

THE VETERINARIANS: UNSUNG HEROES IN HUMAN HEALTH

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ABSTRACT

The tragic death of a young athlete from rabies following a seemingly minor dog bite underscores a critical public health issue stemming from unvaccinated stray dogs, public negligence, and a general lack of awareness. The collaborative One Health approach, which integrates human, animal, and environmental health strategies to combat rabies. This article highlights the pivotal, yet often under-recognized, role of veterinarians in controlling the canine rabies reservoir through mass vaccination drives and promoting public awareness. It also details key medical and public health strategies, including the free provision of vaccines, capacity building for healthcare workers, and enhanced surveillance. Further the significant occupational risks faced by veterinarians and outlines a multi-pronged government approach—via the National Action Plan for Rabies Elimination (NAPRE) and the Animal Birth Control (Dogs) Rules, 2023—and emphasizes the vital role of citizen participation in achieving rabies elimination.

KEYWORDS: Rabies, Veterinarians, one health, mass vaccination

INTRODUCTION

An alarming rise in rabies incidence has been recently observed, attributed to the proliferation of unvaccinated stray dogs, public negligence in seeking post-exposure prophylaxis, and a general lack of awareness regarding the disease's transmission and severity. This incident, involving the tragic death of a 22-year-old Kabaddi player from rabies following a seemingly minor puppy bite, highlights a critical public health issue. It underscores the urgent need for heightened public awareness and comprehensive vaccination strategies to effectively eliminate the disease.

ONE HEALTH

The One Health approach is a collaborative framework that recognizes the interconnectedness of human, animal, and environmental health, which may lead to better results than individual approaches. To illustrate, Goa Government adopted One Health program to eliminate human rabies deaths by using mobile dog vaccination teams

to reduce rabies in the canine population. Managers used a smartphone app to direct these teams to specific sub-village areas, ensuring high vaccination coverage for both free-roaming and owned dogs. Although veterinary medicine is often seen as subordinate to human medicine, veterinarians play a crucial, yet under-recognized, role in safeguarding public health by controlling and preventing zoonotic diseases at their animal source.

The efforts and work carried out by the veterinarians to eliminate rabies:

I. Controlling the rabies virus reservoir:

It is achieved through mass dog vaccination of both stray and owned dogs. Veterinarians are conducting free antirabies vaccination programme in every veterinary institutions and colleges. As per the Animal Birth Control (Dogs) Rules, 2023, local authorities are tasked with implementing a program that combines the sterilization of stray dogs with mass vaccinations. This approach is designed to both control the

population and mitigate the spread of zoonotic diseases.

AWARENESS AND COMMUNITY ENGAGEMENT

Campaigns are crucial for raising public awareness about rabies prevention, including proper first aid for animal bites and the importance of timely medical treatment. These initiatives use various IEC (information, education & communication) materials and training videos and are specifically targeted at vulnerable groups like school children, resident welfare associations, and transport workers. Veterinary doctors in Karnataka are conducting awareness campaigns in schools as part of the curriculum, educating students and the wider community about responsible dog ownership. These campaigns emphasize the importance of rabies prevention through vaccination and the necessity of timely post-bite wound management and treatment.

PROGRAM MANAGEMENT AND ADVOCACY

Veterinary professionals are instrumental in rabies control through both program management and advocacy. They provide essential technical expertise and support for program execution, while also training other professionals to enhance overall prevention and management efforts. Additionally, they advocate for effective public health strategies, such as the prohibition of inhumane dog control methods and the promotion of proven anti-rabies measures like mass vaccination campaigns.

Medical and public health strategies

I. Supply of vaccines and immune globulins

Under the National Free Drug Initiative of the National Health Mission (NHM), both the Anti-Rabies Vaccine (ARV) and Anti-Rabies Serum (ARS), or Rabies Immunoglobulin (RIG), are provided to the public free of charge at government health facilities.

II. Capacity building for health workers

Medical and paramedical professionals receive comprehensive training on evidence-based protocols for animal bite management, ensuring the proper administration of vaccines and adherence to established surveillance procedures.

III. Surveillance and Diagnostics

Enhanced surveillance is achieved through the collection of data on animal bites and rabies deaths from all states and union territories via the Integrated Health Information Platform (IHIP). Additionally, some states have designated human rabies as a notifiable disease to ensure systematic reporting. To support these efforts, diagnostic capacity is being strengthened through the enhancement of referral laboratories at both the national and state levels.

THE OCCUPATIONAL RISKS FOR VETERINARIANS

Veterinarians face several occupational risks for rabies exposure. They can contract the virus through an infected animal's saliva and other bodily fluids via pre-existing cuts, broken skin, or direct contact with mucous membranes. Additionally, needlestick injuries from instruments used on a rabid animal and exposure to other infected animals, such as livestock or wildlife, pose a risk of infection. Including inadequate use of personal protective equipment (PPE) due to discomfort and time constraints. They also confront difficulties with the misdiagnosis and underreporting of animal rabies cases, which is compounded by a lack of standardized laboratory testing and the reluctance of pet owners to allow post-mortem confirmation.

GOVERNMENT CONTRIBUTION TO THE ERADICATION PROGRAMME

1. National Action Plan for Rabies Elimination (NAPRE): Aimed at eliminating rabies by 2030, this plan makes human rabies a notifiable disease in some states to enhance surveillance and data collection.
2. Legislation: Rules like the Animal Birth Control (Dogs) Rules, 2023,

- require spaying, neutering, and vaccinating stray dogs.
3. Mass Vaccination Drives: Large-scale dog vaccination campaigns are organized with NGOs to cover over 70% of the canine population, effectively eliminating rabies at its source.
 4. Animal Birth Control (ABC) Program: This initiative stabilizes the stray dog population, making vaccination efforts more effective.

CITIZENS CONTRIBUTION

1. Pet Care: Regularly vaccinate your pets against rabies and keep them indoors.
2. Reporting: Inform healthcare providers about all animal bites and report suspicious animal behavior to local authorities.
3. Supporting Vaccination: Participate in mass vaccination drives by bringing your pets to camps and helping vaccination teams reach stray dogs.
4. First Aid: If bitten, wash the wound with soap and water for 15 minutes and seek immediate medical attention.

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5. Community Involvement: Join community groups to educate others, manage stray dog populations humanely, and advocate for effective rabies control.

CONCLUSION

Rabies elimination requires a comprehensive, multi-sectoral strategy that extends beyond treating human cases to addressing the disease at its animal source. The One Health framework proves to be the most effective model, with veterinary professionals playing an essential role in mass dog vaccination, population control, and community education. While government initiatives like the National Action Plan for Rabies Elimination (NAPRE) and the Animal Birth Control (Dogs) Rules, 2023 provide a strong legislative and programmatic foundation, their success is contingent on robust implementation and widespread public cooperation. The ultimate goal of a rabies-free society by 2030 can only be achieved through sustained collaboration among health and veterinary sectors, active government support, and informed, responsible citizen engagement.