SUMMARY PRODUCT CHARACTERISTICS

1. NAME OF THE MEDICINAL PRODUCT

SOMAZINA 1000 mg oral solution

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

SOMAZINA 1000 mg oral solution is supplied in sachets containing 10 ml of solution. Each ml contains 100 mg of citicoline (as sodium salt).

Excipients:
Per ml of solution: 0.005 mg of Ponceau 4-R red colour; 0.4 mg of propyl parahydroxybenzoate; 1.6 mg of methyl parahydroxybenzoate; 200 mg of sorbitol and other excipients in q.s.

For a full list of excipients, see section 6.1.

3. PHARMACEUTICAL FORM

Oral solution.

SOMAZINA 1000 mg oral solution: Sachets containing 10 ml of a transparent and pink-coloured liquid with strawberry smell and taste.

4. CLINICAL PARTICULARS

4.1 Therapeutic indications

- Stroke, Acute phase and its neurological sequelae.
- Traumatic Brain injury and its neurological sequelae.
- Cognitive and behavioural impairment secondary to chronic vascular and degenerative cerebral disorders.

4.2 Posology and method of administration

Adults:
The recommended dose is 1 or 2 sachets per day, depending on the severity of the symptoms to be treated.

It may be taken directly or dissolved in half a glass of water (120 ml), with the meals or between them.

See the instructions for preparation in section 6.6.

4.3.Method of administration

It may be taken directly or dissolved in half a glass of water (120 ml), with the meals or between them.

4.4 Contraindications

In case of allergy to Citicoline or any excipient

It must not be administered to patients with hypertonia of the parasympathetic.

4.5 Special Warnings and precautions for use

Due to Ponceau 4-R red colour, it may cause allergic reactions. It may cause asthma, especially in patients with allergy to acetylsalicylic acid.

Due to Sorbitol, patients with rare hereditary problems of fructose intolerance should not take this medicine**.**

Due to Propyl parahydroxybenzoate and Methyl parahydroxybenzoate it may cause allergic reactions (possibly delayed).

4.6 Paediatric population:

The experience in children is limited; therefore it may only be administered when the expected therapeutical benefit is higher than any possible risk.

4.7 Interaction with other medicinal products and other forms of interaction

Citicoline potentiates the effects of L-Dopa.

It must not be administered in conjunction with medicaments containing Meclofenoxate.

4.8. Additional information on special populations

Elderly

SOMAZINA does not need any specific dose adjustment for this age group.

4.9 Fertility, pregnancy and lactation

There are no adequate data from the use of Citicoline in pregnant women.

SOMAZINA should not be used during pregnancy unless clearly necessary. That is, only when the expected therapeutic benefit is higher than any possible risk (see section 5.3).

4.10 Effects on the ability to drive and use machines

SOMAZINA has no influence on the ability to drive and use of machines.

4.11 Undesirable effects

Very rare (<1/10,000) (include individual notifications)
Psychiatric disorders: hallucinations
Nervous system disorders: cephalea, vertigo
Vascular disorders: arterial hypertension, arterial hypotension
Respiratory, thoracic and mediastinal disorders: dyspnoea
Gastrointestinal disorders: nausea, vomiting, occasional diarrhoea
Skin and subcutaneous tissue disorders: blush, hives, exanthemas, purple
General disorders and administration site conditions: shiver, oedema

4.12 Overdose

No case of overdose has been reported

5. PHARMACOLOGOCAL PROPERTIES

5.1 Pharmacodynamic properties

Pharmacotherapeutic group: Other psychostimulants and nootropics.

ATC code: N06BX06

Citicoline stimulates the biosynthesis of structural phospholipids of the neuronal membrane as it is demonstrated in the magnetic resonance spectroscopy studies. Citicoline, through this action, improves the function of the membrane mechanisms, such as the functioning of the ionic exchange pumps and receptors inserted in the latter, the modulation of which is indispensable in the neurotransmission.

Citicoline due to its membrane stabilising activity has properties which favour brain oedema reabsorption.

Experimental studies have shown that Citicoline inhibits the activation of some phospholipases (A1, A2, C and D), reducing the formation of free radicals, avoiding the destruction of membranous systems and preserving antioxidant defence systems as glutation.

Citicoline preserves the neuronal energetic reserve, inhibits apoptosis and stimulates acetylcholine synthesis

It has been experimentally shown that Citicoline also exerts a prophylactic neuroprotective effect in focal brain ischemic models.

Clinical trials have shown that Citicoline significantly increases the functional evolution of patients with acute ischemic cerebrovascular accident, coinciding with a lower growth of the brain ischemic injury in neuroimagen tests.

In patients with craniocerebral traumatisms, citicoline speeds up their recuperation and reduces the duration and intensity of the post-concussional syndrome.

Citicoline improves the level of attention and consciousness and acts favourably over amnesia and cognitive and neurological disorders associated to brain ischemia.

5.2 Pharmacokinetic properties

Citicoline is well absorbed after oral, intramuscular or intravenous administration. Plasma choline levels significantly increase after the aforementioned routes. Oral absorption is nearly complete and its bioavailability is approximately the same as the intravenous route. The drug product is metabolized in the intestine and in the liver to choline and cytidine. The administered citicoline is widely distributed in brain structures, with a quick incorporation of the choline fraction in structural phospholipids and the cytidine fraction in cytidinic nucleotides and nucleic acids. Citicoline reaches the brain and it is actively incorporated to cellular, cytoplasmatic and mitochondrial membranes, taking part of the structural phospholipids fraction.

Only a small amount of the dose appears in urine and faeces (less than 3 %). Approximately 12 % of the dose is eliminated via expired CO_2. In the urinary excretion of the drug, two phases can be distinguished: a first phase, around 36 hours, where the excretion speed rapidly decreases, and a second phase where excretion speed decreases much slower. The same happens with expired CO_2, the elimination speed rapidly decreases after approximately 15 hours and later it decreases much slower.

5.3 Preclinical safety data

Oral and intraperitoneal chronic toxicity studies (1.5 g/kg/day during 6 months in dogs) did not show significant abnormalities related with the administration of the drug. Intravenous administration of 300-500 mg/kg/day of citicoline during 3 months in dogs, only produced toxic signs immediately after the injection, such as occasional vomiting, diarrhoea and hyper-salivation.

800 mg/kg of Citicoline was administered to albino rabbits during the organogenesis phase, from 7^{th} to 18^{th} gestation day. The animals were sacrificed the 29^{th} day and a detailed exam of foetus and their mothers was carried out. No toxicity sign were observed neither maternal nor embryo-foetal. The effects over organogenesis were inappreciable, only 10 % of the treated foetus has a slight delay in brain osteogenesis.

6. PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Sorbitol, Glycerol, Methyl parahydroxybenzoate, Propyl parahydroxybenzoate, Glycerol formal, Sodium citrate, Sodium saccharin, Ponceau 4-R red colour, Strawberry essence, Potassium sorbate, Citric acid and Purified water.

6.2 Incompatibilities

Not applicable.

6.3 Shelf life

2 years.

6.4 Special precautions for storage

Store below 30º C.

6.5 Nature and contents of the container

Carton box with 10 sachets containing 10 ml of solution each.

6.6 Special precautions for disposal and other handling

It may be taken directly from the sachet or dissolved in half a glass of water (120 ml).

7.MARKETING AUTHORIZATION HOLDER AND MANUFACTURING SITE ADDRESSES

Marketing authorization holder

FERRER INTERNACIONAL,S.A.

Gran Via Carlos III; 94

08028 Barcelona -SPAIN

Manufacturing address

FERRER INTERNACIONAL,S.A.

Joan Buscallà 1-7

08173-Sant Cugat del Vallès (Barcelona)-SPAIN

8.MARKETING AUTHORISATION NUMBER

9.DATE OF FIRST REGISTRATION/RENEWAL OF THE REGISTRATION

10.DATE OF REVISION OF THE TEXT

04/2014