SUMMARY OF PRODUCT CHARACTERISTICS

#### 1. NAME OF THE MEDICINAL PRODUCT

Quanil 500 mg Tablets

# 2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Each film coated tablet contains:

Citicoline sodium equivalent to citicoline......500 mg

For a full list of excipients, see section 6.1.

#### 3. PHARMACEUTICAL FORM:

Film coated tablets

**Description:** White capsule shape film coated plain tablets.

#### 4. CLINICAL PARTICULARS

# 4.1 Therapeutic indications

- Acute phase of a stroke.
- Treatment of complications and consequences of a stroke.
- Craniocerebral injury and its consequences.
- Cognitive, sensitive, motor and neurological disorders caused by cerebral pathology of degenerative or vascular origin.

## 4.2 Posology and method of administration

Recommended dose is 500 to 2000 mg per day (1–4 tablets).

Doses of the preparation and treatment course duration depend on severity of cerebral lesion; they are adjusted by a doctor.

Elderly patients do not need the dose adjustment.

Children: The experience of the drug administration in children is limited, so medication is prescribed only when the expected benefits outweigh any potential risk

# 4.3 Contraindications

- Hypersensitivity to components of the preparation.
- Patients with hypertonia of the parasympathetic nervous system.

## 4.4 Special warnings and precautions for use

The drug contains lactose. If you have known intolerance to some sugars, consult your doctor before taking this medicine.

Quanil preparation should be administered with caution to patients who suffer from trimethylaminuria Parkinson's disease and patients with depression in anamnesis.

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

Citicoline enhances the effects of L-dihydroxyphenylalanine and levodopa. It should not be synchronously used with drugs, which contain meclofenoxate. Alcohol should not be consumed while the preparation usage.

# 4.6 Pregnancy and lactation

Preparation administration during pregnancy and lactation period is possible only in case when the expected benefit for a mother over weights a potential risk for a fetus or baby.

## 4.7 Effects on ability to drive and use machines

In individual cases, some central nervous system adverse reactions may affect the ability to drive a motor transport or operate complicated mechanisms.

Therefore, it is necessary to be caution while driving motor transport or operating other machines during the treatment.

#### 4.8 Undesirable effects

Side effects occur very rarely (< 1/10000), including single cases.

Psychiatric disorders: hallucinations, excitement, insomnia.

Nervous system disorders: headache, dizziness, tremor.

Cardiac disorders: arterial hypertension or hypotension.

Respiratory, thoracic and mediastinal disorders: dyspnea.

Gastrointestinal disorders: nausea, vomiting, gastric pain, hypersalivation, insignificant change of hepatic function indexes, diarrhea.

Skin and subcutaneous tissue disorders: redness, urticaria, exanthem.

General disorders and administration site conditions: increase of body temperature, fever sensation, trembling, edema.

#### 4.9 Overdose

Intoxication appearance is unlikely due to low toxicity, even in cases when the therapeutic doses are accidentally exceeded.

In case of accidental overdose, symptomatic therapy is carried out.

# 5. PHARMACOLOGICAL PROPERTIES

Pharmacotherapeutic group: Psychostimulants, agents used for ADHD and nootropics, ATC code: N06B X06.

#### 5.1 Pharmacodynamics

Quanil is a nootropic preparation. Citicoline as a predecessor of key ultra structural component of cell membrane (mainly phospholipids) has a wide spectrum of action: it promotes a restoration of damaged cell membranes, inhibits an action of phospholipase, preventing a formation of free radicals and prevents cell death by acting on mechanisms of apoptosis.

Quanil is a source of choline, it increases asynthesis of acetylcholine and stimulates biosynthesis of structural (foot) phospholipids in neuron membrane.

It improves the transmission of nerve impulses in cholinergic neurons; it has a positive effect on plasticity of neuronal membranes and receptor function. It improves cerebral blood flow, enhances cerebral metabolic processes and activates the structure of cerebral reticular formation.

In acute phase of a stroke, it reduces the volume of damaged tissue and improves cholinergic transmission.

Quanil alleviates symptoms, which occur during hypoxia and cerebral ischemia, including memory impairment, emotional lability, lack of initiative, difficulty during daily activities and self-service.

In craniocerebral injury it reduces the duration of post-traumatic coma and the severity of neurological symptoms.

Quanil has anti-edema properties and reduces cerebral edema due to its stabilizing effect on neuronal membrane.

It accelerates the recovery and reduces the duration and intensity of post-traumatic syndrome. Quanil is effective in the treatment of cognitive, sensory and motor neurological disorders of degenerative and vascular etiology.

#### **5.2** Pharmacokinetics

Citicoline is well absorbed in oral, intramuscular and intravenous introduction. After the preparation introduction it is observed a significant increase of choline in plasma. The preparation is almost completely absorbed in oral administration. Studies have shown that the bioavailability in per oral and parenteral routes of introduction was similar.

The preparation is metabolized in intestine and liver with the formation of choline and cytidine. After citicoline introduction it is assimilated by cerebral tissues, while cholines act on phospholipids, cytidine – on cytidine nucleoids and nucleic acids. Citicoline quickly reaches cerebral tissues and actively integrates into cell membrane, cytoplasm and mitochondria, activating an activity of phospholipids.

Only a minor part of the introduced dose is excreted with urine and feces (less than 3%). Approximately 12% of introduced dose are excreted via respiratory tract. The preparation excretion via urine and respiratory tract has two phases: first phase – rapid excretion (with urine - within the first 36 hours, via airways – within the first 15 hours), the second phase – slow excretion. A major part of the dose is included in the process of metabolism.

## 5.3 Preclinical safety data

Citicoline seems to be safe when taken short-term. The safety of long-term use is not known.

## 6. PHARMACEUTICAL PARTICULARS

# 6.1. List of excipients

Lactose monohydrate, Microcrystalline cellulose PH101, Povidone K-90, Croscarmellose sodium, Colloidal Silicon Dioxide, Magnesium stearate, Hypromellose, Titanium dioxide, Polyethylene glycol, Talc, Isopropyl alcohol and Dichloromethane.

# **6.2** Incompatibilities

Not applicable

#### 6.3 Shelf life

2 years.

# 6.4 Special precautions for storage

Store at the temperature below 30°C in dry place. Protect from light. Keep all medicines out of reach of children.

#### 6.5 Nature and contents of container

10 tablets are packed in alu-alu blister; 1, 3 and 10 blisters of 10 tablets is packed in a carton along with packaging insert.

# 6.6 Special precautions for disposal and other handling

Not applicable

#### 7. MARKETING AUTHORISATION HOLDER

Kusum Healthcare Pvt. Ltd., SP 289 (A), RIICO Industrial area, Chopanki, Bhiwadi (Rajasthan), India

## **8.** MARKETING AUTHORISATION NUMBER(S)

04846/07068/NMR/2018

#### 9. DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

19 December 2019

### 10. DATE OF REVISION OF THE TEXT

08/2023

#### 11. REFERENCES

SmPC published on electronic medicines compendium <a href="https://www.medicines.org.uk/emc#gref">https://www.medicines.org.uk/emc#gref</a>

The MHRA published product information <a href="https://products.mhra.gov.uk/">https://products.mhra.gov.uk/</a>

Human medicine European public assessment report <a href="https://www.ema.europa.eu/en/medicines">https://www.ema.europa.eu/en/medicines</a>