

Intervention of Veterinary Services to Sustain Animal's Welfare in Rwanda

Moïse Nkurikiyumukiza*

Veterinary Medicine, Pharmacist and Ambulatory Clinic, Rwanda

***Corresponding Author:** Moïse Nkurikiyumukiza, Veterinary Medicine, Pharmacist and Ambulatory Clinic, Rwanda.

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Daily plan activities services

- Individual veterinary extension services by visiting farmers to identify the problem they have in order to give them my intervention to enhance production.
- Visit veterinary pharmacies in different location in Rwanda to know available products based on what I have been found at field during extension at each farming sites in Rwanda to be ready help the farmers in possible informations about Veterinary products available near their locations.
- As veterinary clinician and Surgeon am able to intervene in clinical support especially during emergency for clinical operations including : Cesarean section, Reverse Uterine prolapse, Ruminatomy, Eyes surgery, Blood transfusion, Orthopedic surgeries, Reversing Recumbency at farm or clinic level and I take the time of giving advice to the farmers about preventions of those cases in their farms to improve products and reduction of misuses of antibiotic to improve production quality for Public health sustainability.
- Farms management and diseases prevention and control especially zoonotic and advice to the farmer about proper use of antibiotic and adoption of feed and drink additive and enhance human food safety of animal sources.
- Animal consultation at farm level in these activities, my extension interested in all animal species (farm animals, poultry, domestic animal, aquatic farming and apiculture) as veterinary clinician.
- Clinical and therapeutic services and Sample collection at farm level or at clinic level.

Aim and Objectives

- To improve animal health and welfare complementary to body fitness.
- To improve livestock and poultry production and welfare of farmers.
- To help farmers and vets uses of antibiotic properly sustain animal production.
- To reduce prolonged recumbence or improper poor body condition.
- To reach at farm level to identify problem associated with animal health in order to enumerate veterinary products needed to solve the problems.
- To prevent and controlling the infectious diseases via Biosecurity measures.
- To sustain one health via proper Diagnosis before treatment of animals and advise farmer to be aware in prevention of Zoonotic diseases.

Involved farming places: Kigali, Musanze, Nyagatare, Kayonza, Ngoma, Rwamagana, Bugesera, Muhanga, Rubavu and Huye Districts.



Interested animal species: Ruminants, poultry farming, pets, pig farming and fish.


Based my clinical visit when farm call me and based on my individual veterinary extension services in those farming sites those are the cases I got at field of Rwanda and how their management occur via my interventions as veterinary clinician at field practice and some recommendation about management

NB: This is summary of my activities and the cases I faced at my field experience and how handling occur and with my follow up and post-operative cares I did the prognosis was good and production enhanced smoothly, here there are some recommendation to the owners via extension to reduce cases to increase production.

Those are some of cases i faced with and possible products available in Rwanda from 2015

| Scenarios and cases | Clinical signs founded as pathognomonic signs | Main cause and transmission | Possible management | Possible treatment and medical available in my community |
|----------------------------|--|---|---|---|
| Bovine trypanosomiasis | Normal appetite without weight gain, stay hair coat | Trypanosoma and transmitted by tsetse fly | Use Semedium (samulin) injected IM every 6 months | Bernyl phenyl or clovasone or glucocortine, ketosol Use feed or drink additive to support patient |
| Tick borne diseases | | | | |
| ECF, theileriosis | Lymphadenomegaly (gushuya), Bloat (Gutumba inda), Hemorrhage in vulva and under tongue | <i>Theileria parva</i> and transmitted by <i>R. appendiculatus</i> | Alternate acaricide each 3 months, regular spray 2 days in week, Rotation in paddock, use Closamectin or intermectine, ivermectin S/C injection | OXY30 + Phenyl JECT or Clovasone, Ketosol + VITOL + VAPCO digest Butarex or Bupanol + Phenyl or Clovasone, Ketosol + VITOL + VAPCO DIST Adopt feed or water additive to support patient |
| Anaplasmosis | Constipation, bloat, blood in feces (melena), scanty feces with mucus and four smell | <i>Anaplasma centrale</i> or <i>Anaplasma marginale</i> Transmitted by R. species | The same method as above for ECF | OXY30 + Phenyl or clovasone + VITOL, Ketosol + VAPCO digest Carbezia or Imochem + Phenyl or Clovasone + VITOL + VAPCO digest Use feed or water additive for to enhance rehabilitation |
| Cowdriosis, Heart Water | Same like ECF plus thoracic edema, and circling like movement | -- | Same management for tick in farm | Diminazene + OXY LA + Phenyl or Clovasone or Glucocortine + VIT + INTRA-FER Adopt food and water additive for quick recovery |
| Karaso (Bbabbesiosis) | Blood in urine (haematuria) | <i>Babesia bigemina</i> and transmitted by R species | Same management the tick in farm | Same as like for cowdriosis Carbezia |
| Endoparasites | Stunted growth calves, poor body condition, low appetite for Graz or drink | Blood parasites, GI parasites, lung worm, liver fluke, esophagostomum | Regular deworming each 3 months, use s/c injection combine with oral administration | Oral dewormers, s/c injection like: Ivermectin, Intermectin, Fluconix, Closamectin |

| | | | | |
|--|---|--|--|---|
| <p>Eye Problem</p> | <p>Discharges in eye, change in color of cornea or eye lid</p> | <p>Eye parasite like thelazia, trauma with sharp object, overdosing of acaricide or antibiotic, hypersensitivity</p> | <p>Improve the uses of acaricide or antibiotic, clean the farm, control flies</p> | <p>Opticlox, Maxtrol, Tetracycline, Deoxymycin Eye surgery</p>  |
| <p>Diarrhea, respiratory problem and miscellaneous problem with no response to any treatment</p> | <p>Persistence of improper disease condition</p> | <p>Improper deworming, parasites, bacteria, acidosis, imbalance of iron or minerals in blood, improper sanitation, Intoxication.</p> | <p>Avoid over dosing, improve management, maintain</p> | <p>Nordine, Gentamycin, Intertrim, Kombtrim, Sulfadimidine, Amprolium, Tylosin, Aerosol, Limoxine, Macrolan, Interflox-100, Tetracolivit Use hepaturyl if toxicity diagnosed. Feed or water additive needed</p> |
| <p>Bloat and constipation</p> | <p>Poor ruminating behavior, fail to defecate, GAZ in rumen</p> | <p>Tick B Dzz, Rumen acidosis by cassava leaves, seeds, acaricides, Food impaction by decline of GIT microflora, foreign body in rumen</p> | <p>Control tick, improve deworming, avoid foreign materials near animal feeders</p> | <p>VAPCO digest, vinegar Use Trauma and Cannula Surgery (Ruminatomy)</p> |
| <p>Infertility and stunting in young, metabolic disorders</p> | <p>Poor reproduction behavior and poor body score in young and female</p> | <p>Hormonal imbalance due to lack of minerals, vitamins for coenzymes and cofactors</p> | <p>Use proper vitamins and minerals Use Calci PLUS</p> | <p>MUL-VIT VITOL PRE-MIX (TONIMIX) Aminitotal Affia-bora feed Hypermineral, Butasal Feed or drink additive needed to arise metabolism and hormonal balance.</p> |
| <p>Recumbency</p> | <p>Failure in get up or stand erect after parturition, body weakness, dullness, shivering after dizzy treatment</p> | <p>Improper diseases diagnosis before treatment, lack of management at 3rd term of gestation, lack of calcium, Mg and Phosphorus in blood</p> | <p>Improve feeding Avoid lack of vitamin Use mineral salts Use calciplus and Intra-FER</p> | <p>MUL-VIT VITOL PRE-MIX (TONIMIX) Aminitotal Affia-Bora Feed Hypermineral Calciplus Use Calci JECT intravenous injection by catheters</p>  <p>Feed and water additive</p> |

| | | | | |
|--|-----------------------------|--|--|--|
| <p>Gynaecological cases: Prolapses Retained placenta Distocia</p> | <p>Clear to be observed</p> | <p>Lack of management at 3rd term of gestation, lack of calcium, Mg and Phosphorus in blood, lack of vitamins lead to hormonal imbalance.</p> | <p>MUL-VIT VITOL PRE-MIX (TONIMIX) AminitotalAffia-bora feed Hypermineral Calciplus Use feed or water dditive at 7 months of gestation</p> | <p>Clinical treatment to reverse condition</p>  <p>Reversing uterine prolapse</p> |
| <p>Inflammation, abscess, trauma, hypersensitivity, auto-immune dizzy, allergy</p> | <p>Clear to be observed</p> | <p>Microbial infection, sharp object, Anti bodies reactions, ectoparasites</p> | <p>Monitoring regularly</p> | <p>Anti-inflammatory agents: Phenyl, Clovasone, Glucocortine, Ketosol Here Antibiotic needed is penicillin, sometime nordine will intervenes as anti-oxidant or intertrim, kombtrim as anti-acid and Systematic antibiotic, Sc injection (ivermectin, closamectin, intermectin) may involved for ecto-parasiticial agents.</p> |

Note 1: Some cases were related with Prolonged recumbency may originated to imbalance with calcium, sodium, magnesium, phosphorus, glucose in blood leads to metabolic diseases like Magnesium tetany, Ketosis, therefore the case of recumbency was emergency to save animal life immediately to avoid paralysis of skeletal muscles where we need to do veterinary reflexology but prognosis here prognosis may be depending on duration thus communication and team working and persistence to work will enhance the success to the best target goals.

Medication: Tetracycline LA+ anti-inflammatory + Ivermectin but consultation and follow up was a key in order to make early support via feeding.

Note 2: When reported case associated with CNS (Central nerve system), the probable diagnosis may be BSE (bovine spongy form encephalopathy) due to feeding the concentrate with animal source like ingredient, also it may be Magnesium tetany if history of patient includes the muscle tremor.

Treatment: Tyrosine + Glucocortin but consultation and follow up was the best to support animal.

Note 3: When case was associated with Hemorrhage especially nasal bleeding supportive therapy was needed.

Medication: Sulfamycin K + VITOL + anti-inflammatory or Intra-FER+VIT K+ anti-inflammatory or adrenaline injection+ anti-inflammatory.

Some my picture at field practices in different species

Note: Some picture in poultry farm there was a case of osteoporosis in layers due deficiency of minerals during old age and here minerals syrup were use and prognosis is now good.



Figure 1

Attachment is my clinical services at different farms: This is indication of how i support my community.

My daily veterinary field practices take place in different farms in districts during individual mobile ambulatory clinic.

Eye surgery

On 28th December 2015, here farmer from Gitengure site in Tabagwe sector have cow with injured eye caused by the traumatic object within the farm then he need my service as veterinary clinician therefore according to the history of case with both physical and clinical diagnosis in field I decide EYE surgery due I found that tissue of eye just was necrotized thus I remove affected eye surgically by sedate animal due to physical restrain was not enough then lidocaine used as local anesthesia during operation.

Prognosis is good now the wound healed due to follow up done up to one week.



Figure 2

Reverse uterine prolapse

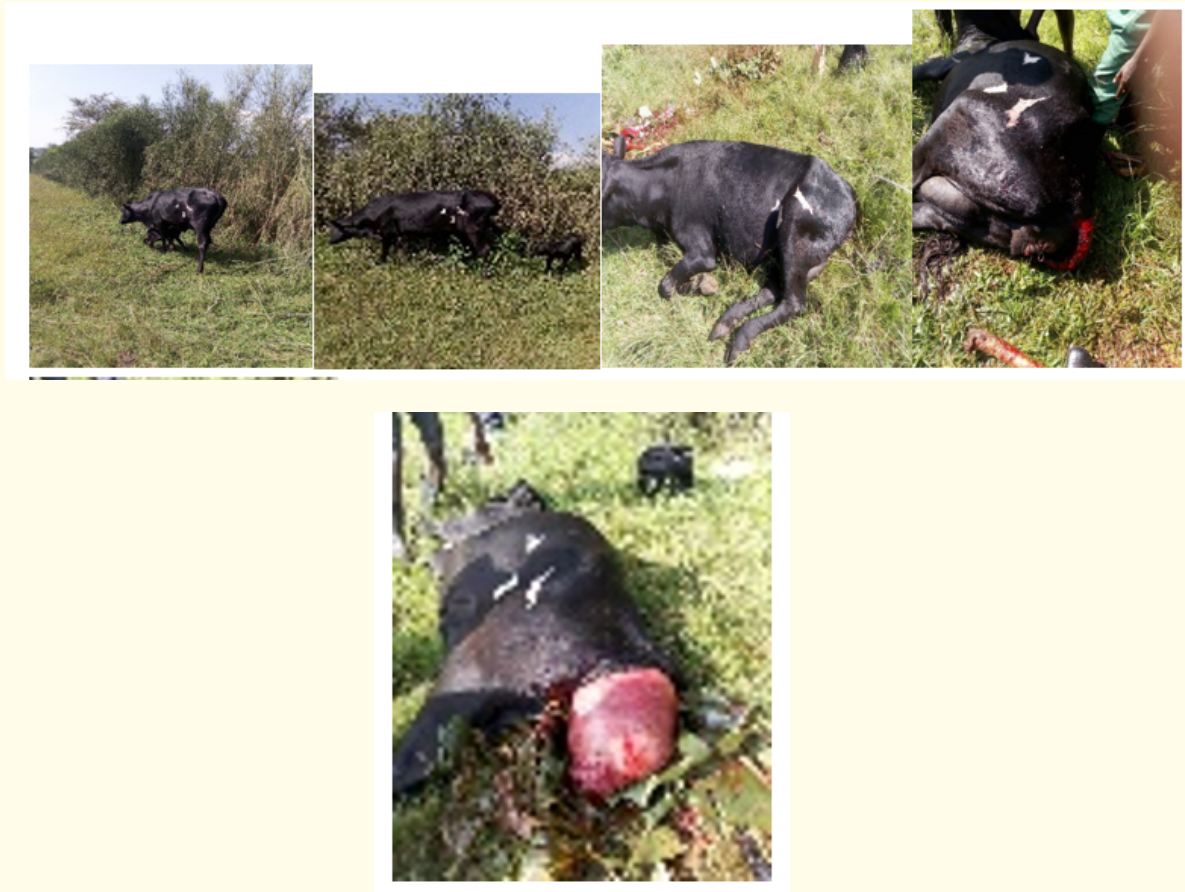


Figure 3

On 27th October 2017, here am at Ryabega cell of Nyagatare sector with cow suffered with Uterine prolapse within 2days therefore uterus become oedemated and after giving birth prolapses occurs and due to prolonged case animal became recumbency and no urinating occurred. Here I use sugar to apply topically on swelled uterus then reverse hard consistency of uterus then I use lidocaine in epidural injection as local anesthesia to avoid tenesmus due to contraction then push uterus slowly up to inside the cervix cavity of cow then pexing external part of urogenital organ. Now prognosis is excellent due to after operation animal urinate easily then stand up and mothering behavior continue.

Caesarian section



Figure 4

On 17th August 2018 here those are the cow I did caesarean section in Tabagwe sector where both they undergone in dystocia with dead foetus and farmers call up to me in networking with their sector vet. Officer now here I use lidocaine as local anaesthesia through line infiltration method and with my own surgical materials the operation performed followed by post-operative cares all animal healed well and prognosis is good.

Reverse milk fever



Figure 5

On 6th January 2019, here am at Tabagwe sector near Shonga with a call off cow with hypocalcaemia up to recumbency stage. Here I use my catheter and needle to administer calcium solution through intravenous route and here I use Jugular vein. Now I use 2 bottles (450 ml + 450 ml) of calci JECT as calcium solution from veterinary pharmacy. As show above prognosis is excellent now cow stand up and eating normally.



Figure 6

On 13rd January 2019, here am at Rwempasha sector to help farmer has cow with dystocia with fetal death and prolonged up to recumbency level. Now I perform caesarean section to save mother. Prognosis is good and follow up involved in 14 day now cow is heathy.

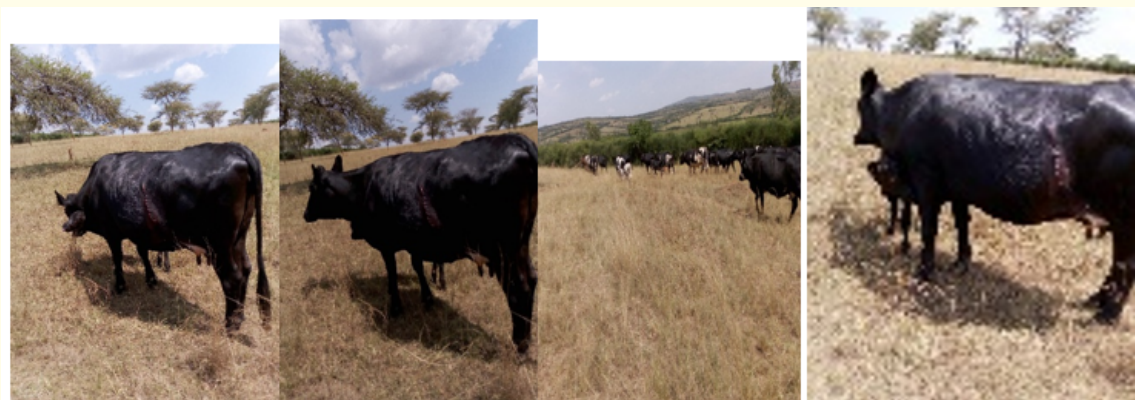


Figure 7

On 28th January 2019, Here am in Rwimiyaga sector site of Gakagati to perform caesarean section where farmer calls me then when I reach there I found that the contraction prolonged but cervix is closed then I decide operation to save both live calf and female. Now both are alive and up today post operation is still continue. Prognosis is good.



Figure 8

On 30th May 2019 I receive a call of farmer at Gicwamba in Rwempasha sector, here cow with disproportion of calf and cervix and I reach there then I found the cow get recumbency but fetus is live therefore I perform caesarean Section to save both calf and mother. Here prognosis is good and both are alive now remain the post-operative cares.

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