

**Questionnaire used to evaluate knowledge on trypanosomiasis and trypanocide use in
Shimba Hills, Kwale County, Kenya.**

Note: the score of 1 – 10 is used to measure the extent to which the respondent gives weight to the response on this scale.

Section to be filled by veterinary officer

Name of area (locale) where attached –

Which villages in your locale are worst hit by the trypanosomiasis?

.....

Which areas report the least infection rates?

.....

What is the average cost of a single drug regimen per animal?

.....

Is this affordable to the farmers?

A. Yes

B. No

Score: (1 = least likely ; 10 = most likely)

1	2	3	4	5	6	7	8	9	10
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Disease and drug awareness data

1. How often are you contacted by the farmers over trypanosomiasis?

A. Daily

B. Once a week

C. Twice a week

D. Once a month

E. Other (*Please specify*).....

2. At what point do the farmers contact you?

A. Immediately they notice illness

B. After self-medicating

C. As a last resort

D. Other (*please specify*).....

3. Are farmers generally open and ready to provide information?

A. yes

B. No

Score: (1 = least likely ; 10 = most likely)

1	2	3	4	5	6	7	8	9	10
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4. If NO, why?
- A. Myths and suspicions
 - B. Ignorance
 - C. By choice with no particular reason
 - D. Other (*please specify*).....

Diagnosis and prescription patterns

5. How many animals in a week do you think you treat with nagana?
- A. 1
 - B. 2
 - C. 3
 - D. Other (*please specify*).....
6. How do you go about diagnosing an animal?
- A. I know it is nagana from experience
 - B. I collect samples for lab analysis and confirmation
 - C. I rely on my colleagues
 - D. I rely on the farmers knowledge
7. Are you always confident in your final diagnosis?
- A. YES
 - B. NO

Score: (1 = least likely ; 10 = most likely)

1	2	3	4	5	6	7	8	9	10
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8. Do you experience any difficulties during diagnosis? *If YES, please give details.*
- A. YES
 - B. NO

Score: (1 = least likely ; 10 = most likely)

1	2	3	4	5	6	7	8	9	10
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9. If an APP was developed to aid your diagnosis process, would you use it?
- A. YES
 - B. NO

Score: (1 = least likely ; 10 = most likely)

1	2	3	4	5	6	7	8	9	10
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10. Which drug(s) are you most likely to prescribe?

- A. Homidium
- B. Isometamidium
- C. Diminazene
- D. Other (*please specify*).....

11. At what stage of the disease do you prescribe the named drug (s)?

- A. Before onset (prophylaxis)
- B. Early onset
- C. Late disease stage
- D. Other (*please specify*).....

12. What is your reason for choosing the above-named drug(s)?

- A. Most available
- B. Most affordable
- C. Most effective
- D. Other (*please specify*).....

Drug use and efficacy and toxicity

13. Do the farmers stick to the regimen given?

- A. Yes
- B. No

Score: (1 = least likely ; 10 = most likely)

1	2	3	4	5	6	7	8	9	10
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14. Have you noticed any seasonal variation in drug sensitivity?

- A. Yes
- B. No

Score: (1 = least likely ; 10 = most likely)

1	2	3	4	5	6	7	8	9	10
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15. Have you ever prescribed any of the drugs used to treat nagana for another condition other than nagana in cattle?

- A. Yes
- B. No

Score: (1 = least likely ; 10 = most likely)

1	2	3	4	5	6	7	8	9	10
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16. Do you know of any local remedies used by local farmers as an alternative to chemical therapies?

- A. Yes
- B. No

Score: (1 = least likely ; 10 = most likely)

1	2	3	4	5	6	7	8	9	10
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17. What do you think has caused the multidrug resistance?

- A. over-prescription
- B. self-prescription by farmers
- C. farmers are not completing regimens
- D. Other (*please specify*).....

18. What are some of the toxic effects evidently caused by the drugs?

- A. photosensitivity
- B. skin necrosis
- C. hair loss
- D. Other (*please specify*).....

19. Are they also seen during combinations?

- A. Yes
- B. No

Score: (1 = least likely ; 10 = most likely)

1	2	3	4	5	6	7	8	9	10
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20. Any other livestock other than cattle visibly resistant to the trypanocidal drugs?

- A. Goats
- B. Sheep
- C. donkeys
- D. Other (*please specify*).....

Section to be filled by farmer

Name of village –

Number of cattle owned –

What is the cost of a single drug regimen per animal?

The burden

1. Is there any noticeable difference in productivity between infected and healthy animals?

- A. No difference
- B. Sick animals are obviously less productive
- C. Sick animals are more productive
- D. Both groups are equally productive

2. If there is a difference, what is the difference and to what extent

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Score: (1 = least likely ; 10 = most likely)

1	2	3	4	5	6	7	8	9	10
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3. Out of the animals that fall sick, how many have still died even after receiving medication (please give a number)?

A. All

B. None

C. Half

D. Other (*please specify*).....

4. What are the other causes of cattle fatalities in your herd besides nagana (please give number of fatalities)?

A. East Coast Fever

B. Contagious Bovine Pleuro-pneumonia (CBPP)

C. I don't know

D. Other (*please specify*).....

5. What are the proportion of cattle affected by disease other than Nagana, please give figures?

A. All

B. None

C. Half

D. Other (*please specify*).....

6. What are your options eventually when an animal is not responding to medication?

A. Slaughter

B. Sell

C. Await death

D. Other (*please specify*).....

7. How do you determine that your animal is infected with Nagana?

A. I know it is nagana from experience

B. I wait for the vet to confirm

C. I rely on fellow farmers knowledge

D. Other (*please specify*).....

8. Are you always confident in your final diagnosis?
- C. YES
 - D. NO

Score: (1 = least likely ; 10 = most likely)

1	2	3	4	5	6	7	8	9	10
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9. After recovery, do the animals regain full productivity?
- A. Yes
 - B. No
 - C. Other (*please specify*).....

Score: (1 = least likely ; 10 = most likely)

1	2	3	4	5	6	7	8	9	10
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Drug prescription, use and toxic effects

10. How long after symptom onset do you wait before administering medication?
- A. immediately
 - B. I wait for a few days
 - Other (if B, how many days).....
 - A. I give immediately
 - B. It takes a few days as I have to raise funds to buy drugs
 - C. I pre-medicate to prevent infection
 - D. Other (*please specify*).....
11. Who recommends the drugs you use?
- A. Myself
 - B. Vet
 - C. Fellow farmers
 - D. Other (*please specify*).....
12. Which of the three drugs do you prefer using (*please confirm brand names*)?
- A. Homidium
 - B. Isometamidium
 - C. Diminazene
 - D. No preference
13. Do you stick to the prescribed drug regimen?
- A. Yes
 - B. No
 - C. If no, please explain why.....

Score: (1 = least likely ; 10 = most likely)

1	2	3	4	5	6	7	8	9	10
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14. Do you prolong the use of the drug? (*Use for longer than prescribed*).

- A. Yes
- B. No
- C. If yes, please explain why.....

Score: (1 = least likely ; 10 = most likely)

1	2	3	4	5	6	7	8	9	10
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15. When the animal's health is restored, do you store the medication for use later?

- A. Yes
- B. No

Score: (1 = least likely ; 10 = most likely)

1	2	3	4	5	6	7	8	9	10
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16. Have you ever received different dosage levels for the drugs from different vets?

- A. Yes
- B. No

Score: (1 = least likely ; 10 = most likely)

1	2	3	4	5	6	7	8	9	10
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17. Have you ever used the drugs as a combination?

- A. Yes
- B. No
- C. If yes, please give details.....

Score: (1 = least likely ; 10 = most likely)

1	2	3	4	5	6	7	8	9	10
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18. How many times in a year does the infection recur thus necessitating the need to buy the drug(s)?

- A. Once
- B. Twice
- C. Thrice
- D. Other (*please give details*).....

19. What are the toxic /negative effects of the drug on the cattle?

- A. photosensitivity

- B. skin necrosis
- C. hair loss
- D. Other (*please specify*).....

20. Of your drugs of choice (and combinations) in which doses do you commonly prefer to administer?

- A. As prescribed by vet
- B. As prescribed by pharmacist
- C. As I have always done
- D. As advised by fellow farmers

21. Over time, has the dosing changed?

- A. Yes
- B. No

Score: (1 = least likely ; 10 = most likely)

1	2	3	4	5	6	7	8	9	10
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22. Are you using the medication to treat anything else other than nagana?

- A. Yes
- B. No
- C. If yes (*please give details*).....

Groups of livestock

23. Do you have any cattle in your herd that have never needed medication (*non-colonised*)?

- A. Yes
- B. No

Score: (1 = least likely ; 10 = most likely)

1	2	3	4	5	6	7	8	9	10
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24. (*colonised by susceptible strains*) Are there any cattle in your herd recurrently infected and a particular drug (or particular drugs) seems to be working?

- A. Yes
- B. No
- C. If yes, give details on number of cattle, drug (s), order of drugs, (any combination) and dosage.....

25. Do the doses change when in combination if administered separately?

- A. Yes
- B. No

Score: (1 = least likely ; 10 = most likely)

1	2	3	4	5	6	7	8	9	10
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26. Do you have any cattle in your herd that are recurrently infected and all particular drugs seem to be working?

- A. Yes
- B. No
- C. If yes (*please give details*).....

Score: (1 = least likely ; 10 = most likely)

1	2	3	4	5	6	7	8	9	10
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27. How are they administered?

- A. Combination
- B. Separately
- E. Other (*please specify*).....

28. (**colonised by resistant strains**) Do you have cattle that are not responding to all the medication?

- A. Yes
- B. No

Score: (1 = least likely ; 10 = most likely)

1	2	3	4	5	6	7	8	9	10
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29. (**colonised by strains resistant to two drugs**) Do you have cattle that have fallen ill then recovered after you used two drugs (which failed) and then you administered the third and it worked?

- A. Yes
- B. No
- C. If yes (*please give details*).....

Score: (1 = least likely ; 10 = most likely)

1	2	3	4	5	6	7	8	9	10
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30. Do you use drug combinations often?

- A. Yes
- B. No
- C. If yes (*please give details*).....

Score: (1 = least likely ; 10 = most likely)

1	2	3	4	5	6	7	8	9	10
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31. What is the average cost of a single drug regimen per animal?

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32. Do you find the cost of the prescribed trypanocides affordable to you?

A. Yes

B. No

Score: (1 = least likely ; 10 = most likely)

1	2	3	4	5	6	7	8	9	10
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