PROFESSIONAL INFORMATION LEAFLET

SCHEDULING STATUS

S4

1. NAME OF THE MEDICINE

AKINETON® Tablets

AKINETON® Injection

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Tablets

Each tablets contain 2 mg biperiden hydrochloride as the active substance.

Excipient with known effect: Lactose monohydrate 38 mg.

For the full list of excipients, see section 6.1.

Ampoules

Each ampoule contains 5 mg biperiden lactate per mL as the active substance.

For the full list of excipients, see section 6.1.

3. PHARMACEUTICAL FORM

Tablets: Circular, biplanar, almost white tablet with a double score line on one side. The tablet can be divided into equal doses.

Ampoules: Sterile clear ampoule, containing a colourless solution.

4. CLINICAL PARTICULARS

4.1. Therapeutic Indications

AKINETON is indicated for the management of:

- Parkinsonism
- Drug-induced extrapyramidal symptoms

4.2. Posology and method of administration

Posology

Treatment with AKINETON is normally initiated with small incremental doses, depending on the therapeutic effect and side effects.

Parkinsonism:

Tablets:

Gradually increase from 1 mg (½ a tablet) twice daily up to the individually adjusted optimal dose which generally ranges between 1 mg (½ a tablet) to 4 mg (2 tablets) three to four times daily. The total daily dose should be spread evenly throughout the day.

Ampoules:

In severe cases 10 to 20 mg (2 to 4 mL) intramuscularly or slowly intravenously administered, over the duration of the day.

Drug-induced extrapyramidal symptoms:

Tablets:

Adults: Take orally, concomitant with the neuroleptic medicines, 1 mg (½ a tablet) to 4 mg (2 tablets) one to four times daily, increased as required, to maximum of 18 mg (9 tablets) daily.

Children aged between 3 to 15 years: Take 1 mg (½ a tablet) to 2 mg (1 tablet) three times daily. The total daily dose should be spread evenly throughout the day.

Ampoules:

Adults: The parental dose for adults is 2,5 to 5 mg (0,5 to 1 ml) given intramuscularly or slowly intravenously.

Children: The suggested dose for children up to 1 year of age is 1 mg, up to 6 years 2 mg, and up to 10 years 3 mg, given slowly intravenously.

Dependent on individual reactivity, extrapyramidal symptoms may disappear already in the course of injection. In this case the injection should be stopped immediately. If required, injection of a dose appropriate to the child's age can be repeated after 30 minutes.

4.3. Contraindications

AKINETON is contraindicated in:

- patients with a hypersensitivity to biperiden or to any of the excipients in AKINETON (See section 6.1);
- Narrow angle glaucoma;
- Mechanical stenosis or obstruction (ileus) in the gastro-intestinal tract;
- Megacolon;
- Patients with cerebral impairment crisis (See section 4.4);
- Pregnancy and lactation (See section 4.6);
- Myasthenia gravis.

4.4. Special warnings and precautions for use

- Patients with central nervous system impairment may have an increased risk of side effects of AKINETON.
- Feeling of unrest, confusion, or conditions similar to psychoses, are symptoms of overdosage which in patients with low tolerance, such as patients with cerebral arteriosclerosis, may occur even with doses falling into the therapeutic range; similar symptoms occur if AKINETON is given together with antidepressants or neuroleptics (See section 4.8).
- In patients with prostatic enlargement, AKINETON may cause urinary retention.
- AKINETON should be used with caution in patients diagnosed with lower urinary tract symptoms (LUTS) or benign prostatic hypertrophy obstruction (BPH) due to the possible development of acute urinary retention, voiding difficulty, and other anticholinergic side effects.

- AKINETON should be administered with caution in conditions which may be associated with tachycardia or in patients who show an increased tendency to convulsions.
- The consumption of alcohol should be avoided under AKINETON therapy (See section 4.5).
- Following parenteral administration, severe blood pressure decrease and severe bradycardia may occur especially if the injection is too rapid. (See section 4.2)
- AKINETON should not be used in patients with myasthenia gravis.
- Impaired memory, as well as lack of concentration and euphoria frequently occur in patients taking AKINETON (see section 4.8).
- Tolerance, withdrawal and relapse are consistent with AKINETON dependence due to long-term use of anticholinergics.
- They may cause dependency.

Excipients

AKINETON tablets contain lactose monohydrate 38 mg per tablet. Patients with rare hereditary problems of galactose intolerance, total lactase deficiency or glucose-galactose malabsorption should not take this medicine.

Withdrawal symptoms

Upon cessation of treatment or reduction of the dose, insomnia develops. Abrupt cessation can lead to the following withdrawal symptoms: nausea, sweating, and urinary urgency (See section 4.8).

4.5. Interaction with other medicinal products and other forms of interaction

The administration of AKINETON in combination with other anticholinergic psychotropic drugs, antihistamines, antiparkinsonian drugs and antispasmodics can potentiate the CNS and peripheral side effects. The concomitant intake of quinidine may potentiate the anticholinergic effect (especially AV conduction).

The concurrent administration of levodopa and AKINETON may potentiate dyskinesia. Generalised choreic movements have been reported in Parkinson's disease following concurrent administration of carbidopa/levodopa and AKINETON (biperiden).

Tardive dyskinesia induced by neuroleptics may be intensified by AKINETON. Parkinsonian symptoms in the presence of existing tardive dyskinesia are occasionally so serious as to mandate continued anticholinergic therapy.

The effect of metoclopramide and compounds with similar activity on the gastrointestinal tract is attenuated by anticholinergics such as AKINETON.

As with all other drugs acting on the central nervous system, the consumption of alcohol should be avoided under AKINETON therapy.

4.6. Pregnancy and lactation

Pregnancy

The safety and efficacy of AKINETON in pregnant women has not been established.

Lactation

The safety and efficacy of AKINETON in lactating women has not been established.

4.7. Effects on ability to drive and use machines

AKINETON may impair the patient’s speed of reaction. Since adverse reactions such as tiredness, dizziness, drowsiness, delirium, hallucination, anxiety, agitation, euphoric mood, confusional state, accommodation disorders, mydriasis, photophobia, and narrow-angle glaucoma may occur in patients receiving AKINETON, patients should be advised not to drive a motor vehicle, climb dangerous heights or operate dangerous machinery or perform any tasks that requires coherent concentration especially if used with other medicines that affect the central nervous system or alcohol (See section 4.8). In these situations, impaired decision making could lead to accidents.

4.8. Undesirable effects

a. Summary of the safety profile: No text

b. Tabulated list of adverse reactions:

Adverse events are listed below by system organ class and frequency.

The following frequencies are used as the basis in the evaluation of side-effects: Very common (≥1/10); Common (≥1/100 to <1/10); Uncommon (≥1/1,000 to <1/100); Rare (≥1/10,000 to <1/1,000); Very rare (<1/10,000); Not known (cannot be estimated from the available data).

System Organ Class	**Frequency grouping**
Infections and infestations	*Not known:* parotis
Immune system disorders	*Very rare:* hypersensitivity
Psychiatric disorders	*Rare:* delirium*, hallucination*, insomnia*, excitement*, agitation*, fear*, depersonalisation, derealisation and confusional state*
	Very rare: anxiety, euphoric mood
Nervous system disorders	*Rare:* dizziness, fatigue, memory impairment, impaired cognitive function
	Very rare: headache, tardive dyskinesia, ataxia and speech disorder, convulsions
Eye disorders	*Very rare:* accommodation disorders, blurred vision, mydriasis, photophobia, and narrow-angle glaucoma
Ear and labyrinth disorders	*Not known:* vertigo
Cardiac disorders	*Rare:* tachycardia
	Very Rare: bradycardia
Vascular disorders	*Not known:* hypotension
Gastrointestinal disorders	*Rare:* dry mouth, nausea, gastric disorder
	Very Rare: constipation, obstipation, abdominal discomfort
Skin and subcutaneous tissue disorders	*Very rare:* hypohidrosis, allergic rash
Musculoskeletal and connective tissue disorders	*Rare:* Muscle twitching
Renal and urinary disorders	*Very Rare:* urinary retention
General disorders and administrative site conditions	*Not known:* fever, hot skin

c. Description of selected adverse reactions

Psychiatric disorders

Restlessness, or conditions similar to psychotic disorder, are symptoms of overdosage which in patients with low tolerance, such as patients with cerebral arteriosclerosis, may occur even with doses falling into the therapeutic range; similar symptoms occur if AKINETON is given together with antidepressants or neuroleptics in high doses (See section 4.4).

Reporting of suspected adverse reactions

Reporting suspected adverse reactions after authorisation of the medicine is important. It allows continued monitoring of the benefit/risk balance of the medicine. Health care providers are requested to report any suspected adverse drug 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

The picture of intoxication is essentially the same as that of atropine intoxication with peripheral anticholinergic symptoms (such as wide, sluggish pupils, dilated pupils, slowing of movements, reddening of face, dryness of mucous membranes, flushing, rise in heart rate, atony of bowels and bladder, increased temperature, especially in children) and disorders of the central nervous system (such as excitation, confusion, clouding of consciousness, agitation, delirium, mental fog and/or hallucinations). In case of massive intoxication there is a risk of circulatory failure and central respiratory paralysis.

Treatment

Acetylcholinesterase inhibitors may be used as antidotes, especially physostigmine, which passes the blood brain barrier, and also influences the centrally induced symptoms.

5. PHARMACOLOGICAL PROPERTIES

5.1. Pharmacodynamic properties

Pharmacological classification: A 5.4.1 Anti-parkinsonism preparation.

Pharmacotherapeutic group: Anti-parkinson drugs, anticholinergic agents, biperiden. ATC code: N04AA02.

5.2. Pharmacokinetic properties

Absorption

Following an oral dose of biperiden 4 mg, peak levels were observed after 1,4 hours. The bioavailability of orally administered biperiden hydrochloride is 33 %.

Plasma concentration

Peak plasma concentrations of approximately 4,1 ± 0,9 ng/ml are reached in approximately 1,5 hours. The oral plasma clearance rate is about 146 L/hour. The plasma concentration curve is biphasic after the intravenous injection of 4 mg biperiden lactate (equivalent to 3,1 mg biperiden) with an initial half-life of 1,5 hours and a terminal half-life of 24 hours. Plasma clearance is 11,6 ± 0,8 ml min^{-1} kg^{-1} in healthy young volunteers.

Distribution

Volume of distribution of biperiden is 24 ± 4,1 L/kg. Biperiden binds extensively to plasma proteins.

Elimination

After oral administration, the elimination half-life is 21 hours. Unchanged biperiden is not detected in urine.

Pharmacokinetics in special populations

Renal and hepatic impairment

There are no pharmacokinetic data available for the use of AKINETON in patients with liver or kidney impairment.

Elderly patients

Elderly patients are more sensitive to the anticholinergic action of biperiden due to physiological and pathophysiological changes that often accompany the aging process.

6. PHARMACEUTICAL PARTICULARS

6.1. List of excipients

Tablets: calcium hydrogen phosphate dihydrate, copovidone, lactose monohydrate, magnesium stearate, maize starch, microcrystalline cellulose, potato starch, talc.

Contains sugar: lactose monohydrate (38 mg per tablet).

Ampoules: lactic acid, sodium hydroxide, water for injection.

6.2. Incompatibilities

Not available

6.3. Shelf life

60 months

6.4. Special precautions for storage

Store at or below 25 ºC, in a cool, dry place

Keep in original packaging until required for use

KEEP OUT OF REACH OF CHILDREN

6.5. Nature and contents of container

Tablets: PVC/Al blister packs with 10 or 20 tablets per blister. Packs containing 50 or 100 tablets.

Ampoules: Clear 1 mL glass ampoules (Type I). Packs containing 5 ampoules.

Not all pack sizes may be marketed.

6.6. Special precautions for disposal and other handling

Disposal of unused/expired medicines: The release of pharmaceuticals in the environment should be minimised. Medicines should not be disposed of via wastewater and disposal through household waste should be avoided. Use established “collection systems”, if available in your location.

7. HOLDER OF THE CERTIFICATE OF REGISTRATION

Pharmaco Distribution (Pty) Ltd.

3 Sandown Valley Crescent

South Tower, First Floor

Sandton 2196, Gauteng

South Africa

Ethical assistance Line: +27 (0)11 784 0077

8. REGISTRATION NUMBER(S)

AKINETON Tablets: B1042 (Act 101/1965)

AKINETON Injection: B1039 (Act 101/1965)

9. DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

Registration: 04 March 1975

10. DATE OF REVISION OF THE TEXT

Last revision: 25 June 2025

AKINETON Tablets NAMIBIA: NS2 Reg. No.: 14/5.4.1/0195	**AKINETON** Injection NAMIBIA: NS2 Reg. No.: 14/5.4.1/0196

AKINETON Tablets BOTSWANA: S2 Reg. No.: B9305380	**AKINETON** Injection BOTSWANA: S2 Reg. No.: BOT1803351