

## Summary of Product Characteristics

### 1. Name of the medicinal product

Normopresan

### 2. Qualitative and quantitative composition

Each tablet contains 150 mcg (microgram) of clonidine hydrochloride.

For excipients see 6.1

### 3. Pharmaceutical form

Pale blue scored tablets marked N/150.

### 4. Clinical particulars

#### 4.1 Therapeutic indications

Antihypertensive

#### 4.2 Posology and method of administration

Normopresan Tablets are for oral administration only.

##### **Adults:**

Treatment of hypertension requires regular medical supervision. The dose of Normopresan must be individualized according to the patient's blood pressure response.

As an initial daily dose in mild to moderate forms of hypertension, 75 mcg (half a tablet) to 150 mcg (one tablet) twice daily are sufficient in most cases. After a period of 2-4 weeks the dose may be increased if necessary until the desired response is achieved.

Usually doses above 600 mcg per day do not result in a further marked drop in blood pressure. In severe hypertension it might be necessary to increase the single dose further to 300 mcg; this could be repeated up to three times daily 900 mcg).

Patients changing to treatment with Normopresan should have their existing therapy reduced gradually, while Normopresan is added to the regimen.

Although concurrent use of a thiazide diuretic may be a valuable adjuvant in many hypertensive patients, when administered alone, Normopresan will, in many cases, provide full control of blood pressure. Nevertheless, the use of a diuretic may aid in overcoming tolerance to clonidine and permit reduction of clonidine dosage.

Normopresan may be added to an existing antihypertensive regimen where blood pressure control has not been satisfactorily achieved. If side-effects with existing therapy are troublesome the concomitant use of Normopresan may allow a lower dose of the established regimen to be employed. Patients changing treatment should have their existing therapy reduced gradually whilst Normopresan is added to their regimen.

Patients undergoing anaesthesia should continue their clonidine treatment.

No specific information on the use of this product in the elderly is available. Clinical trials have included patients over 65 years and no adverse reactions specific to this age group have been reported.

##### **Paediatric Population:**

There is insufficient evidence for the application of clonidine in children and adolescents younger than 18 years. Therefore the use of clonidine is not recommended in paediatric subjects under 18 years.

##### **Patients with renal and hepatic impairment:**

In patients with renal and hepatic (*'hepatic' added from the Australian Leaflet*) insufficiency careful monitoring is required and the dosage must be adjusted appropriately, according to the individual antihypertensive response.

Since only a minimal amount of clonidine is removed during routine hemodialysis there is no need to give supplemental clonidine following dialysis.

**Renal impairment:**

Dosage must be adjusted

– according to the individual antihypertensive response which can show high variability in patients with renal insufficiency, careful monitoring is required (See Section 4.4)

– according to the degree of renal impairment

**4.3 Contraindications**

Normopresan should not be used in patients with known hypersensitivity to the active ingredient or other components of the product, and in patients with severe bradyarrhythmia resulting from either sick sinus syndrome or AV block of 2<sup>nd</sup> or 3<sup>rd</sup> degree.

In case of rare hereditary conditions that may be incompatible with an excipient of the product (please refer to section 4.4 Special Warnings and Precautions for Use) the use of the product is contraindicated.

**4.4 Special warnings and precautions for use**

Caution should be exercised in patients with Raynaud's disease or other peripheral vascular disease. As with all drugs used in hypertension Normopresan should be used with caution in patients with cerebrovascular or coronary insufficiency.

Normopresan should also be used with caution in patients with mild to moderate bradyarrhythmia such as low sinus rhythm, and with polyneuropathy or constipation.

Patients with a known history of depression should be carefully supervised while under long-term treatment with Normopresan as there have been occasional reports of further depressive episodes during oral treatment in such patients.

As with other antihypertensive drugs, treatment with Normopresan should be monitored particularly carefully in patients with heart failure.

In hypertension caused by phaeochromocytoma no therapeutic effect of Normopresan can be expected.

Clonidine, the active ingredient of Normopresan, and its metabolites are extensively excreted in the urine. Dosage must be adjusted to the individual antihypertensive response, which can show high variability in patients with renal insufficiency (See Section 4.2); careful monitoring is required. Since only a minimal amount of clonidine is removed during routine haemodialysis there is no need to give supplemental clonidine following dialysis.

Sudden withdrawal of Normopresan, particularly in those patients receiving high doses, may result in rebound hypertension. Cases of agitation, restlessness, palpitations, nervousness, tremor, headache and abdominal symptoms have also been reported. Patients should be instructed not to discontinue therapy without consulting their physician. When discontinuing therapy the physician should reduce the dose gradually. However, if withdrawal symptoms should nevertheless occur, these can usually be treated with reintroduction of clonidine or with alpha and beta adrenoceptor blocking agents.

If Normopresan is being given concurrently with a beta-blocker, Normopresan should not be discontinued until several days after the withdrawal of the beta-blocker.

Patients who wear contact lenses should be warned that treatment with Normopresan may cause

decreased lacrimation.

This product contains 36 mg of lactose per tablet. Patients with rare hereditary problems of galactose intolerance, the Lapp lactase deficiency or glucose-galactose malabsorption should not take this medicine.

The use and the safety of clonidine in children and adolescents has little supporting evidence in randomized controlled trials and therefore cannot be recommended for use in this population.

Serious adverse events, including sudden death, have been reported in concomitant use with methylphenidate. The safety of using methylphenidate in combination with clonidine has not been systematically evaluated.

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

The reduction in blood pressure induced by clonidine can be further potentiated by concurrent administration of other hypotensive agents. This can be of therapeutic use in the case of other antihypertensive agents such as diuretics, vasodilators, beta-receptor blockers, calcium antagonists and ACE-inhibitors, but the effect of alpha<sub>1</sub>-blockers is unpredictable.

The antihypertensive effect of clonidine may be reduced or abolished and orthostatic hypotension may be provoked or aggravated by concomitant administration of tricyclic antidepressants or neuroleptics with alpha-receptor blocking properties.

Substances which raise blood pressure or induce a sodium ion (Na<sup>+</sup>) and water retaining effect such as non-steroidal anti-inflammatory agents can reduce the therapeutic effect of clonidine.

Substances with alpha<sub>2</sub>-receptor blocking properties, such as mirtazapine, may abolish the alpha<sub>2</sub>-receptor mediated effects of clonidine in a dose-dependent manner.

Concomitant administration of substances with a negative chronotropic or dromotropic effect such as beta-receptor blockers or digitalis glycosides can cause or potentiate bradycardic rhythm disturbances.

It cannot be ruled out that concomitant administration of a beta-receptor blocker will cause or potentiate peripheral vascular disorders.

Based on observations in patients in a state of alcoholic delirium it has been suggested that high intravenous doses of clonidine may increase the arrhythmogenic potential (QT-prolongation, ventricular fibrillation) of high intravenous doses of haloperidol. Causal relationship and relevance for antihypertensive treatment have not been established.

The effects of centrally depressant substances or alcohol can be potentiated by clonidine.

#### **4.6 Fertility, pregnancy and lactation**

##### Pregnancy

There are limited amount of data from the use of clonidine in pregnant women. This product should only be used in pregnancy if considered essential by the physician. Careful monitoring of mother and child is recommended.

Clonidine passes the placental barrier and may lower the heart rate of the foetus. Post partum a transient rise in blood pressure in the newborn cannot be excluded.

There is no adequate experience regarding the long-term effects of prenatal exposure.

During pregnancy the oral forms of clonidine should be preferred. Intravenous injection of clonidine should be avoided.

Non-clinical studies do not indicate direct or indirect harmful effects with respect to reproductive toxicity.

### Lactation

Clonidine is excreted in human milk. However, there is insufficient information on the effect on newborns. The use of Normopresan is therefore not recommended during breastfeeding.

### Fertility

No clinical studies on the effect on human fertility have been conducted with clonidine.

Non-clinical studies with clonidine indicate no direct or indirect harmful effects with respect to the fertility index.

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

No studies on the effects on the ability to drive and use machines have been performed.

However, patients should be advised that they may experience undesirable effects such as dizziness, sedation and accommodation disorder during treatment with Normopresan. If patients experience the above mentioned side effects they should avoid potentially hazardous tasks such as driving or operating machinery.

#### **4.8 Undesirable effects**

Most adverse effects are mild and tend to diminish with continued therapy.

Adverse events have been ranked under headings of frequency using the following convention:

Very common	≥ 1/10
Common	≥ 1/100, <1/10
Uncommon	≥1/1000, <1/100
Rare	≥1/10000, <1/1000
Very rare	<1/10000
Not known	Cannot be estimated from the available data

##### Endocrine disorders:

Gynaecomastia                      rare

##### Psychiatric disorders:

Confusional state                      not known  
Delusional perception                      uncommon  
Depression                              common  
Hallucination                              uncommon  
Libido decreased                              not known  
Nightmare                                      uncommon  
Sleep disorder                              common

##### Nervous system disorders:

Dizziness                                      very common  
Headache                                      common  
Paraesthesia                                      uncommon  
Sedation    very common

##### Eye disorders:

Accommodation disorder                      not known  
Lacrimation decreased                      rare

##### Cardiac disorders:

Atrioventricular block                      rare  
Bradyarrhythmia                              not known  
Sinus bradycardia                              uncommon

##### Vascular disorders:

Orthostatic hypotension                      very common

Raynaud's phenomenon uncommon

Respiratory, thoracic and mediastinal disorders:

Nasal dryness rare

Gastrointestinal disorders:

Colonic pseudo-obstruction rare

Constipation common

Dry mouth very common

Nausea common

Salivary gland pain common

Vomiting common

Skin and subcutaneous tissue disorders:

Alopecia rare

Pruritus uncommon

Rash uncommon

Urticaria uncommon

Reproductive system and breast disorders:

Erectile dysfunction common

General disorders and administration site conditions:

Fatigue common

Malaise uncommon

Investigations:

Blood glucose increased rare

There are occasional reports of fluid retention during initial stages of oral treatment. This is usually transitory and can be corrected by the addition of a diuretic.

Occasional reports of abnormal liver function tests and two cases of hepatitis have also been reported.

#### **4.9 Overdose**

*Symptoms:*

Manifestations of intoxication are due to a generalised sympathetic depression and include pupillary constriction, lethargy, bradycardia, hypotension, hypothermia, somnolence including coma and respiratory depression including apnoea. Paradoxical hypertension caused by stimulation of peripheral alpha<sub>1</sub>-receptors may occur. Transient hypertension may be seen if the total dose is over 10 mg (10000 mcg).

*Treatment:*

There is no specific antidote for clonidine overdose. Administration of activated charcoal should be performed where appropriate.

Supportive care may include atropine sulfate for symptomatic bradycardia, and intravenous fluids and/or inotropic sympathomimetic agents for hypotension. Severe persistent hypertension may require correction with alpha-adrenoceptor blocking drugs.

Naloxone may be a useful adjunct for the management of clonidine-induced respiratory depression.

### **5. Pharmacological properties**

#### **5.1 Pharmacodynamic properties**

Normopresan has been shown to have both central and peripheral sites of action. With long-term treatment Normopresan reduces the responsiveness of peripheral vessels to vasoconstrictor and vasodilator substances and to sympathetic nerve stimulation. Early in treatment, however, blood pressure reduction is associated with a central reduction of sympathetic outflow and increased

vagal tone.

Clinically, there may be reduced venous return and slight bradycardia resulting in reduced cardiac output. Although initially peripheral resistance may be unchanged, it tends to be reduced as treatment continues. There is no interference with myocardial contractility. Studies have shown that cardiovascular reflexes, as shown by the lack of postural hypotension and exercise hypotension, are preserved.

The efficacy of clonidine in the treatment of hypertension has been investigated in five clinical studies in paediatric patients. The efficacy data confirms the properties of clonidine in reduction of systolic and diastolic blood pressure. However, due to limited data and methodological insufficiencies, no definitive conclusion can be drawn on the use of clonidine for hypertensive children.

The efficacy of clonidine has also been investigated in a few clinical studies with paediatric patients with ADHD, Tourette syndrome and stuttering. The efficacy of clonidine in these conditions has not been demonstrated.

There were also two small paediatric studies in migraine, neither of which demonstrated efficacy. In the paediatric studies the most frequent adverse events were drowsiness, dry mouth, headache, dizziness and insomnia. These adverse events might have serious impact on daily functioning in paediatric patients.

Overall, the safety and efficacy of clonidine in children and adolescents have not been established (see section 4.2).

## **5.2 Pharmacokinetic properties**

### Absorption and distribution

The pharmacokinetics of clonidine is dose-proportional in the range of 75-300 mcg; over this range, dose linearity has not been fully demonstrated. Clonidine, the active ingredient of Normopresan, is highly absorbed and undergoes a minor first pass effect. Peak plasma concentrations are reached within 1-3 h after oral administration. The plasma protein binding is 30-40%.

Clonidine is rapidly and extensively distributed into tissues and crosses the blood-brain barrier, as well as the placental barrier. Clonidine is excreted in human milk. However, there is insufficient information on the effect on newborns.

### Metabolism and elimination

The terminal elimination half-life of clonidine has been found to range from 5 to 25.5 hours. It can be prolonged in patients with severely impaired renal function up to 41 hours.

About 70% of the dose administered is excreted with the urine mainly in form of the unchanged parent drug (40-60% of the dose). The main metabolite p-hydroxy-clonidine is pharmacologically inactive. Approximately 20% of the total amount is excreted with the faeces. There is no definitive data about food or race effects on the pharmacokinetics of clonidine.

The antihypertensive effect is reached at plasma concentrations between about 0.2 and 2.0 ng/ml in patients with normal renal function. The hypotensive effect is attenuated or decreases with plasma concentrations above 2.0 ng/ml.

## **5.3 Preclinical safety data**

There are no preclinical data of relevance to the prescriber which are additional to that already included in other sections of the SPC.

## **6. Pharmaceutical particulars**

### **6.1 List of excipients**

Starch corn, calcium phosphate dibasic anhydrous, lactose spray dried, silicon dioxide colloidal 200, povidone 25, starch soluble, stearic acid, indigotine blue (E132).

**6.2 Incompatibilities**

Not applicable.

**6.3 Special precautions for storage**

Store below 25°C

**6.4 Nature and contents of container**

Packs of 30 tablets in blisters.

**6.5 Special precautions for disposal and other handling**

No special requirements

**7. Registration holder:**

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