

# XYLADOT

## Xylazine 2% Injection for Veterinary Use

### Description

Xylazine 2% Injection is a potent alpha-2 adrenergic agonist used in veterinary medicine primarily for its sedative, analgesic, and muscle relaxant properties. It acts centrally to provide sedation and pain relief in a variety of animal species including cattle, horses, sheep, and swine. The 2% concentration refers to 20 mg/mL of xylazine hydrochloride in sterile aqueous solution.

### Composition

- **Active Ingredient:**  
Xylazine Hydrochloride 2% w/v (20 mg/mL)
- **Excipients:**
  - Sterile Water for Injection
  - Benzyl Alcohol (as preservative, concentration varies per formulation)
  - Sodium Chloride (for isotonicity adjustment)
  - Hydrochloric Acid or Sodium Hydroxide (for pH adjustment)

### Product Form

- Sterile, clear, amber glass vial containing 10 mL or 100 mL of solution
- Injectable solution (parenteral use)

### Specification

- Appearance: Clear, colourless to slightly yellow aqueous solution
- pH: 4.5 – 6.5
- Assay: 98.0% - 102.0% of labelled amount of xylazine hydrochloride
- Sterility: Sterile and free from particulate matter
- Endotoxin level: Meets USP standards
- Preservative content: Within specified limits
- Packaging: Amber glass vial with rubber stopper and aluminium seal

## Category

- Veterinary Sedative and Analgesic
- Alpha-2 Adrenergic Agonist

## Indications

- Sedation and analgesia in large and small animals for diagnostic or minor surgical procedures
- Pre-anaesthetics agent to reduce dose requirements of general anaesthetics
- Muscle relaxation during surgery or handling of animals
- Control of colic in horses (off-label use)
- Restraint for radiography, minor surgery, or transportation

## Dosage and Administration

- **Route:** Intramuscular (IM) or intravenous (IV) injection (depending on species and procedure)
- **Dosage:** Varies by species and purpose, typical doses include:
  - Cattle: 0.02 - 0.05 mg/kg
  - Horses: 0.5 - 1.1 mg/kg IM or 0.22 mg/kg IV
  - Sheep/Goats: 0.05 - 0.1 mg/kg IM
  - Swine: 0.5 - 1.0 mg/kg IM

Always adjust doses based on animal health, weight, and response. Use under veterinary supervision.

## Usage and Advantages

- Rapid onset of sedation and analgesia
- Provides muscle relaxation, facilitating handling and minor procedures
- Reduces stress and discomfort in animals
- Can be reversed with specific antagonists such as yohimbine or tolazoline
- Safe when dosed appropriately, with predictable effects

## **Adverse Effects**

- Bradycardia (slow heart rate)
- Hypotension (low blood pressure)
- Respiratory depression (dose-dependent)
- Vomiting (especially in cats and dogs)
- Transient hyperglycaemia
- Ataxia and prolonged sedation in some animals
- Increased uterine contractions (caution in pregnant animals)
- Potential for overdose toxicity: respiratory arrest or collapse

## **Precautions and Warnings**

- Use with caution in animals with cardiovascular or respiratory diseases
- Avoid use in animals with hypersensitivity to xylazine or alpha-2 agonists
- Monitor vital signs during sedation
- Not for use in humans (veterinary use only)
- Avoid mixing with other drugs unless compatibility is confirmed
- Use caution in pregnant or lactating animals

## **Withdrawal Period**

- Meat: Minimum 3 days (species-specific; check local regulations)
- Milk: Not recommended for use in lactating animals producing milk for human consumption
- Eggs: Not applicable

## **Storage**

- Store at 20°C to 25°C (room temperature)
- Protect from light (amber vial)
- Do not freeze
- Keep vial tightly closed
- Use immediately after opening or discard according to local guidelines

## Handling and Disposal

- Use aseptic techniques during withdrawal and injection
- Wear gloves and avoid skin contact
- Dispose of unused product and empty containers per local regulatory requirements
- Avoid environmental contamination

## HS Code and HSN Code

- **HS Code:** 3004.90 (Medicaments consisting of mixed or unmixed products for therapeutic or prophylactic uses)
- **HSN Code:** 300490 (similar category under GST/Customs for veterinary pharmaceuticals)

## Details of Human and Veterinary Application

- **Veterinary:** Xylazine is exclusively approved and indicated for veterinary use due to its potent sedative and analgesic effects in animals. It is widely used by veterinarians globally for anaesthesia and sedation in large and small animals.
- **Human:** Not approved for human use; potential for severe toxicity and adverse reactions in humans. Handling by humans requires care to avoid accidental exposure.

## Special Instructions

- Always use under veterinary supervision
- Antagonists like yohimbine, atipamezole, or tolazoline can reverse effects if overdose or prolonged sedation occurs
- Monitor animals carefully for respiratory and cardiovascular function
- Ensure accurate dosing by weight
- Avoid use in dehydrated or compromised animals
- Properly label and secure product to prevent accidental misuse

## **? Frequently Asked Questions (FAQs)**

### **Q1: What is Xylazine (XYL)?**

A: Xylazine is an alpha-2 adrenergic agonist used as a sedative, analgesic, and muscle relaxant in veterinary medicine.

### **Q2: Can Xylazine 2% be used in all animal species?**

A: It is approved for use in many large and small animals, but dosing and indications vary. Always follow veterinary guidance.

### **Q3: How quickly does Xylazine work?**

A: Effects typically begin within 5-10 minutes after IM injection and faster (1-5 minutes) after IV administration.

### **Q4: What should I do in case of overdose?**

A: Contact a veterinarian immediately. Specific antagonists (e.g., yohimbine) may be administered to reverse sedation.

### **Q5: Is Xylazine safe to use in pregnant animals?**

A: Use with caution as it may increase uterine contractions; consult a vet before use.

### **Q6: Can Xylazine be used in lactating animals?**

A: Generally not recommended in animals producing milk for human consumption due to possible residues.

### **Q7: How should Xylazine be stored?**

A: Store at room temperature (20-25°C), protected from light, and do not freeze.

### **Q8: What are the common side effects?**

A: Bradycardia, respiratory depression, vomiting, and ataxia are common side effects, usually dose-dependent.

