

## CHAPTER 4.Y.

**OFFICIAL CONTROL MANAGEMENT OF**  
**OUTBREAKS OF LISTED AND EMERGING AND**  
**LISTED DISEASES**

## Article 4.Y.1.

**Introduction**

When a listed disease or emerging disease, including a zoonosis, occurs in a Member Country, Veterinary Services should implement a response control measures proportionate to the likely impact of the disease and as a result of a risk analysis, in order to minimise its spread and consequences and, if possible, eradicate it. These measures can vary from rapid response (e.g. to a new hazard-disease) and management of outbreaks, to long-term control (e.g. of an endemic disease) infection or infestation.

The purposes of this chapter is to provide recommendations to prepare, develop and implement official control programmes for plans in response to outbreaks occurrence outbreaks of listed and emerging or listed diseases, including zoonoses. It is not aimed at giving ready-made fit-for-all solutions, but rather at outlining principles to follow when combating animal diseases through organised control programmes plans. Although this chapter focuses primarily on listed and emerging diseases, the recommendations may also be used by the Veterinary Authorities for any notifiable diseases or diseases against which they have established official control programmes.

The Veterinary Authority should determine which diseases to establish official control programmes against and at which regulatory level, according to an evaluation of the actual or likely impact of the disease. Disease control programmes plans should be prepared in advance by the Veterinary Authority and Veterinary Services in close collaboration with the relevant stakeholders and other authorities, as appropriate ~~disposing of the necessary~~ regulatory, technical and financial tools.

Control plans ~~They~~ Official control programmes should be justified by rationales developed through risk analysis and considering taking into account animal health, public health, and socio-economic, animal welfare and environmental aspects. They should preferably be supported by relevant cost-benefit analysis when possible and should include the necessary regulatory, technical and financial tools.

Official control programmes Control plans should be developed with the aim of achieving defined measurable objectives, in response to a situation in which purely private action alone is not sufficient. Depending on the prevailing epidemiological, environmental and socio-economic situation, the goal may vary from the reduction of impact to the eradication of a given disease infection or infestation.

The general components of an official control programme include:

- 1) a plan of the programme to control or eradicate the relevant disease in the country or zone;
- 2) regular and prompt animal disease reporting;
- 3) surveillance of the relevant disease in accordance with Chapter 1.4.;
- 4) rapid detection of, and response to, the relevant disease, to reduce the incidence and to eliminate transmission;
- 5) measures implemented to prevent introduction or spread of the relevant disease, including biosecurity and movement control;
- 6) vaccination programme as relevant;
- 7) preparedness and contingency plans;

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## 8) communication and collaboration with other relevant *Competent Authorities*.

In any case, the critical components of control plans for management of outbreaks for diseases that are not present in the Member Country are measures to prevent the introduction, an early detection warning system (including a warning procedure), and rapid response and quick and effective action, possibly followed by long-term measures. Plans should always include an exit strategy.

Learning from past *outbreaks*, and reviewing the response sequence and revising the methods are critical for adaptation to evolving epidemiological situations circumstances and for better performance in future situations. Experiences of the *Veterinary Services* of other Member Countries may also provide useful lessons. Plans should be tested regularly to ensure that they are fit-for-purpose, practical, feasible and well-understood and that field staff are trained and other stakeholders are fully aware of their respective roles and responsibilities in implementing the response. This is especially important for diseases that are not present in the Member Country.

### Article 4.Y.2.

#### Legal framework and regulatory environment

- 1) In order to be able to effectively control *listed diseases and emerging diseases and listed diseases*, the *Veterinary Authority* should ensure that:
  - the *Veterinary Services* comply with the principles of Chapter 3.1., especially the services dealing with the prevention and control of contagious infectious transmissible animal diseases, including zoonoses;
  - the *veterinary legislation* complies with the principles of Chapter 3.4.
- 2) In particular, in order for the *Veterinary Services* to be the most effective when combatting animal disease outbreaks, the following should be addressed in the *veterinary legislation or other relevant legal framework*:
  - legal powers and structure of command and responsibilities, including responsible officials with defined powers authority; especially a right of entry to *establishments* or other related enterprises such as live animal markets, *slaughterhouses/abattoirs* and animal products processing plants, for regulated purposes of *surveillance* and disease control actions, with the possibility of obliging owners to assist;
  - sources of financing for dedicated supporting staff;

Comment: AU proposes to change “dedicated supporting staff” to “additional supporting staff”

Rationale: The section seeks to indicate a sense that “the staff” are not the regular staff of the establishment but are only brought in to deal with an emergency. The word “dedicated” does not seem to express this sense appropriately hence the need to change “dedicated staff” to “additional staff”.

  - sources of financing for epidemiological enquiries, laboratory diagnostic, disinfectants, insecticides, vaccines and other critical supplies;
  - sources of financing and compensation policy for livestock commodities and property that may be destroyed as part of disease control programmes, or for direct losses incurred due to movement restrictions imposed by the control programme;
  - coordination with other authorities, especially law enforcement and public health authorities.
- 3) Furthermore, the specific regulations, policies, or guidance on disease control activities policies should include the following:
  - *risk analysis* to identify assess and prioritise potential disease risks, including a regularly updated list of *notifiable diseases*;
  - definitions and procedures for the reporting and management of a suspected case, or confirmed case, of an listed disease or an emerging disease or a listed disease;
  - procedures for the management of infected establishments, directly or indirectly affected by the disease infected establishment, contact establishment;
  - procedures for epidemiological investigations of outbreaks including tracing of animals and animal products;

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- definitions and procedures for the declaration and management of *infected zones* and other *zones*, such as *free zones*, *protection zones*, *containment zones*, or less specific ones such as *zones of intensified surveillance*;
- procedures for the collection, transport and testing of animal samples;
- procedures for animal identification and the management of animal identification systems~~the identification of animals~~;
- procedures for the restrictions of movements, including possible standstill or compulsory veterinary certification, of relevant *animals*, ~~and~~ animal products and fomites within, to, or from given *zones* or *establishments* or other related enterprises;
- procedures for the destruction or *slaughter* and safe disposal or processing of infected or potentially infected *animals*, including relevant *wildlife*; ~~and~~
- = procedures for the destruction and safe disposal or processing of contaminated or potentially contaminated animal products and other materials such as fodder, bedding and litter;
- = procedures for cleaning, disinfection and disinsection of establishments and related premises, vehicles/vessels or equipment;
- procedures for compensation for the owners of *animals* or animal products, including defined standards and means of implementing such a compensation;
- ~~procedures for cleaning, disinfection and disinsection of establishments and related premises, vehicles or equipment~~;
- procedures for the compulsory emergency implementation of vaccination programmes or treatment of *animals*, as relevant, and for any other necessary disease control actions;
- = procedures for post-control surveillance and possible gaining or recovery of status, as relevant.

## Article 4.Y.3.

Emergency Preparedness

In case of occurrence of a disease that was not present in the country or zone, or of sudden increase of incidence of a disease that is present, Rapid and effective response to a new occurrence or emergence of contagious infectious diseases is dependent on the level of preparedness. The *Veterinary Authority* should integrate preparedness planning and practice within the official control programmes against these diseases as one of its core functions. ~~Rapid, effective response to a new occurrence or emergence of contagious diseases is dependent on the level of preparedness.~~

Preparedness should be ~~justified~~ supported by *risk analysis*, should be planned in advance, and should include ~~training~~, capacity building and simulation exercises.

1. Risk analysis

*Risk analysis*, including import *risk analysis*, in accordance with Chapter 2.1., should be used to determine ~~which a list of~~ notifiable diseases that require preparedness planning and to what extent.

A *risk analysis* identifies the pathogenic agents that present the greatest *risk* and for which preparedness is most important and therefore helps to prioritise the range of disease threats and categorise the consequent actions. It also helps to define the best strategies and control options.

The *risk analysis* should be reviewed updated regularly to detect changes (e.g. new pathogenic agents, or changes in distribution and virulence of pathogenic agents previously identified as presenting the major *risk* and changes in possible pathways) and be updated accordingly, taking into account the latest scientific findings.

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### 2. Planning

Four kinds of plans, describing what governmental or local authorities and all stakeholders should do, comprise any comprehensive preparedness and response system:

- a) a preparedness plan, which outlines what should be done before an *outbreak* of a *notifiable disease* or an *emerging disease* or a *notifiable disease* occurs;
- b) a response or contingency plan, which details what should be done in the event of an occurrence of a *notifiable disease* or an *emerging disease* or *notifiable disease*, beginning from the point when a suspected case is reported;
- c) a comprehensive set of instructions for field staff and other stakeholders on how to undertake specific tasks required by the response or contingency plan;
- d) a recovery plan for the safe restoration of normal activities, including food supply, possibly including procedures and practices modified in light of the experience gained during the management of the *outbreak notifiable disease* or the *emerging disease*.

### 3. Simulation exercises

The *Veterinary Services* and all stakeholders should be made aware of the sequence of measures to be taken in the framework of a contingency plan through the organisation of simulation exercises, mobilising a sufficient number of staff and stakeholders to evaluate the level of preparedness and fill possible gaps in the plan or in staff capacity. Simulation exercises may be organised between the *Veterinary Services* of neighbouring countries and other relevant agencies.

Article 4.Y.4.

### Surveillance and early warning detection systems

- 4) Depending on the priorities identified by the *Veterinary Authority*, *Veterinary Services* should implement adequate *surveillance* for *listed diseases* in accordance with Chapter 1.4. ~~or and *listed* disease-specific chapters, in order to detect suspected cases and either rule them out or confirm them. The *surveillance* should be adapted to the epidemiological and environmental situation. Early warning systems are an integral component of emergency preparedness. They should be in place for *diseases infections or infestations* for which a rapid response is desired, and should comply with the relevant articles of Chapter 1.4. When used, *Vector surveillance* should be conducted in accordance with Chapter 1.5.~~

~~All suspected case investigations should provide a result, either positive or negative. Criteria should be established in advance for a case definition. Confirmation can be made on clinical and post-mortem grounds, epidemiological information, laboratory test results or a combination of these, in accordance with relevant articles of the *Terrestrial Code* or *Terrestrial Manual*. Strong suspicion based on supportive, but not definitive, findings should lead to at least the implementation of local control measures as a precaution. When Once a case is confirmed, full *sanitary measures* should be implemented as planned.~~

- 2) In order to implement adequate *surveillance*, the *Veterinary Authority* should have access to good diagnostic capacity. This means that the *veterinarians* and other relevant personnel of the *Veterinary Services* have adequate knowledge of the *disease*, its clinical and pathological manifestation and its epidemiology, and that laboratories approved for the testing of animal samples for the relevant *diseases* are available.
- 3) Suspected cases of *notifiable diseases* should be reported without delay to the *Veterinary Authority*, ideally with the following information:
  - the *disease* or pathogenic agent suspected, with brief descriptions of clinical signs or lesions observed, or laboratory test results as relevant;
  - the date when the signs were first noticed at the initial site and any subsequent sites;

- the names and addresses or geographical locations of suspected infected ~~establishments~~ or premises;

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- the animal species affected, including possible human cases, and the approximate numbers of sick and dead ~~animals~~;
  - initial actions taken, including ~~biosecurity~~ and precautionary movement restrictions of ~~animals~~, products, staff, vehicles and equipment;
- 4) Immediately following the report of a suspected case, investigation should be conducted by the ~~Veterinary Services~~, taking into account the following:
- ~~biosecurity~~ to be observed when entering and leaving the ~~establishment~~, premises or locality;
  - clinical examinations to be undertaken (number and types of ~~animals~~);
  - samples to be taken from ~~animals~~ showing signs or not (number and types of ~~animals~~), with specified sampling and sample handling equipment and sample handling procedures, including for the safety of the investigator and animal owners;
  - procedure for submitting samples for testing;
  - size of the affected ~~establishment~~, premises or locality and possible entry pathways;
  - investigation of the approximate numbers of similar or possibly susceptible ~~animals~~ in the ~~establishment~~ and its surroundings;
  - details of any recent movements of possibly susceptible ~~animals~~ or ~~vehicles~~ or people to or from the affected ~~establishments~~, premises or locality;
  - any other relevant epidemiological information, such as presence of the suspected ~~disease~~ in ~~wildlife~~ or abnormal ~~vector~~ activity;

A procedure should be in place for reporting findings to the ~~Veterinary Authority~~ and for record-keeping.

- 5) All suspected case investigations should provide a result, either positive or negative. Criteria should be established in advance for a case definition. Confirmation can be made on clinical and post-mortem grounds, epidemiological information, laboratory test results or a combination of these, in accordance with relevant articles of the ~~Terrestrial Code~~ or ~~Terrestrial Manual~~. Strong suspicion based on supportive, but not definitive, findings should lead to the implementation of local control measures as a precaution. When a case is confirmed, full ~~sanitary measures~~ should be implemented as planned.
- 6) When a case of a ~~listed disease~~ is detected, ~~notification~~ shall be made to the OIE in accordance with Chapter 4.1.

Article 4.Y.5.

General considerations ~~when managing an~~ for outbreak management

Upon confirmation of ~~Once an outbreak of a notifiable disease or an emerging disease or a notifiable disease that is subject to an official control programme is confirmed~~ effective risk management depends on the application of a combination of measures that are operating at the same time or consecutively, aimed at:

- 1) epidemiological investigation to trace back and forward animals in contact and potentially infected or contaminated products;
- 2) eliminating the source of pathogenic agent, through:
  - the ~~killing~~ or ~~slaughter~~ of ~~animals~~ infected or suspected of being infected, as appropriate, and safe disposal of dead ~~animals~~ and potentially contaminated products;

- the cleaning, *disinfection* and, if relevant, disinsection of premises and equipment;

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**23)** stopping the spread of *infection*, through:

- movement restrictions on *animals*, commodities, vehicles, and equipment and people, as appropriate;
- *biosecurity*;
- *vaccination*, treatment or culling of *animals* at risk;
- control of vectors;
- communication and public awareness.

Different strategies may be chosen depending on the expected outcome of the programme (i.e. eradication, containment or partial control) and the epidemiological, environmental, economic and social situation. The *Veterinary Authority* should assess the situation beforehand and at the time of the *outbreak* detection. For example, the wider the spread of the disease and the more locations affected at the beginning of the implementation of the measures, the less likely it will be that culling as a main eradication tool will be effective, and the more likely it will be that other control tools such as *vaccination* or treatment, either in conjunction with culling or alone, will be needed. The involvement of *vectors* or *wildlife* will also have a major influence on the control strategy and different options chosen. The strategies chosen will, in turn, influence the final objective of the control programme.

In any case, the management plan should consider the costs of the measures in relation to the benefits expected, and should at least integrate the compensation of owners for losses incurred by the measures, as described in regulations, policies or guidance.

In case of highly contagious transmissible or high impact disease events, the management plan should be closely coordinated through an inter-sectoral mechanism such as an incident command system.

#### Article 4.Y.6.

#### Culling of animals and disposal of dead animals and animal products other commodities

Living infected *animals* ~~can be~~ are the greatest source of pathogenic agents. These *animals* may directly transmit the pathogenic agent to other *animals*, ~~They may~~ and also ~~cause~~ ~~lead to~~ indirect infection transmission of pathogenic agents through live organisms (vectors, people) or through the contamination of fomites, including breeding and handling equipment, bedding, feed, vehicles, and people's clothing and footwear, or the contamination of the environment. Although carcasses may remain contaminated for a period after death, active shedding of the pathogenic agent ~~effectively~~ ceases when the *animal* is killed or slaughtered. Thus, culling of *animals* is often ~~a~~ the preferred strategy for the control of contagious transmissible diseases.

*Veterinary Services* should adapt any strategy for culling of animals, killing or disposal of dead animals and their products other commodities strategy to the transmission pathways of the pathogenic agent. A stamping-out policy is ~~should be~~ the preferred strategy for highly contagious transmissible diseases and for situations where the country or zone was ~~formerly~~ previously free or freedom was impending, while other strategies, such as test and cull, are better suited to less contagious transmissible diseases and situations where the disease is endemic.

For control measures, including destruction of *animals* or products, to be most effective, *animal identification* and *animal traceability* should be in place, in accordance with Chapters 4.1. and 4.2.

The *slaughter* or *killing* of *animals* should be performed in accordance with Chapter 7.5. or Chapter 7.6., respectively.

The disposal of dead *animals* and their potentially contaminated products should be performed in accordance with Chapter 4.12.

## 1. Stamping-out policy

A stamping-out policy consists primarily in ~~of~~ the killing of all the animals affected infected or suspected of being ~~affected infected~~, including those which that have been directly or indirectly exposed to the causal pathogenic agent. This strategy is used for the most contagious transmissible diseases.

A stamping-out policy can be limited to the affected establishments and, where appropriate, other establishments found to be epidemiologically linked with an affected establishment, or be broadened to include all establishments of a defined zone, when pre-emptive depopulation can be used to stop the transmission of a fast spreading pathogenic agent.

A stamping-out policy can be applied to all the animal species present on an affected establishment, or to all susceptible species, or only to the same species as the infected animals, based on the assessment of associated risks.

Depopulation and carcass disposal can be applied to wildlife within a defined zone, based on the assessment of associated risks.

Killing should preferably be performed on site, and the carcasses either disposed of on site or transported directly and safely to a rendering plant or other dedicated site for destruction. If to be killed outside of the establishment or slaughtered, the animals should be transported directly to a dedicated approved rendering plant or slaughterhouse/abattoir respectively, without any possible direct or indirect contacts with other animals. Slaughtered animals and their products should be processed separately from others.

~~Stamping-out can be applied to all the animal species present on affected premises, or to all susceptible species, or only to the same species as the affected animals.~~

Products originating from killed or slaughtered animals, (ranging from carcasses, meat, milk, eggs or genetic material to hair, wool, feathers or manure, slurry) should be destroyed or processed in a way that inactivates the pathogenic agent. The inactivating process should be carried out in accordance with the relevant articles of the listed disease-specific chapters.

Stamping-out policy procedures systematically include the cleaning and disinfection of establishments and vehicles/vessels used for the transport of animals, carcasses or products, as well as of any equipment and material that has been in direct or indirect contact with the animals. The procedures may include disinsection or disinfestation in the case of vector-borne disease or parasitic infestation. These procedures should be conducted in accordance with the relevant articles of Chapter 4.13.

## 2. Test and cull

This strategy consists primarily of finding the ~~proven~~ infected animals in order to remove them from the population and either slaughter or kill and dispose of them. ~~This strategy is~~ It should be used for less contagious transmissible or slow-spreading diseases. Veterinary Services may apply different test and cull strategies based on the epidemiology of the infection or infestation or on the characteristics of available diagnostic tests. In particular, the design of test and cull strategy will depend on the sensitivity and specificity of the tests. Veterinary Services may adjust test and cull strategies to the changes of the prevalence.

Apart from the selection of animals to be culled, the same principles apply as for stamping-out policy in terms of processing, treatment and disposal of dead or slaughtered animals and their products.

Article 4.Y.7.

### **Movement control**

Disease spread due to the movement of live animals, animal products and contaminated material should be controlled by movement restrictions that are adequately enforced.

These restrictions can be applied to one or more animal species and their associated products, and to people, vehicles/vessels and equipment. They may vary from pre-movement certification to total standstill, and be limited to one or more establishments, or cover specific zones, or the entire country. The restrictions can include the complete isolation of individual animals or group of animals, and specific rules applied to movements, such as protection from vectors.

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Specific rules covering movement controls should apply to each of any defined *zones*. Physical barriers ~~should~~ may be installed as needed, to ensure the effective application of movement restrictions.

Movement controls should be in place until the end of other disease control operations, ~~e.g. such as a stamping-out policy~~, and after surveillance and a revised risk assessment has ~~have~~ demonstrated they are no longer needed.

*Veterinary Services* should coordinate their movement control actions with other relevant authorities such as local authorities, and law enforcement agencies, and with communication media, as well as with the Veterinary Services of neighbouring countries in the case of transboundary animal diseases.

Article 4.Y.8.

### **Biosecurity**

In order to avoid the spread of the pathogenic agent outside of the affected *establishments* or *infected zones*, and in addition to the management measures described in Articles 4.Y.5. to 4.Y.7., *biosecurity* should be applied, in particular measures to avoid the contamination of people's clothes and shoes, of equipment, of vehicles/vessels, ~~and~~ of the environment or anything capable of acting as a fomite.

Disinfection and disinsection should be applied in accordance with Chapter 4.13. When disinfection is applied, specific disinfectant solutions should be used for footbaths or disinfectant baths for vehicles' wheels. Single use material and clothes or material and clothes that can be effectively cleaned and disinfected should be used for the handling of *animals* and animal products. Protection of premises from wildlife and other unwanted animals should be ensured. Wastes, waste-water and other effluents should be collected and treated appropriately.

Article 4.Y.9.

### **Vaccination and treatment**

Vaccination as part of an official control programme ~~in response to a contagious disease outbreak~~ should be conducted in accordance with Chapter 4.17.

Vaccination programmes, especially in response to an *outbreak*, requires previous planning to identify potential sources of vaccine, including vaccine banks, and to plan the possible strategies for application, such as emergency barrier, blanket, vaccination or ring or targeted vaccination.

The properties of the vaccines should be well understood, especially the level of protection against *infection* or disease and the possibility to differentiate the immune response produced by the vaccine from that ~~produced~~ induced by *infection* with the pathogenic agent.

Although *vaccination* may hide ongoing *infection* or agent transmission, it can be used to decrease the shedding of the pathogenic agent, hence reduce the reproductive rate of the *infection*. In particular, when stamping-out is not feasible, *vaccination* can be used to reduce the circulation prevalence of the *infection* until its levels are is low enough for the implementation of another strategies such as a test and cull strategy.

Vaccination can also be used to minimise the impact of an infection by reducing clinical signs or economic losses.

Whenever *vaccination* is to be used as a tool to control *outbreaks* or spread of disease, the control plan should ~~include~~ consider an exit strategy, i.e. when and how to stop the *vaccination* or whether *vaccination* should become systematic routine.

Article 4.Y.10.

### **Zoning**

The *Veterinary Authority* should use the tool of zoning in official control programmes, in accordance with Chapter 4.3.

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The use of zoning for disease control and eradication is inherently linked with measures of *killing or slaughter*, movement control, *vaccination* and *surveillance*, which apply differently according to the *zones*. In particular, efforts should be concentrated on those parts of a territory affected by the disease, to prevent the spread of the pathogenic agent and to preserve the status of the parts of the territory not affected by the disease.

~~Zones established defined in response to outbreaks of notifiable diseases or emerging diseases or listed diseases may be~~ are usually infected zones, containment zones and protection zones, and containment zones. However, or other types of zones, e.g. such as zones of intensified surveillance, or zones of intensified vaccination can also be used.

## Article 4.Y.11.

**Communication ~~in outbreak management~~**

For the best implementation of disease control measures, *Veterinary Services* should ensure good communication with all concerned stakeholders, including the general public. This should be part of the official control programme and be carried out, among others, through awareness campaigns targeted at breeders, *veterinarians*, *veterinary paraprofessionals*, local authorities, the media, consumers and general public.

*Veterinary Services* should communicate before, during and after *outbreaks*, in accordance with Chapter 3.3.

## Article 4.Y.12.

**Specific post-control surveillance**

Specific *surveillance* should be applied in order to monitor the effectiveness of the official control programme plan, and assess the status of the remaining *animal populations* in the different *zones* established by the *Veterinary Services*.

The results of this *surveillance* should be used to reassess the measures applied, including reshaping of the *zones* and re-evaluation of the culling or *vaccination* strategies, and for the eventual recovery of free status, if possible.

This *surveillance* should be conducted in accordance with Chapter 1.4. and with the relevant articles of the listed disease-specific chapters.

## Article 4.Y.13.

**Further outbreak investigation, monitoring, evaluation and review**

In order to gather information required for any management information system, *Veterinary Services* should conduct an in-depth epidemiological investigation of each *outbreak* to build up a detailed first-hand, field-based knowledge of how the disease is transmitted, and inform further disease control plans. This requires staff who have been trained in the way to conduct it and the use of the standardised data collection forms.

Information gathered and experience gained should be used to monitor, evaluate and review ~~disease~~ official control programmes plans.