Adverse Effects and Precautions
As for Losartan Potassium, p.1326.

Interactions
As for Losartan Potassium, p.1327.

Pharmacokinetics
Candesartan cilexetil is an ester prodrug that is hydrolysed during absorption from the gastrointestinal tract to the active form candesartan. The absolute bioavailability for candesartan is about 40% when candesartan cilexetil is given as a solution and about 14% when given as tablets. Peak plasma concentrations of candesartan occur about 3 to 4 hours after oral doses as tablets. Candesartan is more than 99% bound to plasma proteins. It is excreted in urine and bile mainly as unchanged drug and a small amount of inactive metabolites. The terminal elimination half-life is about 9 hours. Candesartan is not removed by haemodialysis.

◊ Reviews.

1. Gleiter CH, Mörike KE. Clinical pharmacokinetics of candesartan. *Clin Pharmacokinet* 2002; **41:** 7–17.

Uses and Administration
Candesartan is an angiotensin II receptor antagonist with actions similar to those of losartan (p.1327). It is used in the management of hypertension (p.1171) and may also be used in heart failure in patients with impaired left ventricular systolic function, either when ACE inhibitors are not tolerated, or in addition to ACE inhibitors, (see under Losartan Potassium, p.1327).

Candesartan is given orally as the ester prodrug candesartan cilexetil. Onset of antihypertensive action occurs about 2 hours after a dose and the maximum effect is achieved within about 4 weeks of starting therapy.

In the management of **hypertension** the usual initial dose of candesartan cilexetil is 8 mg once daily in the UK, or 16 mg once daily in the USA. The dose should be adjusted according to response; the usual maintenance dose is 8 mg once daily, but doses up to 32 mg daily, as a single dose or in 2 divided doses, may be used. Lower initial doses should be considered in patients with intravascular volume depletion; in the UK an initial dose of 4 mg once daily is suggested. Patients with renal or hepatic impairment may also require lower initial doses (see below).

In **heart failure,** candesartan cilexetil is given in an initial dose of 4 mg once daily; the dose should be doubled at intervals of not less than two weeks up to 32 mg once daily if tolerated.

◊ Reviews.

1. Sever P, Ménard J, eds. Angiotensin II antagonism refined: candesartan cilexetil. *J Hum Hypertens* 1997; **11** (suppl 2): S1–S95.
2. McClellan KJ, Goa KL. Candesartan cilexetil: a review of its use in essential hypertension. *Drugs* 1998; **56:** 847–69.
3. Stoukides CA, *et al.* Candesartan cilexetil: an angiotensin II receptor blocker. *Ann Pharmacother* 1999; **33:** 1287–98.
4. See S, Stirling AL. Candesartan cilexetil: an angiotensin II-receptor blocker. *Am J Health-Syst Pharm* 2000; **57:** 739–46.
5. Easthope SE, Jarvis B. Candesartan cilexetil: an update of its use in essential hypertension. *Drugs* 2002; **62:** 1253–87.
6. Fenton C, Scott LJ. Candesartan cilexetil: a review of its use in the management of chronic heart failure. *Drugs* 2005; **65:** 537–58.
7. McKelvie RS. Candesartan for the management of heart failure: more than an alternative. *Expert Opin Pharmacother* 2006; **7:** 1945–56.
8. Meredith PA. Candesartan cilexetil—a review of effects on cardiovascular complications in hypertension and chronic heart failure. *Curr Med Res Opin* 2007; **23:** 1693–1705.

Administration in hepatic or renal impairment. The elimination of candesartan may be reduced in patients with hepatic or renal impairment and lower doses may therefore be required. Candesartan may also have adverse effects on renal function and regular monitoring is advised in patients with heart failure.

In the UK, candesartan is contra-indicated in severe hepatic impairment and an initial dose of 2 mg once daily is recommended for hypertension in patients with mild to moderate impairment. In the USA, consideration of a lower dose is recommended for moderate hepatic impairment.

For patients with renal impairment, an initial dose of 4 mg once daily is recommended in the UK for hypertension, including for patients on haemodialysis. In the USA, no initial dose adjustment is recommended for mild renal impairment, although dose reduction may be considered if patients are volume depleted. For patients with heart failure, dose reduction or discontinuation of candesartan may be necessary if renal function deteriorates.

Migraine. For reference to the use of angiotensin II receptor antagonists, including candesartan, in the prophylaxis of migraine, see under Losartan, p.1328.

Preparations
Proprietary Preparations (details are given in Part 3)
Arg.: Atacand; Dacten; Tiadyl; ***Austral.:*** Atacand; ***Austria:*** Atacand; Blopress; ***Belg.:*** Atacand; ***Braz.:*** Atacand; Blopress; ***Canad.:*** Atacand; ***Chile:*** Atacand; Bilaten; Blopress; Blox; ***Cz.:*** Atacand; Blopress†; ***Denm.:*** Atacand; ***Fin.:*** Atacand; ***Fr.:*** Atacand; Kenzen; ***Ger.:*** Atacand; Blopress; ***Gr.:*** Atacand; ***Hong Kong:*** Blopress; ***Hung.:*** Atacand; ***India:*** Candesar; ***Indon.:*** Blopress; ***Irl.:*** Atacand; ***Israel:*** Atacand; ***Ital.:*** Blopress; Ratacand; ***Jpn:*** Blopress; ***Malaysia:*** Atacand; Blopress; ***Mex.:*** Atacand; Blopress; ***Neth.:*** Amias; Atacand; Blopress; Ratacand; ***Norw.:*** Atacand; ***NZ:*** Atacand; ***Philipp.:*** Blopress; ***Pol.:*** Atacand; ***Port.:*** Atacand; Blopress; ***Rus.:*** Atacand (Атаканд); ***S.Afr.:*** Atacand; ***Singapore:*** Atacand; ***Spain:*** Atacand; Blopress; Parapres; ***Swed.:*** Atacand; ***Switz.:*** Atacand; Blopress; ***Thai.:*** Blopress; ***Turk.:*** Atacand; Ayra; ***UK:*** Amias; ***USA:*** Atacand; Candepressin; ***Venez.:*** Atacand; Blopress.

Multi-ingredient: ***Arg.:*** Atacand-D; Dacten D; Tiadyl Plus; ***Austral.:*** Atacand Plus; ***Austria:*** Atacand Plus; Blopress Plus; ***Belg.:*** Atacand Plus; ***Braz.:*** Atacand HCT; ***Canad.:*** Atacand Plus; ***Chile:*** Bilaten-D; Blopress D; Blox-D; ***Cz.:*** Atacand Plus; ***Denm.:*** AtacandZid; Atazid; ***Fin.:*** Atacand Plus; ***Fr.:*** Cokenzen; Hytacand; ***Ger.:*** Atacand Plus; Blopress Plus; ***Gr.:*** Atacand Plus; ***Hong Kong:*** Blopress Plus; ***Hung.:*** Atacand Plus; ***Indon.:*** Blopress Plus; ***Irl.:*** Atacand Plus; ***Israel:*** Atacand Plus; ***Ital.:*** Blopresid; Ratacand Plus; ***Malaysia:*** Atacand Plus; ***Mex.:*** Atacand Plus; Blopress Plus; ***Neth.:*** Atacand Plus; Blopresid; ***Norw.:*** Atacand Plus; ***Philipp.:*** Blopress Plus; ***Port.:*** Blopress 16 mg + 12,5 mg; Blopress Comp; Hytacand; ***S.Afr.:*** Atacand Plus; ***Singapore:*** Atacand Plus; ***Spain:*** Atacand Plus; Parapres Plus; ***Swed.:*** Atacand Plus; ***Switz.:*** Atacand Plus; Blopress Plus; ***Thai.:*** Blopress Plus; ***Turk.:*** Atacand Plus; ***USA:*** Atacand HCT; Candepressin Plus; ***Venez.:*** Atacand Plus; Blopress Plus.

Canrenone *(USAN, pINN)* ⊗
Canrenona; Canrénone; Canrenonum; SC-9376. 17-Hydroxy-3-oxo-17α-pregna-4,6-diene-21-carboxylic acid γ-lactone.

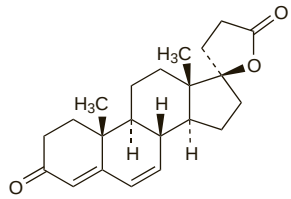
Канренон

$C_{22}H_{28}O_3$ = 340.5.

CAS — 976-71-6.

ATC — C03DA03.

ATC Vet — QC03DA03.



Profile
Canrenone is a potassium-sparing diuretic with properties similar to those of spironolactone (p.1400) and is given orally in the treatment of refractory oedema associated with heart failure (p.1165), renal, or hepatic disease, and in hypertension (p.1171). It is a metabolite of both spironolactone and potassium canrenoate (p.1374). It is given in usual doses of 50 to 200 mg daily. Doses of up to 300 mg daily may be required in some patients.

Preparations
Proprietary Preparations (details are given in Part 3)
Belg.: Contaren†; ***Ital.:*** Luvion.

Captopril *(BAN, USAN, rINN)*
Captoprilum; Kaptopriili; Kaptopril; Kaptoprilis; SQ-14225. 1-[(2*S*)-3-Mercapto-2-methylpropionyl]-L-proline.

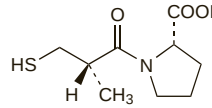
Каптоприл

$C_9H_{15}NO_3S$ = 217.3.

CAS — 62571-86-2.

ATC — C09AA01.

ATC Vet — QC09AA01.



NOTE. Compounded preparations of captopril may be represented by the following names:

- Co-zidocapt (*BAN*)—captopril 2 parts and hydrochlorothiazide 1 part (w/w).

Pharmacopoeias. In *Chin.*, *Eur.* (see p.vii), *Int.*, *Jpn*, and *US.*

Ph. Eur. 6.2 (Captopril). A white or almost white crystalline powder. Freely soluble in water, in dichloromethane, and in methyl alcohol. It dissolves in dilute solutions of alkali hydroxides. A 2% solution in water has a pH of 2.0 to 2.6. Store in airtight containers.

USP 31 (Captopril). A white or off-white crystalline powder which may have a characteristic sulfide-like odour. Freely soluble in water, in alcohol, in chloroform, and in methyl alcohol. Store in airtight containers.

Stability. Although captopril itself is relatively stable[1] at temperatures up to 50°, and extemporaneously prepared powders (made by triturating the tablets with lactose) have been reported to be stable for at least 12 weeks at room temperature,[2] aqueous solutions are subject to oxidative degradation, mainly to captopril disulfide,[1] which increases[3] with increase in pH above 4. The manufacturers report that a liquid form of captopril prepared from pulverised tablets in distilled water containing 1 mg/mL retained 96.6% of the original concentration of drug after storage at room temperature for 5 days, but they advise that since it contains no preservative it should be used within 2 days of preparation.[4] Others have reported wide variations in stability depending upon the formulation. In one study[5] the shelf-life of a solution of captopril 1 mg/mL prepared from crushed tablets and tap water was estimated to be 27 days when stored at 5°. However, in another study[6] captopril was much less stable; in sterile water for irrigation captopril was stable for at least 3 days when stored at 5°, but in tap water it disappeared at a much faster rate. Increased stability has been reported after the addition of sodium ascorbate to the solution,[7] and with captopril powder rather than crushed tablets.[8] A 1 mg/mL preparation made with crushed tablets and undiluted syrup has also been reported to be stable for 30 days at 5° and may be more palatable than aqueous formulations.[9]

1. Lund W, Cowe HJ. Stability of dry powder formulations. *Pharm J* 1986; **237:** 179–80.
2. Taketomo CK, *et al.* Stability of captopril in powder papers under three storage conditions. *Am J Hosp Pharm* 1990; **47:** 1799–1801.
3. Timmins P, *et al.* Factors affecting captopril stability in aqueous solution. *Int J Pharmaceutics* 1982; **11:** 329–36.
4. Andrews CD, Essex A. Captopril suspension. *Pharm J* 1986; **237:** 734–5.
5. Pereira CM, Tam YK. Stability of captopril in tap water. *Am J Hosp Pharm* 1992; **49:** 612–15.
6. Anaizi NH, Swenson C. Instability of aqueous captopril solutions. *Am J Hosp Pharm* 1993; **50:** 486–8.
7. Nahata MC, *et al.* Stability of captopril in three liquid dosage forms. *Am J Hosp Pharm* 1994; **51:** 95–6.
8. Chan DS, *et al.* Degradation of captopril in solutions compounded from tablets and standard powder. *Am J Hosp Pharm* 1994; **51:** 1205–7.
9. Lye MYF, *et al.* Effects of ingredients on stability of captopril in extemporaneously prepared oral liquids. *Am J Health-Syst Pharm* 1997; **54:** 2483–7.

Adverse Effects, Treatment, and Precautions
As for ACE inhibitors, p.1193.

Captopril has been reported to cause false positive results in tests for acetone in urine.

Incidence of adverse effects. Results of postmarketing surveillance[1] in 30 515 hypertensive patients taking captopril showed that 4.9% had their therapy stopped because of adverse effects thought to be due to the drug. The mean initial daily dose was 46 mg; at final evaluation the mean daily dose was 58 mg. The adverse effect most commonly reported was headache (in 1.8%); others included dizziness (1.6%), rashes (1.1%), nausea (1.0%), taste disturbances (0.9%), and cough (0.8%). This study excluded patients with renal impairment but an earlier survey[2] in 6737 patients taking captopril alone or in combination found that rash and dysgeusia were more frequent in patients with renal impairment (occurring in 6.2% and 3.2% respectively of those receiving 150 mg daily or less of captopril) than in those with normal serum creatinine (4.3% and 2.2%). The frequency of both symptoms was somewhat higher in those given higher doses. Symptoms of hypotension occurred in about 5% of patients and were not influenced by dose or renal function. The cumulative frequency of withdrawal due to adverse effects was estimated at 5.8% in this study, which is similar to that in the larger survey. In another postmarketing surveillance study[3] involving more than 60 000 patients, captopril was withdrawn in 8.9% because of adverse effects.

For further reference to some of these adverse effects, see under ACE Inhibitors, p.1193.

1. Schoenberger JA, *et al.* Efficacy, safety, and quality-of-life assessment of captopril antihypertensive therapy in clinical practice. *Arch Intern Med* 1990; **150:** 301–6.
2. Jenkins AC, *et al.* Captopril in hypertension: seven years later. *J Cardiovasc Pharmacol* 1985; **7** (suppl 1): S96–S101.
3. Chalmers D, *et al.* Postmarketing surveillance of captopril for hypertension. *Br J Clin Pharmacol* 1992; **34:** 215–23.

Breast feeding. Captopril is distributed into breast milk and licensed product information advises that breast feeding should be avoided. However, a study[1] in 12 women found that the concentration of captopril in breast milk was about 1% of maternal blood concentrations, suggesting that the amount ingested by the

infant would be very low. No adverse effects were noted in the infants in this study, and the American Academy of Pediatrics considers[2] that captopril is therefore usually compatible with breast feeding.

1. Devlin RG, Fleiss PM. Captopril in human blood and breast milk. *J Clin Pharmacol* 1981; **21:** 110–113.
2. American Academy of Pediatrics. The transfer of drugs and other chemicals into human milk. *Pediatrics* 2001; **108:** 776–89. Correction. *ibid.*; 1029. Also available at: http://aappolicy.aappublications.org/cgi/content/full/pediatrics%3b108/3/776 (accessed 05/07/04)

Porphyria. Captopril is considered to be unsafe in patients with porphyria because it has been shown to be porphyrinogenic in *in-vitro* systems.

Interactions

As for ACE inhibitors, p.1196.

Pharmacokinetics

About 60 to 75% of a dose of captopril is absorbed from the gastrointestinal tract and peak plasma concentrations are achieved within about an hour. Absorption has been reported to be reduced in the presence of food, but this may not be clinically relevant (see below). Captopril is about 30% bound to plasma proteins. It crosses the placenta and is found in breast milk at about 1% of maternal blood concentrations. It is largely excreted in the urine, 40 to 50% as unchanged drug, the rest as disulfide and other metabolites. The elimination half-life has been reported to be 2 to 3 hours but this is increased in renal impairment. Captopril is removed by haemodialysis.

◊ Reviews.

1. Duchin KL, *et al.* Pharmacokinetics of captopril in healthy subjects and in patients with cardiovascular diseases. *Clin Pharmacokinet* 1988; **14:** 241–59.

Absorption. The bioavailability and peak plasma concentrations of captopril have been shown to be reduced by 25 to 55% when given with food in single dose studies[1-4] and with chronic dosing.[5] However, this may not be clinically significant since several studies[3,4,6] indicated that food intake had no effect on the antihypertensive activity of captopril.

1. Williams GM, Sugerman AA. The effect of a meal, at various times relative to drug administration, on the bioavailability of captopril. *J Clin Pharmacol* 1982; **22:** 18A.
2. Singhvi SM, *et al.* Effect of food on the bioavailability of captopril in healthy subjects. *J Clin Pharmacol* 1982; **22:** 135–40.
3. Mäntylä R, *et al.* Impairment of captopril bioavailability by concomitant food and antacid intake. *Int J Clin Pharmacol Ther Toxicol* 1984; **22:** 626–9.
4. Müller HM, *et al.* The influence of food intake on pharmacodynamics and plasma concentration of captopril. *J Hypertens* 1985; **3** (suppl 2): S135–S136.
5. Öhman KP, *et al.* Pharmacokinetics of captopril and its effects on blood pressure during acute and chronic administration and in relation to food intake. *J Cardiovasc Pharmacol* 1985; **7** (suppl 1): S20–S24.
6. Izumi Y, *et al.* Influence of food on the clinical effect of angiotensin I converting enzyme inhibitor (SQ 14225). *Tohoku J Exp Med* 1983; **139:** 279–86.

Renal impairment. A study of 9 patients with chronic renal failure undergoing dialysis found that peak plasma concentrations of captopril were 2.5 times higher and peak concentrations of the disulfide metabolites were 4 times higher than in patients with normal renal function following a single dose of captopril.[1] Peak concentrations occurred later in uraemic patients and the apparent half-life of total captopril was 46 hours in uraemic patients compared with 2.95 hours in patients with normal renal function.

1. Drummer OH, *et al*. The pharmacokinetics of captopril and captopril disulfide conjugates in uraemic patients on maintenance dialysis: comparison with patients with normal renal function. *Eur J Clin Pharmacol* 1987; **32:** 267–71.

Uses and Administration

Captopril is a sulfhydryl-containing ACE inhibitor (p.1193). It is used in the management of hypertension (p.1171), in heart failure (p.1165), after myocardial infarction (p.1175), and in diabetic nephropathy (see Kidney Disorders, p.1199).

After oral doses captopril produces a maximum effect within 1 to 2 hours, although the full effect may not develop for several weeks during chronic dosing. The duration of action is dose-dependent and may persist for 6 to 12 hours.

In the treatment of **hypertension** the initial oral dose is 12.5 mg twice daily, increased gradually at intervals of 2 to 4 weeks according to the response. Since there may be a precipitous fall in blood pressure in some patients when starting therapy with an ACE inhibitor, the first dose should preferably be given at bedtime. An initial dose of 6.25 mg twice daily is recommended if captopril is given in addition to a *diuretic* or to elderly patients; if possible the diuretic should be stopped 2 or 3 days before introducing captopril. The usual maintenance dose is 25 to 50 mg twice daily and should not normally exceed 50 mg three times daily. If hypertension is not satisfactorily controlled at this dosage, addition of a second drug or substitution of an alternative drug should be considered. In the USA higher doses of up to 150 mg three times daily have been suggested for patients with hypertension uncontrolled by lower doses of captopril in conjunction with diuretic therapy.

In the treatment of **heart failure** severe first-dose hypotension on introduction of an ACE inhibitor is common in patients on loop diuretics, but their temporary withdrawal may cause rebound pulmonary oedema. Thus an initial oral dose of 6.25 to 12.5 mg of captopril is given under close medical supervision; the usual maintenance dose is 25 mg two or three times daily, and doses should not normally exceed 50 mg three times daily. Again, in the USA higher doses of up to 150 mg three times daily have been suggested.

After **myocardial infarction**, captopril is used prophylactically in clinically stable patients with symptomatic or asymptomatic left ventricular dysfunction to improve survival, delay the onset of symptomatic heart failure, and reduce recurrent infarction. It may be started 3 days after myocardial infarction in an initial oral dose of 6.25 mg, increased over several weeks to 150 mg daily in divided doses if tolerated.

In **diabetic nephropathy** (microalbuminuria greater than 30 mg/day) in type 1 diabetics, 75 to 100 mg of captopril may be given daily, in divided oral doses. Other antihypertensives may be used with captopril if a further reduction in blood pressure is required.

Doses may need to be reduced in patients with renal impairment (see below).

Administration. Captopril is generally given orally. Sublingual[1] and intravenous[2,3] dosage has also been tried, but these routes are not established.

1. Angeli P, *et al.* Comparison of sublingual captopril and nifedipine in immediate treatment of hypertensive emergencies: a randomized, single-blind clinical trial. *Arch Intern Med* 1991; **151:** 678–82.
2. Savi L, *et al.* A new therapy for hypertensive emergencies: intravenous captopril. *Curr Ther Res* 1990; **47:** 1073–81.
3. Langes K, *et al.* Efficacy and safety of intravenous captopril in congestive heart failure. *Curr Ther Res* 1993; **53:** 167–76.

Administration in children. Experience with captopril in children is limited. UK licensed product information suggests an initial dose of 300 micrograms/kg in children and adolescents; half this dose should be given initially to neonates and infants (including premature infants), and children with renal impairment. The dose is adjusted according to response and is usually given three times daily.

Captopril, given in an initial dose of 250 micrograms/kg daily, increased to up to 2.5 or 3.5 mg/kg daily in 3 divided doses has also been reported to produce benefit in infants with severe heart failure secondary to congenital defects (mainly manifesting as left-to-right shunt).[1,2]

The following doses of captopril are suggested by the *BNFC* for hypertension, heart failure, proteinuria in nephritis, or diabetic nephropathy:

- neonate: test dose, 10 to 50 micrograms/kg (10 micrograms/kg if the neonate is less than 37 weeks postmenstrual age); if tolerated, give 10 to 50 micrograms/kg 2 or 3 times daily, increased as necessary to a maximum of 2 mg/kg daily in divided doses (maximum of 300 micrograms/kg daily in divided doses if the neonate is less than 37 weeks postmenstrual age)
- child 1 month to 12 years: test dose, 100 micrograms/kg (maximum 6.25 mg); if tolerated, give 100 to 300 micrograms/kg 2 or 3 times daily, increased as necessary to a maximum of 6 mg/kg daily in divided doses (maximum of 4 mg/kg daily in divided doses in child 1 month to 1 year)
- child 12 years to 18 years: test dose, 100 micrograms/kg or 6.25 mg; if tolerated, give 12.5 to 25 mg 2 or 3 times daily, increased as necessary to a maximum of 150 mg daily in divided doses

1. Scammell AM, *et al.* Captopril in treatment of infant heart failure: a preliminary report. *Int J Cardiol* 1987; **16:** 295–301.
2. Shaw NJ, *et al.* Captopril in heart failure secondary to a left to right shunt. *Arch Dis Child* 1988; **63:** 360–3.

Administration in renal impairment. The dose of captopril should be reduced or the dosage interval increased in adults with renal impairment, depending on their creatinine clearance (CC). The following doses have been suggested:

- CC 21 to 40 mL/minute per 1.73 m^2: initial daily dose 25 mg and maximum daily dose 100 mg
- CC 10 to 20 mL/minute per 1.73 m^2: initial daily dose 12.5 mg and maximum daily dose 75 mg
- CC below 10 mL/minute per 1.73 m^2: initial daily dose 6.25 mg and maximum daily dose 37.5 mg

If a diuretic also needs to be given, a loop diuretic should be chosen rather than a thiazide.

Nitrate tolerance. For reference to the use of captopril as a sulfhydryl donor in the management of nitrate tolerance, see under Precautions for Glyceryl Trinitrate, p.1297.

Preparations

BP 2008: Captopril Tablets;
USP 31: Captopril and Hydrochlorothiazide Tablets; Captopril Oral Solution; Captopril Oral Suspension; Captopril Tablets.

Proprietary Preparations (details are given in Part 3)

Arg.: Antasten; ***Austral.:*** Acenorm; Capoten; Captohexal; Enzace†; Topace; ***Austria:*** Capace; Capostad; Captomed; Captor; Captotyrol†; Debax; Lopirin; ***Belg.:*** Capoten; Capriltop; Captoprimed; Doccaptopri; ***Braz.:*** Cabioten†; Capobal; Capoten; Capotrat; Capotril†; Capox; Capril; Captil†; Captobel†; Captocord†; Captolab; Captolin†; Captomed; Capton†; Captopiril; Captopron; Captosen†; Captosif†; Captotec†; Captozen†; Captrizin; Cardilom†; Carditril†; Catoprol; Ductopril; Hipoten; Normapril; Pressomax; Prilpressin; Tompril†; Venopril†; ***Canad.:*** Apo-Capto; Capoten; Novo-Captoril; Nu-Capto; ***Chile:*** Capoten; Propenil; ***Cz.:*** Alkadil†; Apo-Capto†; Capoten; Katopil†; Tensiomin; ***Denm.:*** Capoten; Captodan; Captol; Catonet†; ***Fin.:*** Capoten; Captomin; Captostad†; Lopril; ***Fr.:*** Captolane; Lopril; ***Ger.:*** ACE-Hemmer; Acenorm†; Adocor; Capto; Capto-dura M†; Captobeta; Captodoc; Captoflux; Captogamma; Captohexal; Captomerck†; Captopress; Cardiagen; cor tensobon; Coronorm; Epicordin†; Jucapt; Lopirin; Mundil†; Phamopril†; Sigacap Cor†; Tensiomin; Tensiomin-Cor; Tensobon; Tensostad; ***Gr.:*** Capoten; Ftonavil†; Hypotensor; Neo-Ipertas; Normolose; Odupril†; Pertacilon; Sancap†; ***Hong Kong:*** Apo-Capto; Capocard†; Capoten; Capril; Dexacap†; Epsitron†; Kimafan; Novo-Captoril; Rilcapton†; Ropril; Tensiomin; ***Hung.:*** Aceomel; Capin†; Captogamma; Huma-Captoril†; Tensiomin; ***India:*** Aceten; Capace; ***Indon.:*** Acepress; Capoten; Captensin; Casipril; Dexacap; Farmoten; Forten; Locap; Lotensin; Metopril; Otoryl; Praten; Scantensin; Tenofax; Tensicap; Tensobon; ***Irl.:*** Aceomel; Actopril†; Capoten; Caprill; Captor; Geroten; Tensopril†; ***Israel:*** Acenil; Captil†; Inhibace†; ***Ital.:*** Acepress; Aceprilex; Capoten; Maxipril; Merapril†; Tenpril; ***Malaysia:*** Apo-Capto†; Apuzin; Capoten†; ***Mex.:*** Altiver; Atrisol; Biodezil; Bioxil; Brucap; Bugazon; Capotena; Captoser; Captral; Cardipril; Catona; Cryopril; Eca Presan; Ecapril; Ecaten; Enlace; Hipertex; Kenapril†; Kenolan; Keyerpril†; Lenpryl; Midrat; Miocap; Novapres; Precaptil; Prinarten; Proldin; Reductel; Reduprec; Romir; Tensil; Toprilem; Tropisol†; Tropix-HC; Varaxil; ***Neth.:*** Capoten; ***Norw.:*** Capoten; ***NZ:*** Capoten; Captohexal; ***Philipp.:*** Capomed; Capoten; Hartylox; Normil; Prelat; Primace; Retensin; Tensoril; Unihype; Vasostad; ***Port.:*** Calpix†; Capoten; Capritin; Carencil†; Convertal†; Hipertil; Hipotensil; Mereprine†; Pressil; Prilovase; Tensopril†; Vidapril; Xenam; ***Rus.:*** Aceten (Ацетен); Angiopril (Ангиоприл); Apo-Capto (Апо-капто); Capoten (Капотен); Rilcapton (Римкаптон); ***S.Afr.:*** Aceten; Capace; Capoten; Captohexal; Captomax; Cardiace; Zapto; ***Singapore:*** Apo-Capto; Capoten†; Catoplin; Ketanine†; Pertacilon†; Rilcapton; Tensoprel†; ***Spain:*** Alopresin†; Capoten; Captosina; Cesplon; Dardex†; Dilabar; Garanil; Tensoprel; ***Swed.:*** Capoten; ***Switz.:*** capto-basan†; Captosol; Lopirin; ***Thai.:*** Capoten; Epsitron; Gemzil; Tensiomin†; ***Turk.:*** Kapril; Kaptoril; ***UAE:*** Captophar; ***UK:*** Acepril; Capoten; Ecopace; Kaplon; Tensopril; ***USA:*** Capoten; ***Venez.:*** Capoten; Ceplon†; Tabulan.

Multi-ingredient: ***Austria:*** Capozide; Captocomp; Captohexal Comp; Captopril Compositum; Captopril-HCT; Co-Captopril; Co-Captotyrol†; Veracapt; ***Braz.:*** Capox H; Captotec + HCT†; Hidropril; Lopril; ***Cz.:*** Captohexal Comp†; ***Denm.:*** Capozid; ***Fr.:*** Captea; Ecazide; ***Ger.:*** ACE-Hemmer comp; Acenorm HCT†; Adocomp; Capozide; Capto Comp; Capto Plus; Captobeta Comp; Captodoc Comp; Captogamma HCT; Captohexal Comp; Captopril Comp; Captopril HCT; Captopril Plus; Cardiagen HCT; Jutacor comp; Tensobon comp; ***Gr.:*** Anastol; Captopress; Captospes+H; Dosturel; Ekzevit†; Empirol; Fetylan; Kifarol; Normolose-H; Pentatec; Piesital; Return; Sancazid; Sedapressin; Superace; Uresan; Zidepril; ***Indon.:*** Capozide; ***Irl.:*** Capozide; Captor-HCT; Half Capozide; ***Ital.:*** Acediur; Aceplus; ***Mex.:*** Capozide; Captral ASA; Co-Captral; ***Neth.:*** Capozide†; ***NZ:*** Capozide; ***Port.:*** Lopiretic; Normotil†; ***Rus.:*** Capozide (Капозид); ***S.Afr.:*** Capozide; Captoretic; Zapto Co; ***Spain:*** Alopresin Diu†; Cesplon Plus; Decresco†; Dilabar Diu; Ecadiu; Ecazide; ***Switz.:*** Capozide; Captosol comp; Tensobon comp; ***UK:*** Acezide; Capozide; Capto-Co; ***USA:*** Capozide; ***Venez.:*** Capozide; Cartazid†.

Carazolol *(BAN, rINN)* ⊗

BM-51052; Carazololum. 1-(Carbazol-4-yloxy)-3-isopropylaminopropan-2-ol.

Каразолол

$C_{18}H_{22}N_2O_2$ = 298.4.
CAS — 57775-29-8.
ATC Vet — QC07AA90.