



**Veterinary
Medicines
Directorate**

**United Kingdom
Veterinary Medicines Directorate
Woodham Lane
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NATIONAL PROCEDURE

**PUBLICLY AVAILABLE ASSESSMENT REPORT FOR A VETERINARY
MEDICINAL PRODUCT**

Dexmedocord 0.5 mg/mL Solution for Injection for Dogs and Cats

Date Created: May 2025

MODULE 1

PRODUCT SUMMARY

Name, strength and pharmaceutical form	Dexmedocord 0.5 mg/mL Solution for Injection for Dogs and Cats, Solution for injection
Applicant	Accord Healthcare B.V., Winthontlaan 200, Postbus 85183, Utrecht, 3508 AD, The Netherlands
Active substance	Dexmedetomidine Hydrochloride
ATC Vetcode	QN05CM18
Target species	Cats Dogs
Indication for use	<p>Non-invasive, mildly to moderately painful, procedures and examinations which require restraint, sedation and analgesia in dogs and cats.</p> <p>Deep sedation and analgesia in dogs in concomitant use with butorphanol for medical and minor surgical procedures.</p> <p>Premedication in dogs and cats before induction and maintenance of general anaesthesia.</p>

MODULE 2

The Summary of Product Characteristics (SPC) for this product is available on the Product Information Database of the Veterinary Medicines Directorate.

www.gov.uk/check-animal-medicine-licensed

MODULE 3

PUBLIC ASSESSMENT REPORT

Legal basis of original application	Generic application in accordance with Article 8 of Veterinary Medicine Regulations (VMRs) 2013 (Schedule 1, Para 10) as amended.
Date of conclusion of the procedure	21/05/2025

I. SCIENTIFIC OVERVIEW

This is a generic application in accordance with Article 8 of VMRs 2013 (Schedule 1, Para 10) as amended, for authorisation in Great Britain (GB). The reference product is Dexdomitor 0.5 mg/ml solution for injection for cats and dogs, which has been authorised in the UK since 2002. The applicant claimed exemption from the requirement for bioequivalence studies in accordance with exemptions 7.1.a) (for IV use in dogs), and 7.1.b) (IM use in dogs and cats) of the CVMP Guideline on the Conduct of Bioequivalence Studies for Veterinary Medicinal Products (EMA/CVMP/016/2000 Rev.4).

Dexmedocord 0.5 mg/ml Solution for Injection for Dogs and Cats contains dexmedetomidine hydrochloride. It is indicated for the following:

- Non-invasive, mildly to moderately painful, procedures and examinations which require restraint, sedation and analgesia in dogs and cats.
- Deep sedation and analgesia in dogs in concomitant use with butorphanol for medical and minor surgical procedures.
- Premedication in dogs and cats before induction and maintenance of general anaesthesia.

In dogs, the product can be given by intravascular (IV) or intramuscular (IM) routes and doses are based on body surface area. When given IV the recommended dose is up to 375 µg/m² body surface area and when given IM, it is up to 500 µg/m² body surface area. When administering in conjunction with butorphanol (0.1 mg/kg), for deep sedation and analgesia, the IM dose of is 300 µg/m² body surface area. The premedication dose is 125–375 µg/m² body surface area.

In cats, the product is to be given IM, at a dose of 40 µg/kg body weight.

The distribution category is POM-V, a veterinary medicinal product subject to prescription.

The product is produced and controlled using validated methods and tests which ensure the consistency of the product released on the market. It has been shown that the product can be safely used in the target species, any reactions observed are indicated in the SPC¹. The product is safe for the user and for the environment, when used as recommended. Suitable warnings and precautions are indicated in the SPC. The efficacy² of the product was demonstrated according to the claims made in the SPC. The overall benefit/risk analysis is in favour of granting a marketing authorisation.

II. QUALITATIVE AND QUANTITATIVE PARTICULARS OF THE CONSTITUENTS

II.A. Composition

The product contains dexmedetomidine hydrochloride and the excipients methyl parahydroxybenzoate (E 218), propyl parahydroxybenzoate (E 216), sodium chloride, water for injection and nitrogen gas.

The container/closure system consists of a Type I clear glass vial with a fluoropolymer coated rubber stopper and an aluminium overseal. The particulars of the containers and controls performed are provided and conform to the regulation.

The choice of the formulation and the presence of preservative are justified.

The product is an established pharmaceutical form, and its development is adequately described in accordance with the relevant regulatory guidelines.

II.B. Description of the Manufacturing Method

The product is manufactured fully in accordance with the principles of good manufacturing practice from a licensed manufacturing site. The manufacturing method consists of a standard process of sequential addition and dissolution of the active substance and excipient components, followed by terminal sterilisation.

Process validation data on the product have been presented in accordance with the relevant regulatory guidelines.

II.C. Control of Starting Materials

The active substance is dexmedetomidine hydrochloride, an established active substance described in the United States Pharmacopeia (USP), in accordance with an Active Substance Master File (ASMF). The active substance is manufactured in accordance with the principles of good manufacturing practice.

¹ SPC – Summary of product Characteristics.

² Efficacy – The production of a desired or intended result.

The active substance specification is considered adequate to control the quality of the material. Batch analytical data demonstrating compliance with this specification have been provided.

The excipients are identical to those of the reference product, each being well-known and commonly used in solutions for injection.

Appropriate declarations, certificates of analysis and specifications were provided for each of the packaging components.

II.C.4. Substances of Biological Origin

There are no substances within the scope of the TSE Guideline present or used in the manufacture of this product.

II.D. Control Tests Carried Out at Intermediate Stages of the Manufacturing Process

The tests performed during production are described and the results of three consecutive runs, conforming to the specifications, are provided.

II.E. Control Tests on the Finished Product

The finished product specification controls the relevant parameters for the pharmaceutical form. The tests in the specification, and their limits, have been justified and are considered appropriate to adequately control the quality of the product.

Satisfactory validation data for the analytical methods have been provided.

Batch analytical data from the proposed production site have been provided demonstrating compliance with the specification.

Control tests on the finished product are those appropriate for this pharmacological form.

II.F. Stability

Stability data on the active substance have been provided in accordance with applicable regulatory guidelines, demonstrating the stability of the active substance when stored under the approved conditions.

Stability data on the finished product have been provided in accordance with applicable regulatory guidelines, demonstrating the stability of the product throughout its shelf life when stored under the approved conditions.

The claim of a 3-month stability after broaching is based on the demonstration of stability for a batch broached and stored for 90 days at ~25°C.

G. Other Information

The shelf life of the veterinary medicinal product as packaged for sale is 2 years. After withdrawal of the first dose, the product may be stored for 3 months at 20°C - 25°C. The product does not require any special temperature storage conditions.

III. SAFETY AND RESIDUES DOCUMENTATION (PHARMACOTOXICOLOGICAL)

Due to the legal basis of the application, no data on the pharmacology or toxicology of the active substance were required. The concentration and dosing regime is the same for Dexmedocord as for the reference product. Therefore, the pharmacological and toxicological profiles of the active substance are expected to be the same.

Warnings and precautions as listed on the product literature are the same as those of the reference product and are adequate to ensure safety of the product to users / the environment.

III.A Safety Documentation

Pharmacological Studies

No data on the pharmacology of the active substance was submitted as this is a generic application. The pharmacokinetics and pharmacodynamics of the active substance, dexmedetomidine, is expected to be the same as for the reference product, summarised below.

Dexmedetomidine is a potent and selective α_2 -adrenoceptor agonist that inhibits the release of noradrenaline. Sympathetic neurotransmission is prevented, and the level of consciousness decreases along with several other α_2 -adrenoceptor mediated effects.

Dexmedetomidine is well absorbed after intramuscular administration. Dexmedetomidine is also rapidly distributed in the body and penetrates the blood-brain barrier readily. Studies in rats have shown that the maximum concentration in the central nervous system is several times that of the corresponding concentration in plasma. In the circulation, dexmedetomidine is largely bound to plasma proteins (>90%).

In dogs, after an intramuscular dose of 50 micrograms/kg, a maximum concentration in plasma of about 12 ng/ml is reached after 0.6 hours. The bioavailability of dexmedetomidine is 60% and the apparent volume of distribution (Vd) is 0.9 l/kg. The elimination half-life ($t_{1/2}$) is 40-50 minutes. It is metabolised in the liver and metabolites are excreted mainly in the urine, and to a lesser extent in the faeces. Dexmedetomidine has a high clearance, and its elimination depends on the hepatic blood flow.

In cats, maximum plasma concentration is reached about 0.24 h after intramuscular administration. After a 40 micrograms/kg b.w. intramuscular dose the C_{max} is 17 ng/ml. The apparent volume of distribution (V_d) is 2.2 l/kg, and the elimination half-life (t_{1/2}) is one hour. It is metabolised in the liver and metabolites are excreted mainly in the urine (51% of the dose), and to a lesser extent in the faeces. As in dogs dexmedetomidine has a high clearance in cats and its elimination depends on the hepatic blood flow.

User Safety

A user risk assessment was provided in compliance with the relevant guideline which shows that the user warnings would be the same as for the reference product.

Warnings and precautions as listed on the product literature are adequate to ensure safety to users of the product. Therefore, the following applicant's user recommendations are appropriate:

- This product can cause sedation and changes in blood pressure after oral, dermal, mucosal, and parenteral exposure. Avoid skin, eye, or mucosal contact; the use of impermeable gloves is advisable.
- In case of accidental oral intake or self-injection, seek medical advice immediately and show the package leaflet or the label to the physician, but **DO NOT DRIVE**.
- In case of skin or mucosal contact, wash the exposed skin immediately after exposure with large amounts of water and remove contaminated clothes that are in direct contact with skin. In case of eye contact, rinse abundantly with fresh water. If symptoms occur, seek the advice of a physician.
- If pregnant women handle the product, special caution should be observed not to self-inject, as uterine contractions and decreased foetal blood pressure may occur after accidental systemic exposure.
- People with known hypersensitivity to dexmedetomidine or parabens should administer the product with caution.

Information that should be given to the physician, if needed is as follows:

Dexmedetomidine is an α_2 -adrenoreceptor agonist, symptoms after absorption may involve clinical effects including dose-dependent sedation, respiratory depression, bradycardia, hypotension, a dry mouth, and hyperglycaemia. Ventricular arrhythmias have also been reported. Respiratory and haemodynamic symptoms should be treated symptomatically. The specific α_2 -adrenoceptor antagonist, atipamezole, which is approved for use in animals, has been used in humans only experimentally to antagonize dexmedetomidine-induced effects.

Environmental Safety

The Environmental Risk Assessment (ERA) was carried out in accordance with VICH and CVMP guidelines.

Phase I:

The applicant provided a Phase I environmental risk assessment containing sufficient information to conclude that the assessment ends at Phase I, and a Phase II ERA was not required. The product will only be used in non-food animals and as a result environmental exposure will be low.

IV. CLINICAL DOCUMENTATION

As this is a generic application clinical efficacy studies were not required. The applicant claimed an exemption from the requirement for conducting *in vivo* bioequivalence studies in accordance with exemptions 7.1.a) (for IV use in dogs), and 7.1.b) (IM use in dogs and cats) of the CVMP Guideline on the Conduct of Bioequivalence Studies for Veterinary Medicinal Products (EMA/CVMP/016/2000-Rev.4). This was acceptable.

The efficacy claims, dosing regimens, and pharmacology for this product are equivalent to those of the reference product.

V OVERALL CONCLUSION AND BENEFIT– RISK ASSESSMENT

The data submitted in the dossier demonstrate that, when the product is used in accordance with the Summary of Product Characteristics, the benefit/risk profile of the product is favourable.

MODULE 4

POST- AUTHORISATION ASSESSMENTS

The SPC and package leaflet may be updated to include new information on the quality, safety and efficacy of the veterinary medicinal product. The current SPC is available on the Product Information Database of the Veterinary Medicines Directorate website.

(www.gov.uk/check-animal-medicine-licensed)

The post-authorisation assessment (PAA) contains information on significant changes which have been made after the original procedure which are important for the quality, safety or efficacy of the product.

The PAA for this product is available on the Product Information Database of the Veterinary Medicines Directorate website.

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