Bovine Spongiform Encephalopathy (BSE)

ANNEX 6

MEETING HELD ON 8 JUNE 1988 TO DISCUSS THE IMPLICATIONS OF BSE TO BIOLOGICAL PRODUCTS CONTAINING BOVINE - EXTRACTED MATERIAL

Chairman - Dr Little
Mr Bradley
Mr Dawson
Mrs Evans
Mr Gray
Mr Kidd
Mr Luff
Dr Thornton
Mr Wilesmith

BACKGROUND

The first cases of BSE were identified in November/December 1986, but with reviewing previous data the first confirmed clinical case was found to be in April 1985.

The incidence of BSE was highest in the South of England but incidents had occurred from the Shetlands down to Guernsey.

The youngest recorded age at which BSE was confirmed in a cow was 2 years 9 months, while the peak incidence appeared to be in 4 year old cattle.

It was considered that exposure to the disease had occurred from 1982 onwards and that the incubation period ranged from 3-6+ years.

Calves appeared to be at 30x greater risk than adult cattle and incidents were significantly more prevalent in dairy rather than beef suckler herds.

The major source of infection was considered to be infected meat and bonemeal feedstuffs. It was noted that meat and bonemeal feedstuffs were exported to Europe and the third world.

BSE AGENT

Characterisation of the protein fibrils of the agent showed it to be a spongiform encephalopathy agent and as yet no differences between BSE and scrapie, other than host, have been found.

So far there has been no evidence on BSE transmissibility to other species, but experiments are underway.

Discussion continued with scrapie being used as the model for BSE distribution in lymphoid tissues and subsequent treatment.

The tissues most at risk of containing, and consequently transmitting, scrapie were the brain, spinal cord and lymphoid tissues. Scrapie had been found in many other tissues including the placenta, pancreas and lung. However all routes of transmission were considered possible so use of any bovine derived tissues were considered to be of some degree of risk.

BOVINE BIOLOGICAL PRODUCTS

The bovine tissues used in biological products were outlined as:

SERUM

This was the main concern as it was included in the majority of biological products.

Serum was considered likely to be of low risk for transmission of the agent. However, utilization of a closed farm with no known clinical cases would be preferable for serum production. If non-UK serum were to be included in products it would need to be irradiated to remove any other viruses or bacteria.

PEPTONE/MEAT DIGEST

For growth media and also used as a freeze-drying stabiliser. Autoclave treated.

PITUITARY EXTRACT

This was used to help cows super ovulate. This tissue was considered to be of greatest risk of containing BSE and consequently transmitting the disease.

BEEF BRAIN AND BRAIN INFUSION BROTHS

Considered to be of great risk.

TISSUE CULTURES DERIVED FROM PRIMARY BOVINE TISSUES

Milk proteins - scrapie had not been found in milk as yet.

OX BILE

FAECES

Scrapie was suspected of being excreted in the faeces, but had not been isolated yet.

RECOMMENDATION

The greatest concern was the use of pituitary gland products. It was agreed that the Medicines Unit should prepare a paper to advise Animal Medicines Division, Tolworth on the course of action to be taken.

It was agreed that B P & S should draw up a full list of all the tissues involved in biological products. Medicines Unit would produce a list for pharmaceutical products. A chart of risk assessment should be made for each of the tissues in relation to the products, together with appropriate treatments for each tissue.

It was agreed that some form of guidance should be given to companies at the next NOAH meeting on 11 July.