Professional Information for LERT

SCHEDULING STATUS:

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1. NAME OF THE MEDICINE

LERT 135 mg tablets

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Each tablet contains: Caffeine 135 mg

(from caffeine citrate 90 mg and caffeine anhydrous 90 mg)

Sugar free.

For the full list of excipients, see section 6.1.

3. PHARMACEUTICAL FORM

Tablets.

Round, white, convex tablet, embossed LERT on one side.

4. CLINICAL PARTICULARS

4.1 Therapeutic indications

LERT tablets are indicated to help maintain conditions of wakefulness and increased mental activity.

4.2 Posology and method of administration

Adults: 1 or 2 tablets followed by 1 tablet every 3 hours if necessary.

Not intended for children under the age of 12.

4.3 Contraindications

- Hypersensitivity to caffeine citrate, caffeine anhydrous or to any of the excipients listed in section 6.1.
- History of cardiac disease, kidney disease, epilepsy and all convulsive states.

4.4 Special warnings and precautions for use

LERT tablets must be used with caution in patients with a tendency for hyperacidity. It should be given with care to patients with a history of peptic ulceration. With prolonged use some degree of tolerance and psychic dependency may occur.

LERT tablets should be given with caution to patients with porphyria, hyperthyroidism, hypertension and cardiac arrhythmias.

4.5 Interaction with other medicines and other forms of interaction

Caffeine, as in LERT, undergoes extensive metabolism by hepatic cytochrome P450 isoenzyme CYP1A2, and is subject to many interactions with medicines that may enhance or reduce its metabolic clearance.

Sympathomimetics:

LERT acts synergistically towards the hypertensive and tachycardic effects of sympathomimetics.

Medicines that may reduce caffeine clearance:

- Allopurinol.
- Some antiarrhythmics.
- Cimetidine.
- Disulfiram.
- Fluvoxamine.
- Interferon alfa.
- Macrolide antibacterials and quinolones.

- Oral contraceptives.
- Thiabendazole.
- Viloxazine.

The LERT dose might need to be reduced with concomitant administration.

Medicines that may increase caffeine clearance:

- Ritonavir.
- Rifampicin.
- Sulfinpyrazone.

Concomitant administration might require an increase in the dose or frequency of LERT tablets.

4.6 Fertility, pregnancy and lactation

Safety in pregnancy and lactation has not been established.

Caffeine appears in breast milk. Irritability and poor sleeping pattern in the infant have been reported.

4.7 Effects on ability to drive and use machines

LERT can cause side effects, such as vertigo and can affect the ability to drive a vehicle and use machines. Caution is advised when driving a vehicle or operating machinery until the effects of LERT are known.

4.8 Undesirable effects

Psychiatric disorders:

Frequency unknown: insomnia

Nervous system disorders:

Frequency unknown: convulsions, headache, restlessness, anxiety, excitement, sensory disturbances, muscle tremor

Ear and labyrinth disorders:

Frequency unknown: tinnitus, vertigo

Cardiac disorders:

Frequency unknown: tachycardia, palpitations

Gastrointestinal disorders:

Frequency unknown: nausea, vomiting, abdominal pain, diarrhoea

Renal and urinary disorders:

Frequency unknown: diuresis

Reporting of suspected adverse reactions

Reporting suspected adverse reactions after authorisation of LERT is important. It allows continued monitoring of the benefit/risk balance of LERT. Healthcare providers are asked to report any suspected adverse reactions to SAHPRA via the "**6.04 Adverse Drug Reaction Reporting Form**", found online under SAHPRA's publications: https://www.sahpra.org.za/Publications/Index/8

4.9 Overdose

Symptoms:

Common features include central nervous system (CNS) stimulation, anxiety, nervousness, restlessness, insomnia, excitement, muscle twitching, confusion, convulsions.

Cardiac symptoms include tachycardia, cardiac arrhythmia. Gastric symptoms include abdominal or stomach pains.

Other symptoms of overdosage, associated with the caffeine component, include diuresis and facial flushing.

Treatment:

Treatment of caffeine overdose is primarily symptomatic and supportive. Diuresis should be treated by maintaining fluid and electrolyte balance and CNS symptoms can be controlled by intravenous administration of diazepam.

In cases of overdosage short-acting barbiturates may be given under the direction of a healthcare provider.

5. PHARMACOLOGICAL PROPERTIES

5.1 Pharmacodynamic properties

Category and class: A 1.6 Other central nervous system stimulants.

Pharmacotherapeutic group: Psychoanaleptics xanthine derivatives.

ATC code: N06BC01

LERT is a central nervous system stimulant. Caffeine stimulates all levels of the CNS, although its cortical effects are milder and of shorter duration than those of amphetamines.

5.2 Pharmacokinetic properties

Absorption:

Caffeine is completely and rapidly absorbed after oral administration with peak concentrations occurring between 5 and 90 minutes after oral administration in fasted subjects.

Distribution:

Caffeine distributes into all body fluids. The mean plasma protein binding of caffeine is 35 %.

Biotransformation:

There is no evidence of presystemic metabolism.

Caffeine is metabolised almost completely via oxidation, demethylation, and acetylation, and is excreted in the urine. The major metabolites are 1-methylxanthine, 7-methylxanthine, 1,7-

dimethylxanthine (paraxanthine). Minor metabolites include 1-methyluric acid and 5-acetylamino-6 formylamino 3-methyluracil (AMFU).

Elimination:

Elimination is almost entirely by hepatic metabolism in adults. In adults, marked individual variability in the rate of elimination occurs. The mean plasma elimination half-life is 4,9 hours with a range of 1,9 – 12,2 hours.

6. PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Magnesium stearate.

Maize starch.

Purified talc.

6.2 Incompatibilities

Not applicable.

6.3 Shelf life

2 years.

6.4 Special precautions for storage

Store at or below 25 °C in a dry place.

6.5 Nature and contents of container

Cellophane strip pack of 10 tablets in an outer cardboard carton.

6.6 Special precautions for disposal and other handling

No special requirements.

7. HOLDER OF CERTIFICATE OF REGISTRATION

LeBasi Pharmaceuticals (Pty) Ltd

San Domenico Building, Ground Floor, Unit 6,

10 Church Street,

Durbanville,

7551

8. REGISTRATION NUMBER

B 848 (Wet/Act 101/1965)

9. DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

10 March 1992

10. DATE OF REVISION OF THE TEXT

03 November 2022