



NINETY THIRD MEETING OF THE SPONGIFORM ENCEPHALOPATHY ADVISORY COMMITTEE

The Spongiform Encephalopathy Advisory Committee held its 93rd meeting in London on 6th July 2006 and discussed the following matters:

CURRENT ISSUES

SEAC was informed about the following issues:

- Publication of the Defra response to the independent review of the origins of BSE cases born after the reinforced feed ban (BARB cases) by Professor William Hill¹.
- A consultation on draft guidance on how to best manage the risks of transmission of CJD and vCJD via surgical procedures produced by the CJD Advisory Committee of the National Institute for Health and Clinical Excellence².
- The first meeting of the Clinical Governance Advisory Group, an independent group recently convened to advise DH on the appropriate counselling and care for individuals defined as 'at risk from vCJD for public health purposes'.
- An update from the Health Protection Agency on convening an expert group to consider the most effective means, including post-mortem testing, of obtaining data on the prevalence, age and genotype distribution of vCJD infection in the UK population, as recommended by SEAC³. The committee urged that this group be set up without delay as it

¹ http://defraweb/animalh/bse/pdf/hill-response_annex1.pdf

² <http://www.publichealth.nice.org.uk/page.aspx?o=cjdconsultation2>

³ <http://www.seac.gov.uk/statements/state260106.htm>

is of utmost importance that better estimates of the prevalence of vCJD infection be obtained.

- The SEAC Chair and Deputy Chair had briefed the FSA Board in relation to its recent discussions on atypical scrapie and BSE in sheep⁴. As the human health implications of atypical scrapie are unknown, SEAC suggested it would be timely for the National CJD Surveillance Unit to remind neurologists to remain vigilant and refer unusual neurological cases to the Unit.
- Reports that TSE tests on a small number of predominantly older cattle in Europe and the USA suggest that other forms of spongiform encephalopathy may occur in some cattle.

CHRONIC WASTING DISEASE IN UK DEER

SEAC considered new research published since its position statement, published in November 2004, on the possible public and animal health implications of chronic wasting disease (CWD) in UK deer.

Although the geographical distribution of CWD in North America was apparently expanding and the natural host range had widened, this may just reflect expansion of surveillance programmes. There was however, no evidence of CWD being present in deer in the UK or elsewhere in Europe. As surveillance data are limited, EU plans for further TSE testing of deer were welcomed.

New data on transmission of the TSE agent when bound to soil strengthened the evidence for environmental transmission of CWD. Although cattle intracerebrally (ic) inoculated with CWD showed clinical signs, no transmissions had been observed after more than 7 years in an ongoing study of cattle orally inoculated with CWD, suggesting a barrier exists to transmission to cattle by natural means. Although CWD has been transmitted to non-human primates by ic inoculation, it was not transmitted to humanised mice via this route, suggesting some barrier for transmission to humans may exist. Infectivity has been detected at low levels in muscle of deer infected with CWD.

⁴ <http://www.food.gov.uk/news/newsarchive/2006/jun/boardupdate>

In light of the new information, SEAC amended its position statement but agreed that CWD currently poses relatively little risk to human health, or to the health of cattle, sheep or goats in the UK. Nevertheless, as a risk cannot be excluded, a watching brief should be maintained.

ASSESSMENT OF FEED SUPPLY ROUTES

At SEAC 87, SEAC endorsed a recommendation from the SEAC *ad hoc* Epidemiology Subgroup on UK BARB⁵ BSE cases that Defra perform an evaluation of current and recent animal feed use and supply routes. Defra presented its evaluation of the animal feed use and supply network for comment.

SEAC welcomed the comprehensive report noting that feed assurance schemes, surveillance and controls in place substantially reduce the risk of contamination of feed with mammalian meat and bone meal (MMBM). SEAC emphasised the need to maintain awareness, to continue effective enforcement of the controls and to refine the specificity of tests for MMBM in feed.

EU TSE ROADMAP

Defra and FSA asked SEAC to comment on their proposals to seek the committee's advice on issues arising from the European Commission TSE Roadmap⁶ setting out possible changes to TSE control and surveillance measures. SEAC generally agreed with the proposals but considered that it would be important for the departments to review their proposals and seek advice from SEAC in light of emerging data. As the European Food Standards Authority (EFSA) will consider a number of the issues, opportunities may arise for SEAC to feed into these deliberations.

METHODS TO EVALUATE NEW SURGICAL INSTRUMENT DECONTAMINATION TECHNOLOGIES

The Engineering and Science Advisory Committee into the decontamination of surgical instruments including prion removal

⁵ Born after the reinforced feed ban of July 1996

⁶ http://ec.europa.eu/food/food/biosafety/bse/roadmap_en.pdf

asked SEAC to advise on scientific principles to consider in relation to the evaluation of new TSE decontamination technologies.

SEAC endorsed the need for independent evaluation of the efficiency and reliability of new decontamination technologies prior to implementation. It emphasised that evaluation methods should allow reductions in decontamination to be quantified and the efficacy of different decontamination methods to be compared. It is essential that the effect of decontamination treatments on TSE infectivity, not just prion or other protein levels, be evaluated. As the resistance of TSE strains to decontamination treatments is likely to differ, the effect on human or closely related TSE strains should be assessed. The committee agreed to produce a statement on its consideration.

AOB - TSE NOMENCLATURE

SEAC noted that use of the terms “atypical scrapie” in sheep, and more recently, “atypical BSE” in cattle to describe emerging conditions in sheep and cattle causes confusion over the nature disease agent involved, and the risk to consumers.

The committee agreed that reclassification of atypical scrapie may cause more confusion as the term had been in use for some time. However, it is important to clarify that, in contrast to classical scrapie, which appears benign, the human health implications of atypical scrapie are unknown.

The committee agreed that the use of the term “atypical BSE” in cattle should be discouraged.

BSE STUDIES IN CATTLE

SEAC considered the findings of three studies to examine (i) the relationship between the oral dose of BSE and the incubation period and attack rate in cattle, (ii) the relationship between the time of first detection of PrP^{Sc} in the central nervous system (CNS) and the incubation period following oral challenge of cattle with BSE and (iii) the distribution of abnormal prion protein (PrP^{Sc}) in certain peripheral nervous system (PNS) tissues of cattle at the preclinical and clinical stage of BSE infection. The item was discussed in a reserved business session in accordance with the

SEAC Code of Practice as it involved consideration of unpublished research.

SEAC noted that there was no evidence from the studies of a threshold dose of BSE at which the probability of infection becomes virtually negligible. Data suggested that reliable detection of PrP^{Sc} in the CNS was only possible in the few months prior to, and during, the clinical stage of infection. Low levels of PrP^{Sc} in PNS tissues could be detected at the same time, or after, PrP^{Sc} was detected in the CNS. The data from these studies will be submitted to EFSA for future discussions on BSE testing and controls.