



Gently does it for
the older patient.

Half-'Inderal' LA is an 80mg long-acting formulation of the world's most tried and trusted beta-blocker.

It is especially suitable for older patients who may need a lower than usual dosage level.

In addition, this new once-daily regimen can be used to ease the problem of poor compliance in patients currently taking 80mg in multiple doses.

NEW
ONCE DAILY

Half-Inderal LA 

80mg propranolol hydrochloride BP in a long-acting formulation.

'Inderal' LA, Half-'Inderal' LA: abridged prescribing information. Presentation 'Inderal' LA: Capsules each containing 160mg propranolol hydrochloride in long-acting formulation. Half-'Inderal' LA: Capsules each containing 80mg propranolol hydrochloride in long-acting formulation. **Dosage** Angina, anxiety, essential tremor, thyrotoxicosis, prophylaxis of migraine: 1 capsule Half-'Inderal' LA, once daily, increased, as necessary, to 1 capsule 'Inderal' LA, once daily and a further increment of Half-'Inderal' LA. Hypertension: 1 capsule 'Inderal' LA, once daily, increased, if necessary, in increments of Half-'Inderal' LA. (In appropriate patients e.g., the elderly, starting dose is 1 capsule of Half-'Inderal' LA, once daily). **Contraindications** Heart block. Bronchospasm. Prolonged fasting. Metabolic acidosis. **Precautions** Untreated cardiac failure. Bradycardia.

Modification of tachycardia of hypoglycaemia. Transference from, or discontinuance of, clonidine. Prescription of Class I antiarrhythmic agents. Co-administration with verapamil. Anaesthesia. Pregnancy. **Adverse Reactions** Cold extremities, nausea, insomnia, lassitude and diarrhoea are usually transient. Isolated cases of paraesthesia of hands; rashes and dry eyes have been reported with beta-blockers. Consider continuation if they occur. Beta-blockers should be withdrawn gradually. **Overdose** See data sheet. **Basic NHS cost** 28-day calendar pack. 'Inderal' LA £6.66, Half-'Inderal' LA £4.48. **PL Nos.** 'Inderal' LA 0029/0128, Half-'Inderal' LA 0029/0173. Full prescribing information is available from: Imperial Chemical Industries PLC, Pharmaceutical Division, Alderley House, Alderley Park, Macclesfield, Cheshire SK10 4TF. *Trademark

"Each patient's status improved by one or two functional classes after introduction of captopril. A sense of well-being was often volunteered, sometimes before objective clinical improvement was obvious."

Nicholls MG et al, *Am J Cardiol* 1982; 49: 1497-1502.

"These findings demonstrate that captopril is an effective adjunctive agent for the treatment of chronic heart failure and that it produces long-term haemodynamic improvement together with an increase in exercise capacity."

Kramer B L, Massie B M et al, *Circulation* 1983; 67: 807-816.

What the papers say..

"In summary, captopril produces beneficial haemodynamic and clinical effects in normotensive chronic heart failure patients. Since the haemodynamic effects of captopril appear to persist during maintenance therapy, it may be a useful therapeutic adjunct for the long-term treatment of chronic heart failure."

Ader R, Chatterjee K et al, *Circulation* 1980; 61: 931-937.

"In a double blind placebo controlled study captopril reduced heart size and improved both symptoms and exercise capacity."

Cleland J G F, Dargie H J et al, paper presented at the 56th Scientific Symposium, American Heart Association, 14 November - 17 November 1983, Anaheim, California.

"... captopril offers the relative advantage of effective blockade of aldosterone production so that late tolerance is unlikely and diuretic requirements may be reduced in the long-term."

Sharpe D N, Coxon R, *Am Heart J* 1982; 104: 1164-1171.

Prescribing Information CAPOTEN TABLETS ▼ Contain 25 mg or 50 mg captopril. **INDICATIONS Hypertension** The treatment of severe hypertension where standard therapy has failed. **Congestive Heart Failure** The treatment of severe, treatment-refractory congestive heart failure. Capoten should be used together with diuretics and, where appropriate, digitalis. **DOSAGE AND ADMINISTRATION** Capoten should be taken one hour before meals. **ADULTS Hypertension** The usual dose of Capoten is 25-50 mg t.i.d. The initial daily dose of Capoten is 25 mg t.i.d. which should be increased to 50 mg t.i.d. if a satisfactory reduction of blood pressure has not been achieved in two weeks. If a patient is not receiving a diuretic and a satisfactory response has not been achieved after a further two weeks, a modest dose of a thiazide diuretic (hydrochlorothiazide) or in patients with impaired renal function a loop diuretic (frusemide) should be added. The diuretic should be increased at one to two week intervals until a satisfactory response is obtained or its maximal antihypertensive dose is reached. Should Capoten 50 mg t.i.d. together with the diuretic fail to give a satisfactory reduction in blood pressure, then Capoten should be increased to 100 mg t.i.d. and then, if necessary, 150 mg t.i.d. A maximum daily dose of 450 mg Capoten should not be exceeded. Capoten may be used in conjunction with other antihypertensive agents, particularly thiazide diuretics and beta-blockers. For some patients on multiple antihypertensive agents, there may be clinical reasons for which it would be impractical to discontinue all antihypertensive therapy prior to starting Capoten. Recognising that Capoten would usually be used in combination with a thiazide diuretic, the patient may have Capoten 25 mg t.i.d. initiated under close medical supervision while continuing diuretic therapy. Other currently administered antihypertensive agents should be discontinued according to the instructions of the manufacturer. **Heart Failure** Captopril therapy must be started under close medical supervision. The usual starting dose is 25 mg t.i.d. A starting dose of 6, 25 or 12.5 mg t.i.d. may minimise a transient hypotensive effect. After a dose of 50 mg t.i.d. is reached, further increases in dosage should be delayed, where possible, for at least two weeks to determine if a satisfactory response occurs. Capoten should be used in conjunction with a diuretic and, where appropriate, digitalis. A maximum daily dose of 450 mg should not be exceeded. **Patients with Renal Impairment** Dosage adjustment is necessary — see Data Sheet. **CONTRA-INDICATIONS, PRECAUTIONS AND WARNINGS: Contra-Indications:** Previous hypersensitivity to captopril. **Warnings:** Neutropenia, agranulocytosis and proteinuria have been reported in patients receiving captopril, usually those with a prior history of renal disease. Capoten should be used with caution in patients with impaired renal function or with connective tissue disease, particularly SLE, and in patients concurrently receiving drugs known to affect the white cells or immune response. White blood cell and differential counts should be performed on these patients before starting treatment and every two weeks during the first three months of therapy and periodically thereafter. All patients treated with Capoten should be told to report any signs of infection (e.g. sore throat, fever). A complete white blood count should be done immediately when such a report is made and if this occurs during the first three months of therapy. Capoten should be

Since I have been taking the tablets my garden has been transformed— at last I can get back to doing the things I enjoy in life.

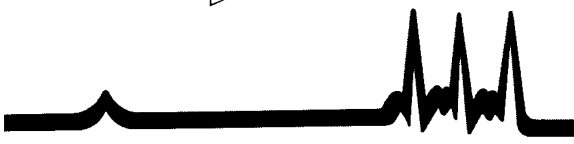
I feel better now than I have done for years; at last I can go shopping without feeling so exhausted.

What the patients say...

I thought I would never get back to work again because I felt so ill, but after only 3 months taking the new tablets I have managed to start with a part-time job.

Before I started Capoten, I was so breathless that even getting out of a chair was a major obstacle. Now I can easily potter about with no trouble at all.


I was so tired and out of breath that I had to give up working on the farm. Those new tablets changed everything and I have just managed to return to work.



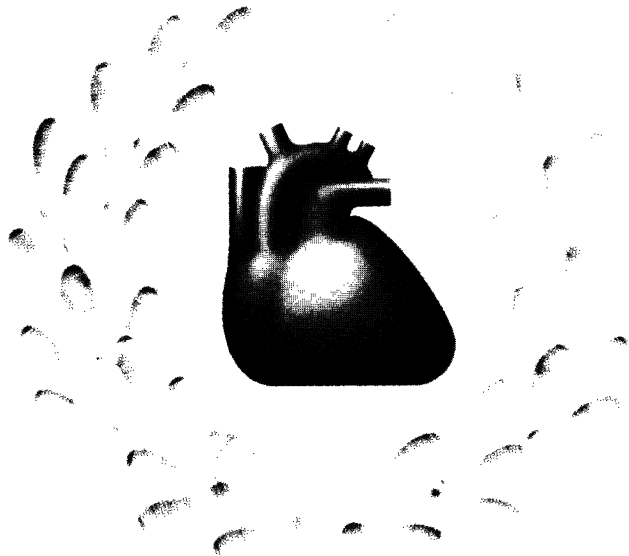
CAPOTEN

— ACE INHIBITOR CAPTOPRIL —

In refractory heart failure. There's nothing quite like it.

withdrawn until the results of the blood count are known. If any sign of neutropenia, a neutrophil count less than 1,000/mm³, the physician should withdraw Capoten and other drugs, and follow the patient's course. If Capoten is responsible for the neutropenia, the white count generally returns to normal within several weeks after discontinuing the drug. Urinary protein estimations are recommended monthly for the first nine months in patients receiving doses in excess of 150 mg per day, or those with evidence of prior renal disease. **Hypotension** Although most patients tolerate Capoten well, those already on diuretic therapy may occasionally experience dizziness or light-headedness, usually mild, indicative of hypotension, that may occur within one hour of the first dose. In most instances, symptoms are relieved simply by instructing the patient to lie down. In patients who are receiving aggressive diuretic therapy, particularly those with either severe and renal-dependent hypertension (e.g. renovascular hypertension) or severe congestive heart failure, exaggerated hypotensive responses have occurred, again usually within one hour of the initial dose of captopril. In these patients, by discontinuing diuretic therapy or slightly reducing the diuretic dose for four to seven days prior to initiating captopril, the possibility of this occurrence is lessened. The occurrence of first-dose hypotension does not preclude subsequent dose titration with captopril. Patients treated for heart failure should be advised to rise slowly after a period of rest. **Serum Potassium:** Since Capoten decreases aldosterone production, elevation of serum potassium may occur, especially in patients with renal failure. Potassium sparing diuretics or potassium supplements, if needed, should be used with caution, since they may lead to a significant increase in serum potassium. **Changes in Renal function:** Some patients with renal disease, particularly those with renal artery stenosis, have developed increased serum creatinine concentrations of BLN, and serum creatinine after reduction of blood pressure with Capoten usually, along with a diuretic. Capoten dosage reduction and/or discontinuation of diuretic may be required. For some of these patients, it may not be possible to normalize blood pressure and maintain adequate renal perfusion. **Pregnancy** The safety of Capoten in pregnancy has not been established. **Nursing Mothers** Small amounts of captopril are excreted in breast milk. **Side Effects** See Warnings. Skin rashes, taste disturbances, and gastro-intestinal upset have been reported. These are usually mild and transient. **PRODUCT LICENCE NUMBERS, NAMES AND ADDRESSES Product Licence Numbers:** Capoten Tablets 25mg PL 0034 0193 Capoten Tablets 50mg PL 0034 0194 **Basic NHS price** 25mg tablets 90 £21.49 **Legal Category:** POM. Capoten is a Squibb trade Mark.  **SQUIBB** At the forefront of cardiovascular medicine. Further information is available from: E. R. Squibb & Sons Limited, Squibb House, 141-149 Staines Road, Hounslow, Middlesex TW3 3JA.

For the long run...



Prolong protection against angina with
CEDOCARD[®] Retard-20

isosorbide dinitrate, sustained release

10-12 hours of protection on a single dose;
easier compliance

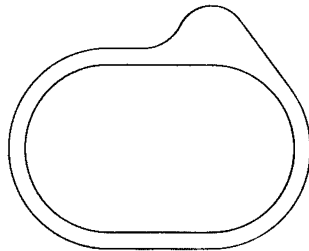
•
b.d. dosage for all-day, all-night protection

•
Steady release rate; no peaking, less headaches



Complete prescribing information is available upon request from
Tillotts Laboratories, Henlow Trading Estate, Henlow, Beds.

With long-acting nitrates, non-compliance can be a pain in the chest



For out-patients. Transiderm-Nitro[®] glyceryl trinitrate the only one a day long-acting nitrate

Presentation
Transiderm-Nitro 5 and 10 are transdermal drug delivery systems, comprising respectively 10cm² and 20cm² self-adhesive, pink-coloured patches, containing a drug reservoir of glyceryl trinitrate.

Indication
Prophylactic treatment of attacks of angina pectoris.

Dosage
One Transiderm-Nitro 5 patch is to be applied every 24 hours. If a higher dose is required, a Transiderm-Nitro 10 patch may be substituted. If acute attacks of

Average absorption rates from Transiderm-Nitro 5 and 10: 5mg/24 hours, 10mg/24 hours

angina pectoris occur, rapidly acting nitrate preparations may be required.

Side-effects
Headache, usually transient; reflex tachycardia. Postural hypotension, nausea and dizziness occur rarely. A local mild itching or burning sensation may occasionally occur.

Precautions
Pregnancy and lactation: recent myocardial infarction, heart failure. Withdraw gradually. The system should be removed before cardioversion or DC defibrillation is attempted.

Contra-indications
Hypersensitivity to nitrates, severe hypotension, marked anaemia, increased intraocular or intracranial pressure.

Packs
Boxes of 30 patches. Transiderm-Nitro 5 (PL0001/0094) basic NHS price 64.4p per day. Transiderm-Nitro 10 (PL0001/0095) basic NHS price 70.9p per day. * denotes registered trademark.
Full prescribing information is available on request from Geigy Pharmaceuticals, Horsham, West Sussex.

Introducing
MONO-CEDOCARD
(isosorbide 5-mononitrate)



**For better
control of angina**

Tillotts' dependable Cedocard line
now includes this new mononitrate dosage form



Complete prescribing information is available upon request from
Tillotts Laboratories, Henlow Trading Estate, Henlow, Beds.

A second opportunity to keep hypertension under your control



Diuretics and beta-blockers will eventually reach the limits of their effectiveness in controlling hypertension. Increasing the dosage may only increase the level of side effects.^{1,2} That is where you need the added effect of Hypovase.³

Hypovase lowers blood pressure by reducing peripheral resistance, and in addition, can actually help restore plasma lipid levels disrupted by previous beta-blocker or diuretic therapy.^{4,5} The action of Hypovase is therefore complementary to most first-line agents. When you add Hypovase, blood pressure goes down without side effects going up.


For control, not problems in hypertension, add Hypovase.



Hypovase
prazosin HCl

Adds to the value
of beta-blockers
or diuretics.

Prescribing Information: **Indications** Hypovase is indicated in the treatment of hypertension of varied aetiology and all grades of severity. It can be used alone or in conjunction with other antihypertensive drugs such as a beta-blocker or a thiazide diuretic. **Contra-indications** Sensitivity to Hypovase. **Precautions** A small percentage of patients may react more rapidly and to a greater extent than the majority. In some cases this has led to sudden loss of consciousness generally lasting a few minutes. Subsequent treatment may be satisfactory. **Warnings** Use during pregnancy. Although no teratogenic effects were seen in animal testing, the safety of Hypovase use during pregnancy or during lactation has not yet been established. Accordingly, it should be used, during these times only when in the opinion of the physician, potential benefit outweighs potential risk. **Use for children** Hypovase is not recommended for the treatment of children under the age of twelve years since safe conditions for its use have not been established. **Side-effects** Dizziness, drowsiness and lack of energy are the most common. **Dosage** Starting dose 0.5mg two or three hours before retiring; thereafter up to 20mg in divided doses. **Basic NHS Cost** 0.5mg tablet (PL57/0149) pack of 100, £4.08; 1mg tablet (PL57/0106) pack of 100, £5.25; 2mg tablet (PL57/0107) pack of 100, £6.98; 5mg tablet (PL57/0108) pack of 100, £15.58. Also available is a b.d. Starter Pack for hypertension only containing 8 x 0.5mg and 32 x 1mg Hypovase tablets £2.70. **References:** 1. Bai A., et al, J. Roy. Col. Phys., London, Oct 1982; 16: 4. 2. Maclean D., Tudhope G.R., Brit. Med. J., April 1983; 286: 1419. 3. Fauchald P., et al, Int. Symp. 1978, Pro. Exc. Med., 85-93. 4. Velasco M., et al, J. Cardiovasc. Pharmacol., 1982, Vol. 4, (Suppl 2): S225-S227. 5. Leren P., Lancet, 1980, July 2: 4-6.

*Trade Mark. Further information on request.  Pfizer Ltd., Sandwich,

Car



in angina

Calcium ion exchange mechanisms exert a number of direct effects on the cardiovascular system.

The migration of ionic calcium influences the tone of vascular smooth muscle and therefore both myocardial perfusion and total peripheral resistance. Since the movement of calcium ions controls the rate of myocyte contraction, myocardial work is also calcium-dependent.

In angina, whether or not coronary artery disease is the main cause, the use of a calcium antagonist can relieve cardiac distress, firstly by shortening the myocyte action potential, which improves the utilisation of myocardial oxygen, secondly, by reducing total peripheral resistance and

therefore cardiac work and thirdly by dilating the coronary arteries. This results in an increase in myocardial perfusion.

Although they share the same basic mode of action, calcium antagonists are not related by chemical structure and their individual pharmacological properties result in distinctly different profiles of activity. Their effects differ, notably in the degree of peripheral vasodilatation and in the extent to which myocardial contractility and pulse rate are altered.

Tildiem® (diltiazem) is a calcium antagonist, particularly well suited to the treatment of angina,¹ producing significant coronary artery dilatation² and moderate reductions in both pulse rate and peripheral resistance.³

Tildiem

diltiazem



LOREX
PHARMACEUTICALS

Prescribing information appears overleaf

Abbreviated Prescribing Information

Presentation:

Off-white, biconvex tablets each containing 60 mg diltiazem hydrochloride in a modified release formulation.

Indications:

Prophylaxis and treatment of angina pectoris.

Dosage:

General: Usual adult dose is one tablet (60 mg) three times daily. Individual patient response may require up to 360 mg daily in divided doses. 480 mg daily have been used with benefit, especially in patients with unstable angina. Elderly and patients with impaired hepatic or renal function: The recommended starting dose is one tablet (60 mg) twice daily. Heart rate should be monitored; if below 50 beats per minute the dose should not be increased.

Contra-Indications:

Pregnancy and women of child-bearing potential. Sick sinus syndrome, second or third degree AV block and severe bradycardia.

Warnings and precautions:

Patients with mild bradycardia or a prolonged PR interval should be closely observed. Caution should be observed when Tildiem is used concomitantly with beta-blockers. Patients with pre-existing conduction defects should not receive this combination.

Digitalis glycoside plasma levels may be slightly raised in the presence of Tildiem.

Side Effects:

Few have been observed and are usually mild. Bradycardia and first degree heart block, nausea, ankle oedema, headache, finger swelling and skin rash.

Pack size and basic NHS cost:

Securitainers of 100 tablets £16.67

Product Licence Number:

4969/0005

References:

1. Strauss W E, McIntyre K M, Parisi A F, et al. Safety and efficacy of Diltiazem hydrochloride for the treatment of stable angina pectoris: Report of a cooperative clinical trial. *Am. J. Cardiol.* 1982; **49**: 560-565.
2. Hossack K F, Bruce R A, Ritterman J B, et al. Divergent effects of Diltiazem in patients with exertional angina. *Am. J. Cardiol.* 1982; **49**: 538-546.
3. Henry P D. Comparative pharmacology of calcium antagonists: Nifedipine, Verapamil and Diltiazem. *Am. J. Cardiol.* 1980; **46**: 1047-1058.

diltiazem



LOREX
PHARMACEUTICALS

Lorex and Tildiem are trade marks.

Full prescribing information is available from:

Lorex Pharmaceuticals Limited
PO Box 53, Lane End Road, High Wycombe, Bucks HP12 4HL

ABC OF COMPUTING

A J ASBURY

Although computers are being widely used in medicine, their possibilities and limitations are still not clear to many potential users. This book, aimed at the non-expert, describes some of the uses of computers in medicine; because most doctors' involvement will be indirect, liaising with computer experts rather than designing systems themselves, the book concentrates on concepts rather than detailed descriptions of how computers work. It provides a useful introduction for the doctor who wants to know how computers can contribute to his practice of medicine.

Price: Inland £5.75;
Overseas £8.00*/USA \$14.00*
(Inland £5.25;
Overseas £7.50*/USA \$13.00*
to BMA members)

**including air mail postage*

Payment must be enclosed with order

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When a patient comes to you with a pulled muscle, maybe you should recommend Flora.

Perhaps the best time to start your patients thinking more seriously about their health is when they come to you with some more routine complaint.



It is now widely accepted that changes in diet and lifestyle can dramatically decrease the risk of Coronary Heart Disease developing.

So the best time to recommend Flora is before, not after, any symptoms of CHD present themselves.

Flora is high in essential polyunsaturated fats (*cis-cis* linoleic), because it is made with pure sunflower oil.

Whenever an opportunity arises to recommend ways in which your patients could reduce the CHD risk factors, recommend they change to Flora, too.

Flora. High in essential polyunsaturates.





For stabilization of CHF, stat! CEDOCARD® I.V.

10 mg isosorbide dinitrate in 10 ml solution
ampoules for injection

- An infusion for unresponsive congestive heart failure, especially after myocardial infarction
- Stabilizes patients as quickly and effectively as I.V. glyceryl trinitrate
- For the control of refractory angina pectoris; provides all of the haemodynamic benefits of oral isosorbide dinitrate, in parenteral form
- More certain delivery than I.V. glyceryl trinitrate, CEDOCARD I.V. loses much less potency through PVC tubing than does GTN

Opening CEDOCARD ampoules is a snap! with ...

CEDOSNAP!



- Protects thumbs from glass cuts
- Handy, dependable, easy!
- Available in quantity from your Tillotts representative, or by writing to Tillotts Laboratories, Henlow Trading Estate, Henlow, Bedfordshire SG16 6 DS

Peace of Heart



Prescribing Information: Presentation Clear glass ampoules containing 10 mg of isosorbide dinitrate in 10 ml of colourless isotonic saline solution. **Uses** For the treatment of unresponsive congestive heart failure, particularly after myocardial infarction. Cedocard infusion reduces elevated left ventricular filling pressure in patients with congestive heart failure. For the control of refractory angina pectoris. **Dosage & Administration** Administration by intravenous infusion only. Adult dose: The dosage must be determined individually. Doses of 2-10 mg per hour (33-167 mcg/min) are recommended. There is no recommended dose for children. Start the infusion with 2 mg/hour and increase progressively according to the evolution of haemodynamic parameters and the clinical condition of the patient. Gradually decrease the concentration of infusion and switch to oral or sublingual Cedocard. There should be no abrupt interruption of the infusion except for severe hypotension. Continuous haemodynamic supervision during the infusion is required (blood pressure and pulse rate should be closely monitored). **Preparation of solution for infusion.** The contents of Cedocard I.V. must be administered by infusion only. Cedocard I.V. can be diluted with isotonic saline, 5-30% glucose solution or Krebs-Ringer solution. **Contra-indications, Warnings, etc.** Contra-indications: Hypotension, cardiogenic shock. **Precautions:** Close supervision of the pulse rate and blood pressure of the patient is necessary for safe and optimum treatment. Cedocard I.V. must be administered by infusion after dilution. If PVC infusion bags (e.g., Travenol Viaflex, Boots Steriflex) and administration sets are used for Cedocard infusion, 15-30% of the drug can be lost by adsorption. There is no loss of active constituent from solution in glass or polyethylene apparatus. It is recommended that Cedocard I.V. is administered using a syringe pump (glass or rigid plastic) with short sections of polyethylene tubing. Alternatively, a polyethylene infusion bag (e.g., Boots Polyfusor) may be used. Should only PVC infusion bags be available it is particularly important to carry out close haemodynamic monitoring of the patient; infusion rate should be modified according to required haemodynamic response. PVC bags of 500 ml volume should be used to minimise adsorption of isosorbide dinitrate. **Adverse reactions:** Headache. In the case of an excessive reduction in blood pressure, phenomena indicating a reduced blood supply to the heart may appear. **Treatment of overdose:** If arterial systolic blood pressure drops below 90 mm Hg and if heart rate increases above 10% of its initial value, the infusion should be discontinued to allow a return to pretreatment levels. Passive exercise of the extremities of the recumbent patient will promote venous return. **Pharmaceutical Precautions** Protect from exposure to excessive heat. The Cedocard dilution for infusion is stable up to 24 hours. **Legal Category POM. Package Quantities** Packs of 10 ampoules. **Further Information** Nil. **Product Licence** PL 0424/0012.

Henlow Trading Estate, Henlow, Beds. SG16 6DS.

Tillotts
LABORATORIES