SUMMARY OF PRODUCT CHARACTERISTICS

1. NAME OF THE MEDICINAL PRODUCT

Carboprost Alembic 0.25 mg/ml solution for injection

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Each 1 ml solution for injection contains: carboprost trometamol equivalent to carboprost 0.25 mg.

Excipient(s) with known effect
1 ml of solution for injection contains 9.45 mg of benzyl alcohol corresponding to 9.45 mg/ml.

For the full list of excipients, see section 6.1.

3. PHARMACEUTICAL FORM

Solution for injection.

Clear, colorless solution, free of visible particulate matter. pH between 7.0 to 8.0; osmolality between 350 and 450 mOsmol/kg.

4. CLINICAL PARTICULARS

4.1 Therapeutic indications

Termination of pathological pregnancy - intrauterine fetal death, missed abortion, mola hydatidosa - in the second trimester.
Profuse postpartum haemorrhage, within 24 hours of delivery, which does not respond to standard therapy.

4.2 Posology and method of administration

Pathological pregnancy: 0.25 mg is given as a deep intramuscular injection. The dosage is administered at intervals of 2-3 hour. In case of side effects, the dose can be halved or the dose interval increased to 3-4 hours. In case of insufficient uterine contraction, the dose can be increased up to 0.4 mg.

Postpartum haemorrhage: 0.25 mg is administered as a deep intramuscular injection. Most cases respond to a single dose. The dose can be repeated at interval not less than 15 minutes for a total dose of 2 mg.

4.3 Contraindications

- Hypersensitivity to the active substance or to any excipient listed in section 6.1.
- Acute pelvic inflammatory disease.
- Patients with known active cardiac, pulmonary, renal, or hepatic disease.

4.4 Special warnings and precautions for use

[Product name] should only be used by medically trained personnel and the recommended dosage should be strictly followed.

Special caution is necessary in patients with history of asthma, hypo- or hypertension, cardiovascular, renal, or hepatic disease, glaucoma or raised intra-ocular pressure, anaemia, jaundice, diabetes, or epilepsy.

Benefit/risk ratio should be assessed in patients with cardiovascular disease (risk of decreased blood pressure up to cardiovascular collapse, bradycardia), and in patients with a history of asthma (risk of bronchoconstriction) and pulmonary disease (possibility of decreased pulmonary blood flow and increased arterial pulmonary pressure).

Very rare cases of cardiovascular collapse have been reported following the use of prostaglandins. This should always be considered when using [Product name].

Decreases in maternal arterial oxygen content have been observed in patients treated with carboprost trometamol. For patients with pre-existing cardio-pulmonary problems, monitoring is recommended, with additional oxygen supply if necessary, during treatment with [Product name].

As with all oxytocic agents, [Product name] should be used with caution in patients with known uterine defects (scarring).

During the third trimester of pregnancy, the uterus becomes increasingly sensitive to exogenous prostaglandins. The minimum effective dose of [Product name] sufficient to empty the uterus during the third trimester has not been established.

[Product name] does not seem to directly affect the feto-placental unit and should therefore not be used when the fetus *in utero* has reached viability. [Product name] should not be considered an abortion agent.

Prior treatment with, or concomitant administration of anti-emetics and antidiarrhoeal drugs significantly reduces the very high incidence of the gastrointestinal side effects common to all prostaglandins. Their use should be considered an integral part of the management of patients.

Use of [Product name] is associated with transient febrile conditions, which may be due to hypothalamic thermoregulation. Temperature elevations exceeding 1.1°C were observed in approximately one-eighth of patients who received the recommended dosage regimen.

Distinguishing post-abortion endometritis from drug-induced temperature increases is difficult, but with increased clinical experience the differences become clearer. Of the patients who had an elevated temperature, about 1/16 had the clinical diagnosis of endometritis. Other temperature elevations returned to normal within a few hours of the last injection.

As with spontaneous abortion, a process that is sometimes incomplete, an abortion induced by [Product name] is expected to be incomplete in approximately 20% of cases.

Any treatment with [Product name] that is initiated to terminate a pregnancy but fails should be completed using another method (see section 4.6).

Although the incidence of cervical trauma is extremely low, the cervix should always be carefully examined immediately after the abortion. In primarily primigravidae, clinical experience has shown that pretreatment of the cervix can significantly reduce this risk while speeding up the abortion process.

Animal studies lasting several weeks at high doses have shown that prostaglandins of the E and F series can induce proliferation of bone. Such effects have also been noted in newborn infants who have received prostaglandin E1 during prolonged treatment. There is no evidence that short term administration of [Product name] can cause similar bone effects.

Information on excipients

Benzyl alcohol
[Product name] contains benzyl alcohol (see section 2).

The preservative benzyl alcohol can cause hypersensitivity reactions.

It is important to consider the total amount of benzyl alcohol from all sources and large volumes should be used with caution and only if absolutely necessary, especially in patients with impaired liver or kidney function and also in pregnant and lactating women. This is because of the risk of accumulation and toxicity (metabolic acidosis).

Sodium
[Product name] contains less than 1 mmol (23 mg) sodium per ml of solution, that is to say essentially 'sodium-free'.

4.5 Interaction with other medicinal products and other forms of interaction

As [Product name] can potentiate the effect of other oxytocics, concomitant use is not recommended.

4.6 Fertility, pregnancy and lactation

Fertility
There are no clinical data on the effects of carboprost on fertility.

Pregnancy
Studies in animals have shown reproductive toxicity and any dose which produces increased uterine tone could put the embryo or foetus at risk.

Any treatment with [Product name] that is initiated to terminate a pregnancy but fails should be completed using another method (see section 4.4).

[Product name] must not be used during pregnancy, except for indicated indications (see section 4.1).

[Product name] contains the preservative benzyl alcohol. Benzyl alcohol can cross the placenta (see section 4.4).

Breast-feeding
There are no data on the excretion into breast milk for carboprost tromethamine.

[Product name] contains the preservative benzyl alcohol (see section 4.4).

4.7 Effects on ability to drive and use machines

No studies on the effects on the ability to drive and use machines have been performed.

There have been reports of undesirable effects such as syncope, dizziness and somnolence which could impair the ability to drive or use machines.

Therefore patients should refrain from driving until they know that [Product name] does not affect their ability to drive or use machines.

4.8 Undesirable effects

The table below lists the adverse effects identified through clinical trials and postmarketing surveillance by System Organ Class (SOC) and frequency. Within each frequency grouping, adverse events are presented in order of decreasing seriousness. Frequencies are defined as: very common (≥ 1/10), common (≥ 1/100 to < 1/10), uncommon (≥ 1/1000 to < 1/100), rare (≥ 1/10,000 to < 1/1000), very rare (< 1/10,000), or not known (frequency cannot be estimated from the available data).

The adverse effects of [Product name] are generally transient and reversible on discontinuation of therapy. The most frequent adverse reactions observed are related to its contractile effect on smooth muscles.

In patients studied, approximately two-thirds (66%) experienced vomiting and diarrhoea, approximately one-third (33%) had nausea, one-eighth (12%) had a temperature increase greater than 1.1°C, and one-fourteenth (7%) experienced flushing.

MedDRA System Organ Class	**Frequency**	***Undesirable Effects***
Infections and Infestations	Uncommon	Septic shock, urinary tract infection.
Immune system disorders	Not known	Hypersensitivity reactions† (eg, anaphylactic reaction, anaphylactic shock, anaphylactoid reaction, angioedema).
Endocrine disorders	Not known	Thyrotoxic crisis†.
Psychiatric disorders	Uncommon	Sleep disorder.
	Not known	Anxiety†, nervousness†.
Nervous system disorders	Common	Headache*.
	Uncommon	Vasovagal symptoms, dizziness*, dystonia, paresthesias, somnolence, dysgeusia.
	Not known	Syncope†.
Eye disorders	Uncommon	Blurred vision, eye pain.
Ears and labyrinth disorders	Uncommon	Vertigo, tinnitus.
Cardiac disorders	Uncommon	Tachycardia.
	Not known	Palpitation†.
Vascular disorder	Common	Flushing, hot flashes, chills.
	Uncommon	Hypertension.
Respiratory, thoracic and mediastinal disorders	Common	Cough.
	Uncommon	Asthma, shortness of breath, dyspnoea, hyperventilation*, wheezing, hiccups.

	Not known	Bronchospasm†, pharyngeal oedema†, suffocation†, epistaxis†, dry throat†, upper respiratory tract infection†.
Gastrointestinal disorders	Very common	Diarrhea*, nausea*, vomiting*.
	Uncommon	Hematemesis, upper abdominal pain, dry mouth.
	Not known	Ulceration†.
Skin and subcutaneous tissue disorders	Uncommon	Hyperhidrosis.
	Not known	Rash†.
Musculoskeletal system and connective tissue disorders	Uncommon	Neck stiffness, back pain, myalgia.
	Not known	Muscle spasm†, eyelid spasm†.
Reproductive system and breast disorders	Common	Uterine haemorrhage, retained placenta or membranes, endometritis*.
	Uncommon	Uterine rupture, tearing of the cervix, pelvic pain*, breast tenderness.
	Not known	Uterine disorder†.
General disorders and Uncommon Chest discomfort, Injection site pain administration site conditions	Uncommon	Lethargy, chest discomfort, pain at the injection site.
	Not known	Chest pain†, asthenia†, thirst†
Investigations	Very common	Elevated body temperature.

* Events reported for both intramuscular and intra-amniotic routes of administration are marked with an asterisk. All other events were reported only for the intramuscular route.
† Identified from post-marketing experience

Reporting of suspected side effects
Reporting suspected adverse reactions after authorisation of the medicinal product is important. It allows continued monitoring of the benefit/risk balance of the medicinal product. Healthcare professionals are asked to report any suspected adverse reactions via the national reporting system listed in Appendix V.

4.9 Overdose

Treatment of overdosage must be symptomatic and supportive.

5. PHARMACOLOGICAL PROPERTIES

5.1 Pharmacodynamic properties

ATC code: G02AD04 Prostaglandin with uterine contracting effect

Carboprost (15-methyl-prostaglandin F2α) is a synthetic substance structurally similar to the naturally occurring prostaglandin F2α (dinoprost). The introduction of a methyl group at C-15 means that the biological inactivation takes place more slowly and thereby prolongs the effect.
The substance is administered intramuscularly. The threshold value for myometrial stimulating effect after intravenous injection of carboprost is about 10-15 µg, which is about 10 times lower dose than for dinoprost (PG F2α).

5.2 Pharmacokinetic properties

Upon intramuscular injection of 0.1-0.4 mg carboprost, a maximum plasma level of 1.0-1.6 ng/ml is obtained after 20-30 minutes. After 2-3 hours the levels are down to 0.2-0.4 ng/ml. With repeated injections at 2-3 hour intervals, steady-state is reached after about 6 hours. Carboprost is mainly inactivated by beta-oxidation, and the main metabolite in plasma and urine is dinor-15-methyl PG F2α. Excretion is mainly through the urine, and hardly any carboprost is found in intact form.

5.3 Preclinical safety data

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6. PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Sodium chloride
Benzyl alcohol
Trometamol
Sodium hydroxide (for pH adjustment)
Hydrochloric acid (for pH adjustment)
Water for injection

6.2 Incompatibilities

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6.3 Shelf life

36 months

6.4 Special precautions for storage

Store and transport refrigerated at 2°C to 8°C.

6.5 Nature and contents of container

Solution for injection 0.25 mg/ml is available in glass vial, 1 ml.

One pack contains one vial.

6.6 Special precautions for disposal

No special requirements for disposal.

7. MARKETING AUTHORIZATION HOLDER

[To be completed nationally]

8. MARKETING AUTHORISATION NUMBER(S)

[To be completed nationally]

9. DATE OF FIRST AUTHORISATION/RENEWAL OF AUTHORISATION

Date of first authorisation: [To be completed nationally]

10. DATE OF REVISION OF THE TEXT

15 July 2025