Guidelines for Mass Dog Vaccination: Introduction

‘The most cost-effective strategy for preventing rabies in people is by eliminating rabies in dogs through vaccination’ (WHO, 2013).

Mass dog vaccination is the only method of rabies control consistently supported by leading organisations in the fight to control this preventable disease (FAO, 2008; GARC, n.d.; OIE, 2013; WHO, 2013).
How to use these guides
This set of guides was designed to provide a comprehensive resource for the planning and implementation of mass dog vaccination (MDV) programs for humane rabies control. These programs contain many components and steps and it is vital that good animal welfare is maintained throughout, which can be achieved through adhering to these guides. The guides include clear instructions on each step / component of a MDV program including: materials required, recommended personnel, risks and references. In addition to these guides, please refer to your National Rabies Elimination Plans and any local regulations for controlled drugs and animal handling.

Guides
1. Introduction
2. Preparation for Vaccination
3. Education and Messaging
4. Dog Capture and Handling
5. Vaccine Storage, Transport & Management
6. Vaccination Day
9. Euthanasia of Rabid or Suspect Rabid Dogs

Data collection sheets (Courtesy of Ministry of Agriculture, Republic of Indonesia; FAO)
A set of data collection and reporting sheets (all referenced in the guides) are also available. These can be used and customised to meet your needs.

Overview of Mass Dog Vaccination
Key points
- Dog culling MUST NOT be part of a rabies control program as it makes any vaccination program ineffective and causes needless suffering to dogs, and their owners.
- It is highly recommended that all staff involved in a rabies vaccination program receive a complete course of pre-exposure vaccinations.
- A strategy plan should be carefully developed and documented before the vaccination program begins.
- Staff should be trained in humane dog capture and handling, administering vaccinations and risk management in relation to rabies; and have a good knowledge of rabies and the program.
- At least 70% of the dog population must be vaccinated annually to achieve and maintain herd immunity in the dog population. (Although some dogs will receive vaccines that provide up to 3 years immunity, it is recommended that these dogs receive an annual booster).”
- All dogs seen during vaccination rounds should be vaccinated.
- Roaming / outdoor dogs and puppies (over 2 weeks old) are the highest priority for vaccination.
- Efficiency is essential: vaccination of an area needs to be completed in as short a time as possible, and must cover the whole area. Vaccination teams on motorbikes are recommended to achieve this.
- Vaccination coverage must be uniform across the target area.
- Vaccines meeting the criteria set by the OIE should be used (i.e. high quality inactivated vaccine providing at least one year immunity, using tissue culture not nerve culture) (OIE, 2015).
All dogs must be captured and handled humanely, according to the guidelines.

In between annual mass vaccination programmes, sweeping vaccination must still be carried out targeting dogs and puppies that have not been vaccinated.

Rabid and highly suspect rabid dogs should be euthanized, according to the guidelines. Low-medium suspect rabid dogs should be quarantined and observed to confirm rabies status where possible (where this is not possible, euthanasia should be performed).

The only reliable diagnosis of rabies is through laboratory tests (FAT is the gold standard test) (OIE, 2015). Where euthanasia is performed due to suspected rabies, and for all dogs found dead, the heads should be sent for laboratory confirmation.

Positive rabies cases indicates that emergency vaccination of the area is needed.

All vaccinations, surveys of vaccination coverage and cases of rabid and suspect rabid dogs need to be recorded and the data analysed and shared with appropriate program staff.

Mass Dog Vaccination programs are most effective when dog population management measures are in place.

**Overview of staff**

**Community Leader / Representative:**
- Consult on vaccination strategy
- Guide surveying of village / ward

**Program Coordinator:** To oversee the planning and implementation of the MDV program.

**Community Liaison Officer:** To communicate with local authorities and community members about the program.

**Vaccination Team:** For dog catching and handling, and administering vaccines.

**Vaccination Coordinator:** To coordinate vaccination teams and ensure all staff have completed the pre-exposure vaccinations.

**Survey Team:** To conduct post-vaccination survey of dog population.

**Survey Coordinator:** To coordinate survey teams.

**Rapid Response Team:** To respond to reports of suspect rabid dogs, including identification of suspect dogs and action.

**Monitoring and evaluation**

Monitoring and evaluation is an essential component of all MDV programs. Monitoring is a continuous review of project implementation that allows you to identify what is working well and what needs improving, so that changes can be made to maximize the efficiency and effectiveness of the program. It requires systematic and routine data collection. Evaluation is for assessing the impact a program – whether the objectives have been met. It uses data collected for monitoring and other data collected specifically for evaluation.

Indicators need to be identified and measured for both monitoring and evaluation. Process indicators record progress, and outcome indicators record the effectiveness of the project. For more information on monitoring and evaluation, see ‘Are we making a difference? A guide to monitoring and evaluating dog population management interventions’ (ICAM, 2015).
Overview of steps for planning and implementing a MDV program

**Preparation**
- Meet with community leader
- Decide on strategy
- Write plan
- Estimate number of dogs to vaccinate
- Recruit & train staff
- Prepare materials & equipment
- Inform community members

**Vaccination Day**
- Review plan with community leader
- Re-vaccinate if target not reached
- Record & report coverage
- Survey Team: Conduct post-vaccination survey to estimate coverage
- Record & report vaccinations
- Mark vaccinated dogs with collar or spray paint
- Vaccination Team:
  - Follow plan for covering village
  - Follow guides on ‘Dog Capture & Handling’ & ‘Vaccination’
- Identify any suspect rabid dogs - alert Rapid Response Team
Definitions

Village: For the purpose of these guides, village is used to represent the smallest administrative division (defined by the local authorities) (also known as wards, town).

Mobile vaccinations: Vaccination teams visit a village to carry out house-to-house vaccinations, and catch roaming/outdoor dogs for vaccination. Teams usually travel to the village on motorbikes and walk and/or use the bikes to move around the village.

Temporary fixed vaccination post: One or more vaccination teams are located at a temporary vaccination post in the target community for the day/s of the program. Dog owners/carers bring dogs to this post.

Roaming/outdoor dog: A dog that is not under direct control or is not restricted by a physical barrier. This includes owned dogs (dogs that have an owner or guardian) that are allowed to roam on public property all or part of the day, as well as unowned dogs. This term is often used interchangeably with ‘freeranging’, ‘freeroaming’ or ‘stray’ dog (ICAM, 2008).

Owned dog: A dog that someone states is their property or claims some right over – simply put, when enquiries are made about a dog someone will say: “That’s my dog”. This does not necessarily mean it is a responsibly owned dog. Indeed ownership can range from: ‘loose’ ownership in the form of irregular feeding of a dog that roams freely in the streets; to a dog kept as part of a commercial breeding facility; to a well-cared for, legally registered and confined pet. In reality, what constitutes dog ownership is highly variable and fits along a spectrum of confinement, provision of resources such as food and shelter and the significance of companionship (ICAM, 2008).

Community dog: A dog that has more than one individual (from different families) claiming to be their owner or carer (ICAM, 2008).

Dog carers: People who feed and know the dogs but may not claim to own the dog.

References


Additional resources


Publication

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