Report on one health approach: Risk Management for Neurocysticercosis workshop – 28th June 2013, Pretoria, South Africa

To the Editor: Neurocysticercosis is recognised globally as a major cause of secondary or acquired epilepsy. In southern Africa, it is said to be a common cause of juvenile epilepsy.[1] The prevalence of cysticercosis in endemic areas of the Eastern Cape Province of South Africa (SA) is estimated at 64.6%[2] (Krecek et al. 2008), while that of neurocysticercosis is estimated at 61%.[3] (Ocana et al. 2009)

In June 2013, a workshop entitled: 'One Health Approach: Risk Management for Neurocysticercosis in South Africa' was organised jointly by the Veterinary Public Health Group of the South African Veterinary Association, Section Veterinary Public Health of the Department of Paraclinical Science, Faculty of Veterinary Sciences, University of Pretoria, the Department of Neurology of the University of Pretoria and the National Department of Agriculture Forestry and Fisheries. The objective of the workshop was to capture the opinion of public health practitioners on challenges and solutions in SA on the management of risks associated with neurocysticercosis in the country.

This workshop was attended by 40 delegates mainly from the both provincial and national departments of agriculture. The delegates came mainly from two divisions; Animal Health and Veterinary Public Health Division.

The invited speakers included: Dr L Odendaal from the University of Pretoria, Mr M Nkosi from the Department of Agriculture Forestry and Fisheries' Veterinary Public Health division, Dr M Pillay, a neurologist from the University of Pretoria and Dr A Tsotetsi from the Agricultural Research Institution.

The speakers covered the following topics: Food and animal health policy related to cysticercosis; the life cycle, epidemiology and diagnosis of *Taenia solium*; pathogenesis, clinical presentation and management of neurocysticercosis; and preliminary results of a study on cysticercosis risk factors at farms and abattoirs in Gauteng Province.

The delegates were divided into groups of five people to discuss the current challenges that they face and to come up with recommendations for these challenges.

The challenges and the recommendation that were generated were then arranged in order of importance to ensure that attention was given to the most important challenges.

From the veterinary public health point of view the following challenges were noted:

- No attention has been given to cysticercosis at all levels of government departments. This is may be attributed to different priorities within the government structures with respect to both animal health and human health.
- There is a lack of adequate control measures for cysticercosis and failure to implement existing and prescribed control measures in the abattoir as well as on the farms.
- Socioeconomic factors pose a challenge, in particular social behaviour, in addition to the lack of infrastructure such as abattoirs in affected areas.

From the human medical side, the main challenges that were identified included:

- a lack of resources to properly diagnose cases of neurocysticercosis
- a lack of communication between the state veterinarians and medical practitioners.

To address the above challenges, the following solutions were identified as critical:

- educating veterinarians, medical doctors and individual households on risk factors associated with cysticercosis
- developing communication platforms for the veterinary profession, medical profession and sociologists on cysticercosis
- evaluating current policies on the management of cysticercosis and neurocysticercosis
- developing protocols for the control of cysticercosis, including vaccination of pigs and possible mass deworming of affected or at-risk populations.
- developing a proper surveillance system for monitoring and reporting on cysticercosis cases at household and abattoir level.

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1. Pawlowski Z, Allan J, Sarti E. 2005, Control of *Taenia solium* taeniasis/cysticercosis: From research towards implementation. Int J Parasitol 2005;35(11-12):1221-1232. [http://dx.doi.org/10.1016/j.ijpara.2005.07.015]
2. Krecek RC, Michael LM, Schantz PM, et al. Prevalence of *Taenia solium* cysticercosis in swine from a community-based study in 21 villages of the Eastern Cape Province, South Africa. Veterinary parasitology 2008;154(1-2):38-47. [http://dx.doi.org/10.1016/j.vetpar.2008.03.005]
3. Ocana GS, Sablon JCO, Tamayo IO, Arena LA, Ocana LMS, Govender S. Neurocysticercosis in patients presenting with epilepsy at St Elizabeth's Hospital, Lusikisiki. S Afr Med J 2009;99(8):588-591.

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