

<p><b>AMLOPERIN® 5 MG/ 5 MG</b> Tablets for Oral use</p> <p><b>AMLOPERIN® 5 MG/ 10 MG</b> Tablets for Oral use</p> <p><b>AMLOPERIN® 10 MG/ 5 MG</b> Tablets for Oral use</p> <p><b>AMLOPERIN® 10 MG/ 10 MG</b> Tablets for Oral use</p> <p><b>AMLOPERIN 5 MG / 5 MG</b> Amlodipine Besilate and Perindopril Erbumine Tablet</p> <p><b>AMLOPERIN 5 MG /10 MG</b> Amlodipine Besilate and Perindopril Erbumine Tablet</p> <p><b>AMLOPERIN 10 MG / 5 MG</b> Amlodipine Besilate and Perindopril Erbumine Tablet</p> <p><b>AMLOPERIN 10 MG /10 MG</b> Amlodipine Besilate and Perindopril Erbumine Tablet</p> <p><b>Composition:</b></p> <p><b>AMLOPERIN 5 MG /5 MG</b> Each uncoated tablet contains: Amlodipine Besilate BP equivalent to Amlodipine ..... 5 mg Perindopril Erbumine BP ..... 5 mg Excipient with known effects: Lactose</p> <p><b>AMLOPERIN 5 MG /10 MG</b> Each uncoated tablet contains: Amlodipine Besilate BP equivalent to Amlodipine ..... 5 mg Perindopril Erbumine BP ..... 10 mg Colour: Approved colour used Excipient with known effects: Lactose</p> <p><b>AMLOPERIN 10 MG /5 MG</b> Each uncoated tablet contains: Amlodipine Besilate BP equivalent to Amlodipine ..... 10 mg Perindopril Erbumine BP ..... 5 mg Colour: Approved colour used Excipient with known effects: Lactose</p> <p><b>AMLOPERIN 10 MG /10 MG</b> Each uncoated tablet contains: Amlodipine Besilate BP equivalent to Amlodipine ..... 10 mg Perindopril Erbumine BP ..... 10 mg Colour: Approved colour used Excipient with known effects: Lactose</p> <p><b>CATEGORY:</b> Angiotensin converting enzyme (ACE) inhibitors and Calcium channel blockers</p> <p><b>PHARMACEUTICAL FORM:</b> Tablet</p> <p><b>ROUTE OF ADMINISTRATION :</b> Oral</p> <p><b>DOSAGE:</b> Perindopril Erbumine/Amlodipine is available in strengths of 5 mg/5 mg, 5 mg/10 mg, 10 mg/5 mg and 10 mg/10 mg as substitution therapy for patients already controlled with separate doses of Perindopril (5 or 10 mg) and Amlodipine (5 or 10 mg) &amp; given concurrently at the dose level as indicated in the table below.</p> <table border="1" data-bbox="134 1433 597 1568"> <thead> <tr> <th>Perindopril Erbumine</th> <th>Amlodipine</th> <th>AMLOPERIN</th> </tr> </thead> <tbody> <tr> <td>5 mg</td> <td>5 mg</td> <td>AMLOPERIN 5MG/5MG</td> </tr> <tr> <td>5 mg</td> <td>10 mg</td> <td>AMLOPERIN 5MG/10MG</td> </tr> <tr> <td>10 mg</td> <td>5 mg</td> <td>AMLOPERIN 10MG/5MG</td> </tr> <tr> <td>10 mg</td> <td>10 mg</td> <td>AMLOPERIN 10MG/10MG</td> </tr> </tbody> </table>	Perindopril Erbumine	Amlodipine	AMLOPERIN	5 mg	5 mg	AMLOPERIN 5MG/5MG	5 mg	10 mg	AMLOPERIN 5MG/10MG	10 mg	5 mg	AMLOPERIN 10MG/5MG	10 mg	10 mg	AMLOPERIN 10MG/10MG	<p>Food intake may reduce hepatic biotransformation of Perindopril to Perindoprilat. Recommended treatment is one tablet per day as a single dose, preferably to be taken in the morning and before a meal. As Perindopril and Amlodipine may be used for different clinical indications, dose adjustments should be based on clinical judgement and the individual patient profile.</p> <p><b>Patients with impaired renal function and elderly patients</b> Elimination of Perindoprilat is decreased in the elderly and in patients with renal failure. Therefore, the usual medical follow-up will include frequent monitoring of creatinine and potassium.</p> <p><b>CLINICAL PHARMACOLOGY:</b></p> <p><b>Pharmacodynamics / Mechanism of action:</b></p> <p><b>Related to Perindopril</b> Perindopril inhibits angiotensin converting enzyme (ACE) both in vitro and in vivo. It is thought that ACE inhibitors reduce blood pressure by inhibiting the enzyme which catalyses the conversion of angiotensin I to angiotensin II. The contribution of this mechanism to the overall antihypertensive effect of Perindopril is unknown. Perindopril may also inhibit the degradation of the potent vasoconstrictor peptide, bradykinin, and this action may contribute to its antihypertensive action. Perindopril appears to reduce peripheral resistance and may influence arterial compliance.</p> <p><b>Related to Amlodipine</b> Amlodipine is a calcium ion influx inhibitor (slow channel blocker or calcium ion antagonist) and inhibits the transmembrane influx of calcium ions into cardiac and vascular smooth muscle. Amlodipine inhibits calcium ion influx across cell membranes selectively, with a greater effect on vascular smooth muscle cells than on cardiac muscle cells. Amlodipine is a peripheral arterial vasodilator that acts directly on vascular smooth muscle to cause a reduction in peripheral vascular resistance and reduction in blood pressure.</p> <p><b>P PHARMACOKINETIC:</b></p> <p><b>Related to Perindopril</b> Following oral administration, Perindopril is rapidly absorbed with bioavailability of 24%. Elimination is rapid, occurring predominantly via the urine. Plasma half-life is approximately 1 hour. Peak plasma concentrations of Perindoprilat occur 3 to 4 hours after oral administration of Perindopril. Protein binding of Perindopril is 20%. The elimination of Perindopril is reduced in elderly patients and in patients with cardiac and renal failure.</p> <p><b>Related to Amlodipine</b> After oral administration of therapeutic doses, Amlodipine is well absorbed with peak blood levels between 6-12 hours postdose. This may reflect significant initial uptake by the liver, followed by a phase of redistribution. Absolute bioavailability has been estimated to be between 64 and 90%. The volume of distribution is approximately 20 L/kg. The terminal plasma elimination half-life is about 35-50 hours and is consistent with once daily dosing. Steady state plasma levels are reached after 7-8 days of consecutive dosing. Amlodipine is extensively metabolised by the liver to inactive metabolites with 10% of the parent compound and 60% of metabolites excreted in the urine.</p> <p><b>INDICATIONS:</b> Amlodipine and Perindopril is indicated as substitution therapy for the treatment of hypertension and/or stable coronary heart disease in patients already controlled with separate doses of Perindopril and Amlodipine, given concurrently at the same dose level.</p> <p><b>CONTRA-INDICATIONS:</b> Amlodipine and Perindopril is contraindicated:</p> <ul style="list-style-type: none"> <li>- In patients with a history of previous hypersensitivity to either of the active ingredients:</li> <li>- Perindopril or Amlodipine, ACE-inhibitors, dihydropyridines</li> <li>- during pregnancy and for lactating women</li> <li>- in patients with bilateral or unilateral renal artery stenosis.</li> <li>- in patients with a history of hereditary and/or idiopathic angio-oedema or angio-oedema associated with previous ACE-inhibitor treatment. - severe hypotension, shock, including cardiogenic shock,</li> <li>- obstruction of the outflow-tract of the left ventricle (e.g. high grade aortic stenosis).</li> <li>- unstable angina pectoris (excluding Prinzmetal's angina).</li> </ul> <p><b>PRECAUTIONS &amp; WARNING:</b> It is recommended that serum electrolytes (including sodium potassium and urea) should be measured from time to time when ACE inhibitors are given, especially when diuretics are also prescribed. Patients with a history of angio-oedema unrelated to ACE inhibitor therapy may be at increased risk of angio-oedema while receiving an ACE inhibitor. Hypotension has been reported in patients commencing treatment with ACE inhibitors.</p>	<p>Excessive hypotension is rarely seen in uncomplicated hypertension but is a potential consequence of Perindopril use in severely salt/volume-depleted patients with impaired renal function, those treated vigorously with diuretics, after severe diarrhoea or patients on dialysis. In patients with severe congestive heart failure whose renal function may depend on RAAS activity, treatment with ACE inhibitors may be associated with oliguria and/or progressive increase in blood nitrogen, and rarely with acute renal failure and/or death. Biotransformation of Perindopril to Perindoprilat mainly occurs in the liver. Studies in patients with impaired hepatic function have shown that kinetic parameters of Perindopril were not modified by hepatic failure. A persistent dry (non-productive) irritating cough has been reported with most of the ACE inhibitors.</p> <p>Neutropenia/agranulocytosis, thrombocytopenia and anaemia have been reported in patients receiving ACE inhibitors. Dermatological reactions characterised by maculo-papular pruritic rashes and sometimes photosensitivity has been reported with another ACE inhibitor. Patients with cardiac failure should be treated with caution.</p> <p><b>Use in Pregnancy – Category D:</b> When pregnancy is diagnosed, treatment with Amlodipine and Perindopril should be stopped immediately, and, if appropriate, alternative therapy should be started.</p> <p><b>Paediatric Use</b> Use of Amlodipine and Perindopril in children is not recommended as no data establishing safety or effectiveness in children are available.</p> <p><b>SIDE EFFECTS /ADVERSE REACTIONS:</b></p> <ul style="list-style-type: none"> <li>• Nervous System disorders: dizziness, vertigo</li> <li>• Cardiac disorders: chest pain, bradycardia</li> <li>• Vascular Disorders: peripheral coldness</li> <li>• Respiratory, Thoracic and Mediastinal Disorders: cough, dyspnoea</li> <li>• Gastro-intestinal disorders: diarrhea,</li> <li>• Skin and Subcutaneous Tissue Disorders: eczema</li> <li>• Musculoskeletal And Connective Tissue Disorders: joint swelling</li> <li>• General Disorders and Administration Site Condition: oedema peripheral</li> <li>• Common: fatigue, lethargy</li> <li>• Musculoskeletal And Connective Tissue Disorders: arthralgia, arthrosis, myalgia, muscle cramps, back pain Rare: muscle weakness, twitching, ataxia, hypertension</li> <li>• Renal and Urinary Disorders: micturition disorder, nocturia, increased urinary frequency</li> <li>Rare: dysuria</li> </ul> <p><b>DRUG INTERACTIONS:</b></p> <p><b>Related to Perindopril component</b> The concomitant use of an ACE inhibitor with a potassium sparing diuretic (e.g. spironolactone, triamterene, or amiloride), potassium supplements, or potassium-containing salt substitute can increase the risk of hyperkalaemia, therefore if coadministration is indicated they should be used with caution and the patient's serum potassium monitored frequently. Reversible increases in serum lithium concentrations and toxicity have been reported during concomitant administration of lithium with ACE inhibitors. The administration of a non-steroidal anti-inflammatory drug may lead to an increased risk of worsening of renal function, including possible acute renal failure, and an increase in serum potassium, especially in patients with poor pre-existing renal function. The use of ACE inhibitors may increase the hypoglycaemic effect in diabetics receiving treatment with insulin or with hypoglycaemic sulphonylureas. The simultaneous administration of tetracycline with an ACE inhibitor may significantly reduce the absorption of tetracycline, possibly due to the magnesium content in the ACE inhibitor tablets.</p> <p><b>Related to Amlodipine component</b> CYP3A4 inducers (rifampicin, Hypericum perforatum, anticonvulsants agents i.e carbamazepine, phenobarbital, phenytoin, primidone) Co-administration may lead to reduced plasma concentration of Amlodipine due to an increase of the hepatic metabolism of Amlodipine by these inducers. Caution should be exercised with this combination and the dose of Amlodipine should be adjusted if necessary.</p> <p>CYP3A4 inhibitors (itraconazole, ketoconazole): Co-administration may increase the plasma concentration of Amlodipine and consequently its adverse effects. Caution should be exercised when combining Amlodipine with itraconazole or ketoconazole and the dose of Amlodipine should be adjusted if necessary.</p> <p>Antihypertensive agents (such as beta-blockers) and vasodilators : Concomitant use of these agents may increase the hypotensive effects of Perindopril and Amlodipine. Concomitant use with nitroglycerine and other nitrates or other vasodilators, may further reduce blood pressure and therefore should be considered with caution.</p> <p>Corticosteroids: Reduction in antihypertensive effect (salt and water retention due to corticosteroids).</p>	<p>Alpha-blockers (prazosin, tamsulosin, terazosin): Increased antihypertensive effect and increased risk of orthostatic hypotension.</p> <p>Amifostine: May potentiate the antihypertensive effect of Amlodipine.</p> <p>Tricyclic antidepressants/antipsychotics/anaesthetics: Increased antihypertensive effect and increased risk of orthostatic hypotension.</p> <p>Aluminum/magnesium (antacids): Co-administration of an aluminum/magnesium antacid with a single dose of Amlodipine had no significant effect on the pharmacokinetics of Amlodipine.</p> <p><b>OVERDOSE TREATMENT:</b> Related to Perindopril component Limited data are available for overdosage in humans. Symptoms associated with overdosage of ACE inhibitors may include hypotension, circulatory shock, electrolyte disturbances, renal failure, hyperventilation, tachycardia, palpitations, bradycardia, dizziness, anxiety, and cough. The recommended treatment of overdosage is intravenous infusion of normal saline solution. If hypotension occurs, the patient should be placed in the shock position. Perindopril may be removed from the general circulation by haemodialysis.</p> <p><b>Related to Amlodipine component</b> Available data suggest that overdose might be expected to cause excessive peripheral vasodilation with marked hypotension and possibly a reflex tachycardia. Dysrhythmias may occur following overdose with any calcium antagonists. Hypotension and bradycardia are usually seen within 1 to 5 hours following overdose. Cardiac rhythm</p>
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