

## **SUMMARY OF PRODUCT CHARACTERISTICS**

## **1. NAME OF THE FINISHED PHARMACEUTICAL PRODUCT**

TRAMA50 (Tramadol capsules BP)

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

Each hard gelatin capsule contains:

Tramadol hydrochloride BP ..... 50 mg Excipient

s ..... q.s.

Excipient(s) with known effect Each Capsule Contains Lactose.

For the full list of excipients, see section 6.1

## **3. PHARMACEUTICAL FORM**

Solid Dosage form (Capsules)

Hard gelatin filled Capsules with Blue cap and Blue Colour body size "2" contains white powder.

## **4. CLINICAL PARTICULARS**

### **4.1 Therapeutic indications**

Treatment of moderate to severe pain.

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

Method of administration: Oral

The doses should be adjusted to the intensity of the pain and the sensitivity of the individual patient. Unless otherwise prescribed, Tramadol should be administered as follows:

#### **Adults and Children aged 12 years and over**

Oral administration

**Acute Pain:** An initial dose of 100 mg is usually necessary. This can be followed by doses of

50 or 100 mg not more frequently than 4 hourly, and duration of therapy should be matched to clinical need.

**Pain Associated with Chronic Conditions:** Use an initial dose of 50 mg and then titrate dose according to pain severity. The need for continued treatment should be assessed at regular intervals as withdrawal symptoms and dependence have been reported.

The lowest analgesically effective doses should generally be selected. Daily doses of 400 mg active substances should not be exceeded, except in special clinical circumstances.

The capsules are to be taken whole, not divided or chewed, with sufficient liquid, independent of meals.

Tramadol should under no circumstances be administered for longer than absolutely necessary. If long-term pain treatment with Tramadol is necessary in view of the nature and severity of the illness, then careful and regular monitoring should be carried out (if necessary with breaks in treatment) to establish whether and to what extent further treatment is necessary.

#### *Children*

Tramadol capsules are not suitable for children below the age of 12 years.

#### *Geriatric patients*

The usual dosages may be used although it should be noted that in volunteers aged over 75 years the elimination half-life of tramadol was increased by 17% following oral administration.

#### *Renal Insufficiency/Dialysis and Hepatic Insufficiency*

The elimination of tramadol may be prolonged. The usual initial dosages should be used. For patients with creatinine clearance < 30 ml/min, the dosage interval should be increased to 12 hours. Tramadol is not recommended for patients with severe renal impairment (creatinine clearance < 10 ml/min). As tramadol is only removed very slowly by haemodialysis or haemofiltration, post-dialysis administration to maintain analgesia is not usually necessary.

#### *Hepatic impairment*

The elimination of tramadol may be prolonged. The usual initial dosages should be used but in severe hepatic impairment the dosage interval should be increased to 12 hours.

### **4.3 Contraindications**

Tramadol is contraindicated

- in hypersensitivity to tramadol or any of the excipients,
- in acute intoxication with alcohol, hypnotics, analgesics, opioids, or psychotropic medicinal products,
- in patients who are receiving MAO inhibitors or who have taken them within the last 14 days,
- in patients with epilepsy not adequately controlled by treatment,
- for use in narcotic withdrawal treatment

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

Tramadol may only be used with particular caution in opioid-dependent patients, patients with head injury, shock, a reduced level of consciousness of uncertain origin, disorders of the respiratory centre or function, increased intracranial pressure.

In patients sensitive to opiates the product should only be used with caution.

Caution should be taken when treating patients with respiratory depression, or if concomitant CNS depressant drugs are being administered, or if the recommended dosage is significantly exceeded as the possibility of respiratory depression cannot be excluded in these situations.

Convulsions have been reported in patients receiving tramadol at the recommended dose levels. The risk may be increased when doses of tramadol exceed the recommended upper daily dose limit (400 mg).

In addition, tramadol may increase the seizure risk in patients taking other medicinal products that lower the seizure threshold. Patients with epilepsy or those susceptible to seizures should be only treated with tramadol if there are compelling circumstances.

Tramadol has a low dependence potential. On long-term use tolerance, psychic and physical dependence may develop. In patients with a tendency to drug abuse or dependence, treatment with Tramad-

50 should only be carried out for short periods under strict medical supervision.

Tramadol is not suitable as a substitute in opioid-dependent patients. Although it is an opioid agonist, tramadol cannot suppress morphine withdrawal symptoms.

Interaction with other FPPs and other forms of interaction

Tramadol should not be combined with MAO inhibitors.

In patients treated with MAO inhibitors in the 14 days prior to the use of the opioid pethidine, life-threatening interactions on the central nervous system, respiratory and cardiovascular function have been observed. These same interactions with MAO inhibitors cannot be ruled out during treatment with Trama.

Concomitant administration of Tramadol with other centrally depressant medicinal products including alcohol may potentiate the CNS effects.

The results of pharmacokinetic studies have so far shown that on the concomitant or previous administration of cimetidine (enzyme inhibitor) clinically relevant interactions are unlikely to occur. Simultaneous or previous administration of carbamazepine (enzyme inducer) may reduce the analgesic effect and shorten the duration of action.

The combination with mixed agonist/antagonists (e.g. buprenorphine, nalbuphine, pentazocine) and tramadol is not advisable, because the analgesic effect of a pure agonist may be theoretically reduced in such circumstances.

Tramadol can induce convulsions and increase the potential for selective serotonin re-uptake inhibitors, tricyclic anti-depressants, anti-psychotics and other seizure threshold lowering medicinal products to cause convulsions.

In isolated cases there have been reports of serotonin syndrome in a temporal connection with the therapeutic use of tramadol in combination with other serotonergic medicinal products such as selective serotonin re-uptake inhibitors (SSRIs) or with MAO inhibitors. Signs of serotonin syndrome may be, for exam

ple confusion, agitation, fever, sweating, ataxia, hyperreflexia, myoclonus and diarrhoea. Withdrawal of these serotonergic medicinal products usually brings about a rapid improvement. Treatment depends on the nature and severity of the symptoms.

Cautions should be exercised during concomitant treatment with tramadol and coumarin derivatives (e.g. warfarin) due to reports of increased INR with major bleeding and ecchymoses in some patients.

Other active substances known to inhibit CYP3A4, such as ketoconazole and erythromycin, might inhibit the metabolism of tramadol (N-demethylation) probably also the metabolism of the active O-demethylated metabolite. The clinical importance of such an interaction has not been studied.

In a limited number of studies the pre- or postoperative application of the antiemetic 5-HT<sub>3</sub> antagonist ondansetron increased the requirement of tramadol in patients with postoperative pain.

#### **4.5 Pregnancy and lactation**

Animal studies with tramadol revealed at very high doses effects on organ development, ossification and neonatal mortality. Teratogenic effects were not observed. There is inadequate evidence available on the safety of tramadol in human pregnancy. Therefore Tramadol should not be used in pregnant women.

Tramadol administered before or during birth does not affect uterine contractility. In neonates it may induce changes in the respiratory rate which are usually not clinically relevant. Chronic use during pregnancy may lead to neonatal withdrawal symptoms.

#### **Usage in Nursing Mothers**

Tramadol crosses the placenta. During lactation about 0.1% of the maternal dose is secreted into the milk. Tramadol is not recommended during breastfeeding. After a single administration of tramadol it is not usually necessary to interrupt breast-

feeding.

#### **4.6 Effectsonabilitytodriveandusemachines**

Evenwhentakenaccordingtoinstructions,Tramamaycauseeffectssuchassomnolenceanddizzinessandthereforemayimpairthereactionsofdriversandmachineoperators.Thisappliesparticularlyinconjuctionwithalcoholandotherpsychotropicsubstances.

#### **4.7 Adversereaction**

The most commonly reported adverse reactions are nausea and dizziness, both occurring in more than 10% of patients.

##### *Cardiovascular disorders:*

*Uncommon:* cardiovascular regulation (palpitation, tachycardia, postural hypotension or cardiovascular collapse). These adverse reactions may occur especially on intravenous administration and in patients who are physically stressed.

*Rare:* bradycardia, increase in blood pressure

##### *Nervous system*

*disorders: Very common:* d

izziness

*Common:* headache, somnolence

*Rare:* changes in

appetite, paraesthesia, tremor, respiratory depression, epileptiform convulsions, involuntary muscle contractions, abnormal coordination, syncope.

If the recommended doses are considerably exceeded and other centrally depressant substances are administered concomitantly, respiratory depression may occur.

Epileptiform convulsions occurred mainly after administration of high doses of tramadol or after concomitant treatment with medicinal products which can lower the seizure threshold.

##### *Psychiatric disorders:*

*Rare:* hallucinations, confusion, sleep disturbance, anxiety and nightmares. Psychic adverse reactions

ctions may occur following administration of Tramadol which vary individually in intensity and nature (depending on personality and duration of treatment). These include changes in mood (usually elation, occasionally dysphoria), changes in activity (usually suppression, occasionally increase) and changes in cognitive and sensorial capacity (e.g. decision behaviour, perception disorders). Dependence may occur.

*Eyedisorders: Rare*

: blurred vision

*Respiratory disorders: Rare*

: dyspnoea

Worsening of asthma has been reported, though a causal relationship has not been established.

*Gastrointestinal disorders*

: *Very common*: nausea

*Common*: vomiting, constipation, dry mouth

*Uncommon*: retching; gastrointestinal irritation (a feeling of pressure in the stomach, bloating), diarrhoea

*Skin and subcutaneous disorders: common*

*n*: sweating

*Uncommon*: dermal reactions (e.g. pruritus, rash, urticaria)

*Musculoskeletal disorders:*

*Rare*: motorial weakness

*Hepatobiliary disorders:*

In a few isolated cases an increase in liver enzyme values has been reported in a temporal connection with the therapeutic use of tramadol.

*Renal and urinary disorders:*

*Rare*: micturition disorders (difficulty in passing urine, dysuria and urinary retention)

*General disorders: Common*

*n:* fatigue

*Rare:* allergic reactions (e.g. dyspnoea, bronchospasm, wheezing, angioneurotic oedema) and anaphylaxis; Symptoms of withdrawal reactions, similar to those occurring during opiate withdrawal, may occur as follows: agitation, anxiety, nervousness, insomnia, hyperkinesia, tremor and gastrointestinal symptoms. Other symptoms that have very rarely been seen with tramadol discontinuation include: panic attacks, severe anxiety, hallucinations, paraesthesias, tinnitus and unusual CNS symptoms.

#### 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 EFDA yellow Card Scheme, online at <https://primaryreporting.who-umc.org/ET> or toll free call 8482 to Ethiopian food and drug authority (EFDA).

## **4.8 Overdose**

### *Symptoms*

In principle, on intoxication with tramadol symptoms similar to those of other centrally acting analgesics (opioids) are to be expected. These include in particular miosis, vomiting, cardiovascular collapse, consciousness disorders up to coma, convulsions and respiratory depression up to respiratory arrest.

### *Treatment*

The general emergency measures apply. Keep open the respiratory tract (aspiration!), maintain respiration and circulation depending on the symptoms. The stomach is to be emptied by vomiting (conscious patient) or gastric irrigation. The antidote for respiratory depression is naloxone. In animal experiments naloxone had no effect on convulsions. In such cases diazepam should be given intravenously.

Tramadol is minimally eliminated from the serum by haemodialysis or haemofiltration. Therefore treatment of acute intoxication with Tramadol with haemodialysis or haemofiltration alone is not suitable for detoxification.

## **5. PHARMACOLOGICAL PROPERTIES**

## 5.1 Pharmacodynamic properties

Pharmacotherapeutic group: Analgesic

ATC code: N02AX02

Mode of action

Tramadol is a centrally acting opioid analgesic. It is a non-selective pure agonist at  $\mu$ ,  $\delta$  and  $\kappa$  opioid receptors with a higher affinity for the  $\mu$  receptor. Other mechanisms which contribute to its analgesic effect are inhibition of neuronal reuptake of noradrenaline and enhancement of serotonin release.

Tramadol has an antitussive effect. In contrast to morphine, analgesic doses of tramadol over a wide range have no respiratory depressant effect. Also gastrointestinal motility is less affected. Effects on the cardiovascular system tend to be slight. The potency of tramadol is reported to be 1/10 (one tenth) to 1/6 (one sixth) that of morphine.

## 5.2 Pharmacokinetic properties

More than 90% of Tramadol is absorbed after oral administration. The mean absolute bioavailability is approximately 70%, irrespective of the concomitant intake of food. The difference between absorbed and non-metabolized available tramadol is probably due to the low first-pass effect. The first-pass effect after oral administration is a maximum of 30%.

Tramadol has a high tissue affinity ( $V_d, \beta = 203 \pm 40$ l). It has a plasma protein binding of about 20%.

Following a single oral dose administration of tramadol 100 mg as capsules or tablets to young healthy volunteers, plasma concentrations were detectable within approximately 15 to

45 minutes with a mean  $C_{max}$  of 280 to 208 mcg/L and  $T_{1/2}$  of 1.6 to 2 h.

Tramadol passes the blood-brain and placental barriers. Very small amounts of the substance and its O-desmethyl derivative are found in the breast-milk (0.1% and 0.02% respectively of the applied dose).

Elimination half-life is approximately 6h, irrespective of the mode of administration. In patients above 75 years of age it may be prolonged by a factor of approximately 1.4. In humans tramadol is mainly metabolized by means of N- and O-demethylation and conjugation of the O-demethylation products with glucuronic acid. Only O-desmethyltramadol is pharmacologically active. There are considerable interindividual quantitative differences between the other metabolites. So far, eleven metabolites have been found in the urine. Animal experiments have shown that O-desmethyltramadol is more potent than the parent substance by the factor 2-4. Its half-life (6 healthy volunteers) is 7.9h (range 5.4-9.6h) and is approximately that of tramadol.

The inhibition of one or both types of the isoenzymes CYP3A4 and CYP2D6 involved in the biotransformation of tramadol may affect the plasma concentration of tramadol or its active metabolite. Up to now, clinically relevant interactions have not been reported.

Tramadol and its metabolites are almost completely excreted via the kidneys. Cumulative urinary excretion is 90% of the total radioactivity of the administered dose. In cases of impaired hepatic and renal function the half-life may be slightly prolonged. In patients with cirrhosis of the liver, elimination half-lives of  $13.3 \pm 4.9$ h (tramadol) and  $18.5 \pm 9.4$ h (O-desmethyltramadol), in an extreme case 22.3h and 36h respectively, have been determined. In patients with renal insufficiency (creatinine clearance  $< 5$  ml/min) the values were  $11 \pm 3.2$ h and  $16.9 \pm 3$ h, in an extreme case 19.5h and 43.2h respectively.

Tramadol has a linear pharmacokinetic profile within the therapeutic dosage range. The relationship between serum concentrations and the analgesic effect is dose-

dependent, but varies considerably in isolated cases. A serum concentration of 100-300 ng/ml is usually effective.

### **5.3 Preclinical safety data**

None

## **6. PHARMACEUTICAL PARTICULARS**

### **6.1 List of excipients**

Lactose  
Magnesium stearate  
Purified talc  
Aerosil-200  
Sodium starch glycolate  
E.H.G. Capsules Blue/Blue Size  
“2” Plain

### **6.2 Incompatibilities**

Not applicable.

### **6.3 Shelflife**

36 months

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

Store in a dry place, below 25°C. Protect from light. Keep out of reach of children.

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

10 capsules are packed in Alu-PVDC blister. Such 10 blister pack in carton with Pack insert.

### **6.6 Instructions for use and handling and disposal**

No special requirements.

**7. Marketing Authorization Holder  
rCachet Pharmaceuticals Pvt. Ltd**

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**8. Marketing Authorization Numbers**

2981/2855REN/2016

**9. Date of Renewal of the Authorization**

Date of first authorisation: 15/02/2013

Date of latest renewal: 26/04/2021

**10. Date of Revision of the Text**

05/07/2023