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Adocor® 50

Active ingredient: Captopril

Adocor 50 contains captopril, an active substance belonging to the group of ACE inhibitors. In hypertensive patients the administration of captopril results in a reduction of blood pressure in both supine and standing positions without increasing the heart rate. In patients with heart failure cardiac preload and afterload are decreased and clinical improvement is achieved.

Composition:

Each tablet contains: Active ingredient: 50 mg captopril

Indications:

Hypertension. Heart failure – concomitant administration of captopril and diuretics; especially in severe cases concomitant administration of captopril and digitalis.

Contraindications:

Adocor 50 must not be used in hypersensitivity to captopril, in patients prone to angioneurotic oedema (also patients who have experienced angioneurotic oedema during treatment with any other ACE inhibitor), renal artery stenosis (in both kidneys or in one kidney if this is the only one), in patients who have undergone renal transplantation, aortic stenosis or mitral valve stenosis or other kinds of outflow disorders of the left cardiac ventricle (e.g. hypertrophic cardiomyopathia), primary elevation of aldosterone concentrations in the blood, pregnancy (prior to treatment the possibility of pregnancy should be ruled out; during treatment contraceptive measures have to be taken), nursing mothers (nursing should be discontinued), children.

Adocor 50 should only be used after careful assessment of benefit and risk and if regular monitoring of certain clinical findings and laboratory parameters is assured in severe renal function disorders (clearance of creatinine < 30 ml/min), dialysis, proteinuria (total urinary proteins greater than 1 g per day), severe disorders of electrolytes, primary hepatic disease or hepatic function disorders, impaired immunological reaction or collagen vascular disease (e.g. Lupus erythematosus, scleroderma), concomitant therapy with drugs known to affect the immune response (e.g. corticoids, cytostatic agents, antimetabolites), allopurinol, procainamide or lithium.

Concomitant use of captopril and polyacrylnitril-methallylsulphonate-high-flux membranes (e.g. "AN 69") during dialysis treatment may result in hypersensitivity reactions (anaphylactoid reactions) and even shock. This combination should thus be avoided by using other drugs – no ACE inhibitors – indicated in hypertension and heart failure and by using other membranes for dialysis. In patients undergoing low density lipoprotein apheresis with dextrane sulphate absorption (in case of severe hyper-cholesterinemia) concomitant administration of ACE inhibitors was reported to cause anaphylactoid reactions. These patients should not receive ACE inhibitors. Furthermore, patients receiving ACE inhibitors and who simultaneously have an extra-corporeal treatment involving contact of blood or plasma with surfaces with negative charge should be closely monitored. The indication for treatment with Adocor 50 should be discussed carefully. In patients suffering from hypersensitivity to insect toxins and undergoing desensitization treatment, concomitant administration of ACE inhibitors increases the risk of life-threatening anaphylactoid reactions. Prior to desensitization treatment with ACE inhibitors should thus be discontinued. They should not be substituted by beta-receptor blocking agents.

<u>Pregnancy and nursing mothers:</u> Prior to the administration of ACE inhibitors to women of child-bearing age the possibility of pregnancy has to be ruled out. During treatment with Adocor 50 these women should take suitable contraceptive measures. If a pregnancy occurs during treatment with Adocor 50, the drug has to be discontinued and the physician should choose a treatment that is less dangerous for the fetus. Especially if Adocor 50 are taken during the second and third trimester of pregnancy there is a risk to the fetus.

Prior to treatment with Adocor 50 nursing should be discontinued.

<u>Precaution measures:</u> Prior to administration of Adocor 50 renal function has to be monitored. Especially during the initial phase of therapy with Adocor 50 blood pressure and/or certain laboratory parameters should be carefully monitored in patients with hyponatremia or volume depletion, patients suffering from impaired renal function or severe hypertension or hypertension caused by renal diseases or severe heart failure, elderly patients (over 65).

Side effects:

Cardiovascular system: Occasionally, especially when starting therapy with captopril, in patients suffering from hyponatremia and/or volume depletion (e.g. in case of a preceding treatment with diuretics), heart failure, severe hypertension or hypertension due to renal disease or when the dose of diuretics and/or captopril is increased an excessive hypotensive effect (hypotension, orthostasis) with signs and symptoms such as vertigo, a feeling of weakness, blurred vision, rarely syncope may occur. In isolated cases the following side effects have been reported to accompany an excessive hypotensive effect of ACE inhibitors: tachycardia, palpitation, rhythm disturbances, angina pectoris, myocardial infarction, TIA, cerebral insult.

Kidney: Occasionally renal function disorders may occur or be aggravated. They may in isolated cases result in acute renal failure. Proteinuria has been observed rarely. It has in some cases been accompanied by a deterioration of renal function.

Respiratory tract: Occasionally: dry chesty cough and bronchitis. Rarely: dyspnoea, sinusitis, rhinitis. Isolated cases of bronchospasm, glossitis, dry mouth, alveolitis and eosinophilic pneumonia have been described. In isolated cases angioneurotic oedema involving larynx, glottis and/or tongue has been seen in patients treated with ACE inhibitors. Emergency therapy includes the subcutaneous application of 0.3–0.5 mg epinephrine or the slow intravenuous application of 0.1 mg epinephrine (follow instructions for dilution, ECG and monitoring of blood pressure!). The epinephrine application should be followed by the administration of glucocorticoids. Furthermore the application of antihistaminic agents and H₂ receptor antagonists is recommended. In case of known deficiency of C₁ inactivator the C₁ inactivator may be administered.

Digestive: Occasionally: nausea, abdominal pain, indigestion. Rarely: vomiting, diarrhoea, constipation and loss of appetite. Isolated cases of cholestatic icterus, hepatic function disorders, hepatitis, pancreatitis and ileus have been reported during treatment with ACE inhibitors as well as a syndrome starting with cholestatic icterus followed by progressive hepatic necrosis (sometimes fatal). A causal relationship cannot be accurately determined. If in patients receiving ACE inhibitors an icterus or a significant increase in liver enzyme levels occurs treatment with ACE inhibitors should be discontinued and patients should remain under medical supervision.

Skin, vessels: Occasionally hypersensitivity reactions, e.g. exanthema, rarely urticaria or pruritus as well as angioneurotic oedema involving lips, face and/or the extremities may occur. In isolated cases severe skin reactions such as erythema multiforme and pemphigoide cutaneous reactions have been described. In isolated cases these cutaneous reactions may be associated with fever, myalgia, arthralgia/arthritis, vasculitis or altered laboratory findings (eosinophilia, leucocytosis and/or increased ANA titers). In some patients who during preceding desensitization against animal toxins (e.g. bee sting, wasp sting) had received another ACE inhibitor, life-threatening anaphylactoid reactions occurred. Reactions disappeared after discontinuation of treatment with the ACE inhibitor. They reappeared during inadvertent treatment with the ACE inhibitor in question. Patients who do not show any hypersensitivity to insect toxins may also show anaphylactoid reactions when they have bee stings or wasp stings while receiving ACE inhibitors.

Under treatment with ACE inhibitors isolated cases of the following adverse reactions occurred: psoriasis-like skin reactions, photosensitivity, alopecia, oncholysis, more frequent angiospasms in patients with Raynaud's syndrome. In case of signs indicating a severe cutaneous reaction patients should immediately consult their physician. If necessary, treatment with Adocor 50 should be discontinued.

Nervous system: Occasionally: headache, fatigue. Rarely: somnolence, depression, insomnia, impotence, a prickling sensation, paresthesia, imbalance, confusion, tinnitus, blurred vision, diminuition or temporary loss of taste perception.

Laboratory findings: Occasionally there may be lower concentrations of hemoglobine, hematokrit, leucocytes or erythrocytes. Especially in patients with renal impairment, collagen vascular disease or in concomitant treatment with allopurinol, procainamide or drugs known to affect the immune response rare cases of anemia, thrompocytopenia, neutropenia or eosinophilia have been noted. In isolated cases agranulocytosis or pancytopenia have occurred. Isolated cases of hemolysis/hemolytic anemia with or without G-6-PDH deficiency have been reported. It is not clear whether these symptoms are related to ACE inhibitors.

Especially in patients with renal function disorders serum concentrations of urea, creatinine and potassium may be increased in rare cases. Serum sodium levels may be reduced. In patients with diabetes mellitus an elevation of serum potassium has been observed. Proteinuria may develop. In isolated cases elevations of bilirubin and liver enzymes may occur.

Notes: The above mentioned laboratory parameters should be regularly monitored prior to and during treatment with Adocor 50. Especially when treatment is initiated and in patients particularly at risk (including patients with renal function disorders or collagen vascular disease, patients receiving allopurinol, procainamide or drugs known to affect the immune response) serum electrolytes, creatinine levels and the blood count should be checked if necessary.

If during treatment with Adocor 50 signs and symptoms such as fever, swelling of the lymph nodes and/or pharyngitis occur patients should immediately consult their physician to have white blood cell counts evaluated. If during treatment with Adocor 50 any side effects occur which are not described in this patient information leaflet, please inform your physician or pharmacist.

This drug, even if taken as prescribed, may influence the patient's reactions and have adverse effects on the ability to drive or use machines, especially if alcohol is consumed at the same time.

Interactions with other drugs:

Sodium chloride reduces the hypotensive effect of Adocor 50 and will lead to less improvement of symptoms of heart failure. Hypotensive drugs increase the hypotensive effect of Adocor 50, especially when diuretics are administered simultaneously. Analgesics and anti-inflammatory drugs (e.g. acetylsalicyclic acid, indometacine) possibly reduce the hypotensive effect of Adocor 50.

Potassium, potassium-sparing agents (e.g. spironolactone, amiloride, triamterene) and other drugs (e.g. heparin) increasing serum potassium lead to potentiated increase of serum potassium.

Concomitant application of Adocor 50 with <u>Lithium</u> results in increased serum lithium levels (regular monitoring!)

The effects of alcohol are potentiated.

Barbiturates, narcotics lead to an increased hypotensive effect (the physician responsible for anesthesia has to be informed on the Adocor 50 therapy!).

Concomitant treatment with allopurinol, drugs known to affect the immune response (cytostatics, immunosuppressants, systemic corticoids) or procainamide will result in leucocytopenia.

Insulin and oral antidiabetics (biguanides, sulfonyl ureas): During concomitant treatment of these drugs and ACE inhibitors hypoglycemia may occur, especially when therapy with ACE inhibitors is started and when the dosage is increased. Patients should then immediately consult their physician who will adjust the dose of the ACE inhibitor or the antidiabetic agent. Captopril should not be administered together with polyacrylnitril-methallylsulphonate-high-flux membranes (e.g. "AN 69") (see CONTRAINDICATIONS).

Dosage and mode of application:

Especially in patients suffering from hyponatremia or volume depletion (e.g. resulting from dialysis, vomiting/diarrhoea or treatment with diuretics), heart failure, severe hypertension or hypertension caused by renal disease there might be an important fall in blood pressure when the treatment with Adocor 50 is started. Therefore hyponatremia and/or volume depletion should be treated prior to starting a therapy with Adocor 50. The diuretic should be discontinued or the dose adjusted. In these patients the initial dose should not exceed 6.25 mg administered in the morning. After application of the initial dose and whenever the dose of captopril and/or loop diuretics is increased the patient should stay under close medical supervision for about two hours to avoid uncontrolled excessive hypotension.

Patients suffering from severe hypertension (malignant hypertension) or severe heart failure should be hospitalized to initiate treatment with Adocor 50.

Your physician will decide on the duration of treatment individually. Unless otherwise instructed the following dosage instructions apply:

<u>Hypertension:</u> The usual initial dose is 12.5 mg in the morning and 12.5 mg in the evening. If the reduction of blood pressure is not satisfactory, the dose may be increased to 25 mg twice daily or 50 mg once a day $(2x^1/2 \text{ or } 1x1 \text{ tablet})$. The dose may be increased three weeks after the initiation of therapy. The usual maintenance dose is 50 mg daily (1 tablet). A maximum daily dose of 150 mg (3 tablets) should not be exceeded.

Heart failure: Adocor 50 may be administered in addition to a diuretic or digitalis. The usual initial dose is 6.25 mg in the morning and 6.25 mg in the evening. If a dosage increase is necessary the dose should only be increased gradually depending on the individual response of each patient. The usual maintenance dose is 25-75 mg daily (1/2-11/2 tablets). In isolated cases the administration of a maximum dose of 150 mg daily (3 tablets) may be indicated.

Dosage in elderly patients (over 65 years) and patients suffering from hepatic insufficiency: The usual initial dose is 6.25 mg in the morning and 6.25 mg in the evening. The usual maintenance dose is 25-50 mg of captopril daily (1/2-1 tablet). A maximum daily dose of 100 mg (2 tablets) should not be exceeded.

Dosage in less severe renal impairment (creatinine clearance 20 - 59 ml/min or serum creatinine 1.8 - 5 mg/dl): The usual initial dose is 6.25 mg in the morning and 6.25 mg in the evening. The usual maintenance dose is 25 - 50 mg of captopril daily (1/2-1) tablet). A maximum daily dose of 75 mg (11/2) tablets should generally not be exceeded.

Dosage in severe renal function disorders (creatinine clearance \leq 20 ml/min or serum creatinine \geq 5 mg/dl): The recommended daily dose is 6.25-25 mg (up to $\frac{1}{2}$ tablet).

Adocor 50 tablets should be swallowed whole with a drink of water and may be taken independently of meals. The total daily dose stated should be divided into two or three smaller doses. Daily doses of 50 mg captopril or more may be taken at once.

Notes: Store below 25 °C. Adocor 50 should not be applied after the expiry date.

Keep drugs out of the reach of children!