

Preparations

USP 31: Benazepril Hydrochloride Tablets.

Proprietary Preparations (details are given in Part 3)

Arg.: Boncordin†; **Belg.:** Cibacen; **Braz.:** Lotensin; **Canad.:** Lotensin; **Denm.:** Cibacen; **Fr.:** Briem; Cibacene; **Ger.:** Cibacen; **Gr.:** Cibacen; **Hung.:** Lotensin; **India:** Benace; **Indon.:** Cibacen; **Irl.:** Cibacen; **Israel:** Cibacen; **Ital.:** Cibacen; **Tensanil;** Zinadri†; **Mex.:** Lotensin; **Neth.:** Cibacen; **Philipp.:** Cibacen; **Pol.:** Lisonid; Lotensin; **Rus.:** Lotensin (Лотензин); **S.Afr.:** Cibace; **Spain:** Cibacen; Labopal; **Switz.:** Cibacen; **Turk.:** Cibacen; **USA:** Lotensin; **Venez.:** Lotensin†.

Multi-ingredient: **Arg.:** Adreloc†; Amloril; Amzepril†; Arteriosan Plus; Coroval B; Ilduc Duo; Pelmec Duo; Terloc Duo; **Braz.:** Lotensin H; **Fr.:** Briazide; Cibadrex; **Ger.:** Benazeplus; Benazepril comp; Benazepril HCT; Cibadrex; **Gr.:** Cibadrex; **Hung.:** Lotensin HCT; **India:** Amace-BP; **Ital.:** Cibadrex; Tensadiur; Zinadiur; **Neth.:** Cibadrex; **Pol.:** Lotensin HCT; **S.Afr.:** Cibadrex; **Spain:** Cibadrex; Labodrex; **Switz.:** Cibadrex; **Turk.:** Cibadrex; **USA:** Lotensin HCT; Lotrex; **Venez.:** Amlibon B.

Bencyclane Fumarate (rINN)

Bencyclane, Fumarate de; Bencyclane Hydrogen Fumarate; Bencyclani Fumaras; Bensiklan Hidrojen Fumarat; Fumarato de bencyclano. 3-(1-Benzylcycloheptyloxy)-NN-dimethylpropylamine hydrogen fumarate.

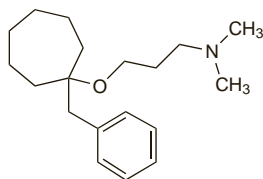
Бенциклана Фумарат

$C_{19}H_{31}NO_4 \cdot C_4H_4O_4 = 405.5$.

CAS — 2179-37-5 (bencyclane); 14286-84-1 (bencyclane fumarate).

ATC — C04AX11.

ATC Vet — QC04AX11.



(bencyclane)

Profile

Bencyclane fumarate is a vasodilator used in the management of peripheral (p.1178) and cerebral vascular disorders (p.1165) in usual oral doses of 100 to 200 mg three times daily. It has also been given intravenously.

Bencyclane acetyllylate has also been used.

Preparations

Proprietary Preparations (details are given in Part 3)

Austria: Ludilat; **Braz.:** Fludilat; **Ger.:** Fludilat; **Hung.:** Halidor; **Indon.:** Fludilat; **Pol.:** Halidor; **Port.:** Fludilat†; Fluxema†; **Rus.:** Halidor (Галидор); **Thai.:** Fludilat; **Turk.:** Angiodet; **Venez.:** Dantifart; Fludilat.

Bendroflumethiazide (BAN, rINN) ⊗

Bendrofluaz; Bendrofluazide; Bendroflumethiazid; Bendrofluméthiazide; Bendroflumethiazidum; Bendroflumetiatsidi; Bendroflumethiazidi; Bendroflumethiazid; Bendroflumethiazidas; Benzoydroflumethiazide; FT-81. 3-Benzyl-3,4-dihydro-6-trifluoromethyl-2H-1,2,4-benzothiadiazine-7-sulphonamide 1,1-dioxide.

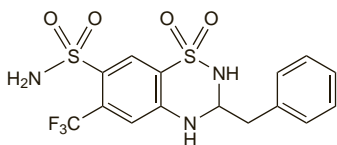
Бендрофлуметиазид

$C_{15}H_{14}F_3N_3O_4S_2 = 421.4$.

CAS — 73-48-3.

ATC — C03AA01.

ATC Vet — QC03AA01.



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

Ph. Eur. 6.2 (Bendroflumethiazide). A white or almost white crystalline powder. Practically insoluble in water; soluble in alcohol; freely soluble in acetone.

USP 31 (Bendroflumethiazide). A white to cream-coloured, finely divided, crystalline powder. Is odourless or has a slight

odour. Practically insoluble in water; soluble 1 in 23 of alcohol and 1 in 200 of ether; freely soluble in acetone. Store in airtight containers.

Adverse Effects, Treatment, and Precautions

As for Hydrochlorothiazide, p.1307.

Breast feeding. Bendroflumethiazide is used to suppress lactation (see Uses below). However, the American Academy of Pediatrics considers¹ that it is usually compatible with breast feeding.

1. 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.aapublications.org/cgi/content/full/pediatrics%3b108/3/776> (accessed 06/07/04)

Porphyria. Bendroflumethiazide is considered to be unsafe in patients with porphyria because it has been shown to be porphyrogenic in animals or *in-vitro* systems.

Overdosage. Tonic-clonic convulsions occurred in a previously healthy 14-year-old girl after ingestion of bendroflumethiazide 150 to 200 mg.¹ The convulsions were not associated with any measurable disturbance of serum electrolytes.

1. Hine KR, *et al.* Bendrofluazide convulsions. *Lancet* 1982; **i**: 564.

Interactions

As for Hydrochlorothiazide, p.1309.

Pharmacokinetics

Bendroflumethiazide has been reported to be completely absorbed from the gastrointestinal tract and to have a plasma half-life of about 3 or 4 hours. It is highly bound to plasma proteins. There are indications that bendroflumethiazide is fairly extensively metabolised; about 30% is excreted unchanged in the urine.

◇ References.

1. Beermann B, *et al.* Pharmacokinetics of bendroflumethiazide. *Clin Pharmacol Ther* 1977; **22**: 385–8.
2. Beermann B, *et al.* Pharmacokinetics of bendroflumethiazide in hypertensive patients. *Eur J Clin Pharmacol* 1978; **13**: 119–24.

Uses and Administration

Bendroflumethiazide is a thiazide diuretic with actions and uses similar to those of hydrochlorothiazide (p.1310). It is used for hypertension (p.1171), either alone or with other antihypertensives such as ACE inhibitors and beta blockers. It is also used for oedema, including that associated with heart failure (p.1165), and with renal or hepatic disorders. Other indications have included the suppression of lactation.

Bendroflumethiazide is given orally; diuresis starts in about 2 hours after a dose, peaks after about 3 to 6 hours, and lasts for 12 to 18 hours or longer.

In the treatment of **hypertension** bendroflumethiazide 2.5 mg daily, either alone or with other antihypertensives, is usually adequate although doses of up to 20 mg daily have sometimes been suggested.

In the treatment of **oedema** the usual initial dose is 5 to 10 mg daily or on alternate days; in some cases initial doses of up to 20 mg may be necessary. Maintenance dosage schedules have varied from 2.5 to 10 mg once to three times weekly in the UK to 2.5 to 5 mg daily or intermittently in the USA.

An initial dose for children is up to 400 micrograms/kg daily, reduced to 50 to 100 micrograms/kg for maintenance.

Doses of 5 mg twice daily for about 5 days have been used to **suppress lactation**.

In the management of **idiopathic hypercalciuria** (see Renal Calculi, p.2181) the *BNF* considers that, with increased fluid intake, a sufficient dose is 2.5 mg daily.

Preparations

BP 2008: Bendroflumethiazide Tablets;

USP 31: Bendroflumethiazide Tablets; Nadolol and Bendroflumethiazide Tablets.

Proprietary Preparations (details are given in Part 3)

Austral.: Aprinox; **Denm.:** Centyl; **Irl.:** Centyl; **Norw.:** Centyl; **NZ:** Neo-NaClex; **Swed.:** Salures; **UK:** Aprinox; Neo-NaClex; **USA:** Naturetin†.

Multi-ingredient: **Arg.:** Hidromens†; Pertenso; Sumal; **Austria:** Inderect†; Sali-Adolpur†; **Belg.:** Inderect†; **Braz.:** Diserim; **Denm.:** Centyl med Kaliumklorid; **Fr.:** Precyclan; Tensionorme; **Ger.:** Docidrazin†; Dociretic; Pertenso N; Sali-Adolpur†; Sotaziden N; Spirostada comp†; Tensoflux; **Irl.:**

Centyl K; Low Centyl K; **Mex.:** Corgaretic; **Neth.:** Inderect; **Norw.:** Centyl med Kaliumklorid; **S.Afr.:** Corgaretic; Inderect†; **Spain:** Betadipresan Diu†; Neatenol Diu; Neatenol Diuvas; Spirometon; **Swed.:** Centyl K; Salures-K; **Switz.:** Inderect†; **UK:** Centyl K; Corgaretic†; Inderect†; Inderec†; Neo-NaClex-K; Prestim; **USA:** Corzide; Rauzide†.

Benfluorex Hydrochloride (BAN, pINN)

Benfluoreksihiydrokloridi; Benfluorekso hidrochloridas; Benfluorex, chlorhydrate de; Benfluorex-hidroklorid; Benfluorex-hydrochlorid; Benfluorexhydroklorid; Benfluorexi hydrochloridum; Hidrocloruro de benfluorex; JP-992; SE-780. 2-[α-Methyl-3-(trifluoromethyl)phenethylamino]ethyl benzoate hydrochloride.

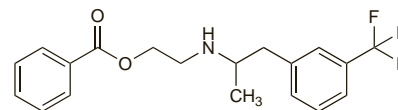
Бенфлуорекса Гидрохлорид

$C_{19}H_{20}F_3NO_2 \cdot HCl = 387.8$.

CAS — 23602-78-0 (benfluorex); 35976-51-3 (± benfluorex); 23642-66-2 (benfluorex hydrochloride).

ATC — C10AX04.

ATC Vet — QC10AX04.



(benfluorex)

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

Ph. Eur. 6.2 (Benfluorex Hydrochloride). A white or almost white powder. It exhibits polymorphism. Slightly soluble in water; sparingly soluble or soluble in alcohol; soluble in dichloromethane; freely soluble in methyl alcohol.

Profile

Benfluorex hydrochloride is a lipid regulating drug used in the treatment of hyperlipidaemias (p.1169). It has also been used as an adjunct in the management of type 2 diabetes mellitus (p.431).

Benfluorex hydrochloride is given orally in usual doses of 150 mg three times daily with meals.

Preparations

Proprietary Preparations (details are given in Part 3)

Fr.: Mediator; **Gr.:** Lipophoral; **Hong Kong:** Medialax; **Ital.:** Medialax†; **Malaysia:** Axal; Medialax; **Port.:** Mediator; **Singapore:** Medialax; **Spain:** Modulart†; **Venez.:** Lipascor.

Benidipine Hydrochloride (rINN)

Bénidipine, Chlorhydrate de; Benidipini Hydrochloridum; Hidrocloruro de benidipino; KV-3049; Nakadipine Hydrochloride. (±)-(R*)-3-[(R*)-1-Benzyl-3-piperidyl]methyl 1,4-dihydro-2,6-dimethyl-4-(m-nitrophenyl)-3,5-pyridinedicarboxylate hydrochloride.

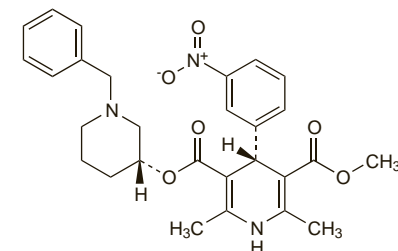
Бенидипина Гидрохлорид

$C_{28}H_{31}N_3O_6 \cdot HCl = 542.0$.

CAS — 105979-17-7 (benidipine); 91599-74-5 (benidipine hydrochloride).

ATC — C08CA15.

ATC Vet — QC08CA15.



(benidipine)

Pharmacopoeias. In *Jpn.*

Profile

Benidipine is a dihydropyridine calcium-channel blocker with general properties similar to those of nifedipine (p.1350). It is given orally as the hydrochloride in the management of hypertension (p.1171) and angina pectoris (p.1157). In hypertension, the usual dose is 2 to 4 mg once daily, increased to 8 mg once daily if necessary. In angina pectoris, the usual dose is 4 mg twice daily.

Preparations

Proprietary Preparations (details are given in Part 3)

India: Caritec; **Jpn.:** Coniel; **Philipp.:** Coniel.