

Workshop report

Dog bite management training for healthcare workers in Machakos County

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Introduction

The World Health Organization (WHO) estimates that dog bites account for 76–94% of animal bite injuries in low- and middle-income countries. Dog bites are a serious health issue due to the potential risk of rabies virus exposure to the victims. Proper management of dog bite victims can make a difference between life and death. Rabid dogs are responsible for rabies virus transmission to humans and once clinical symptoms appear, the disease is incurable and 100% fatal. In Kenya, about 2,000 people die annually from rabies, with Machakos County being one of the top 5 counties with the highest reported cases of human-dog bites.

The [One Health Research, Education and Outreach Centre in Africa \(OHRECA\), led by the International Livestock Research Institute](#) in partnership with VSF-Germany and the Machakos County Government, are currently vaccinating dogs in Machakos County as part of efforts to eradicate rabies. Following stakeholders' deliberations, the department of health and emergency services in Machakos County, supported by OHRECA, organized a series of four two-day dog bite management training between 28 March and 7 April 2022. This aimed to equip healthcare workers in Machakos County with updated skills in assessing and managing dog bites in their facilities.

Judith Kimuyu, the director of preventive and promotive health services in Machakos County, officially opened the meeting. She highlighted that proper management of dog bites would empower the healthcare workers and is essential to the entire community. She added that 'effective upward and downward communication systems are key to reaching the target groups and the health workers empowerment will go a long way in reaching the community.'

This interactive training brought together 80 health workers who were refreshed on the history of rabies, its epidemiology, clinical management of dog bite victims, the clinical presentation of rabies, and the management of human rabies. The training also covered aspects of human and animal rabies surveillance with an introduction to the One Health concept and the importance of medics working with the veterinary sector to combat this important yet neglected zoonotic disease. To ensure the health workers grasped what they were taught, they were given rabies case scenarios to test the knowledge they had acquired.

Lilian Mutungi, deputy director of veterinary services, Machakos County, said, 'the training will help healthcare workers make informed decisions when handling dog bite victims and use of post-exposure prophylaxis (PEP) after conducting bite assessment. In addition, they will learn about rabies prevention in the communities and share information on bite victims with veterinarians. This will improve collaboration between the human and veterinary sectors through a One Health approach.'

Sharon Mweni, the director of medical services in Machakos County, closed the training by saying that 'the training will improve on clinical management of rabies cases in Machakos County health facilities'. She further added that 'the training will reduce the burden of rabies and reduce morbidity and mortality because of rabies'.

Training objectives

This training is part of OHRECA's and the University of Liverpool's multisectoral and interdisciplinary efforts to support Machakos County to eliminate rabies by 2030. This is through vaccination campaigns, creating awareness and improving access to human rabies vaccines. In addition, graduate fellow Maurice Karani is conducting research to quantify the cost-effectiveness of rabies control in Machakos County to aid the current delivery and enhance investment for future control.

This work is funded by the [German Federal Ministry of Economic Cooperation and Development \(BMZ\)](#) through OHRECA.

Training outcome and highlights

From the evaluation feedback, the healthcare workers appreciated the refresher training as they often handle dog bite cases in their facilities. They were also enlightened on the need to collaborate with veterinarians in monitoring and confirming rabies cases in dogs for enhanced surveillance.

Annexes

Annex 1: Training program

Program—Day 1	
0800–0830	Participants' registration—All
0830–0850	Welcome and introductions—Nicholas Bor
0850–0900	Training expectations—Cosmas Musyoki
0900–0910	Opening remarks—Judith Kimuyu
0910–0920	Introduction to Machakos One Health program—Sharon Mweni
0920–1000	History of rabies in Kenya—Lilian Mutungi
1000–1030	Tea break
1030–1100	Animal rabies surveillance in Kenya—Lilian Mutungi
1100–1200	Human rabies surveillance in Kenya and Machakos County—Cosmas Musyoki
1200–1300	Clinical management of human dog bites—Sharon Mweni
1300–1400	Lunch break
1400–1500	Clinical management of rabies patients—Sharon Mweni
1500–1600	Prevention of human rabies—Cosmas Musyoki
End of day 1	

Program—Day 2	
0800–0830	Participants' registration—all
0830–0900	Recap from day 1—Cosmas Musyoki
0900–1000	Role of veterinarians in therapeutic decisions—Lilian Mutungi
1000–1030	Tea break
1030–1130	Overview of pharmacovigilance and adverse drug reactions—Nkatha Mutungi
1130–1230	National pharmacovigilance system and reporting—Nkatha Mutungi
1230–1330	Lunch break
1330–1400	Role of veterinaries and healthcare workers in rabies management—Judith Kimuyu
1400–1430	Case studies and group work—Participants
1430–1530	Group presentations from case studies—Judith Kimuyu
1530–1545	Action plan—Cosmas Musyoki
1545–1600	Wrap up—Nicholas Bor
End of day 2	

Annex 2: Photos



Healthcare workers who attended the bites training.

Credit: ILRI/Geoffrey Njenga.



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