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ACVM REGISTRATION STANDARD AND GUIDELINE FOR EFFICACY OF EMETICS

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Endorsement:
Date:

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ACVM REGISTRATION STANDARD AND GUIDELINE FOR EFFICACY OF EMETICS

1 INTRODUCTION

This document specifies the minimum study and reporting requirements, i.e. the standard, for efficacy studies submitted in support of an application to register an emetic, or to vary the conditions on a registered emetic. It also incorporates guidelines, which are intended to provide more detailed information and guidance to applicants to assist them in complying with the standard.

The requirements that form the standard are shown in this document in **bold font**, while the guidelines are in regular font.

Guidelines reflect principles commonly recognised by the scientific community as appropriate and necessary for collecting scientific data. It is recognised that there are acceptable methods, other than those described in these guidelines, that are capable of achieving the principles of this document.

The standard is compulsory in all cases where efficacy data is required to be provided for registration of emetics, unless a waiver has been granted by NZFSA.

Waivers may be granted to reduce the number of studies or type of data that an applicant must submit (e.g. by permitting cross-referencing to existing data held by NZFSA). *These waivers must be granted by NZFSA prior to the applicant submitting an application.* This standard will be reviewed periodically, and waivers incorporated if appropriate.

Applicants should note that they are responsible for providing all information required by the ACVM Group of NZFSA to make a decision on the application. Applications that do not contain the required information will not be assessed. If further advice is required, applicants are advised to contract the services of an appropriate consultant prior to submitting the application.

1.1 Scope

The standard must be followed by:

- all persons applying to register an emetic or to vary the conditions on a registered emetic;
- all persons accredited under the Agricultural Compounds and Veterinary Medicines Act 1997 to undertake a risk assessment of applications made to register an emetic or to vary the conditions on a registered emetic.

The standard provides specifications for:

- general efficacy requirements;
- experimental design; and
- reporting.

1.2 Definitions and abbreviations

Target species
The species of animal for which the test substance is intended for final use.

1.3 References

ACVM Research Standard
ACVM Registration Information Requirements for Veterinary Medicines in New Zealand

2 GENERAL REQUIREMENTS FOR EFFICACY STUDIES

2.1 Clinical requirements

2.1.1 All studies must be conducted in accordance with the *ACVM Research Standard.*

2.1.2 The efficacy of the product and/or its active ingredients must be investigated in the target species.

2.1.3 Product formulation and use patterns used in studies must be identical to those being proposed for registration.

2.1.4 Experimental data must be confirmed by data obtained under practical field conditions.

2.1.5 Sample sizes must be adequate to detect differences among treatment groups with a statistical power of at least 80%.

2.1.6 Adequate statistical methods must be used and justified. A 5% or lesser probability level ($P \leq 0.05$) should be used in deciding whether to accept or reject the null hypothesis.

2.1.7 Where a dose range is stated on the label, efficacy studies must be undertaken using the lowest dose rate.

2.2 Documentation

2.2.1 Reports must be presented in accordance with the *ACVM Research Standard.*

2.2.2 The applicant must state the overseas licensing status of the remedy. A reason must be given where the remedy is not licensed for use in the country of origin.

3 SPECIFIC REQUIREMENTS FOR EFFICACY OF EMETICS

The following are minimum study and reporting requirements (with guidelines) for evaluating the efficacy of emetics. They are additional to the general efficacy requirements above.

3.1 General

3.1.1 Trial results may not be extrapolated from one species to another.

3.1.2 Study animals must be free of disease that could affect the outcome of the study.

3.1.3 The study environment should be as uniform as possible for all experimental groups in the study.

3.1.4 Acclimatisation to the study environment is appropriate.

3.2 Experimental design

3.2.1 A control group must be used.

Animal numbers per experimental group depend upon differences expected.

Where a placebo control group is unlikely to be informative, a positive control is recommended, e.g. a two-way crossover study using a currently approved emetic. The wash out period between treatments should take into account the known pharmacokinetics of control and experimental emetics.

During field studies, a positive control group is highly recommended.

3.2.2 If the product is to be labelled with a dose range, then a minimum dose must be used.

Animals should be weighed at the beginning of the study to ensure that the correct dose is given.

3.2.3 Emetic treatment should follow 30 minutes after feeding. Animals should be fed their normal diet prior to emetic use.

3.3 Reporting

3.3.1 The following parameters must be reported for each animal:

- **the amount fed to the animal;**
- **confirmation that emesis has occurred;**
- **time from administration of the emetic until onset of emesis (latency);**
- **volume, frequency and duration of vomiting;**
- **subjective observations of the investigator.**

3.3.2 Data on onset, volume, frequency and duration of vomiting enables assessment of the usefulness of the substance for removal of orally ingested toxins.

3.3.3 Onset of vomiting should begin within five minutes of administration.

APPENDIX A

CONTENT OF AN EFFICACY DATA PACKAGE SUMMARY

1 Identity

1.1 Applicant

1.2 Trade name of product

1.3 Active ingredient(s) and concentration

1.4 Chemistry

Provide references to the section(s) in the chemistry data package that describe the properties of relevance to the assessment of efficacy.

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2 Proposed use pattern

2.1 Use situation

2.2 Condition(s) being treated

2.3 Administration method

2.4 Dosage

2.5 Number and timing of treatments

Provide the normal, minimum and maximum (where applicable) treatment intervals and number of treatments.

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3 Studies

Provide a concise summary of all efficacy studies provided and their conclusions, including the level of efficacy proven and the statistical methods used.

APPENDIX B

CONTENT OF A RISK ASSESSOR'S REPORT FOR EFFICACY DATA

CONCLUSIONS

1 Identity

1.1 Applicant

1.2 Trade name of product

1.3 Active ingredient(s) and concentration

1.4 Chemistry

Comment on the key properties of the active ingredient(s) that impact on the efficacy of the trade name product.

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2 Proposed use pattern

2.1 Use situation

2.2 Condition(s) being treated

2.3 Administration method

2.4 Dosage

Comment on the appropriateness of the dosages proposed in terms of efficacy of the product.

2.5 Number and timing of treatments

Comment on the number and timing of treatments and outline the circumstances of use that will result in the lowest level of efficacy.

2.6 Changes to practice

Include comments on any specific aspects of proposed use that are novel or at variance with similar compounds or common practices.

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3 Supporting data

3.1 Provide a concise statement on the quantity, quality, validity and completeness of the supporting data. Identify the level of efficacy proven.

3.2 Comment on the suitability of the method(s) of statistical analysis used.

3.3 If both New Zealand and overseas study data are submitted, indicate the level of consistency between them.

3.4 Advise whether the data are sufficient to assess efficacy of the trade name product.

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4 Conformance

State whether the supporting data conform to the *ACVM Registration Standard and Guideline for Efficacy of Emetics*, the *ACVM Research Standard*, guidelines and information waivers. Where information waivers have been granted, comment on their impact.

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5 Risk statements

Provide a statement on the risk of the proposed use resulting in animal welfare thresholds being exceeded as a result of inefficacy.

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6 Further work or information

Identify any work that may reduce the level of uncertainty to an acceptable level, assist in the explanation or extrapolation of the data or provide a more complete database.

Assessor's name:
Signature:
Date:
