

IABS, PEI and NEBIH
are co-organizing an international workshop

Emerging Infectious Diseases of Animals: Strategies in Surveillance, Control and Eradication

28–30 September 2016 - Budapest, Hungary

Recommendations & Conclusions

Recommendations

A comprehensive discussion on all aspects of emerging diseases led to some important observations and conclusions:

1. General preparedness

1.1 Harmonisation of the general approach to biosecurity worldwide to ensure the „One Health” concept.

It is emphasized that (worldwide) disease surveillance is resource demanding. Nevertheless, this holistic approach is regarded as necessary and worth the investment with respect to globalisation (increase in movement of humans, animals and animal products) and climate changes (introduction of new vectors in specific areas).

- Benefit-Risk analysis (costs for surveillance compared to the potential impact of emerging diseases on food safety/security and the concerned economy) may help justify the use of existing (and additional) resources.
 - Specific approaches to be added due to species, husbandry conditions, specific other conditions
 - Training of all stakeholders as listed below is necessary. The willingness of farmers, producers, hunters and fishers to contribute to the general surveillance and preparedness needs to be enhanced.
 - Authorities (National and local)
 - Farmers (including „hobby” and specialised farms)
 - Consumers/public
 - Hunters
 - Sport fishers

1.2 Diagnostic laboratories

- Need to be in place with established, rapid, and validated techniques and methods
- Reference laboratories should provide validated diagnostic techniques and networks for broader reporting
- Obligatory reporting to competent authorities is essential

Harmonised surveillance programme with quick and transparent communication on incidences and trends worldwide, including harmonised interpretation of results is necessary.

1.3 Proper response strategies should be in place when outbreaks occur.

Legislation should be in place, which allows quick licensing of vaccines (and diagnostic tests, where applicable). The current case-by-case decision as performed in the EU is not completely conducive to early vaccine development decisions and will delay vaccine/diagnostic test availability in some cases. Acceptance of innovative approaches should be increased: e.g. GMO based vaccines.

Stockpiling of vaccines against certain diseases should be increased. Currently, nearly no vaccine storage occurs, except FMD. An increase of vaccine stocks against a number of diseases is regarded as necessary. These stocks should be accessible not only nationally but more broadly.

2. Specific reactions to outbreaks

It is emphasized again that speed and transparency are regarded as key items for optimized reactions.

- Quick evaluation of disease organisms, including epidemiological understanding of disease origin, spread, and consequence.
- Quick evaluation of control objectives/strategy (including the potential use of vaccines/diagnostic tools in control programs).
- Quick evaluation of antigens (if vaccines will be used). Modern diagnostics can be of help.
- Quick communication among all stakeholders.
- Quick production and licensing of vaccines (if part of control strategy).
- Quick decision on disease mitigation:
 - Degree of stamping out and the use of sentinel herds/flocks
 - Vaccination strategy on DIVA basis including exit strategy
- Acceptance that, in some cases, DIVA-compatible vaccines may take too long to develop and that non-DIVA compatible vaccines may be the best “first-response” in disease control programs.

3. Follow-up measures

Upgrade of biosecurity measures.

Decision on reorganisation of farms.

Decrease of density of farms and where necessary wildlife in jeopardized regions

Decisions on restrictions of trade after outbreaks need to be more transparent.



Conclusions

- Regular update of classification of diseases as listed (OIE). The definition of additional emerging diseases needs to reflect the changed situation in a globalised world. Surveillance and control of newly identified notifiable diseases needs to be initiated preferably in a multinational context.
- One Health concept: the holistic approach is needed to consider changes in environment, wild life and climate; in addition to human and veterinary medicine.
- Difficulties to foresee the spread of diseases due to the large variety of transmission routes including the global trade, vectors (humans, insects and wild animals) and fomites.
- Risk assessment is critical to animal disease management with specific attention to different husbandry conditions necessary to make best use of existing resources.
- High speed in all response steps to an outbreak is necessary: diagnosis, response activities and, where justified, vaccination. Early visibility regarding the acceptability of vaccination is important. The use of modern techniques in diagnostic and vaccine production should be increasingly supported to ensure quick availability of diagnostics and vaccines.
- Vaccination with licensed vaccines is preferred to the use of non-licensed preparations, to ensure the quality, safety and at least minimum efficacy of vaccines. Legislation which allows quick licensing in these situations must be in place.
- Transparent communication is needed on all levels. The current situation can be significantly improved by direct face-to-face communication.
- Animal owners and producer organisations need to be more fully involved in all aspects of emerging disease response. They have an important role in the use of biosecurity measurements to avoid and restrict outbreaks and repopulation of farms after outbreaks.
- The public must be informed in detail to avoid accidental spread of disease organisms and to ensure the cooperation of all potential vectors of disease spread (including farmers, producers, fishers, hunters, traders).
- Common standardized databases are lacking to ease communication between authorities (and stakeholders) as well as harmonised interpretations of results.
- Maximal effect of vaccination can be reached only in a comprehensive disease control and management approach, in line with response actions. Stockpiling of certain vaccines is regarded as useful.
- Legislation is not in all regions supporting the rapid development and licensing of vaccines, but licensed products (including fast track) are regarded to be the best in emergency cases.

- Diagnostics are critical, including proper reagents and standard controls. DIVA-based diagnostics to complement vaccine use are desired but not always practical (especially for immediate response needs). Diagnostics face unpredictable licensing situation in EU and adjacent geographic areas.
- Vaccination alone cannot end disease outbreaks. Sanitary actions must be in place as well. To ensure the cooperation of animal owners, the financial support for losses must be assured.

