

## SUMMARY OF PRODUCT CHARACTERISTICS

Wytwórnia Surowic i Szczepionek  
**BIOMED Sp. z o.o.**  
00-725 Warszawa, ul. Chelmska 30/34  
tel./22/ 841-40-71 do 79  
NIP 525-000-03-92

- 4 -

**100 Agencja Tłumaczeń**  
Joanna Małgorzata Baraniecka  
03-727 Warszawa, ul. Targowa 15 m. 97  
tel. 22 670 42 22, 22 619 20 45, fax 22 670 44 89  
NIP 113-071-21-07, REGON 012387573

NIP 525-000-03-92

# 1. NAME OF THE MEDICINAL PRODUCT

Viper Venom Antitoxin 500 A.U. solution for injections

# 2. QUALITATIVE AND QUANTITATIVE COMPOSITION

*Immunoserum contra venena viperarum europaeorum*

1 ampule contains 500 A.U. of Viper Venom Antitoxin

1 ml of solution contains no less than 150 A.U. of Viper Venom Antitoxin

For a full list of excipients, see section 6.1.

# 3. PHARMACEUTICAL FORM

The solution for injections.

Yellow or colorless, clear or slightly opalescent solution.

# 4. CLINICAL PARTICULARS

## 4.1 Therapeutic indications

The viper antitoxin is used to neutralize the venom of the European Adder in cases of people bites.

## 4.2 Posology and method of administration

### Dosage:

Children and adults: 500 A.U. as soon as possible after being bitten.

If required, the dose can be repeated.

Way of administration: intramuscular.

The doctor decides about application of the preparation.

Before deciding to use this preparation the patient should be interviewed about his/her allergic condition and previous administration of equine antitoxin.

If it is advisable, inject Viper Venom Antitoxin in the bitten area (the contents of one ampoule, i.e. 500 A.U.)

Before administering the antitoxin it is necessary to perform intradermal allergic test.

In the event it is required to administer Viper Venom Antitoxin quickly and there is no time to perform the allergic tests, it is recommended to inject the preparation under cover of medicines, i.e. after administering shock-controlling agents; decisions on taking such measures are made by a doctor

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### Intradermal test

Before performance of intradermal test and before injection of an antitoxin it is required to have a full set of ready-to-use shock-controlling agents prepared.

With regard to the necessity of quick medical intervention within 1 to 2 hours from the biting, the intradermal test should give a quick answer if the patient is or is not allergic to equine protein.

Inject intradermally 0.1 ml of the antitoxin diluted with 1:10 aseptic, physiologic sodium chloride solution.

If within 10 to 20 minutes reddening and a blister occurs in the place of injection, it is the proof of allergy to equine protein.

Should there be no reaction after allergic test, the whole dose of 500 A.U. can be administered at once, intramuscularly.

If after 1 to 2 hours no disappearance of the clinical symptoms of venom poisoning is observed, the dose of 500 A.U. may be repeated.

In the case of positive allergic test result (occurrence of a blister and reddening in the place of injection of diluted antitoxin) and existing indications to use Viper Venom Antitoxin, it is recommended to inject the preparation by desensitization method.

### Desensitization method of administration of equine antitoxin

Inject intradermally antitoxin diluted at 1:10 ratio (as in the allergic test) with antiseptic, 0.9% sodium chloride solution, in 30 minutes to 1 hour intervals, in quantities of 0.1 ml to 0.5 ml.

Then inject undiluted antitoxin intradermally in quantities of 0.2 ml and 0.5 ml.

The remaining part of the planned dose should be administered intramuscularly.

One should also consider during what time after the biting it is required to administer antitoxin to the patient.

Long duration of the desensitization method may negatively affect the condition of the patient, including threat to life, in particular in cases of acute intoxication by viper venom.

The alternative is to administer antitoxin under cover of shock-controlling agents (e.g. Epinephrine, antihistamine drugs).

Depending on the patient's condition, it is possible to apply reviving, tranquilizing, pain killing agents, while in patients in serious and very serious condition with elevated allergic responses, it is also possible to apply corticosteroids, antibiotics, non-steroidal anti-inflammatory agents and should it prove necessary, parenteral hydration.

## **4.3 Contraindications**

Hypersensitivity to the active substance (equine protein) or any of the excipients.

## **4.4 Special warnings and precautions for use**

Before deciding to use this preparation the patient should be interviewed about his/her allergic condition and prior receiving of equine antitoxin.

Never make attempts to perform intradermal test or inject the preparation without a set of ready-to-use shock-controlling agents prepared.

Antitoxin derived from horse serum, including the venom of vipers, must not be administered:

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- if the patient is allergic to equine protein,
- in patients who according to their medical history are known to be allergic,
- in patients who have previously received equine antitoxin.

However, in the acute intoxication situations and the need to use the antitoxin it is possible to administer the same using desensitization method, or under cover, i.e. after administration of shock-controlling agents.

#### **4.5 Interaction with other medicinal products and other forms of interaction**

No reports of vipers venom antitoxin interactions with other drugs have been found in the literature.

#### **4.6 Fertility, pregnancy and lactation**

There are no adequate data concerning application of Viper Venom Antitoxin in pregnant and lactating women.

Precautions should be taken in case of prescribing the medications to pregnant and lactating women.

#### **4.7 Effects on ability to drive and use machines**

Viper venom antitoxin has no influence on the ability to drive or operate moving machines.

#### **4.8 Undesirable effects**

There are insufficient data from clinical studies on the incidence of adverse reactions. On the basis of the literature the following adverse reactions have been found:

##### General disorders and inflammatory states in the place of injection

There may occur anaphylactic shock (acute allergic response of the entire organism) and/or serum sickness, which usually occurs between 7th and 20th day following administration of the preparation, but rather rarely. Serum sickness results in edema in the place of injection, enlarged lymph nodes, increased body temperature, edema of joints and urticaria.

As the result of the surplus quantity of the antigen (heterologous protein), the developing IgG antibodies form complexes with them. Also IgE antibodies, responsible for the general urticaria occurring in this system, develop in patients.

Those complexes are gradually picked up by the macrophages system and part of them is deposited in vessels' endothelium, in basement membrane of renal glomerule, joints and in the heart.

##### Kidneys and urinary tracks disorders

Serum sickness occurs rarely, in acute cases it may result in kidneys damage.

##### Neurological system disorders:

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There rarely occur complications in the form of brachial plexus, cranial nerve and peripheral nerve neuritis (i.e. encephalopathy) or Guillan-Barre syndrome (acute inflammatory demyelinating polyneuropathy). Symptoms abate after excretion of the antigen from the body.

#### 4.9 Overdose

The dose depends on the patient's condition. The decision about the dose should be made by a doctor.

Doses larger than necessary should be avoided.

Larger doses can cause exacerbation of adverse reactions.

### 5. PHARMACOLOGICAL PROPERTIES

#### 5.1 Pharmacodynamic properties

Pharmacotherapeutic group: immune sera, Viper Venom Antitoxin, code ATC J 06 AA 03

Viper Venom Antitoxin contains characteristic equine immunoglobulin G, obtained from the serum of horses immunized with the venom of European Adder vipers (*Vipera berus*). Immunoglobulins are purified by modified thermal Pop's method, involving enzymatic proteolysis of proteins with pepsin, precipitating the labile proteins by thermocoagulation and selective salting by ammonium sulfate. This process allows the suppression of the ballast proteins and Fc fragments of IgG molecules responsible for the ability to aggregate, induction of complement fixation, or skin reactions. This purification of the preparation helps to reduce the adverse reaction after administration of heterologous immunoglobulins.

Viper venom antitoxin neutralizes the effect of the venom of European vipers through a specific antibody response (antitoxin) - antigen (viper venom).

Because it is of animal origin, the preparation may cause severe adverse allergic reactions associated with administration of xenogenic protein.

#### General characteristics of the conducted research

Viper venom antitoxin has been manufactured for over 40 years.

Clinical tests in humans were conducted to evaluate the efficacy and safety of application of specific Viper Venom Antitoxin. The results showed that administration of the formulations effectively contributes to the rapid reduction of early symptoms and to their smoother course, and also shortens the duration of hospitalization.

Based on the analysis of clinical cases it was concluded that one should always consider early use of Viper Venom Antitoxin after a bite while the symptoms of exposure to a large amount of venom, such as hypotension, drowsiness, acidosis, leukocytosis have not yet occurred. Use of the preparation within the first hour from the bite is the most effective.

#### 5.2 Pharmacokinetic properties

##### Absorption

After intramuscular injection of the Viper Venom Antitoxin, full absorption of the preparation into the bloodstream occurs within 1 to 2 days.

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#### Distribution

Release from the intramuscular injection area is carried out by simple diffusion from the tissue environment into the plasma.

With an intravenous infusion the preparation is distributed via the bloodstream.

#### Metabolism

The complex antigen (viper venom) - antibody (antitoxin) undergoes phagocytosis. The half-life is 2 - 3 days.

#### Elimination/excretion

Complete elimination occurs in 8 - 12 days.

The mechanism is unknown.

### **5.3 Preclinical safety data**

There is no evidence of toxicity of European viper venom Antitoxin in therapeutic doses on reproduction of animals.

## **6. PHARMACEUTICAL PARTICULARS**

### **6.1 List of excipients**

Phenol

Sodium chloride

Water for injections

Sodium hydroxide and hydrochloric acid - in small quantities, for pH adjustment.

### **6.2 Incompatibilities**

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

### **6.3 Shelf life**

3 years.

### **6.4 Special precautions for storage**

Store in refrigerator (between 2°C - 8°C). Do not freeze.

Keep in the original package to protect from light.

### **6.5 Nature and contents of outer carton**

Glass ampoule (type I) containing 500 A.U. of Viper Venom Antitoxin

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**6.6 Special precautions for disposal of a used medicinal product or waste materials derived from such medicinal product and other handling of the product**

No special requirements.

Any unused product or waste material should be disposed of in accordance with local regulations.

**7. MARKETING AUTHORIZATION HOLDER**

Wytwórnia Surowic i Szczepionek BIOMED Sp. z o.o.  
ul. Chełmska 30/34  
00-725 Warszawa,  
Tel. 022 841 40 71

**8. MARKETING AUTHORIZATION NUMBER(S)**

163/S  
R/0286

**9. DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION**

23.03.1967  
05.03.1999  
29.04.2004

**10. DATE OF REVISION OF THE TEXT**

30.12.2009

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