SUMMARY OF PRODUCT CHARACTERISTICS

1. NAME OF THE MEDICINAL PRODUCT

Trausan 100 mg/ml, oral solution

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Each ml of solution contains 100 mg of citicoline

Excipients:
Methyl p-hydroxybenzoate (E218), Propyl p-hydroxybenzoate (E216)

For a full list of excipients, see section 6.1.

3. PHARMACEUTICAL FORM

Oral solution.
Clear, slightly yellowish solution.

4. CLINICAL PARTICULARS

4.1 Therapeutic indications

Trausan is indicated in all situations of diminished cerebral function secondary to deficiency in phospholipids metabolism: cerebral atherosclerosis, anxiety-depressive states associated with aging, speech disorders, cerebrovascular disorders and vertigo.

4.2 Posology and method of administration

The posology and dosage should be established at the physician's discretion.

In general, the recommended dose is:
Adults: 100 to 200 mg (1-2 ml), two or three times a day.
Children: 100 mg (1 ml) two or three times a day.

Fill the syringe with the prescribed dose (1-2 ml) and mix the product with a little water.

4.3 Contraindications

Hypersensibility to the drug substance or to any of the excipients.

Trausan should not be administered to patients with parasympathetic hypertonia, as acetylcholine is formed in the metabolic process of citicoline.

Cerebrovascular accidents of hemorrhagic origin.

4.4 Special warning and precautions for use

In case of persistent intracranial hemorrhage it is recommended not to exceed a dose of 1000 mg/day administered intravenously very slowly (30 drops/min).

This product contains parabens. It may cause allergic reactions (possibly delayed).

4.5 Interaction with other medicinal products and other forms of interaction

Combination with meclofenoxate and L-Dopa should be avoided.

Citicoline potentiates the effects of L-Dopa. Experimental studies with heparin and warfarin have shown that citicoline has no significant effect on the results of the prothrombin time or activated partial thromboplastin time and does not alter the clotting time with aspirin or tissue plasminogen activator (t-PA).

Trausan should not be administered concurrently with medication that contains meclofenoxate (centrophenoxine), for possible potentiation of its effect.

4.6 Fertility, pregnancy and lactation

The innocuousness of citicoline during pregnancy and lactation has not been demonstrated; consequently, the product is not indicated in such situations.

4.7 Effects on ability to drive and use machines

There is no evidence of any interference on the ability to drive and use machines.

4.8. Undesirable effects

There have been occasional reports of slight digestive alterations and slight blood pressure reduction.

Insomnia and excitation have been described on intravenous administration. It has been described one case of reversible thrombocytopenia after withdrawal the drug.

4.9. Overdose

Since the product has no toxic effects, overdose is not expected to produce serious consequences.

5 PHARMACOLOGICAL PROPERTIES

5.1. Pharmacodynamic properties

Pharmacotherapeutic group: Psychostimulants, agents used for ADHD and nootropics; Other psychostimulants and nootropics
ATC: N06BX06

Citicoline (Cytidine-5´-diphosphate choline or CDP-choline) is an endogenous compound that promotes the biosynthesis of structural phospholipids of neuronal membranes, favouring the brain metabolism and acting on several neurotransmitters - noradrenaline and dopamine. The biosynthesis of the phospholipids is of paramount importance in the dynamic regulation of cellular integrity and citicoline is a determining factor for the formation of phosphatidylcholine, an essential phospholipid for the structural maintenance of cellular and subcellular membranes. At the same time, it contributes to restore the phospholipid metabolism and improves the use of ATP, inhibiting the activation of phospholipase A2 and accelerating the reabsorption of cerebral oedema in various experimental models. It has also shown a protective effect in cases of hypoxia and ischemia, inhibiting the accumulation of free fatty acid in the brain.

5.2. Pharmacokinetic properties

Citicoline is well absorbed orally, intramuscularly and intravenously. Choline levels in plasma increase significantly by these routes. Oral absorption is practically complete and its bioavailability is approximately the same as in intravenous administration. Citicoline is extensively used by the body. It is metabolised in the gut wall and liver to choline and cytidine. Citicoline is widely distributed throughout the brain structure, while the choline fraction

activates the biosynthesis of structural phospholipids, cytidine incorporates cytidinic nucleotides and nucleic acids. Citicoline crosses the altered blood-brain barrier.

Citicoline reaches the brain and incorporates actively into the cytoplasmic and mitochondrial cell membranes, being part of the structural phospholipid fraction. Approximately 12% of the dose is excreted in expired CO2. Only a small amount of dose appears in the urine and feces (<3%). In the urinary excretion of the drug there are two phases: a first phase, approximately of 36 hours, during which the rate of excretion rapidly decreases, and a second phase in which the excretion rate decreases more slowly. The same applies to excretion through expired CO2, whose elimination rate decreases rapidly during the first fifteen hours to then decrease more slowly.

5.3. Preclinical safety data

There is no preclinical data reporting special risks for the human being, neither there is evidence of toxic effects or of malformations for the foetus derived from the extensive use and from post-marketing Pharmacovigilance data.

6. PHARMACEUTICAL PARTICULARS

6.1. List of excipients

Saccharin sodium (E954)
Caramel aroma
Propyl p-hydroxybenzoate (E216)
Methyl p-hydroxybenzoate (E218)
Potassium Sorbate
Propylene Glycol (E1520)
Ethanol (anhydrous)
Hydrochloric acid (for pH adjustment)
Purified water

6.2 Incompatibilities

Citicoline is slowly hydrolyzed with heat, in acidic pH <3. In a pH close to neutrality it is a very stable product. Citicoline is hygroscopic, however, intake of water does not cause alterations.

6.3. Shelf life

3 years

6.4. Special precautions for storage

Protect from exposure to light.

Store below 25ºC.

6.5. Nature and contents of container

Type III amber glass bottle containing 50 ml of oral solution to be administered with the dosing syringe included in the package.

6.6. Special precautions for disposal and other handling

Trausan should be administered using the dosing syringe included as follows:
1. After opening the bottle, insert the syringe with the plunger pressed down.
2. Aspirate the desired dose (1 or 2 ml).
3. Take the medicine by mixing it with a little water.

After each administration it is recommended to wash the syringe with water.

7. MARKETING AUTHORIZATION HOLDER

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PORTUGAL

8. MARKETING AUTHORIZATION NUMBER

9705814 – 50 ml

9. DATE OF FIRST AUTHORIZATION/ RENEWAL OF AUTHORIZATION

PORTUGAL: 15 February 1989

10. DATE OF TEXT REVISION

2018