Medicines Control Authority of Zimbabwe

Department of Veterinary Services

# GUIDELINES FOR CONDUCTING TRIALS FOR CATTLE ACARICIDES IN ZIMBABWE

*Issued by*

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## 1.0 INTRODUCTION

This guideline gives guidance on how to study efficacy of acaricides used in cattle ticks that need animal involvement for completing their life cycle. The guideline is written principally for the treatment methods using generic acaricides and can be employed for testing new chemical entities. This guideline gives some specific information for conducting dipping trial protocol based on the method of application of the acaricides on cattle. The guidance document also assists applicants to submit applications for conducting dipping trial protocols to both DVS and MCAZ. It also helps applicants to compile information for submission to MCAZ for review following a successful dipping trial in form of a dipping trial report. This is a joint guidance document drafted by the Dipping Committee and the MCAZ for presentation of the trial protocol, conduction of the trials and submission of dipping trial report in Zimbabwe by a trialist /principal investigator wishing to conduct trials on acaricides.

### 1.1Registration process for veterinary medicines including acaricides

The registration of veterinary medicines, which includes acaricides involves the submission of an application for registration to the Medicines Control Authority of Zimbabwe (MCAZ) through its Director – General. The application for registration consist of application files/dossier, samples and fees. Acaricides used for treatment of cattle tick species have special requirements in addition to normal registration documents that should be fulfilled before MCAZ could issue a marketing authorisation.

All dipping chemicals for treatment of cattle tick species should be tested in dipping trials in cattle using specific methods under local Zimbabwean conditions prior to submission of application for registration. Information obtained during dipping trials should be submitted to MCAZ in form of dipping trial report together with a dossier/application for registration of the particular dipping chemical.

In terms of Section 16 of the Medicines and Allied Substances Control Act (Chapter 15:03), individuals interested in performing dipping trials should submit written applications to the Director-General of the MCAZ which comprises of a dipping trial protocol and application form MC10 (Annex II). Once the Director – General, receives an application and the proposed dipping trial protocol on and the requisite fees (visit www.mcaz.co.zw ), he/she will assess them for completeness then proceed to evaluate the information submitted. Any further information or clarification may be sought from the applicant. Duplicate application forms and dipping trial protocol should be submitted to the Dipping Committee [DC] of the Department of Veterinary Services [DVS] who will assess to ensure that the proposed trial and substances involved do not

conflict with Departmental policy or existing legislation e.g. banned substances like arsenical dips, or discontinued substances like chlorinated hydrocarbons, carbamates, combination preparations etc, and submit its recommendations to MCAZ. The application, together with the Dipping Committee recommendations are then tabled at a meeting of the Veterinary Committee of the MCAZ who will make recommendations to the Permanent Secretary for the Ministry of Health and Child Care. Permission to conduct dipping trials is granted by the secretary in terms of Subsection (2) of Section 18 of the Medicines and Allied Substances Control Act (Chapter 15:03) to utilise the medicine or allied substance for the purposes of conducting a clinical trial.

## 1.2 Submission of Dipping Trial Protocol applications

The deadline for submitting an application for conducting dipping trials (MC 10, dipping trial protocol and accompanying documents) to both MCAZ and DVS is the **1st July of each year** for the trials intended to be conducted in the succeeding rainy season. This date enables MCAZ and DVS to process applications in time before authorising the commencement of clinical trials for the subsequent period of November to March rainy season. All late applications received after the 1st July of that particular year will not be processed for commencement of dipping trials in that same succeeding rainy season. The late applications will be postponed to the next rainy season. Applicants are encouraged to plan way ahead and make timely submissions to avoid postponements and disappointments.

### 1.2.1 Documents accompanying dipping trial applications

#### A. Consent Forms

The applicant should submit consent forms (MC 18) signed by the owner of the animal (s) used in the dipping trial as required in the trial protocol. In the case of communal dip trials, consent forms must be signed by at least two members of the Livestock Development Committee (LDC) of the dip tank on behalf of all the owners. It is a legal requirement that the principal investigator / trialist ensure that **ALL** animals that are involved in the trial be covered by insurance. This insurance may be provided as a written undertaking to the owner or LDC (in the case of communal dip tank) to replace the animal in case of death /injury or to compensate at the prevailing market value. Any claims for replacement or compensation must be proven to be linked to the trial by a registered veterinarian. Such claims may also include failure of the product to perform leading to injurious effects on the animal.

**B. Indemnity Forms**

The applicant should submit indemnity forms signed by the principal investigator indemnifying the state, Minister of Health and Child Care and the Authority (and any committee thereof) from liability in respect of any injury or adverse effect whatsoever which may be sustained by any animal, directly or indirectly, as a result of the conduct of the trial and which occurs or reveals itself at the time of the trial or subsequently (at any time) and further indemnify the aforementioned against any claim for damages, howsoever arising notwithstanding the provison to section 28 of the said Act.

Before compiling the documentation referred to above applicants are advised to check with the Director of Veterinary Services to acquaint themselves with other aspects that may be involved. Should it be the trialist or sponsor's intention to have the acaricide registered with MCAZ, an application for registration (MC 8 form) may be submitted at the same time as the trial application or on conclusion of the trial when results on safety and efficacy are available. Before commencement of the trial, the applicant shall pay a trial monitoring fee to DVS who through the Dipping Committee shall supervise the trial on behalf of the MCAZ and reserves the right to stop or suspend the trial if it is deemed to be in the public interest to do so. The trialist / principal investigator is obliged to provide duplicate copies of trial records to the Dipping Committee member monitoring the trial at every dipping/spraying session.

## 1.3 How to conduct cattle dipping trials in Zimbabwe

All dipping trials should be conducted in line with the recommendations stated in this guidance document. Specific requirements have been described in accordance with each method of application as indicated under: (SECTION A) Plunge dip method, (SECTION B) Spray race method, (SECTION C) Pour-on method and (SECTION D) Hand spraying method. The duration of the dipping trial should run for three months for generic formulations, between November and March and for twelve months for new formulations. This period (November to March) coincides with the peak rainy season and high tick activity. Where necessary the Department of Veterinary Services may assist with the access to the provision of suitable tick-borne-disease vaccines.

## 1.4 Submission of Dipping Trial Report to DVS and MCAZ

Following a successful dipping trial session, the applicant is required to compile a dipping trial report which is submitted to DVS and MCAZ for assessment of the results generated. Applicants may submit the dipping trial report together with an application for registration to MCAZ as a single

submission or separately should the applicant wish to pursue registration of the acaricide in Zimbabwe.

Upon evaluation of the safety and efficacy trial results and based on the recommendations of the Dipping Committee, MCAZ may then proceed to the register the acaricide provided all other quality requirements would have been met. The registration of the acaricide will be published in the Government Gazette by the MCAZ under the provisions of the Medicines and Allied Substances Control Act (Chapter 15:03) whilst the Department of the Veterinary Services will publish in the Government Gazette the approval under the provisions of the Animal Health (Cattle Cleansing) Regulations, 1993. It is also advisable to approach the Environmental Management Agency for classification of the chemical under the provisions of the EMA regulations. EMA will provide guidance on the issuance of the appropriate colour of the triangle that must appear on the label immediately below the product's trade name.

## 2.0 GENERAL REQUIREMENTS

### 2.1 Glossary of terms used in this document

**Applicant -** a person or company who submits an application to conduct a dipping trial

**DVS -** Department of Veterinary Services

**Generic**– an acaricide chemical that has been previously registered in Zimbabwe.

**Tick Challenge** – It is the degree of tick infestation on the animal. An ideal trial site must be indicated by high tick challenge which must have not less than 5 ticks per 5 animals.

**MCAZ –** Medicines Control Authority of Zimbabwe

**New Chemical Entity** – an acaricide chemical that has not been previously registered in Zimbabwe.

**Tick free** – In relation to an animal means that there are no live ticks attached to the animal.

## 2.2 Requirements for submission of trial protocol and protocol results

A well-designed trial relies predominantly on a thoroughly considered, well-structured and complete protocol. The protocol must therefore contain the information below which must be considered as a minimum whenever a trial is contemplated.

The design and presentation should follow the guidelines below.

### A. Protocol

#### 2.2.1 General Information

a. Title of the study
b. Names and contact details of the investigators responsible for the trial; the names of other possible participants and their professional background (e.g. veterinarian, biochemist, parasitologist, experimental animal attendant, statistician etc.) should also be made clear
c. The name and contact details of the sponsor
d. The location of the trial site including province, district and farm name or dip tank name

#### 2.2.2 Justification and Objectives

a. Aim(s) of the trial. The objective in conducting the study must be clearly established
b. The reason for its execution
c. The essentials of the problem itself and its background, referring where appropriate to relevant literature.

#### 2.2.3 Schedule

a. Description of the projected schedule of the trial i.e. proposed dates and time of commencement, investigation period, observation period and termination date where known
b. Justification of schedule e.g. on the basis of how much information is already available on safety, the efficacy and the expected duration of action of the acaricide
c. Justification of any withdrawal or wash-out periods

#### 2.2.4 Design

a. Specification of the type of trial e.g. plunge dip, by spray race, hand spray or pour on.
b. Description of the randomisation method.

### 2.2.5 Animal Selection

a. Specification of the cattle to be used including age, sex, breed etc. Animals for the trial herd should not be less than six [6] months old.
b. Housing and management of the animals
c. Clear statement of the tick challenge or infestation
d. Exhaustive listing of the criteria for the inclusion, exclusion and post-admission withdrawals of animals

### 2.2.6 Treatments/Applications

a. Clear, precise and detailed identification of the acaricide to be used. No other acaricide other than the one being tested should be used during the duration of the trial.
b. Description of the treatment and management to be applied to indicator animals
c. Method of administration, dipping schedules, treatment periods
d. Rules for use of concomitant treatment
e. Measures to be implemented to ensure the operators' safety concerns whilst handling the test product prior to and during the administration
f. Measures to ensure compliance with prescribed instructions

### 2.2.7 Assessment of efficacy/effectiveness

a. Definition of effects to be achieved before efficacy can be claimed as required in the appropriate Section A to D below
b. Calculation of efficacy using Abbott formula (refer to annex III)
c. Description of how such effects are measured and recorded
d. Times and periods between observation and recording of the effects
e. Description of any tests and/or analysis to be carried out

### 2.2.8 Safety

a. Methods of recording and monitoring suspected adverse events
b. Measures to be taken in such eventualities e.g. treatment, changes to method of administration
c. Information of where the trial data will be kept.
d. Details of the reporting of suspected side effects

### 2.2.9 Operational issues

a. Definition of any instructions for anticipated deviations from the protocol e.g. therapy in the event of treatment failure
b. The duties and responsibilities of the investigation team and their co-ordination
c. Instructions to staff
d. Instructions with regard to operator safety when using the trial product and to human and environmental safety with regard to effluent handling etc
e. Use of the trial product on completion of the trial
f. Instructions on sampling and shipment of samples

### 2.2.10 Handling of records

a. Procedures for handling and processing the records of various effects
b. Procedures for the maintenance of all the records for each test group

### 2.2.11 Evaluation

a. Definition of how the effects of the acaricide will be determined e.g. scoring system
b. Definition of the computation and calculation of effects of use of the acaricide
**c.** Description on how to deal with and report on animals withdrawn or otherwise from the trial

### 2.2.12 Statistics

a. A description of the experimental design, sample size and rationale
b. A description of the statistical methods to be used (Recommended methods….)

### 2.2.13 Supplements

The protocol must comprise a comprehensive summary and relevant supplements e.g. information to the owners of the animals, informed consent form, instructions to staff, description of special procedures, etc.

**B. Final trial report**

After completion of the trial, a report of the trial must be presented to MCAZ and the Dipping Committee of the Department of Veterinary Services. A copy of the trial protocol must also accompany the final report.

The report must contain the following:

a. Names of persons involved in the trial including the investigator(s), site supervisor, technical supervisor, veterinary surgeons
b. Address of the premises where the trial was conducted
c. Brief description of the method of rearing and feeding and details of management of trial animals
d. Tick challenge or infestation
e. Precise identification and formula of the trial acaricide
f. Application rate and frequency
g. Duration of treatment and period of observation
h. Information of any animals withdrawn from the trial
i. Details of any other treatments or products used during the trial
j. Full description of the results of the trial, whether favourable or unfavourable. In case of uncompleted trial, the reasons for the cessation
k. Calculation of efficacy using Abbott formula (refer to annex III)
l. Details of any suspected adverse effects
m. Summary of the trial including statement of the objective and main conclusions that can be drawn from the results

The report must be dated and signed by the principal investigator and sponsor indicating that it represents a complete and accurate record of the trial.

## 3.1 SPECIFIC REQUIREMENTS FOR DIFFERENT TYPES OF ACARICIDES

### SECTION A: TRIAL PROTOCOL FOR ACARICIDE USING PLUNGE DIP

**A.1. Objectives**

i. To evaluate the efficacy of the test acaricide in a dipping tank
ii. To establish the replenishment rate and stability of the test acaricide in a dipping tank under local field conditions;
iii. To observe any side effects of the test acaricide e.g. toxicity.

**A.2 Trial Sites**

Trial sites with adequate tick challenge of the target tick species must be selected in collaboration with the Provincial Veterinary Officer of the area. The trial sites should include a description of the farm or dipping tank, size of cattle herd, acaricide in current use, past disease history and name of owner and/or manager or dip attendant in the case of communal dip tank

**A.3 Trial Period**

The trial must be conducted on at least two sites concurrently and uninterrupted for a period of

a. For generic acaricides with formulations that have been registered before: – not less than three months which must be within the peak rainy season of November to March - or
b. For new chemical acaricide the period should be twelve (12) months.

**A.4 Tick Challenge**

It is paramount to assess the level of tick challenge present on the farm before the commencement of the trial.

a. One or more of specified ticks species as in the Animal Health (Cattle Cleansing) Regulations, 1993 must be present on each chosen trial site.
b. A minimum of two trial sites [i.e. one from lowveld another from highveld] should be selected with all specified tick species present between the two sites.

Failure to comply with this requirement will make the trial results inconclusive and the trial null and void. The Dipping Committee of the Department of Veterinary Services reserves the right to reject any proposed site it deems unsuitable.

**A.5 Test Cattle**

The number of cattle should not be less than 100 per group at each trial site. The breed of cattle and their total number must be stated.
The cattle in the trial must be divided into two groups as follows:

i. **The Treatment Group:** treated with the acaricide under test. This group should not be less than one hundred [100] cattle and all cattle in the group must be produced at each dipping;

ii. **Indicator Group:** five [5] animals will be ear tagged and will be used as undipped controls in each trial to determine whether there is a continuous tick challenge. These animals will be randomly selected from the trial herd. It is the responsibility of the trialist to arrange for the protection of these animals in a suitable manner. Once a tick challenge has been established, the animals may be dipped as necessary.

**A.6 Materials and equipment**

6.1 One functional dipping-tank must be present on the farm. There must be an adequate water supply to allow replenishment during the course of the trial. There should also be suitable handling facilities.

6.2 The dipping tank must be accurately calibrated i.e. its capacity should be indicated.

6.3 For generic formulations, two duplicate samples of minimum capacity 250ml must be collected during the first month, second month and last month of dipping. One set after the stirring head have passed through and the other set at the end of dipping. For new chemical entities, duplicate samples should be collected during the first month, sixth month and the twelfth month of dipping.

6.4 Collection of the sample should be done using a dip wash sampler with a rod for collecting dip wash samples

6.5 A hand tally counter should be used to count animals at each dipping session

6.6 Enough test acaricide must be available at the farm or dip to cover the trial period only. All chemicals used for the trial must be used for the trial period only and removed thereafter i.e. dipping tank must be emptied of the acaricide

6.7 A well-equipped laboratory to carry out dip wash analysis after each dipping must be identified and available.

6.8 A record of water pH, ambient temperature and rainfall during the trial period should be compiled and results attached to the dipping trial report.

**A.7 Method of dipping**

This must be conducted under the supervision of the trialist and the Dipping Committee. MCAZ reserves the right to also monitor the trials where it deems necessary.

7.1 Fill tank with water to the required volume.

7.2 Take the test acaricide and mix with water to achieve the desired concentration.

Allow 30 stirrer cattle to go through the dip wash to achieve an even mix of the dip wash and return these cattle for a second dipping. Take a dip wash sample immediately after the 30 stirrer cattle have gone through the dip wash. Dip the whole herd and collect another wash sample immediately after the last animal has dipped. Dip wash samples should be taken one metre below the surface at the centre point of the tank using a dip wash sampler with rod. In cases where replenishment is required, collect another set of sample just before replenishment.

7.3. The following minimum animal tick sampling schedules must be applied during the trial periods:

November to March - weekly.
Rest of the year - may be stretched up to a maximum of two weeks.

The following information must be recorded:

7.3.1. Dates the cattle were dipped
7.3.2 Farm or dipping tank locality
7.3.3 Cattle census.
7.3.4 Tick counts that shall be half –body counts from 30 randomly selected cattle according to the requirements of Annex 1. Efficacy should be calculated using the Abbott formula- annex III.
7.3.5. Ambient temperature and water pH
7.3.6 Volume of dip wash in the tank before dipping. The head count system shall be used.
7.3.7 Volume of dip wash in the tank after dipping as above.
7.3.8 Observed signs of toxicity on the cattle at each dipping; and any reported incidences by the owner
7.3.9 An accurate record of the number of cattle dipped and volume of dip wash removed
7.3.10 An accurate record of the laboratory dip wash analyses.
Stability of the sample from time of sampling to the time of analysis must be justified and specified
7.3.11 The initial fill and replenishment rates used

## SECTION B: TRIAL PROTOCOL FOR ACARICIDES FOR USE IN SPRAY RACES

### B.1 Objectives

i. To evaluate the efficacy of the test acaricide using a spray race
ii. To establish the replenishment rate and stability of the test acaricide under the local field conditions.
iii. To determine any side effects of the test acaricide e.g.toxicity

### B.2 Trial Sites

Should be selected as for the dipping tank (Section A). The design of the spray race should be approved by DVS.

### B.3 Trial Period

The trial must be conducted on at least two sites concurrently and uninterrupted for a period of

a. For generic acaricides with formulations that have been registered before: – not less than three months which must be within the peak rainy season of November to March - or
b. For a new chemical acaricide – twelve (12) months

### B.4 Tick Challenge

Should be as for dipping tank (Section A)

### B.5 Test Cattle

Should be selected as for dipping tank (Section A)

### B.6 Materials and equipment

6.1 A well functional spray race must be available on the farm. There must be an adequate water supply to allow filling/replenishment during the course of the trial.
6.2 The spray race must be accurately calibrated by adding measured volumes of water and marking the dip stick every 200 litres
6.3 The spray race should have a pressure gauge
6.4 Two samples with a minimum capacity of 250ml are required on each dipping day
6.5 A hand tally counter should be used to count animals at each dipping session
6.6 Enough test acaricide must be present on the farm
6.7 A well-equipped laboratory to carry out dip wash analysis after each dipping must be available and identified
6.8 A record of the rainfall during the trial period should be kept

### B.7 Method of spraying

7.1 The sump should be accurately calibrated by adding a measured volume of water. Then prepare the required spray wash.
7.2 The spray race should have a pressure gauge and spraying be performed at the recommended pressure and driven by a power unit with sufficient horsepower.
7.3 Ensure spray race is approved design
7.4 Record information as for dipping tank (Section A)

## SECTION C: TRIAL PROTOCOL FOR ACARICIDE USED AS POUR-ON

### C.1 Objectives

i. To evaluate the efficacy of the test pour on acaricide using a specified device for its application
ii. To determine any side effects of the test acaricide e.g.toxicity

### C.2 Trial Sites

Should be selected as for dipping tank (Section A)

### C.3 Trial Period

The trial must be conducted concurrently at both sites uninterrupted for a period of:

a) For generic acaricides with formulations that have been registered before: – not less than three months which must be within the peak rainy season of November to April - or
b) For new chemical acaricide – up to twelve (12) months

### C.4 Tick Challenge

Should be assessed as for dipping tank (Section A)

### C.5 Test cattle

The number of cattle should not be less than 30 per group at each trial site, other requirements as for dipping tank (Section A)

### C. 6 Materials and equipment

6.1. Appropriate handling facility to allow immobilization of animal while applying acaricide
6.2. Hand tally counter
6.3. Enough test acaricide must be available at the farm
6.4 Test acaricide must be used during the dipping trials only and should be discontinued at the end of the trial period.

### C.7 Method of application of pour on

7.1 Use an applicator intended for registration with the pour on
7.2 The applicator must be cleansed thoroughly after use
7.3 Record information as for the dipping tank (Section A)

The following information must be recorded as indicated in section A above. Tick counts shall be half –body counts conducted from 25 randomly selected cattle according to the requirements of Annex 1.

## SECTION D: TRIAL PROTOCOL FOR ACARICIDE USED AS A HAND SPRAY

### D.1 Objectives

i. To evaluate the efficacy of the test acaricide when applied as a hand spray
ii. To observe any side effects of the test acaricide e.g. toxicity

### D.2 Trial Site

Should be selected as for dipping tank (Section A) except where acaricide formulation is already registered for plunge dipping or spray race where one site may be used.

### D.3 Trial Period

Same conditions as for section A.3 apply

### D4 Tick Challenge

Same conditions as for A4 except where acaricide formulation is already registered for plunge dipping or spray race where one site may be used

### D5 Test Cattle

The number of cattle should not be less than fifty (50) at each trial site. The breed of cattle and their total number must be stated.

The cattle in the trial must be divided into two groups as follows:

i. **Treatment Group**: treated with the acaricide under test. This group should not be less than thirty (30) cattle and all cattle must be produced at each spraying.

ii. **Indicator Group**: Same conditions as for section A5 part ii.

### D6 Materials and Equipment

6.1 An appropriate hand spraying appliance with a capacity of at least 15 litres with specification provided to be used consistently throughout the trial.

6.2 At least one functional handling race must be on the farm. There must be an adequate water supply and there should be suitable handling facilities.

6.2 One dip sample to be collected each day for analysis to show that the target strength has been maintained.

6.3 Enough test acaricide must be available at the farm to cover the trial period. All chemicals used for the trial must be used for the trial period only and excess removed thereafter.

6.4 A well-equipped laboratory to carry out spray wash analysis after each spraying must be available and identified.

**D7 Method of Hand Spraying**

This must be conducted under the supervision of the trialist and a representative of the Dipping Committee.

7.1 The test acaricide must be mixed with water in such a way as to achieve an even mix of the spray wash to the desired concentration.

7.2 The wash must be applied on the animal body to the point of drip paying attention to predilection sites.

7.3 The following information must be recorded:

i. Dates the cattle were sprayed
ii. Farm name and locality of the race
iii. Cattle census
iv. Half body tick counts on 30 cattle in the trial
v. Ambient temperature and pH of water being used
vi. The average amount of spray wash used per animal
vii. Volume of spray wash used at each spraying
viii. Observed signs of toxicity on the cattle at each spraying and any reported incidences by the owner
ix. Results of the wash analyses
x. State the mixing rate used
xi. Specifications of appliance

## 4.0 ANNEXES

**Annex I**

**DIPPING TRIAL** _____ **FARM**_____

**PRODUCT** _____ **DIPTANK**_____

**DATE**_____ **WEEK**_____

| | No. treated | Tick spp | Remarks |
|---|---|---|---|
| **CONTROLS** | | | |
| **MAIN HERDS** | | | |

**Annex I: Tick Counts Record Sheet**

**Date: _____ Dip Tank:_____ Product: _____**

| Animal Serial No. | Brown Ear | | | Blue | | | Bont | | | Bont leg | | | Red leg | | | Other browns | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | F | SE | E | F | SE | E | F | SE | E | F | SE | E | F | SE | E | F | SE | E |
| | | | | | | | | | | | | | | | | | | |
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**INDICATOR ANIMALS**

| Animal Serial No. | Brown Ear | | | Blue | | | Bont | | | Bont leg | | | Red leg | | | Other browns | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | F | SE | E | F | SE | E | F | SE | E | F | SE | E | F | SE | E | F | SE | E |
| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
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**F = Flat**

**SE** = Semi engorged

**E** = Engorged

## ANNEX II: Mc10

Form M.C. 10
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**CONFIDENTIAL MEDICINES CONTROL AUTHORITY**
**MEDICINES AND ALLIED SUBSTANCES CONTROL ACT [CHAPTER 15:03]**
**APPLICATION FOR AUTHORIZATION TO CONDUCT A**
**CLINICAL TRIAL**
***(To be submitted in triplicate)***

1. Particulars of applicant
If an individual: Full names
……
Date and place of birth
……
Qualifications
……
Address (Home)
……
(Business)
……
If a company: Name of company
……
Physical address
……
Registered office
……
Postal address
……
Telephone number
……
Position of person in the company who is making the application on behalf of the company
……
State the main field of manufacture of the company, if applicable .....
……
2. State the name of the medicine, its chemical composition, graphic and empirical formulae, animal pharmacology, toxicity and teratology as well as any clinical or field trials in humans or animals, or any other relevant information and supply reports, if any
……
3. State any adverse or possible reactions to the medicine
……...
4. State therapeutic effects of the medicine
……
5. (a) Has the medicine been registered in the country of origin? YES/NO* If YES a valid certificate of registration in respect of such
medicine issued by the appropriate authority established for the registration of medicines in the country of origin shall accompany
this application.
If NO state details
……
(b) Have clinical trials been conducted in the country of origin? YES/NO*
If YES state details
……

If NO give reasons why

……

(c) Has an application for the registration of the medicine been made in any other country? YES/NO*
If YES state details including the date on which the application was lodged

……

(d) Has the medicine been registered in any other country? YES/NO*
If YES state details

……

(e) Has the registration of the medicine been rejected, or refused, deferred or cancelled in any country? YES/NO*
If YES. state details

……

Form M.C. 10
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(f) What is the status of the medicine in Zimbabwe?
Tick (□) whichever is
appropriate
Registered
Unregistered
Application for registration has been submitted

6. State the name(s), address(es) and telephone numbers) and qualifications of the person(s) who will conduct the trial

……

Name Qualifications Address and Address and
telephone number telephone number
(Business) (Home)

…… …… …… ……

7. State the name, physical address and telephone number of the institutio n or the places where the trial will be conducted

……..……

8. State the purpose of the trial and the reasons therefor

……

9. State the time period for the trial

……

10. Description of the type of trial (e.g. controlled, open) trial design (e.g. parallel groups, crossover technique), blind technique (e.g double blind,
simple blind) randomisation (e.g. method and procedure) or any other type of trial

……

11. Description of participants (e.g. age group of persons or animals, type or class of persons or animals, sex, etc.)

…… ……

12. Criteria for inclusion or exclusion of participants

……

13. Number of participants expected to take part in the trial and a justification thereof (e.g. based on statistical considerations)

……

14. Administration route, dosage, dosage interval and period for the medicine being tested and the medicine being used as a control

……

15. Control groups (placebo, other therapy, etc.)

……...

16.(a) State whether any other medicine will be given concomitantly. YES/NO*
If YES, state the name of the medicine
……
(b) State whether a person already on another medicine will be given the experimental medicine at the same time or whether the participant will be
taken off the other medicine.
……
Form M.C. 10
Page 3 of 4 pages
17. Recording of effects: give a description of the methods of recordings and times of recordings
……
18. State clinical and laboratory tests, pharmacokinetic analysis, etc., that are to be carried out
……
19. State the method of recording adverse reactions and provisions for dealing with same and other complications
……
20. State antidote
……
21. State the procedure for the keeping of participant lists and participant records for each participant taking part in the trial +
……
22. State where the trial code will be kept and how it can be broken in the event of an emergency
……

23. State the measures to be implemented to ensure the safe handling of medicines and to promote and control compliances with the prescribed
instructions
……
24. Evaluation of results, state the description of methodology (e.g. statistical methods)
……
25. State how the persons or owners of animals are to be informed about the trial
……...

26. State how the staff involved are to be informed about the way the trial is to be conducted and about the procedures for medicine usage and
administration and what to do in an emergency
……
27. State whether there are any ethical or moral considerations relating to the trial, giving details
……
28. State the name and address of the company who will insure all the participants in the proposed trial ++
……
29. State the amount of insurance in respect of each participant
……...

30. State the quantity of the medicine for which exemption is required if the medicine is not registered
……
31. Particulars of persons who will take part in the clinical trial+++
……
Form M.C. 10
Page 4 of 4 pages
**Name Occ upation Adress Date and place of birth**
1. …….. ……..

2. …….. ……..
…… ……....
3. …….. …….. …
32. Particulars of animals that will take part in the clinical trial.
Kind and breed of animal
……..……
Age of animal, if known
……..
Name and addresses of owners of animals.
**Name Address**
1. …….. ……..
2. …….. ……..
33. Attached is a sample of the medicine, together with methods of analysis and storage conditions.
Date …….. …….
*Signature of applicant*
Countersignature of medical superintendent or senior medical officer if the clinical trial is to be conducted in a hospital or a medical institution.++++
Date …… ……..…….
**Notes**
**Delete the inapplicable*
+, item 21: Records should permit easy identification of individual participants.
++, item 28: A letter from the insurance company shall be attached to the application indicating the insurance company's consent to the propose
insurance and a copy of the proposed insurance policy.
+++, item 31: The consent of each person or the guardian of such person who will participate in the trial is required to be attached to the application
Form M.C. 17.
The consent of each owner of an animal which will participate in the trial is required to be attached to the application in Form M.C. 18.
++++, This item should be countersigned by a veterinary surgeon if the trial is to be conducted in a veterinary hospital.
**FOR OFFICIAL USE ONLY**
1.Director General's comments on the application
……..……...
2. Authority's comments on the application
……
3. Application approved/disapproved by the Secretary.
Comments
……
Date …… …….
*Secretary for Health*

**ANNEX III: Efficacy Calculations**

**EFFICACY CALCULATION FORMULAE**

**Abbott Formula**

**%Efficacy** = $(M_c-M_t)/M_c$ x 100;

**Control group (mc)**: Mean number of live parasites (ticks) on the untreated host animals

**Treatment group (mt)**: Mean number of live parasites (ticks) on the treated host animals

Geometric means are used, the transformation should be justified and the arithmetic means also recorded.

Acceptance criteria: The efficacy of the proposed product should be more than **90 %**.

***//zam***