



Organisation  
Mondiale  
de la Santé  
Animale

World  
Organisation  
for Animal  
Health

Organización  
Mundial  
de Sanidad  
Animal

Regional cooperation towards eradicating the  
oldest known zoonotic disease in Europe  
Antalya, Turkey 4 -5 December 2008

## OIE international standards on Rabies:



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# Outline of the presentation

1. OIE standards and disease control policy
2. OIE standards on rabies (trade)
3. OIE standards on rabies (animal welfare)
4. Overview on the Conference  
“Towards the elimination of rabies in Eurasia”

# Evolution of OIE approach to animal disease control policies

- Realised need to enable developing/in-transition countries to apply standards for disease control
- Change from limited international movement to fast and diverse global pathways/travel
- Need for new approach to disease risk mitigation
- Change from focus on only trade standards to standards and promotion of the capacity to control animal diseases and zoonosis worldwide



OIE Headquarters, Paris

# OIE disease control and disease eradication policy

## Generic aspects

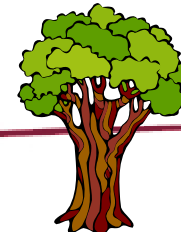
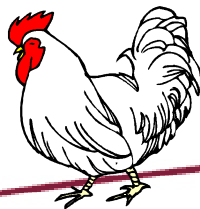
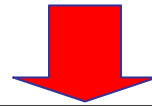
- Use standardized **definitions** and concepts – promote harmonization and equivalence
- Surveillance – to know what is the status quo
- **Transparency in notification** (humans, domestic and wild animals)
- Application of **minimum standards** for diagnostic techniques, vaccines that meet OIE and/or WHO criteria
- **Scientifically based criteria** for disease control programs and (national) legislation
- Application of **ethical principles** in trade and animal disease control
- Zoning/compartmentalization where appropriate
- Import risk analysis and evaluation of veterinary services
- Protect human health through control of disease/zoonosis in animals

# The linkage between OIE Codes and Manuals, animal disease policy and the SPS Agreement

*Codes and Manuals must be used in context with Codex and SPS Agreement*



**International standard setting organizations**



**Oie**

# OIE standards and rabies



## Main considerations :

- In large parts of the world dogs are the main source of human infection -> focus on dogs & cats
- Endemic or sporadic rabies in wildlife or stray animals can easily spill over to domestic animals and humans
- Immunization is the method of choice for controlling or eliminating the disease
- International Standards for diagnosis of rabies are approved by OIE and WHO
- Provisions for minimum requirements for Veterinary Services

# OIE *Terrestrial Code* and rabies

- Distinction and definition of „rabies free“ and „rabies infected“ countries
- Provisions for safe trade in animals for both categories (free and infected)
- Species specific provisions where appropriate and supported by scientific evidence
- Addressing trade in wildlife animals according captive or non captive
- Animal welfare (draft)

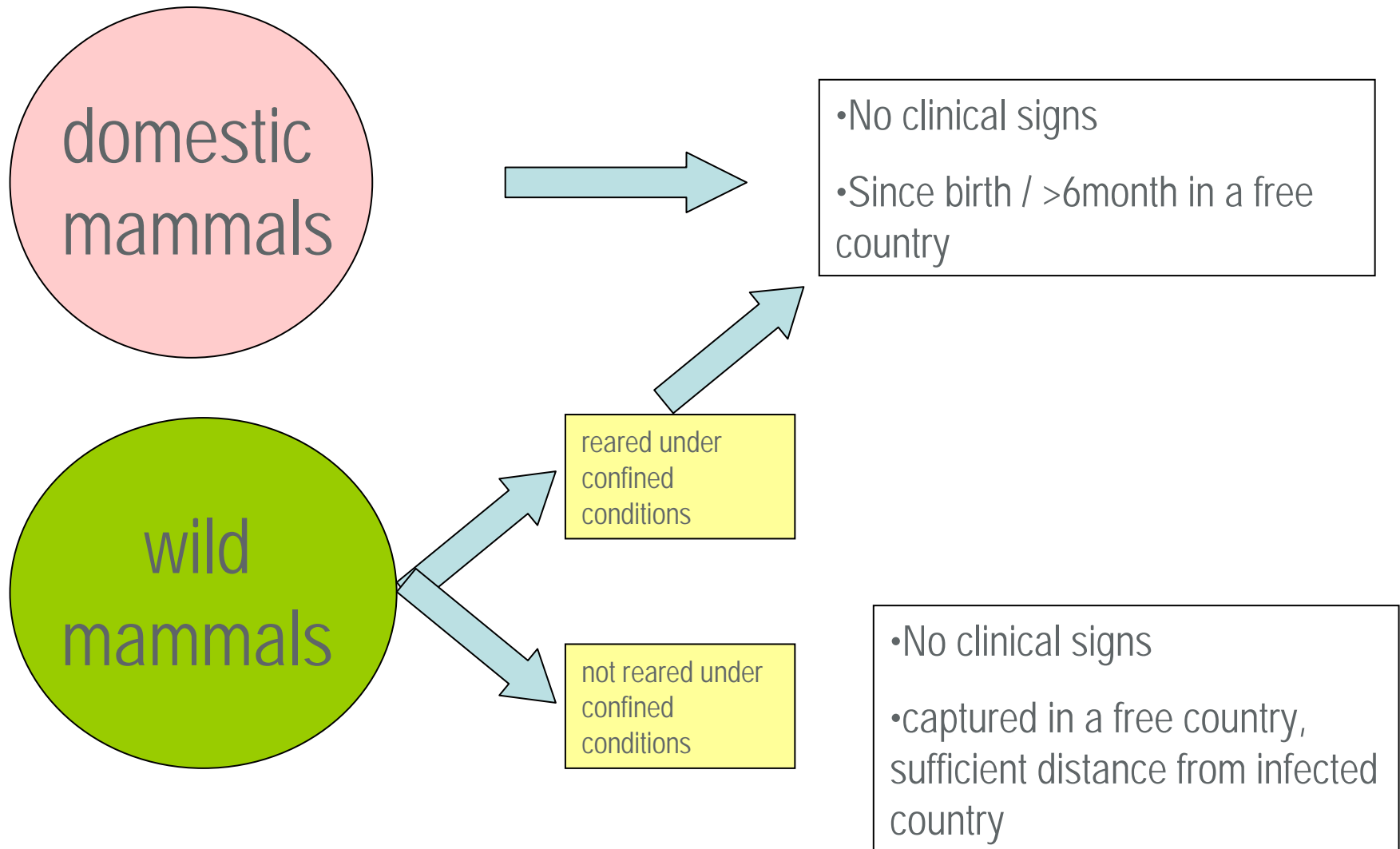


# Provisions for rabies free countries

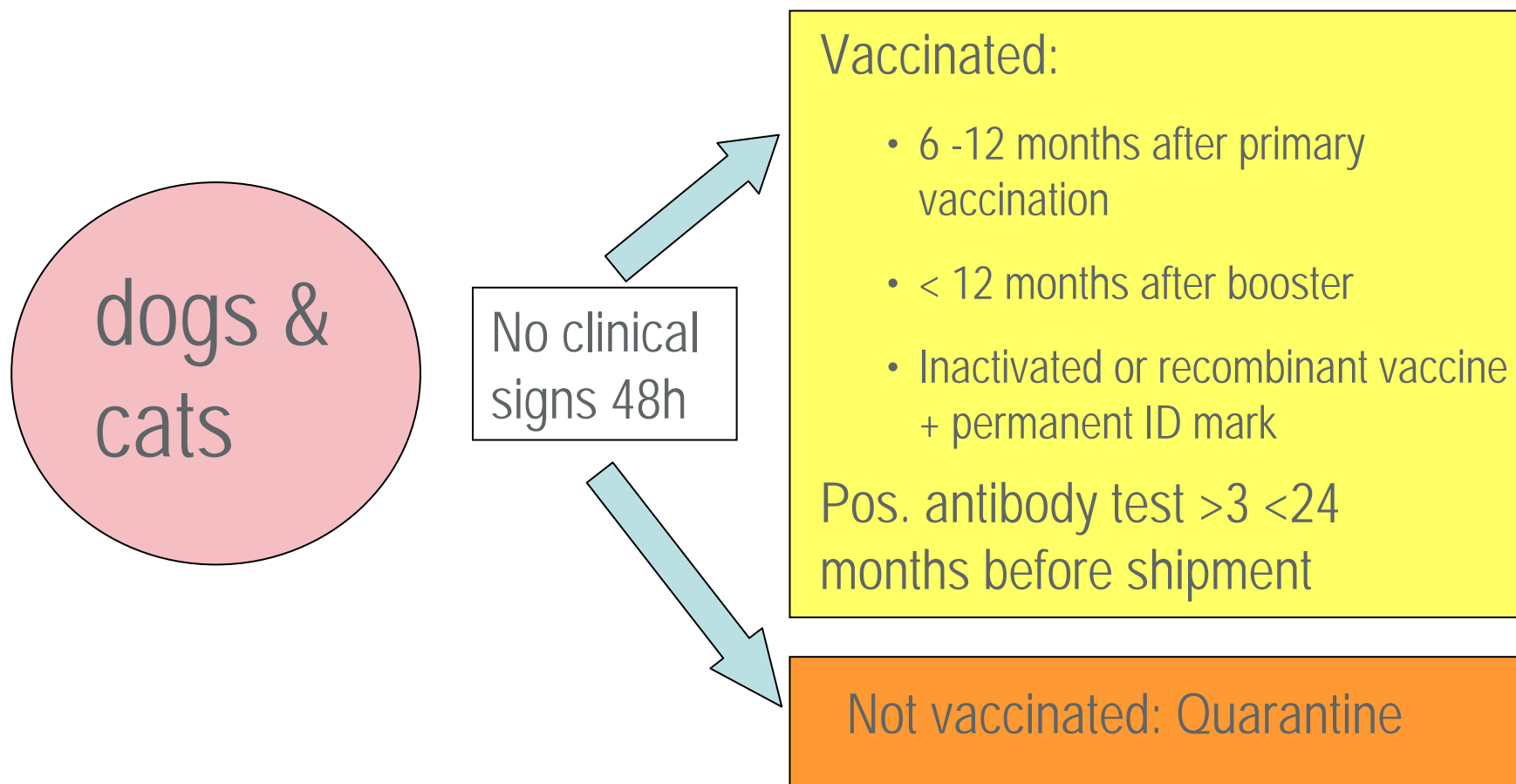
## A country may be considered free from rabies when:

- the disease is **notifiable**;
- an effective system of disease **surveillance** is in operation;
- all **regulatory measures** for the prevention and control of rabies have been **implemented** including effective importation procedures;
- **No case of indigenously** acquired rabies infection has been confirmed in man or any animal species during the **past 2 years**; however, this status would not be affected by the isolation of an Australian or European Bat Lyssavirus;
- **no imported case** in carnivores has been confirmed outside a quarantine station for the past 6 months.

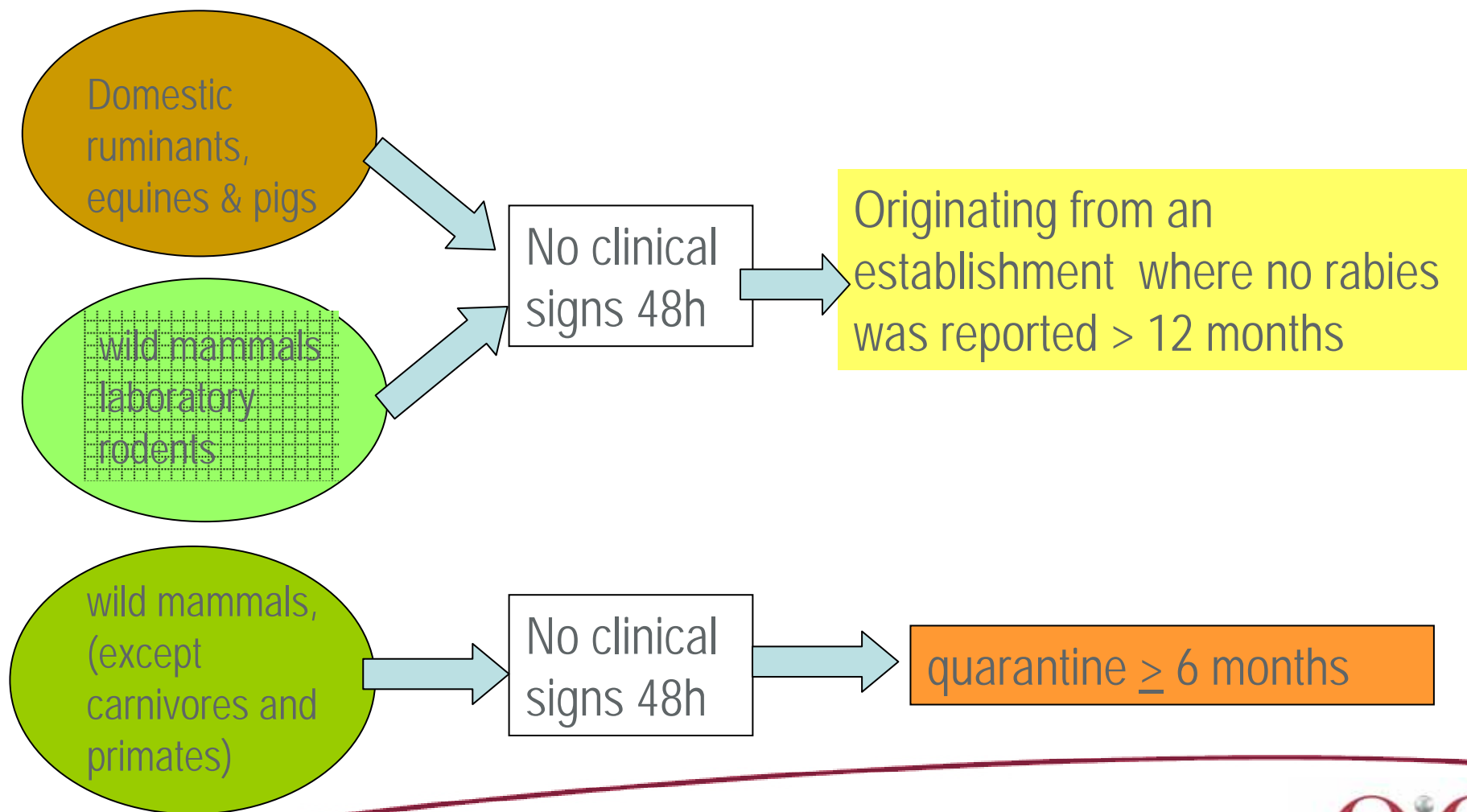
# Provisions for trade with a Rabies free country



# Provisions for trade with a Rabies infected country I



# Provisions for trade with a Rabies infected country II



# Draft provisions on stray dog population control & animal welfare (currently out for consultation)

- Definition of stray dogs
- Objectives of dog population control
- Control measures for dog populations
- Methods for the Euthanasia of dogs (humane killing)
- Monitoring of dog population evolution and control programmes



# International trade of domestic carnivores

## Role of diagnostic laboratories

should comply with the OIE **general provisions** of the *Manual of Diagnostic Tests and Vaccines*, especially:

- Chapter 1.1.2 on biocontainment and biosafety regulations
- Chapter 1.1.3 on quality management in veterinary testing laboratories

use one of the techniques approved and described in the OIE *Manual of Diagnostic Tests and Vaccines*:

- Virus Neutralisation tests: FAVN or RFFIT
- Indirect ELISA

## Role of pet owners

- Compliance with vaccination schemes (as provided by the manufacturer)
- Legal animal movement

# OIE recommended diagnostic tests

- Identification of the agent

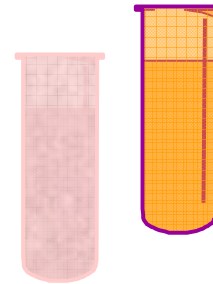
*Epidemiological surveys, confirmation of rabies cases*

- **FAT** (gold standard for diagnosis)
  - Problems if specimen not fresh
  - sensitivity may be reduced with related-rabies viruses
- Virus inoculation: Cell culture or mouse test
- PCR
- ELISA
- Histology

- Serology

*Determine response to vaccination*

- **FAVN**
- **RFFIT**
- **Indirect ELISA**
  - esp. for individual samples of dogs & cats
  - no handling of live virus
  - Doubtful results need confirmation by VN test



*Prescribed tests for international trade!*

# Rabies Vaccine and Vaccination

## ➤ Parenteral administration

- Target population: **Domestic animals**
- Recombinant, modified live and inactivated virus vaccines
- Primary vaccination  $\geq$  3 months (e.g. for animal movement/trade), otherwise according the manufacturer's prescription
- Annual boosters
- Monitor vaccination coverage in the population



## ➤ Oral Vaccination

- Target population: **Stray or wild animals**
- Mainly administered as baits
- Efficacy and safety (target & non-target species)
- Modified live virus or recombinant vaccines (VRG and SAG2)
- Monitoring the impact of oral vaccination campaigns in the field?
- Currently, and contrary to international trades context, there is no harmonization of rabies serological controls to assess humoral response after oral vaccination campaigns

## In summary...

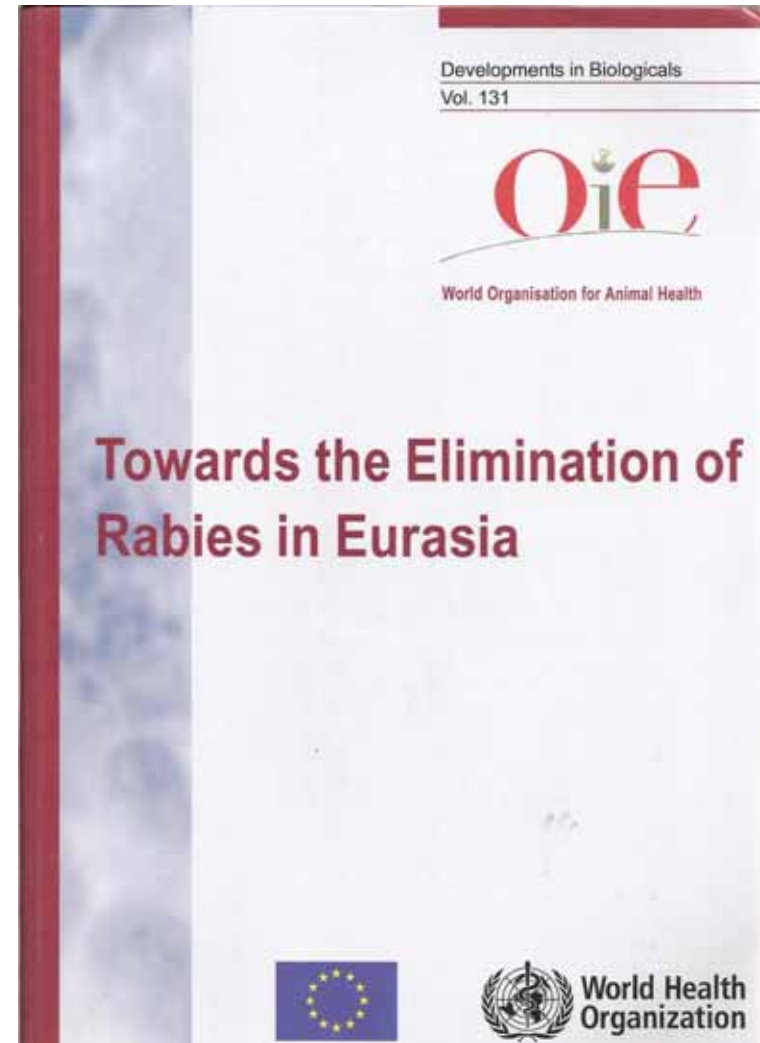


*application of the International Standards in general, also in the case of rabies as specified before, significantly contributes to:*

*An effective animal disease control policy which is directly related to the ability and capacity of a country to apply the policy*

*= good veterinary governance*

# Overview on the conference held at OIE in May 2007



# “Towards the elimination of rabies in Eurasia”

## May 2007

### Aim of the Conference

- => Seek answers to questions : how to proceed towards the eventual elimination of this zoonosis, in Eurasia and all over the globe?
  
- => Bring together veterinarians, scientists, wildlife experts, clinicians and public health officials :
  - to share their experience in modern **rabies control**,
  - to agree on the strategies for the **prevention and control of the disease in reservoir animal species**, and
  - to **examine the threat** posed by classical rabies virus and the emerging bat lyssaviruses

# The conference addressed the following topics:

## 1- Epidemiology

=> Up-to-date information: regional reports from Western Europe, Eastern Europe, Central Asia, Middle-East and Far East Asia

## 2- Pathogenesis

## 3- Rabies prevention and control strategies

=> in dogs, in wildlife, bat rabies, human rabies prevention

## 4- Advances in technologies, diagnosis and vaccines

# Conclusions

## Eurasia rabies conference



- Rabies is a major zoonotic disease which is under-reported (at human and animal level)
- Dogs are considered as the main reservoir as transmitter of rabies to humans
- The involvement of wildlife on all major continents, and the distribution and abundance of bats as reservoir hosts, ***rabies is not a candidate for true eradication at this time using a classical definition.***
- Nevertheless, **global collaboration**, expertise, leadership, technology transfer, vision, **good veterinary governance**, in compliance with international standards are needed
- Laboratory based surveillance, combined with active health education and enhanced public awareness, and the strategic utilization of potent inexpensive vaccines in animals is highest priority in preventing human deaths and are basic requirements for effective rabies prevention and control.
- Human rabies can be eradicated by eliminating exposures, proper timely application of modern post-exposure prophylaxis

# Recommendations of the Eurasia conference: Policy

- **Rabies** should be considered as a **priority** by all governments and financial cooperative institutions
- **Active contribution of VS** to the goal of **eliminating human rabies at the animal source** with the appropriate financial support (public budget/Ministries of Health)
- **Strengthening of Good governance of VS** , PVS evaluation => capacity and ability to control major animal diseases including zoonoses such as rabies.
- Design and implementation of comprehensive and sustainable **national programmes for rabies elimination**.
- **Harmonisation of control/ elimination programme strategies between neighbouring countries** until rabies has been eliminated.

# Recommendation of the Eurasia conference (cont)

## Surveillance

- **Public awareness and education on rabies** should be a priority and be increased through the exchange of information, experience and cooperation between medical, veterinary and environmental authorities.
- **Improvement of surveillance and reporting of rabies (including bat rabies).**  
=> maintain or establish an effective mechanism for collating, processing, analysing and disseminating rabies data => strong involvement of OIE Delegate
- **Rabies diagnostics:** use only the **techniques as specified by OIE and WHO.**
- OIE Reference Laboratories and WHO Collaborating Centres should work together on programs of **international harmonisation of laboratory methods for diagnosis and control of vaccines.**
- The exchange of experts, twinning and training programs should be encouraged to **improve diagnostic capability and vaccine quality** in laboratories throughout Eurasia.

# Recommendation of the Eurasia conference (cont)

## Vaccination

- **Oral and parenteral vaccinations are strongly recommended** particularly for wildlife and canine rabies control. **Massive depopulation of animals is not recommended.** Complementary approaches including animal birth control (ABC) for dogs should also be considered.
- **Rabies vaccines must adhere to OIE and WHO international quality, efficacy and safety guidelines.** Cost-efficiency must be considered.
- **Evaluation of vaccination campaigns in reservoir species** should be pursued to include rabies surveillance and post-vaccination monitoring.
- Rabies **prophylaxis in humans** should be undertaken as prescribed in currently available documents by the **WHO** (WHO Expert Consultation on Rabies, technical report series 931: 2005, [www.who.int](http://www.who.int)).

Thank you for your attention!

Questions ?

