ma (see Apraclonidine, p.1877). Beta$_1$ agonists are mainly used for their inotropic actions in acute heart failure and shock, while beta$_2$ agonists such as salbutamol (p.1131) are used for their bronchodilator effects and as uterine relaxants in premature labour. Sympathomimetics with mainly CNS effects may be used as central stimulants (see Dexamfetamine, p.2153).

Talinolol *(rINN)* ⊗

Talinololum. (±)-1-{*p*-[3-(*tert*-Butylamino)-2-hydroxypropoxy]-phenyl}-3-cyclohexylurea.

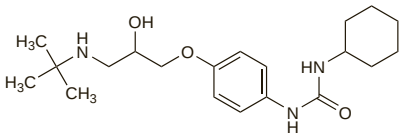
Талинолол

$C_{20}H_{33}N_3O_3$ = 363.5.

CAS — 57460-41-0.

ATC — C07AB13.

ATC Vet — QC07AB13.



Profile

Talinolol is a cardioselective beta blocker (p.1225). It is given orally in the management of hypertension (p.1171) and other cardiovascular disorders, in doses of up to 300 mg daily. It has also been given intravenously.

Preparations

Proprietary Preparations (details are given in Part 3)
Cz.: Cordanum†; ***Ger.:*** Cordanum; ***Rus.:*** Cordanum (Корданум).

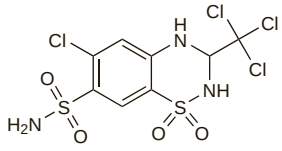
Teclothiazide Potassium *(BANM, rINNM)* ⊗

Kalii Teclothiazidum; Téclothiazide Potassique; Teclotiazida potásica; Tetrachlormethiazide Potassium. 6-Chloro-3,4-dihydro-3-trichloromethyl-2*H*-1,2,4-benzothiadiazine-7-sulphonamide 1,1-dioxide potassium.

Калия Теклотиазид

$C_8H_7Cl_4N_3O_4S_2,K$ = 454.2.

CAS — 4267-05-4 (teclothiazide); 5306-80-9 (teclothiazide potassium).



(teclothiazide)

Profile

Teclothiazide potassium is a thiazide diuretic (see Hydrochlorothiazide, p.1307) used in the treatment of oedema.

Preparations

Proprietary Preparations (details are given in Part 3)

Multi-ingredient: ***Spain:*** Quimodril.

Tedisamil *(USAN, rINN)*

KC-8857; Tédisamil; Tedisamilum. 3′,7′-Bis(cyclopropylmethyl)-spiro[cyclopentane-1,9′-[3,7]diazabicyclo[3.3.1]nonane].

Тедизамил

$C_{19}H_{32}N_2$ = 288.5.

CAS — 90961-53-8.

ATC — C01EB12.

ATC Vet — QC01EB12.

Profile

Tedisamil is an antiarrhythmic under investigation for the treatment of atrial arrhythmias.

◊ References.

1. Hohnloser SH, *et al*. Safety and efficacy of intravenously administered tedisamil for rapid conversion of recent-onset atrial fibrillation or atrial flutter. *J Am Coll Cardiol* 2004; **44:** 99–104.

Telmisartan *(BAN, USAN, rINN)*

BIBR-277; BIBR-277-SE; Telmisartaani; Telmisartán; Telmisartanum. 4′-{[4-Methyl-6-(1-methyl-2-benzimidazolyl)-2-propyl-1-benzimidazolyl]methyl}-2-biphenylcarboxylic acid.

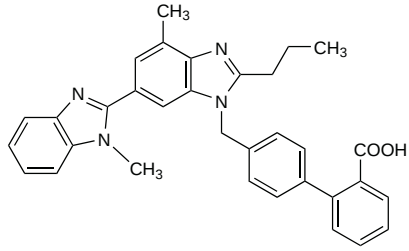
Тельмизартан

$C_{33}H_{30}N_4O_2$ = 514.6.

CAS — 144701-48-4.

ATC — C09CA07.

ATC Vet — QC09CA07.



Pharmacopoeias. In *Eur.* (see p.vii).

Ph. Eur. 6.2 (Telmisartan). A white or slightly yellowish, crystalline powder. Practically insoluble in water; slightly soluble in methyl alcohol; sparingly soluble in dichloromethane. it dissolves in 1M sodium hydroxide. It exhibits polymorphism.

Adverse Effects and Precautions

As for Losartan Potassium, p.1326. Telmisartan should be used with caution in patients with hepatic impairment or biliary obstruction.

◊ References.

1. Michel MC, *et al*. Safety of telmisartan in patients with arterial hypertension : an open-label observational study. *Drug Safety* 2004; **27:** 335–44.

Interactions

As for Losartan Potassium, p.1327.

Digoxin. Telmisartan may increase serum concentrations of digoxin (see Angiotensin II Receptor Antagonists under Interactions of Digoxin, p.1261) but the interaction is probably not clinically significant.

Pharmacokinetics

Telmisartan is rapidly absorbed from the gastrointestinal tract; the absolute oral bioavailability is dose-dependent and is about 42% after a 40-mg dose and 58% after a 160-mg dose. Peak plasma concentrations of telmisartan are reached about 0.5 to 1 hour after an oral dose. Telmisartan is over 99% bound to plasma proteins. It is excreted almost entirely in the faeces via bile, mainly as unchanged drug. The terminal elimination half-life of telmisartan is about 24 hours.

◊ References.

1. Stangier J, *et al*. Absorption, metabolism, and excretion of intravenously and orally administered [C]telmisartan in healthy volunteers. *J Clin Pharmacol* 2000; **40:** 1312–22.

Uses and Administration

Telmisartan 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).

Telmisartan is given orally. After a dose the hypotensive effect peaks within 3 hours and persists for at least 24 hours. The maximum hypotensive effect occurs within about 4 to 8 weeks after starting therapy.

In hypertension, telmisartan is given in an initial dose of 40 mg once daily. This may be increased, if necessary, to a maximum dose of 80 mg once daily. Lower doses should be considered in patients with hepatic or renal impairment (see below).

◊ Reviews.

1. McClellan KJ, Markham A. Telmisartan. *Drugs* 1998; **56:** 1039–44.
2. Sharpe M, *et al*. Telmisartan: a review of its use in hypertension. *Drugs* 2001; **61:** 1501–29.
3. Battershill AJ, Scott LJ. Telmisartan: a review of its use in the management of hypertension. *Drugs* 2006; **66:** 51–83.
4. Gosse P. A review of telmisartan in the treatment of hypertension: blood pressure control in the early morning hours. *Vasc Health Risk Manag* 2006; **2:** 195–201.
5. Yamagishi S, *et al*. Potential utility of telmisartan, an angiotensin II type 1 receptor blocker with peroxisome proliferator-activated receptor-γ (PPAR-γ)-modulating activity for the treatment of cardiometabolic disorders. *Curr Mol Med* 2007; **7:** 463–9.
6. Francischetti EA, *et al*. Treatment of hypertension in individuals with the cardiometabolic syndrome: role of an angiotensin II receptor blocker, telmisartan. *Expert Rev Cardiovasc Ther* 2008; **6:** 289–303.

Administration in hepatic or renal impairment. Giving telmisartan to patients with hepatic impairment resulted in an increase in bioavailability and a reduction in clearance compared with healthy subjects.[1] Although telmisartan was well tolerated, it was suggested that lower doses should be considered in patients with hepatic impairment. In the UK telmisartan is contraindicated in severe hepatic impairment and a maximum dose of 40 mg once daily is recommended for patients with mild to moderate impairment

Telmisartan appears to be well tolerated in patients with renal impairment, including those on dialysis.[2] However, in the UK, an initial dose of 20 mg once daily is recommended for patients with severe renal impairment or on haemodialysis.

1. Stangier J, *et al*. Pharmacokinetics and safety of intravenous and oral telmisartan 20 mg and 120 mg in subjects with hepatic impairment compared with healthy volunteers. *J Clin Pharmacol* 2000; **40:** 1355–64.
2. Sharma AM, *et al*. Telmisartan in patients with mild/moderate hypertension and chronic kidney disease. *Clin Nephrol* 2005; **63:** 250–7.

Preparations

Proprietary Preparations (details are given in Part 3)
Arg.: Gliosartan; Micardis; Pritor†; ***Austral.:*** Micardis; Pritor†; ***Austria:*** Micardis; ***Belg.:*** Kinzalmono; Micardis; ***Braz.:*** Micardis; Pritor; ***Canad.:*** Micardis; ***Chile:*** Micardis; Pritoral†; Samertan; ***Cz.:*** Kinzalmono; Micardis; Pritor; ***Denm.:*** Kinzalmono†; Micardis; ***Fin.:*** Kinzalmono; Micardis; ***Fr.:*** Micardis; Pritor; ***Ger.:*** Kinzalmono; Micardis; ***Gr.:*** Micardis; Pritor; ***Hong Kong:*** Micardis; ***Hung.:*** Micardis; Pritor; ***India:*** Telma; Telpres; ***Indon.:*** Micardis; ***Irl.:*** Micardis; ***Ital.:*** Micardis; Pritor; ***Jpn:*** Micardis; ***Malaysia:*** Micardis; ***Mex.:*** Micardis; Predxal; ***Neth.:*** Kinzalmono; Micardis; Pritor; ***Norw.:*** Micardis; ***NZ:*** Micardis; ***Philipp.:*** Micardis; Pritor; ***Pol.:*** Micardis; Pritor; ***Port.:*** Kinzalmono; Micardis; Pritor; ***Rus.:*** Micardis (Микардис); Pritor (Прайтор); ***S.Afr.:*** Micardis; ***Singapore:*** Micardis; ***Spain:*** Micardis; Pritor; ***Swed.:*** Kinzalmono†; Micardis; ***Switz.:*** Kinzal; Micardis; ***Thai.:*** Micardis; ***Turk.:*** Micardis; Pritor; ***UK:*** Micardis; ***USA:*** Micardis; ***Venez.:*** Micardis; Pritor.

Multi-ingredient: ***Arg.:*** Gliosartan Plus; Micardis Plus; ***Austral.:*** Micardis Plus; ***Austria:*** MicardisPlus; ***Belg.:*** Kinzalkomb; Micardis Plus; ***Braz.:*** Micardis HCT; Pritor HCT; ***Canad.:*** Micardis Plus; ***Chile:*** Micardis Plus; ***Cz.:*** Kinzalkomb; MicardisPlus; PritorPlus; ***Denm.:*** Kinzalkomb†; MicardisPlus; ***Fin.:*** Kinzalkomb; MicardisPlus; ***Fr.:*** MicardisPlus; PritorPlus; ***Ger.:*** Kinzalkomb; MicardisPlus; ***Gr.:*** Micardis Plus; Pritor Plus; ***Hong Kong:*** Micardis Plus; ***Hung.:*** MicardisPlus; PritorPlus; ***India:*** Telma-H†; Telpres-H; ***Indon.:*** Micardis Plus; ***Irl.:*** MicardisPlus; ***Ital.:*** Micardis Plus; PritorPlus; ***Malaysia:*** Micardis Plus; ***Mex.:*** Micardis Plus; Predxal Plus; ***Neth.:*** Kinzalkomb; Micardis Plus; PritorPlus; ***Norw.:*** MicardisPlus; ***Philipp.:*** Micardis Plus; PritorPlus; ***Pol.:*** Micardis Plus; Pritor Plus; ***Port.:*** Kinzalkomb; Micardis Plus; PritorPlus; ***Rus.:*** MicardisPlus (МикардисПлюс); ***S.Afr.:*** Co-Micardis; ***Singapore:*** Micardis Plus; ***Spain:*** Micardis Plus; Pritor Plus; ***Swed.:*** Kinzalkomb†; Micardis Plus; ***Switz.:*** Kinzalplus; MicardisPlus; ***Thai.:*** Micardis Plus; ***Turk.:*** Micardis Plus; Pritor Plus; ***UK:*** MicardisPlus; ***USA:*** Micardis HCT; ***Venez.:*** Micardis Plus; Pritor Plus.

Temocapril Hydrochloride *(BANM, USAN, rINNM)*

CS-622; Hidrocloruro de temocapril; Témocapril, Chlorhydrate de; Temocaprili Hydrochloridum. (+)-(2*S*,6*R*)-6-{[(1*S*)-1-Ethoxycarbonyl-3-phenylpropyl]amino}tetrahydro-5-oxo-2-(2-thienyl)-1,4-thiazepine-4(5*H*)-acetic acid hydrochloride.

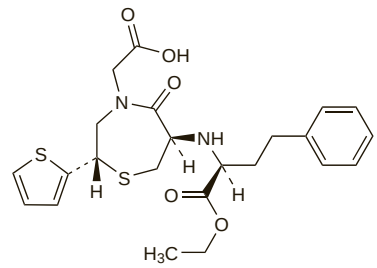
Темокаприла Гидрохлорид

$C_{23}H_{28}N_2O_5S_2$,HCl = 513.1.

CAS — 111902-57-9 (temocapril); 110221-44-8 (temocapril hydrochloride).

ATC — C09AA14.

ATC Vet — QC09AA14.



(temocapril)

Profile

Temocapril is an ACE inhibitor (p.1193) that has been used in the treatment of hypertension (p.1171). It owes its activity to the di-acid temocaprilat to which it is converted after oral doses.

◊ References.

1. Nakashima M, *et al*. Pharmacokinetics of temocapril hydrochloride, a novel angiotensin converting enzyme inhibitor, in renal insufficiency. *Eur J Clin Pharmacol* 1992; **43:** 657–9.