

**SUMMARY OF PRODUCT CHARACTERISTICS,  
LABELLING AND PACKAGE LEAFLET**

## **SUMMARY OF PRODUCT CHARACTERISTICS**

## 1. NAME OF THE MEDICINAL PRODUCT

COVERAM 5mg/5mg tablets

[COVERAM 5mg/10mg tablets]

[COVERAM 10mg/5mg tablets]

[COVERAM 10mg/10mg tablets]

## 2. QUALITATIVE AND QUANTITATIVE COMPOSITION

One tablet contains 3.395 mg perindopril equivalent to 5 mg perindopril arginine and 6.935 mg amlodipine besilate equivalent to 5 mg amlodipine.

[One tablet contains 3.395 mg perindopril equivalent to 5 mg perindopril arginine and 13.870 mg amlodipine besilate equivalent to 10 mg amlodipine]

[One tablet contains 6.790 mg perindopril equivalent to 10 mg perindopril arginine and 6.935 mg amlodipine besilate equivalent to 5 mg amlodipine]

[One tablet contains 6.790 mg perindopril equivalent to 10 mg perindopril arginine and 13.870 mg amlodipine besilate equivalent to 10 mg amlodipine]

Excipient: lactose monohydrate.

For a full list of excipients, see section 6.1.

## 3. PHARMACEUTICAL FORM

Tablet.

White, rod-shaped tablet engraved with 5/5 on one face and  on the other face.

[White, square-shaped tablet engraved with 5/10 on one face and  on the other face.]

[White, triangular-shaped tablet engraved with 10/5 on one face and  on the other face.]

[White, round tablet engraved with 10/10 on one face and  on the other face.]

## 4. CLINICAL PARTICULARS

### 4.1 Therapeutic indications

COVERAM is indicated as substitution therapy for treatment of essential hypertension and/or stable coronary artery disease, in patients already controlled with perindopril and amlodipine given concurrently at the same dose level.

### 4.2 Posology and method of administration

Oral route.

One tablet per day as a single dose, preferably to be taken in the morning and before a meal.

The fixed dose combination is not suitable for initial therapy.

If a change of posology is required, the dose of COVERAM could be modified or individual titration with free combination may be considered.

*Patients with renal impairment and elderly (see sections 4.4 and 5.2)*

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.

COVERAM can be administered in patients with  $Cl_{cr} \geq 60$  ml/min, and is not suitable for patients with  $Cl_{cr} < 60$  ml/min. In these patients, an individual dose titration with the monocomponents is recommended.

Changes in amlodipine plasma concentrations are not correlated with degree of renal impairment.

*Patients with hepatic impairment: see sections 4.4 and 5.2*

A dosage regimen for patients with hepatic impairment has not been established. Therefore, COVERAM should be administered with caution.

*Children and adolescents*

COVERAM should not be used in children and adolescents as the efficacy and tolerability of perindopril and amlodipine, alone or in combination, have not been established in children and adolescents.

### **4.3 Contraindications**

*Linked to perindopril:*

- Hypersensitivity to perindopril or to any other ACE inhibitor,
- History of angioedema associated with previous ACE inhibitor therapy,
- Hereditary or idiopathic angioedema,
- Second and third trimesters of pregnancy (see sections 4.4 and 4.6).

*Linked to amlodipine:*

- Severe hypotension,
- Hypersensitivity to amlodipine or to any other dihydropyridines,
- Shock, including cardiogenic shock,
- Obstruction of the outflow-tract of the left ventricle (e.g. high grade aortic stenosis),
- Unstable angina pectoris (excluding Prinzmetal's angina),
- Heart failure after acute myocardial infarction (during the first 28 days).

*Linked to COVERAM:*

All contraindications related to each monocomponent, as listed above, should apply also to the fixed combination of COVERAM.

- Hypersensitivity to any of the excipients.

### **4.4 Special warnings and precautions for use**

All warnings related to each monocomponent, as listed below, should apply also to the fixed combination of COVERAM.

*Linked to perindopril*

#### *Special warnings*

*Hypersensitivity/Angioedema:*

Angioedema of the face, extremities, lips, mucous membranes, tongue, glottis and/or larynx has been reported rarely in patients treated with ACE inhibitors, including perindopril (see section 4.8). This may occur at any time during therapy. In such cases, COVERAM should promptly be discontinued and appropriate monitoring should be initiated and continued until complete resolution of symptoms has occurred. In those instances where swelling was confined to the face and lips the condition generally resolved without treatment, although antihistamines have been useful in relieving symptoms.

Angioedema associated with laryngeal oedema may be fatal. Where there is involvement of the tongue, glottis or larynx, likely to cause airway obstruction, emergency therapy should be administered promptly. This may include the administration of adrenaline and/or the maintenance of a patent airway. The patient should be under close medical supervision until complete and sustained resolution of symptoms has occurred.

Patients with a history of angioedema unrelated to ACE inhibitor therapy may be at increased risk of angioedema while receiving an ACE inhibitor (see section 4.3).

Intestinal angioedema has been reported rarely in patients treated with ACE inhibitors. These patients presented with abdominal pain (with or without nausea or vomiting); in some cases there was no prior facial angioedema and C-1 esterase levels were normal. The angioedema was diagnosed by procedures including abdominal CT scan, or ultrasound or at surgery and symptoms resolved after stopping the ACE inhibitor. Intestinal angioedema should be included in the differential diagnosis of patients on ACE inhibitors presenting with abdominal pain (see section 4.8).

*Anaphylactoid reactions during low-density lipoproteins (LDL) apheresis:*

Rarely, patients receiving ACE inhibitors during low-density lipoprotein (LDL) apheresis with dextran sulphate have experienced life-threatening anaphylactoid reactions. These reactions were avoided by temporarily withholding ACE inhibitor therapy prior to each apheresis.

*Anaphylactoid reactions during desensitisation:*

Patients receiving ACE inhibitors during desensitisation treatment (e.g. hymenoptera venom) have experienced anaphylactoid reactions. In the same patients, these reactions have been avoided when the ACE inhibitors were temporarily withheld, but they reappeared upon inadvertent rechallenge.

*Neutropenia/Agranulocytosis/Thrombocytopenia/Anaemia:*

Neutropenia/agranulocytosis, thrombocytopenia and anaemia have been reported in patients receiving ACE inhibitors. In patients with normal renal function and no other complicating factors, neutropenia occurs rarely. Perindopril should be used with extreme caution in patients with collagen vascular disease, immunosuppressant therapy, treatment with allopurinol or procainamide, or a combination of these complicating factors, especially if there is pre-existing impaired renal function. Some of these patients developed serious infections, which in a few instances did not respond to intensive antibiotic therapy. If perindopril is used in such patients, periodic monitoring of white blood cell counts is advised and patients should be instructed to report any sign of infection (e.g. sore throat, fever).

*Pregnancy:*

ACE inhibitors should not be initiated during pregnancy. Unless continued ACE inhibitors is considered essential, patients planning pregnancy should be changed to alternative antihypertensive treatments which have an established safety profile for use in pregnancy. When pregnancy is diagnosed, treatment with ACE inhibitors should be stopped immediately, and, if appropriate, alternative therapy should be started (see sections 4.3 and 4.6).

*Precautions for use*

*Hypotension:*

ACE inhibitors may cause a fall in blood pressure. Symptomatic hypotension is seen rarely in uncomplicated hypertensive patients and is more likely to occur in patients who have been volume-depleted e.g. by diuretic therapy, dietary salt restriction, dialysis, diarrhoea or vomiting, or who have severe renin-dependent hypertension (see sections 4.5 and 4.8). In patients at high risk of symptomatic hypotension, blood pressure, renal function and serum potassium should be monitored closely during treatment with COVERAM. Similar considerations apply to patients with ischaemic heart or cerebrovascular disease in whom an excessive fall in blood pressure could result in a myocardial infarction or cerebrovascular accident.

If hypotension occurs, the patient should be placed in the supine position and, if necessary, should receive an intravenous infusion of sodium chloride 9 mg/ml (0.9%) solution. A transient hypotensive response is not a contraindication to further doses, which can be given usually without difficulty once the blood pressure has increased after volume expansion.

#### *Aortic and mitral valve stenosis / hypertrophic cardiomyopathy:*

As with other ACE inhibitors, perindopril should be given with caution to patients with mitral valve stenosis and obstruction in the outflow of the left ventricle such as aortic stenosis or hypertrophic cardiomyopathy.

#### *Renal impairment:*

In cases of renal impairment (creatinine clearance < 60 ml/min) an individual dose titration with the monocomponents is recommended (see section 4.2).

Routine monitoring of potassium and creatinine are part of normal medical practice for patients with renal impairment (see section 4.8).

In some patients with bilateral renal artery stenosis or stenosis of the artery to a solitary kidney, who have been treated with ACE inhibitors, increases in blood urea and serum creatinine, usually reversible upon discontinuation of therapy, have been seen. This is especially likely in patients with renal insufficiency. If renovascular hypertension is also present there is an increased risk of severe hypotension and renal insufficiency. Some hypertensive patients with no apparent pre-existing renal vascular disease have developed increases in blood urea and serum creatinine, usually minor and transient, especially when perindopril has been given concomitantly with a diuretic. This is more likely to occur in patients with pre-existing renal impairment.

#### *Hepatic failure:*

Rarely, ACE inhibitors have been associated with a syndrome that starts with cholestatic jaundice and progresses to fulminant hepatic necrosis and (sometimes) death. The mechanism of this syndrome is not understood. Patients receiving ACE inhibitors who develop jaundice or marked elevations of hepatic enzymes should discontinue the ACE inhibitor and receive appropriate medical follow-up (see section 4.8).

#### *Race:*

ACE inhibitors cause a higher rate of angioedema in black patients than in non-black patients.

As with other ACE inhibitors, perindopril may be less effective in lowering blood pressure in black people than in non-blacks, possibly because of a higher prevalence of low-renin states in the black hypertensive population.

#### *Cough:*

Cough has been reported with the use of ACE inhibitors. Characteristically, the cough is non-productive, persistent and resolves after discontinuation of therapy. ACE inhibitor-induced cough should be considered as part of the differential diagnosis of cough.

#### *Surgery/Anaesthesia:*

In patients undergoing major surgery or during anaesthesia with agents that produce hypotension, COVERAM may block angiotensin II formation secondary to compensatory renin release. The treatment should be discontinued one day prior to the surgery. If hypotension occurs and is considered to be due to this mechanism, it can be corrected by volume expansion.

#### *Hyperkalemia:*

Elevations in serum potassium have been observed in some patients treated with ACE inhibitors, including perindopril. Risk factors for the development of hyperkalemia include those with renal insufficiency, worsening of renal function, age (> 70 years), diabetes mellitus, intercurrent events, in particular dehydration, acute cardiac decompensation, metabolic acidosis, and concomitant use of potassium-sparing diuretics (e.g. spironolactone, eplerenone, triamterene, or amiloride), potassium supplements or potassium-containing salt substitutes; or those patients taking other drugs associated with increases in serum potassium (e.g. heparin). The use of potassium supplements, potassium-sparing diuretics, or potassium-containing salt substitutes particularly in patients with impaired renal function may lead to a significant increase in serum potassium. Hyperkalemia can cause serious, sometimes fatal arrhythmias. If concomitant use of perindopril

and any of the above mentioned agents is deemed appropriate, they should be used with caution and with frequent monitoring of serum potassium (see section 4.5).

*Diabetic patients:*

In diabetic patients treated with oral antidiabetic agents or insulin, glycaemic control should be closely monitored during the first month of treatment with an ACE inhibitor (see section 4.5).

*Linked to amlodipine:*

*Precautions for use*

*Patients with impaired hepatic function:*

As with all calcium antagonists, amlodipine's half-life is prolonged in patients with impaired liver function. The drug should therefore be administered with caution in these patients and with a close monitoring of the hepatic enzymes.

*Patients with heart failure:*

Patients with cardiac failure should be treated with caution.

In a long-term, placebo controlled study (PRAISE-2) of amlodipine in patients with NYHA III and IV heart failure of nonischaemic aetiology, amlodipine was associated with increased reports of pulmonary oedema despite no significant difference in the incidence of worsening heart failure as compared to placebo (see section 5.1).

*Linked to COVERAM*

All warnings related to each monocomponent, as listed above, should apply also to the fixed combination of COVERAM.

*Precautions for use*

*Excipients:*

Due to the presence of lactose, patients with rare hereditary problems of galactose intolerance, glucose-galactose malabsorption, or the Lapp lactase deficiency should not take this medicinal product.

*Interactions*

The concomitant use of COVERAM with lithium, potassium-sparing diuretics or potassium supplements, or dantrolene is not recommended (see section 4.5).

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

*Linked to perindopril*

*Concomitant use not recommended:*

*Potassium sparing diuretics, potassium supplements or potassium-containing salt substitutes:*

Although serum potassium usually remains within normal limits, hyperkalaemia may occur in some patients treated with perindopril. Potassium sparing diuretics (e.g. spironolactone, triamterene, or amiloride), potassium supplements, or potassium-containing salt substitutes may lead to significant increases in serum potassium. Therefore the combination of perindopril with the above-mentioned drugs is not recommended (see section 4.4). If concomitant use is indicated because of demonstrated hypokalaemia they should be used with caution and with frequent monitoring of serum potassium.

*Lithium:*

Reversible increases in serum lithium concentrations and toxicity (severe neurotoxicity) have been reported during concurrent use of ACE inhibitors. The combination of perindopril with lithium is not recommended. If the combination proves necessary, careful monitoring of serum lithium levels is recommended (see section 4.4).

*Estramustine:*

Risk of increased adverse effects such as angioneurotic oedema (angioedema).

*Concomitant use which requires special care:*

*Non-steroidal anti-inflammatory medicinal products (NSAIDs) including aspirin  $\geq 3$  g/day:*

When ACE-inhibitors are administered simultaneously with non-steroidal anti-inflammatory drugs (i.e. acetylsalicylic acid at anti-inflammatory dosage regimens, COX-2 inhibitors and non-selective NSAIDs), attenuation of the antihypertensive effect may occur. Concomitant use of ACE-inhibitors and NSAIDs 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 combination should be administered with caution, especially in the elderly. Patients should be adequately hydrated and consideration should be given to monitoring renal function after initiation of concomitant therapy, and periodically thereafter.

*Antidiabetic agents (insulin, hypoglycaemic sulphonamides):*

The use of angiotensin converting enzyme inhibitors may increase the hypoglycaemic effect in diabetics receiving treatment with insulin or with hypoglycaemic sulphonamides. The onset of hypoglycaemic episodes is very rare (there is probably an improvement in glucose tolerance with a resulting reduction in insulin requirements).

*Concomitant use to be taken into consideration:*

*Diuretics:*

Patients on diuretics, and especially those who are volume and/or salt depleted, may experience excessive reduction in blood pressure after initiation of therapy with an ACE inhibitor. The possibility of hypotensive effects can be reduced by discontinuation of the diuretic, by increasing volume or salt intake prior to initiating therapy with low and progressive doses of perindopril.

*Sympathomimetics:*

Sympathomimetics may reduce the antihypertensive effects of ACE inhibitors.

*Gold:*

Nitritoid reactions (symptoms include facial flushing, nausea, vomiting and hypotension) have been reported rarely in patients on therapy with injectable gold (sodium aurothiomalate) and concomitant ACE inhibitor therapy including perindopril.

*Linked to amlodipine*

*Concomitant use not recommended:*

Dantrolene (infusion): In animals, lethal ventricular fibrillations are observed after administration of verapamil and dantrolene I.V. By extrapolation, the combination of amlodipine and dantrolene should be avoided.

*Concomitant use which requires special care:*

CYP3A4 inducers (rifampicine, Hypericum perforatum, anticonvulsant agents i.e carbamazepine, phenobarbital, phenytoine, fosphenytoine, 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 in combination of amlodipine with CYP3A4 inducers and posology of amlodipine could be adapted if needed.

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 posology of amlodipine should be adjusted if needed.

Concomitant use to be taken into consideration:

Beta-blockers used in heart failure (bisoprolol, carvedilol, metoprolol):

Risk of hypotension, heart weakness in patients with cardiac heart failure, be it latent or uncontrolled (addition of negative inotrope effect). Furthermore, the beta-blocker may minimize the sympathetic reflex in case of excessive hemodynamic repercussion.

Others combinations:

In monotherapy, amlodipine has been safely administered with thiazide diuretics, beta blockers, ACE inhibitors, long-acting nitrates, sublingual nitroglycerin, digoxin, warfarin, atorvastatin, sildenafil, anti-acid medicines (aluminium hydroxide gel, magnesium hydroxide, simeticone), cimetidine, non-steroidal anti-inflammatory medicines, antibiotics and oral hypoglycaemic medicines.

Indeed, specific studies conducted with some drugs have shown no influence on amlodipine:

- co-administration of amlodipine with cimetidine did not alter the pharmacokinetics of amlodipine.
- when sildenafil and amlodipine were used in combination, each one independently exerted its own blood pressure lowering effect.
- grapefruit juice: co-administration of 240ml of grapefruit juice with a single oral dose of 10mg amlodipine in 20 healthy volunteers had no significant effect on the pharmacokinetics of amlodipine.

Moreover, specific studies conducted with some drugs have shown that amlodipine has no influence on their pharmacokinetics parameters:

- atorvastatin: co-administration of multiple doses of 10mg amlodipine with 80mg of atorvastatin resulted in no significant change in the steady-state pharmacokinetics parameters of atorvastatin.
- digoxin: co-administration of amlodipine with digoxin did not change serum digoxin levels or digoxin renal clearance in normal volunteers.
- warfarin: in healthy male volunteers, the co-administration of amlodipine did not significantly alter the effect of warfarin on prothrombin response time. Co-administration of amlodipine with warfarin did not change the warfarin prothrombin response time.
- ciclosporin: Pharmacokinetic studies with ciclosporin have demonstrated that amlodipine does not significantly alter the pharmacokinetics of ciclosporin.

Concomitant use which requires special care:

Baclofen. Potentiation of antihypertensive effect. Monitoring of blood pressure and renal function, and dose adaptation of the antihypertensive if necessary.

Concomitant use to be taken into consideration:

- . 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.
- . Corticosteroids, tetracosactide: reduction in antihypertensive effect (salt and water retention due to corticosteroids).

- . Alpha-blockers (prazosin, alfuzosin, doxazosin, tamsulosin, terazosin): increased antihypertensive effect and increased risk of orthostatic hypotension.
- . Amifostine: may potentiate the antihypertensive effect of amlodipine.
- . Tricyclic antidepressants/antipsychotics/anaesthetics: increased antihypertensive effect and increased risk of orthostatic hypotension.

#### 4.6 Pregnancy and lactation

Given the effects of the individual components in this combination product on pregnancy and lactation: COVERAM is not recommended during the first trimester of pregnancy. COVERAM is contraindicated during the second and third trimesters of pregnancy.

COVERAM is not recommended during lactation. A decision should therefore be made whether to discontinue nursing or to discontinue COVERAM taking account the importance of this therapy for the mother.

##### Pregnancy:

Linked to perindopril

The use of ACE inhibitors is not recommended during the first trimester of pregnancy (see section 4.4). The use of ACE inhibitors is contraindicated during the second and third trimester of pregnancy (see sections 4.3 and 4.4).

Epidemiological evidence regarding the risk of teratogenicity following exposure to ACE inhibitors during the first trimester of pregnancy has not been conclusive; however a small increase in risk cannot be excluded. Unless continued ACE inhibitor therapy is considered essential, patients planning pregnancy should be changed to alternative antihypertensive treatments which have an established safety profile for use in pregnancy. When pregnancy is diagnosed, treatment with ACE inhibitors should be stopped immediately, and, if appropriate, alternative therapy should be started.

Exposure to ACE inhibitor therapy during the second and third trimesters is known to induce human foetotoxicity (decreased renal function, oligohydramnios, skull ossification retardation) and neonatal toxicity (renal failure, hypotension, hyperkalaemia) (see section 5.3).

Should exposure to ACE inhibitor have occurred from the second trimester of pregnancy, ultrasound check of renal function and skull is recommended.

Infants whose mothers have taken ACE inhibitors should be closely observed for hypotension (see sections 4.3 and 4.4).

Linked to amlodipine

Data on a limited number of exposed pregnancies do not indicate that amlodipine and other calcium receptor antagonists have a harmful effect on the health of the foetus. However, there may be a risk of prolonged delivery. Animal studies have not shown teratogenic effect (see section 5.3).

##### Lactation:

Linked to perindopril

Because no information is available regarding the use of perindopril during breastfeeding, perindopril is not recommended and alternative treatments with better established safety profiles during breast-feeding are preferable, especially while nursing a newborn or preterm infant.

Linked to amlodipine

It is not known whether amlodipine is excreted in breast milk. Similar calcium channel blockers of the dihydropyridine type are excreted in breast milk.

Therefore, as a precaution, lactation is not recommended during the treatment with amlodipine.

Fertility:

Reversible biochemical changes in the head of spermatozoa which can impair fecundation have been reported in some patients treated by calcium channel blockers.

**4.7 Effects on ability to drive and use machines**

No studies on the effects of COVERAM on the ability to drive and use machines have been performed. When driving vehicles or operating machines it should be taken into account that occasionally dizziness or weariness may occur.

**4.8 Undesirable effects**

The following undesirable effects have been observed during treatment with perindopril or amlodipine given separately and ranked under the MedDRA classification by body system and under the following frequency : Very common ( $\geq 1/10$ ) ; common ( $\geq 1/100$  to  $< 1/10$ ) ; uncommon ( $\geq 1/1000$  to  $< 1/100$ ) ; rare ( $\geq 1/10000$  to  $< 1/1000$ ) ; very rare ( $< 1/10000$ ) ; not known (cannot be estimated from the available data).

MedDRA System Organ Class	Undesirable Effects	Frequency	
		Amlodipine	Perindopril
<b>Blood and the lymphatic System Disorders</b>	Leucopenia/neutropenia (see section 4.4)	Very rare	Very rare
	Agranulocytosis or pancytopenia (see section 4.4)	-	Very rare
	Thrombocytopenia (see section 4.4)	Very rare	Very rare
	Haemolytic anaemia in patients with a congenital deficiency of G-6PDH (see section 4.4)	-	Very rare
	Decrease in haemoglobine and haematocrit	-	Very rare
<b>Immune System Disorders</b>	Allergic reaction: Urticaria	Very rare	Uncommon

<b>Metabolism and Nutrition Disorders</b>	Hyperglycaemia	Very rare	-
	Weight gain	Uncommon	-
	Weight decrease	Uncommon	-
	Hypoglycaemia (see sections 4.4 and 4.5)	-	Not known
<b>Psychiatric disorders</b>	Insomnia	Uncommon	-
	Mood changes	Uncommon	Uncommon
	Sleep disturbances	-	Uncommon
<b>Nervous System disorders</b>	Somnolence	Common	-
	Dizziness	Common	Common
	Headache	Common	Common
	Tremor	Uncommon	-
	Hypoesthesia	Uncommon	-
	Paresthesia	Uncommon	Common
	Hypertonia	Very rare	-
	Peripheral neuropathy	Very rare	-
	Vertigo	-	Common
	Confusion	-	Very rare
<b>Eye Disorders</b>	Visual disturbances	Uncommon	Common
<b>Ear and labyrinth disorders</b>	Tinnitus	Uncommon	Common
<b>Cardiac Disorders</b>	Palpitations	Common	-
	Syncope	Uncommon	-
	Angina pain	Rare	-
	Angina pectoris	-	Very rare
	Myocardial infarction, possibly secondary to excessive hypotension in high risk patients (see section 4.4)	Very rare	Very rare
	Arrhythmia (including bradycardia, ventricular tachycardia and atrial fibrillation)	Very rare	Very rare
<b>Vascular Disorders</b>	Flushing	Common	-
	Hypotension (and effects related to hypotension)	Uncommon	Common
	Stroke possibly secondary to excessive hypotension in high-risk patients (see section 4.4)	-	Very rare
	Vasculitis	Very Rare	Not known

<b>Respiratory, Thoracic and Mediastinal Disorders</b>	Dyspnoea	Uncommon	Common
	Rhinitis	Uncommon	Very rare
	Cough	Very rare	Common
	Bronchospasm	-	Uncommon
	Eosinophilic pneumonia	-	Very rare
<b>Gastro-intestinal Disorders</b>	Gingival hyperplasia	Very rare	-
	Abdominal pain, nausea	Common	Common
	Vomiting	Uncommon	Common
	Dyspepsia	Uncommon	Common
	Altered bowel habits	Uncommon	-
	Dry mouth	Uncommon	Uncommon
	Dysgeusia	-	Common
	Taste perversion	Uncommon	-
	Diarrhoea , constipation	-	Common
	Pancreatitis	Very rare	Very rare
	Gastritis	Very rare	-
<b>Hepato-biliary Disorders</b>	Hepatitis, cholestatic jaundice	Very rare	-
	Hepatitis either cytolytic or cholestatic (see section 4.4)	-	Very rare
<b>Skin and Subcutaneous Tissue Disorders</b>	Quincke's oedema	Very rare	-
	Angioedema of face, extremities, lips, mucous membranes, tongue, glottis and/or larynx (see section 4.4)	-	Uncommon
	Erythema multiform	Very rare	Very rare
	Alopecia	Uncommon	-
	Purpura	Uncommon	-
	Skin discoloration	Uncommon	-
	Increased sweating	Uncommon	-
	Sweating	-	Uncommon
	Prurit	Uncommon	Common
	Rash	Uncommon	Common
	Stevens-Johnson Syndrome	Very rare	-
<b>Musculoskeletal And Connective Tissue Disorders</b>	Arthralgia, myalgia	Uncommon	-
	Muscle cramps	Uncommon	Common
	Back pain	Uncommon	-
<b>Renal and Urinary Disorders</b>	Micturition disorder, nocturia, increased urinary frequency	Uncommon	-
	Renal impairment	-	Uncommon
	Acute renal failure	-	Very rare

<b>Reproductive System and Breast Disorders</b>	Impotence	Uncommon	Uncommon
	Gynaecomastia	Uncommon	-
<b>General Disorders and Administration Site Condition</b>	Oedema, peripheral oedema	Common	-
	Fatigue	Common	-
	Chest pain	Uncommon	-
	Asthenia	Uncommon	Common
	Pain	Uncommon	-
	Malaise	Uncommon	-
<b>Investigations</b>	Hepatic enzymes elevations: ALT, AST (mostly consistent with cholestasis)	Very rare	-
	Serum bilirubin and liver enzymes elevation	-	Rare
	Increases in blood urea and serum creatinine, hyperkalaemia (see section 4.4)	-	Not known

#### Additional information linked to amlodipine

Exceptional cases of extrapyramidal syndrome have been reported with calcium channel blockers.

#### **4.9 Overdose**

There is no information on overdosage with COVERAM in humans.

For amlodipine, experience with intentional overdose in humans is limited. Large overdosage could result in excessive peripheral vasodilatation with subsequent marked and probably prolonged systemic hypotension. Any hypotension due to amlodipine overdosage calls for a monitoring in cardiologic intensive care unit. A vasoconstrictor may be helpful in restoring vascular tone and blood pressure, provided that there is no contraindication to its use. Intravenous calcium gluconate may be beneficial in reversing the effects of calcium channel blockade.

Amlodipine is not dialyzable.

For perindopril, limited data are available for overdosage in humans. Symptoms associated with the 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. If available, treatment with angiotensin II infusion and/or intravenous catecholamines may also be considered. Perindopril can be removed from the systemic circulation by haemodialysis (see section 4.4). Pacemaker therapy is indicated for treatment-resistant bradycardia. Vital signs, serum electrolytes and creatinine concentrations should be monitored continuously.

## **5. PHARMACOLOGICAL PROPERTIES**

### **5.1 Pharmacodynamic properties**

Pharmacotherapeutic group: ACE inhibitors and calcium channel blockers, ATC code: C09BB04.

#### **Perindopril:**

Perindopril is an inhibitor of the enzyme that converts angiotensin I into angiotensin II (Angiotensin Converting Enzyme ACE). The converting enzyme, or kinase, is an exopeptidase that allows conversion of

angiotensin I into the vasoconstrictor angiotensin II as well as causing the degradation of the vasodilator bradykinin into an inactive heptapeptide. Inhibition of ACE results in a reduction of angiotensin II in the plasma, which leads to increased plasma renin activity (by inhibition of the negative feedback of renin release) and reduced secretion of aldosterone. Since ACE inactivates bradykinin, inhibition of ACE also results in an increased activity of circulating and local kallikrein-kinin systems (and thus also activation of the prostaglandin system). It is possible that this mechanism contributes to the blood pressure-lowering action of ACE inhibitors and is partially responsible for certain of their side effects (e.g. cough).

Perindopril acts through its active metabolite, perindoprilat. The other metabolites show no inhibition of ACE activity *in vitro*.

#### Hypertension:

Perindopril is active in all grades of hypertension : mild, moderate, severe ; a reduction in systolic and diastolic blood pressures in both supine and standing positions is observed.

Perindopril reduces peripheral vascular resistance, leading to blood pressure reduction. As a consequence, peripheral blood flow increases, with no effect on heart rate.

Renal blood flow increases as a rule, while the glomerular filtration rate (GFR) is usually unchanged.

The antihypertensive activity is maximal between 4 and 6 hours after a single dose and is sustained for at least 24 hours: trough effects are about 87-100 % of peak effects.

The decrease in blood pressure occurs rapidly. In responding patients, normalisation is achieved within a month and persists without the occurrence of tachyphylaxis.

Discontinuation of treatment does not lead to a rebound effect.

Perindopril reduces left ventricular hypertrophy.

In man, perindopril has been confirmed to demonstrate vasodilatory properties. It improves large artery elasticity and decreases the media:lumen ratio of small arteries.

#### Patients with stable coronary artery disease:

The EUROPA study was a multicentre, international, randomised, double-blind, placebo-controlled clinical trial lasting 4 years.

Twelve thousand two hundred and eighteen (12218) patients aged over 18 were randomised to 8 mg perindopril tert-butylamine (equivalent to 10 mg perindopril arginine) (n=6110) or placebo (n=6108).

The trial population had evidence of coronary artery disease with no evidence of clinical signs of heart failure. Overall, 90% of the patients had a previous myocardial infarction and/or a previous coronary revascularisation. Most of the patients received the study medication on top of conventional therapy including platelet inhibitors, lipid lowering agents and beta-blockers.

The main efficacy criterion was the composite of cardiovascular mortality, non fatal myocardial infarction and/or cardiac arrest with successful resuscitation. The treatment with 8 mg perindopril tert-butylamine (equivalent to 10 mg perindopril arginine) once daily resulted in a significant absolute reduction in the primary endpoint of 1.9% (relative risk reduction of 20%, 95%CI [9.4; 28.6] – p<0.001).

In patients with a history of myocardial infarction and/or revascularisation, an absolute reduction of 2.2% corresponding to a RRR of 22.4% (95%CI [12.0; 31.6] – p<0.001) in the primary endpoint was observed by comparison to placebo.

#### Amlodipine:

Amlodipine is a calcium ion influx inhibitor of the dihydropyridine group (slow channel blocker or calcium ion antagonist) and inhibits the transmembrane influx of calcium ions into cardiac and vascular smooth muscle.

The mechanism of the antihypertensive action of amlodipine is due to a direct relaxant effect on vascular smooth muscle. The precise mechanism by which amlodipine relieves angina has not been fully determined but amlodipine reduces total ischaemic burden by the following two actions :

- Amlodipine dilates peripheral arterioles and thus, reduces the total peripheral resistance (afterload) against which the heart works. Since the heart rate remains stable, this unloading of the heart reduces myocardial energy consumption and oxygen requirements.
- The mechanism of action of amlodipine also probably involves dilatation of the main coronary arteries and coronary arterioles, both in normal and ischaemic regions. This dilatation increases myocardial oxygen delivery in patients with coronary artery spasm (Prinzmetal's or variant angina).

In patients with hypertension, once daily dosing provides clinically significant reductions of blood pressure in both the supine and standing positions throughout the 24 hour interval. Due to the slow onset of action, acute hypotension is not a feature of amlodipine administration.

In patients with angina, once daily administration of amlodipine increases total exercise time, time to angina onset, and time to 1mm ST segment depression, and decreases both angina attack frequency and glyceryl trinitrate tablet consumption.

Amlodipine has not been associated with any adverse metabolic effects or changes in plasma lipids and is suitable for use in patients with asthma, diabetes, and gout.

A randomized double-blind morbidity-mortality study called the Antihypertensive and Lipid-Lowering Treatment to Prevent Heart Attack Trial (ALLHAT) was performed to compare newer drug therapies: amlodipine 2.5-10 mg/d (calcium channel blocker) or lisinopril 10-40 mg/d (ACE-inhibitor) as first-line therapies to that of the thiazide-diuretic, chlorthalidone 12.5-25 mg/d in mild to moderate hypertension.

A total of 33,357 hypertensive patients aged 55 or older were randomized and followed for a mean of 4.9 years. The patients had at least one additional CHD risk factor, including: previous myocardial infarction or stroke > 6 months prior to enrollment or documentation of other atherosclerotic CVD (overall 51.5%), type 2 diabetes (36.1%), HDL-C < 35 mg/dL (11.6%), left ventricular hypertrophy diagnosed by electrocardiogram or echocardiography (20.9%), current cigarette smoking (21.9%).

The primary endpoint was a composite of fatal CHD or non-fatal myocardial infarction. There was no significant difference in the primary endpoint between amlodipine-based therapy and chlorthalidone-based therapy: RR 0.98 (95% CI(0.90-1.07) p=0.65). Among secondary endpoints, the incidence of heart failure (component of a composite combined cardiovascular endpoint) was significantly higher in the amlodipine group as compared to the chlorthalidone group (10.2% vs 7.7%, RR 1.38, (95% CI [1.25-1.52] p<0.001)). However, there was no significant difference in all-cause mortality between amlodipine-based therapy and chlorthalidone-based therapy, RR 0.96 (95% CI [0.89-1.02] p=0.20).

## 5.2 Pharmacokinetic properties

The rate and extent of absorption of perindopril and amlodipine from COVERAM are not significantly different, respectively, from the rate and extent of absorption of perindopril and amlodipine from individual tablet formulations.

### Perindopril:

After oral administration, the absorption of perindopril is rapid and the peak concentration is achieved within 1 hour. The plasma half-life of perindopril is equal to 1 hour.

Perindopril is a prodrug. Twenty seven percent of the administered perindopril dose reaches the bloodstream as the active metabolite perindoprilat. In addition to active perindoprilat, perindopril yields five metabolites, all inactive. The peak plasma concentration of perindoprilat is achieved within 3 to 4 hours.

As ingestion of food decreases conversion to perindoprilat, hence bioavailability, perindopril arginine should be administered orally in a single daily dose in the morning before a meal.

It has been demonstrated a linear relationship between the dose of perindopril and its plasma exposure.

The volume of distribution is approximately 0.2 l/kg for unbound perindoprilat. Protein binding of perindoprilat to plasma proteins is 20%, principally to angiotensin converting enzyme, but is concentration-dependent. Perindoprilat is eliminated in the urine and the terminal half-life of the unbound fraction is approximately 17 hours, resulting in steady-state within 4 days.

Elimination of perindoprilat is decreased in the elderly, and also in patients with heart or renal failure (see section 4.2). Therefore, the usual medical follow-up will include frequent monitoring of creatinine and potassium.

Dialysis clearance of perindoprilat is equal to 70 ml/min.

Perindopril kinetics are modified in patients with cirrhosis: hepatic clearance of the parent molecule is reduced by half. However, the quantity of perindoprilat formed is not reduced and therefore no dosage adjustment is required (see sections 4.2 and 4.4).

#### Amlodipine:

After oral administration of therapeutic doses, amlodipine is well absorbed with peak blood levels between 6-12 hours post dose. Absolute bioavailability has been estimated to be between 64 and 80%. The volume of distribution is approximately 21 l/kg. Its bioavailability is not influenced by food. *In vitro* studies have shown that approximately 97.5% of circulating amlodipine is bound to plasma proteins.

The terminal plasma elimination half-life is about 35-50 hours and is consistent with once daily dosing. Amlodipine is extensively metabolised by the liver to inactive metabolites. About 60% of the administered dose is excreted in the urine, 10% as unchanged amlodipine.

Use in the elderly: the time to reach peak plasma concentrations of amlodipine is similar in elderly and younger subjects. Amlodipine clearance tends to be decreased with resulting increases in AUC and elimination half-life in elderly patients. The recommended dosage regimen for the elderly is the same, although increasing the dose should take place with caution.

Use in patients with renal failure: see section 4.2.

Use in patients with impaired hepatic function: As with all calcium antagonists, amlodipine's half-life is prolonged in patients with impaired liver function.

### **5.3 Preclinical safety data**

#### Perindopril:

In the chronic oral toxicity studies (rats and monkeys), the target organ is the kidney, with reversible damage.

No mutagenicity has been observed in *in vitro* or *in vivo* studies.

Reproduction toxicology studies (rats, mice, rabbits and monkeys) showed no sign of embryotoxicity or teratogenicity. However, angiotensin converting enzyme inhibitors, as a class, have been shown to induce adverse effects on late fetal development, resulting in fetal death and congenital effects in rodents and rabbits: renal lesions and an increase in peri- and postnatal mortality have been observed.

No carcinogenicity has been observed in long term studies in rats and mice.

#### Amlodipine:

Toxicological studies in animal reveal no special hazards for humans regarding safety pharmacology, genotoxicity, carcinogenicity, fertility and studies with repeated dosing. Reproductive toxicology studies in rats showed a prolonged duration of pregnancy and an increase in peri and postnatal mortality.

## **6. PHARMACEUTICAL PARTICULARS**

### **6.1 List of excipients**

Lactose monohydrate

Cellulose, microcrystalline (E460)

Silica, colloidal anhydrous (E551)

Magnesium stearate (E470B)

### **6.2 Incompatibilities**

Not applicable.

### **6.3 Shelf life**

3 years

### **6.4 Special precautions for storage**

Keep the container tightly closed in order to protect from moisture. Store in the original package.

### **6.5 Nature and contents of container**

5, 7, 10, 14, 20, 28, 30 or 50 tablets in polypropylene container equipped with a low density polyethylene flow reducer and a low density polyethylene stopper containing a desiccant gel.

Box of 1 container of 5, 7, 10, 14, 20, 28, 30 or 50 tablets.

Box of 2 containers of 28, 30 or 50 tablets.

Box of 3 containers of 30 tablets.

Box of 4 containers of 30 tablets.

Box of 10 containers of 50 tablets.

Not all pack sizes may be marketed.

### **6.6 Special precautions for disposal**

No special requirements.

## **7. MARKETING AUTHORISATION HOLDER**

<[To be completed nationally]>

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

<[To be completed nationally]>

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

<[To be completed nationally]>

## **10. DATE OF REVISION OF THE TEXT**

<[To be completed nationally]>

## **LABELLING**

**PARTICULARS TO APPEAR ON THE OUTER PACKAGING**

**CARTON**

**1. NAME OF THE MEDICINAL PRODUCT**

COVERAM 5mg/5mg tablets  
perindopril arginine/amlodipine

**2. STATEMENT OF ACTIVE SUBSTANCE(S)**

One tablet contains 3.395 mg perindopril equivalent to 5 mg perindopril arginine and 6.935 mg amlodipine besilate equivalent to 5 mg amlodipine.

**3. LIST OF EXCIPIENTS**

Contains lactose monohydrate. See leaflet for further information.

**4. PHARMACEUTICAL FORM AND CONTENTS**

5 tablets  
7 tablets  
10 tablets  
14 tablets  
20 tablets  
28 tablets  
30 tablets  
50 tablets  
56 tablets  
60 tablets  
90 tablets  
100 tablets  
120 tablets  
500 tablets

**5. METHOD AND ROUTE(S) OF ADMINISTRATION**

Oral use. Read the package leaflet before use.

**6. SPECIAL WARNING THAT THE MEDICINAL PRODUCT MUST BE STORED OUT OF THE REACH AND SIGHT OF CHILDREN**

Keep out of the reach and sight of children.

**7. OTHER SPECIAL WARNING(S), IF NECESSARY**

**8. EXPIRY DATE**

EXP {MM/YYYY}

**9. SPECIAL STORAGE CONDITIONS**

Keep the container tightly closed in order to protect from moisture.

**10. SPECIAL PRECAUTIONS FOR DISPOSAL OF UNUSED MEDICINAL PRODUCTS OR WASTE MATERIALS DERIVED FROM SUCH MEDICINAL PRODUCTS, IF APPROPRIATE****11. NAME AND ADDRESS OF THE MARKETING AUTHORISATION HOLDER**

To be completed nationally  
For RMS (France):  
Les Laboratoires Servier  
22, rue Garnier  
92200 Neuilly-sur-Seine – France

**12. MARKETING AUTHORISATION NUMBER(S)**

To be completed nationally

**13. BATCH NUMBER**

Batch {number}

**14. GENERAL CLASSIFICATION FOR SUPPLY**

Medicinal product subject to medical prescription.  
<[To be completed nationally]>

**15. INSTRUCTIONS ON USE****16. INFORMATION IN BRAILLE**

COVERAM 5mg/5mg

**MINIMUM PARTICULARS TO APPEAR ON SMALL IMMEDIATE PACKAGING UNITS**

**CONTAINER**

**1. NAME OF THE MEDICINAL PRODUCT AND ROUTE(S) OF ADMINISTRATION**

COVERAM 5mg/5mg tablets  
perindopril arginine/amlodipine  
Oral use

**2. METHOD OF ADMINISTRATION**

**3. EXPIRY DATE**

EXP {MM/YYYY}

**4. BATCH NUMBER**

Batch {number}

**5. CONTENTS BY WEIGHT, BY VOLUME OR BY UNIT**

5 tablets  
7 tablets  
10 tablets  
14 tablets  
20 tablets  
28 tablets  
30 tablets  
50 tablets

**6. OTHER**

**Abbreviations for days of the week**

MON  
TUE  
WED  
THU  
FRI  
SAT  
SUN

**PARTICULARS TO APPEAR ON THE OUTER PACKAGING**

**CARTON**

**1. NAME OF THE MEDICINAL PRODUCT**

COVERAM 5mg/10mg tablets  
perindopril arginine/amlodipine

**2. STATEMENT OF ACTIVE SUBSTANCE(S)**

One tablet contains 3.395 mg perindopril equivalent to 5 mg perindopril arginine and 13.870 mg amlodipine besilate equivalent to 10 mg amlodipine.

**3. LIST OF EXCIPIENTS**

Contains lactose monohydrate. See leaflet for further information.

**4. PHARMACEUTICAL FORM AND CONTENTS**

5 tablets  
7 tablets  
10 tablets  
14 tablets  
20 tablets  
28 tablets  
30 tablets  
50 tablets  
56 tablets  
60 tablets  
90 tablets  
100 tablets  
120 tablets  
500 tablets

**5. METHOD AND ROUTE(S) OF ADMINISTRATION**

Oral use. Read the package leaflet before use.

**6. SPECIAL WARNING THAT THE MEDICINAL PRODUCT MUST BE STORED OUT OF THE REACH AND SIGHT OF CHILDREN**

Keep out of the reach and sight of children.

**7. OTHER SPECIAL WARNING(S), IF NECESSARY**

**8. EXPIRY DATE**

EXP {MM/YYYY}

**9. SPECIAL STORAGE CONDITIONS**

Keep the container tightly closed in order to protect from moisture.

**10. SPECIAL PRECAUTIONS FOR DISPOSAL OF UNUSED MEDICINAL PRODUCTS OR WASTE MATERIALS DERIVED FROM SUCH MEDICINAL PRODUCTS, IF APPROPRIATE****11. NAME AND ADDRESS OF THE MARKETING AUTHORISATION HOLDER**

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**14. GENERAL CLASSIFICATION FOR SUPPLY**

Medicinal product subject to medical prescription.  
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**15. INSTRUCTIONS ON USE****16. INFORMATION IN BRAILLE**

COVERAM 5mg/10mg

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**CONTAINER**

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COVERAM 5mg/10mg tablets  
perindopril arginine/amlodipine  
Oral use

**2. METHOD OF ADMINISTRATION**

**3. EXPIRY DATE**

EXP {MM/YYYY}

**4. BATCH NUMBER**

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5 tablets  
7 tablets  
10 tablets  
14 tablets  
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28 tablets  
30 tablets  
50 tablets

**6. OTHER**

**Abbreviations for days of the week**

MON  
TUE  
WED  
THU  
FRI  
SAT  
SUN

**PARTICULARS TO APPEAR ON THE OUTER PACKAGING**

**CARTON**

**1. NAME OF THE MEDICINAL PRODUCT**

COVERAM 10mg/5mg tablets  
perindopril arginine/amlodipine

**2. STATEMENT OF ACTIVE SUBSTANCE(S)**

One tablet contains 6.790 mg perindopril equivalent to 10 mg perindopril arginine and 6.935 mg amlodipine besilate equivalent to 5 mg amlodipine

**3. LIST OF EXCIPIENTS**

Contains lactose monohydrate. See leaflet for further information.

**4. PHARMACEUTICAL FORM AND CONTENTS**

5 tablets  
7 tablets  
10 tablets  
14 tablets  
20 tablets  
28 tablets  
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**5. METHOD AND ROUTE(S) OF ADMINISTRATION**

Oral use. Read the package leaflet before use.

**6. SPECIAL WARNING THAT THE MEDICINAL PRODUCT MUST BE STORED OUT OF THE REACH AND SIGHT OF CHILDREN**

Keep out of the reach and sight of children.

**7. OTHER SPECIAL WARNING(S), IF NECESSARY**

**8. EXPIRY DATE**

EXP {MM/YYYY}

**9. SPECIAL STORAGE CONDITIONS**

Keep the container tightly closed in order to protect from moisture.

**10. SPECIAL PRECAUTIONS FOR DISPOSAL OF UNUSED MEDICINAL PRODUCTS OR WASTE MATERIALS DERIVED FROM SUCH MEDICINAL PRODUCTS, IF APPROPRIATE****11. NAME AND ADDRESS OF THE MARKETING AUTHORISATION HOLDER**

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**13. BATCH NUMBER**

Batch {number}

**14. GENERAL CLASSIFICATION FOR SUPPLY**

Medicinal product subject to medical prescription.  
<[To be completed nationally]>

**15. INSTRUCTIONS ON USE****16. INFORMATION IN BRAILLE**

COVERAM 10mg/5mg

**MINIMUM PARTICULARS TO APPEAR ON SMALL IMMEDIATE PACKAGING UNITS**

**CONTAINER**

**1. NAME OF THE MEDICINAL PRODUCT AND ROUTE(S) OF ADMINISTRATION**

COVERAM 10mg/5mg tablets  
perindopril arginine/amlodipine  
Oral use

**2. METHOD OF ADMINISTRATION**

**3. EXPIRY DATE**

EXP {MM/YYYY}

**4. BATCH NUMBER**

Batch {number}

**5. CONTENTS BY WEIGHT, BY VOLUME OR BY UNIT**

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28 tablets  
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50 tablets

**6. OTHER**

**Abbreviations for days of the week**

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SAT  
SUN

**PARTICULARS TO APPEAR ON THE OUTER PACKAGING**

**CARTON**

**1. NAME OF THE MEDICINAL PRODUCT**

COVERAM 10mg/10mg tablets  
perindopril arginine/amlodipine

**2. STATEMENT OF ACTIVE SUBSTANCE(S)**

One tablet contains 6.790 mg perindopril equivalent to 10 mg perindopril arginine and 13.870 mg amlodipine besilate equivalent to 10 mg amlodipine.

**3. LIST OF EXCIPIENTS**

Contains lactose monohydrate. See leaflet for further information.

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**5. METHOD AND ROUTE(S) OF ADMINISTRATION**

Oral use. Read the package leaflet before use.

**6. SPECIAL WARNING THAT THE MEDICINAL PRODUCT MUST BE STORED OUT OF THE REACH AND SIGHT OF CHILDREN**

Keep out of the reach and sight of children.

**7. OTHER SPECIAL WARNING(S), IF NECESSARY**

**8. EXPIRY DATE**

EXP {MM/YYYY}

**9. SPECIAL STORAGE CONDITIONS**

Keep the container tightly closed in order to protect from moisture.

**10. SPECIAL PRECAUTIONS FOR DISPOSAL OF UNUSED MEDICINAL PRODUCTS OR WASTE MATERIALS DERIVED FROM SUCH MEDICINAL PRODUCTS, IF APPROPRIATE**

**11. NAME AND ADDRESS OF THE MARKETING AUTHORISATION HOLDER**

To be completed nationally  
For RMS (France):  
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22, rue Garnier  
92200 Neuilly-sur-Seine – France

**12. MARKETING AUTHORISATION NUMBER(S)**

To be completed nationally

**13. BATCH NUMBER**

Batch {number}

**14. GENERAL CLASSIFICATION FOR SUPPLY**

Medicinal product subject to medical prescription.  
<[To be completed nationally]>

**15. INSTRUCTIONS ON USE**

**16. INFORMATION IN BRAILLE**

COVERAM 10mg/10mg

**MINIMUM PARTICULARS TO APPEAR ON SMALL IMMEDIATE PACKAGING UNITS**

**CONTAINER**

**1. NAME OF THE MEDICINAL PRODUCT AND ROUTE(S) OF ADMINISTRATION**

COVERAM 10mg/10mg tablets  
perindopril arginine/amlodipine  
Oral use

**2. METHOD OF ADMINISTRATION**

**3. EXPIRY DATE**

EXP {MM/YYYY}

**4. BATCH NUMBER**

Batch {number}

**5. CONTENTS BY WEIGHT, BY VOLUME OR BY UNIT**

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**6. OTHER**

**Abbreviations for days of the week**

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**PACKAGE LEAFLET**

## PACKAGE LEAFLET: INFORMATION FOR THE USER

**COVERAM 5mg / 5mg tablets**  
**COVERAM 10mg / 5mg tablets**  
**COVERAM 5mg / 10mg tablets**  
**COVERAM 10mg / 10mg tablets**  
perindopril arginine / amlodipine

**Read all of this leaflet carefully before you start taking this medicine.**

- Keep this leaflet. You may need to read it again.
- If you have any further questions, ask your doctor or pharmacist.
- This medicine has been prescribed for you. Do not pass it on to others. It may harm them, even if their symptoms are the same as yours.
- If any of the side effects get serious, or if you notice any side effects not listed in this leaflet, please tell your doctor or pharmacist.

**In this leaflet:**

1. What COVERAM is and what it is used for
2. Before you take COVERAM
3. How to take COVERAM
4. Possible side effects
5. How to store COVERAM
6. Further information

### **1. WHAT COVERAM IS AND WHAT IT IS USED FOR**

COVERAM is prescribed for treatment of high blood pressure (hypertension) and/or treatment of stable coronary artery disease (a condition where the blood supply to the heart is reduced or blocked).

Patients already taking perindopril and amlodipine from separate tablets may instead receive one tablet of COVERAM which contains both ingredients.

COVERAM is a combination of two active ingredients, perindopril and amlodipine.

Perindopril is an ACE (angiotensin converting enzyme) inhibitor. Amlodipine is a calcium antagonist (which belongs to a class of medicines called dihydropyridines). Together they work to widen and relax the blood vessels so that blood passes through them more easily and makes it easier for your heart to maintain a good blood flow.

### **2. BEFORE YOU TAKE COVERAM**

**Do not take COVERAM**

- if you are allergic (hypersensitive) to perindopril or any other ACE inhibitor, or to amlodipine or any other dihydropyridines, or any of the other ingredients of COVERAM,
- if you are more than 3 months pregnant (It is also better to avoid COVERAM in early pregnancy – see pregnancy section),
- if you have experienced symptoms such as wheezing, swelling of the face or tongue, intense itching or severe skin rashes with previous ACE inhibitor treatment or if you or a member of your family have had these symptoms in any other circumstances (a condition called angioedema),
- if you have cardiogenic shock (when the heart is unable to supply sufficient blood to the body), aortic stenosis (narrowing of the main blood vessels leading from the heart) or unstable angina (chest pain that may occur when resting),
- if you have severe hypotension (very low blood pressure),
- if you have heart failure after acute myocardial infarction, during first 28 days.

## Take special care with COVERAM

If you have any of the following please talk to your doctor before taking COVERAM:

- hypertrophic cardiomyopathy (cardiac muscle disease) or renal artery stenosis (narrowing of the artery which supplies the kidney with blood),
- any other heart problems,
- liver problems,
- kidney problems or if you are receiving dialysis,
- collagen vascular disease (disease of the connective tissue) such as systemic lupus erythematosus or scleroderma,
- diabetes,
- if you are on a salt restricted diet or use salt substitutes which contain potassium (a well balanced potassium blood level is essential).

You must tell your doctor if you think you are (or might become) pregnant. COVERAM is not recommended in early pregnancy, and must not be taken if you are more than 3 months pregnant, as it may cause serious harm to your baby if used at that stage (see pregnancy section).

When you are taking COVERAM, you should also inform your doctor or the medical staff if you:

- are going to have a general anaesthetic and/or major surgery,
- have recently suffered from diarrhoea or vomiting (being sick),
- are to undergo LDL apheresis (the removal of cholesterol from your blood by a machine),
- are going to have desensitisation treatment to reduce the effects of an allergy to bee or wasp stings.

COVERAM is not recommended for use in children and adolescents.

## Taking other medicines

Please tell your doctor or pharmacist if you are taking or have recently taken any other medicines, including medicines obtained without a prescription.

You should avoid COVERAM with:

- lithium (used to treat mania or depression),
- estramustine (used in cancer therapy),
- potassium-sparing diuretics (spironolactone, triamterene), potassium supplements or potassium-containing salt substitutes.

Treatment with COVERAM can be affected by other medicines. Make sure to tell your doctor if you are taking any of the following medicines as special care may be required:

- other medicines for high blood pressure, including diuretics (medicines which increase the amount of urine produced by the kidneys),
- non-steroidal anti-inflammatory drugs (e.g. ibuprofen) for pain relief or high dose aspirin,
- medicines to treat diabetes (such as insulin),
- medicines to treat mental disorders such as depression, anxiety, schizophrenia etc (e.g. tricyclic antidepressants, antipsychotics, imipramine-like antidepressants, neuroleptics),
- immunosuppressants (medicines which reduce the defence mechanism of the body) used for the treatment of auto-immune disorders or following transplant surgery (e.g. ciclosporin),
- allopurinol (for the treatment of gout),
- procainamide (for the treatment of an irregular heart beat),
- vasodilators including nitrates (products that widen the blood vessels),
- heparin (medicines used to thin blood),
- ephedrine, noradrenaline or adrenaline (medicines used to treat low blood pressure, shock or asthma),
- baclofen or dantrolene (infusion) both used to treat muscle stiffness in diseases such as multiple sclerosis; dantrolene is also used to treat malignant hyperthermia during anaesthesia (symptoms including very high fever and muscle stiffness),
- some antibiotics such as rifampicin,
- antiepileptic agents such as carbamazepine, phenobarbital, phenytoin, fosphenytoin, primidone,
- itraconazole, ketoconazole (medicines used for treatment of fungal infections),

- alpha-blockers used for the treatment of enlarged prostate such as prazosin, alfuzosin, doxazosin, tamsulosin, terazosin,
- amifostine (used to prevent or reduce side effects caused by other medicines or radiation therapy that are used to treat cancer),
- corticosteroids (used to treat various conditions including severe asthma and rheumatoid arthritis),
- gold salts, especially with intravenous administration (used to treat symptoms of rheumatoid arthritis).

### **Taking COVERAM with food and drink**

COVERAM should be taken before a meal.

### **Pregnancy and breast-feeding**

Ask your doctor or pharmacist for advice before taking any medicine.

#### **Pregnancy**

You must tell your doctor if you think you are (or might become) pregnant. Your doctor will normally advise you to stop taking COVERAM before you become pregnant or as soon as you know you are pregnant and will advise you to take another medicine instead of COVERAM. COVERAM is not recommended in early pregnancy, and must not be taken when more than 3 months pregnant, as it may cause serious harm to your baby if used after the third month of pregnancy.

#### **Breastfeeding**

Tell your doctor if you are breast-feeding or about to start breast-feeding. COVERAM is not recommended for mothers who are breast-feeding, and your doctor may choose another treatment for you if you wish to breast-feed, especially if your baby is newborn, or was born prematurely.

### **Driving and using machines**

COVERAM does not affect alertness but you might experience dizziness or weakness due to low blood pressure which could affect your ability to drive or operate machinery.

### **Important information about some of the ingredients of COVERAM**

COVERAM contains lactose monohydrate (a type of sugar). If you have been told by your doctor that you have an intolerance to some sugars, contact your doctor before taking this medicinal product.

## **3. HOW TO TAKE COVERAM**

Always take COVERAM exactly as your doctor has told you. You should check with your doctor or pharmacist if you are not sure.

Swallow your tablet with a glass of water, preferably at the same time each day, in the morning, before a meal. Your doctor will decide on the correct dose for you. This will normally be one tablet per day.

COVERAM will usually be prescribed for patients already taking perindopril and amlodipine from separate tablets.

#### **If you take more COVERAM than you should**

If you take too many tablets, contact your nearest accident and emergency department or tell your doctor immediately. The most likely effect in case of overdose is low blood pressure which can make you feel dizzy or faint. If this happens, lying down with your legs raised can help.

#### **If you forget to take COVERAM**

It is important to take your medicine every day as regular treatment works better. However, if you forget to take a dose of COVERAM, take the next dose at the usual time. Do not take a double dose to make up for a forgotten dose.

#### **If you stop taking COVERAM**

As the treatment with COVERAM is usually life-long, you should discuss with your doctor before you stop taking your tablets.

If you have any further questions on the use of this product, ask your doctor or pharmacist.

#### **4. POSSIBLE SIDE EFFECTS**

Like all medicines, COVERAM can cause side effects, although not everybody gets them.

If you experience any of the following, stop taking the medicinal product at once and tell your doctor immediately:

- swelling of the face, lips, mouth, tongue or throat, difficulty in breathing,
- severe dizziness or fainting,
- unusual fast or irregular heart beat.

Other side effects include:

- Common side effects (occur in less than 1 in 10 users but in more than 1 in 100 users): headache, dizziness, vertigo, pins and needles, somnolence (sleepiness), vision disturbances, tinnitus (sensation of noises in the ears), palpitations (very fast heartbeat), flushing (hot or warm feeling in your face), light-headedness due to low blood pressure, cough, shortness of breath, nausea (feeling sick), vomiting (being sick), abdominal pain, taste disturbances, dyspepsia or difficulty of digestion, diarrhoea, constipation, allergic reactions (such as skin rashes, itching), muscle cramps, feeling of tiredness, oedema (swelling of your legs or ankles),
- Uncommon side effects (occur in less than 1 in 100 users but in more than 1 in 1000 users): mood swings, sleep disturbances, trembling, syncope (temporary loss of consciousness), loss of pain sensation, rhinitis (blocked up or runny nose), changed bowel habits, hair loss, red or discoloured patches on skin, back, muscle or joint pain, chest pain, increased need to urinate especially during the night, malaise, bronchospasm (tightening of the chest, wheezing and shortness of breath), dry mouth, angioedema (symptoms such as wheezing, swelling of the face or tongue), kidney problems, impotence, increased sweating, breast enlargement in men, weight increase or decrease,
- Very rare side effects (occur in less than 1 in 10,000 users): confusion, cardiovascular disorders (irregular heart beat, angina, heart attack and stroke), eosinophilic pneumonia (a rare type of pneumonia), erythema multiforme (a skin rash which often starts with red itchy patches on your face, arms or legs), disorders of the blood, pancreas, stomach or liver, peripheral neuropathy (disease that produces loss of sensations, pain, inability to control muscles), hypertonia (abnormal increase in muscle tension), swelling of the gums, high blood sugar.
- The following side effects have also been reported by patients taking COVERAM: hypoglycaemia (very low blood sugar level), vasculitis (inflammation of blood vessels), tremor and rigidity.

If any of the side effects get serious, or if you notice any side effects not listed in this leaflet, please tell your doctor or pharmacist.

#### **5. HOW TO STORE COVERAM**

Keep out of the reach and sight of children.

Do not use COVERAM after the expiry date which is stated on the carton and bottle. The expiry date refers to the last day of that month.

Keep the bottle tightly closed in order to protect from moisture. Store in the original package.

Medicines should not be disposed of via wastewater or household waste. Ask your pharmacist how to dispose of medicines no longer required. These measures will help to protect the environment.

#### **6. FURTHER INFORMATION**

##### **What COVERAM contains**

- The active substances are perindopril arginine and amlodipine.  
COVERAM 5mg / 5mg: one tablet contains 5 mg perindopril arginine and 5 mg amlodipine.  
COVERAM 10mg / 5mg: one tablet contains 10 mg perindopril arginine and 5 mg amlodipine.  
COVERAM 5mg / 10mg: one tablet contains 5 mg perindopril arginine and 10 mg amlodipine.  
COVERAM 10mg / 10mg: one tablet contains 10 mg perindopril arginine and 10 mg amlodipine.
- The other ingredients in the tablet are: lactose monohydrate, magnesium stearate (E470B), cellulose microcrystalline (E460), colloidal anhydrous silica (E551).

### **What COVERAM looks like and contents of the pack**

COVERAM 5mg / 5mg tablets are white, rod-shaped tablets engraved with 5/5 on one face and  on the other face.

COVERAM 10mg / 5mg tablets are white, triangular-shaped tablets engraved with 10/5 on one face and  on the other.

COVERAM 5mg / 10mg tablets are white, square-shaped tablets engraved with 5/10 on one face and  on the other.

COVERAM 10mg / 10mg tablets are white, round tablets engraved with 10/10 on one face and  on the other.

The tablets are available in containers of 5, 7, 10, 14, 20, 28, 30, 50, 56, 60, 90, 100, 120 or 500 tablets.  
Not all pack sizes may be available.

### **Marketing Authorisation Holder and Manufacturer**

#### **Marketing Authorisation Holder**

<[To be completed nationally]>

For RMS (France):  
Les Laboratoires Servier  
22, rue Garnier  
92200 Neuilly-sur-Seine – France

#### **Manufacturer**

Les Laboratoires Servier Industrie  
905 route de Saran  
45520 Gidy - France

and

Servier (Ireland) Industries Ltd  
Gorey Road  
Arklow - Co. Wicklow – Ireland

and

Anpharm Przedsiębiorstwo Farmaceutyczne S.A.  
Ul. Annopol 6B  
03-236 Warsaw – Poland

**This medicinal product is authorised in the Member States of the EEA under the following names:**

Belgium	COVERAM
Bulgaria	PRESTARUM-CO
Cyprus	COVERAM
Czech Republic	PRESTANCE
Denmark	COVERSICAL
Estonia	COVERAM
Finland	COVERAM
France	COVERAM
Greece	COVERAM
Hungary	ARMIXXAM
Iceland	COVERSICAL
Ireland	ACERYCAL
Italy	COVERLAM
Latvia	PRESTERAM
Lithuania	PRESTERAM
Luxembourg	COVERAM
Malta	COVERAM
Netherlands	COVERAM arg
Poland	Co-Prestarium
Portugal	COVERAM
Romania	PRESTANCE
Slovakia	PRESTANCE
Slovenia	PRESTANCE
Spain	COVERLAM
United Kingdom	ACERYCAL

**This leaflet was last approved in {MM/YYYY}.**

<[To be completed nationally]>