



GF-TADs

GLOBAL FRAMEWORK FOR THE
PROGRESSIVE CONTROL OF
TRANSBOUNDARY ANIMAL DISEASES

Africa



Food and Agriculture
Organization of the
United Nations



World Organisation
for Animal Health
Founded as OIE



SGE1

CBPP

What evidence is required to modify the current CBPP control policy during the disease outbreaks?

Presenter: Hezron O Wesonga

*Kenya Agricultural & Livestock Research
Organization (KALRO)*



SGE1 Introduction

CBPP

There is need for change to the current CBPP control policy/strategy

Containment with vaccination accompanied by test and slaughter meets resistance by farmers, especially when targeting CBPP control

Screening, usually by field and laboratory CFT, for selection of animals in large CBPP suspect herds is not carried out.

Use of antimicrobials is not recommended



SGE1 Current practice for CBPP control

CBPP

Differential diagnosis for CBPP includes *East Coast Fever* (ECF) and Hemorrhagic Septicaemia.

Diagnosis of first CBPP cases in an area usually follows failure of the affected animal to respond to treatment and thereafter a PME

Serology follows thereafter



SGE1

CBPP

Current practice for CBPP control

By the time serology results are released, the disease has spread in the whole herd.

Recommendation for slaughter is resisted because there are no arrangements to salvage prices

Farmers who resort to use of antimicrobials do not disclose outbreaks



SGE1 Current practice for CBPP control

CBPP

Use of drugs under experimental on-station conditions have shown promising results.

Drugs used include:

- a) Tylosin (Windsor and Masiga, 1976)
- b) Oxytetracyclines (Yaya *et al.*, 2003; Niang *et al.*, 2010; Otina *et al.*, 2020)



SGE1

CBPP

Current practice for CBPP control

More recently,

- c) Danofloxacin (a flouoroquinolone) has been tried under field conditions (Huebschle *et al.*, 2006)
- d) Tulathromycin and Gamithromycin, second generation macrolides (Muuka *et al.*, 2019)



SGE1 Mycoplasmastatic drugs

CBPP

Both Oxytetracyclines and Tylosin antimicrobials are old on the market and are bacteriostatic.

A relapse in many cases after treatment.

Hence the advice to sell treated animals once they recover and are past the drug withdrawal period.



SGE1

CBPP

Mycoplasma macidal drugs

- ❖ Latest trial for CBPP :
- ❖ Tulathromycin and gamithromycin.
Theoretically, they should clear mycoplasma from circulation for cattle to recover without relapse
- ❖ Efficacy is greater or equal to 80% in metaphylaxis



SGE1 CBPP

Use of vaccines

Primal vaccination with live T 1 44 vaccine conferred 30-60% protection

Second vaccination improved efficacy to 80% and above

Subsequent vaccinations should raise the efficacy levels



SGE1

CBPP

Use of vaccines

Three ways in which farms are managing CBPP outbreaks:

1. Do nothing when vaccines are not available. Outcome - lose 50% through deaths and sell the rest to salvage.
2. Treat and sell recovered animals post-recovery
3. Vaccinate the whole herd.



SGE1

CBPP

Combined use of drugs and vaccines

- ▶ There is no recommendation on how to combine vaccines and drugs simultaneously
- ▶ We find it unethical to recommend slaughter of 5,000 head of breeder cattle as a way of controlling the disease in a closed herd
- ▶ As experts, we would like to discuss the way forward



M. Niang, A. Sery, (...) W. Amanfu and F. Thiaucourt. 2010. Experimental studies on the effect of long-acting oxytetracycline treatment in the development of sequestra in contagious bovine pleuropneumonia infected cattle. J Vet Med & Anim Hlth Vol. 2(4), pp. 35-45, November 2010 .online at <http://www.academicjournals.org/JVMAH> ©2010

A. Yaya, H. Wesonga & F. Thiaucourt. Use of long acting tetracycline for CBPP: preliminary results. FAO Animal Production and Health, Proceedings. 2003. Towards Sustainable CBPP Control Programs for Africa FAO-OIE-AU/IBAR-IAEA Consultative Group on Contagious Bovine Pleuropneumonia Third meeting, Rome 12–14 November 2003



Muuka G., Otina B (...) Colston A. (2019). - Evaluation of new generation macrolides for the treatment and metaphylaxis of contagious bovine pleuropneumonia (CBPP) in cattle experimentally infected with *Mycoplasma mycoides* subspecies *mycoides*. *BMC Vet. Res.*, 15, 451.

Huebschle OJB, Ayling RD (...) Nicholas RA. Danofloxacin (Advocin™) reduces the spread of contagious bovine pleuropneumonia to healthy in-contact cattle. *Res Vet Sci.* 2006;**81**:304–309. doi: 10.1016/j.rvsc.2006.02.005. [[PubMed](#)] [[CrossRef](#)] [[Google Scholar](#)]

Effects of Long Acting Oxytetracycline on Contagious Bovine Pleuropneumonia Experimentally Infected Cattle. Beatrice Otina , Philip Kitale & Hezron Wesonga
DOI: <https://dx.doi.org/10.4314/tjs.v48i4.20>



Wesonga H.O. and Thiaucourt, F. Experimental studies on the efficacy of T1 sr and T1 /44 vaccine strains of *Mycoplasma mycoides* subsp. *mycoides* (small colony) against a field isolate causing contagious bovine pleuropneumonia in Kenya - Effect of a revaccination. *Revue Elev. Med. Vet. Pays trop.* 53: 1-4. 2000.

Maichomo MW; Ngulu S, Adil B, Mwai P, Musa M, Schielk E, Masila E, Tore P, Oyas H, Wesonga HO. Combination of antibiotic treatment and vaccination in the control of CBPP: A case report. Under preparation





GF-TADs

GLOBAL FRAMEWORK FOR THE
PROGRESSIVE CONTROL OF
TRANSBOUNDARY ANIMAL DISEASES

Africa



Food and Agriculture
Organization of the
United Nations



World Organisation
for Animal Health
Founded as OIE

African
Union 

