**Professional Information for BUTYRONEX 20 mg/mL**

**SCHEDULING STATUS:** S3

## 1. NAME OF THE MEDICINE

BUTYRONEX 20 mg/mL solution for injection

## 2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Each 1 mL ampoule contains 20 mg hyoscine butylbromide.

Sugar free.

For the full list of excipients, see section 6.1.

## 3. PHARMACEUTICAL FORM

Solution for injection.

A clear, colourless solution.

## 4. Clinical particulars

### 4.1 Therapeutic indications

BUTYRONEX is used in the treatment of conditions associated with gastrointestinal spasm.

### 4.2 Posology and method of administration

***Posology***

The usual dose for adults and children over 12 years of age is 20 mg intramuscular or intravenous, repeated after 30 minutes, if necessary.

***Method of administration***

Intramuscular or intravenous injection.

## 4.3 Contraindications

BUTYRONEX should not be used in patients with:

- hypersensitivity to hyoscine butylbromide or any of the excipients listed in section 6.1
- porphyria
- prostatic enlargement with urinary retention
- paralytic or obstructive ileus
- pyloric stenosis
- mechanical stenosis in the gastrointestinal tract
- fever (see section 4.4)
- megacolon
- tachycardia
- ulcerative colitis (its use may lead to ileus or megacolon and its effects on the lower oesophageal sphincter may exacerbate reflux)
- closed angle or narrow angle glaucoma between the iris and cornea (see section 4.4)
- myasthenia gravis (unless it is to reduce the adverse muscarinic effects of an anticholinesterase medicine)
- pregnancy and breastfeeding (see section 4.6) as safety has not been established (it has been stated to cross the placenta)
- BUTYRONEX should not be given by intramuscular injection to patients being treated with anticoagulant medicines, since intramuscular haematoma may occur.

## 4.4 Special warnings and precautions for use

In case severe, unexplained abdominal pain persists or worsens, or occurs together with symptoms like fever, nausea, vomiting, changes in bowel movements, abdominal tenderness, decreased blood pressure, fainting or blood in stool, appropriate diagnostic measures are needed to investigate the aetiology of the symptoms. BUTYRONEX should be given with caution to patients with diarrhoea.

BUTYRONEX ampoules can cause tachycardia, hypotension and anaphylaxis, therefore use with caution in patients with myocardial infarction as ischaemia and infarction may be worsened, hyperthyroidism, cardiac conditions such as cardiac failure, coronary heart disease, cardiac dysrhythmia or hypertension and in cardiac surgery. Monitoring of these patients is advised. Emergency equipment and personnel trained in its use must be readily available.

Because of the possibility that anticholinergics may reduce sweating, BUTYRONEX should be administered with caution to patients with pyrexia.

Elevation of intraocular pressure may be produced by the administration of anticholinergic medicines such as BUTYRONEX in patients with undiagnosed and therefore untreated narrow angle glaucoma. Therefore, patients should seek urgent ophthalmological advice in case they should develop a painful, red eye with loss of vision after the injection of BUTYRONEX.

After parenteral administration of BUTYRONEX, cases of anaphylaxis including episodes of shock have been observed.
Patients receiving BUTYRONEX by injection should be kept under observation.

BUTYRONEX should be used with caution in children and the elderly, who may be more susceptible to its adverse effects.

**BUTYRONEX ampoules contain sodium chloride:**
BUTYRONEX ampoules contain sodium chloride. The amount of sodium in a 1 ml ampoule is less than 1 mmol (23 mg). The total amount of sodium if a patient is given five ampoules in 24 hours is less than 1 mmol (23 mg) this means that BUTYRONEX ampoules are essentially sodium free.

### 4.5 Interaction with other medicines and other forms of interaction

The anticholinergic effect of medicines such as tri- and tetracyclic antidepressants, antihistamines, quinidine, amantadine, antipsychotics (e.g. phenothiazines, butyrophenones), disopyramide and

other anticholinergics (e.g. tiotropium, ipratropium, atropine-like compounds) may be intensified by BUTYRONEX.

The tachycardic effects of beta-adrenergic medicines may be enhanced by BUTYRONEX.

Concomitant treatment with dopamine antagonists e.g. metoclopramide may result in diminution of the effects of both medicines on the gastrointestinal tract.

Alcohol should be avoided.

## 4.6 Fertility, pregnancy and lactation

### Pregnancy

There are limited data from the use of hyoscine butylbromide, as in BUTYRONEX, in pregnant women. Animal studies are insufficient with respect to reproductive toxicity.
As a precautionary measure, BUTYRONEX is not recommended during pregnancy (see section 4.3).

### Breastfeeding

There is insufficient information on the excretion of hyoscine butylbromide, as in BUTYRONEX, and its metabolites in human milk. A risk to the breastfeeding child cannot be excluded.
The use of BUTYRONEX during breastfeeding is not recommended (see section 4.3).

### Fertility

No studies on the effects on human fertility have been conducted.

## 4.7 Effects on ability to drive and use machines

Patients should be advised that they may experience undesirable effects, such as accommodation disorder or dizziness during treatment with BUTYRONEX. Therefore, caution should be recommended when driving a vehicle or operating machinery. If patients experience

accommodation disorder or dizziness, they should avoid potentially hazardous tasks such as driving or operating machinery.

### 4.8. Undesirable effects

Many of the side effects can be assigned to the anticholinergic properties of BUTYRONEX.

***Nervous system disorders***

| | |
|---|---|
| *Frequent:* | disorientation, delirium, somnolence (especially in elderly patients and in patients with impaired metabolic, liver or kidney function) |
| *Frequency unknown:* | staggering |

***Eye disorders***

| | |
|---|---|
| *Frequent:* | dilatation of the pupils with accommodation disorders |
| *Frequency unknown:* | photophobia |

***Cardiac disorders***

| | |
|---|---|
| *Frequent:* | tachycardia |
| *Frequency unknown:* | bradycardia followed by tachycardia, with palpitations and dysrhythmias |

***Vascular disorders***

| | |
|---|---|
| *Frequent:* | dizziness |
| *Frequency unknown:* | giddiness |

***Gastrointestinal disorders***

| | |
|---|---|
| *Frequent:* | dry mouth, constipation |
| *Frequency unknown:* | difficulty in swallowing, thirst, reduction in the tone and motility of the gastro-intestinal tract, vomiting, retrosternal pain may occur due to increased gastric reflux |

***Skin and subcutaneous tissue disorders***

*Frequency unknown:* dryness of the skin

***Renal and urinary disorders***

*Frequency unknown:* urinary urgency with the inability to do so

***General disorders and administration site conditions***

*Frequency unknown:* injection site pain (particularly after intramuscular use)

**The following adverse reactions have been observed in post-marketing experience with an unknown frequency:**

***Immune system disorders***

Anaphylactic shock (including cases with fatal outcome), anaphylactic reactions, dyspnoea, other hypersensitivity reactions.

***Eye disorders***

Mydriasis, increased intraocular pressure.

***Vascular disorders***

Decreased blood pressure, flushing.

***Skin and subcutaneous tissue disorders***

Skin reactions (e.g. urticaria, rash, erythema, pruritus), abnormal sweating.

***Renal and urinary disorders***

Urinary retention.

Hyoscine butylbromide, the active ingredient of BUTYRONEX, due to its chemical structure as a quaternary ammonium derivate, is not expected to enter the central nervous system. Hyoscine butylbromide does not readily pass the blood-brain barrier. However, it cannot totally be ruled out that under certain circumstances psychiatric disorders (e.g. confusion) may also occur after administration of BUTYRONEX.

***Reporting of suspected adverse reactions***

Reporting suspected adverse reactions after authorisation of BUTYRONEX is important. It allows continued monitoring of the benefit/risk balance of BUTYRONEX. Health care providers are requested to report any suspected adverse reactions to SAHPRA via the Med Safety APP (Medsafety X SAHPRA) and eReporting platform (who-umc.org) found on SAHPRA website.

## 4.9 Overdose

***Symptoms***

Serious signs of poisoning following acute overdosage have not been observed in man.
In the case of overdosage, anticholinergic symptoms, such as urinary retention, dry mouth, reddening of the skin, tachycardia, inhibition of gastrointestinal motility and transient visual disturbances may occur and Cheynes-Stokes respiration has been reported.
Toxic doses cause rapid respiration, hyperpyrexia, restlessness, confusion, excitement, impotence and hallucinations passing into delirium. A rash may appear on face and upper trunk. In severe intoxication, depression of the central nervous system may occur with circulatory failure and respiratory failure. Quaternary ammonium anticholinergic medicine usually has some ganglion blocking action, so that high doses may cause postural hypertension and impotence in toxic doses, nondepolarising neuromuscular block may be produced.

***Treatment***

Treatment is symptomatic and supportive, as required.

# 5. PHARMACOLOGICAL PROPERTIES

## 5.1 Pharmacodynamic properties

Category and class: A 11.2 Gastro-intestinal antispasmodics and cholinolytics (anticholinergics).

Pharmacotherapeutic group: Quaternary ammonium derivate

ATC code: A03BB01.

BUTYRONEX is an antispasmodic medicine which relaxes smooth muscle of the organs of the abdominal and pelvic cavities. It is believed to act predominantly on the intramural parasympathetic ganglia of these organs.

## 5.2 Pharmacokinetic properties

***Absorption and distribution***

After intravenous administration hyoscine butylbromide is rapidly distributed ($t_{½\alpha}$ = 4 min, $t_{½\beta}$ = 29 min) into the tissues. The volume of distribution (Vss) is 128 L (corresponding to approximately 1,7 L/kg). Because of its high affinity for muscarinic receptors and nicotinic receptors, hyoscine butylbromide is mainly distributed on muscle cells of the abdominal and pelvic area as well as in the intramural ganglia of the abdominal organs.

Plasma protein binding (albumin) of hyoscine butylbromide is approximately 4,4 %. Animal studies demonstrate that hyoscine butylbromide does not pass the blood-brain barrier, but no clinical data to this effect is available. Hyoscine butylbromide (1 mM) has been observed to interact with the choline transport (1,4 nM) in epithelial cells of human placenta *in vitro*.

***Metabolism and elimination***

The main metabolic pathway is the hydrolytic cleavage of the ester bond. The half-life of the terminal elimination phase ($t_{½\gamma}$) is approximately 5 hours. The total clearance is 1,2 L/min. Clinical studies with radiolabeled hyoscine butylbromide show that after intravenous injection 42 to 61 % of the radioactive dose is excreted renally and 28,3 to 37 % faecally.

The portion of unchanged active ingredient excreted in the urine is approximately 50 %. The metabolites excreted via the renal route bind poorly to the muscarinic receptors and are therefore not considered to contribute to the effect of the hyoscine butylbromide.

***Paediatric population***

No particular pharmacokinetic studies concerning hyoscine butylbromide have been performed in children.

## 6. PHARMACEUTICAL PARTICULARS

### 6.1 List of excipients

Sodium chloride

Water for injection.

### 6.2 Incompatibilities

None known.

### 6.3 Shelf life

**Unopened ampoules:**

36 months.

**Opened ampoules:**

Use immediately and discard any unused solution.

### 6.4 Special precautions for storage

Store at or below 25 °C.

Protect from light and excessive heat.

### 6.5 Nature and contents of container

1 mL clear Fiolax® (USP type 1) ampoule with a white OPC dot or 1 mL clear NEG (USP type 1) ampoule with a yellow OPC dot.

Pack size: Carton box containing 10 x 1 mL ampoules.

### 6.6 Special precautions for disposal and other handling

For single use only. Any unused solution should be disposed of in accordance with local requirements.

## 7. HOLDER OF CERTIFICATE OF REGISTRATION

LeBasi Pharmaceuticals (Pty) Ltd

San Domenico Building, Unit 6, Ground Floor

10 Church Street

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Tel.: 087 551 3245

## 8. REGISTRATION NUMBER

56/11.2/0268

## 9. DATE OF FIRST AUTHORISATION

11 March 2025

## 10. DATE OF REVISION OF THE TEXT