

# Summary of Product Characteristics

## 1 NAME OF THE MEDICINAL PRODUCT

Solpa-Extra Tablets Paracetamol 500 mg Caffeine 65 mg

## 2 QUALITATIVE AND QUANTITATIVE COMPOSITION

Each tablet contains Paracetamol 500 mg and Caffeine 65 mg.

For the full list of excipients, see section 6.1.

## 3 PHARMACEUTICAL FORM

Tablet

White, capsule-shaped tablets.

## 4 CLINICAL PARTICULARS

### 4.1 Therapeutic indications

Symptomatic treatment of mild to moderate pain and/or fever in adults and children aged 15 years or over.

### 4.2 Posology and method of administration

#### Posology

*Adults (including elderly) and adolescents aged 15-18 years weighing more than 50kg:*

1 - 2 tablets according to needs up to 3 times daily.

The single dose of 1 tablet is appropriate for individuals weighing less than 60 kg while the single dose of 2 tablets is appropriate only for individuals weighing 60 kg and more. The maximum single dose is 1 g of paracetamol (2 tablets), the maximum daily dose is 3 g of paracetamol (6 tablets).

The specific dose interval depends on the symptoms and the maximum daily dose. Depending on the reoccurrence of symptoms (fever and/or pain), repeated administration is allowed. It should, however, preferably never fall below 6 hours and in no case fall below 4 hours.

If the pain persists for more than 5 days or the fever lasts for more than 3 days, or gets worse or other symptoms appear, the patient should stop the treatment and consult a doctor.

#### Paediatric Population

Adolescents of 15 to 18 years and weighing more than 50 kg: as adults.

In children it is imperative to respect the posology defined on the basis of body weight and thus to use the appropriate presentation. Approximate ages based on body weight are given for information.

The product is not suitable for children younger than 15 years.

#### Impaired Renal Function:

In case of renal insufficiency dose adjustment is necessary:

Glomerular filtration	Dose
10-50 ml/min	1 tablet every 6 hours
< 10 ml/min	1 tablet every 8 hours

Impaired Hepatic Function:

In patients with impaired hepatic function or Gilbert's syndrome, the dose must be reduced or the dosing interval prolonged.

The daily effective dose of paracetamol should not exceed 60 mg/kg/day (up to maximum 2 g paracetamol /day) in the following situations:

- Adults or adolescents weighing less than 50 kg
- Mild to moderate hepatic insufficiency, Gilbert's syndrome (familial non-hemolytic jaundice)
- Dehydration
- Chronic malnutrition
- Chronic alcoholism

Method of administration

Route of administration: Oral

**4.3 Contraindications**

Hypersensitivity to paracetamol, caffeine or to any of the excipients listed in section 6.1.

**4.4 Special warnings and precautions for use**

Immediate medical advice should be sought in the event of an overdose, even if you feel well, because of the risk of delayed, serious liver damage.

Prolonged or frequent use is discouraged. Patients should be advised not to take other Paracetamol containing products concurrently. Taking multiple daily doses in one administration can severely damage the liver; in such case unconsciousness does not occur. However, medical assistance should be sought immediately. Prolonged use except under medical supervision may be harmful. In adolescents treated with 60mg/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 mild and severe renal insufficiency, mild to moderate hepatocellular insufficiency (including Gilbert's syndrome), severe hepatic insufficiency (Child-Pugh>9), acute hepatitis, concomitant treatment with medicinal products affecting hepatic functions, glucose-6-phosphatedehydrogenase deficiency, haemolytic anaemia, dehydration, alcohol abuse and chronic malnutrition (see section 4.2).

The hazards of overdose are greater in those with non-cirrhotic alcoholic liver disease. Caution should be exercised in cases of chronic alcoholism. The daily dose should not exceed 2 grams in such cases.

Alcohol should not be used during the treatment with paracetamol.

Caution is advised in asthmatic patients sensitive to aspirin, because light reaction bronchospasm with paracetamol (cross-reaction) has been reported in less than 5% of the patients tested.

Solpa-Extra should be given with care to patients with gout, hyperthyroidism and arrhythmia.

The patient should limit the use of caffeine containing products when taking Solpa-Extra, as excess caffeine may cause nervousness, irritability, sleeplessness and occasionally rapid heart beat.

As caffeine is found naturally in tea, coffee and chocolate, and in some carbonated drinks there is the potential for users to take more than the recommended 390 mg/day of caffeine (6 tablets) per day. Patients should take account of dietary and other medicinal sources of caffeine and ensure that they do not exceed the stated dose.

Typical amounts of caffeine available from dietary sources are

Brewed coffee; 50-100mg/100ml\*

Instant coffee and tea: 20-73mg/100ml\*

Carbonated drinks (cola) 9-19mg/100ml\*

Chocolate 5-20mg/100ml

(\*100ml is equivalent to about 1 small cup of fluid)

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

**Paracetamol**

Hepatotoxic substances may increase the possibility of Paracetamol accumulation and overdose. The risk of hepatotoxicity of paracetamol may be increased by drugs which induce liver microsomal enzymes such as barbiturates, tricyclic antidepressants, and alcohol.

Probenecid causes an almost two-fold reduction in clearance of Paracetamol by inhibiting its conjugation with glucuronid acid. A reduction of the Paracetamol dose should be considered for concomitant treatment with probenecid.

Salicylamide may prolong the elimination half life of Paracetamol.

Metoclopramide and domperidone accelerate absorption of Paracetamol.

Cholestyramine reduces absorption of Paracetamol.

Concomitant use of Paracetamol (4 g per day for at least 4 days) with oral anticoagulants may lead to slight variations of INR values. In this case, increased monitoring of INR values should be done during the duration of the combination and after its discontinuation.

Isoniazid reduces paracetamol clearance by 20%, with possible potentiation of its action and/or toxicity, by inhibiting its metabolism in the liver. The clinical relevance is unknown.

Paracetamol decreases the bioavailability of lamotrigine with possible reduction of its effect due to possible induction of its metabolism in the liver.

Co-administration of paracetamol with zidovudine may result in neutopenia or hepatotoxicity. However, these effects have not been consistently reported. The chronic / multiple dose paracetamol use in patients on zidovudine therapy should be avoided, however, if chronic paracetamol and zidovudine are to be given concurrently white blood count and liver function tests should be monitored particularly in malnourished patients.

Paracetamol may affect the pharmacokinetics of chloramphenicol. Monitoring of chloramphenicol plasma levels is recommended if combining paracetamol with chloramphenicol injection treatment.

Interference with laboratory tests: Paracetamol may affect uric acid tests by wolframato phosphoric acid, and blood sugar tests by glucose-oxydase-peroxydase.

### **Caffeine**

Phenylpropanolamine increases caffeine plasma concentrations four-fold. There is a risk of additive CNS adverse events. Isolated reports describe the development of acute psychosis when caffeine was given with phenylpropanolamine.

Fluvoxamine, a potent inhibitor of CYP 1 A2, markedly reduces the clearance of caffeine. Concomitant administration may lead to caffeine intoxication.

Ciprofloxacin reduces caffeine metabolism, leading to two-fold increases in caffeine plasma concentrations.

Caffeine, a CNS stimulant, has an antagonistic effect towards the action of sedatives and tranquilizers. Caffeine may enhance the tachycardic effect of phenylpropanolamine and other sympathomimetic drugs.

Caffeine can increase blood pressure and counters the hypotensive action of Beta blockers such as atenolol, metoprolol, oxprenolol and propranolol. This medicine should not be used at the same time as beta blockers.

Disulfiram decreases caffeine clearance by up to 50%. Concomitant use of disulfiram and Solpa-Extra should be avoided.

Dipyridamole: injectable dipyridamole: decrease of the vasodilating effect of dipyridamole.

Treatment with caffeine should be discontinued at least 5 days before myocardial imaging. Coffee, tea and chocolate consumption should be avoided in the 24 hours preceding the test. Use with caution.

Enoxacin: increase of caffeine plasmatic concentrations due to a decrease of its hepatic metabolism, which can lead to excitement or hallucinations. Concomitant use is therefore not recommended.

Mexiletine: increase of caffeine plasmatic concentration due to inhibition of its hepatic metabolism with mexiletine. To be taken into account.

Norfloxacin: increase of caffeine plasmatic concentration due to inhibition of its hepatic metabolism with norfloxacin. To be taken into account.

Stiripentol: possible increase of caffeine plasmatic concentration with risk of overdose, due to its hepatic metabolism inhibition. Use with caution.

Caffeine exerts a competitive inhibition of the metabolism of clozapine. Therefore clozapine and caffeine must not be used concurrently.

Use of lithium carbonate and caffeine may cause a small decrease in serum lithium levels. Therefore concomitant ingestion of caffeine should be avoided. In case of concomitant use, the risk of an increase in serum lithium on abrupt cessation of caffeine should be taken into account.

Monoamine oxidase inhibitors may increase the stimulant effects of caffeine.

Methoxsalen reduces clearance of caffeine and may increase the effects of caffeine.

Phenytoin doubles caffeine clearance, although caffeine does not affect the metabolism of phenytoin.

Pipemidic acid reduces caffeine clearance, enhancing the effects of caffeine.

Theophylline and caffeine share the same metabolic pathway, leading to decreased clearance times for theophylline when used concurrently with caffeine. Concomitant use should be avoided.

Levothyroxine, like caffeine can increase blood pressure, and therefore these two active ingredients should not be used concurrently.

Ephedrine and caffeine interact to produce significant cardiovascular effects. Therefore caffeine should be avoided when ephedrine is being taken.

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

##### **Pregnancy**

Epidemiological studies in human pregnancy have shown no ill effects due to paracetamol used in the recommended dosage, but patients should follow the advice of their doctor regarding its use.

There is a potential increased risk of lower birth weight and spontaneous abortion associated with caffeine consumption during pregnancy.

##### **Lactation**

Paracetamol is excreted in breast milk but not in a clinically significant amount. Available published data do not contraindicate breast feeding.

Caffeine in breast milk may have a stimulating effect on breast-fed infants. Irritability and poor sleeping pattern in the infant have been reported.

##### **Fertility**

There is insufficient information available on the effects of Solpa-Extra on human fertility.

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

Solpa-Extra has no or negligible influence on the ability to drive and use machines.

#### **4.8 Undesirable effects**

Adverse events from historical clinical trial data are both infrequent and from minimal patient exposure. Accordingly, adverse events reported from extensive post-marketing experience at therapeutic/labelled dose are listed below by system organ class and frequency.

Frequencies are defined as: very common (>1/10), common (>1/100, <1/10), uncommon (>1/1000, <1/100), rare (>1/10,000, <1/1000), very rare (<1/10,000 including isolated reports) and not known (cannot be estimated from available data).

*Blood and lymphatic system disorders*

Very rare: Thrombocytopenia, agranulocytosis

*Immune system disorders*

Rare: Anaphylactic reaction, allergic dermatitis, rash, angioedema, Stevens-Johnson syndrome, toxic epidermal necrolysis

*Skin and subcutaneous tissue disorders:*

Very rare: Serious skin reactions

*Psychiatric disorders:*

Common: Insomnia, restlessness, anxiety

*Nervous system disorders*

Common: Nervousness, dizziness, headache

*Cardiac disorders*

Not known: Palpitations, tachycardia

*Respiratory, thoracic and mediastinal disorders*

Very rare: Bronchospasm

*Gastrointestinal disorders*

Common: Gastrointestinal disorder

*Hepatobiliary disorders*

Very rare: Hepatic function abnormal, increased transaminases

*General disorders and administration site conditions*

Not known: Irritability

When the recommended dosing regimen is combined with dietary caffeine intake, the resulting higher dose of caffeine may increase the potential for caffeine-related adverse effects such as nervousness, dizziness, insomnia, restlessness, anxiety, irritability, headache, gastrointestinal disorder and palpitations.

## **4.9 Overdose**

### **Paracetamol**

Liver damage is possible in adults who have taken 10g or more of paracetamol. Ingestion of 5g or more of paracetamol may lead to liver damage if the patient has risk factors (see below).

### **Risk factors**

If the patient

a, Is on long term treatment with carbamazepine, phenobarbitone, phenytoin, primidone, rifampicin, St John's Wort or other drugs that induce liver enzymes.

Or

b, Regularly consumes ethanol in excess of recommended amounts.

Or

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

### **Symptoms**

Symptoms of paracetamol overdosage in the first 24 hours are pallor, nausea, vomiting, anorexia and abdominal pain. Liver damage may become apparent 12 to 48 hours after ingestion. Abnormalities of glucose metabolism and metabolic acidosis

may occur. In severe poisoning, hepatic failure may progress to encephalopathy, haemorrhage, hypoglycaemia, cerebral oedema, and death. Acute renal failure with acute tubular necrosis, strongly suggested by loin pain, haematuria and proteinuria, may develop even in the absence of severe liver damage. Cardiac arrhythmias and pancreatitis have been reported.

### **Management**

Immediate treatment is essential in the management of paracetamol overdose. Despite a lack of significant early symptoms, patients should be referred to hospital urgently for immediate medical attention. Symptoms may be limited to nausea or vomiting and may not reflect the severity of overdose or the risk of organ damage. Management should be in accordance with established treatment guidelines, see BNF overdose section.

Treatment with activated charcoal should be considered if the overdose has been taken within 1 hour. Plasma paracetamol concentration should be measured at 4 hours or later after ingestion (earlier concentrations are unreliable). Treatment with N-acetylcysteine may be used up to 24 hours after ingestion of paracetamol, however, the maximum protective effect is obtained up to 8 hours post-ingestion. The effectiveness of the antidote declines sharply after this time. If required the patient should be given intravenous N-acetylcysteine, in line with the established dosage schedule. If vomiting is not a problem, oral methionine may be a suitable alternative for remote areas, outside hospital. Management of patients who present with serious hepatic dysfunction beyond 24h from ingestion should be discussed with the National Poisons Information Unit or a liver unit.

### **Caffeine**

#### **Symptoms**

Common symptoms include anxiety, nervousness, restlessness, insomnia, excitement, muscle twitching, confusion, convulsions. For high intake of caffeine, hyperglycemia could also appear. Cardiac Symptoms include tachycardia and cardiac arrhythmia. It must be noted that for clinically significant symptoms of caffeine overdose to occur with this product, the amount ingested would be associated with serious paracetamol-related toxicity.

#### **Management**

The symptoms of caffeine overdose are controlled by reducing or stopping caffeine intake.

## **5 PHARMACOLOGICAL PROPERTIES**

### **5.1 Pharmacodynamic properties**

Pharmacotherapeutic Group: Analgesics; Other Analgesic and Antipyretics; Analides; Paracetamol, combinations excl. psycholeptics.

ATC code: N02BE51

#### **Paracetamol**

##### *Analgesic:*

The mechanism of analgesic action has not been fully determined. Paracetamol may act predominantly by inhibiting a prostaglandin synthesis in the central nervous system (CNS) and to a lesser extent through a peripheral action by blocking pain-impulse generation. The peripheral action may also be due to inhibition of prostaglandin synthesis or to inhibition of the synthesis or actions of other substances that sensitise pain receptors to mechanical or chemical stimulation.

##### *Antipyretic:*

Paracetamol probably produces antipyresis by acting centrally on the hypothalamic heat-regulating centre to produce peripheral vasodilation resulting in increased blood flow through the skin, sweating, and heat loss. The central action probably involves inhibition of prostaglandin synthesis in the hypothalamus.

#### **Caffeine**

##### *Central Nervous System Stimulant:*

Caffeine stimulates all levels of the CNS, although its cortical effects are milder and of shorter duration than those of amfetamines.

##### *Analgesia Adjunct:*

Caffeine constricts cerebral vasculature with an accompanying decrease in cerebral blood flow and in the oxygen tension of the brain. It is believed that caffeine helps to relieve headache by providing a more rapid onset of action and/or enhanced pain relief with lower doses of analgesic.

## 5.2 Pharmacokinetic properties

### **Paracetamol**

#### *Absorption and Fate:*

Paracetamol is readily absorbed from the gastro-intestinal tract with peak plasma concentrations occurring about 30 minutes to 2 hours after ingestion. It is metabolised in the liver and excreted in the urine mainly as the glucuronide and sulphate conjugates. Less than 5% is excreted as unchanged paracetamol. The elimination half-life varies from about 1 to 4 hours. Plasma-protein binding is negligible at usual therapeutic concentrations but increases with increasing concentrations.

A minor hydroxylated metabolite which is usually produced in very small amounts by mixed-function oxidases in the liver and which is usually detoxified by conjugation with liver glutathione may accumulate following paracetamol overdose and cause liver damage.

Physiopathological Variations: Renal Insufficiency: In cases of severe renal insufficiency (creatinine clearance lower than 10 ml/min) the elimination of paracetamol and its metabolites is delayed.

### **Caffeine**

#### *Absorption and Fate:*

Caffeine is absorbed readily after oral administration and is widely distributed throughout the body. Caffeine is metabolised almost completely via oxidation, demethylation, and acetylation, and is excreted in the urine as 1-methyluric acid, 1-methylxanthine, 7-methylxanthine, 1,7-dimethylxanthine (paraxanthine), 5-acetylamino-6-formylamino-3-methyluracil (AFMU), and other metabolites with only about 1% unchanged.

## 5.3 Preclinical safety data

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

## 6 PHARMACEUTICAL PARTICULARS

### 6.1 List of excipients

Maize Starch  
Maize Starch, Pregelatinised  
Povidone  
Stearic Acid  
Talc

### 6.2 Incompatibilities

Not applicable

### 6.3 Shelf life

30 months

### 6.4 Special precautions for storage

Do not store above 25°C. Keep the blister in the outer carton in order to protect from light.

### 6.5 Nature and contents of container

(PVC/Aluminium) blister packed in cardboard carton  
Pack sizes of 10, 12, 20, 24 or 30 Tablets.

Not all pack sizes may be marketed

### 6.6 Special precautions for disposal and other handling

**7 MARKETING AUTHORISATION HOLDER**

Chefaro Ireland DAC  
The Sharp Building  
Hogan Place  
Dublin 2  
Ireland

**8 MARKETING AUTHORISATION NUMBER**

PA1186/026/001

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

Date of first authorisation: 17<sup>th</sup> May 2013  
Date of last renewal: 23<sup>rd</sup> June 2017

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December 2022