1.4 product information
1.4.1 Prescribing information (Summary of product characteristics)
1. Name of the medicinal product
Amolab 5mg tablets**.**

2. Qualitative and quantitative composition
Each Tablet contains: Amlodipine Besilate BP Equivalent to Amlodipine 5mg.

Pharmaceutical form
3.Pharmaceutical form
Tablet.
White, circular flat faced bevel edged tablets, scored on one side and plain on reverse and packed in blisters of 3X10's and 10 x 10's contained in unit box with literature insert.

4. Clinical particulars
4.1 Therapeutic indications.
• Hypertension
• Chronic stable angina pectoris
• Vasospastic (Prinzmetal's) angina

4.2 Posology and method of administration
Hypertension: The usual initial dose is 5mg once daily increased, if necessary, to 10mg once daily.
Angina (Stable and prinzmetal's angina): Similar doses.

4.3 Contraindications
Amlodipine is contraindicated in patients with:
- Hypersensitivity to the active substance, dihydropyridine derivatives or to any of the excipients.
- Severe hypotension.
- Shock (including cardiogenic shock).
- Obstruction of the outflow tract of the left ventricle (e.g. high-grade aortic stenosis).
- Hemodynamically unstable heart failure after acute myocardial infarction.

4.4 Special warnings and precautions for use.
Amolab should be used with caution in patients with hypotension, in patients whose cardiac reserve is poor and in those with heart failure.
Amolab should not be used in cardiogenic shock, in patients who have recently suffered a myocardial infarction or in acute unstable angina, or to treat an angina attack in chronic stable angina.
Sudden withdrawal of Amolab may be associated with an exacerbation of angina. The dose may need to be reduced in patients with impaired hepatic function.
Amolab should be discontinued in patients who experience ischaemic pain following its administration.
Amlodipine has been associated with acute attacks of porphyria and therefore Amolab is considered unsafe in prophyric patients. Amlodipine may modify insulin and glucose responses in patients with diabetes mellitus thus necessitating treatment modification.

4.5 Interaction with other medicinal products and other forms of interaction
Amolab may enhance the antihypertensive effects of other antihypertensive drugs such as beta blockers although the combination is well tolerated. Antipsychotics: enhanced antihypertensive effects that may cause hypotension.
Amlodipine is extensively metabolized in the liver by the cytochrome P. 450 enzyme system, and interactions may occur with other drugs sharing the same pathway (quinidine), enzymes inducers (carbamazepine, phenytoin, rifampicin), and enzyme inhibitors (cimetidine, erythromycin).

4.6 Fertility, Pregnancy and lactation
Pregnancy
The safety of amlodipine in human pregnancy has not been established. In animal studies, reproductive toxicity was observed at high doses. Use in pregnancy is only recommended when there is no safer alternative and when the disease itself carries greater risk for the mother and foetus.
Breast-feeding
Amlodipine is excreted in human milk. The proportion of the maternal dose received by the infant has been estimated with an interquartile range of 3 - 7%, with a maximum of 15%. The effect of amlodipine on infants is unknown. A decision on

whether to continue/discontinue breast-feeding or to continue/discontinue therapy with amlodipine should be made taking into account the benefit of breast-feeding to the child and the benefit of amlodipine therapy to the mother.

Fertility

Reversible biochemical changes in the head of spermatozoa have been reported in some patients treated by calcium channel blockers. Clinical data are insufficient regarding the potential effect of amlodipine on fertility. In one rat study, adverse effects were found on male fertility.

4.7 Effects on ability to drive and use machines

Amlodipine can have minor or moderate influence on the ability to drive and use machines. If patients taking amlodipine suffer from dizziness, headache, fatigue or nausea the ability to react may be impaired. Caution is recommended especially at the start of treatment.

4.8 Undesirable effects

The most common adverse effects of Amlodipine are associated with its vasodilator action and often diminish on continued therapy, they include: dizziness, flushing headache, hypotension, peripheral oedema, tachycardia, palpitation and fatigue.

Tabulated list of adverse reactions

The following adverse reactions have been observed and reported during treatment with amlodipine with the following frequencies: Very common (≥1/10); common (≥1/100 to <1/10); uncommon (≥1/1,000 to <1/100); rare (≥1/10,000 to <1/1,000); very rare (<1/10,000) not known (cannot be estimated from the available data).

Within each frequency grouping, adverse reactions are presented in order of decreasing seriousness.

System Organ Class	Frequency	Adverse reactions
Blood and lymphatic system disorders	Very Rare	Leukocytopenia, thrombocytopenia
Immune system disorders	Very Rare	Allergic reactions.
Metabolism and nutrition disorders	Very Rare	Hyperglycaemia
Psychiatric disorders	Uncommon	Insomnia, mood changes (including anxiety), depression
	Rare	Confusion
Nervous system disorders	Common	Somnolence, dizziness, headache (especially at the beginning of the treatment).
	Uncommon	Tremor, dysgeusia, syncope, hypoesthesia, paresthesia.
	Very Rare	Hypertonia, peripheral neuropathy
	Not known	Extrapyramidal disorder
Eye disorders	Common	Visual disturbance (including diplopia)
Ear and labyrinth disorders	Uncommon	Tinnitus
Cardiac disorders	Common	Palpitations
	Uncommon	Arrhythmia (including bradycardia, ventricular tachycardia and atrial fibrillation).
	Very Rare	Myocardial infarction.
Vascular disorders	Common	Flushing
	Uncommon	Hypotension
	Very Rare	Vasculitis
Respiratory, thoracic and mediastinal disorders	Common	Dyspnoea
	Uncommon	Cough, rhinitis.
Gastrointestinal disorders	Common	Abdominal pain, nausea , dyspepsia, altered bowel habits (including diarrhoea and constipation).
	Uncommon	Vomiting, dry mouth.
	Very rare	Pancreatitis, gastritis, gingival hyperplasia
Hepato-biliary disorders	Very rare	Hepatitis, jaundice, hepatic enzymes increased*.
Skin and subcutaneous tissue disorders	Uncommon	Alopecia, purpura, skin discolouration, hyperhidrosis, pruritus, rash, exanthema, urticaria
	Very rare	Angioedema, erythema multiforme, exfoliative dermatitis, Stevens-Johnson syndrome, Quincke oedema, photosensitivity.
	Not known	Toxic Epidermal Necrolysis.
Musculoskeletal and connective tissue disorders	Common	Ankle swelling, muscle cramps.
	Uncommon	Arthralgia, myalgia, back pain.
Renal and urinary disorders	Uncommon	Micturition disorder, nocturia, increased urinary frequency
Reproductive system and breast disorders	Uncommon	Impotence, gynecomastia.
General disorders and administration site conditions	Common	Oedema

	Uncommon	Chest pain, pain, malaise
Investigations	Uncommon	Weight increased, weight decreased.

4.9 Overdose
In humans experience with intentional overdose is limited.
Symptoms:
Available data suggest that gross overdosage could result in excessive peripheral vasodilatation and possibly reflex tachycardia. Marked and probably prolonged systemic hypotension up to and including shock with fatal outcome have been reported.
Non-cardiogenic pulmonary oedema has rarely been reported as a consequence of amlodipine overdose that may manifest with a delayed onset (24-48 hours' post-ingestion) and require ventilatory support. Early resuscitative measures (including fluid overload) to maintain perfusion and cardiac output may be precipitating factors.
Treatment:
Clinically significant hypotension due to amlodipine overdosage calls for active cardiovascular support including frequent monitoring of cardiac and respiratory function, elevation of extremities and attention to circulating fluid volume and urine output.
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.
Gastric lavage may be worthwhile in some cases. In healthy volunteers the use of charcoal up to 2 hours after administration of amlodipine 10 mg has been shown to reduce the absorption rate of amlodipine.
Since amlodipine is highly protein-bound, dialysis is not likely to be of benefit.

5. Pharmacological properties
5.1 Pharmacodynamic properties
Pharmacotherapeutic group: Calcium channel blockers, selective calcium channel blockers with mainly vascular effects, dihydropyridine derivatives. ATC code: C08 CA01.
Amlodipine is a dihydropyridine calcium channel blocker used in the management of hypertension and angina pectoris. Administration of amlodipine results primarily in vasodilation with reduced peripheral resistance, blood pressure and after load increased coronary blood flow and a reflex increase in heart rate.
This intern results in an increase in myocardial oxygen supply and cardiac output.

5.2 Pharmacokinetic properties
Amlodipine is well absorbed following oral administration with peak blood concentration occurring after 6 – 12 hours.
The bioavailability is about 60 - 65%. Amlodipine is about 97.5% bound to plasma proteins:
It has a prolonged terminal elimination half-life of 35 – 50 hours and steady state plasma concentrations are not achieved until after 7-8 days of administration.
Amlodipine is extensively metabolized in the liver; metabolites are mostly excreted in urine together with less than 10% of a dose as unchanged drug.

5.3 Preclinical data safety
Reproductive toxicology
Reproductive studies in rats and mice have shown delayed date of delivery, prolonged duration of labour and decreased pup survival at dosages approximately 50 times greater than the maximum recommended dosage for humans based on mg/kg.
Impairment of fertility
There was no effect on the fertility of rats treated with amlodipine (males for 64 days and females 14 days prior to mating) at doses up to 10 mg/kg/day (8 times* the maximum recommended human dose of 10 mg on a mg/m2 basis). In another rat study in which male rats were treated with Amlodipine Besilate for 30 days at a dose comparable with the human dose based on mg/kg, decreased plasma follicle-stimulating hormone and testosterone were found as well as decreases in sperm density and in the number of mature spermatids and Sertoli cells.
Carcinogenesis, mutagenesis
Rats and mice treated with amlodipine in the diet for two years, at concentrations calculated to provide daily dosage levels of 0.5, 1.25, and 2.5 mg/kg/day showed no evidence of carcinogenicity. The highest dose (for mice, similar to, and for rats twice* the maximum recommended clinical dose of 10 mg on a mg/m2 basis) was close to the maximum tolerated dose for mice but not for rats.
Mutagenicity studies revealed no drug related effects at either the gene or chromosome levels.
*Based on patient weight of 50 kg.

6. Pharmaceutical particulars

6.1 List of excipients

- Dummy Lactose Granules
- Microcrystalline Cellulose pH 102
- Croscarmellose Sodium
- Purified Talc
- Aerosil 200 BP (Pharma Grade.
- Magnesium Stearate

6.2 Incompatibilities

Not applicable.

6.3 Shelf life

36 Months

6.4 Special precautions for storage

Store in a dry place below 30°C.
Protect form light.
Keep all medicines out of reach of children.

6.5 Nature and contents of container

White, circular flat faced bevel edged tablets, scored on one side and plain on reverse and packed in blisters of 10 x 10's contained in unit box with literature insert.

6.6 Special precautions for disposal and other handling

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

7. Marketing Authorization Holder and Manufacturing Site Addresses

Marketing Authorization Holder:

Company Name: LABORATORY & ALLIED LTD
Address: Plot No. 209/10349, Opposite Sameer Business Park, Next to Libra House, Mombasa Road,
P.O. Box 42875 GPO 00100, Nairobi,
Country : Kenya
Telephone : +254 20 8040306
Telefax : +254 20 8040309
E-Mail : info@laballied.com.

Manufacturing Site Address:

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P.O. Box 42875 GPO 00100, Nairobi,
Country : Kenya
Telephone : +254 20 8040306
Telefax : +254 20 8040309
E-Mail : info@laballied.com

8. Marketing Authorization Number:

Kenya: H2008/18341/637.

9. Date of first Registration/ Renewal of the Registration:

Date of first Registration - Kenya: 14/04/2009.
Renewal of the Registration: Retained annually.

10. Date of revision of the text:

February 2024.