5. Katz LJ. Twelve-month evaluation of brimonidine-purite versus brimonidine in patients with glaucoma or ocular hypertension. *J Glaucoma* 2002; **11:** 119–26.
6. Sherwood MB, *et al.* Twice-daily 0.2% brimonidine-0.5% timolol fixed-combination therapy vs monotherapy with timolol or brimonidine in patients with glaucoma or ocular hypertension: a 12-month randomized trial. *Arch Ophthalmol* 2006; **124:** 1230–8.
7. Fung AT, *et al.* Meta-analysis of randomised controlled trials comparing latanoprost with brimonidine in the treatment of open-angle glaucoma, ocular hypertension or normal-tension glaucoma. *Br J Ophthalmol* 2007; **91:** 62–8.

Preparations

Proprietary Preparations (details are given in Part 3)
Arg.: Alphagan; Brimo-Klonal; Brimopress; Oftalmotonil; ***Austral.:*** Alphagan; Enidin; ***Austria:*** Alphagan; ***Belg.:*** Alphagan; ***Braz.:*** Alphagan; ***Canad.:*** Alphagan; ***Chile:*** Agglad Ofteno; Alphagan; Brimopress; ***Cz.:*** Alphagan; ***Denm.:*** Alphagan; ***Fin.:*** Alphagan; ***Fr.:*** Alphagan; ***Ger.:*** Alphagan; ***Gr.:*** Alphagan; Benil; Brimodine; Brinal; Brinidin; ***Hong Kong:*** Alphagan; ***Hung.:*** Alphagan†; ***India:*** Brimodin; Iobrim; ***Irl.:*** Alphagan; ***Israel:*** Alphagan; ***Ital.:*** Alphagan; ***Malaysia:*** Alphagan; ***Mex.:*** Agglad; Alphagan; Nor-Tenz; ***Neth.:*** Alphagan; ***Norw.:*** Alphagan; ***NZ:*** Alphagan; ***Philipp.:*** Alphagan; ***Pol.:*** Alphagan; ***Port.:*** Alphagan; ***S.Afr.:*** Alphagan; ***Singapore:*** Alphagan; ***Spain:*** Alphagan; ***Swed.:*** Alphagan; ***Switz.:*** Alphagan; ***Thai.:*** Alphagan; ***Turk.:*** Alphagan; ***UK:*** Alphagan; ***USA:*** Alphagan; ***Venez.:*** Agglad Ofteno; Alphagan.

Multi-ingredient: ***Arg.:*** Combigan; ***Austral.:*** Combigan; ***Braz.:*** Combigan; ***Canad.:*** Combigan; ***Chile:*** Combigan; ***Cz.:*** Combigan; ***Gr.:*** Combigan; ***Hung.:*** Combigan; ***India:*** Brimodin P; ***Irl.:*** Combigan; ***Mex.:*** Combigan-D; ***NZ:*** Combigan; ***Port.:*** Combigan; ***Switz.:*** Combigan; ***UK:*** Combigan; ***USA:*** Combigan.

Brinzolamide *(BAN, USAN, rINN)* ⊗

AL-4862; Brintsolamidi; Brinzolamid; Brinzolamida; Brinzolamidum. (*R*)-4-(Ethylamino)-3,4-dihydro-2-(3-methoxypropyl)-2*H*-thieno[3,2-e]-1,2-thiazine-6-sulfonamide 1,1-dioxide.

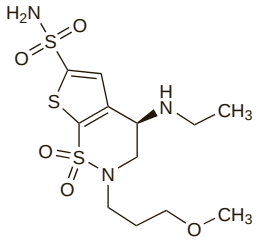
Бринзоламид

$C_{12}H_{21}N_3O_5S_3$ = 383.5.

CAS — 138890-62-7.

ATC — S01EC04.

ATC Vet — QS01EC04.



Pharmacopoeias. In *US.*
USP 31 (Brinzolamide). A white or almost white powder. Insoluble in water; slightly soluble in alcohol and in methyl alcohol.

Adverse Effects and Precautions

As for Dorzolamide, p.1880.

Effects on the eyes. Corneal oedema has been noted in the eyes of 2 patients after the long-term use of brinzolamide 1% eye drops;[1] both patients recovered after brinzolamide was stopped.

1. Zhao JC, Chen T. Brinzolamide induced reversible corneal decompensation. *Br J Ophthalmol* 2005; **89:** 389–90.

Uses and Administration

Brinzolamide is a carbonic anhydrase inhibitor with actions and uses similar to those of dorzolamide (p.1880). It is used to reduce intra-ocular pressure in the management of open-angle glaucoma and ocular hypertension (p.1873), either alone or as adjunctive therapy with a topical beta blocker. A 1% suspension is instilled into the eye two or three times daily.

Glaucoma. References.

1. Cvetkovic RS, Perry CM. Brinzolamide : a review of its use in the management of primary open-angle glaucoma and ocular hypertension. *Drugs Aging* 2003; **20:** 919–47.

Preparations

USP 31: Brinzolamide Ophthalmic Suspension.

Proprietary Preparations (details are given in Part 3)
Arg.: Azopt; ***Austral.:*** Azopt; ***Austria:*** Azopt; ***Belg.:*** Azopt; ***Braz.:*** Azopt; ***Canad.:*** Azopt; ***Chile:*** Azopt; ***Cz.:*** Azopt; ***Denm.:*** Azopt; ***Fin.:*** Azopt; ***Fr.:*** Azopt; ***Ger.:*** Azopt; ***Gr.:*** Azopt; ***Hong Kong:*** Azopt; ***Hung.:*** Azopt; ***Indon.:*** Azopt; ***Irl.:*** Azopt; ***Israel:*** Azopt; ***Ital.:*** Azopt; ***Malaysia:*** Azopt; ***Mex.:*** Azopt; ***Neth.:*** Azopt; ***Norw.:*** Azopt; ***NZ:*** Azopt; ***Philipp.:*** Azopt; ***Pol.:*** Azopt; ***Port.:*** Azopt; ***Rus.:*** Azopt (Азопт); ***S.Afr.:*** Azoptic; ***Singapore:*** Azopt; ***Spain:*** Azopt; ***Swed.:*** Azopt; ***Switz.:*** Azopt; ***Thai.:*** Azopt; ***Turk.:*** Azopt; ***UK:*** Azopt; ***USA:*** Azopt; ***Venez.:*** Azopt.

Carbachol *(BAN, rINN)*

Carbach.; Carbacholi Cloridum; Carbacholine; Carbacholum; Carbacholum Chloratum; Carbacol; Choline Chloride Carbamate; Karbachol; Karbacholis; Karbakol; Karbakoli; Karbaminocholiny chlorek. *O*-Carbamoylcholine chloride; (2-Carbamoyloxyethyl)trimethylammonium chloride.

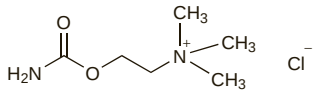
Карбахол

$C_6H_{15}ClN_2O_2$ = 182.6.

CAS — 51-83-2.

ATC — N07AB01; S01EB02.

ATC Vet — QA03AB92; QN07AB01; QS01EB02.



NOTE. CAR is a code approved by the BP 2008 for use on single unit doses of eye drops containing carbachol where the individual container may be too small to bear all the appropriate labelling information.

Pharmacopoeias. In *Chin., Eur.* (see p.vii), and *US.*
Ph. Eur. 6.2 (Carbachol). A white or almost white, crystalline, hygroscopic powder. Very slightly soluble in water; sparingly soluble in alcohol; practically insoluble in acetone. Store in airtight containers. Protect from light.
USP 31 (Carbachol). A white powder. Freely soluble in water; sparingly soluble in alcohol; practically insoluble in chloroform and in ether. Store in airtight containers.

Incompatibility. Chlorocresol (0.025 to 0.1%) and chlorobutanol (0.5%) were both found to be incompatible with a solution of carbachol (0.8%) and sodium chloride (0.69%), very slight precipitates forming on heating and increasing on standing.[1]

1. *PSGB Lab Report No.911* 1962.

Adverse Effects, Treatment, and Precautions

As described for choline esters under Acetylcholine Chloride, p.1877. Carbachol has substantial nicotinic activity which may be unmasked by the use of atropine to counteract muscarinic effects.

Carbachol also produces adverse effects and requires precautions similar to those of other miotics such as pilocarpine (p.1885) when used in the eye, but may produce more ciliary spasm than pilocarpine.

Effects on the gastrointestinal tract. Fatal oesophageal rupture has been reported[1] after subcutaneous injection of carbachol to relieve urinary retention.

1. Cochrane P. Spontaneous oesophageal rupture after carbachol therapy. *BMJ* 1973; **1:** 463–4.

Overdosage. Life-threatening attacks of profuse sweating, intestinal cramps, explosive defaecation, hypothermia, hypotension, and bradycardia occurred in a 36-year-old man after deliberate poisoning with 30 to 40 mg of carbachol.[1] The patient's 10-year-old son had died after poisoning with a similar dose of carbachol.

1. Sangster B, *et al.* Two cases of carbachol intoxication. *Neth J Med* 1979; **22:** 27–8.

Interactions

NSAIDs. Licensed UK product information for acetylcholine chloride ophthalmic preparations states that there have been reports that acetylcholine and carbachol were ineffective when used in patients treated with topical (ophthalmic) NSAIDs.

Uses and Administration

Carbachol, a choline ester, is a quaternary ammonium parasympathomimetic with the muscarinic and nicotinic actions of acetylcholine (p.1877). It is not inactivated by cholinesterases so its actions are more prolonged than those of acetylcholine.

Carbachol has a miotic action and is usually given intra-ocularly to produce miosis in ocular surgery and to reduce postoperative rises in intra-ocular pressure; up to 0.5 mL of a 0.01% solution is instilled into the anterior chamber of the eye (intracameral instillation). The maximum degree of miosis is usually obtained within 2 to 5 minutes of intra-ocular instillation and miosis lasts for 24 hours.

Eye drops containing up to 3% of carbachol have also been used to lower intra-ocular pressure in glaucoma, usually three times daily with other miotics (see below). Miosis occurs within 10 to 20 minutes of instillation and lasts for 4 to 8 hours; reduction in intra-ocular pressure lasts for 8 hours.

Carbachol has been used for the treatment of urinary retention including postoperative urinary retention. It has also been used in some countries for the treatment of decreased gastrointestinal motility.

Dry mouth. Carbachol has been used as an alternative to pilocarpine in the treatment of radiation-induced xerostomia.[1] The overall treatment of dry mouth is discussed on p.2140.

1. Joensuu H. Treatment for post-irradiation xerostomia. *N Engl J Med* 1994; **330:** 141–2.

Glaucoma and ocular hypertension. Carbachol is sometimes used as an alternative to pilocarpine in the management of glaucoma (p.1873) when resistance or intolerance to pilocarpine develops. It is also instilled into the anterior chamber of the eye (intracameral instillation) to minimise postoperative rises in intra-ocular pressure associated with ocular surgery, and some[1,2] have found it to be more effective than acetylcholine.

1. Ruiz RS, *et al.* Effects of carbachol and acetylcholine on intramuscular pressure after cataract extraction. *Am J Ophthalmol* 1989; **107:** 7–10.
2. Hollands RH, *et al.* Control of intraocular pressure after cataract extraction. *Can J Ophthalmol* 1990; **25:** 128–32.

Preparations

USP 31: Carbachol Intraocular Solution; Carbachol Ophthalmic Solution.

Proprietary Preparations (details are given in Part 3)
Arg.: Miostat; ***Austral.:*** Miostat; ***Belg.:*** Miostat; ***Braz.:*** Miostat†; ***Canad.:*** Carbastat†; Miostat; ***Cz.:*** Jestryl†; Miostat; ***Fin.:*** Doryl†; ***Ger.:*** Carbamann; Doryl†; Jestryl†; ***Hong Kong:*** Miostat†; ***Hung.:*** Miostat; ***Israel:*** Miostat; ***Ital.:*** Mioticol; ***Malaysia:*** Miostat; ***Neth.:*** Miostat; ***Philipp.:*** Miostat; ***Pol.:*** Miostat; ***S.Afr.:*** Miosys†; ***Singapore:*** Miostat; ***Swed.:*** Isopto Karbakolin; Miostat; ***Switz.:*** Doryl†; Miostat; ***Thai.:*** Miostat; ***Turk.:*** Miostat; ***USA:*** Carbastat; Miostat; ***Venez.:*** Miostat†.

Multi-ingredient: ***Ital.:*** Mios.

Cyclopentolate Hydrochloride

(BANM, rINNM)

Ciklopentolát-hidroklorid; Ciklopentolato hidrochloridas; Cloridrato de Ciclopentolato; Cyclopentolate, chlorhydrate de; Cyclopentolati hydrochloridum; Cyklopentolát hydrochlorid; Cyklopentolathydroklorid; Hidrocloruro de ciclopentolato; Siklopentolat Hidroklorür; Syklopentolaattihydrokloridi. 2-Dimethylaminoethyl 2-(1-hydroxycyclopentyl)-2-phenylacetate hydrochloride.

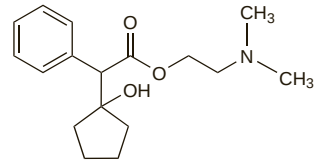
Циклопентолата Гидрохлорид

$C_{17}H_{25}NO_3$,HCl = 327.8.

CAS — 512-15-2 (cyclopentolate); 5870-29-1 (cyclopentolate hydrochloride).

ATC — S01FA04.

ATC Vet — QS01FA04.



(cyclopentolate)

NOTE. CYC is a code approved by the BP 2008 for use on single unit doses of eye drops containing cyclopentolate hydrochloride where the individual container may be too small to bear all the appropriate labelling information. PHNCYC is a similar code approved for eye drops containing phenylephrine hydrochloride and cyclopentolate hydrochloride.

Pharmacopoeias. In *Eur.* (see p.vii), *Jpn*, and *US.*
Ph. Eur. 6.2 (Cyclopentolate Hydrochloride). A white or almost white, crystalline powder. Very soluble in water; freely soluble in alcohol. A 1% solution in water has a pH of 4.5 to 5.5.
USP 31 (Cyclopentolate Hydrochloride). A white crystalline powder, which develops a characteristic odour on standing. Very soluble in water; freely soluble in alcohol; insoluble in ether. pH of a 1% solution in water is between 4.5 and 5.5. Store at a temperature not exceeding 8° in airtight containers.

Adverse Effects, Treatment, and Precautions

As for Atropine Sulfate, p.1219.

Eye drops of cyclopentolate hydrochloride may cause temporary irritation.

Abuse. Cyclopentolate eye drops have been abused.[1] One of 2 patients who did so had been instilling 200 to 400 drops of cyclopentolate into both eyes daily for about 4 months, presumably for its CNS effects, and experienced intense nausea, vomiting, weakness, and tremors on withdrawal.

1. Sato EH, *et al.* Abuse of cyclopentolate hydrochloride (Cyclogyl) drops. *N Engl J Med* 1992; **326:** 1363–4.

Hypersensitivity. Two children developed hypersensitivity reactions shortly after the instillation of 1% cyclopentolate hydrochloride eye drops into each eye.[1] Both children initially had a facial rash but in one of them the rash later spread to include the arms and legs and was accompanied by mild breathlessness.

1. Jones LWJ, Hodes DT. Possible allergic reactions to cyclopentolate hydrochloride: case reports with literature review of uses and adverse reactions. *Ophthalmic Physiol Opt* 1991; **11:** 16–21.

Systemic toxicity. Ten of 66 patients (29 males and 37 females) who received one drop of 2% cyclopentolate in each eye developed mild to moderate systemic toxicity; 9 of the 10 were female.[1] Toxic signs included physical weakness, nausea, lightheadedness, changes in emotional attitude, unprovoked weeping, and loss of equilibrium; tachycardia was always present but changes in blood pressure were insignificant. Spontaneous recovery occurred within 1 hour to several days.

As with atropine, it has been recommended that cyclopentolate eye drops should not be used during the first 3 months of life because of the possible association with development of amblyopia. Systemic toxicity has also been reported in neonates given ocular cyclopentolate.[2]

A 4-year-old boy with cerebral palsy and paraplegia suffered tonic-clonic seizures, facial flushing, and tachycardia 70 minutes after one drop of a 1% cyclopentolate solution was instilled into each eye to dilate his pupils.[3] The child had no history of convulsions and had received 1% cyclopentolate eye drops on 2 previous occasions without incident. In a more recent case,[4] a 23-month-old boy experienced a tonic-clonic seizure lasting 30 minutes after the use of cyclopentolate 1% and phenylephrine 10% eye drops. One drop of each was instilled into both eyes every 5 minutes for 3 doses; the seizure occurred 45 minutes after the last dose. The child was found to have low pseudocholinesterase activity, an enzyme likely to be involved in the metabolism of cyclopentolate.

1. Awan KJ. Adverse systemic reactions of topical cyclopentolate hydrochloride. *Ann Ophthalmol* 1976; **8:** 695–8.
2. Bauer CR, *et al*. Systemic cyclopentolate (Cyclogyl) toxicity in the newborn infant. *J Pediatr* 1973; **92:** 501–5.
3. Fitzgerald DA, *et al*. Seizures associated with 1% cyclopentolate eyedrops. *J Paediatr Child Health* 1990; **26:** 106–7.
4. Demayo AP, Reidenberg MM. Grand mal seizure in a child 30 minutes after Cyclogyl (cyclopentolate hydrochloride) and 10% Neo-Synephrine (phenylephrine hydrochloride) eye drops were instilled. Abstract: *Pediatrics* 2004; **113:** 1390–1. Full version: http://pediatrics.aappublications.org/cgi/reprint/113/5/e499 (accessed 24/11/05)

Interactions

As for antimuscarinics in general (see Atropine Sulfate, p.1220).

Uses and Administration

Cyclopentolate hydrochloride is a tertiary amine antimuscarinic with actions similar to those of atropine (p.1219). It is used to produce mydriasis and cycloplegia (p.1874) for ophthalmic diagnostic procedures and also in the treatment of uveitis and iritis (p.1515). It acts more quickly than atropine and has a shorter duration of action; the maximum mydriatic effect is produced 30 to 60 minutes after instillation, and may persist for up to 24 hours or longer in some patients; the maximum cycloplegic effect is produced within 25 to 75 minutes and accommodation recovers within 6 to 24 hours.

For diagnostic procedures, instillation of a 0.5% ophthalmic solution of cyclopentolate hydrochloride, repeated after about 5 to 15 minutes, is usually sufficient for adults. Higher strengths have been used. For children a 1% solution is instilled similarly, although some recommend that strengths greater than 0.5% should not be used in infants and that cyclopentolate should not be used at all during the first 3 months of life.

In the treatment of uveitis and iritis, a 0.5% ophthalmic solution of cyclopentolate hydrochloride is instilled into the eye up to four times daily.

Deeply pigmented eyes are more resistant to pupillary dilatation and may require the use of a 1% solution.

Preparations

BP 2008: Cyclopentolate Eye Drops;
USP 31: Cyclopentolate Hydrochloride Ophthalmic Solution.

Proprietary Preparations (details are given in Part 3)

Arg.: Ciclopenal; ***Austral.:*** Cyclogyl; ***Belg.:*** Cyclogyl; Cyclopentol†; ***Braz.:*** Ciclolato; Ciclopleglico; ***Canad.:*** Cyclogyl; Diopentolate†; ***Chile:*** Cyclogyl; ***Cz.:*** Cyclogyl†; ***Denm.:*** Cyclogyl; ***Fin.:*** Oftan Sykloº†; ***Fr.:*** Skiacol; ***Ger.:*** Zykolat-EDO; ***Gr.:*** Cyclogyl; ***Hong Kong:*** Cyclogyl; ***Hung.:*** Humapent; ***India:*** Bell Pentolate; Cyclate; Cyclogyl; ***Irl.:*** Mydrilate; ***Ital.:*** Ciclolux; ***Malaysia:*** Colircusi Cicloplejico; Cyclogyl; ***Mex.:*** Refractyl; ***Neth.:*** Cyclogyl; Cyclomydri†; ***NZ:*** Cyclogyl; ***Port.:*** Cicloplegicedol; Midriodavi; ***S.Afr.:*** Cyclogyl; ***Singapore:*** Cyclogyl; ***Spain:*** Cicloplejico; ***Swed.:*** Cyclogyl; ***Switz.:*** Cyclogyl; ***Thai.:*** Cyclogyl; ***Turk.:*** Siklomid; Siklopleji; ***UK:*** Mydrilate; ***USA:*** Ak-Pentolate; Cyclogyl; Ocu-Pentolate; Pentolair; ***Venez.:*** Cicloftal†; Cyclogyl.

Multi-ingredient: ***Israel:*** Cyclopentolate†; ***Malaysia:*** Cyclomydril; ***Rus.:*** Cyclomed (Цикломед); ***S.Afr.:*** Cyclomydril; ***Singapore:*** Cyclomydril; ***USA:*** Cyclomydril.

Demecarium Bromide *(BAN, rINN)*

BC-48; Bromuro de demecario; Demecarii Bromidum; Démécarium, Bromure de; Demekariumbromid; Demekariumbromidi. *N,N′*-Decamethylenebis(*N,N,N*-trimethyl-3-methylcarbamoyloxyanilinium) dibromide.

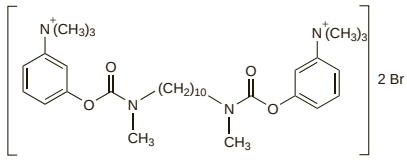
Демекария Бромид

$C_{32}H_{52}Br_2N_4O_4$ = 716.6.

CAS — 16505-84-3 (demecarium); 56-94-0 (demecarium bromide).

ATC — S01EB04.

ATC Vet — QS01EB04.



Pharmacopoeias. In *US*.

USP 31 (Demecarium Bromide). A white or slightly yellow, slightly hygroscopic, crystalline powder. Freely soluble in water and in alcohol; sparingly soluble in acetone; soluble in ether. pH of a 1% solution in water is between 5.0 and 7.0. Store in airtight containers. Protect from light.

Profile

Demecarium is a quaternary ammonium compound that is a reversible inhibitor of cholinesterase with a long duration of action similar to that of ecothiopate iodide (p.1881). It has been used as a 0.125 or 0.25% ophthalmic solution in the treatment of open-angle glaucoma and in the diagnosis and management of accommodative convergent strabismus.

Preparations

USP 31: Demecarium Bromide Ophthalmic Solution.

Proprietary Preparations (details are given in Part 3)
USA: Humorsol†.

Diclofenamide *(BAN, rINN)* ⊗

Dichlorphenamide; Diclofenamida; Diclofénamide; Diclofenamidum; Diklofenamid; Diklofenamidi. 4,5-Dichlorobenzene-1,3-disulphonamide.

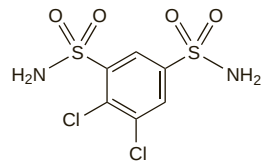
Диклофенамид

$C_6H_6Cl_2N_2O_4S_2$ = 305.2.

CAS — 120-97-8.

ATC — S01EC02.

ATC Vet — QS01EC02.



Pharmacopoeias. In *Chin., Jpn*, and *US*.

Profile

Diclofenamide is an inhibitor of carbonic anhydrase with properties similar to those of acetazolamide (p.1875). When given orally its effect begins within 1 hour and lasts for 6 to 12 hours.

Diclofenamide is used to reduce intra-ocular pressure in glaucoma (p.1873). The usual initial oral dose is 100 to 200 mg, then 100 mg every 12 hours until the desired response is obtained, followed by a maintenance dose of 25 to 50 mg one to three times daily. Diclofenamide sodium has been given by injection.

Preparations

USP 31: Dichlorphenamide Tablets.

Proprietary Preparations (details are given in Part 3)
Belg.: Oratrol†; ***Cz.:*** Oratrol†; ***Gr.:*** Oratrol†; ***Ital.:*** Antidrasi; Fenamide; Glaumid†; ***Spain:*** Glauconide; ***USA:*** Daranide†.

Dorzolamide Hydrochloride

(BANM, USAN, rINNM) ⊗

Dorzolamid Hidroklorür; Dorzolamide, chlorhydrate de; Dorzolamidi hydrochloridum; Hidrocloruro de dorzolamida; L-671152 (dorzolamide); MK-507; MK-0507. (4*S*,6*S*)-4-(Ethylamino)-5,6-dihydro-6-methyl-4*H*-thieno[2,3-*b*]thiopyran-2-sulphonamide 7,7-dioxide hydrochloride.

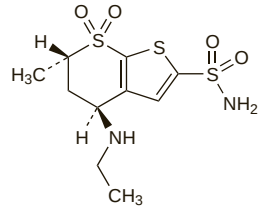
Дорзоламида Гидрохлорид

$C_{10}H_{16}N_2O_4S_3$,HCl = 360.9.

CAS — 120279-96-1 (dorzolamide); 130693-82-2 (dorzolamide hydrochloride).

ATC — S01EC03.

ATC Vet — QS01EC03.



(dorzolamide)

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

Ph. Eur. 6.2 (Dorzolamide Hydrochloride). A white or almost white, crystalline powder. Soluble in water; very slightly soluble in anhydrous alcohol; slightly soluble in methyl alcohol. It exhibits polymorphism.

USP 31 (Dorzolamide Hydrochloride). A white to off-white crystalline powder. Soluble in water. Store at 15° to 30°. Protect from light.

Adverse Effects and Precautions

Local ocular adverse effects may occur with dorzolamide eye drops and include conjunctivitis, keratitis, burning or stinging, eyelid inflammation or irritation, and blurred vision. Dorzolamide may be absorbed systemically, resulting in adverse effects and precautions similar to those of acetazolamide (see p.1875). Other adverse effects reported are headache, bitter taste, epistaxis, fatigue, and nausea.

Interactions

Systemic absorption may occur after topical application of dorzolamide to the eye and there is a theoretical possibility of interactions similar to those reported with acetazolamide (see p.1876).

Uses and Administration

Dorzolamide is a carbonic anhydrase inhibitor with actions similar to those of acetazolamide (p.1876). It is used in the management of open-angle glaucoma, pseudo-exfoliative glaucoma, and ocular hypertension (p.1873), either alone or as an adjunct to a topical beta blocker.

Dorzolamide is given as eye drops containing dorzolamide hydrochloride equivalent to 2% of the base. For monotherapy it is usually given three times daily; a twice-daily regimen is recommended when used with a beta blocker.

◊ References.

1. Martens-Lobenhoffer J, Banditt P. Clinical pharmacokinetics of dorzolamide. *Clin Pharmacokinet* 2002; **41:** 197–205.
2. Lesk MR, *et al*. Effectiveness and safety of dorzolamide-timolol alone or combined with latanoprost in open-angle glaucoma or ocular hypertension. *Ann Pharmacother* 2008; **42:** 498–504.

Preparations

Proprietary Preparations (details are given in Part 3)

Arg.: Biodrop†; Dorlamida; Poenglausil†; Trusopt; ***Austral.:*** Trusopt; ***Austria:*** Trusopt; ***Belg.:*** Trusopt; ***Braz.:*** Ocupress; Trusopt; ***Canad.:*** Trusopt; ***Chile:*** Glaucotensil; Trusopt; ***Cz.:*** Trusopt; ***Denm.:*** Trusopt; ***Fin.:*** Trusopt; ***Fr.:*** Trusopt; ***Ger.:*** Trusopt; ***Gr.:*** Trusopt; ***Hong Kong:*** Trusopt; ***Hung.:*** Trusopt; ***India:*** Dorzox; ***Irl.:*** Trusopt; ***Israel:*** Trusopt; ***Ital.:*** Trusopt; ***Malaysia:*** Trusopt; ***Mex.:*** Trusopt; ***Neth.:*** Trusopt; ***Norw.:*** Trusopt; ***NZ:*** Trusopt; ***Philipp.:*** Trusopt; ***Pol.:*** Trusopt; ***Port.:*** Trusopt; ***Rus.:*** Trusopt (Трусопт); ***S.Afr.:*** Trusopt; ***Singapore:*** Trusopt; ***Spain:*** Trusopt; ***Swed.:*** Trusopt; ***Switz.:*** Trusopt; ***Thai.:*** Trusopt; ***Turk.:*** Trusopt; ***UK:*** Trusopt; ***USA:*** Trusopt; ***Venez.:*** Dorzol; Glaucotensil D; Trusopt.

Multi-ingredient: ***Arg.:*** Cosopt; Dorlamida T; Dorzoflax†; Glaucotensil TD; Timed D; ***Austral.:*** Cosopt; ***Austria:*** Cosopt; Timsopt; ***Belg.:*** Cosopt; ***Braz.:*** Cosopt; ***Canad.:*** Cosopt; ***Chile:*** Cosopt; Dorsof T; Glaucotensil T; Glausolets Plus; Tiof Plus; ***Cz.:*** Cosopt; ***Denm.:*** Cosopt; ***Fin.:*** Cosopt; ***Fr.:*** Cosopt; ***Ger.:*** Cosopt; ***Gr.:*** Cosopt; Tesol†; ***Hong Kong:*** Cosopt; ***Hung.:*** Cosopt; ***Irl.:*** Cosopt; ***Israel:*** Cosopt; ***Ital.:*** Cosopt; ***Malaysia:*** Cosopt; ***Mex.:*** Cosopt; ***Neth.:*** Cosopt; ***Norw.:*** Cosopt; ***NZ:*** Cosopt; ***Philipp.:*** Cosopt; ***Pol.:*** Cosopt; ***Port.:*** Cosopt; Timosopt; ***S.Afr.:*** Cosopt; ***Singapore:*** Cosopt; ***Swed.:*** Cosopt; ***Switz.:*** Cosopt; ***Thai.:*** Cosopt; ***Turk.:*** Cosopt; ***UK:*** Cosopt; ***USA:*** Cosopt; ***Venez.:*** Cosopt; Dobet; Glaucotensil T.