Interactions
As for Tetracycline, p.348.

Antimicrobial Action
As for Tetracycline, p.348.

Oxytetracycline is somewhat less active against many organisms.

Pharmacokinetics
For the general pharmacokinetics of the tetracyclines, see Tetracycline, p.349.

An oral dose of 500 mg every 6 hours is reported to produce steady-state plasma concentrations of 3 to 4 micrograms/mL. Plasma protein binding is reported to be about 20 to 40% and the half-life to be about 9 hours.

Uses and Administration
Oxytetracycline is a tetracycline derivative with actions and uses similar to those of tetracycline (p.349).

Oxytetracycline dihydrate or hydrochloride are usually used in tablets, capsules, and injections, and the calcium salt in aqueous oral suspensions; all three are also used in topical preparations. Doses have been expressed as anhydrous oxytetracycline, the dihydrate, or the hydrochloride but in practice this appears to make little difference. Oxytetracycline dihydrate and oxytetracycline hydrochloride 269.8 mg, and oxytetracycline calcium 260.3 mg, are each equivalent to about 250 mg of oxytetracycline.

Oxytetracycline is usually given orally in adult doses of 250 to 500 mg four times daily, usually 1 hour before or 2 hours after food. Higher doses, up to 4 g daily, have occasionally been given to adults with severe infection, but increase the risk of adverse effects.

Doses of oxytetracycline 250 to 500 mg daily have been used in acne, although the *BNF* advocates a dose of 1 g daily.

Oxytetracycline is sometimes given intramuscularly, in doses of 250 mg once daily or 300 mg daily in 2 or 3 divided doses, but this route may be painful and produces lower blood concentrations than recommended oral doses. As intramuscular injections are painful, lidocaine is usually included in the solution. Oxytetracycline has also been given intravenously.

For details of doses in children and adolescents, see below.

Oxytetracycline and its salts have been applied topically, often with other agents, as a variety of eye and ear drops, ointments, creams, and sprays.

Administration in children. In children, the effects on teeth should be considered and tetracyclines only used when absolutely essential. In the UK, oxytetracycline is licensed for use in children aged 12 years and over; the usual adult dose (see above) may be given orally. However, in the USA, it may be given to those over 8 years old in usual oral doses of 25 to 50 mg/kg daily in 4 divided doses or by intramuscular injection in usual doses of 15 to 25 mg/kg (to a maximum of 250 mg) daily in 2 or 3 divided doses.

Skin disorders. For reference to the use of oxytetracycline in the treatment of various skin disorders, see under Tetracycline, p.350.

Preparations

BP 2008: Oxytetracycline Capsules; Oxytetracycline Tablets;
USP 31: Oxytetracycline and Nystatin Capsules; Oxytetracycline and Nystatin for Oral Suspension; Oxytetracycline Calcium Oral Suspension; Oxytetracycline for Injection; Oxytetracycline Hydrochloride and Hydrocortisone Acetate Ophthalmic Suspension; Oxytetracycline Hydrochloride and Hydrocortisone Ointment; Oxytetracycline Hydrochloride and Polymyxin B Sulfate Ointment; Oxytetracycline Hydrochloride and Polymyxin B Sulfate Ophthalmic Ointment; Oxytetracycline Hydrochloride and Polymyxin B Sulfate Topical Powder; Oxytetracycline Hydrochloride and Polymyxin B Sulfate Vaginal Tablets; Oxytetracycline Hydrochloride Capsules; Oxytetracycline Injection; Oxytetracycline Tablets.

Proprietary Preparations (details are given in Part 3)

Arg.: Terramicina; ***Braz.:*** Terramicina; ***Denm.:*** Oxytetral; ***Fr.:*** Posicycline; ***Gr.:*** Terramycin; ***Hong Kong:*** Oxylim; ***Hung.:*** Tetran; ***India:*** Terramycin; ***Indon.:*** Chemotrex; Corsamycin; Terramycin; ***Irl.:*** Clinimycin; ***Malaysia:*** Oxylim; ***Mex.:*** Metrecina; Oxitraklin; Terrados; Terramicina; ***Norw.:*** Oxytetral; ***Philipp.:*** Noxebron; ***Pol.:*** Oxyterracyna†; ***Port.:*** Geomicina†; Terricil; ***S.Afr.:*** Acu-Oxytet; Be-Oxytet; Cotet; O-4 Cycline; Oxymycin; Oxypan; Roxy; Spectratet; Tetracem†; Tetramel†; ***Singapore:*** Oxylim; Terramycin†; ***Spain:*** Terramicina; ***Swed.:*** Oxytetral; ***Thai.:*** Oxycline; Oxylim; ***Turk.:*** Neocol; ***UK:*** Oxymycin; Oxytetramix†; ***USA:*** Terramycin†; ***Venez.:*** Oxifesa†; Terramicina.

Multi-ingredient: ***Arg.:*** Terra-Cortril; Terra-Cortril Nistatina†; Terramicina con Polimixina B†; ***Austria:*** Tetra-Gelomyrtol; ***Belg.:*** Eoline†; Terra-Cortril; Terra-Cortril + Polymyxine B; Terramycine + Polymyxine B; ***Braz.:*** Terra-Cortril; Terramicina c/Polimixina; ***Denm.:*** Hydrocortison med Terramycin; Hydrocortison med Terramycin og Polymyxin-B; Terramycin Polymyxin B; ***Fin.:*** Terra-Cortril; Terra-Cortril P; ***Fr.:*** Auricularum; Primyxine†; Ster-Dex; ***Ger.:*** Corti Biciron N; Farco-Tril†; Oxy Biciron; Terracortril†; Terramycin†; Tetra-Gelomyrtol; ***Gr.:*** Oxacycle-P; Terra-Cortril; Terramycin; ***Hong Kong:*** Terramycin with Polymyxin B; ***Hung.:*** Oxycort; Tetran-Hydrocortison; ***India:*** Terramycin SF; ***Indon.:*** Sancortmycin; Terra-Cortril; Terramycin Poly; ***Israel:*** Auricularum; Terramycin; ***Ital.:*** Cosmiciclina; ***Malaysia:*** Terramycin; ***Mex.:*** Andociclina Balsamica†; Terramicina; ***Neth.:*** Terra-Cortril Gel Steraject met polymyxine-B†; Terra-Cortril met polymyxine-B; ***Norw.:*** Terra-Cortril; Terra-Cortril Polymyxin B; Terramycin Polymyxin B; ***Philipp.:*** Terramycin; ***Pol.:*** Atecortin; Oxycort; ***Port.:*** Corticil T; ***Rus.:*** Gioxyson (Гиоксизон); Oxycort (Оксикорт); ***S.Afr.:*** Terra-Cortril; Terramycin; ***Singapore:*** Terramycin; ***Spain:*** Coliriocilina Espectro†; Terra-Cortril; Terramicina; ***Swed.:*** Terracortril; Terracortril med polymyxin B; Terramycin Polymyxin B; ***Switz.:*** Terracortril†; ***Thai.:*** Terramycin; Terrasil†; ***Turk.:*** Geotril; Heksa; Polimisin; Sekamisin; Terramycin; ***UK:*** Terra-Cortril†; Trimovate; ***USA:*** Terak; Terra-Cortril; Terramycin with Polymyxin B; Urobiotic-250; ***Venez.:*** Ofterra; Terra-Cortril†; Terramicina con Polimixina B.

Panipenem *(rINN)*

Panipénem; Panipenemum. (+)-(5*R*,6*S*)-3{[(*S*)-1-Acetimidoyl-3-pyrrolidinyl]thio}-6-[(*R*)-1-hydroxyethyl]-7-oxo-1-azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid.

Панипенем

$C_{15}H_{21}N_3O_4S$ = 339.4.

CAS — 87726-17-8.

Pharmacopoeias. In *Jpn.*

Profile
Panipenem is a carbapenem beta-lactam antibacterial similar to imipenem (p.286). It has been given with betamipron (p.215), which reduces its adverse renal effects.

◊ References.

1. Goa KL, Noble S. Panipenem/betamipron. *Drugs* 2003; **63:** 913–25.

Preparations

Proprietary Preparations (details are given in Part 3)

Multi-ingredient: ***Jpn:*** Carbenin.

Pazufloxacin Mesilate *(rINNM)*

Mesilato de pazufloxacino; Pazufloxacine, Mésilate de; Pazufloxacini Mesilas; T-3762; T-3761 (pazufloxacin). (–)-(3*S*)-10-(1-Aminocyclopropyl)-9-fluoro-2,3-dihydro-3-methyl-7-oxo-7*H*-pyrido[1,2,3-*de*]-1,4-benzoxazine-6-carboxylic acid methanesulfonate.

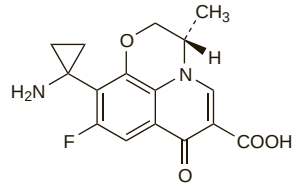
Пазуфлоксацина Мезилат

$C_{16}H_{15}FN_2O_4$, CH_3SO_3H = 414.4.

CAS — 127045-41-4 (pazufloxacin); 163680-77-1 (pazufloxacin mesilate).

ATC — J01MA18.

ATC Vet — QJ01MA18.



(pazufloxacin)

Profile
Pazufloxacin is a fluoroquinolone antibacterial with properties similar to those of ciprofloxacin (p.243). It is given by intravenous infusion as the mesilate in the treatment of susceptible infections in a usual dose equivalent to 1 g of pazufloxacin daily in 2 divided doses.

Preparations

Proprietary Preparations (details are given in Part 3)

Jpn: Pasil; Pazucross.

Pefloxacin Mesilate *(BANM, rINNM)*

EU-5306 (pefloxacin); Mesilato de pefloxacino; Pefloksacino mesilatas dihidratas; Pefloksacyny mezylan dwuwodny; Pefloksasiinimesilaattidihydraatti; Pefloxacin Mesilate Dihydrate; Pefloxacin mesylát dihydrát; Pefloxacin Mesylate *(USAN)*; Péfloxacine, Mésilate de; Péfloxacine (mésilate de) dihydraté; Pefloxacini Mesilas; Pefloxacini mesilas dihydricus; Pefloxacinmesilatdihydrat; Pefloxacin-mezilát-dihidrát; 1589-RB (pefloxacin); 41982-RP. 1-Ethyl-6-fluoro-1,4-dihydro-7-(4-methyl-1-piperazinyl)-4-oxo-3-quinolinecarboxylic acid methanesulphonate dihydrate.

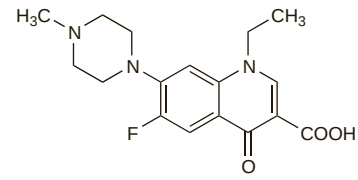
Пефлоксацина Мезилат

$C_{17}H_{20}FN_3O_3$,CH_4O_3S,$2H_2O$ = 465.5.

CAS — 70458-92-3 (pefloxacin); 70458-95-6 (pefloxacin mesilate).

ATC — J01MA03.

ATC Vet — QJ01MA03.



(pefloxacin)

Pharmacopoeias. In *Chin.* and *Eur.* (see p.vii).
Ph. Eur. 6.2 (Pefloxacin Mesilate Dihydrate). A fine, white or almost white powder. Freely soluble in water; slightly soluble in alcohol; very slightly soluble in dichloromethane. A 1% solution in water has a pH of 3.5 to 4.5. Store in airtight containers. Protect from light.

Profile
Pefloxacin is a fluoroquinolone antibacterial with actions and uses similar to those of ciprofloxacin (p.243). It also has bactericidal activity against *Mycobacterium leprae* and has been tried in the treatment of leprosy (p.176).

Pefloxacin has a longer plasma half-life than ciprofloxacin (about 8 to 13 hours) and is also extensively metabolised, the principal metabolite being *N*-desmethylpefloxacin (norfloxacin, p.309).

Pefloxacin is given orally or by intravenous infusion as the mesilate in the treatment of susceptible infections. Doses are expressed in terms of the base; pefloxacin mesilate 558.5 mg is equivalent to about 400 mg of pefloxacin. The usual dose is 400 mg twice daily. A single oral dose of 800 mg may be used in the treatment of gonococcal urethritis in men and acute uncomplicated cystitis in women.

Fluoroquinolones have caused adverse effects on the musculoskeletal system (see under Adverse Effects of Ciprofloxacin, p.244) and in the case of pefloxacin this has led to restrictions in some countries.

Adverse effects. References to adverse effects with pefloxacin.

1. Chevalier X, *et al.* A case of destructive polyarthropathy in a 17-year-old youth following pefloxacin treatment. *Drug Safety* 1992; **7:** 310–14.
2. Al-Hedaithy MA, Noreddin AM. Hypersensitivity anaphylactoid reaction to pefloxacin in a patient with AIDS. *Ann Pharmacother* 1996; **30:** 612–14.
3. Chang H, *et al.* Pefloxacin-induced arthropathy in an adolescent with brain abscess. *Scand J Infect Dis* 1996; **28:** 641–3.

Pharmacokinetics. References to the pharmacokinetics of pefloxacin.

1. Bressolle F, *et al.* Pefloxacin clinical pharmacokinetics. *Clin Pharmacokinet* 1994; **27:** 418–46.

Preparations

Proprietary Preparations (details are given in Part 3)

Braz.: Floxinon†; Peflacin; Pefloxidina†; ***Cz.:*** Abaktal; ***Fr.:*** Peflacine; ***Gr.:*** Idrostamin; Labocton; Londoman†; Peflacin†; ***Hung.:*** Abaktal; Peflacine; ***India:*** Ifipef†; Pefbid; Pelox; Proflox; Qucin; ***Indon.:*** Dexaflox; Noflexin; Peflacine; ***Ital.:*** Peflacin; Peflox; ***Malaysia:*** Peflacine†; Perti†; ***Mex.:*** Nopriken†; Peflacina; ***Philipp.:*** Floxin; ***Pol.:*** Abaktal; Peflacine; ***Port.:*** Peflacine; ***Rus.:*** Abaktal (Абактал); Pelox (Пелокс); Perti (Перти); Unikpef (Юникпеф); ***Spain:*** Azuben†; Peflacine†; ***Thai.:*** Abaktal†; Peflacine†; ***Turk.:*** Peflacine; ***Venez.:*** Peflacina†; Perti†.