

DINNER/DISCUSSION SUMMARY

Lessons Learned from the 2001 Foot and Mouth Outbreak

Held at The Royal Society, 6 Carlton House Terrace, London SW1Y 5AG
on Tuesday 5th November 2002

Sponsored by
BBSRC, DEFRA and The Royal Society

In the Chair: Dr Robert Hawley CBE FRSE FREng

Speakers: Sir Brian Follett FRS
Chairman, The Royal Society Inquiry into Infectious Diseases in Livestock
Mr Ben Gill CBE
President, The National Farmers' Union
Mr Elliot Morley MP
Parliamentary Under Secretary, DEFRA

In their lectures Sir Brian Follett summarised the conclusions of the report of the Royal Society inquiry into infectious diseases in livestock, Mr Ben Gill considered issues on the prevention and control of animal disease, and Mr Elliott Morley described some of the action take by DEFRA during the 2001 foot and mouth disease outbreak and since.

All the invited speakers called for more research on foot and mouth disease. In the discussion it was noted that DEFRA was identifying where work should be done, both in the UK and through international collaborations. The mechanism of local spread was an important topic for study, and there was disagreement over the extent to which the disease was transmitted by farmers and vehicles in the 2001 outbreak. On one view, farmers moving between multiple holdings were an important factor. One farmer with seven holdings had resisted official inspection, but all seven succumbed to the disease.

The control strategy eventually adopted, based on the slaughter on infected premises within 24 hours and on contiguous premises within 48, was chosen on the strength of epidemiological modelling which predicted that it would minimise the number of animals killed. In the event, it was said, the course of the epidemic had followed the course predicted by the models quite closely.

This view was challenged by another speaker, who questioned whether the contiguous cull had really brought the epidemic to a halt or rather caused infection to spread, because of the logjam on disposal of carcasses. Sir Richard Doll had laid down a sine qua non for epidemiological proof, namely that the supposed effect should come at an appropriate interval after the cause. The instructions for the contiguous cull did not reach the disease control centres until eight days after the epidemic peaked. Another speaker urged that overkill should not be

equated with successful management. In some areas every infected farm had prompted the slaughter of animals on large numbers of other farms, yet very few of the latter tested positive for the virus.

In response it was argued Dr Iain Anderson's report on the lessons to be learned had agreed that the contiguous cull worked. It was not surprising if animals culled on farms other than infected premises proved not to have been infected, because the object was to slaughter them before the disease spread. Vaccination had certainly been considered in Cumbria, but it might not have been possible to rely on vaccination to stop the epidemic in view of the wide spread of the infection before it was discovered. For the future a decision on emergency vaccination would certainly move up the agenda, but the first line of control was still likely to be the culling of animals on infected premises and dangerous contacts. That was why the Government were seeking clearer powers for slaughter in the Animal Health Bill.

For the future it was essential to speed up the response to any new outbreak, with focussed applied research - not conferences - in order to develop evidence-based control systems within the next year or so. The Royal Society report advised that, with a significant effort by DEFRA, it should be possible to be ready for emergency vaccination by the end of 2003. The Department was committed to meeting that target

It was argued that the vaccines already available were more than adequate to control any outbreak of foot and mouth disease, but good epidemiology was needed in order to know when to use them. The storage of vaccine was not seen as a serious problem - the necessary stocks could go in a corner of a room - but vaccination to live raised real, difficult policy issues. It would not be easy for the pharmaceutical industry to develop a vaccine good

enough for use in peacetime, with lifelong sterile immunity, but it was worth the investment in view of the costs of the disease.

A speaker drew attention to the emergence of new animal diseases. For these the primary response was bound to be culling, because there would be no vaccines. A national strategy for the control of animal disease by slaughter would still be needed even if emergency vaccination were used for foot and mouth disease.

Trust was an essential element in such a strategy, and had been lacking in 2001. Better use could have been made of local knowledge in dealing with the outbreak. In France, in spite of the tradition of centralised policy-making, there had been more success in involving farmers in the local delivery of disease-control measures. In the UK there was a case for a bottom-up approach, with farmers buying into animal health systems that gave them benefits and local voices being listened to. Better interaction was needed between local veterinary surgeons and the State Veterinary Service and Veterinary Laboratories Agency, and closer links between farmers and vets. Farms were small but heavily regulated businesses and could not easily afford veterinary advice.

DEFRA was taking steps to alert livestock farmers to biosecurity and develop contacts between them and the Divisional Veterinary Offices. The Department had set up a stakeholder group at an early stage in the outbreak and intended to make this permanent. Effective surveillance of animal disease on farms was vital, but it was not possible to have a vet on every farm ready to identify the next outbreak. Farmers had to be trusted to spot the signs of disease. There were bound to be some bad apples, and there was a case for registration or licensing of farmers.

A speaker drew attention to the massive impact of the outbreak on the rural economy, and in particular the losses which the restrictions on the movement of people caused the tourist industry. In Scotland this was bigger than agriculture, and the inquiry by the Royal Society of Edinburgh had looked at the economic impact. One reason for considering vaccination was to reduce the scale of slaughter in view of its effect on tourism. The blanket restrictions on access to the countryside in 2001 had probably been a mistake.

Mr Gill had underlined the need to keep infected animal products out of the UK. It was suggested in discussion that the problem of border security was understated, because it was necessary to cope with negligence as well as deliberate evasion. Huge numbers of people moved in and out of the country all the time and proper screening would bring traffic to a halt. If smallpox were as prevalent as foot and mouth disease the UK would be bound to rely on routine vaccination rather than hoping to keep the disease out. Against this it was argued that it was necessary to assess the risks and consider what border control measures were cost effective.

The temporary standstill on the movement of animals off a holding when new animals had been brought in was very controversial. The period of 20 days was criticised as being neither reasonable nor proportionate, and the rules were too complicated. Better tracking of individual animals, together with initial isolation of animals brought onto holdings, might offer a better way forward. As yet,

however, only cattle were identified individually, and it was argued that a movement stop had to be a permanent feature. Animal disease was a constant threat, particularly with globalisation and climate change (which was extending the range of some insect vectors). One participant saw no cause for concern over the exchanges between the NFU and DEFRA over the standstill rule. A new arrangement was slowly being hammered out, and lines would be drawn in the sand and then covered up by time. It was for consideration, though, whether the sheep and cattle industries needed more vertical integration. Twenty years previously the pig industry had resisted it, but it had come.

There was evidence that in Scotland systems had worked faster, perhaps in part because the Lockerby disaster had focussed attention on preparations for emergencies. Plans for dealing with outbreaks of animal disease need to be considered in the context of other contingency plans, not in isolation. Rapid diagnosis was a vital part of any plan, and it was argued that PCR tests should be used on farms in conjunction with testing in regional laboratories. DEFRA had used PCR in some of the recent suspect cases, but there were questions over its validation and the results had been backed up by ELISA tests.

A speaker called for the State Veterinary Service to be restored to its original strength. It was not easy to gauge how its numbers had changed over the years because some staff had been hived off into separate agencies, and it was suggested that the frontline staff had been fairly stable at about 420 over the last few years. In any case, though, the permanent staff could not hope to deal with an epidemic like that of 2001. Veterinary surgeons, including retired ones, would need to be brought in from outside.

A concluding comment was that debates about the foot and mouth disease outbreak, like analyses of the Battle of Alamein, displayed 20/20 hindsight. In 2001 the UK had had to fight a war using a rusty system. In 1967 it had been in working order. Similarly, the Uruguayans had coped well with their last outbreak because the disease was never far away. It was time to move on from retrospection. For the future a well-ordered strategy was needed, embedded in a larger national system for dealing with disasters.

Jeff Gill

Links:

www.cabinet-office.gov.uk/farming
www.cumbria.gov.uk/news/footandmouth/inquiry/default.asp
www.devon.gov.uk/fminquiry/finalreport
www.fmd-lessonslearned.org.uk
www.ma.hw.ac.uk/RSE/enquiries/footandmouth/fm_mw.pdf
www.northumberland.gov.uk/CS_FMSummary.asp
www.royalsoc.ac.uk

Margaret Beckett made a Parliamentary Statement on 6 November 2002

www.parliament.the-stationery-office.co.uk/pa/cm200102/cmhansrd/cm021106/debindx/21106-x.htm
www.defra.gov.uk/news/2002/021106b.htm

The discussion was held under the Foundation's Rule that the speakers may be named but those who contribute in the discussion are not. None of the opinions stated are those of the Foundation which maintains a strictly neutral position.

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