

Rosucot-Gold10

Composition :

Rosuvastatin 10 mg+ Aspirin 75 mg + Clopidogrel 75 mg Tablets

Indications :

Hyperlipidaemia, Prophylaxis of ischaemic events, Acute coronary syndrome

Mechanism Of Action :

Rosuvastatin is a selective and competitive inhibitor of HMG-coenzyme A reductase, the rate-limiting enzyme in cholesterol synthesis. It increases the number of hepatic LDL receptors on the cell surface, enhancing uptake and catabolism of LDL. It also decreases apolipoprotein B, triglycerides and increases HDL.

Aspirin inhibits the formation of thromboxane A₂ in the platelets. This inhibits platelet aggregation and coagulation. This action lasts until the enzyme cyclo-oxygenase is regenerated in the platelets.

Clopidogrel is a prodrug and is metabolised to an active thiol metabolite. The active metabolite selectively inhibits the binding of adenosine diphosphate (ADP) to its platelet receptor and the subsequent ADP-mediated activation of the glycoprotein GP IIb/IIIa complex, thereby inhibiting platelet aggregation.

Pharmacokinetics :

Rosuvastatin :

Absorption : Incompletely absorbed from the GI tract. Time to peak plasma concentration: Approx 5 hr. Absolute bioavailability: Approx 20%.

Distribution : Volume of distribution: 134 L. Plasma protein binding: Approx 90%.

Metabolism : Limited metabolism via CYP2C9 isoenzyme.

Excretion : Via faeces (approx 90%); urine (approx 5% as unchanged drug). Elimination half-life: Approx 19 hr.

Clopidogrel + Aspirin :

Absorption : Aspirin: Rapid absorption (oral). Clopidogrel: Rapid, incomplete absorption.

Distribution : Aspirin: Widely distributed; Protein binding: 80-90%. Clopidogrel: Protein binding: 98% (parent drug).

Metabolism : Aspirin: Hydrolysed to salicylate in the gut wall; salicylate metabolised hepatically. Clopidogrel: Extensive hepatic metabolism; converted to inactive carboxylic acid derivative and thiol derivative (active).

Excretion : Aspirin: Via urine by glomerular filtration, active renal tubular secretion and passive tubular reabsorption; haemodialysis (as salicylate); 15-20 minutes (elimination half-life, parent drug). Clopidogrel: Via urine (50%) and faeces (46%) as unchanged drug and metabolites. Elimination half-life: Approx 6 hr.

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Side Effects :

Rosuvastatin : Headache, dizziness, constipation, nausea, vomiting, abdominal pain, myalgia, chest pain, peripheral oedema, depression, insomnia, rash, paraesthesia, asthenia, abnormal LFT, elevated serum transaminase levels. Potentially Fatal: Severe rhabdomyolysis w/ acute renal failure. Hepatitis, pancreatitis. Rare: Stevens-Johnson syndrome, anaphylaxis, toxic epidermal necrolysis.

Aspirin : GI disturbances, epigastric discomfort, prolonged bleeding time, rhinitis, urticaria; angioedema, salicylism, tinnitus. Clopidogrel: Dyspepsia, abdominal pain, nausea, vomiting, flatulence, constipation, gastritis, gastric and duodenal ulcers. Serious events include bleeding and GI haemorrhage. GI upset, diarrhoea, paraesthesia, vertigo, headache, dizziness, leucopaenia, eosinophilia, rash and pruritus. Potentially Fatal: Aspirin: Gastric erosion, ulceration and bleeding; severe, occasionally fatal exacerbation of airway obstruction in asthma; Reye's syndrome (childn<12 yrs). Hepatotoxicity; CNS depression, which may lead to coma; CV collapse, resp failure; paroxysmal bronchospasm and dyspnoea.

Clopidogrel : Bleeding disorders including GI intracranial haemorrhage and thrombotic thrombocytopenic purpura.

Precaution :

Rosuvastatin : Patients w/ predisposing factors for myopathy (e.g. Untreated hypothyroidism, renal impairment), history of chronic liver disease and alcoholism. Monitoring Parameters Monitor creatine kinase (CK) periodically and LFT. Discontinue treatment if there is significant or persistent increase in CK levels, serum aminotransferase levels or evidence of myopathy.

Clopidogrel + Aspirin : History of peptic ulcer or those prone to dyspepsia and those with gastric mucosal lesion or heavy ethanol consumption; asthma or allergic disorders; tinnitus; dehydrated patients; uncontrolled hypertension; impaired renal or hepatic function; children and elderly; pregnancy. Patients at risk of increased bleeding from trauma, surgery, or other pathological conditions. Increased risk of Reye's syndrome when used in patients with chicken pox, influenza or flu symptoms. Caution when used in patients with nasal allergies or nasal polyps. For patients undergoing elective surgery and an antiplatelet effect is not needed, clopidogrel should be discontinued 7-10 days before surgery.

Dosage :

Rosuvastatin : Adult: PO Hyperlipidaemias; Prophylaxis of CV events in high-risk patients Initial: 5 or 10 mg/day, may increase at 4-wk intervals to 20 mg/day if needed. Max: 40 mg/day.

Clopidogrel + Aspirin : Adult: PO Prevention of ischaemic events Per tablet contains clopidogrel 75 mg and aspirin 75 mg: 1 tablet once daily. Acute coronary syndrome Per tablet contains clopidogrel 75 mg and aspirin 75 mg: Loading dose: 4 tablet; maintenance: 1 tablet/day.