBGROUP REPORT**

SEAC was invited to comment on a report from the SEAC Sheep Subgroup that considered a number of issues in relation to TSEs in sheep.

SEAC endorsed the statement with minor modifications. The finalised report is available on the SEAC website at: <http://www.seac.gov.uk/committee/subgroups.htm>

## **SCIENTIFIC BASIS FOR RELAXATION OF CLASSICAL SCRAPIE CONTROLS**

Defra asked SEAC to consider the reliability of discriminatory tests to distinguish scrapie from BSE and the human health risks in relation to allowing animals from known classical scrapie-affected flocks to be slaughtered for human consumption provided a negative result is obtained on TSE testing any such animals over 18 months of age.

SEAC agreed to produce a statement on the issue.

## **CONSIDERATION OF OPTIONS TO RELAXATION OF THE TOTAL FEED BAN**

Rural Affairs Departments and FSA asked SEAC to assess the possible consequences of various options for relaxing the total feed ban including the introduction of tolerance levels for certain types of processed animal protein (PAP) in feed, the inclusion of fish meal in young ruminant diets and the feeding of non-ruminant PAP to non-ruminants of a different species.

SEAC agreed to produce a statement.

## **HORIZON SCANNING**

Due to a lack of time, SEAC agreed to postpone the horizon scanning discussion to SEAC 100.

## **PUBLIC QUESTION AND ANSWER SESSION**

SEAC considered a question about possible links between CJD cases and animal TSEs in the United States of America (USA).

## **CJD UPDATE**

SEAC was updated on the latest figures on the number of sCJD and variant CJD (vCJD). From May 1990 to October 2007, 944 cases of sCJD had been identified in the UK with a mean age at death of 67 years and genotype distribution of 64% MM, 18% MV and 18% VV at codon 129 of the prion protein gene. Between May 1990 and December 2007, 166 cases of vCJD had been identified in the UK with a median age of death of 30 years. All the clinical cases that had been genotyped were MM. Statistical analysis showed the incidence of vCJD had peaked in 2000 and had declined since.

Elsewhere in the world, 39 vCJD cases had been reported: 23 in France, four in the Republic of Ireland, three in the USA, two in the Netherlands, two in Portugal and single cases in Canada, Saudi Arabia, Italy, Spain and Japan. In two Irish cases, two USA cases, one French case, the Japanese and Canadian cases, infection was presumed to have occurred in the UK.

Four transfusion associated vCJD infections had been identified in UK recipients of blood from infected donors that were asymptomatic at the time of donation.

## **NATA AND OTHER vCJD PREVALENCE STUDIES**

SEAC considered the testing methodology and first tranche of results from the Health Protection Agency (HPA) National Anonymous Tonsil Archive (NATA).

SEAC considered the methodology appropriate and agreed that analysis of a subset of samples by the immunohistochemical method used in a retrospective survey of appendix and tonsils<sup>3</sup> would provide additional reassurance about the testing. Uncertainty remains about when abnormal prion protein accumulates in the tonsils of individuals incubating vCJD.

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<sup>3</sup> Hilton *et al.* (2004) Prevalence of lymphoreticular prion protein accumulation in UK tissue samples. *J Pathol.* 203, 733-739.

So far over 45 000 NATA tonsils have been tested with none positive for abnormal prion protein. These results are statistically consistent with previous data used to estimate the prevalence of subclinical vCJD.

SEAC considered that a post mortem tissue archive is critical to supplement the data from NATA. This is because samples can be obtained from older individuals (many NATA samples are from young individuals with little or no exposure to BSE) and from different tissues (spleen and brain can be collected post mortem).

## **RE-ASSESSMENT OF POTENTIAL RISK OF vCJD TRANSMISSION VIA DENTISTRY**

SEAC welcomed a Department of Health (DH) risk assessment of potential secondary transmission of vCJD via dentistry<sup>4</sup>. SEAC noted the findings are heavily influenced by multiple scientific uncertainties, notably about the infectivity of oral tissues in those incubating the disease, the effectiveness of dental instrument decontamination, the current prevalence of subclinical infection in the population, and the implications of a possible carrier state for vCJD. Research has been commissioned to address the uncertainties. The assessment will be updated as new data emerge.

The assessment describes plausible scenarios including many in which dental transmission may have no detectable effect on the course of the vCJD epidemic. However, a few scenarios which include pessimistic assumptions on the infectivity of oral tissues and the effects of instrument decontamination suggest dental transmission could generate a self-sustaining reservoir of vCJD infection.

SEAC considered that improved instrument decontamination could significantly reduce the potential transmission risks and noted the extensive programme of work underway by DH to improve decontamination practice in dentistry and to evaluate new decontamination technologies and implement them, if proven to be effective.

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<sup>4</sup> Department of Health (2007) Potential vCJD transmission risks via dentistry: an interim review.  
[http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH\\_081170](http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_081170)

