

Senate Standing Committee on Economics
ANSWERS TO QUESTIONS ON NOTICE
Innovation, Industry, Science and Research Portfolio
Additional Estimates Hearing 2009-10
10 February 2010

AGENCY/DEPARTMENT: OFFICE OF THE CHIEF SCIENTIST

TOPIC: BSE – Mad Cow Disease

REFERENCE: Question on Notice (Hansard, 10 February 2010, E63)

QUESTION No.: AI-100

Senator HEFFERNAN—Would it be appropriate for me to ask you about BSE—mad cow disease?

Prof. Sackett—You can certainly ask a question.

Senator HEFFERNAN—I understand from evidence we have received in another place that the bacterium or whatever causes the human variant cannot be destroyed by sterilisation. In fact, they have a protocol to destroy the instruments that are used in any procedures on humans that have the disease. Could you explain to me where that leaves the abattoir worker who killed the cow that had the disease.

Prof. Sackett—I would have to take that on notice. Do you have a reference that you or your office could pass on to me as the source of your information? I would then be happy to get back to you.

Senator HEFFERNAN—So you personally are not aware of the sensitivity of what I am talking about.

Prof. Sackett—It is just that on any specific science matter I like to refer to the published literature before I prepare a response.

ANSWER

Academic research has demonstrated that prions (infectious agents that cause BSE), can only be partially inactivated through routine disinfection and sterilisation methods, including temperatures as high as 350°C.¹ This has been a matter of active research and there is now evidence that demonstrates the effectiveness of specific formulations of alkaline and enzymatic detergents in neutralizing prions.²

To date there are no confirmed cases of occupational exposure to BSE³. Risk of exposure is managed through safe work practices and hygiene measures such as those developed by the UK Government. For an abattoir worker, these would include the appropriate handling of BSE risk materials such as the brain and spinal cord, the wearing of protective clothing, using suitable screens, and following current disinfection procedures⁴.

¹ Brown et al (2000), Proceedings of the National Academy of Science; 97:3418-21

² Rutala and Webber (2010), Infection Control and Hospital Epidemiology; vol 31, no.2, 107-117

³ Health and Safety Executive: BSE – Occupational Guidance – UK (First published in 2007). Web only document at www.hse.gov.uk/pubns/web22.pdf

⁴ See Appendix 1 in above UK report – Additional guidance for specific occupations: Abattoir staff.