

**PROCEEDINGS OF THE 10TH WORLD RABIES DAY KVA CONFERENCE HELD
AT SAI ROCK HOTEL IN MOMBASA ON 27TH SEPTEMBER, 2016
THEME: EDUCATE, VACCINATE, ERADICATE**

PREAMBLE:

The meeting started with a word of prayer from one of the participants and Dr. Abraham Sangula representing the organising committee made the initial remarks and welcomed all participants and encouraged them to learn, share and make the conference vibrant. He then invited the session chair (Dr. Harry Oyas) to begin session one.

SESSION ONE: SESSION CHAIR: DR. HARRY OYAS, GOK

Summary of the presentations:

Title: Contribution of responsible dog ownership towards ending rabies by 2030

concept: - *Eradicate dog mediated human rabies by year 2030*

Presenter: *Dr. Emily Mudoga, World Animal Protection*

The presentation outlined a framework developed towards ending rabies, a disease that has been listed as the next “world case” to be eliminated. The framework comprised of five pillars of importance:

Socio-cultural pillar: entails responsible dog ownership as a civic responsibility. Described use of education at the community to create awareness and change perceptions. It also focused on the importance of carrying out KAP and ecological studies toward successful elimination of rabies.

Technical pillar: i.e., provision of adequate veterinary services in terms of control of populations of dogs which should be done in a sustainable way and vaccinating them against rabies while maintaining animal welfare standards. Population control is of essence to deal with roaming dogs a problem which is tied to community behaviour. Animal registration makes dog owners subconsciously responsible enhancing enforcement of the law and can be used as an income generating activity for the government. The presenter also outlined importance of proper use of animal holding facilities to avoid animal welfare issues arising hence indicated the need to regulate them using laws.

Organization: use of *one health approach*,

Political pillar: is essential at all levels to eliminate rabies due to enhancement of the laws and resources (in terms of how, when and whom). Developing political buy in of leadership, is important to convince the competent authorities of the value and importance of investing in best practices for rabies elimination and in order to do this it is critical to demonstrate economic rationale and highlight socio-political advantage. There must be laws that will regulate responsible dog ownership and how these programmes can be operated in a sustainable way at regional, national and local level. Legislation is not good if not supported by education and enforcement.

Resources: This includes investment and recognition that rabies elimination activities frequently span several years and therefore requires sustained, long-term support.

Way forward:

It is important to build this programme and make it a social responsibility to allow for political buy-in as well as incorporate traditional and upcoming techniques of responsible dog ownership.

Questions:

Q. Do dogs get lost especially when they go out for mating purposes? “This does not happen” it’s important to understand the relationship between agriculture and dogs and define the possibility of confining dogs because they usually roam in search of food. Therefore what are the cultural implications of confining them especially attitudes of the community is it acceptable?

Ans: Yes dogs get lost especially in urban areas. Control of dog populations in the western world has been achieved successfully but unfortunately has not been successful in the developing world.

Q. when doing reproduction control which dog populations are targeted? In Kenyan markets demand for dogs is usually higher than the supply so how do we control population having this issue at hand

Ans: The programme uses a base model but dynamics in different countries must be observed before designing the spay and neuter programme

Title: Proposed amendments to the VSVP Act Cap 366

Presenter: Dr. Mary Agutu, Kenya Veterinary Board

Two documents were presented to the participants: The Veterinary Surgeons and Veterinary Paraprofessional Act, CAP 366 Regulations (part II) and the Recommendations for amendments of the Veterinary Surgeons and Veterinary Paraprofessional Act.

The recommendations were basically:

Typographical e.g., Title: CAP 366 no longer Act no 29, Repeal to CAP 366 and

Main amendments i.e., replacement of terms, additional information with regard to description of terms and definitions, broadened the levels of education described and outlined the functions of the CEO and registrar as well as their relationship with the board. This included:-Retention fees replaced with practice fees, inclusion of wild animals in the definition of animals, Definition of Animal Resource Industry, Animal resources secretary does not exist currently, Annual license replaced with Annual practicing license, Veterinary practice instead of private practice, Registers will be kept by the registrar not the CEO

Registrar must be a vet; CEO does not have to be a vet, Veterinary medicine definition includes alternative medicine, Section 2 is deleted as is redundant.

KVB & Membership

Includes dean of faculty of Veterinary Medicine (private & public), the word government replaced with national and county government and relevant ministries replaced with national and county government of importance.

It also clarified that no person will practice without authority of the board and it also incorporates graduands of Bsc, Diploma and Certificate in animal health.

It also qualifies that the Board’s decision is overriding for purposes of any training in Veterinary Surgery and Medicine.

It also clarified that membership shall be affiliated to a recognized professional body.

The amended act provides for all courses that may come up relating to animal practice.

Notice will be published in the Kenya gazette annually every Two weeks to 31st December
Deadline for payment is 31st December, Late payment shall attract a penalty and annual practicing license includes Vets and Paravets.

Comments and views

All communication should be posted to info@kenyavetboard.or.ke before lapse of 14 days

Questions:

Q. The size of the current board does not meet the government's recommendations of between 7- 9 members is there any effort towards meeting the requirements?

Ans. This adjustment will be done in the second phase of the amendment.

Q. What is the relationship between the registrar and the CEO, he reports to who?

Ans. The organogram outlines that the registrar is answerable to the CEO and the CEO reports to the board.

Q. What are the procedure and terms of engagement with the stakeholders? Is it possible for KVB to provide itinerary that will help notify stakeholders of the dates, venue and time for stakeholder consultations and contribution toward the amendments? Why are you giving 14 day ultimatum for feedback?

Ans. The board usually share the itinerary for such activities through the Kenya veterinarians' forums with the venues and time as well as the board's website

The board also targets the audience in different CPDs to provide the information. Sensitization has also been done previously but the challenge is the low numbers of veterinarians who attend. Deadlines are important to ensure finalization of the document

Q. If an individual fails to accumulate adequate CPD points for a particular year say 2016, what does the board prescribe in such a case?

Ans. The individual is liable to a penalty that the board deem fit depending on the circumstances around the situation. The registrar is not allowed to alter the register therefore it requires the decision of the board

Q. Is it possible to be exempted from paying the practicing license and if yes, what is the criterion? Age?

Ans. Young professionals are encouraged to renew their knowledge

Exemption can be done only with adequate proof that you do not practice, however the fees payments must be done

Q. What happens to an individual who accumulates more than 20 CPD points in a year is it possible to carry over the points to the following year

Ans. CPDs are an annual requirement i.e., 20 for vets, 14 for paravets annually.

It is however important to inform the board if you travel out of the country and are not able to access CPD points with proof of the same for whichever period to allow room for waiver when away from the country, however there are online CPDs that can solve this problem

Q. In the section addressing duties and responsibilities of Paravets the section on controlled medicines and dispensing of veterinary medicine seem contradictory one takes away authority from the individual while the other gives it back?(paraprofessionals)

Ans. According to VMD regulations there is restricted use of certain veterinary drugs thus allowing only veterinary surgeons to prescribe them

Q. What is the status of KALT with KVB is it recognized? What of the members who registered with KALT initially does KVB recognize their membership?

Ans KALT is not recognized by KVB as a professional membership body. Therefore new members are encouraged to register with KASPA or KVPA. New registrations with KALT do not stand recognized but previous registrations are recognized

Q. Are Paravets allowed to sign certificates:

Ans. No certification should be done by paravets

Title: The disconnect in human and animal Rabies control

Presenter: Dr. Wycliffe Mbaya,

Why is rabies important? Even though it is 100 % preventable, a person dies of rabies every 10 minutes. Almost half of all rabies deaths occur in children under the age of 15 years and its associated with lack of knowledge and tools for control are available i.e., dog vaccination, population control and human pre and post exposure vaccines.

Key issues leading to disconnect

Surveillance: - is present with veterinarians but there are gaps in reporting of the disease especially with human cases and following through the cases.

Diagnosis:- it is not utilized in human cases of rabies due to difficulty in collecting samples and delay in feedback on animal status this affects human bite management (PEP vaccination completion). There is also no information on how to proceed following delay in feedback of animal status. Thus disconnect in awareness of the disease.

Information sharing and active follow ups especially of PEP are inadequate. Philippines case study was successful because it was all inclusive the vets, human medics, law enforces and community.

Awareness:-should be done at all levels especially with the public of importance being handling dog bites and completion of PEP vaccinations. Keeping records of vaccinations for animals.

Vaccines and vaccination schedules: of concern is quality, quantity which affects availability to avoid shortage, vaccination schedules to be followed and the cost of management.

Funding: - is related to political will and stakeholder collaborations, there are areas for research in rabies especially so because this disease is a neglected disease and funding probability is low.

Questions:

Q. Misconception that any human who gets rabies will bark like a dog in rural set up the community makes the community at large to wait for that particular sign i.e., a person to bark like a dog before taking any measure. Is it possible to try and demystify this myth by relying the right information to the general public?

Ans. unfortunately this is the information in the field and it is thus important to create awareness of the disease to the public

SESSION TWO:

SESSION CHAIR: DR LEKOLOL. KENYA WILDLIFE SERVICES

Title: Global elimination of rabies OIE perspective

Presenter: Dr Wakhusama, (OIE)

All African countries are members of OIE and Africans are the majority of members at the general assembly therefore they have a very strong voice. OIE is democratic allowing all members an equal vote through membership participation to arrive on transparent decisions that are science based. The presenter outlined the challenge of delegates' contributions towards the specialist commissions that are adopted to form OIE international standards.

The OIE has standards for rabies to deal with infection, certification and diagnosis of rabies it also encompasses dog population control, disease notification and surveillance.

The OIE's stand point on dog mediated human rabies is that it's possible to eliminate rabies and the tools required to enable control of the disease are available. They also describe dog bites as the major causes of human rabies and through dog vaccination it's possible to eliminate the disease. Their contribution towards elimination include:-

International efforts i.e., collaboration between OIE and WHO to eliminate dog mediated human rabies by the year 2030. Kenya is advantaged because she already has a rabies elimination strategy. The proposed measures include mass vaccination of dogs which have been adopted by 180 OIE members of the world. The way forward towards this objective is through the use of the rational for investing in global elimination of human mediated rabies through the five pillars (STOP-R) – socio-cultural, technical, organization, political and resource availability. Makueni and siaya county are being used as pilot projects to prove this concept.

The elimination of rabies is a global, regional and national public good and way forward involves importance of highlighting the critical success factors required for elimination of the disease. The rabies vaccine bank guarantees vaccine availability because this model promotes the availability of high quality vaccines which meet the OIE intergovernmental standards

Message for 2016 WRD: - Educate, Vaccinate and Eradicate

Question/Comments

Q. Why don't you use WAHO instead of OIE, to stand for world animal health organization it is a bit confusing?

Ans. The term is a mouthful very difficult to pronounce. It was adopted by all members as World organization for animal health with the logo OIE to prevent losing identity of OIE.

Q. Are delegates coerced to make a decision? Is there a Disparity between English and French speaking countries?

Ans. Delegates are not coerced to co-opt a decision. Each country likes to dominate in leadership but there is a common position agreed on at the end of the meeting

OFFICIAL OPENING CEREMONY:

Dr. Sam Kahariri: Chairman Kenya Veterinary Association

The chairman KVA acknowledged the participants who came out to commemorate the 10th World Rabies Day and also informed the audience of the importance of commemorating this day. He commended the concerted efforts of all stakeholders toward the 2030 achieving rabies elimination. He further encouraged the enhancement of the human component of rabies elimination through forming links and collaborations with MOH to focus on prevention rather than curative measures of rabies. He also acknowledged all the partners who sponsored the event and made it a success, including: The Government of Kenya, World Animal Protection, Donkey Sanctuary, Cooper K-Brands, Metrovet/Merial, Brooke E.A, Norbrook, Bayer, Zoonotic Disease Unit, KEVEVAPI, County Government of Mombasa, European Union, and OIE.

Dr. Dave Kehara: County Director of veterinary Services and Rep. CEC, Agriculture, livestock and fisheries

The CDVS gave a warm welcome to all the participants and guests to Mombasa County and was looking forward to a successful event full of pomp.

Dr. Mwenda Mbaka: chairman Kenya Veterinary Board

In his speech the KVB chairman outlined the role of KVB in Kenya and emphasized on ethical conduct of Veterinary Professionals with regard to service delivery and ensuring efficient practices, professionalism and maintenance of animal welfare standards. He also outlined the economic impacts of rabies which included threat to food security, wealth creation and public health which can be prevented through competent practice and professionalism.

Dr. Sam Wakhusama: OIE representative

It was a great honour for OIE to be part of the 10th World Rabies Day and they were grateful to KVA and the Government of Kenya for organizing the event and the major contributions they make to OIE.

Dr. Kisa Juma: Director of Veterinary Services

The DVS majored on the concept of the 5 Ws i.e., What is the problem= Rabies? Why= it is a killer disease? Where= everywhere? Which actions need to be taken? and When? to end rabies now. He further illustrated that beyond the 5Ws, we get to a level of how to eliminate rabies because disaster is a function of hazard, a vulnerable community and the capacity to respond to the hazard efficiently.

Chief Guest: Lorna Adero (Rep. PS State department of livestock)

In her speech, Madam Adero outlined Rabies as a cause of 55% of deaths in Africa. In Kenya, alone an estimated 2000 people die every year, 40% of whom are children. This disease is among the top 5 priority disease in Kenya. Kenya is advantaged because she has an existing rabies control strategy and cost effective vaccines for animals. She acknowledged that the State Department of Livestock in the Ministry of Agriculture, Livestock and Fisheries is committed to giving full support toward eliminating the disease. She also recognized efforts already in place in Makueni and Siaya Counties which will provide set ground as we plan to roll out the elimination strategy in the whole country. She also appreciated the efforts by KVA, ZDU, and all collaborators for coordinating the elimination strategy and all stakeholders involved in the 10th world rabies day.

Title: Animal Rabies Control Policy Environment in Kenya

Presenter: Dr Kisa Juma, Director Veterinary Services

Rabies is listed by OIE as a notifiable disease and of importance are quarantine, animal movement, vaccination and sensitization, compliance to international standards and mitigation against rabies introduction. It is important to use control measures that are humane and creation of public awareness and education through (Knowledge change of Attitudes and Practice). Kenya is advantaged because there is a policy and legal framework in place, as well as adequate capacities to control and report the disease. This includes collaborations, traditional uses of the dogs and global and regional approaches such as one health and use of elimination strategies. However there are challenges in control i.e., Lack of reliable dog population size estimates, Lack of data and studies on dog population dynamics, People's attitudes to dogs i.e., neglect as opposed to strong attachment, complaints by stakeholders on baiting e.g., use of strychnine and associated welfare issues, low public sector budgets for vaccinations and reliance on allowances, Inadequate care, feeding and shelter for dogs, Animal health certification procedures are bureaucratic, limited diagnostic capacities: - dogs move with women and children/ competition for survival, Law enforcement: who is supposed to enforce code of ethics

Way forward:

Capitalize on annual mass vaccinations to ensure 70% coverage and embracing international standards for service delivery and implementation of policies. It's cost effective that the government provides financial resources to veterinary services for control of rabies

Questions

Q. When exporting canines countries in Europe require antibody titre level to confirm protection of animals.

Ans. Each country has guidelines as long as they are justifiable in addition to the OIE standards

Q. Is there a need for post vaccination serology to know if we have positively vaccinated animals?

Ans. Yes because high numbers of vaccinations without confirming imparted immunity is risky- It's useless to vaccinate without immunities, it is critical to have a plan for sero-surveillance

Q. Have the g

Guidelines for implementation of Veterinary Services been adopted by all concerned parties? Are they enforceable? Is it legal?

Ans .Yes, they have been signed and circulated and there is a joint Veterinary Service Committee to improve on service delivery. The legality is questionable because it is just an MOU /gentleman's agreement.

SESSION THREE: SESSION CHAIR: DR. C. WANGA, GoK

Title: Implementing the Kenya National Rabies Elimination Strategy -Lessons learnt

Presenter: Dr Sam Thumbi, KEMRI

The presenter outlined the strategy which included; mass dog vaccinations, prevention of rabies in humans, strengthening surveillance and outbreak response, operational research advocacy and communication, and resource mobilization. He further emphasized on good leadership and political will as steps towards rabies elimination. The statistic of Makueni county give a human: dog ratio of (8:1) while that of Siaya (3:1) which are high numbers. Even with this strategy it is important to measure success rate i.e., impact of proportion of dog population vaccinated with regard to number of cases coming down with rabies or number of humans infected. In order to achieve 70% geographical coverage of mass vaccinations it is critical that no pockets are left out when vaccinating. MOH are not involved in control of rabies and there is a gap in the engagement with the sector. Rabies vaccine is not part of GAVI because there is no case for it which requires determination of key benefits of having the vaccine cost effectively. The surveillance data that is available is scarce because it does not disclose specific information such as number of bites, dog bites, and provocative bites hence very shallow information. It was also clear that the numbers of samples submitted for diagnosis are very low thus there is a gap in submitting of samples. Way forward involves improving information available at the health facilities by encouraging community based surveillance. It is also possible to acquire resources from the government and by partnering with other bodies like OIE, WHO and Sanofi. Advocacy is also important like the case of the family that lost their children to rabies has created an interest in Kisii hence control of the disease has become an issue of importance. Social media can also be used as a source of information of success stories and experiences with rabies over time to create a buzz about rabies and help toward elimination of the disease.

Questions:

Q. Communication is important for disease control and eradication. What is being done on this to control and eliminate rabies? There are many Vernacular radio stations- what are we doing to utilize this stations in the eradication program?

Ans. Communication serves as an advocacy tool and can be best done within newspapers. It is also possible to reach the public through various social media forms such as twitter, facebook, website, etc.

Title: Implementation of the Rabies Elimination Strategy update on Makueni County pilot

Presenter: Dr Daniel Ksee, Makueni County Government

The presenter gave an overview of the Makueni pilot programme including the challenges and best practices and lessons learnt toward rabies elimination.

The information sharing platforms included public barazas where the public was informed on rabies protocol when a human being is bitten.

According to the lessons learnt in the pilot programme even though the community is willing to vaccinate their dogs, they still believe that traditional means of treatment of rabies successful. The statistics on dog to man ratios stand at 8:1 (dog-man). A survey carried out indicated that publicity needed to be enhanced and that the community preferred going for vaccinations in the morning rather than evenings and they wished that the distance to the

vaccination centres should be reduced. Out of a total of 125000 dogs, 72,103 have been vaccinated in Makueni County. This means vaccination coverage of 58 %. The county has setup coordination structures that are multi-sectoral and are using teacher champions empowered to educate pupils at schools and the community as a whole about rabies as a disease and its elimination. The county is also working with collaborating institutions i.e., MCG, ZDU, Director of Veterinary Services, World Animal Protection and Washington state university.

Challenges encountered included:

Inadequate surveillance i.e., lack of reporting after a suspect dog is killed and buried making it difficult to confirm cases of rabies. They county has recorded six cases in the last two years five having been confirmed as positive cases.

Way forward: requires development of policies at county level that govern rabies elimination and enhance partnerships and surveillance.

What is the impact of the programme is it measurable?

Questions:

Q. you achieved 36% cover in first round of mass vaccination and the reason was that the dogs were brought in the afternoon and not in the morning. What was done differently in the 2nd round of vaccinations to attain 66% coverage that you did not do in the 1st round?

Ans. Initially people prefer to come in the morning. Though we did not change the time, awareness was not that great so we increased the intensity of the publicity, sat down and planned with the local leaders well, identified additional sites (80 sites to 162 sites), door to door publicity was also done (reminder that the vaccination was to happen at a particular date and time).

Though the county does not have a communication strategy, they enhanced communication through advertisements in local radio stations. Through partnership with World Animal Protection the county has intensive features (K24), feature articles in international journals (Global Alliance for Rabies Control), article in WHO based on Makueni

Title: Operational research in Rabies control strategy implementation

Presenter: Dr Matthew Muturi

The presentation outlined use of analytic studies to guide decision making in implementing interventions towards ending rabies by year 2030. This is because these methods provide key data required to implement the control and prevention measures of rabies even with the scarce resources. It is critical to find out the True burden of rabies? (Considering there is under reporting of cases) is it death or life adjusted years? Questions of importance include is there vaccination of the high risk population i.e., Vets. There are also several knowledge gaps of importance to ensure success of this programme i.e., dog population dynamics, KAP, non-invasive techniques for diagnosis. It is important to demonstrate the cost effectiveness of rabies elimination through research and demonstrate that rabies is a priority disease.

Questions:

Q. Are bats reservoirs? Why aren't they incorporated in the strategy?

Ans. Yes, but It has been shown that dogs are the largest reservoir of rabies,

Q. The 1:3 human: dog ratio is so high please explain

Ans. In Siaya the dog population was very high, as indicated by the survey carried out, the numbers were still high even with removal of outliers

Q. What happened to the boy that was bitten by a dog in Kawangware?

Ans. The case has been referred to MOH

Q. What is your position on use of intradermal (ID) versus intramuscular (IM) vaccines? ID route is considered a challenge to most personnel to carry out?

Ans. WHO recommends ID they are 60% cheaper than IM. The vaccines have not been registered in the country ID requires 3 injections hence are cost effective. Once personnel are trained, it may be much more feasible

Title: Trends in Rabies research

Presenter: Dr Peninah Munyua

Currently in research, investment is quite limited. The reservoir host of rabies is also not an economically vital animal when considering resource availability. Even though the tools for elimination are in existence it is important to have backing through political will for resource availability. The main challenge in research trends of rabies are that the research is not addressing the questions that the policy makers want therefore it's necessary to bridge that gap to deal with this situation. Question of importance is how do we improve the existing interventions to address rabies elimination? The publications in Kenya on interventions, outbreak, KAP and current dog ecology are only since 1990.

The surveillance is inadequate on animal bite, animal rabies, PEP prophylaxis and human rabies. It would be important to have a follow up by veterinarians on these areas to confirm diagnosis and provide accurate data that is currently missing.

Way forward: It's also critical that samples are submitted to confirm diagnosis of rabies and justify the need for elimination of rabies or support by international support (OIE) and the impact of the disease. It's important to demonstrate numbers to justify need for resources to be available. Policy makers required hard data thus demonstration in numbers to make decisions of impact

Question:

Q. Did you carry out a survey on the impact of Thika road construction on rabies prevalence?

Ans. No, in Haiti they found that 4% of the dogs picked around the highway were positive for rabies

Q. Is there a vaccine with lifelong immunity?

Ans. There is no vaccine with lifelong immunity however there are countries that have eliminated rabies with the current vaccines

Title: Rabies diagnosis at RVIL MARIKANI

Presenter: Dr Mutinda

Of concern to RVIL Mariakani is the immunization of the staff considering the diagnostic tests are mostly done when there is involvement of human beings. One of the challenges with the results data is that on the rapid tests they are not conclusive. To ensure diagnosis is done using safe techniques, it's important to submit the head/sample intact. Confirmed cases in the last 10 years are 176 and Mombasa County recorded the highest numbers at 36% and Lamu having the lowest numbers at 1.1%. Species distribution data indicates canine as the highest at 80% and equine is the lowest.

Question:

Q. Why not use adult mice when inoculating for diagnosis? If age is a factor at what specific age do you use the young mice?

Ans. Yes age is a factor, 3-4 weeks old. This is because you must deposit the material in the right place and keep the animal alive. The skull in old mice is calcified hence can break when doing inoculation and kill the mice

Q. did you have Wild life cases reported as a cause of rabies? Which species were the majority?

Ans. currently hyena cases have increased, Skunks and mongoose have also been reported mostly from taru kinango and kwale and are mostly submitted by the public
When vets submit samples, they usually initiate control strategies immediately

Title: Successful field canine rabies vaccination, the merial experience

Presenter: Dr. Joseph Kitur

The presentation outlined the importance of cost of dog vaccination campaigns versus probability of outbreak of the disease. It was clear that planning and execution of the programme is costly and 100 % vaccination coverage is very expensive hence not viable.

Of concern is lack of 100% sero-conversion in vaccines which determines the number of animals to be vaccinated, therefore a vaccine that gives < 70% sero-conversion is not adequate to give a 70% geographical coverage when doing mass vaccination. It is critical to use a good quality vaccine with sero-convesrion of >70%.