Summary of product characteristics

1. NAME OF THE MEDICINAL PRODUCT

Panangin® 158 mg/140 mg film-coated tablets

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Each film-coated tablet contains 158 mg potassium aspartate anhydride (in the form of 166.3 mg potassium aspartate hemihydrate) and 140 mg magnesium aspartate anhydride (in the form of 175 mg magnesium aspartate tetrahydrate).

For the full list of excipients, see section 6.1.

3. PHARMACEUTICAL FORM

Film-coated tablet.

White or almost white coloured, slightly polished, almost odourless, biconvex, round, film-coated tablets with a slightly uneven surface.

4. CLINICAL PARTICULARS

4.1 Therapeutic indications

As a supplement for treatment of potassium and magnesium deficiency.
According to the approval of the attending physician:
- as a part of combination therapy of chronic heart disease (heart failure in post-infarction patients), cardiac arrhythmia (ventricular, primarily).
- add-on to cardiac glycoside therapy.

4.2 Posology and method of administration

Posology

Adults
The usual dose is 1 to 2 film-coated tablets three times daily.
The daily dose may be increased to 3 times 3 film-coated tablets.

Paediatric population
Children and adolescents
The safety and efficacy of Panangin film-coated tablets in children and adolescents have not been established. No data are available.

Method of administration

For oral administration.
Gastric acid may reduce the effectiveness of this preparation and therefore, it is recommended to take Panangin after meals.

4.3 Contraindications

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

Acute or chronic renal failure.
Addison's disease.
Grade III atrioventricular block.
Cardiogenic shock (BP <90 mmHg).
Children's age under 18 years.

4.4 Special warnings and precautions for use

Particular caution is necessary in patients suffering from disorders associated with hyperkalaemia. Regular monitoring of serum electrolytes is recommended.

This medicine contains 36.2 mg potassium in each film-coated tablet, to be taken into consideration by patients with reduced kidney function or patients on a controlled potassium diet.

4.5 Interaction with other medicinal products and other forms of interaction

No interaction studies with Panangin have been performed. Based on the scientific literature potassium and magnesium may cause interaction with some medicines. Concomitant administration with potassium-sparing diuretics, ACE inhibitors, beta-blockers, cyclosporine, heparin, non-steroid anti-inflammatory drugs may result in hyperkalaemia.

Oral tetracyclines, ferrous salts and sodium fluoride inhibit the absorption of Panangin. At least 3 hours should elapse between the ingestion of the former drugs and Panangin film-coated tablets.

4.6 Fertility, pregnancy and lactation

There are no data available to suggest that this preparation would exert a deleterious effect in these conditions.

4.7 Effects on ability to drive and use machines

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

4.8 Undesirable effects

Gastrointestinal disorders
Increased stool frequency may occur following the ingestion of larger doses.

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 national reporting system..

4.9 Overdose

No overdose has been reported yet with Pananagin, even in case of high-dose administration.
Given the renal ability to excrete large amount of potassium, increase in intake could result in hyperkalaemia only if associated with subtle or overt defect in potassium excretion.
The therapeutic window of magnesium is wide, and in the absence of renal failure, severe side effects are extremely rare.
According to literature data oral magnesium supplementation can cause mild side effects like diarrhoea.
Larger doses of Panangin film-coated tablets may cause increased stool frequency because of its magnesium content.
During intravenous use in case of rapid administration the symptoms of hyperkalaemia / hypermagnesaemia may occur.

Symptoms of hyperkalaemia: generalised weakness, paraesthesia, bradycardia, paralysis, arrhythmia.
Symptoms of hypermagnesaemia: nausea, vomiting, lethargy, hypotonia, bradycardia, weakness, hyporeflexia.
In case of overdose the administration of the preparation should be suspended and symptomatic treatment is recommended (calcium chloride i.v., dialysis, when necessary).

5. PHARMACOLOGICAL PROPERTIES

5.1 Pharmacodynamic properties

Pharmacotherapeutic group: Other mineral products, ATC code: A12CX

Both Mg^{++} and K^{+} are important intracellular cations with an essential role in the functioning of numerous enzymes, in the binding of macromolecules to subcellular components, as well as in the molecular mechanism of muscle contraction. The ratio of the extra- and intracellular concentration of K^{+}, Ca^{++}, Na^{+}, and Mg^{++} influences myocardial contractility. Aspartate – as an endogenous substance – acts as a suitable ion-transmitter: its affinity is high to cells, its salts dissociate poorly and accordingly, ions enter the cells as complex compounds. Magnesium and sodium aspartate improve the metabolism of the myocardium. Magnesium/potassium deficiency increases the risk of hypertension, atherosclerotic coronary lesions, cardiac arrhythmia, and myocardium abnormalities.

5.2 Pharmacokinetic properties

Magnesium:
Total body stores of Mg^{++} average 24 grams (1000 mmol) for a 70-kg individual, with >60% in bone, nearly 40% in skeletal muscle and in other tissues. Approximately 1% of the total body stores of Mg^{++} can be found in extracellular fluid, primarily in the blood. In normal adults, serum magnesium concentrations range between 0.70-1.10 mmol/l.
The recommended dietary allowance for magnesium is 350 mg per day for a male and 280 mg per day for a female. The magnesium requirement is increased during pregnancy and lactation.
Magnesium is absorbed from the gastrointestinal system via active transport. The kidney is the primary regulator of magnesium balance. 3-5% of ionised magnesium is excreted with the urine. Increase of urine volume (e.g. therapy with a high efficacy loop diuretic) leads to rise of quantity of excreted ionised Mg^{++}. If the absorption of magnesium decreases in the small intestine, the consecutive hypomagnesaemia leads to a reduction of excretion (<0.5 mmol/day).

Potassium:
Total body stores of K^{+} average 140 grams (3570 mmol) for a 70-kg individual. It is somewhat less in women, and it declines slightly with advancing age. 2% of total body K^{+} can be found out of the cells, and the remaining 98% is in the cells.
Optimal potassium intake is 3–4 g (75-100 mmol) daily. The kidney is the major route of potassium excretion, accounting for 90% of potassium loss daily. The remaining 10% is excreted through the gastrointestinal tract. The kidney is, therefore, responsible for long-term potassium homoeostasis, as well as the serum potassium concentration. On short-term basis, serum potassium is also regulated by the shift of potassium between the intracellular and extracellular compartments.

5.3 Preclinical safety data

Non-clinical data from conventional studies have shown that special risk is not expected during human administration of the product.
In acute (single dose) toxicity studies the active ingredients (magnesium-potassium-D,L-aspartate) showed low toxicity.
The acute toxicity of K-Mg-aspartate in mice and rats by intravenous (IV) injection is somewhat less than that the K-chloride; furthermore when given orally or intraperitoneally, no significant difference exists in the toxicity of K-Mg-aspartate and K-chloride.

6. PHARMACEUTICAL PARTICULARS

6.1 List of excipients

silica, colloidal anhydrous,
potato starch,
povidon-K 30,
magnesium stearate,
maize starch,
macrogol 6000,
titanium dioxide (E171),
basic butylated methacrylate copolymer (eudragit E),
talc.

6.2 Incompatibilities

Not applicable.

6.3 Shelf life

5 years.

6.4 Special precautions for storage

Store below 25°C.

6.5 Nature and contents of container

50 film-coated tablets in polypropylene container with PE tamperproof cap combined with PE liner. One container in box with enclosed instruction for medicinal use. 20 film-coated tablets in PVC/PVDC-Aluminium blister, 3 or 5 blisters in box with enclosed instruction for medicinal use.

6.6 Special precautions for disposal and other handling

Medicinal product not subject to medical prescription.

Any unused medicinal product or waste material should be disposed of in accordance with local requirements.

7. MARKETING AUTHORISATION HOLDER

Gedeon Richter Plc.
H-1103 Budapest, Gyömrői út 19-21.
Hungary

8. MARKETING AUTHORISATION NUMBER

N 19515

9. DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

Date of first authorisation: 01 December 1995
Date of latest renewal: 05 February 2021

10. DATE OF REVISION OF THE TEXT