

PACKAGE LEAFLET

Xylexx[®] 20 mg/ml

solution for injection for cattle, horses, dogs and cats

NAME AND ADDRESS OF THE MARKETING AUTHORISATION HOLDER AND OF THE MANUFACTURING AUTHORISATION HOLDER RESPONSIBLE FOR BATCH RELEASE, IF DIFFERENT

Marketing authorisation and manufacturer responsible for batch release:
Alfasan Nederland B.V., Kuipersweg 9, 3449 JA Woerden, The Netherlands

NAME OF THE VETERINARY MEDICINAL PRODUCT

Xylexx 20 mg/ml solution for injection for cattle, horses, dogs and cats
xylazine

STATEMENT OF THE ACTIVE SUBSTANCE AND OTHER INGREDIENT

1 ml contains:

Active substance:
Xylazine 20.0 mg
(equivalent to 23.31 mg xylazine hydrochloride)

Excipient:
Benzethonium chloride 0.11 mg

Clear, colourless to almost colourless solution for injection, practically free from visible particles.

INDICATIONS

In cattle, horses, dogs and cats:

- sedation;
- premedication in combination with an anaesthetic.

CONTRAINDICATIONS

Do not use in known cases of hypersensitivity to the active substance or to any of the excipients. Do not use in animals with gastrointestinal obstruction, as it is a muscle relaxant and the properties of the medicinal product appear to enhance the effects of an obstruction, and because of the risk of vomiting. Do not use in cases of pulmonary disease (breathing deficiency) or cardiac disorders (especially in case of ventricular arrhythmia). Do not use in cases of impaired liver or renal function. Do not use in cases of predetermined history of seizures. Do not use in cases of hypotension and shock. Do not use in animals with diabetes mellitus. Do not administer simultaneously with sympathomimetic amines (e.g. epinephrine). Do not use in calves less than 1 week of age, foals less than 2 weeks of age or puppies and kittens under 6 weeks of age. Do not use during the last stage of pregnancy (danger of premature birth), except at parturition (see Special Warnings: Pregnancy and Lactation).

ADVERSE REACTIONS

In general, side effects, typical for an α 2-adrenergic agonist, like bradycardia, reversible arrhythmia and hypotension can occur. Thermoregulation can be influenced and consequently body temperature can decrease or increase dependant on the ambient temperature. Depression of respiration and / or respiratory arrest can occur, especially in cats.

Cattle:

- Reversible local tissue irritation.
- In cattle xylazine may induce premature parturition, and it also reduces implantation of the ovum.
- Cattle, which have received high doses of xylazine sometimes suffer from loose faeces for 24 hours afterwards.
- Other adverse reactions include snoring, profound salivation, ruminal atony, atony of the tongue, regurgitation, bloating, nasal stridor, hypothermia, bradycardia, increased urination and reversible prolapse of the penis.
- In cattle, adverse effects are generally more pronounced after intramuscular administration compared to intravenous.

Horses:

- Reversible local tissue irritation.
- Horses often sweat as the effects of the sedation are wearing off.
- Severe bradycardia and reduced respiratory rate have been reported in horses.
- Following administration to horses, a transient rise followed by a fall in blood pressure usually occurs.
- More frequent urination has been reported.
- Muscle tremors and movement in response to sharp auditory or physical stimuli are possible. Although rare, violent reactions have been reported in horses following the administration of xylazine.
- Ataxia and reversible prolapse of the penis may occur.
- In very rare cases xylazine may induce mild colic as the gut motility is depressed temporarily. As a preventive measure the horse should receive no feed after sedation until the effect has faded completely.

Dogs and cats:

- Reversible local tissue irritation.
- Cats and dogs frequently vomit during the onset of the xylazine-induced sedation, especially when the animals have just been fed.
- Animals may show profound salivation following an injection with xylazine.
- Other adverse effects for dogs and cats include: muscle tremors, bradycardia with AV-block, hypotension, reduced respiratory rate, movement in response to strong auditory stimuli, hyperglycaemia and increased urination in cats.
- In cats xylazine causes uterine contractions and it may induce premature parturition.
- In dogs, adverse effects are generally more pronounced after subcutaneous administration compared to intramuscular and the effect (efficacy) can be less predictable.
- In susceptible dog breeds with a large chest (Great Dane, the Recovery Setter) rare cases of bloating have been reported.
- In anaesthetized animals, mainly during and after the recovery period, in very rare cases, cardio-respiratory disturbances (cardiac arrest, dyspnoea, bradypnoea, pulmonary edema, hypotension) and neurological signs (seizures, prostration, pupillary disorders, tremors) were observed.

The frequency of adverse reactions is defined using the following convention:

- very common (more than 1 in 10 animals treated displaying adverse reaction(s))
- common (more than 1 but less than 10 animals in 100 animals treated)
- uncommon (more than 1 but less than 10 animals in 1,000 animals treated)
- rare (more than 1 but less than 10 animals in 10,000 animals treated)
- very rare (less than 1 animal in 10,000 animals treated, including isolated reports).

If you notice any side effects, even those not already listed in this package leaflet or you think that the medicine has not worked, please inform your veterinary surgeon. Alternatively, you can report via your national reporting system.

TARGET SPECIES

Cattle, horses, dogs and cats.



DOSE FOR EACH SPECIES, ROUTES AND METHOD OF ADMINISTRATION

Cattle: intravenous use, intramuscular use.

Horses: intravenous use.

Dogs: intramuscular use.

Cats: intramuscular use, subcutaneous use.

To ensure a correct dosage body weight should be determined as accurately as possible. The intravenous injection should be given slowly, especially in horses. This veterinary medicinal product is for administration only by a veterinarian or under their supervision.

The vial can be broached up to 30 times.

Cattle (IV, IM)

Dosage:

Dosage cattle			
Dose level	xylazine (mg/kg)	Xylexx 20 mg/ml (ml/100 kg)	Xylexx 20 mg/ml (ml/500 kg)
A. Intramuscular			
I	0.05	0.25	1.25
II	0.1	0.5	2.5
III	0.2	1	5
IV	0.3	1.5	7.5
B. Intravenous			
I	0.016-0.024	0.08-0.12	0.4-0.6
II	0.034-0.05	0.17-0.25	0.85-1.25
III	0.066-0.10	0.33-0.5	1.65-2.5

Dosage I: Sedation with slight reduction of muscle tone. The cattle are still able to stand.

Dosage II: Sedation with pronounced reduction of the muscle tone and slight analgesia. The cattle mostly remain able to stand but may also lie down.

Dosage III: Deep sedation, further reduction in muscle tone, partial analgesia. The cattle lie down.

Dosage IV: Very deep sedation with a pronounced reduction in the muscle tone, partial analgesia. The cattle lie down.

Horses (IV)

Dosage: single injection of 0.6 -1 mg xylazine per kg body weight. (3-5 ml product per 100 kg bodyweight).

Dogs (IM)

Dosage: single injection of 0.5-3 mg xylazine per kg body weight. (0.25-1.5 ml product per 10 kg bodyweight).

Cats (IM, SC)

Dosage: single injection of 0.5-1 mg xylazine per kg body weight. (0.025-0.05 ml product per kg bodyweight).

ADVICE ON CORRECT ADMINISTRATION

WITHDRAWAL PERIODS

Cattle: Meat and offal: 1 day, Milk: zero hours.

Horses: Meat and offal: 1 day, Not authorised for use in mares producing milk for human consumption.

SPECIAL STORAGE PRECAUTIONS

Keep out of the sight and reach of children. Do not refrigerate or freeze. Do not use this veterinary medicinal product after the expiry date which is stated on the label after EXP. The expiry date refers to the last day of that month. Shelf life after first opening the container: 28 days.

SPECIAL WARNINGS

Special warnings for each target species:

Cattle:

- Ruminants are highly susceptible to the effects of xylazine. Normally cattle remain standing at the lower doses, but some animals may lie down.
- At the highest recommended doses most animals will lie down and some animals may lapse into lateral recumbency.
- Reticulo-ruminal motor functions are depressed after injection of xylazine. This may result in bloat. It is advisable to withhold feed and water in adult cattle for several hours before administration of xylazine. Fasting in calves might be indicated but should only be done at the discretion of a benefit/risk assessment made by the responsible veterinarian.
- In cattle the ability to eructate, cough and swallow is retained but reduced during the period of sedation, therefore cattle must be closely watched during the recovery period: the animals should be maintained in sternal recumbency.
- In cattle life threatening effects may occur after intramuscular doses above 0.5 mg/kg body weight (respiratory and circulatory failure). Therefore, very precise dosing is required.
- The combination with other pre-anaesthetic agents or anaesthetic agents should be the subject of a benefit/risk assessment. This assessment should consider the composition of the products, their dose and the nature of the surgery. Recommended dosages are likely to vary according to the choice of the anaesthetic combination.

Horses:

- Xylazine inhibits the normal intestinal motility. Therefore, it should only be used in horses with colic that are not responsive to analgesics. The use of xylazine should be avoided in horses with caecal malfunction.
- After treatment of horses with xylazine, the animals are reluctant to walk, so whenever possible the drug should be administered in the place where the treatment/investigation is going to take place.
- Caution should be taken in the administration of the product to horses susceptible to laminitis.
- Horses with airway disease or malfunction may develop life-threatening dyspnoea.
- The dose should be kept as low as possible.
- The combination with other pre-anaesthetic agents or anaesthetic agents should be the subject of a benefit/risk assessment. This assessment should consider the composition of the products, their dose and the nature of the surgery. Recommended dosages are likely to vary according to the choice of the anaesthetic combination.

Dogs and cats:

- Xylazine inhibits normal intestinal motility. This may make xylazine sedation undesirable for upper gastro-intestinal radiographs, because it promotes filling of the stomach with gas and makes interpretation less certain.
- Brachycephalic dogs with airway disease or malfunction may develop life-threatening dyspnoea.
- The combination with other pre-anaesthetic agents or anaesthetic agents should be the subject of a benefit/risk assessment. This assessment should consider the composition of the products, their dose and the nature of the surgery. Recommended dosages are likely to vary according to the choice of the anaesthetic combination.

Special precautions for use in animals:

- Keep the animals calm, because they may respond to external stimuli.
- Avoid intra-arterial administration.
- Tympany may occasionally occur in recumbent cattle and can be avoided by maintaining the animal in sternal recumbency.
- To avoid aspiration of saliva or food, lower the animal's head and neck. Fast the animals before use of the product.
- Older and exhausted animals are more sensitive to xylazine, whilst nervous or highly excitable animals may require a relatively high dose.
- In case of dehydration, xylazine should be used cautiously.
- Emesis is generally seen within 3-5 minutes after xylazine administration in cats and dogs. It is advisable to fast dogs and cats for 12 hours prior to surgery; they may have free access to drinking water.
- Pre-medication with atropine in cats and dogs may reduce salivation and bradycardia effects.
- Do not exceed the recommended dosage.
- Following administration animals should be allowed to rest quietly until the full effect has been reached.
- It is advised to cool animals when the ambient temperature is above 25°C and to keep animals warm at low temperatures.
- For painful procedures, xylazine should always be used in combination with local or general anaesthesia.
- Xylazine produces a certain degree of ataxia; therefore, xylazine must be used cautiously in procedures involving the distal extremities and in standing castrations in the horse.
- Treated animals should be monitored until the effect has faded totally (e.g. cardiac and respiratory function, also in the post-operative phase) and should be segregated to avoid bullying.
- For use in young animals, see the age restriction mentioned in section "Contraindications". If the product is intended to be used in young animals below these age-limits, a benefit/risk assessment should be made by the veterinarian.

Special precautions to be taken by the person administering the veterinary medicinal product to animals:

This product is a sedative. Care should be taken to avoid accidental self-injection. In the case of accidental oral intake or self-injection, seek medical advice immediately and show the package leaflet to the doctor, but DO NOT DRIVE, as sedation and changes in blood pressure may occur. Avoid skin, eye or mucosal contact. In the case of accidental contact of the product with the skin, if symptoms occur, seek medical advice. If pregnant women handle the product, special caution should be observed not to be in direct contact with the skin. If symptoms occur, seek medical advice. 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.

Advice to doctors: Xylazine 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.

Pregnancy: Although laboratory studies in rats have not shown any evidence of teratogenic or foetotoxic effects the use of the product during the first two thirds of pregnancy should only be made according to the benefit/risk assessment by the responsible veterinarian. Do not use in the later stages of pregnancy (particularly in ovule and cats) except at parturition, because xylazine causes uterine contractions and it may induce premature labour. Do not use in cattle receiving ovum transplants or in cattle at the time of implantation of the uterus as the increased uterine tone may reduce the chance of implantation of the ovum.

Lactation: The veterinary medicinal product can be used in lactating animals.

Interaction with other medicinal products and other forms of interaction: Other CNS depressant agents (barbiturates, narcotics, anaesthetics, tranquilizers, etc.) may cause additive CNS depression if used with xylazine. Dosages of these agents may need to be reduced. Xylazine should therefore be used cautiously in combination with neuroleptics or tranquilizers. Xylazine should not be used in combination with sympathomimetic drugs such as epinephrine as ventricular arrhythmia may be fatal. The concurrent intravenous use of potentiated sulphonamides with α -2 agonists has been reported to cause cardiac arrhythmias which may be fatal. Whilst no such effects have been reported with this product, it is recommended that intravenous administration of Trimethoprim/Sulphonamide containing products should not be undertaken when horses have been sedated with xylazine.

Overdose (symptoms, emergency procedures, antidotes): In the event of an accidental overdose, cardiac arrhythmias, hypotension, and profound CNS and respiratory depression may occur. Seizures have also been reported after an overdose. Xylazine can be antagonized by α 2-adrenergic antagonists. To treat the respiratory depressant effects of xylazine, mechanical respiratory support with or without respiratory stimulants (e.g. doxapram) can be recommended.

Incompatibilities:

In the absence of compatibility studies, this veterinary medicinal product must not be mixed with other veterinary medicinal products.

SPECIAL PRECAUTIONS FOR THE DISPOSAL OF UNUSED PRODUCT OR WASTE MATERIALS, IF ANY

Medicines should not be disposed of via wastewater <or household waste>. Ask your veterinary surgeon how to dispose of medicines no longer required. These measures should help to protect the environment.

DATE ON WHICH THE PACKAGE LEAFLET WAS LAST APPROVED

OTHER INFORMATION

Pack type II glass vials containing 30 ml product, closed with a bromobutyl rubber stopper and aluminium cap in a cardboard box.

Pack sizes:
Cardboard box with 1 vial of 30 ml
Cardboard box with 5 vials of 30 ml
Polystyrene box with 24 vials of 30 ml

Not all pack sizes may be marketed.

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