

## **SUMMARY OF PRODUCT CHARACTERISTICS**

### **1 NAME OF THE MEDICINAL PRODUCT**

Trazodone hydrochloride 50 mg Capsules, Hard

### **2 QUALITATIVE AND QUANTITATIVE COMPOSITION**

Each capsule contains 50 mg of Trazodone hydrochloride.

Excipients with known effect: Each capsule contains 77.00 mg of lactose monohydrate.

For the full list of excipients, see section 6.1.

### **3 PHARMACEUTICAL FORM**

Capsule, hard.

Purple/green hard gelatin capsule of size '3' and imprinted with 'BL' and '50' on cap/body, containing white to off white granular powder.

### **4 CLINICAL PARTICULARS**

#### **4.1 Therapeutic indications**

Relief of symptoms in all types of depression including depression accompanied by anxiety.

#### **4.2 Posology and method of administration**

Posology:

DEPRESSION:

*Adults:*

Initially 75mg to 150 mg/day in divided doses after food or as a single dose on retiring.

This may be increased up to 300 mg/day in a single or divided doses. The major portion of a divided dose to be taken on retiring. The dose may be further increased to 600 mg/day in divided doses in hospitalized patients.

A starting dose of 75 mg is not achievable with a 50 mg capsule, therefore another formulation/strength should be used.

*Elderly:*

For very elderly or frail patients, the recommended initial starting dose is reduced to 100 mg/day given in divided doses or as a single night-time dose (see section 4.4). This may be incrementally increased, under supervision, according to efficacy and tolerance. In general, single doses above 100 mg should be avoided in these patients. It is unlikely that 300 mg/day will be exceeded.

*Children:*

There are insufficient data on safety to recommend the use of Trazodone in children below the age of 18 years.

DEPRESSION ACCOMPANIED BY ANXIETY: As for depression.

*Hepatic Impairment:*

Trazodone undergoes extensive hepatic metabolism, see section 5.2, and has also been associated with hepatotoxicity, see sections 4.4 and 4.8. Therefore caution should be exercised when prescribing for patients with hepatic impairment, particularly in cases of severe hepatic impairment. Periodic monitoring of liver function may be considered.

*Renal Impairment:*

No dosage adjustment is usually necessary, but caution should be exercised when prescribing for patients with severe renal impairment (see also section 4.4 and 5.2).

Method of administration:

For oral administration.

### 4.3 Contraindications

- Hypersensitivity to the active substance or to any of the excipients listed in section 6.1;
- Alcohol intoxication and intoxication with hypnotics;
- Acute myocardial infarction.

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

##### **Use in children and adolescents under 18 years of age**

Trazodone should not be used in children and adolescents under 18 years old. Suicidal behavior (suicidal attempt and suicidal planning) and hostility (essentially aggressiveness, opposing behavior and anger) has been observed in a clinical study on children and adolescents treated with antidepressant more frequently than with placebo. Moreover, long-term safety data on children and adolescents regarding growth, maturation and cognitive and behavioral development are not available.

##### **Suicide/suicidal thoughts or clinical worsening**

Depression is associated with an increased risk of suicidal thoughts, self harm and suicide (suicide-related events). This risk persists until significant remission occurs. As improvement may not occur during the first few weeks or more of treatment, patients should be closely monitored until such improvement occurs. It is general clinical experience that the risk of suicide may increase in the early stages of recovery.

Other psychiatric conditions for which Trazodone is prescribed can also be associated with an increased risk of suicide-related events. In addition, these conditions may be co-morbid with major depressive disorder. The same precautions observed when treating patients with major depressive disorder should therefore be observed when treating patients with other psychiatric disorders.

Patients with a history of suicide-related events, or those exhibiting a significant degree of suicidal ideation prior to commencement of treatment are known to be at greater risk of suicidal thoughts or suicide attempts, and should receive careful monitoring during treatment. A meta-analysis of placebo-controlled clinical trials of antidepressant drugs in adult patients with psychiatric disorders showed an increased risk of suicidal behavior with antidepressants compared to placebo in patients less than 25 years old.

Close supervision of patients and in particular those at high risk should accompany drug therapy especially in early treatment and following dose changes. Patients (and caregivers of patients) should be alerted about the need to monitor for any clinical worsening, suicidal behavior or thoughts and unusual changes in behavior and to seek medical advice immediately if these symptoms present.

To minimize the potential risk of suicide attempts, particularly at therapy initiation, only restricted quantities of Trazodone should be prescribed at each occasion.

**It is recommended that careful dosing and regular monitoring is adopted in patients with the following conditions:**

- Epilepsy, specifically abrupt increases or decreases of dosage should be avoided
- Patients with hepatic or renal impairment, particularly if severe
- Patients with cardiac disease, such as angina pectoris, conduction disorders or AV blocks of different degree, recent myocardial infarction
- Hyperthyroidism
- Micturition disorders, such as prostate hypertrophy, although problems would not be anticipated as the anticholinergic effect of Trazodone is only minor
- Acute narrow angle glaucoma, raised intra-ocular pressure, although major changes would not be anticipated due to the minor anticholinergic effect of Trazodone

Should jaundice occur in a patient, Trazodone therapy must be withdrawn.

Severe hepatic disorders with potential fatal outcome have been reported with trazodone use (see undesirable effects section). Patients should be instructed to report immediately signs such as asthenia, anorexia, nausea, vomiting, abdominal pain or icterus to a physician. Investigations including clinical examination and biological assessment of liver function should be undertaken immediately, and withdrawal of tradozone therapy be considered

**Administration of antidepressants** in patients with schizophrenia or other psychotic disorders may result in a possible worsening of psychotic symptoms. Paranoid thoughts may be intensified. During therapy with Trazodone a depressive phase can change from a manic – depressive psychosis into a manic phase. In that case Trazodone must be stopped.

Interactions in terms of **serotonin syndrome/malignant neuroleptic** syndrome have been described in case of concomitant use of other serotonergically acting substances like other antidepressants (e.g. tricyclic antidepressants, SSRI's, SNRI's and MAO-inhibitors) and neuroleptics. Malignant neuroleptic syndromes with fatal outcome have been reported in cases of co-administration with neuroleptics, for which this syndrome is a known possible adverse drug reaction. See Sections 4.5 and 4.8 for further information.

Since **agranulocytosis** may clinically reveal itself with influenza-like symptoms, sore throat, and fever, in these cases it is recommended to check hematology.

**Hypotension**, including orthostatic hypotension and syncope, has been reported to occur in patients receiving Trazodone. Concomitant administration of antihypertensive therapy with Trazodone may require a reduction in the dose of the antihypertensive drug.

**Elderly patients** may more often experience orthostatic hypotension, somnolence and other anticholinergic effects of trazodone. Careful consideration should be given to the potential for additive effects with concomitant medication use such as with other psychotropics or antihypertensives or in the presence of risk factors such as comorbid disease, which may exacerbate these reactions. It is recommended that the patient/carer is informed of the potential for these reactions and monitored closely for such effects following initiation of therapy, prior to and following upward dose titration.

Following therapy with Trazodone, particularly for a prolonged period, an incremental dosage reduction to withdrawal is recommended, to minimize the occurrence of withdrawal symptoms, characterized by nausea, headache, and malaise.

There is no evidence that Trazodone hydrochloride possesses any addictive properties.

As with **other antidepressant drugs**, cases of QT interval prolongation have been reported with Trazodone very rarely. Caution is advised when prescribing Trazodone with medicinal products known to prolong QT interval. Trazodone should be used with caution in patients with known cardiovascular disease including those associated with prolongation of the QT interval.

Potent **CYP3A4 inhibitors** may lead to increases in trazodone serum levels. See section 4.5 for further information.

As with **other drugs with alpha-adrenolytic** activity, Trazodone has very rarely been associated with priapism. This may be treated with an intracavernosum injection of an alpha-adrenergic agent such as adrenaline or metaraminol. However there are reports of Trazodone-induced priapism which have required surgical intervention or led to permanent sexual dysfunction. Patients developing this suspected adverse reaction should cease Trazodone immediately.

#### **Trazodone hydrochloride capsule contains lactose monohydrate**

Patients with rare hereditary problems of galactose intolerance, the Lapp lactase deficiency or glucose-galactose malabsorption should not take this medicine.

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

General: The sedative effects of antipsychotics, hypnotics, sedatives, anxiolytics, and antihistaminic drugs may be intensified; dosage reduction is recommended in such instances.

The metabolism of antidepressants is accelerated due to hepatic effects by oral contraceptives, phenytoin, carbamazepine and

barbiturates. The metabolism of antidepressants is inhibited by cimetidine and some other antipsychotics.

In vitro drug metabolism studies suggest that there is a potential for drug interactions when Trazodone is given with potent CYP3A4 inhibitors such as erythromycin, ketoconazole, itraconazole, ritonavir, indinavir, and nefazodone. It is likely that potent CYP3A4 inhibitors may lead to substantial increases in trazodone plasma concentrations with the potential for adverse effects. Exposure to ritonavir during initiation or resumption of treatment in patients receiving Trazodone will increase the potential for excessive sedation, cardiovascular, and gastrointestinal effects. It has been confirmed in in-vivo studies in healthy volunteers, that a ritonavir dose of 200 mg BID increased the plasma levels of Trazodone by greater than two-fold, leading to nausea, syncope and hypotension. If Trazodone is used with a potent CYP3A4 inhibitor, a lower dose of Trazodone should be considered. However, the co-administration of Trazodone and potent CYP3A4 inhibitors should be avoided where possible.

Carbamazepine reduced plasma concentrations of trazodone when co-administered. Concomitant use of carbamazepine 400 mg daily led to a decrease of plasma concentrations of Trazodone and its active metabolite m-chlorophenylpiperazine of 76% and 60 %, respectively. Patients should be closely monitored to see if there is a need for an increased dose of Trazodone when taken with carbamazepine.

Trazodone may enhance the effects of muscle relaxants and volatile anesthetics, and caution should be exercised in such instances. Similar considerations apply to combined administration with sedative and antidepressant drugs, including alcohol. Trazodone intensifies the sedative effects of alcohol. Alcohol should be avoided during Trazodone therapy.

Trazodone has been well tolerated in depressed schizophrenic patients receiving standard phenothiazine therapy and also in depressed parkinsonian patients receiving therapy with levodopa. Antidepressants can accelerate the metabolism of levodopa.

*Tricyclic antidepressants:* Concurrent administration should be avoided due to the risk of interaction. Serotonin syndrome and cardiovascular side effects are possible.

*Fluoxetine:* Rare cases have been reported of elevated Trazodone plasma levels and adverse effects when Trazodone had been combined with fluoxetine, a CYP1A2/2D6 inhibitor. The mechanism underlying a pharmacokinetic interaction is not fully understood. A pharmacodynamic interaction (serotonin syndrome) could not be excluded.

Possible interactions with monoamine oxidase inhibitors have occasionally been reported. Although some clinicians do give both concurrently, use of Trazodone with MAOIs, or within two weeks of stopping treatment with

these compounds is not recommended. The giving of MAOIs within one week of stopping Trazodone is also not recommended.

*Phenothiazines:* Severe orthostatic hypotension has been observed in case of concomitant use of phenothiazines, like e.g. chlorpromazine, fluphenazine, levomepromazine, perphenazine.

*Other:* Concomitant use of Trazodone with drugs known to prolong the QT interval may increase the risk of ventricular arrhythmias, including torsade de pointes. Caution should be used when these drugs are co-administered with Trazodone.

Since Trazodone is only a very weak inhibitor of noradrenaline re-uptake and does not modify the blood pressure response to tyramine, interference with the hypotensive action of guanethidine-like compounds is unlikely. However, studies in laboratory animals suggest that Trazodone may inhibit most of the acute actions of clonidine. In the case of other types of antihypertensive drug, although no clinical interactions have been reported, the possibility of potentiation should be considered.

Undesirable effects may be more frequent when Trazodone is administered together with preparations containing *Hypericum perforatum* (St Johns Wort).

There have been reports of changes in prothrombin time in patients concomitantly receiving trazodone and warfarin.

Concurrent use with Trazodone may result in elevated serum levels of digoxin or phenytoin. Monitoring of serum levels should be considered in these patients.

## 4.6 Fertility, pregnancy and lactation

### Pregnancy

Data on a limited number (< 200) of exposed pregnancies indicate no adverse effects of Trazodone on pregnancy or on the health of the fetus/newborn child. To date, no other relevant epidemiological data are available. The safety of Trazodone in human pregnancy has not been established. Animal studies do not indicate direct or indirect harmful effects with respect to pregnancy, embryonal/fetal development, parturition or postnatal development at therapeutic doses. On basic principles, therefore, its use during the first trimester should be avoided.

Caution should be exercised when prescribing to pregnant women. When Trazodone is used until delivery, newborns should be monitored for the occurrence of withdrawal symptoms.

### Lactation

Limited data indicate that excretion of Trazodone in human breast milk is low, but levels of the active metabolite are not known. Due to the paucity of data, a decision on whether to continue/discontinue breast-feeding or to continue/discontinue therapy with Trazodone should be made taking into account the benefit of breast-feeding to the child and the benefit of Trazodone therapy to the woman.

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

Trazodone has minor or moderate influence on the ability to drive and use machines. As with all other drugs acting on the central nervous system, patients should be cautioned against the risks of driving or operating machinery until they are sure they are not affected by drowsiness, sedation, dizziness, confusional states, or blurred vision.

#### 4.8 Undesirable effects

Cases of suicidal ideation and suicidal behaviors have been reported during Trazodone therapy or early after treatment discontinuation (see section 4.4). Trazodone has had no effect on arterial blood pCO<sub>2</sub> or pO<sub>2</sub> levels in patients with severe respiratory insufficiency due to chronic bronchial or pulmonary disease.

The following symptoms, some of which are commonly reported in cases of untreated depression, have also been recorded in patients receiving Trazodone therapy:

MedDRA System Organ Class	Frequency not known (cannot be estimated from the available data)
Blood and the lymphatic system disorders	Blood dyscrasias (including agranulocytosis, thrombocytopenia, eosinophilia, leucopenia and anemia).
Immune system disorders	Allergic reactions.
Endocrine disorders	Syndrome of Inappropriate Antidiuretic Hormone Secretion.
Metabolism and nutrition disorders	Hyponatremia <sup>1</sup> , weight loss, anorexia, increased appetite.
Psychiatric disorders	Suicidal ideation or suicidal behaviors <sup>2</sup> , confusional state, insomnia, disorientation, mania, anxiety, nervousness, agitation (very occasionally exacerbating to delirium), delusion, aggressive reaction, hallucinations, nightmares, libido decreased, withdrawal syndrome.
Nervous system	Serotonin syndrome, convulsion, neuroleptic malignant

disorders	syndrome, dizziness, vertigo, headache, drowsiness <sup>3</sup> , restlessness, decreased alertness, tremor, blurred vision, memory disturbance, myoclonus, expressive aphasia, paresthesia, dystonia, taste altered.
Cardiac disorders	Cardiac arrhythmias <sup>4</sup> (including Torsade de Pointes, palpitations, premature ventricular contractions, ventricular couplets, ventricular tachycardia), bradycardia, tachycardia, ECG abnormalities (QT prolongation) <sup>2</sup> .
Vascular disorders	Orthostatic hypotension, hypertension, syncope
Respiratory, thoracic and mediastinal disorders	Nasal congestion, dyspnea.
Gastrointestinal disorders	Nausea, vomiting, dry mouth, constipation, diarrhoea, dyspepsia, stomach pain, gastroenteritis, increased salivation, paralytic ileus.
Hepato-biliary disorders	Hepatic function abnormalities (including jaundice and hepatocellular damage) <sup>5</sup> cholestasis intrahepatic, severe hepatic disorders such as hepatitis/fulminant hepatitis, hepatic failure with potential fatal outcome.
Skin and subcutaneous tissue disorders	Skin rash, pruritus, hyperhidrosis.
Musculoskeletal and connective tissue disorders	Pain in limb, back pain, myalgia, arthralgia.
Renal and urinary disorders	Micturition disorder.
Reproductive system and breast disorders	Priapism <sup>2</sup> .
General disorders and administration site conditions	Weakness, oedema, influenza-like symptoms, fatigue, chest pain, fever.
Investigations	Elevated liver enzymes.

<sup>1</sup> Fluid and electrolyte status should be monitored in symptomatic patients

<sup>2</sup> See also Section 4.4.

<sup>3</sup> Trazodone is a sedative antidepressant and drowsiness, sometimes experienced during the first days of treatment, usually disappears on continued therapy.

<sup>4</sup> Studies in animals have shown that trazodone is less cardiotoxic than the tricyclic antidepressants, and clinical studies suggest that the drug may be less likely to cause cardiac arrhythmias in man. Clinical studies in patients with pre-existing cardiac disease indicate that trazodone may be arrhythmogenic in some patients in that population.

<sup>5</sup> Adverse effects on hepatic function, sometimes severe, have been rarely reported. Should such effects occur, trazodone should be immediately discontinued.

#### 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 at: [www.mhra.gov.uk/yellowcard](http://www.mhra.gov.uk/yellowcard).

## 4.9 Overdose

### Features of toxicity

The most frequently reported reactions to overdose have included drowsiness, dizziness, nausea and vomiting. In more serious cases coma, tachycardia, hypotension, hyponatraemia, convulsions and respiratory failure have been reported. Cardiac features may include bradycardia, QT prolongation and torsade de pointes. Symptoms may appear 24 hours or more after overdose.

Overdoses of Trazodone in combination with other antidepressants may cause serotonin syndrome.

### Management

There is no specific antidote to trazodone. Activated charcoal should be considered in adults who have ingested more than 1 g trazodone, or in children who have ingested more than 150 mg trazodone within 1 hour of presentation. Alternatively, in adults, gastric lavage may be considered within 1 hour of ingestion of a potentially life-threatening overdose.

Observe for at least 6 hours after ingestion (or 12 hours if a sustained release preparation has been taken). Monitor BP, pulse and Glasgow Coma Scale (GCS). Monitor oxygen saturation if GCS is reduced. Cardiac monitoring is appropriate in symptomatic patients.

Single brief convulsions do not require treatment. Control frequent or prolonged convulsions with intravenous diazepam (0.1-0.3 mg/kg body weight) or lorazepam (4 mg in an adult and 0.05 mg/kg in a child). If these measures do not control the fits, an intravenous infusion of phenytoin may be useful. Give oxygen and correct acid base and metabolic disturbances as required.

Treatment should be symptomatic and supportive in the case of hypotension and excessive sedation. If severe hypotension persists consider use of inotropes, eg.: dopamine or dobutamine

## 5 PHARMACOLOGICAL PROPERTIES

## 5.1 Pharmacodynamic properties

Pharmacotherapeutic group: Other antidepressants. ATC code: N06A X05.

Trazodone is a potent antidepressant. It also has anxiety reducing activity. Trazodone is a triazolopyridine derivative chemically unrelated to known tricyclic, tetracyclic and other antidepressant agents. It has negligible effect on noradrenaline re-uptake mechanisms. Whilst the mode of action of Trazodone is not known precisely, its antidepressant activity may concern noradrenergic potentiation by mechanisms other than uptake blockade. A central antiserotonin effect may account for the drug's anxiety reducing properties.

## 5.2 Pharmacokinetic properties

Trazodone is rapidly absorbed from the gastro-intestinal tract and extensively metabolized. Paths of metabolism of trazodone include n-oxidation and hydroxylation. The metabolic m-chlorophenylpiperazine is active. Trazodone is excreted in the urine almost entirely in the form of its metabolites, either in free or in conjugated form. The elimination of Trazodone is biphasic, with a terminal elimination half-life of 5 to 13 hours. Trazodone is excreted in breast milk.

There was an approximate two-fold increase in terminal phase half-life and significantly higher plasma concentrations of trazodone in 10 subjects aged 65 to 74 years compared with 12 subjects aged 23 to 30 years following a 100 mg dose of trazodone. It was suggested that there is an age-related reduction in the hepatic metabolism of trazodone.

In vitro studies in human liver microsomes show that trazodone is metabolized by cytochrome P4503A4 (CYP3A4) to form m-chlorophenylpiperazine. Whilst significant, the role of this pathway in the total clearance of trazodone in vivo has not been fully determined.

## 5.3 Preclinical safety data

None stated.

## 6 PHARMACEUTICAL PARTICULARS

## **6.1 List of excipients**

Lactose monohydrate  
Colloidal anhydrous silica  
Magnesium stearate

### *Capsule body and shell:*

Erythrosine (E127)  
Patent blue V (E131)  
Titanium dioxide (E171)  
Gelatin  
Indigotine (E132)  
Iron oxide yellow (E172)

### *Printing ink:*

Shellac  
Black iron oxide (E172)

## **6.2 Incompatibilities**

Not applicable.

## **6.3 Shelf life**

2 years

## **6.4 Special precautions for storage**

This medicinal product does not require any special storage conditions.

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

PVC/PVDC/Al Blister pack available in packs of 56, 84 and 100 capsules. Not all pack sizes may be marketed.

**6.6 Special precautions for disposal**

Not applicable.

**7 MARKETING AUTHORISATION HOLDER**

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

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**10 DATE OF REVISION OF THE TEXT**

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