

“Disease Control Workshop: Stakeholders’ Interests in the use of Science/Technology and Decision Making” was held on 12 May 2006 by the EU-funded FMD & CSF Coordination Action (see <http://www.fmd-and-csf-action.org/>) at the Institute of Animal Health – Pirbright. The participants included representatives from the NFU, BVA, RCVS, RVC, VLA, Elm Farm Research Centre, COPA-COGECA, European Livestock Alliance, NBvH (Dutch Smallholders Association), European Livestock and Meat Trading Union, Federation of Veterinarians of Europe, Defra, SVS-Scotland, the Netherlands Ministry of Agriculture and Universities. Discussion focused on (a) the use of diagnostic tests; (b) control measures; and (c) stakeholders’ involvement in disease control.

Concluding thoughts and recommendations

SURVEILLANCE

Rapid portable diagnostic tests that are already available should be assessed by scientists, veterinary experts and the livestock sector, and recommendations should be given for their use. Those that are considered to be useful should be incorporated into emergency exercises and contingency plans. Simple, disposable diagnostic tests would be a welcome new technology.

Use of tests as a means of preventing entry of infection. Infection can enter through legal or illegal imports of animals or animal products. Measures that could be taken to minimise these risks include: (1) Testing of illegal seizures at ports of entry to identify pathogens and geographical origins in order to base control measures at ports of entry on better epidemiological evidence than is presently available; (2) Use of multiplex assays to test live animals that move between EU Member States for exotic pathogens, rather than allowing such movements to be approved solely on clinical veterinary inspection which could allow entry of pre-clinically or sub-clinically infected animals or asymptomatic carriers; this should be an option for each Member State depending on its own risk assessments.

Use of tests as a means of identifying first entry of infection. There is limited consensus about the role of diagnostic tests to monitor apparently healthy animals or their products as a means of detecting infection prior to the recognition that an outbreak has started in a FMD-free country or region. However, tests might be used as a means of providing livestock keepers with alternatives to complying with restrictions on animal movements that have been designed to reduce the impact of undisclosed introduction of an exotic disease. The reality is that at present, such restrictions may be ignored for a variety of reasons, including lack of trust in government support for food production and in appropriate and proportionate control measures, and inundation with paperwork. Policy makers and scientists are sometimes unaware of these realities of livestock keeping and that as a consequence, unrecorded movement of sheep and other animals is commonplace. The “stick” approach is unlikely to be productive; the “carrot” of providing incentives is likely to be more productive. Various cost sharing schemes (see below) which would involve private insurance and shared responsibilities between government and industry should be explored. Through such schemes, livestock keepers could, for example, be given a choice of alternatives for movement of animals: (1) restrictions for a given length of time; (2) use of rapid diagnostic tests; (3) use of sentinel animals (e.g. cattle among sheep for FMD).

Rapid portable diagnostic devices can be used as pen-side tests, on farm (or over the farm gate) and at sites where there is a greater risk of exposure/spread such as markets, shows, and milk collection/creameries, and as a tool in safe movement of animals. Their use should not be considered to be for identification of an index case, but as an alert of a possible index case. Identification of an index case and identification of serotype and sequencing for vaccine production should remain under the sole jurisdiction of the national reference laboratories.

The use of such portable devices (for example, by Regional State Veterinary Labs, private veterinary group practices, quarantine facilities, ports of entry) must be regulated.

Decisions about the appropriate regime and level of sampling should be based on risk. The level of risk should be conveyed to livestock keepers as, for example “green”, “amber” and “red” alert which the livestock sector has requested.

Advice and decisions on testing and sampling regimes, risk, and other control matters such as vaccination, should be filtered through a balanced Expert Group, as specified by the EU FMD Directive, and by other appointed bodies, where they exist, such as the Science Advisory Council in the UK whose role is to challenge Defra’s preparedness policies.

Use of tests as a means of confirming secondary outbreaks. When disease has been identified, the wide use of rapid portable diagnostic devices would be welcomed by both livestock keepers and by their veterinarians. Some devices are already available, others are being developed. The use of those already developed and accepted by unbiased assessment should be incorporated into emergency exercises and contingency plans. Consideration should also be given to devolving tests to regional laboratories in order to reduce sample to lab transit times.

Logistical difficulties need to be examined; for example: (1) potential problems of disinfection could be reduced when one person takes the samples and passes them over the farm gate to another person; (2) transport of samples to reference labs and regional centres may need support from the military; (3) how to ensure having enough devices available and in the right places.

Recommendation: Competent authorities need to review the use of regional laboratories and portable diagnostic tests. Proper assessments should be made for the use – depending on circumstances - of already available diagnostic devices and for the direction of development of new technologies.

VACCINATION

There must be clear criteria for deciding: (1) when to vaccinate; (2) what animals should be vaccinated; (3) the size of the vaccination zone and (4) priorities for vaccinating within a vaccination zone. Currently, there is much uncertainty about the way in which these decisions are made and some debate about the role of modellers in such decisions. Many livestock keepers believe that vaccination of their own stock would be more efficient than employing dedicated vaccination teams.

Vaccination to live is a strategy that must be prepared for in advance and requires availability of vaccine and reagent banks. To overcome problems of limited shelf-life, consideration should be given to rotate unused banks so that, in a timely manner, vaccines and reagents could be made available to developing countries where disease is endemic.

Recommendation: The criteria for the decisions on vaccination must be more transparent and inclusive.

CONTROL OF DISEASE

Government should be more transparent and inclusive in its communications, consultations and responses to the diverse needs of stakeholders. The goals of disease control are fundamental to specific strategies. Mass slaughter of healthy animals as a response to disease can be avoided by using other approaches if the goal is optimisation of animal health and food production. The international Animal Health Foresight Project is an example (see www.usaha.org/committees/aem/presentations2005/CarolTuszynski_AnimalHealthForesightProject.ppt).

Obstacles can be overcome, given the will.

New mechanisms for disease control that include cost sharing with the livestock industry and other industries involved in disease should be examined. The paper by Roger Breeze makes useful and important points (see <http://www.fmd-and-csf-action.org/forums/fmdv/>). Small-scale livestock units must also be represented (see: Marshall M J, Roger P A & Bashiruddin J B. Making better use of technological advances to meet stakeholder needs. In Biological disasters of animal origin: the role and preparedness of veterinary and public health services. Rev. sci. tech. Off. int. Epiz., 2006, 25 (1), available online at: <http://www.oie.int/eng/publicat/RT/2501/PDF/20-marshall233-251.pdf>). Possible mechanisms include national animal health associations, a European Animal Health Association, and/or certified production standards which would be determined and monitored democratically by a Livestock Stewardship Council.

Comments are welcome on the FMD & CSF Coordination Action Forum (www.fmd-and-csf-action.org/forums) and information pages will soon be available. Expressions of interest in participating in the CA's large stakeholders meeting to be held next year should be sent to mary.marshall@bbsrc.ac.uk and/or john.bashiruddin@bbsrc.ac.uk.