

## SUMMARY OF PRODUCT CHARACTERISTICS

### 1. NAME OF THE MEDICINAL PRODUCT

Visken 5 mg Tablets  
Pindolol 5mg Tablets

### 2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Each tablet contains 5 mg pindolol.

Excipients with known effect:  
Mannitol (83 mg/ tablet)

For the full list of excipients, see section 6.1.

### 3. PHARMACEUTICAL FORM

Tablet.

White, round, flat, bevelled tablets, marked 'Visken 5' on one side and with a score line on the other.

The score line is only to facilitate breaking for ease of swallowing and not to divide into equal doses.

### 4. CLINICAL PARTICULARS

#### 4.1 Therapeutic indications

This medicine is indicated in adults for the treatment of essential hypertension. It is also used as a prophylactic treatment of angina pectoris.

#### 4.2 Posology and method of administration

Posology

Adults

*Essential Hypertension:* Initially one 5 mg tablet two or three times a day. According to the response of the patient the dose may be increased at weekly intervals to a maximum of 45 mg given in divided doses twice or three times daily.

*Once daily dosage schedule:* Further work shows that many patients respond to a once daily dosage regime. Initially 15 mg (3 tablets) should be taken once a day with breakfast and adjusted according to individual response up to a maximum of 45 mg (9 tablets). Most patients respond to a once daily dose of between 15-30 mg (3-6 tablets).

The onset of action of this medicine is usually rapid, with most patients showing a response within the first one to two weeks of treatment. However, the maximum response may take several weeks to develop.

*Prophylactic treatment of Angina pectoris:* Usually 2.5 mg to 5 mg orally three times a day according to response. It reduces the frequency and severity of anginal attacks and increases work capacity.

#### Elderly

No evidence exists that elderly patients require different dosages or show different side-effects from younger patients.

#### *Paediatric population*

The safety and efficacy of this medicine in children has not been established. Its use is therefore not recommended.

#### Method of administration

Oral.

### **4.3 Contraindications**

This medicine is contraindicated in patients with:

- Hypersensitivity to the active substance or to any of the excipients listed in section 6.1.
- Untreated cardiac failure
- Cardiogenic shock
- Sick sinus syndrome
- Sino-atrial block
- Second and third degree heart block
- Prinzmetals angina
- History of bronchospasm and bronchial asthma (a warning stating "do not take this medicine if you have a history of wheezing or asthma" will appear on the label)
- Untreated phaeochromocytoma
- Peripheral circulatory disease
- Pronounced bradycardia
- Hypotension
- Chronic obstructive pulmonary disease
- History of cor pulmonale

- Metabolic acidosis
- Prolonged fasting
- Severe renal failure
- Use of anaesthetics with a negative inotropic effect

Owing to the danger of cardiac arrest, a calcium antagonist of the verapamil type must not be administered intravenously to the patient already receiving treatment with a beta-blocker.

#### **4.4 Special warnings and precautions for use**

Patients with a poor cardiac reserve should be stabilised with digitalis before treatment with Visken/ Pindolol Tablets to prevent impairment of myocardial contractility.

As for other beta-blockers, and especially in patients with ischaemic heart disease, treatment should not be discontinued suddenly. The dosage should gradually be reduced, i.e. over 1-2 weeks, if necessary at the same time initiating replacement therapy, to prevent exacerbation of angina pectoris.

As beta-blockers increase the AV conduction time, beta-blockers should only be given with caution to patients with first degree AV block.

If the patient develops increasing bradycardia less than 50-55 beats per minute at rest and the patient experiences symptoms related to bradycardia, the dosage should be reduced or gradually withdrawn.

As with all antihypertensive agents, a cautious dosage schedule is indicated in patients with severe coronary or cerebral arteriosclerosis.

As with all beta-blockers, Visken/ Pindolol Tablets should be used with caution in patients with a history of a recent myocardial infarction.

Caution must be exercised when beta-blocking agents are administered to patients with spontaneous hypoglycaemia or diabetes under treatment with insulin or oral hypoglycaemic agents, since hypoglycaemia may occur during prolonged fasting and some of its symptoms (tachycardia, tremor) may be masked. Beta-blockers may also mask the symptoms of thyrotoxicosis.

Beta-blockers may unmask myasthenia gravis.

During treatment with Visken/ Pindolol Tablets, patients should not undergo anaesthesia with agents causing myocardial depression (e.g. halothane, cyclopropane, trichloroethylene, ether, chloroform). Visken/ Pindolol Tablets should be gradually withdrawn before elective surgery. In emergency surgery or cases where withdrawal of Visken/ Pindolol Tablets would cause deterioration in cardiac condition, atropine sulphate 1 to 2 mg intravenously should be given to prevent severe bradycardia.

If a beta-blocker is indicated in a patient with phaeochromocytoma it must always be given in conjunction with an alpha-blocker. Pre-existing peripheral vascular disorders may be aggravated by beta-blockers.

Since beta-blockers may potentiate the negative-inotropic and dromotropic effects of calcium antagonists, like verapamil or diltiazem, any oral co-medication (e.g. in angina pectoris) requires close clinical control (see also section 4.5).

In severe renal failure a further impairment of renal function following beta blockade has been reported in a few cases. In patients with renal impairment, the elimination half-life for unchanged pindolol is not expected to be significantly different from the subjects with normal renal function. Creatinine clearance, urea and electrolytes should be monitored in patients with renal impairment since they might be more susceptible to the effects of antihypertensive drugs.

There have been reports of skin rashes and/or dry eyes associated with the use of beta-adrenoceptor blocking drugs. The reported incidence is small and in most cases the symptoms have cleared when treatment is withdrawn. Discontinuance of the drug should be considered if any such reaction is not otherwise explicable.

Patients with known psoriasis should take beta-blockers only after careful consideration.

Anaphylactic reactions precipitated by other agents may be particularly severe in patients taking beta-blockers, especially non-selective drugs, and may require higher than normal doses of adrenaline for treatment. Whenever possible, beta-blockers should be discontinued in patients who are at increased risk for anaphylaxis.

Visken 5 mg Tablets/Pindolol 5 mg Tablets contain mannitol which may have a mild laxative effect.

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

The antihypertensive effect of pindolol is enhanced by concomitant treatment with other antihypertensives.

Calcium-channel blocking agents: Visken/ Pindolol Tablets should not be used with calcium-channel blockers with negative inotropic effects e.g. verapamil and to a lesser extent diltiazem. The concomitant use of oral beta-blockers and calcium antagonists of the dihydropyridine type can be useful in hypertension or angina pectoris. However, because of their potential effect on the cardiac conduction system and contractility, the i.v. route must be avoided. The concomitant use with dihydropyridines e.g. nifedipine may increase the risk of hypotension. In patients with cardiac insufficiency, treatment with beta-blocking agents may lead to cardiac failure.

Use of digitalis glycosides, in association with beta-adrenoceptor blocking drugs, may increase atrio-ventricular conduction time.

Clonidine: when therapy is discontinued in patients receiving a beta-blocker and clonidine concurrently, the beta-blockers should be gradually discontinued several days before clonidine is discontinued, in order to reduce the potential risk of a clonidine withdrawal hypertensive crisis.

MAO inhibitors: concurrent use with beta-blockers is not recommended. Possibly significant hypertension may theoretically occur up to 14 days following discontinuation of the MAO inhibitor.

Caution should be exercised in the concurrent use of beta-blocking agents with class I antiarrhythmics (e.g. disopyramide, quinidine) and amiodarone.

Concomitant use of beta-blockers may intensify the blood sugar lowering effect of insulin and other antidiabetic drugs. Use of beta-blockers may prevent appearance of the signs of hypoglycaemia (tachycardia). During concurrent therapy with antidiabetics a close watch should therefore be kept on carbohydrate metabolism, and the dosage of hypoglycaemic medication may have to be readjusted.

Cimetidine, hydralazine and alcohol may induce increased plasma levels of hepatically metabolised beta-blockers.

Concomitant administration with beta-blockers may enhance the vasoconstrictive action of ergot alkaloids.

Non-steroidal anti-inflammatory drugs (NSAIDs), such as indomethacin, may decrease the hypotensive effects of beta-blockers, and there have been isolated reports of a deterioration in renal function in predisposed patients.

Sympathomimetics with beta-adrenergic stimulant activity and xanthines such as adrenaline, noradrenaline, isoprenaline, ephedrine and phenylephrine (e.g. local anaesthetics in dentistry, nasal and ocular drops): concurrent use with beta-blockers may result in mutual inhibition of therapeutic effects; in addition, beta-blockers may decrease theophylline clearance.

Concomitant use of beta-blockers with tricyclic antidepressants, barbiturates, rifampicin and phenothiazines as well as other anti-hypertensive agents may increase the blood pressure lowering effect.

Reserpine: concurrent use may result in an additive and possibly excessive beta-adrenergic blockade.

Beta-blockers and certain anaesthetics (e.g. halothane) are additive in their cardiodepressant effect. However, continuation of beta-blockers reduces the risk of arrhythmia and hypertension during anaesthesia (see section 4.4).

Fluoxetine can increase pindolol levels.

Antimalarials such as mefloquine can cause arrhythmias and caution is necessary if used with beta-blockers.

Excessive caffeine and nicotine intake may oppose the beneficial effects of pindolol.

Concomitant administration of sulfinpyrazone with pindolol may reduce or abolish its antihypertensive effect.

#### **4.6 Fertility, Pregnancy and lactation**

##### Pregnancy

Pindolol should not be given during pregnancy unless there are no safer alternatives.

Beta-blockers may reduce placental perfusion, which may result in intrauterine foetal death, immature and premature deliveries. Use the lowest possible dose. If possible, discontinue beta-blocker therapy at least 2 to 3 days prior to delivery to avoid the effects on uterine contractility and possible adverse effects, especially bradycardia and hypoglycaemia, in the foetus and neonate.

##### Breast-feeding

Pindolol passes in small quantities into breast milk. Breastfeeding is therefore not recommended following administration.

##### Fertility

No data available.

#### **4.7 Effects on ability to drive and use machines**

Because dizziness or fatigue may occur during initiation of treatment with beta-adrenoceptor blocking drugs, patients driving vehicles or operating machinery should exercise caution until their individual reaction to treatment has been determined.

#### **4.8 Undesirable effects**

The following undesirable effects have been observed and reported during treatment with Pindolol with the following frequency:

Not known – cannot be estimated from the available data.

<b>System organ class</b>	<b>Undesirable effects</b>
Blood and lymphatic system disorders	Thrombocytopenia (sometimes with purpura), agranulocytosis

Metabolism and nutrition disorders	Diabetes mellitus, hypoglycaemia, hyperglycaemia
Psychiatric disorders	Hallucination, acute psychosis, sleep disorder, depression, nightmare, confusional state, libido disorder
Nervous system disorders	Headache, dizziness, tremor
Eye disorders	Visual impairment, vision blurred, vision abnormal, keratoconjunctivitis, dry eyes
Cardiac disorders	Bradycardia, complete atrioventricular block, cardiac failure, cardiac arrhythmia
Vascular disorders	Hypotension, peripheral coldness, Raynaud's phenomenon, paraesthesia, intermittent claudication, necrotising vasculitis
Respiratory, thoracic and mediastinal disorders	Bronchospasm (in patients with bronchial asthma or a history of bronchial complaints), dyspnoea
Gastrointestinal disorders	Diarrhoea, nausea, vomiting, constipation, dry mouth, sclerosing peritonitis, retroperitoneal fibrosis, abdominal discomfort, dyspepsia, flatulence
Musculoskeletal and connective tissue disorders	Muscle spasms, arthralgia, myalgia, myasthenia gravis
Skin and subcutaneous tissue disorders	Rash, psoriasis, toxic epidermal necrolysis, cutaneous lupus erythematosus, pruritus, hyperhidrosis
Reproductive system and breast disorders	Erectile dysfunction
Renal and urinary disorders	Glycosuria
General disorders and administration site conditions	Fatigue, hyperpyrexia
Investigations	Increased antinuclear antibodies

Chronic treatment with pindolol increases very low density lipoprotein and decreases high density lipoprotein, which may have an adverse effect on the risk of cardiovascular events.

Beta-blockers may mask the symptoms of thyrotoxicosis or hypoglycaemia.

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 the Yellow Card Scheme, website: [www.mhra.gov.uk/yellowcard](http://www.mhra.gov.uk/yellowcard) or search for MHRA Yellow Card in the Google Play or Apple App Store..

## 4.9 Overdose

### Symptoms

Poisoning due to an overdosage of beta-blocker may lead to pronounced hypotension, bradycardia, hypoglycaemia, heart failure, cardiogenic shock, conduction abnormalities (first or second degree block, complete heart block, asystole), or even cardiac arrest. In addition, dyspnoea, bronchospasm, vomiting, impairment of consciousness, and also generalised convulsions may occur. Rhabdomyolysis with myoglobinuria has been reported as a complication of severe overdosage with oxprenolol.

The manifestations of poisoning with beta-blocker are dependent on the pharmacological properties of the ingested drug. Although the onset of action is rapid, effects of massive overdose may persist for several days despite declining plasma levels. Watch carefully for cardiovascular or respiratory deterioration in an intensive care setting, particularly in the early hours. Observe mild overdose cases for at least 4 hours for the development of signs of poisoning.

### Management

Treat by elimination of any unabsorbed drug and general supportive measures.

Patients who are seen soon after potentially life-threatening overdosage (within 4 hours) should be treated by gastric lavage and activated charcoal.

Treatment of symptoms is based on modern methods of intensive care, with continuous monitoring of cardiac function, blood gases, and electrolytes, and if necessary intravenous fluid and electrolytes replacement, and emergency measures such as artificial respiration, resuscitation or cardiac pacemaker.

Marked bradycardia as a result of overdosage or idiosyncrasy should be treated with atropine sulphate 1 or 2 mg intravenously. If necessary, isoprenaline hydrochloride can be administered by a slow intravenous injection, under constant supervision, beginning with 25 mcg (5 mcg/min) until the desired effect is achieved. A cardiac pacemaker may be required, IV. glucagon (5-10 mg) has been reported to overcome some of the features of serious overdosage and may be useful.

For seizures, diazepam has been effective and is the drug of choice.

For bronchospasm, aminophylline, salbutamol or terbutaline (beta<sub>2</sub>-agonist) are effective bronchodilator drugs. Monitor the patient for dysrhythmias during and after administration.

Patients who recover should be observed for signs of beta-blocker withdrawal phenomenon (see section 4.4).

## **5. PHARMACOLOGICAL PROPERTIES**

### **5.1 Pharmacodynamic properties**

Pharmacotherapeutic group: beta blocking agents, non selective, ATC code: C07AA03

#### Mechanism of action

Pindolol is a potent beta-adrenoceptor antagonist (beta-blocker). It blocks both B- and B2-adrenoceptors for more than 24 hours after administration. It has negligible membrane-stabilising activity. As a beta-blocker, Pindolol protects the heart from beta-adrenoceptor stimulation by acetylcholine during physical exercise and mental stress, and also reduces the sympathetic drive to the heart at rest. Its intrinsic sympathomimetic activity (ISA), however, provides the heart with basal stimulation similar to that elicited by normal resting sympathetic activity, with the result that heart rate and contractility at rest and intracardiac conduction are not unduly depressed. The risk of bradycardia is therefore small and normal cardiac output is not reduced.

#### Pharmacodynamic effects

Pindolol is a beta-blocker with clinically relevant vasodilator activity. This results from the ISA exerted on B2-adrenoceptors in blood vessels. The high vascular resistance of established hypertension is lowered by Pindolol; tissue and organ perfusion is not impaired, and may even be improved.

In contrast to the potentially adverse changes in blood lipoprotein profiles seen during treatment with other beta-blockers (a decrease in the HDL/LDL ratio), the ratio of high density lipoproteins (HDL) to low density (for further information see product licence file).

### **5.2 Pharmacokinetic properties**

#### Absorption

The rapid, nearly complete absorption (>95%) and the negligible hepatic first-pass effect (13%) of Pindolol result in a high bioavailability (87%).

#### Distribution

Maximum plasma concentration is reached within one hour after oral administration. Pindolol has a plasma protein binding of 40%, a volume of distribution of 2-3 l/kg and a total clearance of 500 ml/min.

#### Elimination

The elimination half-life of Pindolol is 3-4 hours. 30-40% is excreted unchanged in the urine, while 60-70% is excreted via kidney and liver as inactive metabolites. Pindolol crosses the placental barrier and pass in small quantities into breast milk.

Patients with impaired kidney or liver function may usually be treated with normal doses. Only in severe cases may a reduction of the daily dose be necessary.

### **5.3 Preclinical safety data**

There are no pre-clinical data of relevance to the prescriber which are additional to that already included in other sections of the SmPC.

### **6.1 List of excipients**

Microcrystalline cellulose, polyvinylpyrrolidone, magnesium stearate, talc, mannitol.

### **6.2 Incompatibilities**

Not applicable.

### **6.3 Shelf life**

5 years

### **6.4 Special precautions for storage**

None

### **6.5 Nature and contents of container**

PVC/PVDC clear blister packs in a cardboard carton containing 56, 60 or 100 tablets.

Not all pack sizes may be marketed.

### **6.6 Special precautions for disposal and other handling**

None.

## **7 MARKETING AUTHORISATION HOLDER**

Amdipharm UK Limited  
Dashwood House,  
69 Old Broad Street,  
London, EC2M 1QS,  
United Kingdom

**8** MARKETING AUTHORISATION NUMBER

PL 20072/0021

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

Date of first authorisation: 1 January 2005

Date of latest renewal: 22 September 2010

**10 DATE OF REVISION OF THE TEXT**

23/10/2023