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AMAZEO OD

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**1. Generic Name**

Amisulpride Sustained Release Tablets 100, 200 and 400 mg.

**2. Qualitative and quantitative Composition:**

**AMAZEO OD 100**

Each uncoated sustained release bilayered tablet contains:

Amisulpride I.P. ....100 mg

Colour: Red oxide of iron

The excipients used are Lactose, Microcrystalline Cellulose, HPMC, Hydroxypropyl Methyl cellulose, Iso Propyl Alcohol, Polyoxyl 40 Stearate, Colloidal Silicon Dioxide, Magnesium Stearate, Ferric Oxide Red, Sodium Starch Glycollate, Talc.

**AMAZEO OD 200**

Each uncoated sustained release bilayered tablet contains:

Amisulpride I.P. ....200 mg

Colour: Red oxide of iron

The excipients used are Lactose, Microcrystalline Cellulose, Crospovidone, HPMC, Hydroxypropyl Methyl cellulose, Iso Propyl Alcohol, Polyoxyl 40 Stearate, Colloidal Silicon Dioxide, Magnesium Stearate, Ferric Oxide Red, Sodium Starch Glycollate, Talc.

**AMAZEO OD 400**

Each uncoated sustained release bilayered tablet contains:

Amisulpride I.P. ....400 mg

Colour: Red oxide of iron

The excipients used are Lactose, Microcrystalline Cellulose, Crospovidone, HPMC, Hydroxypropyl Methyl cellulose, Iso Propyl Alcohol, Polyoxyl 40 Stearate, Colloidal Silicon Dioxide, Magnesium Stearate, Ferric Oxide Red, Sodium Starch Glycollate, Talc.

**3. Dosage form and strength**

**Dosage form:** Uncoated sustained release bilayered tablet

**Strength:** Amisulpride Sustained Release Tablets 100, 200 and 400 mg

**4. Clinical particulars**

**4.1. Therapeutic indication**

Amisulpride SR is indicated for the treatment of acute and chronic schizophrenic disorders, with positive symptoms (such as delusions, hallucinations, thought disorders) and/or negative symptoms (such as blunted affect, emotional and social withdrawal), including patients characterised by predominant negative symptoms.

**4.2. Posology and method of administration**

*Posology*

For acute psychotic episodes, oral doses between 400 mg/day and 800 mg/day are recommended. In individual cases, the daily dose may be increased up to 1200 mg/day.

Doses above 1200 mg/day have not been extensively evaluated for safety and therefore should not be used.

No specific titration is required when initiating the treatment with Amisulpride. Doses should be adjusted according to individual response.

For patients with mixed positive and negative symptoms, doses should be adjusted to obtain optimal control of positive symptoms.

Maintenance treatment should be established individually with the minimally effective dose.

For patients characterized by predominant negative symptoms, oral doses between 50 mg/day and 300 mg/day are recommended. Doses should be adjusted individually.

Amisulpride can be administered once daily at oral doses up to 400 mg, higher doses should be split into two separate doses.

The minimum effective dose should be used.

#### *Elderly*

The safety of amisulpride has been examined in a limited number of elderly patients. Amisulpride should be used with particular caution because of a possible risk of hypotension and sedation. Reduction in dosage may also be required because of renal insufficiency.

#### *Paediatric population*

The efficacy and safety of amisulpride from puberty to the age of 18 years have not been established. There are limited data available on the use of amisulpride in adolescents in schizophrenia. Therefore, the use of amisulpride from puberty to the age of 18 years is not recommended; in children up to puberty amisulpride is contraindicated, as its safety has not yet been established.

#### *Renal insufficiency*

Amisulpride is eliminated by the renal route. In renal insufficiency, the dose should be reduced to half in patients with creatinine clearance (CRCL) between 30 – 60 ml/min and to a third in patients with CRCL between 10 – 30 ml/min. As there is no experience in patients with severe renal impairment (CRCL < 10 ml/min) particular care is recommended in these patients.

#### *Hepatic insufficiency*

Since the drug is weakly metabolised a dosage reduction should not be necessary.

#### ***Method of administration***

For oral use.

### **4.3. Contraindications**

- Hypersensitivity to the active substance or to any of the excipients.
- Concomitant prolactin-dependent tumours (e.g. pituitary gland prolactinomas or breast cancer).

- Pheochromocytoma.
- Children up to puberty.
- Combination with levodopa

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

As with other neuroleptics, Neuroleptic Malignant Syndrome (NMS) may occur. This condition is characterized by high fever, muscle rigidity, autonomic instability, clouding of consciousness, rhabdomyolysis and elevated CPK values and it is potentially fatal. If a patient develops signs and symptoms indicative of NMS or presents with unexplained hyperthermia, particularly at high daily doses, all antipsychotic drugs including Amisulpride should be discontinued. Rhabdomyolysis has also been reported in patients without NMS.

Hyperglycaemia has been reported in patients treated with some atypical antipsychotic agents, including amisulpride, therefore patients with an established diagnosis of diabetes mellitus or with risk factors for diabetes who are started on amisulpride, should get appropriate glycaemic monitoring.

Amisulpride is eliminated by the renal route. In cases of renal insufficiency, the dose should be decreased, or intermittent treatment could be considered.

Severe liver toxicity has been reported with amisulpride use. 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.

Amisulpride may lower the seizure threshold. Therefore, patients with a history of epilepsy should be closely monitored during Amisulpride therapy.

In elderly patients, Amisulpride, like other neuroleptics, should be used with particular caution because of a possible risk of hypotension or sedation. Reduction in dosage may also be required because of renal insufficiency.

As with other antidopaminergic agents, caution should be also exercised when prescribing Amisulpride to patients with Parkinson's disease since it may cause worsening of the disease. Amisulpride should be used only if neuroleptic treatment cannot be avoided.

##### *Prolongation of the QT interval*

Caution should be exercised when amisulpride is prescribed in patients with known cardiovascular disease or family history of QT prolongation and concomitant use with neuroleptics should be avoided.

##### *Stroke*

In randomized clinical trials versus placebo performed in a population of elderly patients with dementia and treated with certain atypical antipsychotic drugs, a 3-fold increase of the risk of cerebrovascular events has been observed. The mechanism of such risk increase is not known. An increase in the risk with other antipsychotic drugs, or other populations of patients cannot be excluded. Amisulpride should be used with caution in patients with stroke risk factors.

Withdrawal symptoms including nausea, vomiting and insomnia have very rarely been described after abrupt cessation of high doses of antipsychotic drugs. Recurrence of psychotic symptoms may also occur, and the emergence of involuntary movement disorders (such as akathisia, dystonia, and dyskinesia) has been reported. Therefore, gradual withdrawal of amisulpride is advisable.

#### *Elderly patients with dementia*

Elderly patients with dementia-related psychosis treated with antipsychotic drugs are at an increased risk of death. Analyses of seventeen placebo-controlled trials (modal duration of 10 weeks), largely in patients taking atypical antipsychotic drugs, revealed a risk of death in drug-treated patients of between 1.6 – 1.7 times the risk of death in placebo-treated patients. Over the course of a typical 10-week controlled trial, the rate of death in drug-treated patients was about 4.5%, compared to a rate of about 2.6% in the placebo group. Although the causes of death in clinical trials with atypical antipsychotics were varied, most of the deaths appeared to be either cardiovascular (e.g. heart failure, sudden death) or infectious (e.g. pneumonia) in nature.

Observational studies suggest that, similar to atypical antipsychotic drugs, treatment with conventional antipsychotic drugs may increase mortality.

The extent to which the findings of increased mortality in observational studies may be attributed to the antipsychotic drug as opposed to some characteristic(s) of the patients is not clear.

Amisulpride is not licensed for the treatment of dementia-related behavioral disturbances.

#### *Venous thromboembolism*

Cases of venous thromboembolism (VTE) have been reported with antipsychotic drugs. Since patients treated with antipsychotics often present with acquired risk factors for VTE, all possible risk factors for VTE should be identified before and during treatment with Amisulpride and preventive measures undertaken.

#### *Breast cancer*

Amisulpride may increase prolactin levels. Therefore, caution should be exercised and patients with a history or a family history of breast cancer should be closely monitored during Amisulpride therapy. Amisulpride is contraindicated in patients with breast cancer.

#### *Benign pituitary tumour*

Amisulpride may increase prolactin levels. Cases of benign pituitary tumours such as prolactinoma have been observed during amisulpride therapy. In the case of very high levels of prolactin or clinical signs of pituitary tumour (such as visual field defect and headache), pituitary imaging should be performed. If the diagnosis of pituitary tumour is confirmed, the treatment with amisulpride must be stopped.

Leukopenia, neutropenia, and agranulocytosis have been reported with antipsychotics, including Amisulpride. Unexplained infections or fever may be evidence of blood dyscrasia and requires immediate haematological investigation.

*Contains lactose.*

Patients with rare hereditary problems of galactose intolerance, total lactase deficiency or glucose-galactose malabsorption should not take this medicine. This medicine contains less than 1 mmol sodium (23 mg) per tablet, that is to say essentially 'sodium free'.

#### **4.5. Drugs interactions**

##### *Contraindicated combinations*

- Levodopa: reciprocal antagonism of effects between levodopa and neuroleptics.

##### *Combinations not recommended.*

- Amisulpride may enhance the central effects of alcohol.

##### *Combinations to be taken into account.*

- CNS depressants including narcotics, anaesthetics, analgesics, sedative H1 antihistamines, barbiturates, benzodiazepines and other anxiolytic drugs, clonidine, and derivatives.
- Antihypertensive drugs and other hypotensive medications.
- Co-administration of amisulpride and clozapine may lead to an increase in plasma levels of amisulpride.
- Caution is advised when prescribing amisulpride with medicines known to prolong the QT interval, e.g., class IA antiarrhythmics (e.g. quinidine, disopyramide) and class III antiarrhythmics (e.g. amiodarone, sotalol), some antihistaminics, some other antipsychotics and antimalarials (e.g. mefloquine).

Amisulpride may oppose the effect of dopamine agonists e.g. bromocriptine, ropinirole.

#### **4.6. Use in special populations (such as pregnant women, lactating women, paediatric patients, geriatric patients etc.)**

##### *Pregnancy*

There are only limited data available from the use of amisulpride in pregnant women. The safety of amisulpride during human pregnancy has not been established.

Amisulpride crosses the placenta. .

Studies in animals have shown reproductive toxicity.

The use of amisulpride is not recommended during pregnancy and in women of childbearing potential not using effective contraception, unless the benefits justify the potential risks.

Neonates exposed to antipsychotics (including Amisulpride) during the third trimester of pregnancy are at risk of adverse reactions including extrapyramidal and/or withdrawal symptoms that may vary in severity and duration following delivery. There have been reports of agitation, hypertonia, hypotonia, tremor, somnolence, respiratory distress, or feeding disorder. Consequently, newborns should be monitored carefully.

##### *Breastfeeding*

Amisulpride is excreted into breastmilk in rather large amounts above the accepted value of 10% of the maternal weight-adjusted dosage in some cases, but blood concentrations in breastfed infants have not been evaluated. There is insufficient information on the effects of amisulpride in newborns/infants. A decision must be made whether to discontinue breast-

feeding or to abstain from amisulpride therapy taking into account the benefit of breastfeeding for the child and the benefit of therapy for the woman.

#### *Fertility*

A decrease in fertility linked to the pharmacological effects of the drug (prolactin mediated effect) was observed in treated animals.

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

Even used as recommended, Amisulpride may cause somnolence and blurred vision so that the ability to drive vehicles or operate machinery can be impaired.

#### **4.8. Undesirable effects**

Adverse effects have been ranked under headings of frequency using the following convention: very common ( $\geq 1/10$ ); common ( $\geq 1/100$ ;  $< 1/10$ ); uncommon ( $\geq 1/1,000$ ;  $< 1/100$ ); rare ( $\geq 1/10,000$ ;  $< 1/1,000$ ); very rare ( $< 1/10,000$ ); not known (cannot be estimated from the available data).

##### *Blood and lymphatic system disorders:*

Uncommon: leukopenia, neutropenia

Rare: agranulocytosis

##### *Immune system disorders:*

Uncommon: allergic reaction

##### *Endocrine disorders:*

Common: amisulpride causes an increase in plasma prolactin levels which is reversible after drug discontinuation. This may result in galactorrhoea, amenorrhoea, gynaecomastia, breast pain, and erectile dysfunction.

Rare: benign pituitary tumour such as prolactinoma.

##### *Metabolism and nutrition disorders:*

Uncommon: hyperglycaemia, hypertriglyceridemia and hypercholesterolaemia

Rare: hyponatraemia, syndrome of inappropriate antidiuretic hormone secretion (SIADH)

##### *Psychiatric disorders:*

Common: insomnia, anxiety, agitation, orgasmic dysfunction

Uncommon: confusion

##### *Nervous system disorders:*

Very common: extrapyramidal symptoms may occur: tremor, rigidity, hypokinesia, hypersalivation, akathisia, dyskinesia.

These symptoms are generally mild at optimal dosages and partially reversible without discontinuation of amisulpride upon administration of antiparkinsonian medication. The incidence of extrapyramidal symptoms which is dose related, remains very low in the treatment of patients with predominantly negative symptoms with doses of 50 – 300 mg/day.

Common: acute dystonia (spasm torticollis, oculogyric crisis, trismus) may appear. This is reversible without discontinuation of amisulpride upon treatment with an antiparkinsonian agent. Somnolence.

Uncommon: tardive dyskinesia characterized by rhythmic, involuntary movements primarily of the tongue and/or face have been reported, usually after long term administration. Antiparkinsonian medication is ineffective or may induce aggravation of the symptoms. Seizures.

Rare: Neuroleptic Malignant Syndrome, which is a potentially fatal complication

Not known: restless legs syndrome

*Eye disorders:*

Common: blurred vision

*Cardiac disorders:*

Uncommon: bradycardia

Rare: QT interval prolongation, ventricular arrhythmias such as torsade de pointes, ventricular tachycardia, ventricular fibrillation, cardiac arrest, sudden death.

*Vascular disorders:*

Common: hypotension

Uncommon: increase in blood pressure

Rare: venous thromboembolism, including pulmonary embolism, sometimes fatal, and deep vein thrombosis

*Respiratory, thoracic and mediastinal disorders:*

Uncommon: nasal congestion, aspiration pneumonia (mainly in association with other antipsychotics and CNS depressants).

*Gastrointestinal disorders*

Common: constipation, nausea, vomiting, dry mouth

*Hepatobiliary disorders:*

Uncommon: hepatocellular injury

*Skin and subcutaneous tissue disorders:*

Rare: angioedema, urticaria

Not known: photosensitivity reaction

*Musculoskeletal and connective tissue disorders:*

Uncommon: osteopenia, osteoporosis

Not known: rhabdomyolysis

*Renal and urinary disorders:*

Uncommon: urinary retention

*Pregnancy, puerperium and perinatal conditions:*

Not known: drug withdrawal syndrome neonatal

*Injury, poisoning and procedural complications:*

Not known: Fall as a consequence of adverse reactions compromising body balance

*Investigations:*

Common: weight gain

Uncommon: elevations of hepatic enzymes, mainly transaminases

Not known: blood creatinine increased

### **Reporting of adverse reactions**

If you get any side effects, talk to your doctor, pharmacist or nurse. This includes any possible side effects not listed in this leaflet. You can also report side effects directly via any point of contact of Torrent Pharma available at: [https://www.torrentpharma.com/index.php/site/info/adverse\\_event\\_reporting](https://www.torrentpharma.com/index.php/site/info/adverse_event_reporting) By reporting side effects, you can help provide more information on the safety of this medicine.

## **4.9. Overdose**

Experience with Amisulpride in overdosage is limited. Exaggeration of the known pharmacological effects of the drug have been reported. These include drowsiness and sedation, coma, hypotension and extrapyramidal symptoms. Fatal outcomes have been reported mainly in combination with other psychotropic agents.

In cases of acute overdosage, the possibility of multiple drug intake should be considered. Since Amisulpride is weakly dialysed, hemodialysis is of no use to eliminate the drug. There is no specific antidote to Amisulpride.

Appropriate supportive measures should therefore be instituted with close supervision of vital functions including continuous cardiac monitoring due to the risk of prolongation of the QT interval until the patient recovers.

If severe extrapyramidal symptoms occur, anticholinergic agents should be administered.

## **5. Pharmacological properties**

### **5.1. Mechanism of Action**

#### **Pharmacodynamic properties**

Amisulpride binds selectively with a high affinity to human dopaminergic D2/D3 receptor subtypes whereas it is devoid of affinity for D1, D4 and D5 receptor subtypes.

Unlike classical and atypical neuroleptics, amisulpride has no affinity for serotonin,  $\alpha$ -adrenergic, histamine H1 and cholinergic receptors. In addition, amisulpride does not bind to sigma sites.

In animal studies, at high doses, amisulpride blocks dopamine receptors located in the limbic structures in preference to those in the striatum.

At low doses it preferentially blocks pre-synaptic D2/D3 receptors, producing dopamine release responsible for its disinhibitory effects.

This atypical pharmacological profile may explain amisulpride's antipsychotic effect at higher doses through post-synaptic dopamine receptor blockade and its efficacy against negative symptoms, at lower doses, through pre-synaptic dopamine receptor blockade. In addition, the reduced tendency of amisulpride to produce extrapyramidal side effects may be related to its preferential limbic activity.

In clinical studies including schizophrenic patients with acute exacerbations, amisulpride significantly alleviated secondary negative symptoms as well as affective symptoms such as depressed mood.

## **5.2. Pharmacokinetic properties**

### *Absorption*

In man, amisulpride shows two absorption peaks: one which is attained rapidly, one hour post-dose and a second between 3 and 4 hours after administration. Corresponding plasma concentrations are  $39 \pm 3$  and  $54 \pm 4$  ng/ml after a 50 mg dose.

Absolute bioavailability is 48%. Amisulpride is weakly metabolised: two inactive metabolites, accounting for approximately 4% of the dose, have been identified. There is no accumulation of amisulpride and its pharmacokinetics remain unchanged after the administration of repeated doses.

*Kinetic profile of amisulpride is not influenced by diet.*

A carbohydrate rich meal (containing 68% fluids) significantly decreases the AUCs, T<sub>max</sub> and C<sub>max</sub> of amisulpride but no changes were seen after a high fat meal. However, the significance of these findings in routine clinical use is not known.

### *Distribution*

The volume of distribution is 5.8 l/kg, plasma protein binding is low (16%) and drug interactions are unlikely.

### *Elimination*

Amisulpride is eliminated unchanged in the urine. Fifty percent of an intravenous dose is excreted via the urine, of which 90% is eliminated in the first 24 hours. Renal clearance is in the order of 20 l/h or 330 ml/min. The elimination half-life of amisulpride is approximately 12 hours after an oral dose.

### *Hepatic insufficiency*

Since the drug is weakly metabolised a dosage reduction should not be necessary in patients with hepatic insufficiency.

### *Renal insufficiency*

The elimination half-life is unchanged in patients with renal insufficiency while systemic clearance is reduced by a factor of 2.5 – 3. The AUC of amisulpride in mild renal failure

increased two fold and almost tenfold in moderate renal failure. Experience is however limited and there is no data with doses greater than 50 mg.

Amisulpride is very weakly dialysed.

Limited pharmacokinetic data in elderly subjects (> 65 years) show that a 10 – 30 % rise occurs in C<sub>max</sub>, T<sub>1/2</sub> and AUC after a single oral dose of 50 mg. No data are available after repeat dosing.

## 6. Nonclinical properties

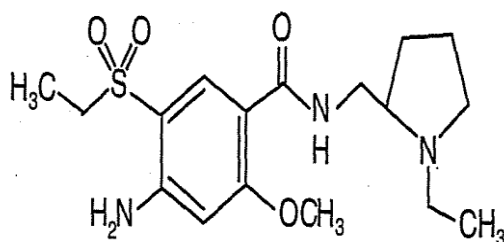
### 6.1. Animal Toxicology or Pharmacology

An overall review of the completed safety studies indicates that Amisulpride is devoid of any general, organ-specific, teratogenic, mutagenic or carcinogenic risk. Changes observed in rats and dogs at doses below the maximum tolerated dose are either pharmacological effects or are devoid of major toxicological significance under these conditions. Compared with the maximum recommended dosages in man, maximum tolerated doses are 2 and 7 times greater in the rat (200 mg/kg/d) and dog (120 mg/kg/d) respectively in terms of AUC. No carcinogenic risk, relevant to man, was identified in mice (up to 120 mg/kg/day) and rats (up to 240 mg/kg/day), corresponding for the rat to 1.5 to 4.5 times the expected human AUC. Reproductive studies performed in rats, rabbits and mice did not show any teratogenic potential.

In animal trials, amisulpride elicited an effect on foetal growth and development at doses corresponding to Human Equivalent Dose of 2000 mg/day and upwards for a 50-kg patient. There was no evidence for a teratogenic potential of amisulpride. Studies on the impact of amisulpride on the behavior of the offspring have not been conducted.

## 7. Description

Amisulpride is 4-Amino-N-[(1-ethyl-2-pyrrolidinyl)methyl]-5-(ethylsulfonyl)-2-methoxybenzamide having molecular formula of C<sub>17</sub>H<sub>27</sub>N<sub>3</sub>O<sub>4</sub>S and molecular weight is 369.5. The chemical structure is:



Amisulpride is a white or almost white, crystalline powder which is practically insoluble in water, freely soluble in methylene chloride, sparingly soluble in ethanol.

## 8. Pharmaceutical particulars

### 8.1. Incompatibilities

Not applicable

### 8.2. Shelf-life

Do not use later than date of expiry.

### 8.3. Packaging information

AMAZEO OD 100, 200 and 400 are available in strip pack of 10 tablets.

### 8.4. Storage and handing instructions.

Store at a temperature not exceeding 30°C, protected from moisture.

Keep out of reach of children.

### 9. Patient Counselling Information

Ask the patients to inform the treating physicians in case of any of the below:

- Have any allergies.
- Have kidney or liver problems.
- Are pregnant or plan to become pregnant.
- Are breastfeeding or plan to breastfeed.
- Have any serious illness.
- Are taking any medicines (prescription, over the counter, vitamins, or herbal products)

### 10. Details of manufacturer

#### **Amazeo OD 100, 200 mg**

Torrent Pharmaceuticals Ltd.

32 No, Middle Camp, NH-10,

East District, Gangtok, Sikkim-737 135

#### **Amazeo OD 400 mg**

TORRENT PHARMACEUTICAL LTD.

Vill. Bhud & Makhnu Majra, The.Baddi-173 205

Dist. Solan (H.P.), INDIA.

### 11. Details of permission or licence number with date

Amazeo OD 100, 200 mg - M/563/2010 issued on 06.12.2021

Amazeo OD 400 mg - MNB/05/183 issued on 09.12.2020

### 12. Date of revision

May 2025

#### **MARKETED BY**



TORRENT PHARMACEUTICALS LTD.

**IN/AMAZEO OD Tablets 100, 200 and 400 mg/MAY-2025/02/PI**