

SUMMARY OF PRODUCT CHARACTERISTICS

1 NAME OF THE MEDICINAL PRODUCT

Chlorpromazine 25mg Tablets / Anaractil 25mg Tablets

2 QUALITATIVE AND QUANTITATIVE COMPOSITION

Each tablet contains 25 mg of chlorpromazine hydrochloride.
Excipient: Lactose monohydrate 71.5 mg.
For full list of excipients, see section 6.1

3 PHARMACEUTICAL FORM

Film-coated tablet.

Appearance:

White, circular, biconvex, film-coated tablet engraved with “CZ1”.

4 CLINICAL PARTICULARS

4.1 Therapeutic indications

Chlorpromazine is a phenothiazine neuroleptic. It is indicated in the following conditions:

- Schizophrenia and other psychoses (especially paranoid), mania and hypomania.
- In anxiety, psychomotor agitation, excitement, violent or dangerously impulsive behaviour. Chlorpromazine is used as an adjunct in the short-term management of these conditions.
- Intractable hiccups.
- Nausea and vomiting of terminal illness (where other drugs have failed or are not available).
- Childhood schizophrenia.

4.2 Posology and method of administration

Posology

Dosages should be low to begin with and gradually increased under close supervision until the optimum dosage for the individual is reached.

Schizophrenia, other psychoses, anxiety and agitation

Adults: Initially 25 mg three times daily or 75 mg at bedtime increasing by daily amounts of 25 mg to an effective maintenance dose. This is usually in the range 75 to 300 mg daily, but some patients may require up to 1 g daily.

Children under 1 year: Do not use unless need is lifesaving.

Children 1-5 years: 0.5mg/kg bodyweight every 4 – 6 hours to a maximum recommended dose of 40 mg daily.

Children 6-12 years: One third to half the adult dose to a maximum recommended dose of 75 mg daily.

Elderly or debilitated patients: Start with one third to half the usual adult dose, with a more gradual increase in dosage.

Hiccups

Adults: 25 – 50mg three or four times a day.

Nausea and vomiting of terminal illness

Adults: 10 – 25 mg every 4 to 6 hours.

Children under 1 year: Do not use unless need is lifesaving.

Children 1-5 years: 0.5mg/kg bodyweight every 4 – 6 hours to a maximum recommended dose of 40 mg daily.

Children 6-12 years: 0.5mg/kg bodyweight every 4 – 6 hours. The maximum daily dosage should not exceed 75 mg.

Elderly or debilitated patients: Initially one third to half the adult dose. The physician should then use his clinical judgement to obtain control.

Method of administration

Oral: the tablets should be swallowed with a drink of water.

4.3 Contraindications

Hypersensitivity to the active substance or to any of the excipients listed in section 6.1

- Bone marrow depression.
- Risk of angle-closure glaucoma.
- Risk of urinary retention related to urethroprostatic disorders.
- History of agranulocytosis.

- Dopaminergic antiparkinsonism agents (see Section 4.5).
- Nursing mothers (see Section 4.6).
- Citalopram, escitalopram (see Section 4.5)

4.4 Special warnings and precautions for use

Chlorpromazine tablets / Anaractil tablets should be avoided in patients with:

- hypothyroidism,
- phaeochromocytoma,
- myasthenia gravis,
- prostate hypertrophy.
- known hypersensitivity to phenothiazines
- a history of narrow angle glaucoma or agranulocytosis.

Except under exceptional circumstances, this drug must not be administered to patients with Parkinson's disease.

Patients are strongly advised not to consume alcohol and alcohol-containing drugs throughout treatment (see section 4.5).

The concomitant use of chlorpromazine with lithium, other QT prolonging agents, and dopaminergic antiparkinsonian agents is not recommended (see section 4.5).

Blood Disorders: All patients must be advised that, if they experience fever, sore throat or any other infection, they should inform their physician immediately and undergo a complete blood count. Treatment will be discontinued if any marked changes (hyperleucocytosis, granulocytopenia) are observed in the latter.

As agranulocytosis has been reported, regular monitoring of the complete blood count is recommended. The occurrence of unexplained infections or fever may be evidence of blood dyscrasia (see Section 4.8) and requires immediate haematological investigation.

Neuroleptic malignant syndrome:

treatment must be interrupted in the event of unexplained hyperpyrexia since this can be one of the signs of neuroleptic malignant syndrome (pallor, hyperthermia, disorders of autonomic function, altered consciousness, muscle rigidity). Signs of autonomic instability, such as hyperhydrosis and irregular blood pressure, can precede the onset of hyperthermia and as such constitute premonitory signs of the syndrome. While this neuroleptic related effect can be of idiosyncratic origin certain risk factors such as dehydration and brain damage would seem to indicate a predisposition.

Withdrawal: Acute withdrawal symptoms, including nausea, vomiting and insomnia, have very rarely been reported following abrupt cessation of high doses of neuroleptics. Relapse may also occur, and the emergence of extrapyramidal reactions has been reported. Therefore, gradual withdrawal is advisable.

In schizophrenia, the response to neuroleptic treatment may be delayed. If treatment is withdrawn, the recurrence of symptoms may not become apparent for some time.

QT prolongation: Neuroleptic phenothiazines may potentiate QT interval prolongation which increases the risk of onset of serious ventricular arrhythmias of the torsade de pointes type, which is potentially fatal (sudden death). QT prolongation is exacerbated, in particular, in the presence of bradycardia, hypokalaemia, and congenital or acquired (i.e. drug induced) QT prolongation. The risk-benefit should be fully addressed before Chlorpromazine / Anaractil treatment is commenced. If the clinical situation permits, medical and laboratory evaluations (e.g. biochemical status and ECG) should be performed to rule out possible risk factors before initiating treatment with Chlorpromazine / Anaractil and as deemed necessary during the treatment (see also section 4.8).

As with all antipsychotic drugs, chlorpromazine should not be used alone where depression is predominant. However, it may be combined with antidepressant therapy to treat those conditions in which depression and psychosis coexist.

Where clinically possible, the absence of any factors favouring the onset of ventricular arrhythmias should be ensured before administration:

- Bradycardia less than 55 beats per minute;
- Hypokalaemia;
- Hypocalcaemia
- Hypomagnesaemia
- Starvation
- Alcohol abuse
- Concomitant therapy with other drugs known to prolong the QT interval
- Congenital long QT interval;
- Ongoing treatment with any drug which could induce marked bradycardia (<55 beats per minute), hypokalaemia, intracardiac conduction depression or QT prolongation (see Section 4.5).

With the exception of emergencies, it is recommended that the initial work up of patients receiving a neuroleptic should include an ECG.

Because of the risk of photosensitisation patients should be advised to avoid exposure to direct sunlight (see section 4.8).

In those frequently handling preparations of phenothiazines, the greatest care must be taken to avoid contact of the drug with the skin.

Stroke: In randomised 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. Chlorpromazine / Anaractil should be used with caution in patients with stroke risk factors.

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

The following populations must be closely monitored after administration of chlorpromazine:

- epileptics, since chlorpromazine may lower the seizure threshold. Treatment must be discontinued if seizures occur.
- elderly patients presenting with heightened susceptibility to orthostatic hypotension, sedation and extrapyramidal effects; chronic constipation (risk of paralytic ileus), and potentially prostatic hypertrophy. It should be used with caution particularly during very hot or cold weather (risk of hyper-, hypothermia). The onset of paralytic ileus, potentially indicated by abdominal bloating and pain, must be treated as an emergency (see section 4.8).
- patients presenting with certain forms of cardiovascular disease, since this class of drug has quinidine-like effects and can induce tachycardia and hypotension.
- patients with severe liver and/or renal failure because of the risk of accumulation.

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 to 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 2.65 in the placebo group. Although the cause 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 patient is not clear.

Chlorpromazine / Anaractil is not licensed for the treatment of dementia-related behavioural disturbances.

Treatment should be discontinued immediately and another antipsychotic drug should be considered as an alternative in the following situations:

Severe liver toxicity

Severe liver toxicity, resulting sometimes in death, has been reported with chlorpromazine use. Patients or caregivers should immediately report signs and symptoms 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 (see section 4.8).

Eosinophilia

The presence of eosinophilia may indicate an allergic reaction to chlorpromazine. A thorough clinical examination and a repeat complete blood count (CBC) with differential count to confirm the presence of eosinophilia should be performed (see section 4.8)

Drug reaction with eosinophilia and systemic symptoms

Drug reaction with eosinophilia and systemic symptoms (DRESS) which can be life-threatening or fatal, have been reported in association with chlorpromazine treatment. At the time of prescription patients should be advised of the signs and symptoms and monitored closely for skin reactions. If signs and symptoms suggestive of these reactions appear, chlorpromazine should be withdrawn immediately and not be restarted.

Monitoring recommendations

- Patients on long-term treatment should receive regular ophthalmological and haematological examinations.
- Owing to the risk of hypotension, patients should be advised to remain supine for at least half an hour after injection. Tachycardia as well as local pain or nodule formation may occur after intramuscular administration. Blood pressure should be monitored when receiving parenteral chlorpromazine.
- Since there is a potential impact on cognitive function, children should undergo a yearly clinical examination to evaluate learning capacity. The dosage should be adjusted regularly as a function of the clinical status of the child.
- Hyperglycaemia or intolerance to glucose has been reported in patients treated with Chlorpromazine / Anaractil. Patients with established diagnosis of diabetes mellitus or with risk factors for the development of diabetes who are started on

Chlorpromazine / Anaractil, should get appropriate glycaemic monitoring during treatment (see section 4.8).

Excipient(s) with known effect

Chlorpromazine tablets / Anaractil tablets contain lactose. Patients with rare hereditary problems of galactose intolerance, total lactase deficiency or glucose-galactose malabsorption should not take this medicine.

4.5 Interaction with other medicinal products and other forms of interaction

Adrenaline must not be used in patients overdosed with chlorpromazine.

Anticholinergic agents may reduce the antipsychotic effect of chlorpromazine and the mild anticholinergic effect of Chlorpromazine / Anaractil may be enhanced by other anticholinergic drugs possibly leading to constipation, heat stroke, etc.

The action of some drugs may be opposed by chlorpromazine; these include amphetamine, levodopa, clonidine, guanethidine and adrenaline.

Increases or decreases in the plasma concentrations of a number of drugs e.g. propranolol, phenobarbital have been observed but were not of clinical significance.

Simultaneous administration of deferoxamine and prochlorperazine has been observed to induce a transient metabolic encephalopathy characterised by loss of consciousness for 48 - 72 hours. It is possible this may occur with chlorpromazine since it shares many of the pharmacological properties of prochlorperazine.

There is an increased risk of agranulocytosis when neuroleptics are used concurrently with drugs with myelosuppressive potential, such as carbamazepine or certain antibiotics and cytotoxics.

Combinations contraindicated

Dopaminergics (quinagolide, cabergoline), not including dopaminergic antiparkinsonism agents, are contraindicated (see Section 4.3): reciprocal antagonism of the dopaminergic agent and neuroleptic. Citalopram and escitalopram are contraindicated.

Combinations not recommended

Dopaminergic antiparkinsonism agents (amantadine, bromocriptine, cabergoline, levodopa, lisuride, pergolide, pramipexole, ropinirole) are not recommended: reciprocal antagonism of the antiparkinsonism agent and neuroleptic (see Section 4.4).

Neuroleptic-induced extrapyramidal syndrome should be treated with an anticholinergic rather than a dopaminergic antiparkinsonism agent (dopaminergic receptors blocked by neuroleptics).

Levodopa: reciprocal antagonism of levodopa and the neuroleptic. In Parkinson's patients, it is recommended to use the minimal doses of each drug.

QT prolonging drugs: there is an increased risk of arrhythmias when neuroleptics are used with concomitant QT prolonging drugs (including certain anti-arrhythmics, antidepressants and other antipsychotics including sultopride) and drugs causing electrolyte imbalance (see Section 4.4).

Alcohol: alcohol potentiates the sedative effect of neuroleptics. Changes in alertness can make it dangerous to drive or operate machinery. Alcoholic beverages and medication containing alcohol should be avoided (see Section 4.4).

Lithium (high doses of neuroleptics): concomitant use can cause confusional syndrome, hypertonia and hyper-reflexivity, occasionally with a rapid increase in serum concentrations of lithium (see Section 4.4). There have been rare cases of neurotoxicity. Lithium can interfere with the absorption of neuroleptic agents.

Combinations requiring precautions

Anti-diabetic agents: concomitant administration of high chlorpromazine doses (100 mg/day), and anti-diabetic agents can lead to an increase in blood sugar levels (decreased insulin release). Forewarn the patient and advise increased self-monitoring of blood and urine levels. If necessary, adjust the anti-diabetic dosage during and after discontinuing neuroleptic treatment.

Topical gastrointestinal agents (magnesium, aluminium and calcium salts, oxides and hydroxides): decreased GI absorption of phenothiazine neuroleptics. Do not administer phenothiazine neuroleptics simultaneously with topical GI agents (administer more than 2 hours apart if possible).

CYP1A2 inhibitors

Administration of chlorpromazine with CYP1A2 inhibitors, in particular strong or moderate inhibitors may lead to an increase of chlorpromazine plasma concentrations. Therefore, patients may experience a chlorpromazine dose-dependent adverse drug reaction.

There is a possible pharmacokinetic interaction between inhibitors of CYP2D6, such as phenothiazines and CYP2D6 substrates.

Combinations to be taken into consideration

Antihypertensive agents: potentiation of the antihypertensive effect and risk of orthostatic hypotension (additive effects). Guanethidine has adverse clinically significant interactions documented.

Atropine and other atropine derivatives: imipramine antidepressants, histamine H1-receptor antagonists, anticholinergic, antiparkinsonism agents, atropinic antispasmodics,

disopyramide: build-up of atropine-associated adverse effects such as urinary retention, constipation, dry mouth and heat stroke etc.

Other CNS depressants: morphine derivatives (analgesics, antitussives and substitution treatments), barbiturates, benzodiazepines, anxiolytics other than benzodiazepines, hypnotics, sedative anti-depressants, histamine H1 receptor antagonists, central antihypertensive agents increased central depression. Changes in alertness can make it dangerous to drive or operate machinery.

4.6 Fertility, pregnancy and lactation

Pregnancy

There is inadequate evidence of the safety of chlorpromazine in human pregnancy. There is evidence of harmful effects in animals, so like other drugs it should be avoided in pregnancy unless the physician considers it essential. It may occasionally prolong labour and at such a time should be withheld until the cervix is dilated 3 - 4 cm. Possible adverse effects on the foetus include lethargy or paradoxical hyperexcitability, tremor and low Apgar score.

A large amount of exposure to chlorpromazine during pregnancy did not reveal any teratogenic effect.

It is advised to keep an adequate maternal psychic balance during pregnancy in order to avoid decompensation. If a treatment is necessary to ensure this balance, the treatment should be started or continued at effective dose all through pregnancy.

Neonates exposed to antipsychotics (including chlorpromazine) 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, bradycardia, tachycardia, feeding disorder, meconium ileus, delayed meconium passage, abdominal bloating. Consequently, newborns should be monitored carefully in order to plan appropriate treatment.

Lactation

Chlorpromazine may be excreted in milk, therefore breast-feeding should be suspended during treatment.

Fertility

A decrease in fertility was observed in female animals treated with chlorpromazine. In male animals, data are insufficient to assess fertility. In humans, because of the interaction with dopamine receptors, chlorpromazine may cause hyperprolactinaemia which can be associated with impaired fertility in women (see Section 4.8). In men, data on consequences of hyperprolactinaemia are insufficient with regard to fertility.

4.7 Effects on ability to drive and use machines

Patients should be warned about drowsiness during the early days of treatment and advised not to drive or to operate machinery.

4.8 Undesirable effects

The following CIOMS frequency rating is used, when applicable: very common ($\geq 1/10$), common ($\geq 1/100$ to $< 1/10$), uncommon ($\geq 1/1,000$ to $< 1/100$), rare ($\geq 1/10,000$ to $< 1/1,000$), very rare ($< 1/10,000$), not known (cannot be estimated from the available data).

System Organ Class	Very common ($\geq 1/10$)	Common ($\geq 1/100$ to $< 1/10$)	Not known (cannot be estimated from available data)
Blood and lymphatic system disorders			Agranulocytosis Leucopenia Eosinophilia Thrombocytopenia
Immune system disorders			Systemic lupus erythematosus Antinuclear antibody positive ¹ Bronchospasm Anaphylactic reactions
Endocrine disorders		Hyperprolactinaemia Amenorrhoea	Galactorrhoea Gynaecomastia Erectile dysfunction Impotence Female sexual arousal disorder
Metabolism and nutrition disorders	Weight increased	Glucose tolerance impaired (see section 4.4)	Hyperglycaemia (see section 4.4) Hypertriglyceridaemia Hyponatraemia Inappropriate antidiuretic hormone secretion
Psychiatric disorders		Anxiety	Lethargy Mood altered

Nervous system disorders	Sedation² Somnolence² Dyskinesia (Acute dystonias or dyskinesias, usually transitory are more common in children and young adults and usually occur within the first 4 days of treatment or after dosage increases.) Tardive dyskinesia³ Extrapyramidal disorder Akathisia often after large initial dose	Hypertonia Convulsion	Torticollis Oculogyric crisis Trismus Akinesia Hyperkinesia Neuroleptic malignant syndrome (hyperthermia, rigidity, autonomic dysfunction and altered consciousness) (see Section 4.4.) Parkinsonism (more common in adults and the elderly. It usually develops after weeks or months of treatment) to include tremor, rigidity or other features of Parkinsonism
Eye disorders			Accommodation disorder⁴ Deposit eye⁵ Ocular changes⁷

Cardiac disorders		ECG changes include Electrocardiogram QT prolonged (as with other neuroleptics) (see Section 4.4), ST depression, U-Wave and T-Wave changes.	Cardiac arrhythmias, including ventricular arrhythmia and atrial arrhythmias, A-V block, Ventricular fibrillation, Ventricular tachycardia, Torsade de pointes, Cardiac arrest have been reported during neuroleptic phenothiazine therapy, possibly related to dosage. Pre-existing cardiac disease, old age, hypokalaemia and concurrent tricyclic antidepressants may predispose. Sudden death/sudden cardiac death (with possible causes of cardiac origin as well as cases of unexplained sudden death, in patients receiving neuroleptic phenothiazines) (see Section 4.4)
Vascular disorders	Orthostatic hypotension (Elderly or volume depleted subjects are particularly susceptible: it is more likely to occur after intramuscular administration)		Embolism venous Pulmonary embolism (sometimes fatal) Deep vein thrombosis (see Section 4.4)
Respiratory, thoracic and mediastinal disorders			Respiratory depression Nasal stuffiness

Gastrointestinal disorders	Dry mouth Constipation (see section 4.4)		Colitis ischaemic Ileus paralytic (see Section 4.4) Intestinal perforation (sometimes fatal) Gastrointestinal necrosis (sometimes fatal) Necrotising colitis (sometimes fatal) Intestinal obstruction
Hepatobiliary disorders			Liver injury ⁶ Jaundice cholestatic ⁶
Skin and subcutaneous tissue disorders			Dermatitis allergic Angioedema Contact skin sensitisation may occur rarely in those frequently handling preparations of chlorpromazine (see section 4.4) Skin rashes Urticaria Photosensitivity reaction
Renal and urinary disorders			Urinary retention ⁴
Pregnancy, puerperium and perinatal conditions			Drug withdrawal syndrome neonatal (see section 4.6)
Reproductive system and breast disorders			Priapism
General disorders and administration site conditions			Temperature regulation disorder Insomnia Agitation

¹may be seen without evidence of clinical disease

²particularly at the start of treatment

³particularly during long term treatment; may occur after the neuroleptic is withdrawn and resolve after reintroduction of treatment or if the dose is increased.

⁴linked to anticholinergic effects

⁵in the anterior segment of the eye caused by accumulation of the drug but generally without any impact on sight

⁶cases of hepatocellular, cholestatic and mixed liver injury sometimes resulting in death have been reported in patients treated with chlorpromazine (see section 4.4).

⁷the development of a metallic greyish-mauve coloration of exposed skin has been noted in some individuals, mainly females, who have received chlorpromazine continuously for long periods (4 - 8 years).

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 or search for MHRA Yellow Card in the Google Play or Apple App Store.

4.9 Overdose

Toxicity and treatment of overdosage: Symptoms of chlorpromazine overdosage include drowsiness or loss of consciousness, hypotension, tachycardia, ECG changes, ventricular arrhythmias, hypothermia, Parkinsonism, convulsions and coma. Severe extra-pyramidal dyskinesias may occur.

Treatment should be symptomatic with continuous respiratory and cardiac monitoring (risk of prolonged QT interval) until the patient's condition resolves.

If the patient is seen sufficiently soon (up to 6 hours) after ingestion of a toxic dose, gastric lavage may be attempted. Pharmacological induction of emesis is unlikely to be of any use. Activated charcoal should be given. There is no specific antidote. Treatment is supportive.

Generalised vasodilation may result in circulatory collapse; raising the patient's legs may suffice, in severe cases volume expansion by intravenous fluids may be needed; infusion fluids should be warmed before administration in order not to aggravate hypothermia.

Positive inotropic agents such as dopamine may be tried if fluid replacement is insufficient to correct the circulatory collapse. Peripheral vasoconstrictor agents are not generally recommended; avoid the use of adrenaline.

Ventricular or supraventricular tachy-arrhythmias usually respond to restoration of normal body temperature and correction of circulatory or metabolic disturbances. If persistent or life threatening, appropriate anti-arrhythmic therapy may be considered. Avoid lignocaine and, as far as possible, long acting anti-arrhythmic drugs.

Pronounced central nervous system depression requires airway maintenance or, in extreme circumstances, assisted respiration. Severe dystonic reactions usually respond

to procyclidine (5 - 10 mg) or orphenedrine (20 - 40 mg) administered intramuscularly or intravenously. Convulsions should be treated with intravenous diazepam.

Neuroleptic malignant syndrome should be treated with cooling. Dantrolene sodium may be tried.

5 PHARMACOLOGICAL PROPERTIES

5.1 Pharmacodynamic properties

Pharmacotherapeutic Group: Antipsychotics, ATC Code: N05AA01.
Chlorpromazine is a phenothiazine neuroleptic.

Chlorpromazine has depressant actions on the Central Nervous System, with alpha-adrenergic blocking and anticholinergic activities. It inhibits dopamine and prolactin release-inhibitory factor, thus stimulating the release of prolactin. It increases the turnover of dopamine in the brain.

It has anti-emetic, anti-puritic, serotonin-blocking and weak anti-histamine properties and slight ganglion blocking activity. It inhibits the heat regulating centre in the brain and is analgesic and can relax skeletal muscle.

Due to its action on the autonomic system, it produces vasodilation, hypotension and tachycardia.

Salivary and gastric secretions are reduced.

5.2 Pharmacokinetic properties

Chlorpromazine is rapidly absorbed and widely distributed in the body. Chlorpromazine is extensively metabolised in the liver by sulfoxidation, N-demethylation, hydroxylation, N-oxidation, glucuronic acid conjugation and possible ring fission. Bioavailability is about 20 to 30% reduced during chronic therapy. A large number of metabolites have been isolated and some of the metabolites are active, particularly 7-hydroxychlorpromazine although less so than the parent drug. Several metabolites may be detected in plasma at concentrations similar to those of chlorpromazine during chronic treatment.

Chlorpromazine is excreted in the urine and bile. About 20 to 70% of an oral dose is excreted in the urine as metabolites, mostly conjugated, with 5% of the dose as the sulphoxide and less than 1% as unchanged drug. About 5% of a dose is eliminated in the faeces as metabolites. Whilst plasma concentration of chlorpromazine itself rapidly declines excretion of chlorpromazine metabolites is very slow. Chlorpromazine metabolites have been detected in urine up to 18 months after discontinuation of long-term treatment. The monodesmethyl, 7-hydroxy and sulphoxide metabolites are taken up by erythrocytes along with traces of the parent drug and its N-oxide. Plasma half-life is 7 to 120 hours. Mean values are usually in the range 15 - 30 hours. Protein binding in plasma is 95 - 98%. It readily diffuses across the placenta. Small quantities

have been detected in milk from treated women. Children require smaller dosages per kg than adults.

5.3 Preclinical safety data

Not available.

6 PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Lactose monohydrate, povidone, magnesium stearate, maize starch, talc, hypromellose, titanium dioxide (E171), polyethylene glycol.

6.2 Incompatibilities

None known.

6.3 Shelf-life

30 months.

6.4 Special precautions for storage

Store below 25°C.

Store in the original tablet container.

6.5 Nature and contents of container

Polypropylene tubes with low density polyethylene caps.

Pack sizes: 25, 28, 50, 56, 100, 250, 500 and 1,000 tablets.

6.6 Special precautions for disposal

Not applicable.

7 MARKETING AUTHORISATION HOLDER

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8 MARKETING AUTHORISATION NUMBER(S)

PL GB 48259/0057

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AUTHORISATION**

28/01/2009

10 DATE OF REVISION OF THE TEXT

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