

gation of wounds and body cavities but such use is no longer recommended because of the risk of toxicity.

Administration and dosage. For pre-operative use, 1 g of neomycin sulfate has been given hourly for 4 hours and then every 4 hours for 2 or 3 days before surgery; suggested doses in children, given every 4 hours, are 1 g in those aged over 12 years and 250 to 500 mg in those aged 6 to 12 years.

As an adjunct in the management of hepatic encephalopathy, 4 to 12 g may be given daily in divided doses, usually for 5 to 7 days; children may be given 50 to 100 mg/kg daily in divided doses. Prolonged use may cause malabsorption.

Topical preparations typically contain the equivalent of 0.35% neomycin base.

Neomycin hydrochloride has also been used.

Hyperlipidaemias. Neomycin has been given in doses of up to 2 g daily by mouth in the treatment of hypercholesterolaemia (p.1169). It is thought to reduce intestinal absorption of cholesterol through its action on microbial flora, resulting in greater catabolism of low-density lipoproteins in the body.¹ However, more effective and safer drugs are preferred.

1. Illingworth DR. Lipid-lowering drugs: an overview of indications and optimum use. *Drugs* 1987, **33**: 259-79.

Preparations

BP 2008: Dexamethasone and Neomycin Ear Spray; Hydrocortisone Acetate and Neomycin Ear Drops; Hydrocortisone Acetate and Neomycin Eye Drops; Hydrocortisone Acetate and Neomycin Eye Ointment; Hydrocortisone and Neomycin Cream; Neomycin Eye Drops; Neomycin Eye Ointment; Neomycin Tablets;

USP 31: Colistin and Neomycin Sulfates and Hydrocortisone Acetate Otic Suspension; Neomycin and Polymyxin B Sulfates and Bacitracin Ointment; Neomycin and Polymyxin B Sulfates and Bacitracin Ophthalmic Ointment; Neomycin and Polymyxin B Sulfates and Bacitracin Zinc Ointment; Neomycin and Polymyxin B Sulfates and Bacitracin Zinc Ophthalmic Ointment; Neomycin and Polymyxin B Sulfates and Dexamethasone Ophthalmic Ointment; Neomycin and Polymyxin B Sulfates and Dexamethasone Ophthalmic Suspension; Neomycin and Polymyxin B Sulfates and Gramicidin Cream; Neomycin and Polymyxin B Sulfates and Gramicidin Ophthalmic Solution; Neomycin and Polymyxin B Sulfates and Hydrocortisone Acetate Cream; Neomycin and Polymyxin B Sulfates and Hydrocortisone Acetate Ophthalmic Suspension; Neomycin and Polymyxin B Sulfates and Hydrocortisone Ophthalmic Solution; Neomycin and Polymyxin B Sulfates and Hydrocortisone Otic Suspension; Neomycin and Polymyxin B Sulfates and Lidocaine Cream; Neomycin and Polymyxin B Sulfates and Pramoxine Hydrochloride Cream; Neomycin and Polymyxin B Sulfates and Prednisolone Ophthalmic Suspension; Neomycin and Polymyxin B Sulfates and Hydrocortisone Ophthalmic Suspension; Neomycin and Polymyxin B Sulfates and Hydrocortisone Otic Solution; Neomycin and Polymyxin B Sulfates and Hydrocortisone Otic Suspension; Neomycin and Polymyxin B Sulfates and Lidocaine Cream; Neomycin and Polymyxin B Sulfates and Lidocaine Hydrochloride Cream; Neomycin and Polymyxin B Sulfates and Prednisolone Ophthalmic Suspension; Neomycin and Polymyxin B Sulfates Cream; Neomycin and Polymyxin B Sulfates Ophthalmic Ointment; Neomycin and Polymyxin B Sulfates Ophthalmic Solution; Neomycin and Polymyxin B Sulfates Solution for Irrigation; Neomycin and Polymyxin B Sulfates, Bacitracin Zinc, and Hydrocortisone Acetate Ophthalmic Ointment; Neomycin and Polymyxin B Sulfates, Bacitracin Zinc, and Hydrocortisone Ointment; Neomycin and Polymyxin B Sulfates, Bacitracin Zinc, and Hydrocortisone Ophthalmic Ointment; Neomycin and Polymyxin B Sulfates, Bacitracin Zinc, and Lidocaine Ointment; Neomycin and Polymyxin B Sulfates, Bacitracin, and Hydrocortisone Acetate Ointment; Neomycin and Polymyxin B Sulfates, Bacitracin, and Lidocaine Ointment; Neomycin and Polymyxin B Sulfates, Gramicidin, and Hydrocortisone Acetate Cream; Neomycin for Injection; Neomycin Sulfate and Bacitracin Ointment; Neomycin Sulfate and Bacitracin Zinc Ointment; Neomycin Sulfate and Dexamethasone Sodium Phosphate Cream; Neomycin Sulfate and Dexamethasone Sodium Phosphate Ophthalmic Ointment; Neomycin Sulfate and Dexamethasone Sodium Phosphate Ophthalmic Solution; Neomycin Sulfate and Fluorometholone Acetate Cream; Neomycin Sulfate and Fluorometholone Ointment; Neomycin Sulfate and Flurandrenolide Cream; Neomycin Sulfate and Flurandrenolide Lotion; Neomycin Sulfate and Flurandrenolide Ointment; Neomycin Sulfate and Gramicidin Ointment; Neomycin Sulfate and Hydrocortisone Acetate Cream; Neomycin Sulfate and Hydrocortisone Acetate Lotion; Neomycin Sulfate and Hydrocortisone Acetate Ointment; Neomycin Sulfate and Hydrocortisone Acetate Ophthalmic Ointment; Neomycin Sulfate and Hydrocortisone Acetate Ophthalmic Suspension; Neomycin Sulfate and Hydrocortisone Cream; Neomycin Sulfate and Hydrocortisone Ointment; Neomycin Sulfate and Hydrocortisone Otic Suspension; Neomycin Sulfate and Methylprednisolone Acetate Cream; Neomycin Sulfate and Prednisolone Acetate Ointment; Neomycin Sulfate and Prednisolone Acetate Ophthalmic Ointment; Neomycin Sulfate and Prednisolone Acetate Ophthalmic Suspension; Neomycin Sulfate and Prednisolone Sodium Phosphate Ophthalmic Ointment; Neomycin Sulfate and Triamcinolone Acetonide Cream; Neomycin Sulfate and Triamcinolone Acetonide Ophthalmic Ointment; Neomycin Sulfate Cream; Neomycin Sulfate Ointment; Neomycin Sulfate Ophthalmic Ointment; Neomycin Sulfate Oral Solution; Neomycin Sulfate Tablets; Neomycin Sulfate, Sulfacetamide Sodium, and Prednisolone Acetate Ophthalmic Ointment; Nystatin, Neomycin Sulfate, Gramicidin, and Triamcinolone Acetonide Cream; Nystatin, Neomycin Sulfate, Gramicidin, and Triamcinolone Acetonide Ointment.

Proprietary Preparations (details are given in Part 3)

Arg.: Concatag; Neomas; **Austral.:** Neosulf; Siguent Neomycin†; **Austria:** Bykomycin; **Braz.:** Dermomicin†; Nemicina; Neo POM†; Neocina; Neo-gemcin†; Neom†; Neomed; Neomicon; Neomina†; **Fr.:** Bactemycomin†; **Ger.:** Bykomycin†; Cysto-Myacine N; Myacine; Nebacetin N†; Uro-Nebacetin N; Vagiclin†; **Gr.:** Nivemycin; **Hong Kong:** Neocate; **Israel:** Neocin; **Jpn:** Francetin; **Mex.:** Baycuten; Gemcinax†; Neomixen; **NZ:** Neosulf†; **Port.:** Enteromicina; Oto-Synal N; **Thai.:** Myneocin; **UK:** Nivemycin; **USA:** Mycifradin†; Neo-fradin.

Multi-ingredient Arg.: Adermicina; Antibiocort†; Aseptobron N; Belbar; Betasone-G Compuesto; Betnovate-N; Biocortin†; Bioftal; Biotær an Caramelos; Biotær Gamma†; Biotær Nebulizable; Biotær Ultrason Nebulizable†; Bucoangin N; Butimerin; Caext; Caramelos Antibióticos Bucoangin†; Cersporin GS†; Cicatrix; Clevosan; Cloptison-N†; Colinio Anti-

Nix: Dactyl: CNIH; Decaron: con Neomica; Delisan; Derivocot; Dermaden
 Dext: Dextal: Dextal; Dextalgin; Diflunizal; Dotrin; Endonmicia; Faction-
 eye; Farm-X Ginecologico; FML Neo; Gargaletas; Ginal Cent; Ginkar; Grami-
 biotic; Gramicidin; Graminidin; Graminidin N; Griesopol: Hidrocort-
 in; Irgal; Irix Biotic; Isotomax; Itro; Kenacomb; Klonovan; Ledercoret
 con Neomica; Lefa Enterit; Linfol; Linfol Citratizante; Malien; Menadem N;
 Min O; Nasojol; Nasomica; Naxo TV; Nebapol B; Neo Colfort; Neo Kef;
 Neo Pelviclin; Neo-Currio; Neo-Mudapenil; Neobitol; Neodekx
 Plus; Neomas L; Neosona; Nesblier; Nexadron Compuesto; Nexadron
 Plus; O-Biol; O-Biol P; Oftal; Opacarbon; Otocalmia Biotic; Otopseft;
 Otoposin; Otoposin L; Ovumix Palant; Pantometil; Pentol; Platenan
 con Neomica; Pnoebiotal; Pnoebiotal NF; Polynax; Polypex; Proetzotal;
 Provacin Nasal; Rezamid; Rinoflax AG M; Scheridom; Septigin; Sinc-
 erum; Sincermum Biotic; Sincermum Biotic L; Suavian N; Tratomax; Tri-
 Em-cortina; Vagucal; Vagucal Plus; **Austral:** Catinac; Kenacomb; Nemyd;
 Neo-Medrol; Neosporin; Otocomb Otic; **Austria:** Baneocin; Betnesol N;
 Betnovate N; Ciatrex; Dorithricin; Hydofal; Hydrocortmycin; Locacorten
 with Neomycin; Mycostatin V; Nebacetin; Neo-Delphicort; Neocomes;
 Otoposin; Sylnar N; Topsymp polyvalent; Tropoderm; Tyrothricin; Tyro-
 rothin compositum; Ulcunier; Volon A antibiotikahaltig **Belg:** De Ien-
 Dexa-Polyspectran New; Maxitrol; Mycolog; Nebacetine; Nebacetracin
 Otoposin; Panotile; Polydexa; Polynax; Polyspectran Gramicidin
 Predmyn P; Rhinoalvon Neomycine; Spitalen; Statrol; Sylnar B; Otac;
Braz: Aftine; Amigadon; Amigadamin; Anaseptil; Anginotricin; Antisepti-
 cin; Bacidermia; Baciogen; Bacinatrat; Baciocet; Bactoderm; Belcetin
 Betadern N; Betazol Cort; Betnovate-N; Bismu-jet; Celocort; Cetobeta;
 Cicitrene; Cicitrazin; Cimecort; Colpagex N; Colpolase; Colutoide; Culi-
 derm; Decadron Colirio; Decadron Nasal; Dermacetin-Ped; Dermase;
 Dermobef; Dermoxin; Dexam; Dexamidil; Dexacort; Dexanal; Dexavison;
 Dextazona; Dimicin; Drenison N; Elotin; Emsoft; Eptictrin; Esperson N;
 Ferid; Flumex N; Fluo-Vaso; Folderm Pomada; Ginec; Glingione; Gynax-N;
 Hidrocin; Hidroneol; Hipodex; Kindetin; Lantilol; Locorten; Londerm-
 N; Maxitrol; Metodontin; Metcort; Mixoplex; Mud; Nadern; Nazobef; Ne-
 bacetin; Nebaciderm; Nebacomb; Nebacitrin; Nebactrin; Nebalon;
 Nebacitrin; Neobaciprin; Neocortin; Neocina; Neocinol; Neocortin;
 Neodes; Neolon-D; Neotop; Neotricin; Nepodex; Neovicon; Novadem;
 Omilon A M; Oncipulus; Otauril; Oto Xilodase; Otocort; Otodol;
 Otomyxin; Otoposin; Otoposynal; Panotil; Panteritron; Poliginax; Polipred;
 Polysporin; Pomacetrin; Rhinosept; Rinogerol; Rinostet; Solemil; Teut-
 omicin; Thiabena; Tirotrin; Trivagel N; Trofodermin; Trok-N; Vagitrin N;
 Xilodase **Canada:** Ciatrin; Cortimycin; Cortisporin; Dioprol; Kena-
 comb; Maxitrol; Neo-Cortef; Neo-Medrol Acne; Neo-Medrol Veri-
 derm; Neomycin; Neotopic; Optiymyx Plus; ratio-Triacomb; Triacomb;
 Viaderm-KC; **Chile:** Bactipoc Compuesto; Bactipocin; Banefid; Banefid
 Oftalmico; Banefid Oftalmico con Prednisolona; Betnovate-N; Biodeixin;
 Celulase Con Neomica; Escar T Neomica; Fluorote N-N; Gotalgin; Gri-
 fofal-D; Grifofal; Labosona N; Madecassol Neomycin; Maxitrol; Mon-
 ticina; Nasom; Oftabiotic; Ofatona N; Otazol; Oticum; Otolisin;
 Otopseft; Pensulan; Polvos Antibioticos; Rinobanefid; Trofodermin Ne-
 omica; Unguento Dermico Antibiotico; **Cz:** Framykoin; Linola-H com-
 positum NF; Maxitrol; Ophthalmalmo-Framykoin; Ophthalmalmo-Framykoin
 Compositum; Otoposin; Pamycon; Pimafucort; Polynax; Statrol;
Denn: Decadron with Neomycin; Kenalog Comp with Mycostatin; **Fin:**
 Bacibact; Maxitrol; Neo-Medrol comp; Pimafucort Polysporin; **Fr:** Anti-
 biot-Sylnar; Antibiotulle Lumiere; Atebemycin; Betveal-Neomycin;
 Cebemycin; Chibro-Cadron; Ciderem; Corticotide Lumiere; Dex-
 grane; Diprosone Neomycine; Locacortene; Madecassol Neomycine Hy-
 drocortisone; Maxidrol; Mycolog; Panotile; Polydexa; Polynax; Poly-
 lax Virgo; Pulvo 47 Neomycin; Tergynan; Trofopseptin; **Ger:**
 Antibiotulle Lumiere; Bivacyn; Ciatrex; Corticotide Lumiere; Cor-
 tiderexon comp; Dexa Polyspectran; Dispadex comp; Efflunycin; Farco-
 Uromycin; Halog Tril; Isopto Max; Jellin polyvalent; Jellin-Neomycin;
 Kombi-Stulln N; Linola-H-compositum NF; Lokalsan-antimikrobiell Creme
 N; Nebacetrin; Neobac; Polynax; Polyspectran; Pulvo Neomycin; Topsymp
 polyvalent; Ulcunier N; Volon A antibiotikahaltig NF; **Gr:** Afacort; Antil-
 erg-F; Apobayn; Betnovate-N; Dermol; Ekzegamaf; Fluoscin; FML
 Neo; Fotocollyre; Genefacort; Indocort; Isopto Maxitrol; Kenacomb; Lo-
 cacorten Neomycin; Nebacetrin; Neo-Priphen; Otocort; Otomize; Pro-
 cortivir; Pulvo 47; Saccin-D; Statrol; Vioplex-T; **Hong Kong:** Aplosyn-
 Otic; Aristobet-N; Baciymcin; Betnovate-N; Bivacyn; Cebemycin; Chlom-
 P; Corticid; Derizid-N; Dexoph; Dextracin; Entericon Compound; Flu-
 nolone; Fluonid-N; Kenacomb; Lozopin; Maxitrol; Nebacetrin; Neo-Medrol
 Acne; Neosporin; Otoposin; Otopozamb; Polydex-N; Polydexa; Poly-
 lax Polyoph; Prednitracin; Proctosone; Sylnar N; Synco-CFN; Synedo-
 na; Triacomb; **Hung:** Baneocin; Bivacyn; Dexapocort N; Flucinar N; Otop-
 osin; Pimafucort; Sylnar NF; **India:** Beclate-N; Betnederm N; Betnesol-
 N; Betnesol-N Nasal; Betnovate-N; Candidema +; Candizole-
 Cloip NB; Decdan-N; Dextona Eye/Ear; Dextosyn Plus; Dextosyn-N; Flor-
 ex N; Flucort-N; Flucremine NF-M; Kenacomb; Kenalog-S; Ledercoret-N; Luci-
 N; Mycidex; NC-Derm; Nebasulf Neosporin; Neosporin-H; Stecor-N; Sur-
 faze-SN; Topicason with Neomycin; Valbet; Wyocort c Neomycin; **Indon:**
 Apolar-N; Benoson N; Berloson-N; Betason-N; Betnovate-N; Beva-
 lex; Biopiacentron; Bleicid; Centabio; Cinolon-N; Decoderm 3; Denomix;
 Desolex-N; Fasolon; FG Ointment; FG Troches; Immatrol; Isotc Epigly; Isotc
 Neolysol; Isotc Nefaprin; Kalcinol-N; Kenetrol; Maxitrol; Metaskin-N;
 Mytaderm; Nebacetrin; Nelicort; Neocortic Neofen; Neosinol; Neosyd;
 Netracin; Nufacort; Ociderm-N; Oregan; Osatrol; Otopain; Otopraf; Oto-
 zambon; Polidemisim; Polifrisin; Proson N; Scanderma Plus; Tractein
 Tu-dern-N; Ximex Optixitrol; Zumadem-N; **Irl:** Audiocort; Betnesol-N; Be-
 novate-N; Ciatrin; Graneodin; Kenacomb; Maxitrol; Naseptin;
 Neosporin; Otomize; Otoposin; Sylnar NF; **Israel:** Bamyxin; Betnesol-
 N; Betnovate-N; Dermacombin; Desoren; Dethamycin; Dethaphrine; Dex-
 Otic; Dexamycin; Dextifrin; Hycocin; Hycomycin; Kenacomb; Locacorten
 with Neomycin; Maxitrol; Neo-Medrol; Nodryl; Otomizef; Otopymcin;
 Polycutan; Tevacutan; **Ital:** Abiostil; Anauran; Antibiotipal; Bimxin; Bio-Del-
 ta Cortilen; Cicitrene; Desalfa; Desamix-Neomica; Doricum; Ecval con
 Neomica; Enterostop; Eta Biocortilen; Eta Biocortilen V/L Halcidem
 Combi; Idracemic; Idrocet; Idroneomicil; Kataval; Localy; Localyan-Ne-
 omica; Locorten; Menadem; Mixotone; Nefflun; Neo Cortifen; Neo-
 Medrol Veridem; Nevacort; Orobic; Otoposin; Rinofet Soft; Solprene;
 Streptisol con Neomica-Fier; Trofodermin; Vasostrone Antibiotico; Va-
 sostrone Colirio; **Malaysia:** Bacitracin-N; Baneocin; Beavate N; Besone-
 N; Betacin; Betamethasone N; Betnesol-NF; Betnesone N; Betnovate-N;
 Dextracin; Flumicin; Fluonid-N; Kenacomb; Maxitrol; Neo-Deca; Neo-Hy-
 dro; Neo-Medrol; Poin G; Poin H; Proctosone; Sylnar NF; Uniflex-NF;
Mex: Alin Nasal; Alin Oftalmico; Aloso; Baycuten N; Bexine; Biodesxin;
 Biofin; Biotarson N; Biotarson O; Cortifung-N; Cortisporin; Decadron
 con Neomica; Dermalog-C; Dexamidex; Dexam; Dexus; Dextone; Flucinol
 N; Fluorte N; Flunal-Neof; Fluo Grin; Gotadex; Hidromagmat; Hidropoli-
 cina; K-Omiston; Kaomycin; Kenacomb; Kodakon; Maxitrol; Milde; Ne-
 bacetrina; Nebacigrin; Neobol; Neoderm-F; Neopepsul; Neosporin; Neox-
 il; Nicobio; Ofodox; Otilin; Polideltalin NF; Polixin; Poly-Micron;
 Recoveron N; Recoveron NC; Rinadex Compuesto; Rinidyl DN;
 Scheridom; Septilisin; Seldrin; Sindex-Of; Sulned; Sylnar N; Sylnar Neo;
 Sylnar O; Sylnar Oftalmico; Tapzol con Neomica; Timpacil; Treod

Tolyact; Xyloderm; **Neth:** Maxitrol; Mycolog; Otoprin; Pot; Pimafucort; Polyspectan G; Synglar Bi-Otic; **Norw:** Kenacomb; **NZ:** Kenacomb; Maxitrol; Pimafucort; Viaderm-KC-Otic; **Philipp:** Aplosyn N; Aplosyn-Otic; Betnovate-N; BNP Ointment; Cortisporin; Dermovate-NN; Hydrosor; Isonex; Isonex H; Kenacomb; Lixed NGN; Maxirap; Maxitrol; Mastoplast; Neo-Synalar; Neosporin; Novasporin; Postop; Postotic; Predmycin-P; Statrol; Synglar; Otic; Syntemax; Terramycin Plus; Trimycin; Trimycin-H; **Pol:** Lanocidin; Betnovate-N; Biavon; Dexapoltcor N; Dicotinref; Flucinar N; Bonindon N; Maxitrol; Mercotrol N; Multibiotic; Neotopic; Pimafucort; Proctosone; Triacom; Tribiotic; **Port:** Baciderma; Bacitracina Neo; Betnovate-N; Bienteric; Cicatrin; Conjunction; Conjunctione-S; Davaminic; Decadron com Neomicina; Derminead Bacitracin; Dermobiotic; Dermavate-NN; Dexaval N; Dexaval O; Dimicina; Distop; FML Neo; Kenacomb; Leuko Hubber; Meocil; Neo-Davisona; Neo-Precil; Otomize; Otoprin; Pimafucort; Plastenan Neomicina; Polydex; Predmexine; Synglar N; Zotinar N; **Rus:** Anauran (Анаурин); Baneocin (Банеоцин); Dexoval (Дексона); Flucinar N (Фуцилин Н); Maxitrol (Макситрол); Pimafucort (Пимафукорт); Polydexa (Полидекс); Polydexa with Phenylephrine (Полидекс с Фенилэфрином); Polygynax (Полигинакс); Tergyan (Тержинан); **S.Afr:** Betanoid N; Betnesol-N; Betnovate-N; Cicatrin; Covomycin; Covomycin-D; FML Neo; Kenacomb; Maxitrol; Naseptin; Nasomix; Neo-Dermid; Neo-Neop; Neosporin; Otoprin; Otoprin; Synglar N; Trialone; Vibrocol; **Singapore:** Baneocin; Batramycin; Besone-N; Celestoderm-V with Neomycin; Dextracin; Fast Powder; Flunolone; Kenacomb; Maxitrol; Neo-Hydro; Neo-Dermid; Pvalone Neomycin; Polybarmycin; Polydexa; Polygynax; Predmycin-P; **Spain:** Anasipil; Anthelmorridal; Bacisporin; Banifol; Bexicort; Blastomycin; Clinalfasal Hidrocortisona; Clinalfasal Neomicina; Coliolicina Espectrol; Coliolicina Dermidone; Creanolona; Decadran Neomicina; Dermisone T; Antibiotic Dermob Hubber; Dermomycose Talco; Edifaringen; Flodermol; Fludrone; Glingione; Gnetalgan Hidrocort; Intradermo Cort Ant Fung; Ixulox Neo; Leuko Hubber; Liquipom Dexa Antib; Maxitrol; Menaderm Neomicina; Micadina; Neo Analsona; Neo Bacitrin; Neo Hubber; Neocones; Neodexa; Oftalmowell; Olo Difusor; Olo Vitnag; Otinotin; Otoprin; Oxidermidin Enzima; Panotile; Phonal; Plaskine Neomicina; Poly Pred; Pomada Antibiotic; Positon; Predisone Neomicina; Rino Dexa; Rinobanef; Rinovel; Spectrocin; Sulfinstefin Neomicina; Synglar Nasal; Synglar Neomicina; Synglar Otic; Tusiderma; Twitis; Trigon Potoc; Tulgrasum Antibiotic; Vincispetol; Otic; **Swed:** Betnovat med Neomycin; Celeston valerat comp; Decadron com neomycin; Isopto Biotic; **Switz:** Bacimycin; Baneopac; Batramycin; Betnovate-N; Cicatrix; Cortiflud N; Cortimycine; Dermovate-NN; FML Neo; Maxitrol; Mycinopred; Mycolog N; Mycologi; Nebacetin; Neo-Hydro; Neocones; Neosporin; Neotracin; Otoprin; Otopray; Panotile; Pvalone compositum; Polydexa; Predmicitracin; Spersapolymerin; Synglar N; Topsymp polyvalent; Tyrocombine; **Thai:** Archidex; Bacal; Banocin; Basina; Besone-N; Beta-Dipol; Beta-N; Betama-EN; Betameth-N; Bethasone-N; Betnovate-N; Biochint; Cadexcin-N; Clinate-N; Cocila; Decadron with Neomycin; Dermacombin; Derizid-N; Dexacin; Dexasil; Dexoph; Dextlin; Dindox; Eydex; Faraki; Fluciderm-N; Flunolone; Flunolid-N; FML Neo; Izact; Kenacomb; Maxitrol; Medcin; My-B; Mybacin; Mybacin Dermic; Mysolone-N; Neo-Dermid; Neo-Optal; Neodex; Neopred; Neosporin; Neozolone; Opsacin; Opsardex; Otopsamong; Otopsamong; Otoprin; Polyph; Predext; Predmycin; Prednisil-N; Prednisil; Spersapolymerin; Supracort 37; Supralan N; Synglar N; Topaben-N; Trofodermin; Unipred; Valbet-N; Vesoph; Xanalix; **Turk:** Cebemycine; Comisin; Neosporin; Thioilline; **UAE:** Panderam; **UK:** Audiocort; Betnesol-N; Betnovate-N; Cicatrin; Dermovate-NN; Graneodin; Gregoderim; Maxitrol; Naseptin; Neosporin; Otomize; Otoprin; Predsol-N; Synglar N; Tri-Ad-cort; Vista-Methasone N; **USA:** Ak-Neo-Dex; Ak-Spore; Ak-Trol; Col-Mycin S Otic; Cortatrigen; Cortimycin; Cortisporin; Cortisporin-TC; Cortisporin; Dexacidin; Dexacine; Dexasporin; Ear-Eze; Lanabiotic; Lazer-Sporin-C; Maxitrol; Mycitracin; Neo-Dexamethil; Neocin; Neo-Decadron; Neodexasone; Neopolydex Neosporin; Neosporin + Pain Relief; Neosporin GU; Neosporin; Neotrich HC; Oticair; Ocu-Spor-B; Ocu-Spor-G; Ocu-Trol; Ocutrigin; Otic-Care; OtiTricin; Otcort; Otoprimycin; HPN; Otoprin; Pediatric; Poly-Dex; Poly-Pred; Polymycin; Spectrocin Plus; Tri-Biozene; UAD-Otic; **Venez:** Baycuten N; Batrofil c Neomicina; Cinald; Decadron; Decaven; Dermabiotic; Dexaneofl; Flutalon; Maxicort; Maxitrol; Neo-Synalar con Neomicina; Neo-Synalar; Neoflu con Neomicina; Otcort; Poti-Otic.

Netilmicin Sulfate (USAN, rINN)

N¹-Ethylisossomicin; Netilmicin Sulphate (*BANM*); Nétilmicine, sulfat de; Nétilmicini sulfas; Netilmicin sulfatas; Netilmicinsulfat; Nétilmicin-sulfát; Netilmicin-sulfát; Nétilmisiinisulfatti; Nétilmisin sulfát; Netylmycyny siarczan; Sch-20569; Sulfato de netilmicina. 4-O-[(2*R*,3*R*)-3-C-Amino-6-aminomethyl-3,4-dihydro-2*H*-pyran-2-yl]-2-deoxy-6-O-(3-deoxy-4-C-methyl-3-methylamino-β-L-arabinopiranosyl)-1-*N*-ethylstreptamine sulphate.

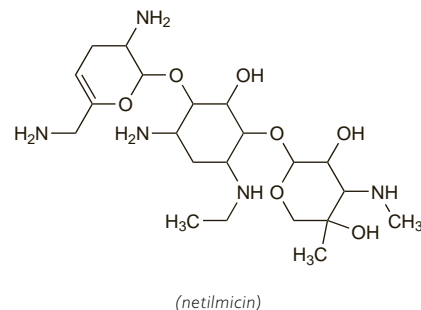
Нетилмицина Сульфат

$$(\text{C}_{21}\text{H}_{41}\text{N}_5\text{O}_7)_2 \cdot 5\text{H}_2\text{SO}_4 = 1441.6.$$

CAS — 56391-56-1 (netilmicin); 56391-57-2 (netilmicin sulfate).

ATC — 101GB07; S01AA23.

ATC Vet — QJ01GB07; QS01AA23.



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

Ph. Eur. 6.2 (Netilmicin Sulphate). A substance obtained by synthesis from sisomicin. The potency is not less than 650 units/mg, calculated with reference to the dried substance. A white or yellowish-white, very hygroscopic, powder. Very soluble in water; practically insoluble in alcohol and in acetone. A 4% solution in water has a pH of 3.5 to 5.5. Store in airtight containers. Protect from light.

USP 31 (Netilmicin Sulfate). The potency is equivalent to not less than 595 micrograms of netilmicin per milligram, calculated on the dried basis. A white to pale yellowish-white powder. Freely soluble in water; practically insoluble in dehydrated alcohol and in ether. pH of a solution in water containing the equivalent of netilmicin 4% is between 3.5 and 5.5. Store in airtight containers. Protect from moisture.

Incompatibility. For discussion of the incompatibility of aminoglycosides, including netilmicin, with beta lactams, see under Gentamicin Sulfate, p.282. Netilmicin is also reported to be incompatible with furosemide, heparin, and vitamin B complex.

Adverse Effects, Treatment, and Precautions

As for Gentamicin Sulfate, p.282. Some studies suggest that netilmicin is less nephrotoxic and ototoxic than gentamicin or tobramycin, although others have not found any significant differences in their toxicity.

It has been suggested that peak plasma concentrations of netilmicin should not exceed 12 micrograms/mL for prolonged therapy, and troughs should be below 2 micrograms/mL.

Effects on the cardiovascular system. Severe hypotension was associated with netilmicin in a patient undergoing artificial ventilation.¹ Hypotensive episodes were of short duration and coincided with netilmicin injection. They almost disappeared when sedation was stopped.

1. Ryngstad T. Severe hypotension associated with netilmicin treatment. *BMJ* 1997; **315**: 31.

Interactions

As for Gentamicin Sulfate, p.283.

Antimicrobial Action

As for Gentamicin Sulfate, p.283. It is active against a similar range of organisms although it is also reported to have some activity against *Nocardia*. It may be somewhat less effective against *Pseudomonas aeruginosa*. It is not degraded by all of the enzymes responsible for aminoglycoside resistance, and may be active against some strains resistant to gentamicin or tobramycin, but this is less marked than with amikacin: for example, gentamicin-resistant *Providencia*, *Pseudomonas*, and *Serratia* are usually also netilmicin-resistant. Between about 5 and 20% of Gram-negative isolates are reported to be resistant to netilmicin.

Pharmacokinetics

As for Gentamicin Sulfate, p.284.

After intramuscular injection of netilmicin, peak plasma concentrations are achieved within 0.5 to 1 hour, and concentrations of about 7 micrograms/mL have been reported following doses of 2 mg/kg; similar concentrations are obtained after intravenous infusion of the same dose over 1 hour. Peak concentrations after rapid intravenous injection may transiently be 2 or 3 times higher than those following infusion. Standard, once-daily doses may produce transient peak concentrations of 20 to 30 micrograms/mL. In multiple dosing studies, netilmicin in usual doses every 12 hours produced steady-state concentrations on the second day which were less than 20% higher than those seen after the first dose.

The half-life of netilmicin is usually 2.0 to 2.5 hours. About 80% of a dose is excreted in the urine within 24 hours.

Uses and Administration

Netilmicin is a semisynthetic aminoglycoside antibiotic with actions and uses similar to those of gentamicin (p.284). It may be used as an alternative to amikacin (p.201) in the treatment of infections caused by susceptible bacteria that are resistant to gentamicin and tobramycin. As with gentamicin, netilmicin may be used with penicillins and with cephalosporins; the injections should be given separately.

Netilmicin is given as the sulfate but doses are expressed in terms of the equivalent amount of base; 1.5 g of netilmicin sulfate is equivalent to about 1 g of netilmicin. It is usually given intramuscularly in doses of 4 to 6 mg/kg daily as a single dose; alternatively, it may be given in equally divided doses every 8 or 12 hours; for the control of life-threatening infections, up to 7.5 mg/kg may be given daily in divided doses every 8 hours for short periods. In the management of urinary-tract infections, a single daily dose of 150 mg for 5 days may be given; for complicated urinary-tract infections, 3 to 4 mg/kg daily in divided doses every 12 hours has been given. A single dose of 300 mg has been licensed for gonorrhoea (p.191).

The same doses may be given by slow intravenous injection over 3 to 5 minutes or infused intravenously over 0.5 to 2 hours in 50 to 200 mL of infusion fluid; proportionately less fluid should be given to children.

Treatment with netilmicin is usually given for 7 to 14 days. Peak plasma concentrations below 12 micrograms/mL and troughs below 2 micrograms/mL have been recommended for divided daily dose regimens.

Dosage recommendations in infants and children vary somewhat. One regimen is 7.5 to 9 mg/kg daily in infants and neonates older than 1 week, and 6 to 7.5 mg/kg daily in older children, both given in divided doses every 8 hours. Premature infants and neonates less than 1 week old may be given 6 mg/kg daily in divided doses every 12 hours. An alternative regimen is 4 to 6.5 mg/kg daily in neonates less than 6 weeks of age, in divided doses every 12 hours, and 5.5 to 8 mg/kg daily in divided doses every 8 or 12 hours in older infants and children.

Dosage should be adjusted in all patients according to plasma-netilmicin concentrations, and this is particularly important where factors such as age, renal impairment, or prolonged therapy may predispose to toxicity, or where there is a risk of subtherapeutic concentrations. For discussion of the methods of calculating aminoglycoside dosage requirements, see Administration and Dosage, under Gentamicin, p.284.

Preparations

USP 31: Netilmicin Sulfate Injection.

Proprietary Preparations (details are given in Part 3)

Arg.: Netiraj; **Austral.:** Netromycin†; **Austria:** Certomycin; **Belg.:** Netromycin†; **Braz.:** Netromicina; **Canada:** Netromycin†; **Cz.:** Netromycin; **Denm.:** Netilinj†; **Fin.:** Netily; **Fr.:** Netromicine; **Ger.:** Certomycin; **Gr.:** Netromycin; **Zaby.:** Hong Kong; **Hong Kong:** Netromycin; **Hung.:** Netromycin; **India:** Netromycin; **Netspan:** **Indon.:** Netromycin; **Irl.:** Netilinj†; **Ital.:** Nettacin; **Nettavis:** Zetamycin; **Malaysia:** Netromycin; **Mex.:** Neticinj; **Netromicina:** **Neth.:** Netromycin; **Norw.:** Netily; **NZ:** Netromycin†; **Philipp.:** Keunmixin; **Netromycin:** **Pol.:** Netromycin; **Port.:** Netromicina; **Tilcin:** **S.Afr.:** Netromycin; **Spain:** Netrodin†; **Swed.:** Netily; **Switz.:** Netromycin; **Thal.:** Bactrocin; **Nelin:** Netil; **Netromycin:** **Turk.:** Netira; **Netromycin:** **UK:** Netilinj†; **Venez.:** Netromicina.

Multi-ingredient: **Ital.:** Netidex.

Nifuroxazide (rINN)

Nifuroksazidi; Nifuroksazid; Nifuroksazidas; Nifuroxazid; Nifuroxazida; Nifuroxazidum. 2'-(5-Nitrofurfurylidene)-4-hydroxybenzohydrazide.

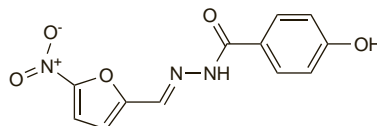
Нифуроксазид

C₁₂H₉N₃O₅ = 275.2.

CAS — 965-52-6.

ATC — A07AX03.

ATC Vet — QA07AX03.



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

Ph. Eur. 6.2 (Nifuroxazide). A bright yellow crystalline powder. Practically insoluble in water; slightly soluble in alcohol; practically insoluble in dichloromethane. Protect from light.

Profile

Nifuroxazide is an antibacterial that is poorly absorbed from the gastrointestinal tract. It is given orally in a dose of 800 mg daily in divided doses in the treatment of colitis and diarrhoea.

Preparations

Proprietary Preparations (details are given in Part 3)

Belg.: Bacifurane†; **Erfuryl:** **Braz.:** Passifuril; **Chile:** Diarfin†; **Cz.:** Erfuryl†; **Fr.:** Bacterix; **Bifix:** Diafuryl; **Ediston:** Erfuryl†; **Erceryl:** Lumifurex; **Pan-furex:** Septidiary†; **Gr.:** Erfuryl†; **Hong Kong:** Erfuryl†; **Pan-furex:** **Indon.:** Fuzide; **Nifudiar:** Nifural†; **Ital.:** Diaret†; **Mex.:** Akabar; **Dianm†:** Eskapar; **Torpro:** **Philipp.:** Erfuryl†; **Rus.:** Enterofuryl (Энтерофурил); **Singapore:** Niraben; **Thal.:** Debby†; **Erfuryl:** Erfuzide; **Turk.:** Diafuryl; **Dunsal:** Endosin; **Erfuryl:** Erfuryl; **Furit:** Nifuryl; **Nufro.**

Multi-ingredient: **Chile:** Diaren; **Diarfin†:** Enterol Con Nifuroxazida; **Imecol:** Liracol; **Nifurat†:** Testisan; **Mex.:** Dia-Par Compuesto; **Eskapar** Compuesto.

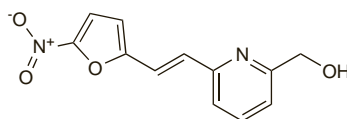
Nifurpirinol (USAN, rINN)

Furpirinol; Nifurpirinolium; P-7138.

Нифурпиринол

C₁₂H₁₀N₂O₄ = 246.2.

CAS — 13411-16-0.



Profile

Nifurpirinol is a nitrofurant antimicrobial used in veterinary medicine for the treatment of bacterial and fungal infections in ornamental fish.

Nifurtoinol (rINN)

Hydroxymethylnitrofurantoin; Nifurtoinol; Nifurtoinolium. 3-Hydroxymethyl-1-(5-nitrofurfurylideneamino)hydantoin.

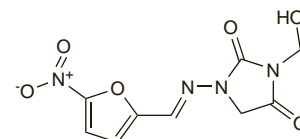
Нифуртоинол

C₉H₈N₄O₆ = 268.2.

CAS — 1088-92-2.

ATC — J01XE02.

ATC Vet — QJ01XE02.



Profile

Nifurtoinol is a nitrofurant antibacterial with properties similar to those of nitrofurantoin (below) and is used in the treatment of urinary-tract infections. It is given orally in doses of up to 300 mg daily in divided doses.

Preparations

Proprietary Preparations (details are given in Part 3)

Belg.: Urfadyn PL.

Nifurzide (rINN)

Nifurzida; Nifurzidum. 5-Nitro-2-thiophenecarboxylic acid [3-(5-nitro-2-furyl)allylidene]hydrazide.

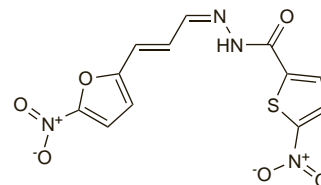
Нифурзид

C₁₂H₈N₄O₆S = 336.3.

CAS — 39978-42-2.

ATC — A07AX04.

ATC Vet — QA07AX04.



Profile

Nifurzide is an antibacterial that is poorly absorbed from the gastrointestinal tract. It has been given orally in the treatment of diarrhoea.

Preparations

Proprietary Preparations (details are given in Part 3)

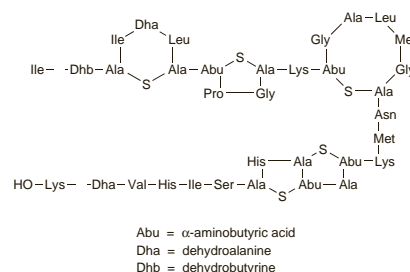
Fr.: Ricidenet†.

Nisin

E234; Nisina.

Низин

CAS — 1414-45-5.



Profile

Nisin is a polypeptide antibacterial produced by *Lactococcus lactis* (*Streptococcus lactis*). It is used as a food preservative.

It has been investigated for the treatment of various infections, including those caused by *Helicobacter pylori* and *Clostridium difficile*.