

# Summary of Product Characteristics

## 1 NAME OF THE MEDICINAL PRODUCT

Hypovase 1mg Tablets

## 2 QUALITATIVE AND QUANTITATIVE COMPOSITION

Each tablet contains 1 mg of prazosin as prazosin hydrochloride.

For the full list of excipients, see section 6.1.

## 3 PHARMACEUTICAL FORM

Tablet

1mg white tablets, scored on both sides and engraved “M6” on one side. The tablet can be divided into equal halves.

## 4 CLINICAL PARTICULARS

### 4.1 Therapeutic Indications

#### Hypertension

Hypovase is indicated in the treatment of all grades of essential (primary) hypertension and of all grades of secondary hypertension of varied aetiology. It can be used as the initial and sole agent or it may be employed in a treatment regimen in conjunction with a diuretic and/or other antihypertensive drug as needed for proper patient response.

#### Congestive Heart Failure

Hypovase may be added to the therapeutic regimen in those patients with congestive heart failure who are resistant or refractory to conventional therapy with diuretics and/or cardiac glycosides.

#### Raynaud's Phenomenon and Raynaud's Disease

Hypovase is indicated for the symptomatic treatment of patients with Raynaud's phenomenon and Raynaud's Disease.

#### Benign Prostatic Hyperplasia

Hypovase is indicated as an adjunct in the symptomatic treatment of urinary obstruction caused by benign prostatic hyperplasia (BPH). It may therefore be of value in patients awaiting prostatic surgery.

### 4.2 Posology and method of administration

Hypovase tablets are for oral administration only.

#### Hypertension

The dosage range is from 0.5mg - 20mg daily. It is recommended that therapy be initiated at the lowest dose, 0.5mg, twice or three times daily for three to seven days, with the starting dose administered in the evening.

This dose should be increased to 1mg twice or three times daily for a further three to seven days. Thereafter, the daily dose should be increased gradually as determined by the patient's response to the blood pressure lowering effect. Most patients are likely to be maintained on a dosage regimen of Hypovase alone of up to 15mg daily in divided doses. Maximum recommended daily dosage: 20mg in divided doses.

If additional diuretic therapy is to be introduced, the dose of Hypovase should be at least halved.

Patients receiving other antihypertensive therapy but with inadequate control

The dosage of the other drug should be halved and Hypovase initiated at 0.5mg in the evening, then continuing with 0.5mg twice or three times daily. Subsequent dosage increase should be made gradually depending upon the patient's response.

There is evidence that adding Hypovase to angiotensin converting enzyme inhibitor, beta-adrenergic antagonist or calcium antagonist therapy may bring about a substantial reduction in blood pressure. Therefore, the low initial dosage regimen is recommended.

Congestive Cardiac Failure

The recommended starting dose is 0.5mg two, three or four times daily, increasing to 4mg in divided doses. Dosage should be adjusted according to the patient's clinical response, based on careful monitoring of cardiopulmonary signs and symptoms, and when indicated, haemodynamic studies. Dosage may be adjusted as often as every two to three days in patients under close medical supervision. In severely ill, decompensated patients, rapid dosage adjustment over one to two days may be indicated and is best done when haemodynamic monitoring is available. In clinical studies the therapeutic dosages ranged from 4mg to 20mg daily in divided doses. Adjustment of dosage may be required in the course of Hypovase therapy in some patients to maintain optimal clinical improvement.

Usual daily maintenance dosage: 4mg to 20mg in divided doses.

Raynaud's Phenomenon and Raynaud's Disease

The recommended starting dosage is 0.5mg twice daily given for a period of three to seven days and should be adjusted according to the patient's clinical response. Usual maintenance dosage 1mg or 2mg twice daily.

Benign Prostatic Hyperplasia

The recommended dosage is 0.5mg twice daily for a period of 3 to 7 days, with the initial dose administered in the evening. The dosage should then be adjusted according to clinical response. The usual maintenance dosage is 2mg twice daily. This dose should not be exceeded unless the patient requires Hypovase as antihypertensive therapy. Patients with benign prostatic hyperplasia receiving hypertensive therapy, should be administered Hypovase only under the supervision of the practitioner responsible for treating the patient's hypertension.

Patients with moderate to severe grades of renal impairment

Evidence to date shows that Hypovase does not further compromise renal function when used in patients with renal impairment. As some patients in this category have responded to small doses of Hypovase, it is recommended that therapy be initiated at 0.5mg daily and that dosage increases be instituted cautiously.

Patients with hepatic dysfunction

No information is available on the use of Hypovase in this patient group, however, since Hypovase normally undergoes substantial first pass metabolism and subsequent metabolism and excretion by the liver it is recommended that therapy be initiated at 0.5mg daily and that dosage increases be instituted cautiously.

Paediatric population:

Hypovase is not recommended for the treatment of children under the age of 12 years since safe conditions for its use have not been established.

Use in the elderly:

Since the elderly may be more susceptible to hypotension, therapy should be initiated with the lowest possible dose.

**4.3 Contraindications**

Hypersensitivity to the active substance, other quinazolines, prazosin or any of the excipients listed in section 6.1.

Hypovase is contra-indicated in patients with congestive cardiac failure due to mechanical obstruction such as aortic valve stenosis, mitral valve stenosis, pulmonary embolism and restrictive pericardial disease.

## 4.4 Special warnings and precautions for use

### In Patients with Benign Prostatic Hyperplasia

Hypovase is not recommended for patients with a history of micturition syncope.

Hypovase decreases peripheral vascular resistance and since many patients with this disorder are elderly, careful monitoring of blood pressure during initial administration and during adjustment of dosage is recommended. The possibility of postural hypotension, or rarely, loss of consciousness, as reported in other patient groups should be borne in mind. Hypovase may augment the efficacy of antihypertensive therapy, consequently, close observation is especially recommended for patients taking medications that are known to lower blood pressure. Hypovase should not normally be administered to patients already receiving another alpha-1-antagonist.

### In patients with congestive cardiac failure

Adequate data are not yet available to establish efficacy in patients with heart failure due to recent myocardial infarction.

When Hypovase is initially administered to patients with congestive cardiac failure who have undergone vigorous diuretic or other vasodilator treatment, particularly in higher than the recommended starting dose, the resultant decrease in left ventricular filling pressure may be associated with a significant fall in cardiac output and systemic blood pressure. In such patients, observance of the recommended starting dose of Hypovase followed by gradual dosage increase is particularly important.

The clinical efficacy of Hypovase in congestive cardiac failure has been reported to diminish after several months of treatment, in a proportion of patients. In these patients there is usually evidence of weight gain or peripheral oedema indicating fluid retention. Since spontaneous deterioration may occur in such severely ill patients, a causal relationship to prazosin therapy has not been established. Thus, as with all patients with congestive cardiac failure, careful adjustment of diuretic dosage according to the patient's clinical condition is required to prevent excessive fluid retention and consequent relief of symptoms.

In those patients without evidence of fluid retention, when clinical improvement has diminished, an increase in the dosage of Hypovase will usually restore clinical efficacy.

### In patients with Hypertension

A very small percentage of patients may respond in an abrupt and exaggerated manner to the initial dose of Hypovase. Postural hypotension evidenced by dizziness and weakness, or rarely loss of consciousness, has been reported, particularly with the commencement of therapy, but this effect is readily avoided by initiating treatment with a low dose of Hypovase and with small increases in dosage during the first one to two weeks of therapy. The effect when observed is not related to the severity of hypertension, is self-limiting and in most patients does not recur after the initial period of therapy or during subsequent titration steps.

When instituting therapy with any effective antihypertensive agent, the patient should be advised how to avoid symptoms resulting from postural hypotension and what measures to take should they develop.

### Raynaud's Phenomenon and Raynaud's Disease

Because Hypovase decreases peripheral vascular resistance, careful monitoring of blood pressure during initial administration and during subsequent dosage increments of Hypovase is suggested. Close observation is especially recommended for patients already taking medications that are known to lower blood pressure.

Use with Phosphodiesterase Type-5 Inhibitors

Concomitant use of phosphodiesterase type-5 (PDE-5) inhibitors (e.g. sildenafil, tadalafil, vardenafil) and prazosin hydrochloride may lead to symptomatic hypotension in some patients. In order to minimise the risk for developing postural hypotension the patient should be stable on the alpha-blocker therapy before initiating use of PDE-5 inhibitors. No studies have been conducted with prazosin hydrochloride.

Priapism

Prolonged erections and priapism have been reported with alpha-1 blockers including prazosin in post marketing experience. In the event of an erection that persists longer than 4 hours, the patient should be advised to seek immediate medical assistance. If priapism is not treated immediately, penile tissue damage and permanent loss of potency could result.

Cataract Surgery

The 'Intraoperative Floppy Iris Syndrome' (IFIS, a variant of small pupil syndrome) has been observed during cataract surgery in some patients on or previously treated with tamsulosin. Isolated reports have also been received with other alpha-blockers and the possibility of a class effect cannot be excluded. As IFIS may lead to increased procedural complications during the cataract operation current or past use of alpha-1 blockers should be made known to the ophthalmic surgeon in advance of surgery.

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

Hypovase has been administered without any adverse drug interaction in clinical experience to date with the following:

Cardiac glycosides - digitalis and digoxin.

Hypoglycaemic agents - insulin, chlorpropamide, phenformin, tolazamide and tolbutamide.

Tranquillizers and sedatives - chlordiazepoxide, diazepam and phenobarbital.

Agents for treatment of gout - allopurinol, colchicine and probenecid.

Anti-arrhythmic agents - procainamide and quinidine.

Analgesic, antipyretic and anti-inflammatory agents - dextropropoxyphene, aspirin, indometacin and phenylbutazone.

There is evidence that adding Hypovase to angiotensin converting enzyme inhibitor, beta-adrenergic antagonist or calcium antagonist therapy may produce a substantial reduction in blood pressure. Therefore, the low initial dosage regimen is recommended.

PDE-5 Inhibitors

Concomitant use of PDE-5 inhibitors (e.g. sildenafil, tadalafil, vardenafil) and prazosin hydrochloride may lead to symptomatic hypotension in some patients (see section 4.4).

Drug/Laboratory Test Interactions

False positive results may occur in screening tests for pheochromocytoma urinary vanillylmandelic acid (VMA) and methoxyhydroxyphenyl glycol (MHPG) metabolites of norepinephrine (noradrenaline) in patients who are being treated with Hypovase.

**4.6 Fertility, pregnancy and lactation**Fertility

Studies in rats have shown reproductive toxicity at a dose of 75mg/kg/day (see Section 5.3).

Pregnancy

In animal studies, prazosin hydrochloride did not indicate any teratogenic effects (see Section 5.3).

No foetal or neonatal abnormalities have been reported with the use of prazosin hydrochloride.

Hypovase has also been used alone or in combination with other hypotensive agents in severe hypertension of pregnancy.

Hypovase should be used only when, in the opinion of the physician, potential benefit outweighs potential risk.

Breast-feeding

Hypovase has been shown to be excreted in small amounts in human milk. Caution should be exercised when Hypovase is administered to nursing mothers.

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

The patient should be advised that the ability to drive or use machinery may be impaired should dizziness or weakness occur during the initiation of Hypovase therapy.

**4.8 Undesirable effects**

The following adverse reactions have been reported in patients taking Hypovase. The adverse reactions are classified according to frequencies determined from clinical trials data.

- Very common ≥ 1/10 (≥10%)
- Common ≥ 1/100 and <1/10 (≥1% and <10%)
- Uncommon ≥ 1/1000 and <1/100 (≥0.1% and <1%)
- Rare ≥ 1/10,000 and <1/1000 (≥0.01% and <0.1%)
- Very rare < 1/10,000 (<0.01%)

If a listed adverse reaction term was not reported in clinical trials it was assumed to be rare, based on reporting rates versus estimated product use worldwide.

**In patients with Hypertension:**

*Immune System Disorders*

Rare	Allergic reaction
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*Psychiatric Disorders*

Common	Depression, nervousness
Uncommon	Insomnia
Rare	Hallucinations

*Nervous System Disorders*

Common	Dizziness, drowsiness, headache, faintness, syncope, transient temporary loss of consciousness
Uncommon	Paraesthesia
Rare	Worsening of pre-existing narcolepsy

*Eye Disorders*

Common	Blurred vision
Uncommon	Eye pain, reddened sclera

*Ear and Labyrinth Disorders*

Common	Vertigo
Uncommon	Tinnitus

***Cardiac Disorders***

Common	Palpitations
Uncommon	Angina pectoris, tachycardia
Rare	Bradycardia

***Vascular Disorders***

Rare	Flushing, hypotension, orthostatic hypotension, vaculitis
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***Respiratory, Thoracic and Mediastinal Disorder***

Common	Dyspnoea, nasal congestion
Uncommon	Epitaxis

***Gastrointestinal Disorders***

Common	Constipation, diarrhoea, dry mouth, nausea, vomiting
Uncommon	Abdominal discomfort and/or pain
Rare	Pancreatitis

***Hepato-biliary Disorders***

Rare	Liver function abnormalities
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***Skin and Subcutaneous Tissue Disorders***

Common	Rash
Uncommon	Diaphoresis, pruritus, urticaria
Rare	Alopecia, lichen planus

***Musculoskeletal and Connective Tissue Disorders***

Uncommon	Arthralgia
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***Renal and Urinary Disorders***

Common	Urinary frequency
Rare	Incontinence

***Reproductive System and Breast Disorders***

Uncommon	Impotence
Rare	Gynaecomastia, priapism

***General Disorders and Administration Site Conditions***

Common	Oedema, lack of energy, weakness
Rare	Fever, pain

***Investigations***

Rare	Positive ANA titer
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Some of these reactions have occurred rarely, and in many instances the exact causal relationships have not been established.

Literature reports exist associating Hypovase therapy with a worsening of pre-existing narcolepsy. A causal relationship is uncertain in these cases.

**In patients with Congestive Cardiac Failure:**

The frequency of side-effects observed in patients being managed for left ventricular failure with Hypovase when used in conjunction with cardiac glycosides and diuretics is shown below:

***Nervous System Disorders***

Common	Dizziness
Uncommon	Headache
Rare	Drowsiness

***Eye Disorders***

Common	Blurred vision
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***Cardiac Disorders***

Rare	Palpitations
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***Vascular Disorders***

Rare	Postural hypotension
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***Respiratory, Thoracic and Mediastinal Disorder***

Rare	Nasal congestion
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***Gastrointestinal Disorders***

Common	Dry mouth, nausea
Uncommon	Diarrhoea

***Reproductive System and Breast Disorders***

Common	Impotence
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***General Disorders and Administration Site Conditions***

Rare	Oedema
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**In patients with Raynaud’s Phenomenon and Raynaud’s Disease and Benign Prostatic Hyperplasia:**

The most common, although infrequently reported side-effect, is mild dizziness.

**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, Earlsfort Terrace, IRL - Dublin 2; Tel: +353 1 6764971; Fax: +353 1 6762517. Website: [www.hpra.ie](http://www.hpra.ie); E-mail: [medsafety@hpra.ie](mailto:medsafety@hpra.ie).

## 4.9 Overdose

Should over-dosage lead to hypotension, support of the cardiovascular system is of first importance. Restoration of blood pressure and normalisation of heart rate may be accomplished by keeping the patient in the supine position. If this measure is inadequate, shock should first be treated with volume expanders. If necessary vasopressors including angiotensin should then be used. Renal function should be monitored and supported as needed. Laboratory data indicate Hypovase is not dialysable because it is protein bound.

## 5 PHARMACOLOGICAL PROPERTIES

### 5.1 Pharmacodynamic properties

Pharmacotherapeutic group: Alpha-adrenoreceptor antagonists, ATC code: C02CA01

Hypovase causes a decrease in total peripheral vascular resistance through selective inhibition of postsynaptic alpha-1-adrenoreceptors in vascular smooth muscle. The results of the forearm plenthysmographic studies in humans demonstrate that the resultant peripheral vasodilation is a balanced effect on both resistance vessels (arterioles) and capacitance vessels (veins).

In hypertensive patients, blood pressure is lowered in both the supine and standing positions; this effect is more pronounced on the diastolic blood pressure. Tolerance to the antihypertensive effect has not been observed in long-term clinical use; relatively little tachycardia or change in renin levels has been noted. Rebound elevation of blood pressure does not occur following abrupt cessation of Hypovase therapy.

The therapeutic efficacy of Hypovase in patients with congestive heart failure is ascribed to a reduction in left ventricular filling pressure, reduction in cardiac impedance and an augmentation of cardiac output. The use of Hypovase in congestive heart failure does not provoke a reflex tachycardia and blood pressure reduction is minimal in normotensive patients.

Hypovase has been found to successfully reduce the severity of the signs, symptoms, frequency and duration of attacks, in patients with Raynaud's disease.

In low dosage, antagonism of alpha-1-receptors on prostatic and urethral smooth muscle has been shown to improve the urinary pressure profile in men and to improve symptoms of benign prostatic hyperplasia.

Clinical studies have shown that Hypovase therapy is not associated with adverse changes in the serum lipid profile.

### 5.2 Pharmacokinetic properties

Following oral administration in normal volunteers and hypertensive patients plasma concentrations of prazosin reach a peak in one or two hours with a plasma half-life of two to three hours. Pharmacokinetic data in a limited number of patients with congestive heart failure, most of whom showed evidence of hepatic congestion, indicates that peak plasma concentrations are reached in 2.5 hours and plasma half life is approximately 7 hours. Hypovase is highly bound to plasma protein. Studies indicate that Hypovase is extensively metabolised, primarily by demethylation and conjugation, and excreted mainly via bile and faeces.

Renal blood flow and glomerular filtration rate are not impaired by long term oral administration and thus Hypovase can be used with safety in hypertensive patients with impaired renal function.

### 5.3 Preclinical safety data

Prazosin hydrochloride was not mutagenic in genetic toxicology testing, and was not carcinogenic in an 18-month study conducted in rats.



In chronic studies (one year or more) conducted with prazosin hydrochloride in rats and dogs, testicular changes consisting of atrophy and necrosis occurred at 25 mg/kg/day (75 times the usual maximum recommended human dose), while no such changes were observed in either species at a dose of 10 mg/kg/day (30 times the usual maximum recommended human dose).

#### Fertility

In a reproductive toxicology study conducted in rats with prazosin hydrochloride, a decrease in fertility occurred in both males and females at a dose of 75 mg/kg/day (225 times the usual maximum recommended human dose), while animals given 25 mg/kg/day (75 times the usual maximum recommended human dose) were unaffected.

#### Pregnancy

Prazosin hydrochloride was not teratogenic in rats and rabbits up to the highest dose tested of 75 mg/kg, which is 225 times the usual maximum recommended human dose.

Although no teratogenic effects were seen in animal testing, the safety of Hypovase during pregnancy has not been established. The use of Hypovase and a beta-blocker for the control of severe hypertension in 44 pregnant women revealed no drug-related foetal abnormalities or adverse effects. Therapy with prazosin was continued for as long as 14 weeks.

## **6 PHARMACEUTICAL PARTICULARS**

### **6.1 List of excipients**

Calcium Phosphate dibasic anhydrous  
Maize starch  
Microcrystalline cellulose  
Magnesium stearate  
Sodium laurilsulfate

### **6.2 Incompatibilities**

Not applicable.

### **6.3 Shelf life**

3 years.

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

Store below 30°C.

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

Each blister consists of a clear PVC 250 micron film, sealed with 20 micron aluminium lidding foil coated with heat seal lacquer.

Packs of 60 tablets (in blister strips of 4 X 15 tablets).

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

No special requirements for disposal.

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

**7 MARKETING AUTHORISATION HOLDER**

Pfizer Limited  
Ramsgate Road  
Sandwich  
Kent CT13 9NJ  
United Kingdom

**8 MARKETING AUTHORISATION NUMBER**

PA0019/023/001

**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**

June 2015