

Summary of Product Characteristics

1 NAME OF THE MEDICINAL PRODUCT

Akineton 2 mg tablets

2 QUALITATIVE AND QUANTITATIVE COMPOSITION

Each tablet contains 2 mg of biperiden hydrochloride.

Excipients with known effect: Each tablet contains 38mg of lactose monohydrate.
For the full list of excipients, see section 6.1.

3 PHARMACEUTICAL FORM

Tablet
Circular, biplanar, white tablet with a bisecting score on one surface.
The tablet can be divided into equal doses.

4 CLINICAL PARTICULARS

4.1 Therapeutic Indications

Akineton is indicated in the management of:

- Parkinsonian syndromes, especially to counteract muscular rigidity and tremor;
- Extrapyramidal symptoms such as early dyskinesia, akathisia and parkinsonism provoked by neuroleptics and similarly acting drugs.

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.

Adults

Parkinsonism:

Treatment is initiated with an oral dose of 1 mg ($\frac{1}{2}$ tablet) twice daily. The dose can be increased by 2 mg (1 tablet) per day up to a maximum of 16 mg (8 tablets) daily. The total daily dose should be spread evenly throughout the day.

Drug-induced movement disorders:

1 to 4 mg ($\frac{1}{2}$ - 2 tablets) one to four times daily as oral concomitant medication to the neuroleptic, depending upon the severity of the symptoms.

Special populations

Elderly

Cautious dosing is necessary in elderly patients, especially those with symptoms of organic brain disease.

Paediatric population

Experience with Akineton 2mg Tablets in paediatric use is limited and relates mainly to short-term treatment of drug-induced dystonia (e.g. by neuroleptics or metoclopramide and congener compounds).

Drug-induced movement disorders:

Children aged 3-15 years:

1 to 2 mg ($\frac{1}{2}$ - 1 tablet) one to three times daily.

Method of administration

Oral use.

The tablets are best taken during a meal with a little water. In case of very dry mouth, the tablets can be taken after the meal.

4.3 Contraindications

Hypersensitivity to the active substance(s) or to any of the excipients listed in section 6.1.

Akineton is contra-indicated in the presence of untreated narrow-angle glaucoma, mechanical stenoses in the gastrointestinal tract, paralytic ileus, megacolon, prostatic adenoma and diseases that can lead to perilous tachycardia.

4.4 Special warnings and precautions for use

Akineton should only be used with caution in the elderly, and in patients with thyrotoxicosis, cardiac failure, tachycardia, prostatic adenoma or patients who show an increased tendency to convulsions.

Central excitation effects are frequently seen in patients with symptoms of a cerebral deficiency and can necessitate a decrease in the dosage (see Sections 4.2, 4.8). There have been reports of temporarily reduced REM sleep (sleeping phase with rapid eye movements), characterised by an increase in the time needed to reach this stage and a percentage decrease in the length of this phase in the total sleep (see Section 4.8).

The dose should be gradually changed not abruptly; the treatment should be initiated or discontinued gradually.

Excipients

This medicine contains lactose as lactose monohydrate. Patients with rare hereditary problems of galactose intolerance, total lactase deficiency or glucose-galactose malabsorption should not take this medicine.

4.5 Interaction with other medicinal products and other forms of interactions

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 Fertility, pregnancy and lactation

Akineton should only be used during pregnancy or lactation if considered essential by the physician. There is no information available on animal reproductive studies and no reports of use during pregnancy or lactation in man.

4.7 Effects on ability to drive and use machines

Akineton may cause drowsiness. Patients being treated should not drive or operate machinery unless it has been shown not to affect physical or mental ability.

4.8 Undesirable effects

Side-effects may occur particularly at the beginning of treatment and if the dosage is increased too quickly (see Section 4.2). Due to the unknown number of users, the percentage frequency of spontaneously recorded side-effects cannot be determined exactly.

The following frequencies are used as the basis in the evaluation of side-effects:

Very common ($\geq 1/10$)

Common ($\geq 1/100$ to $< 1/10$)

Uncommon ($\geq 1/1,000$ to $< 1/100$)

Rare ($\geq 1/10,000$ to $< 1/1,000$)

Very rare ($< 1/10,000$)

Not known (cannot be estimated from the available data)

Infections and infestations

Not known: Parotitis.

Immune system disorders

Very rare: Hypersensitivity.

Psychiatric disorders

Rare: In higher doses excitement, agitation, fear, confusion, delirious syndromes, hallucinations, sleeplessness.

Central excitation effects are frequently seen in patients with symptoms of a cerebral deficiency and can necessitate a decrease in the dosage.

There have been reports of temporarily reduced REM sleep (sleeping phase with rapid eye movements), characterised by an increase in the time needed to reach this stage and a percentage decrease in the length of this phase in the total sleep.

Very rare: Nervousness, euphoria.

Nervous system disorders

Rare: Fatigue, dizziness and disturbance of memory.

Very rare: Headache, dyskinesia, ataxia and speaking disorder, increased disposition to cerebral seizures and convulsions.

Eye disorders

Very rare: Disturbance of accommodation, mydriasis, and photosensitivity. Closed-angle glaucoma might occur (controlling of intraocular pressure).

Cardiac disorders

Rare: Tachycardia

Very rare: Bradycardia. A fall in blood pressure may occur following parenteral administration.

Gastrointestinal disorders

Rare: Dryness of mouth, nausea, gastric disorder.

Very rare: Constipation

Skin and subcutaneous tissue disorders

Very rare: Reduced perspiration, allergic rash.

Musculoskeletal and connective tissue disorders

Rare: Muscle twitching.

Renal and urinary disorders

Very rare: Voiding disorders, especially in patients with prostate adenoma (dose reduction), more seldom: urinary retention.

General disorders and administration site conditions

Rare: Drowsiness.

Reporting of suspected adverse reactions

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 HPRA Pharmacovigilance, Website: www.hpra.ie.

4.9 Overdose*Symptoms:*

The symptoms of overdose are anticholinergic effects such as mydriasis, dryness of mucous membranes, flushing, rise in heart rate, reduction of bowel motility, reduction in ureter and bladder tone, increased temperature, excitation, confusion, clouding of consciousness and/or hallucinations. In severe overdose, cardiac and respiratory depression may occur.

Treatment:

Gastric lavage or emesis should be considered. As antidote, acetylcholinesterase inhibitors are recommended. Vital signs should be closely monitored and appropriate supportive measures taken. Artificial ventilation, reduction of fever, and application of a bladder emptying catheter may be necessary. In the event of cardiac depression, a cardiac stimulant drug, such as dobutamine, may be considered.

5 PHARMACOLOGICAL PROPERTIES**5.1 Pharmacodynamic properties**

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

ATC code: N04AA02.

Akineton is an anticholinergic agent with a marked effect on the central nervous system which is important for its therapeutic application and, unlike atropine, has weak peripheral vegetative effects.

5.2 Pharmacokinetic properties

In a 15-day pharmacokinetic study, Richens et al (1988) measured the following parameters in young healthy volunteers and elderly male patients:

	Study day 1		Study day 15	
	Young Volunteers	Elderly Patients	Young Volunteers	Elderly Patients
MEANS				
C _{max} (ng/ml)	4.34	7.24	2.46	4.20
t _{max} (h)	0.9	1.6	0.8	1.6
t _{1/2} (h)	14.2	30.2	24.5	38.5
AUC (ng/ml)	28.6	78.7	20.9	98.8

5.3 Preclinical safety data

None.

6 PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Maize starch
Lactose monohydrate
Microcrystalline cellulose
Calcium hydrogen phosphate
Copovidone
Talc
Magnesium stearate
Potato starch

6.2 Incompatibilities

Not applicable.

6.3 Shelf life

5 years.

6.4 Special precautions for storage

Do not store above 25°C.
Keep blister in the outer carton.

6.5 Nature and contents of container

PVC/Al blister packs (20 tablets per blister sheet) in boxes of 100 tablets.

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

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

7 MARKETING AUTHORISATION HOLDER

Laboratorio Farmaceutico SIT, Srl
Via Cavour 70
27035 MEDE (PV)
Italy

8 MARKETING AUTHORISATION NUMBER

PA1253/001/001

9 DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

Date of first authorisation: 01 April 1979

Date of last renewal: 01 April 2009

10 DATE OF REVISION OF THE TEXT

December 2020