



NINETY SEVENTH MEETING OF THE SPONGIFORM ENCEPHALOPATHY ADVISORY COMMITTEE

The Spongiform Encephalopathy Advisory Committee held its 97th meeting in London on 10th May 2007, and discussed the following:

CURRENT ISSUES

SEAC was informed about the following issues, both of which were discussed later in the agenda:

- United Kingdom Chief Dental Officers recently issued guidance to dentists to limit certain dental instruments to single use as a precautionary measure to reduce the potential risk of variant Creutzfeldt-Jakob Disease (CJD) transmission¹.
- The first unusual case of Bovine Spongiform Encephalopathy (BSE) in the UK.

ATYPICAL SCRAPIE CASE AUDIT

SEAC was updated on investigations of an atypical scrapie case in a sheep flock previously considered free of transmissible spongiform encephalopathies (TSEs). An independent audit of the processes used to manage the flock found no evidence of errors in the collection of the samples for testing, or any major breaches in biosecurity in the importation and subsequent management of the flock. SEAC concluded that there was insufficient evidence to determine the origin of the case and that it was unlikely the origin would ever be unambiguously determined. There was no evidence for importation of the disease from New Zealand, although this could not be definitively excluded. It was noted that an investigation, by the Veterinary Laboratories Agency, of the

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<http://www.gnn.gov.uk/environment/fullDetail.asp?ReleaseID=279256&NewsAreaID=2&NavigatedFromDepartment=False>

flock had not identified other confirmed atypical scrapie cases, although further analyses are continuing.

ATYPICAL SCRAPIE RESEARCH CONTINGENCY PLANNING

To inform contingency planning, the Food Standards Agency (FSA) asked SEAC to consider possible scenarios, which might arise from research underway on atypical scrapie, and how these might change the understanding of the risk to human health.

SEAC stated it was difficult to assess changes to understanding of the risk in the absence of hard scientific data, and that no one data set on its own was likely to be definitive. Studies comparing the properties of atypical scrapie and other TSE agents using the same animal model, especially humanised mice or non-human primates, would be most informative in the short term. Surveillance data to assess any association between CJDs and atypical scrapie prevalence would be most persuasive but are unlikely to become available in the short term. In assessing the risk it would be important to consider all the information available, rather than data from single studies considered in isolation.

FATEPRIDE

SEAC was updated about FATEPriDE, a recently completed multi-centre European Union funded project, examining the possible influence of environmental trace elements on the occurrence of TSEs. The committee noted that interactions between trace elements and other environmental factors and the occurrence of TSEs are likely to be complex. No link between the vast majority of environmental factors studied, including organophosphates, and TSEs was found. The only environmental factor found to influence TSEs was manganese, at a molecular and cellular level. It is possible, but hard to prove in the field, that environmental manganese may influence susceptibility to, or spread of, some TSEs, possibly by increasing retention in the soil.

UPDATE ON PREVALENCE STUDIES

SEAC was updated about progress on approaches to obtain better estimates of the prevalence of subclinical vCJD:

- The National Anonymous Tonsil Archive was on track to report to the SEAC Epidemiology Subgroup in June 2007 the analysis of tonsils collected to date from the age group likely to be at most risk of BSE infection.
- A report from an expert group considering the feasibility of collecting tissues from autopsies for testing would be published in the near future. The recommendations of the report would then be considered by the Department of Health (DH).
- Tenders received from manufacturers of prototype blood tests for the analysis of a large number of anonymous blood samples would be considered in late May 2007 by an expert group convened by the HPA.

FUTURE ASSESSMENT OF LIKELY vCJD INFECTIVITY ASSOCIATED WITH PLASMA PRODUCTS

SEAC agreed to a DH request to reassess, at SEAC 98, the likely removal of infectivity from blood contaminated with the vCJD agent during plasma product production. In addition, to estimate the timing of the time window for possible infections arising from use of plasma products prior to the sourcing plasma from countries considered free from BSE.

UNUSUAL CASES OF SPONGIFORM ENCEPHALOPATHY IN CATTLE

SEAC received presentations from international experts on unusual cases of BSE. This item was discussed in the reserved business session as unpublished research was considered, which is consistent with the SEAC Code of Practice.

SEAC noted such cases are very rare. They had been identified predominantly by active surveillance and predominantly in older animals in a number of European countries and elsewhere. It now appears that the cases can be categorised into two types, H-type or L-type, on the basis of their biochemical characteristics which differ from those of classical BSE. The neuropathological and transmission properties of unusual BSE types also differed from classical BSE. It is not yet clear whether or not conversion to classical BSE may occur on secondary transmissions. The origin

of unusual BSE is not clear and it might possibly be spontaneous. SEAC agreed that, given current knowledge, procedures appeared to be in place to prevent an epidemic of unusual BSE. Further data, particularly on tissue distribution and transmissibility via the oral route, is needed. SEAC agreed to publish a position statement.

UPDATE ON DENTAL RESEARCH

SEAC was updated on preliminary findings from research to estimate the potential risk of vCJD transmission via dental procedures. This item was discussed in the reserved business session as unpublished research was considered, which is consistent with the SEAC Code of Practice.

SEAC agreed that the data and conclusions appeared robust, while recognising they are preliminary data from an animal model and that the studies are not yet complete. The research suggested that there may be a significant risk that vCJD can be transmitted via some dental procedures in man, although the level of risk remains difficult to quantify. The committee welcomed the Chief Dental Officers' recent guidance to dentists who were advised to ensure that all dental files and reamers were treated as single use, but sought reassurance that compliance in both private and NHS practice would be closely monitored. SEAC considered it important that a comprehensive assessment of the potential risks of vCJD transmission from all dental procedures be conducted as a priority. This could allow possible additional precautionary measures to be identified. SEAC agreed to publish a position statement in the near future.