

## SUMMARY OF PRODUCT CHARACTERISTICS

### 1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Hypophysin LA 70 µg/ml solution for injection for cattle and pigs  
Depotocin 70 µg/ml solution for injection for cattle and pigs (AT/DE)  
Hypophysin LA 70 microgram/ml solution for injection for cattle and pigs (IE/UK)  
Hypophysin 70 µg/ml solution for injection for cattle and pigs (EE)

### 2. QUALITATIVE AND QUANTITATIVE COMPOSITION

1 ml contains:

*Active substance:*

Carbetocin 70.00 µg

*Excipients:*

Chlorocresol 1.00 mg

For the full list of excipients, see section 6.1.

### 3. PHARMACEUTICAL FORM

Solution for injection.

Clear, colourless solution.

### 4. CLINICAL PARTICULARS

#### 4.1 Target species

Cattle, pigs

#### 4.2 Indications for use, specifying the target species

Cows:

- Uterine atony during the puerperal period
- Placental retention as a consequence of uterine atony
- Initiation of milk ejection in stress-induced agalactia or in conditions requiring udder emptying

Sows:

- Acceleration or restart of parturition after disruption of uterine contractions (uterine atony or inertia) following the expulsion of at least one piglet
  - Supportive therapy of mastitis-metritis-agalactia (MMA-) syndrome
  - Initiation of milk ejection
  - Shortening of total parturition duration as a component of synchronisation of parturition in sows
- The product may be applied to sows which have previously been administered an appropriate PGF<sub>2α</sub> or PGF<sub>2α</sub> analogue (e.g. cloprostenol) not prior to day 114 of pregnancy and have not started farrowing within 24 hours after the PGF<sub>2α</sub> or PGF<sub>2α</sub> analogue injection (day 1 of pregnancy is the last day of insemination)

#### 4.3 Contraindications

Do not administer to accelerate parturition if cervix is not opened or if there is a mechanical cause for the delayed parturition such as physical obstruction, positional and postural abnormalities, convulsive labour, threatened rupture of uterus, uterine torsion, relative foetal oversize or deformities of the birth canal.

Do not use in cases of hypersensitivity to the active substance or to any of the excipients.

#### **4.4 Special warnings for each target species**

The responsiveness to carbetocin of the myometrium is likely to be close to zero from the 5<sup>th</sup> to the 11<sup>th</sup> day post-partum. Therefore, the administration of the veterinary medicinal product during this period is likely to be inefficient and should be avoided.

If treatment with carbetocin should fail, then it is advisable to reconsider the aetiology of the condition, specifically if hypocalcaemia could be a complicating factor.

In case of severe septic metritis, appropriate concomitant therapy should be instigated when administering the veterinary medicinal product.

#### **4.5 Special precautions for use**

##### Special precautions for use in animals

None.

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

In case of accidental self-injection uterine contractions could be induced in pregnant women.

Pregnant women, women post-partum and breast-feeding women should not administer this product, in order to avoid an accidental exposure.

In case of an accidental self-injection of the veterinary medicinal product in non-pregnant women the following effects may occur: facial flushing and warmth, lower abdominal pain. These effects usually disappear within a short span of time.

In the case of accidental self-injection, seek medical advice immediately and show the package leaflet or the label to the physician.

Personal protective equipment consisting of disposable gloves should be worn when handling the veterinary medicinal product.

Carbetocin may be absorbed through the skin. In case of accidental contact with the skin, the corresponding area should be thoroughly cleaned with soap and water.

In case of contact with the eyes, they should be thoroughly rinsed with water.

People with known hypersensitivity to carbetocin or any of the excipients should avoid contact with the veterinary medicinal product.

Women of childbearing age should administer the product with special caution.

#### **4.6 Adverse reactions (frequency and seriousness)**

In very rare cases carbetocin may have a uterotonic effect in the late pregnancy.

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).

#### **4.7 Use during pregnancy, lactation or lay**

The veterinary medicinal product is indicated to induce milk ejection.

See also 4.3 Contraindications.

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

The administration of oxytocin after the administration of the veterinary medicinal product is unnecessary. Due to a possible intensification of the effect of oxytocin, undesirable uterine spasms may be induced.

#### **4.9 Amounts to be administered and administration route**

For intramuscular or intravenous use.

##### Cows

For all indications:

3.0 – 5.0 ml/animal, corresponding to 210 – 350 µg carbetocin/animal

##### Sows

For shortening of total parturition duration as a part of the synchronisation of parturition:

0.5 ml/animal, corresponding to 35 µg carbetocin/animal

For acceleration or restart of parturition after disruption of uterine contractions (uterine atony or inertia) following the expulsion of at least one piglet:

0.5 -1.0 ml/animal, corresponding to 35 - 70 µg carbetocin/animal

For MMA and milk ejection:

1.5 – 3.0 ml/animal, corresponding to 105 – 210 µg carbetocin/animal

The dosage requirements can be variable within the indicated limits based on the assessment of the veterinarian.

In case of treatment for milk ejection in the cow and sow or supportive therapy in MMA-syndrome in sow, a repeated administration is possible after 1 to 2 days. The interval between two injections should not be shorter than 24 hours.

For all other indications stated in section 4.2 [indications] the product should be administered once.

The rubber stopper of the vial may be safely punctured up to 25 times. Otherwise, automatic syringe equipment, or a suitable draw-off needle, should be used for the 20 and 50 ml vials to avoid excessive puncturing of the closure.

#### **4.10 Overdose (symptoms, emergency procedures, antidotes), if necessary**

An overdosing of more than 400 µg of carbetocin/animal could increase the stillbirth rate in older sows if administered during prolonged parturition.

An overdosing of 600 µg of carbetocin/animal may induce profuse lactation in sows that may result in diarrhoea, reduced weight gain and increased mortality in their piglets.

Carbetocin is considered as moderately irritant. At the injection sites of treated animals, focal lymphocytic infiltration was observed at higher doses (1000 µg of carbetocin/animal).

#### **4.11 Withdrawal periods**

Cattle, pigs	Meat and offal:	Zero days
Cattle	Milk:	Zero hours

## 5. PHARMACOLOGICAL PROPERTIES

Pharmacotherapeutic group: Systemic hormonal preparations, excl. sex hormones and insulin  
ATCvet code: QH01BB03

### 5.1 Pharmacodynamic properties

Carbetocin is a synthetic analogue of the posterior pituitary lobe hormone oxytocin and has its physiological and pharmacological main effects at the smooth muscle (induction and increase of contractions) of reproductive organs.

Carbetocin has the same effect as natural oxytocin: at the oestrogen stimulated uterus it causes a change from weak, spontaneous and irregular to synchronised, regular, increased and directed contractions. Moreover, in the mammary gland it produces physiological contractions of the myoepithelial cells in the alveolae and small lactiferous ducts as well as a simultaneous relaxation of the teat sphincter.

The action of carbetocin is prolonged and it causes an intensification of the physiological effect.

### 5.2 Pharmacokinetic particulars

Carbetocin is, due to its strongly developed peptidase-resistance, much more slowly degraded in vivo and distinguishes itself by a prolonged efficacy. Carbetocin is much more lipophilic than exogenously applied oxytocin and therefore, a better distribution and a longer effect on the receptors occur. Beside the stability against proteases, this may also contribute to the prolonged increase of uterine tone activity. After administration of 600 µg of carbetocin, in sows a bicompartimental kinetic was observed. The elimination half-life is approximately 85 - 100 min. There are no essential differences between intramuscular and intravenous administration.

## 6. PHARMACEUTICAL PARTICULARS

### 6.1 List of excipients

Chlorocresol  
Acetic acid (glacial)  
Sodium acetate trihydrate  
Sodium hydroxide (for pH adjustment)  
Water for injections

### 6.2 Major incompatibilities

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

### 6.3 Shelf life

*Shelf-life of the veterinary medicinal product as packaged for sale:*

3 years

*Shelf-life after first opening the immediate packaging:*

28 days

### 6.4. Special precautions for storage

Store in a refrigerator (2 - 8 °C). Keep the vial in the outer carton in order to protect from light.

### 6.5 Nature and composition of immediate packaging

Colourless glass injection vial, type I, containing 10 ml, 20 ml or 50 ml, respectively, solution for injection closed with a fluorinated bromobutyl rubber stopper and sealed with an aluminium cap.  
1 x 10 ml, 1 x 20 ml or 1 x 50 ml solution for injection, packaged in an outer cardboard box.

Not all pack sizes may be marketed.

**6.6 Special precautions for the disposal of unused veterinary medicinal product or waste materials derived from the use of such products**

Any unused veterinary medicinal product or waste materials derived from such veterinary medicinal product should be disposed of in accordance with local requirements.

**7. MARKETING AUTHORISATION HOLDER**

Veyx-Pharma GmbH  
Söhreweg 6  
34639 Schwarzenborn  
Germany

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

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

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**10 DATE OF REVISION OF THE TEXT**

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**PROHIBITION OF SALE, SUPPLY AND/OR USE**

Not applicable.