

## TERRESTRIAL ANIMAL HEALTH STANDARDS COMMISSION

## SEPTEMBER 2012 REPORT

## CHAPTER 6.9.

**RESPONSIBLE AND PRUDENT USE OF  
ANTIMICROBIAL AGENTS IN VETERINARY  
MEDICINE**

## Article 6.9.1.

**Purpose**

This document ~~These recommendations~~ provides guidance for the responsible and prudent use of *antimicrobial agents* in veterinary medicine, with the aim of protecting both animal and human health as well as the environment. It defines the respective responsibilities of the *Competent Authority* and stakeholders ~~involved in the authorisation, production, control, distribution and use of veterinary medicinal products (VMP) containing antimicrobial agent(s)~~ such as the national regulatory authority, the veterinary pharmaceutical industry, veterinarians, animal feed manufacturers, distributors and food animal producers who are involved in the authorisation, production, control, importation, exportation, distribution and use of veterinary medicinal products (VMP) containing antimicrobial agent(s). The *Competent Authorities* responsible for the registration and control of all groups involved in the authorisation production, distribution and use of veterinary antimicrobials have specific obligations.

Responsible and Prudent use is principally determined by ~~the outcome of the specifications detailed in the marketing authorisation procedure~~ and by their implementation of specifications when *antimicrobials agents* are administered to *animals* and are part of good veterinary and good agricultural practice.

Activities associated with the Responsible and prudent use of antimicrobial agents activities should need to involve all stakeholders.

Coordination of these activities at the national or regional level is recommended and may support the implementation of targeted actions by the stakeholders involved and enable clear and transparent communications.

## Article 6.9.2.

**Objectives of responsible and prudent use**

Responsible and Prudent use includes a set of practical measures and recommendations intended to prevent and/or reduce improve animal health and animal welfare while preventing or reducing the selection, emergence and spread of antimicrobial-resistant bacteria in *animals* to:

- 1) ensure the rational use ~~maintain the efficacy of~~ *antimicrobial agents* in animals and to ~~ensure the rational use of antimicrobials in animals~~ with the purpose of optimising both their efficacy and safety ~~in animals~~;
- 2) comply with the ethical obligation and economic need to keep *animals* in good health;
- 3) prevent, or reduce, as far as possible, the transfer of resistant micro-organisms and/or resistance determinants (with their ~~any resistance determinants~~) within animal populations, the environment and from animals to between animals and humans;
- 4) ~~maintain the efficacy of antimicrobial agents used in food-producing animals~~;

- 5- ~~prevent or reduce the transfer of resistant micro-organisms or resistance determinants from animals to humans;~~
- 64) contribute to maintaining the efficacy and usefulness of antimicrobial agents used in animal and human medicine and prolong the usefulness of the antimicrobials;
- 7- ~~prevent the contamination of animal-derived food with antimicrobial residues that exceed the established maximum residue limit (MRL);~~
- 85) protect consumer health by ensuring the safety of food of animal origin with respect to residues of antimicrobial agents drugs, and the ability to transfer antimicrobial drug resistant micro-organisms to humans.

#### Article 6.9.3.

#### Responsibilities of the Competent Authority regulatory authorities

##### 1. Marketing authorisation

~~The national~~ The Regulatory Competent Authority authorities are is responsible for granting marketing authorisation which. This should be done in accordance with the provisions of the *Terrestrial Code*. It has ~~They have~~ a significant role in specifying the terms of this authorisation and in providing the appropriate information to the veterinarians and all the other relevant stakeholders.

All Member Countries should actively combat the unauthorised manufacture, compounding, importation, advertisement, trade, distribution and use of unlicensed and counterfeit products, including bulk active ingredients, through appropriate regulatory controls and other measures.

##### 2. Submission of data for the granting of the marketing authorisation

~~The pharmaceutical industry has to submit the data requested for the granting of the marketing authorisation.~~ The Marketing authorisation is granted on the basis of the data submitted by the pharmaceutical industry or applicant and only if the criteria of safety, quality and efficacy are met. An evaluation assessment of the potential risks and benefits to both animals and humans resulting from the use of antimicrobial agents, with particular focus on use in food-producing animals, should be carried out. The evaluation should focus on each individual antimicrobial agents product and the findings should not be generalised to the class of antimicrobials class to which the particular active ingredient principle belongs. Guidance on usage should be provided for all target species, route of administration, dosage regimens, ranges or withdrawal period and different durations of treatment that are proposed.

##### 3. Market authorisation approval

The Competent Authority Regulatory authorities should ensure attempt to expedite expedite that the market approval process of a new VMPs containing antimicrobial agent(s) occurs without undue delay in order to address a specific need for the treatment of animal disease.

##### 4. Registration procedures

The Competent Authority should establish and implement efficient statutory registration procedures that evaluate the quality, safety and efficacy of the VMPs containing antimicrobial agent(s). According to Article 3.1.2. of Chapter 3.1. of the Terrestrial Code, such the Competent Authority should be free from any commercial, financial, hierarchical, political or other pressures which might affect their its judgement or decisions.

Member Countries are encouraged to apply the existing guidelines established by the International Cooperation on Harmonisation of Technical Requirements for Registration of Veterinary Medicinal Products (VICH).

Member Countries lacking the necessary resources to implement an efficient registration procedure for veterinary medicinal products (VMPs), and whose supply principally depends on imports from foreign countries and which are importing VMP, should undertake the following measures:

- a) check the efficacy of administrative controls on the import of these VMPs;
- b) check the validity of the registration procedures of the exporting and manufacturing country as appropriate;
- c) develop the necessary technical co-operation with experienced authorities to check the quality of imported VMPs as well as the validity of the recommended conditions of use.

The Competent Authorities Regulatory authorities of importing countries should request the pharmaceutical industry to provide quality certificates prepared by the *Competent Authority* of the exporting and manufacturing country as appropriate. All Member Countries should make every effort to actively combat the manufacture, advertisement, trade, distribution and use of unlicensed and counterfeit bulk active pharmaceutical ingredients and products including bulk active ingredients.

5. Quality control of antimicrobial agent(s) and VMP containing the antimicrobial agent(s)

Quality controls should be performed:

- a) in compliance with the provisions of good manufacturing practices;
- b) to ensure that analysis specifications of *antimicrobial agent(s)* used as active ingredients comply with the provisions of approved registration documentations (such as monographs) approved by the relevant Competent Authority;
- c) to ensure that the quality and concentration (~~stability~~) of *antimicrobial agent(s)* in the marketed dosage form(s) are maintained until the expiry date, established under the recommended storage conditions;
- d) to ensure the stability of antimicrobial agent(s) when mixed with feed or drinking water;
- e) to ensure that all antimicrobial agent(s) and the VMP containing the them antimicrobial agent(s) are manufactured to the appropriate quality and purity in order to guarantee their safety and efficacy.

6. Assessment of therapeutic efficacy

a) Preclinical trials

i) Preclinical trials should:

- establish the spectrum range of activity of *antimicrobial agent(s)* against relevant or both pathogens and non-pathogens (commensals);
- assess the capacity ability of the *antimicrobial agent(s)* to select for resistance *in vitro* and *in vivo*, taking into consideration intrinsically resistant and pre-existing resistant strains;
- establish an appropriate dosage regimen (dose, dosing interval and duration of the treatment) and route of administration necessary to ensure the therapeutic efficacy of the *antimicrobial agent(s)* and limit the selection of antimicrobial resistance. (Pharmacokinetic and pharmacodynamic data and models can assist in this appraisal.)

- ii) The activity of *antimicrobial agent(s)* towards the targeted micro-organism should be established by pharmacodynamics. The following criteria should be taken into account:
  - spectrum of activity and mode of action;
  - minimum inhibitory and bactericidal concentrations against recent isolates;
  - time- or concentration-dependent activity or co-dependency;
  - activity at the site of *infection*.
- iii) The dosage regimens allowing maintenance of effective antimicrobial levels should be established by pharmacokinetics. The following criteria should be taken into account:
  - bio-availability according to the route of administration;
  - distribution concentration of the antimicrobial agent(s) in the treated animal at the site of infection and concentration at the site of infection its distribution in the treated animal;
  - metabolism ~~that may lead to the inactivation of antimicrobials~~;
  - excretion routes.

Use of combinations of *antimicrobial agents* should be scientifically supported.

b) Clinical trials

Clinical trials in the target animal species should be performed to confirm the validity of the claimed therapeutic indications and dosage regimens established during the preclinical phase. The following criteria should be taken into account:

- i) diversity of the clinical cases encountered when performing multi-centre trials;
- ii) compliance of protocols with good clinical practice, such as Veterinary International Cooperation on Harmonisation (VICH) guidelines (VICH GL-9);
- iii) eligibility of studied clinical cases, based on appropriate criteria of clinical and bacteriological diagnoses;
- iv) parameters for qualitatively and quantitatively assessing the efficacy of the treatment.

7. Assessment of the potential of antimicrobials agent(s) to select for resistance

Other studies may be requested in support of the assessment of the potential of *antimicrobials agents* to select for resistance (Guidelines providing information for developing such studies are available, e.g. VICH GL-27). The party applying for market authorisation should, where possible, supply data derived in target animal species under the intended conditions of use.

For this the following may be considered:

- a) the concentration of either active antimicrobial agent(s) or metabolite(s) compound in the gut of the *animal* (where the majority of potential food-borne pathogens reside) at the defined dosage level;
- b) Pathway for the human exposure to antimicrobial resistant micro-organisms the route and level of human exposure to food-borne or other resistant organisms;

- c) the degree of cross-resistance within and between the class of antimicrobials classes and between classes of antimicrobials;
  - d) the intrinsic and pre-existing, baseline level of resistance in the pathogens of human health concern (baseline determination) in both *animals* and humans.
8. Establishment of acceptable daily intake (ADI), maximum residue level limit (MRL) and withdrawal periods for antimicrobial agents compounds in food producing animals
- a) When setting the acceptable daily intake (ADI) and MRL for an *antimicrobial agents* substance, the safety evaluation should also include the potential biological effects on the intestinal flora of humans (Guidelines are available, e.g. VICH GL-33).
  - b) The establishment of an ADI for each *antimicrobial agent*, and an MRL for each animal-derived food, should be undertaken.
  - c) For all VMP containing *antimicrobial agent(s)*, withdrawal periods should be established for each animal species in order to ensure produce food in compliance with the MRLs, taking into account:
    - i) the MRLs established for the *antimicrobial agent* in the target animal and target edible tissues under consideration;
    - ii) the composition of the product and the pharmaceutical form;
    - iii) ~~the target animal species~~;
    - iiii) ~~the dosage regimen and the duration of treatment~~;
    - iv) the route of administration.
  - d) The applicant should provide methods for regulatory testing of residues in food based on the established marker residues.

9. Protection of the environment

An assessment of the impact of the proposed antimicrobial use on the environment should be conducted (Guidelines are available, e.g. VICH GL-6 and GL-38). Efforts should be made to ensure that the environmental impact of antimicrobial use is restricted to a minimum.

10. Establishment of a summary of product characteristics for each veterinary medicinal products containing antimicrobial agent(s) product

The summary of product characteristics contains the information necessary for the appropriate use of VMPs containing veterinary antimicrobial agent(s) product (VAP) and constitutes the official reference for their labelling and package insert. This summary should contain the following items:

- a) active ingredient and class;
- b) pharmacological properties;
- c) any potential adverse effects;
- d) target animal species and, as appropriate, age or production category;
- e) therapeutic indications;

- f) target micro-organisms;
- g) dosage regimen and administration route of administration;
- h) withdrawal periods;
- i) incompatibilities;
- j) storage conditions and shelf-life;
- k) operator safety;
- l) particular precautions before use;
- m) particular precautions for the proper disposal of un-used or expired products;
- n) information on conditions of use relevant to the potential for selection of resistance.

#### 11. Post-marketing antimicrobial surveillance

The information collected through existing pharmacovigilance programmes, including lack of efficacy, and any other relevant scientific data, should form part of the comprehensive strategy to minimise antimicrobial resistance. In addition to this, the following should be considered:

##### a) General epidemiological surveillance

The surveillance of animal micro-organisms resistant to *antimicrobial agent(s)* is essential. The relevant authorities should implement a programme according to Chapter 1.4. Terrestrial Code.

##### b) Specific surveillance

Specific surveillance to assess the impact of the use of a specific *antimicrobial agent* may be implemented after the granting of the marketing authorisation. The surveillance programme should evaluate not only resistance ~~development~~ in target animal pathogens, but also in food-borne pathogens, ~~and/or commensals if possible~~. Such a surveillance will also contribute to general epidemiological surveillance of antimicrobial resistance.

#### 12. Supply and administration of the ~~VMP veterinary medicinal products~~ containing antimicrobial agent(s) used in veterinary medicine

The relevant authorities should ensure that all the VMP containing *antimicrobial agent(s)* used in *animals* are:

- a) prescribed by a *veterinarian* or ~~other authorised person~~ other suitably trained person authorised to prescribe VMP containing antimicrobial agent(s) in accordance with the national legislation and under the supervision of a veterinarian;
- b) supplied only through licensed, or authorised distribution systems;
- c) administered to *animals* by a *veterinarian* or under the supervision of a *veterinarian* or by other authorised persons.

The relevant authorities should develop effective procedures for the safe collection and disposal or destruction of unused or expired VAMPs containing antimicrobial agent(s). VMP labels should have appropriate instructions for disposal and destruction.

### 13. Control of advertising

All advertising of *antimicrobials agents* should be compatible with the principles of responsible and prudent use and should be controlled by a code of advertising standards, and. The relevant authorities must ensure that the advertising of ~~antimicrobial these~~ products:

- a) complies with the marketing authorisation granted, in particular regarding the content of the summary of product characteristics;
- b) is restricted to a veterinarian or other suitably trained person authorised to prescribe VMP containing antimicrobial agent(s) in authorised professionals, according to accordance with the national legislation and under the supervision of a veterinarian in each country.

### 14. Training on the usage of antimicrobial agents users

The training on the usage of users of *antimicrobials agents* should involve include all the relevant organisations, such as Competent Authority regulatory authorities, pharmaceutical industry, veterinary schools, research institutes, veterinary professional organisations and other approved users such as food-animal owners and animal feed manufacturers. This training should focus on preserving the effectiveness of antimicrobial agents and include:

- a) information on disease prevention, and management and mitigation strategies;
- b) the ability of *antimicrobials agent(s)* to select for resistant micro-organisms in animals and the relative importance of that resistance to public and animal health in food-producing animals;
- c) the need to observe responsible use recommendations for the use of *antimicrobial agent(s)* in animal husbandry in agreement with the provisions of the marketing authorisations;
- d) appropriate storage condition, proper disposal of unused or expired VMP;
- e) record keeping.

### 15. Research

The relevant authorities should encourage public- and industry-funded research, for example on methods to identify and mitigate the public health risks associated with specific antimicrobial agent uses, or on the ecology of antimicrobial resistance.

Article 6.9.4.

## Responsibilities of the veterinary pharmaceutical industry with regards to VMP veterinary medicinal products containing antimicrobial agent(s)

### 1. Marketing authorisation of VAPs

The veterinary pharmaceutical industry has responsibilities to:

- a) supply all the information requested by the national Competent Authority regulatory authorities;
- b) guarantee the quality of this information in compliance with the provisions of good manufacturing, laboratory and clinical practices;
- c) implement a pharmacovigilance programme and on request, specific surveillance for bacterial susceptibility and resistance data.

## 2. Marketing and export of VAPs

For the marketing and export of VMPs containing antimicrobial agent(s) VAPs:

- a) only licensed and officially approved VMPs containing antimicrobial agent(s) VAPs should be sold and supplied, and then only through licensed/authorised distribution systems;
- b) the pharmaceutical industry should provide quality certificates prepared by the *Competent Authority* of the exporting and/or manufacturing countries to the *importing country*;
- c) the national regulatory authority should be provided with the information necessary to evaluate the amount of *antimicrobial agents* marketed.

## 3. Advertising

The veterinary pharmaceutical industry should respect principles of responsible and prudent use and should comply with established codes of advertising standards, including to:

- a) distribute ~~disseminate~~ information in compliance with the provisions of the granted authorisation;
- b) discourage ~~ensure that~~ the advertising of VMPs containing antimicrobial agent(s) antimicrobials directly to the food animal producer ~~is discouraged~~.

## 4. Training

The veterinary pharmaceutical industry should participate in training programmes as defined in point 14 of Article 6.9.3.

## 5. Research

The veterinary pharmaceutical industry should contribute to research as defined in point 15 of Article 6.9.3.

Article 6.9.5.

### **Responsibilities of wholesale and retail distributors**

1. Distributors of Retailers distributing VAMPs containing antimicrobial agent(s) should only do so on the prescription of a *veterinarian* or other suitably trained person authorised to prescribe VMP containing antimicrobial agent(s) in accordance with the national legislation and under the supervision of a veterinarian, and ~~All~~ products should be appropriately labelled.
2. The recommendations on the responsible and prudent use of VMPs containing antimicrobials agent(s) should be reinforced by retail distributors who should keep detailed records of:
  - a) date of supply;
  - b) name of prescriber;
  - c) name of user;
  - d) name of product;
  - e) batch number;
  - f) expiration date;
  - g) quantity supplied;
  - h) copy of prescription.

3. Distributors should also be involved in training programmes on the responsible and prudent use of VMPs containing antimicrobials agent(s) antimicrobials, as defined in point 14 of Article 6.9.3.

Article 6.9.6.

#### Responsibilities of veterinarians

The ~~concern of the veterinarian's responsibility~~ is to promote public health, ~~and~~ animal health and ~~welfare~~. The ~~veterinarian's responsibilities~~ including identification ~~preventing~~, prevention ~~identifying~~ and treatment ~~of~~ animal ~~diseases~~. The promotion of sound animal husbandry methods, hygiene procedures, biosecurity and vaccination strategies (good farming practice) can help to minimise the need for antimicrobial use in food-producing *animals*.

*Veterinarians* should only prescribe *antimicrobial agent(s)* for *animals* under their care.

#### 1. Use of antimicrobial agent(s)

The responsibilities of *veterinarians* are to carry out a proper clinical examination of the *animal(s)* and then:

- a) only prescribe *antimicrobial agent(s)* only when necessary and taking into consideration the OIE list of antimicrobial agents of veterinary importance;
- b) make an appropriate choice of ~~the~~ *antimicrobial agent(s)* based on treatment clinical experience and diagnostic laboratory information (pathogen isolation, identification and antibiogram) where possible of the efficacy of treatment.
- c) provide a detailed treatment protocol, including precautions and withdrawal times, especially when prescribing extra-label or off-label use.

#### 2. Choosing an antimicrobial agent(s)

- a) The expected efficacy of the treatment is based on:
  - i) the clinical experience of the *veterinarian*, their diagnostic insight and therapeutic judgement;
  - ii) diagnostic laboratory information (pathogen isolation, identification and antibiogram)
  - iii) known pharmacodynamics including the activity towards the pathogens involved;
  - iv) the appropriate dosage regimen and route of administration;
  - v) known pharmacokinetics and tissue distribution to ensure that the selected therapeutic agent is active effective at the site of infection;
  - vi) the epidemiological history of the rearing unit, particularly in relation to the antimicrobial resistance profiles of the pathogens involved.

Should a first-line antimicrobial treatment fail or should the *disease* recur, a second line treatment should ideally be based on the results of diagnostic tests. In the absence of such results, an appropriate antimicrobial agent belonging to a different class or sub-class should be used.

~~To minimise the likelihood of antimicrobial resistance developing in target or other organisms, it is recommended that antimicrobials agents be targeted to pathogens likely to be the cause of *infection*.~~

On certain occasions, a group of *animals* that may have been exposed to pathogens may need to be treated without recourse to an accurate diagnosis and antimicrobial susceptibility testing to prevent the development of clinical *disease* and for reasons of *animal welfare*.

- b) Use of combinations of *antimicrobials* agents should be scientifically supported. Combinations of *antimicrobials* agents may be used for their synergistic effect to increase therapeutic efficacy or to broaden the spectrum of activity.

### 3. Appropriate use of the VMPs containing antimicrobial agent(s) chosen

A prescription for VMPs containing antimicrobial agent(s) ~~antimicrobial agents~~ should indicate precisely the ~~treatment dosage regimen, the dose, the treatment intervals, the duration of the treatment, the withdrawal period where applicable and the amount of VMPs drug to be provided delivered,~~ depending on the dosage and the number of *animals* to be treated.

The extra-label or off-label use of a ~~veterinary VMPs containing antimicrobial agent(s) drug~~ may be permitted in appropriate circumstances and should be in agreement with the national legislation in force including the withdrawal periods to be used, as applicable. It is the *veterinarian's* responsibility to define the conditions of responsible use in such a case including the dosage regimen, and therapeutic regimen, the route of administration and the withdrawal period, ~~and the duration of the treatment.~~

The use of compounded VMP containing antimicrobial agent(s) and extra-label or off-label use of registered VMP containing antimicrobial agent(s) should be limited to circumstances where an appropriate registered product is not available.

### 4. Recording of data

Records on VMPs containing veterinary antimicrobial agent(s) drugs should be kept in conformity with the national legislation. Information records should include the following:

- a) quantities of VMPs medication used per animal species;
- b) a list of all VMPs medicines supplied to each food-producing animal holding;
- c) treatment schedules including animal identification and withdrawal period ~~a list of medicine withdrawal period~~;
- d) ~~a record of~~ antimicrobial susceptibilities data;
- e) comments concerning the response of *animals* to treatment medication;
- f) the investigation of adverse reactions to antimicrobial treatment, including lack of response due to antimicrobial resistance. Suspected adverse reactions should be reported to the appropriate regulatory authorities.

*Veterinarians* should also periodically review farm records on the use of VMPs containing antimicrobial agent(s) to ensure compliance with their directions or prescriptions and use these records to evaluate the efficacy of treatments regimens.

## 5. Labelling

All medicines VMPs supplied by a *veterinarian* should be labelled according to the national legislation.

## 6. Training and continued professional development

Veterinary professional organisations should participate in the training programmes as defined in point 14 of Article 6.9.3. It is recommended that veterinary professional organisations develop for their members species-specific clinical practice recommendations on the responsible and prudent use of VMAPs containing *antimicrobial agent(s)* (e.g. Guidelines for the judicious use of antimicrobials in various animal species developed by the American Veterinary Medical Association).

Article 6.9.7.

### **Responsibilities of food-animal producers**

1. Food-animal producers, with the assistance and guidance of a *veterinarian*, are responsible for implementing animal health and welfare programmes on their farms (good farming practice) in order to promote animal health and food safety.
2. Food-animal producers should:
  - a) draw up a health plan with the attending *veterinarian* that outlines preventive measures (e.g. feedlot health plans, mastitis control plans, endo- and ectoparasite control, and vaccination programmes, and biosecurity measures, etc.);
  - b) use VMPs containing *antimicrobial agent(s)* ~~antimicrobial agents~~ only on the veterinary prescription of a *veterinarian* or other suitably trained person authorised to prescribe VMP containing *antimicrobial agent(s)* in accordance with the national legislation and under the supervision of a *veterinarian*, and according to the provisions of the prescription;
  - c) use VMPs containing *antimicrobial agent(s)* ~~antimicrobial agents~~ in accordance with product label instructions, including storage conditions, the species, for the uses and at the dosages on the approved/registered labels and in accordance with product label instructions, or the instruction the advice of the attending a *veterinarian* familiar with the animals and the production site;
  - d) isolate sick animals, when appropriate, to avoid the transfer of pathogens; dispose of dead or dying animals promptly under conditions approved by the relevant authorities;
  - e) ~~comply with the storage conditions of antimicrobials in the rearing unit, according to the provisions of the leaflet and package insert;~~
  - ef) address on-farm biosecurity measures hygienic conditions and take basic hygiene precautions as appropriate regarding contacts between people (veterinarians, breeders, owners, children) and the animals treated;
  - fg) comply with and record the recommended withdrawal periods to ensure that residue levels in animal-derived food do not present a risk for the consumer;
  - gh) use VMP containing antimicrobial agent(s) within the expiry date and dispose of unused and expired surplus VMPs containing *antimicrobial agent(s)* antimicrobials under safe conditions safe for the environment; medicines ~~they should only be used within the expiry date~~, for the condition for which they were prescribed and, if possible, in consultation with the prescribing *veterinarian*;

- hi) maintain all the laboratory records of bacteriological and susceptibility tests; these data should be made available to the *veterinarian* responsible for treating the *animals*;
- ij) keep adequate records of all VMPs containing antimicrobial agent(s) medicines used, including the following:
  - i) name of the product and active substance, ~~and~~ batch number and expiry date;
  - ii) name of prescriber and or the supplier;
  - iii) date of administration;
  - iv) identification of the *animal* or group of *animals* to which the *antimicrobial agent* was administered;
  - v) clinical conditions treated;
  - vi) dosage;
  - vii) withdrawal periods (including date of the end-date of the withdrawal periods);
  - viii) result of laboratory tests;
  - ix) effectiveness of therapy;
- jk) inform the responsible *veterinarian* of recurrent *disease* problems.

### 3. Training

Food-animal producers should participate in the training programmes as defined in Point 14 of Article 6.9.3. It is recommended that food-animal producer organisations work in cooperation with the veterinary professional organisations to implement existing guidelines for the responsible and prudent use of VMPs containing antimicrobial agent(s).

#### Article 6.9.8.

#### Responsibilities of animal feed manufacturers

1. Animal feed manufacturers preparing medicated feeds should do so only on the prescription of a veterinarian or other suitably trained person authorised to prescribe VMP containing antimicrobial agent(s) in accordance with the national legislation and under the supervision of a veterinarian. All products should be appropriately labelled.

2. The regulations and recommendations on the responsible and prudent use of VMP containing antimicrobial agent(s) should be reinforced by animal feed manufacturers who should keep detailed records as noted in Article 6.9.5.

3. Use only approved sources of medications:

Animal feed manufacturers preparing medicated feeds should ensure that only approved sources of medications are added to feeds at a level, purpose and species as permitted by the drug premix label or a veterinary prescription.

4. Ensure appropriate labelling with product identification, direction for use and withdrawal time

Animal feed manufacturers preparing medicated feeds should ensure that medicated animal feeds are labelled with the appropriate information (e.g. level of medication, approved claim, intended species, directions for use, warning, cautions) so as to ensure effective and safe use by the producer.

5. Implement appropriate production practices to prevent contamination of other feeds

Animal feed manufacturers preparing medicated feeds should implement appropriate production practices to avoid unnecessary carry over and unsafe cross contamination of unmedicated feeds.