SUMMARY OF PRODUCT CHARACTERISTICS

1 NAME OF THE MEDICINAL PRODUCT

Paracetamol 500 mg tablets

2 QUALITATIVE AND QUANTITATIVE COMPOSITION

Each tablet contains 500 mg paracetamol.

For the full list of excipients, see section 6.1.

3 PHARMACEUTICAL FORM

Tablet

White to off-white, uncoated, round shaped tablets debossed with ‘A’ and ‘8’ separated with break line on one side and plain on other side. The size is 12 mm. The tablet can be divided into equal doses.

4 CLINICAL PARTICULARS

4.1 Therapeutic indications

Symptomatic treatment of mild to moderate pain and/or fever.

4.2 Posology and method of administration

*Posology:
For oral use only.

Adults, the elderly and children 16 years and over (above 55 kg body weight):
Take 500 mg to 1000 mg at a time, up to 3000 mg per 24 hours.
The maximum daily dose of Paracetamol must not exceed 3000 mg.

Children 10 to 15 years of age (40-55 kg body weight)
Take 500 mg at a time, up to 2000 mg per 24 hours.
The daily dose must not exceed 2000 mg.
Not recommended for children under 10 years of age.

The dose should not be repeated more frequently than every 4 hours and not more than 4 doses should be taken in any 24-hour period
Direction for use:

- Paracetamol tablet is not suitable for children below 10 years.
- The dosing interval should be at least 4 hours.
- The indicated dose should not be exceeded due to risk of serious damage to the liver (see section 4.4 and 4.9).
- If pain for more than 5 days or fever for more than 3 days exists or get worse, or if any other symptom occur, treatment should be discontinued and a physician should be consulted.
- The ingestion of Paracetamol with food and drink does not affect the efficacy of the medicinal product.

Special Populations:
- In case of renal insufficiency (renal failure), the dose should be reduced:

<table>
<thead>
<tr>
<th>Glomerular filtration rate</th>
<th>Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 – 50 ml/min</td>
<td>500 mg every 6 hours</td>
</tr>
<tr>
<td>&lt; 10 ml/min</td>
<td>500 mg every 8 hours</td>
</tr>
</tbody>
</table>

- In patients with impaired hepatic or Gilberts syndrome, the dose must be reduced or the dosing interval prolonged.

The daily effective dose should not exceed 60 mg/kg/day (up to maximum 2 g/day) in the following situations:
- Adults weighing less than 50 kg
- Mild to moderate hepatic insufficiency, Gilbert’s syndrome (familial non-hemolytic jaundice)
- Dehydration
- Chronic malnutrition

Method of administration
The tablet should be swallowed with a large amount of water.
4.3 Contraindications
Hypersensitivity to the Paracetamol or to any of the excipients listed in section.

4.4 Special warnings and precautions for use

Prolonged or frequent use is discouraged. Patients should be advised not to take other Paracetamol-containing products concurrently. Multiple daily doses or in the event of over dosage may cause severe damage to the liver; in such cases, immediate medical advice should be sought even if the patient feels well because of the risk of irreversible liver damage (see section 4.9). In young subjects treated with 60 mg/kg daily of Paracetamol, the combination with another antipyretic is not justified except in the case of ineffectiveness.

Caution is advised in the administration of Paracetamol to patients with severe renal or severe hepatic impairment (child-Pugh > 9), mild to moderate hepatic impairment (incl. Syndrome Gilbert), acute hepatitis, concomitant administration of drugs that affect the liver function, glucose-6-phosphatedehyrogenase deficiency, haemolyticanaemia, alcohol abuse, chronic dehydration and malnutrition.

The hazards of overdose are greater in those with Non-cirrhotic alcoholic liver disease. Caution should be exercised in cases of chronic alcoholism. Alcohol must not be used during treatment period. The daily dose should not exceed 2 grams in such case. In cases of high fever, signs of a secondary infection, or persistence of the symptoms for more than three days, medical advice should be sought.

After prolonged use (> 3 months) of analgesics intake every day or more often, headaches may occur or worsen. Headaches caused by overuse of analgesics should not be handled by increasing the dose. In those cases, the use of analgesics should be taken after consulting a doctor. Caution is advised in asthmatic patient sensitive to acetylsalicylic acid, because bronchospasm with Paracetamol (cross-reaction) has been reported.

Self-medication with paracetamol should be limited when taking anticonvulsants because with the concomitant use of both, liver toxicity is potentiated and the bioavailability of paracetamol is reduced, especially when using high-doses of paracetamol (see section 4.5).

Interference with laboratory tests
Paracetamol may affect uric acid tests by wolframato phosphoric acid and blood sugar tests by glucose-oxydase-peroxydase
4.5 Interaction with other medicinal products and other forms of interaction

The speed of absorption of Paracetamol may be increased by metoclopramide or domperidone and absorption reduced by colestyramine. The anticoagulant effect of warfarin and other coumarins may be enhanced by prolonged daily use of Paracetamol with increased risk of bleeding. Occasional doses have no significant effect.

Paracetamol is extensively metabolized in the liver and can therefore interact with medicinal products with the same metabolic pathway or induce/inhibit the same metabolic pathway. Chronic use of alcohol or medicinal products which induce liver enzymes like rifampicin, barbiturates, some anti-epileptic drugs (e.g. carbamazepine, phenytoin, phenobarbital, primidone) and St. John’s wort can increase the hepatotoxicity of Paracetamol as a result of an increased and fast formation of toxic metabolites. Caution is therefore necessary with concomitant use of enzyme-inducing drugs.

Probenecid blocks the binding of Paracetamol to glucuronic acid reducing Paracetamol clearance by a factor of about 2. If probenecid is taken concurrently the Paracetamol dose should be reduced.

Paracetamol can increase the plasma concentration of chloramphenicol.

With chronic concomitant use of paracetamol and zidovudine, neutropenia often occurs and is probably due to the reduced metabolism of zidovudine.

Salicylamide may prolong the elimination t1/2 of paracetamol.

Isoniazid reduces the paracetamol clearance, with possible potentiation of its action and/or toxicity, by inhibition of its metabolism in the liver.

Paracetamol may decrease the bioavailability of lamotrigine, with possible reduction of its effect, due to a possible induction of its metabolism in the liver.

4.6 Fertility, pregnancy and lactation

**Pregnancy:**
Epidemiological data from the use of oral therapeutic doses of Paracetamol indicate no undesirable effects on the pregnancy or on the health of the fetus/newborn infant. Consequently under normal conditions of use, Paracetamol can be used throughout the duration of pregnancy.

**Breastfeeding:**
Following oral administration, small amounts of paracetamol are excreted into breast milk, however not in a clinical significant amount. To date, there are no known undesirable effects or side effects during breast-feeding. Paracetamol can be administered during lactation at therapeutic doses.
**Fertility:**
No detrimental effects on fertility upon normal use of Paracetamol are known.

4.7 **Effects on ability to drive and use machines**
Paracetamol tablets has no or negligible influence on the ability to drive and use machines.

4.8 **Undesirable effects**
At therapeutic doses few undesirable effects occur. The frequency of undesirable effects is classified as follows: Very common (≥1/10); common (≥1/100 to <1/10); uncommon (≥1/1,000 to <1/100); rare (≥1/10,000 to <1/1,000); very rare (<1/10,000), not known (cannot be estimated from the available data).

<table>
<thead>
<tr>
<th>System organ class</th>
<th>Frequency</th>
<th>Undesirable effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood and lymphatic system disorders</td>
<td>Rare</td>
<td>Agranulocytosis (long-term use), thrombocytopenia, thrombocytopenic purpura, leucopenia, haemolytic anemia, Platelet disorders, stem cell disorders.</td>
</tr>
<tr>
<td></td>
<td>Very rare</td>
<td>Pancytopenia</td>
</tr>
<tr>
<td>Immune system disorders</td>
<td>Rare</td>
<td>Hypersensitivity (excluding angioedema).</td>
</tr>
<tr>
<td></td>
<td>Very rare</td>
<td>Hypersensitivity (angioedema, ventilation difficult, hyperhidrosis, nausea, hypotension, shock, anaphylactic reaction), requiring discontinuation of treatment</td>
</tr>
<tr>
<td>Metabolism and nutrition disorders</td>
<td>Very rare</td>
<td>Hypoglycemia</td>
</tr>
<tr>
<td>Psychiatric disorders</td>
<td>Rare</td>
<td>Depression NOS, confusion, hallucinations.</td>
</tr>
<tr>
<td>Nervous system disorders</td>
<td>Rare</td>
<td>Tremor NOS, headache NOS.</td>
</tr>
<tr>
<td>Eye disorders</td>
<td>Rare</td>
<td>Abnormal vision.</td>
</tr>
<tr>
<td>Cardiac disorders</td>
<td>Rare</td>
<td>Oedema.</td>
</tr>
<tr>
<td>Respiratory, thoracic and mediastinal disorders</td>
<td>Very rare</td>
<td>Bronchospasm in patients sensitive to aspirin and other NSAIDS</td>
</tr>
<tr>
<td>Gastrointestinal disorders</td>
<td>Rare</td>
<td>Hemorrhage NOS, abdominal pain NOS, diarrhea NOS, nausea, vomiting.</td>
</tr>
<tr>
<td>Hepatobiliary disorders</td>
<td>Rare</td>
<td>Hepatic function abnormal, hepatic failure, hepatic necrosis, jaundice.</td>
</tr>
<tr>
<td></td>
<td>Very rare</td>
<td>Hepatotoxicity.</td>
</tr>
</tbody>
</table>
| Administration of 6 grams of paracetamol may already lead to hepatic damage (in children: more than 140 mg/kg); higher doses cause irreversible hepatic necrosis.
| Skin and subcutaneous tissue disorders | Rare | Pruritus, rash, sweating, purpura, angioedema, urticaria. |
| Renal and urinary disorders | Very Rare | Serious skin reactions have been reported: Acute generalized exanthematous pustulosis, toxic necrolysis, drug-induced dermatosis, Stevens-Johnson-syndrome. |
| General disorders and administration site conditions | Rare | Sterile pyuria (cloudy urine) and renal side effects (severe renal impairment, nephrite interstitial, hematuria, enuresis). |
| Injury, poisoning and procedural complications | Rare | Overdose and poisoning. |

**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**

Paracetamol can result in poisoning, particularly in elderly subjects, young children, patients with liver diseases, in cases of chronic alcoholism, in patients suffering from chronic malnutrition and patients using liver enzyme inducing agents. Overdose may be fatal in these cases.

Liver damage is possible in adults who have taken 6 g or more of paracetamol, especially if the patient has risk factors (see below).

**Risk Factors:**

If the patient
- Is on long term treatment with carbamazepine, phenobarbitone, phenytoin, primidone, rifampicin, St John’s wort or other drugs that induce liver enzymes.

Or
- Regularly consumes ethanol in excess of recommended amounts.

Or
- Is likely to be glutathione deplete e.g. eating disorders, cystic fibrosis, HIV infection, starvation, cachexia.

**Symptoms:**

Acute Paracetamol intoxication can progress in several phases.
The symptoms of Paracetamol over dosage in the first two days are nausea, vomiting, anorexia, pallor and abdominal pain. Slight intoxication is limited to these symptoms.

When intoxication is more severe, subclinical symptoms as increased liver enzymes appear. From 2 to 4 days after exposure, clinical symptoms of liver damage are manifest, such as painful hepatomegaly, jaundice, encephalopathy, coma and disturbed blood clotting, all secondary to liver insufficiency. Insufficient kidney functioning (tubule necrosis) is rare. Severe intoxication may result in metabolic acidosis may occur.

**Treatment:**
Local treatment guidelines for Paracetamol overdose should be followed. Directly after intake of a Paracetamol overdose, possibly leading to severe intoxication, absorption decreasing therapy can be applied such as gastric lavage within one hour of intake or administration of activated charcoal.

N-acetyl cysteine (NAC) can be administered as antidote. For administration of NAC and further treatment, the concentration of paracetamol in blood should be determined. In general, intravenous administration of NAC is preferred and should be continued until paracetamol is no longer detectable. It is important to realize that intake of NAC up to 36 hours after intake can improve prognosis. Oral administration of NAC should not be combined with oral activated charcoal.

Liver tests have to be performed at the start of treatment and need to be repeated each 24 hours after treatment. In most cases, hepatic transaminases will return to normal levels within two weeks after intake of overdose with complete recovery of liver function. In rare cases, liver transplantation may be required.

5 **PHARMACOLOGICAL PROPERTIES**

5.1 **Pharmacodynamic properties**
Pharmacotherapeutic group: Other analgesics and antipyretics, Anilides. ATC code: N02BE01

Paracetamol is an effective antipyretic and analgesic agent. However, it has no anti-inflammatory effect.

The main action of Paracetamol is the inhibition of cyclooxygenase, an enzyme which is important for the prostaglandin synthesis. Central nervous system cyclooxygenase is more sensitive for paracetamol than peripheral cyclooxygenase and this explains why paracetamol has an antipyretic and analgesic efficacy without a conspicuous peripheral anti-inflammatory activity.
5.2 Pharmacokinetic properties

Absorption
After oral administration Paracetamol is rapidly and almost completely absorbed. Peak plasma concentrations are reached after 30 minutes to 2 hours.

Distribution
Paracetamol is distributed rapidly throughout all tissues. Concentrations are comparable in blood, saliva and plasma. The volume of distribution of Paracetamol is approximately 1 L/kg bodyweight. At therapeutic doses protein binding is negligible.

Metabolism
In adults paracetamol is conjugated in the liver with glucuronic acid (~60%), sulphate (~35%) conjugates. The latter route is rapidly saturated at doses higher than the therapeutic dose. A minor route, catalyzed by the cytochrome P450, results in the formation of an intermediate reagent (N acetyl-p-benzoquinoneimine) which under normal conditions of use is rapidly detoxified by glutathione and eliminated in the urine, after conjugation with cysteine (~3%) and mercaptopuric acid.

In neonates and children <12 years sulphate conjugation is the main elimination route and glucuronidation is lower than in adults. Total elimination in children is comparable to that in adults, due to an increased capacity for sulphate conjugation.

Elimination
Elimination of Paracetamol is essentially through the urine. 90% of the ingested dose is eliminated via the kidneys within 24 hours, predominantly as the glucuronide (60 to 80%) and the sulphate (20 to 30%) conjugates. Less than 5% is eliminated in unchanged form. The elimination half life is about 2 hours.

In cases of renal or hepatic insufficiency, after overdose, and in neonates the elimination half-life of paracetamol is delayed. The maximum effect is equivalent with plasma concentrations. For elderly patients, the capacity for conjugation is not modified.

5.3 Preclinical safety data
Effects in non-clinical studies were observed only at exposures considered sufficiently in excess of the maximum human exposure indicating little relevance to clinical use. Animal studies have not indicated any teratogenic potential.
6 PHARMACEUTICAL PARTICULARS

6.1 List of excipients
Pregalatinized starch (Maize)
Silica colloidal anhydrous
Hydroxypropylcellulose (Low Viscosity Grade)
Sodium starch glycolate (Type-A)
Talc
Magnesium stearate

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
Paracetamol tablets are available in Clear PVC- Aluminium foil blister pack or Clear PVC- Child resistant PVC backed Aluminium foil blister packs of 10, 12, 16, 20, 24, 30, 32, 40 and 50 tablets.

Not all pack sizes may be marketed.

6.6 Special precautions for disposal and other handling
Any unused medicinal product or waste material should be disposed of in accordance with local requirements.
7 MARKETING AUTHORISATION HOLDER
Milpharm Limited
Ares Block, Odyssey Business Park
West End Road
Ruislip HA4 6QD
United Kingdom

8 MARKETING AUTHORISATION NUMBER(S)
PL 16363/0504

9 DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION
20/07/2017

10 DATE OF REVISION OF THE TEXT
20/07/2017