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# The use of stems in the selection of International Nonproprietary Names (INN) for pharmaceutical substances

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Programme on International Nonproprietary Names (INN)
Quality Assurance and Safety: Medicines
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# PREFACE

The document *"The Use of Common Stems in the Selection of INNs"* is intended primarily for persons and companies applying to the WHO INN Programme for the selection of an INN for a new pharmaceutical substance and has been designed to assist in the process of devising a suitable proposal. It will also be of assistance to institutions and specialists involved in the review of proposed INNs, including drug regulatory authorities, pharmaceutical manufacturers, patent offices and trade mark officers as well as for scientists, teachers, health professionals and other persons interested generally in drug nomenclature. The document is composed of four main parts and annexes.

Part I *"Introduction"* describes the WHO INN Programme, INN selection procedure, and criteria for name selection and gives general information on the INN stem system.

Part II contains the list of all INN stems. It is composed of two indexes, one entitled *"Alphabetical List of Common Stems"* which presents the list of stems, and another entitled *"Alphabetical List of Common Stems and their definitions"* which includes a definition for each stem.

Part III presents the stem classification system used by the INN Programme to categorize the main activity of pharmaceutical substances. Each category included in the list is given an appropriate code consisting of a capital letter and three digits. When INNs for substances belonging to a given category include a specific stem, appropriate information is included in the table.

Part IV of the document entitled *"Alphabetical List of Stems Together With Corresponding INNs"* serves as a listing of all proposed INNs (published in lists 1 - 95) containing INN stems. The list is organized in alphabetical order (as set out in Part II) and includes all INNs containing individual stems. In addition, under each stem heading information is given on INNs in which the preferred stem has been used but not in accordance with its definition as well as on INNs which belong to the same group of pharmaceutical substances but in which no preferred stem has been used. To facilitate the use of Part IV, the lay-out of information is presented as a diagram on page 6 and is complemented by additional information given at the end of part I *"Introduction"*.

Six annexes attached to the document are intended to be of assistance to users. Annex 1 explains the stem system for monoclonal antibodies. Annex 2 reproduces the *Procedure for the Selection of Recommended International Nonproprietary Names for Pharmaceutical Substances* as approved by the WHO Executive Board in its resolution EB15.R7 as amended by resolution EB115.R4. Annex 3 reproduces *General Principles for Guidance in Devising International Nonproprietary Names for Pharmaceutical Substances* as approved by the WHO Executive Board in the above-mentioned resolution, as amended. Annex 4 explains the nomenclature scheme for Gene Therapy Products. Annex 5 gives reference to the volumes of the *WHO Drug Information* in which proposed lists of INNs have been published. Annex 6 *"Why INN?"* gives general information on the present situation of WHO INN Programme and its achievements.

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# PART I

# INTRODUCTION

## WHO'S INN PROGRAMME

The World Health Organization (WHO) has a constitutional responsibility to "develop, establish and promote international standards with respect to biological, pharmaceutical and similar products". The International Nonproprietary Names (INN) Programme is a core activity embedded in the normative functions of WHO and has served the global public health and medicines community for over fifty years. The Programme was established to assign nonproprietary names to pharmaceutical substances so that each substance would be recognized by a unique name. Such names are needed for the clear identification, safe prescription and dispensing of medicines, and for communication and exchange of information among health professionals. INNs can be used freely because they are in the public domain. In addition to being a basic component of many WHO medicines activities and programmes, INNs are used in regulatory and administrative processes in many countries. They are also intended for use in pharmacopoeias, labelling, and product information and to provide standardized terminology for the international exchange of scientific information.

## INN SELECTION PROCEDURE

Each name proposed for designation as an INN is examined and selected in accordance with a formal procedure. Requests for INNs can be submitted directly to WHO (application forms online at http://www.who.int/medicines/services/inn/en/index.html). In some countries where national nomenclature commissions exist, applications may also be made through the national nomenclature authority.

Members of the WHO Expert Panel on the International Pharmacopoeia and Pharmaceutical Preparations (or other Panel as appropriate) are officially designated to select nonproprietary names. Based on the information provided, an agreed name is selected and published as a ***proposed*** INN. During a four month period, any person can make comments or lodge a formal objection to the proposed name. If no objection is raised, this agreed name is published as the ***recommended*** INN.

In 1993, the World Health Assembly endorsed resolution WHA46 which states that trade marks should not be derived from INNs and INN stems should not be used in trade marks. The Assembly reasoned that such practice could frustrate the rational selection of INNs and ultimately compromise the safety of patients by promoting confusion in drug nomenclature. Above all, INNs are protected for use in the public domain.

## CRITERIA FOR SELECTION

International Nonproprietary Names (INN) should be distinctive in sound and spelling. They should not be inconveniently long and not be liable to confusion with names in common use. Information on the selection procedure and general criteria in devising INNs is set out in Annexes 2 and 3.

## INN STEMS

Stems define the pharmacologically related group to which the INN belongs. The present document describes stem use procedure and includes, in Parts II and IV, the list of common stems for which chemical and/or pharmacological categories have been established. These stems and their definitions have been selected by WHO experts and are used when selecting new international nonproprietary names. Because the nomenclature process is ongoing and constantly under revision, definitions of older stems are modified as and when newer information becomes available.

Whenever possible, an INN should include the "common stem" expressing the pharmacologically-related group to which the substance belongs. Names that are likely to convey an anatomical, physiological, pathological or therapeutic suggestion are avoided.

In addition, certain rules have been established in devising INNs to facilitate their use internationally. For example, to make pronunciation possible in various languages, the letters "h" and "k" should be avoided; "e" should be used instead of "ae" and "oe", "i" instead of "y", "t" instead of "th" and "f" instead of "ph".

**INFORMATION ON USING PART IV "ALPHABETICAL LIST OF STEMS TOGETHER WITH CORRESPONDING INNs"**

The following information complements or describes the diagram set out on page 6.

1. The list includes INNs published in *Proposed International Nonproprietary Names Lists 1 - 95* categorized according to the list of stems (see Annex 5).

For each stem, INNs have been classified as:

(a) INNs in which the preferred stem has been used in accordance with its definition;

(b) INNs in which the preferred stem has been used, but not in accordance with its definition;

(c) INNs which belong to the same group of pharmaceutical substances but in which the preferred stem has been used. (This part of the list is not exhaustive).

2. References to nationally used syllables published in the British Approved Names (BAN) Dictionary and the USP Dictionary of USAN and International Drug Names have also been made wherever applicable. Whenever the BAN or USAN definitions are not identical to the INN definition they are set out in brackets under the INN definition.

3. The codes presented on the diagram as Stem Classification refer to the stem classification system used by the INN Programme described in Part III of the document.

4. Symbol (x) indicates stems included as examples in Article 9 of the *"General Principles for Guidance in Devising International Nonproprietary Names for Pharmaceutical Substances"* (see Annex 3).

5. Symbol (d) indicates stems that were formerly used, but are no longer formally acknowledged by the INN Programme.

# Layout of information

*Stem*

*Stem classification*

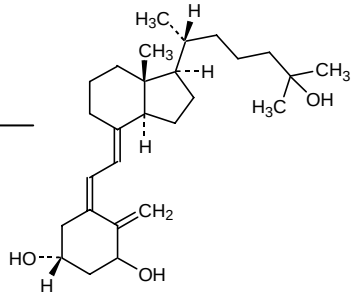
*Stem definition*

*National Name(s)*

USAN

**calci**
N.8.0.0

**Vitamin D analogues/derivatives**



(a) alfacalcidol (40), calcifediol (26), calcipotriol (61), calcitriol (39), colecalciferol (13), doxercalciferol (82), ergocalciferol (13), falecalcitriol (74), lexacalcitol (71), maxacalcitol (75), paricalcitol (78), secalciferol (62), seocalcitol (78), tacalcitol (65)

(b) calcitonin (31) (polypeptide)

(c) dihydrotachysterol (1)

*Graphic Formula*

*INN (English)*

*List of proposed INN*

*Names in which the preferred stem has been used in accordance with its definition*

*Names in which the preferred stem has been used but not in accordance with its definition*

*Names which belong to the same group of pharmaceutical substances and in which no preferred stem has been used (this part of the list is not exhaustive)*

(x) stems that are included in article 9 of the General Principles

(d) stems deleted from article 9 of the General Principles

# Part II A

## ALPHABETICAL LIST OF COMMON STEMS

**A**
-abine (see -arabine and -citabine)
-ac
-acetam (see -racetam)
-actide
-adol/-adol-
-adom
-afenone
-afil
-aj-
-al
-aldrate
-alol (see -olol)
-alox (see -ox)
-amivir (see vir)
-ampanel
andr
-anib
-anide
-anserin
-antel
-antrone
-apine (see -pine)
-(ar)abine
-arit
-arol
-arone
-arotene
arte-
-ase
-ast
-(a)steride (see -ster-)
-astine
-azam (see -azepam)
-azenil
-azepam
-azepide
-azocine
-azolam (see -azepam)
-azoline
-azone (see -buzone)
-azosin

**B**
-bactam
-bamate
barb
-begron
-benakin (see -kin)
-bendan (see -dan)
-bendazole
-bermin (see -ermin)
-bersat
-betasol (see pred)
bol
-bradine
-brate (see -fibrate)
-bufen
-bulin
-butazone (see -buzone)
-buzone

**C**
-caine
-cain-
calci
-carbef
-carnil (see -azenil)
-castat (see -stat)
-cavir (see vir)
cef-
cell-/cel-
cell-ate (see cell-/cel-)
-cellose (see cell-/cel-)
-cic
-ciclovir (see vir)
-cidin
-cillide (see -cillin)
-cillin
-cillinam (see -cillin)
-cilpine (see -pine)
-cisteine (see -steine)
-citabine
-clone
-cog
-cogin
-conazole
cort
-coxib
-crinat
-crine
-cromil
-curium (see -ium)
-cycline

**D**
-dan
-dapsone
-decakin (see -kin)
-denoson
-dermin (see -ermin)
-dil
-dilol (see -dil)
-dipine
-dismase (see -ase)
-distim (see -stim)
-dodekin (see -kin)
-dopa
-dox (see -ox/-alox)
-dralazine
-drine
-dronic acid
-dutant (see -tant)
-dyl (see -dil)

**E**
-ectin
-elestat (see -stat)
-elvekin (see -kin)
-emcinal
-entan
(-)eptacog (see -cog)
erg
-eridine
-ermin
estr
-etanide (see -anide)
-ethidine (see -eridine)
-exakin (see -kin)
-exine

**F**
-fenamate (see -fenamic acid)
-fenamic acid
-fenin
-fenine
-fentanil
-fentrine
-fermin (see -ermin)
-fiban
-fibrate
-filermin (see -ermin)
-flapon
-flurane
-formin
fos
-fovir (see vir)
-fradil
-frine (see -drine)
-fungin
-fylline

**G**
gab
gado-
-gatran
-gene
gest
-gestr- (see estr)
-giline
-gillin
gli
-glitazar (see gli)
-glitazone (see gli)
-glumide
-golide
-gosivir (see vir)
-gramostim (see -stim)
-grastim (see -stim)
-grel-/-grel
guan-

**I**
-ibine (see -ribine)
-icam
-ifene
-igetide (see -tide)
-ilide
imex
-imibe
-imod
-imus
-ine
io-
iod-/-io-
-irudin
-isomide
-ium
-izine (-yzine)

**K**
-kacin
-kalant
-kalim
-kef-
-kin
-kinra
-kiren

**L**
-leukin (see -kin)
-listat (see -stat)
-lubant
-lukast (see -ast)

**M**
-mab
-mantadine
-mantine (see -mantadine)
-mantone (see -mantadine)
-mastat (see -stat)
-meline
mer-/-mer
-mer
-mesine
-mestane
-metacin
-met(h)asone (see pred)
-micin
-mifene (see -ifene)
-milast (see -ast)
mito-
-monam
-morelin (see -relin)
-mostim (see -stim)
-motine
-moxin
-mustine
-mycin

**N**
nab
-nakin (see -kin)
-nakinra (see -kinra)
nal-
-naritide (see -tide)
-navir (see vir)
-nermin (see -ermin)
-nercept
-nertant (see -tant)
-netant (see -tant)
-nicate (see nico-)
-nicline
nico-/nic-/ni-
-nidazole
-nidine (see -onidine)
nifur-
-nil (see -azenil)
nitro-/nitr-/nit-/ni-/-ni-
-nixin
(-)nonacog (see -cog)

**O**
-octakin (see -kin)
-octadekin (see -kin)
(-)octocog (see -cog)
-ol
-olol
-olone (see pred)
-onakin (see -kin)
-one
-onide
-onidine
-onium (see -ium)
-opamine (see -dopa)
-orex
-orph- (see orphan)
orphan
-otermin (see -ermin)
-ox/-alox
-oxacin
-oxan(e)
-oxanide (see -anide)
-oxef (see cef-)
-oxepin (see -pine)
-oxetine
-oxicam (see -icam)
-oxifene (see -ifene)
-oxopine (see -pine)

**P**
-pafant
-pamide
-pamil
-parcin
-parin
-parinux (see -parin)
-pendyl (see -dil)
-penem
perfl(u)-
-peridol (see -perone)
-peridone (see -perone)
-perone
-pidem
-pin(e)
-piprazole (see -prazole)
-pirone (see -spirone)
-pirox (see -ox/-alox)
-pitant (see -tant)
-plact
-pladib
-planin
-plase (see -ase)
-plasmid (see -gene)
-platin
-plermin (see -ermin)
-plestim (see -stim and -kin)
-plon
-poetin
-porfin
-poride
-pramine
-prazole
pred
-prenaline (see -terol)
-pressin
-pride
-pril
-prilat (see -pril)
-prim
-pristin
-profen
prost
-prostil (see prost)

**Q**
-quidar
-quin(e)
-quinil (see -azenil)

**R**
-racetam
-racil
-relin
-relix
-renone
-restat (see -stat)
retin
-ribine
rifa-
-rinone
-rizine (see -izine)
-rozole
-rsen
-rubicin

**S**
sal
-sartan
-semide
-sermin (see -ermin)
-serod
-serpine
-setron
som-
-sopine (see -pine)
-spirone
-stat/-stat-
-steine
-ster-
-stigmine
-stim
sulfa-
-sulfan

**T**
-tadine
-tant
-tecan
-tepa
-tepine (see -pine)
-teplase (see -ase)
-termin (see -ermin)
-terol
-terone
-thiouracil (see -racil)
-tiazem
-tide
-tidine
-tilide (see -ilide)
-tiline (see -triptyline)
-tinib
-tirelin (see -relin)
-tizide
-tocin
-toin
-trakin (see -kin)
-trakinra (see -kinra)
-tredekin (see -kin)
-trexate
-trexed
-tricin
-triptan
-triptyline
-troban
-trodast (see -ast)
trop

**U**
-uplase (see -ase)
-uridine

**V**
-vaptan
-vastatin (see -stat)
-vec (see -gene)
-verine
vin-/-vin-
vir
-virsen
-vos (see fos)
-vudine (see -uridine)

**X**
-xaban
-xanox (see -ox/-alox)

**Y**
-yzine (see -izine)

**Z**

-zafone
-zepine (see -pine)
-zolast (see -ast)
-zone (see -buzone)
-zotan

# PART II B

## ALPHABETICAL LIST OF COMMON STEMS AND THEIR DEFINITION

**A**

| | |
|---|---|
| -abine (see -arabine and -citabine) | arabinofuranosyl derivatives; nucleoside antiviral or antineoplastic agents, cytarabine or azactidine derivatives |
| -ac | anti-inflammatory agents, ibufenac derivatives |
| -acetam (see -racetam) | amide type nootrope agents, piracetam derivatives |
| -actide | synthetic polypeptide with a corticotropin-like action |
| -adol/-adol- | analgesics |
| -adom | analgesics, tifluadom derivatives |
| -afenone | antiarrhythmics, propafenone derivatives |
| -afil | inhibitors of phosphodiesterase PDE5 with vasodilator action |
| -aj- | antiarrhythmics, ajmaline derivatives |
| -al | aldehydes |
| -aldrate | antacids, aluminium salts |
| -alol (see -olol) | aromatic ring related to -olols |
| -alox (see -ox) | antacids, aluminium derivatives |
| -amivir (see vir) | neuraminidase inhibitors |
| -ampanel | amino-hydroxymethyl-isoxazole-propionic acid (AMPA) receptor antagonists |
| andr | steroids, androgens |
| -anib | angiogenesis inhibitors |
| -anide | saluretics |
| -anserin | serotonin receptor antagonists (mostly 5-$HT_2$) |
| -antel | anthelminthics (undefined group) |
| -antrone | antineoplastics; anthraquinone derivatives |
| -apine (see -pine) | tricyclic compounds |
| -(ar)abine | arabinofuranosyl derivatives |
| -arit | antiarthritic substances, acting like clobuzarit and lobenzarit, (mechanism different from anti-inflammatory type substances, e.g. -fenamates or -profens) |
| -arol | anticoagulants, dicoumarol derivatives |
| -arone | - |
| -arotene | arotinoid derivatives |
| arte- | antimalarial agents, artemisinin related compounds |

| | |
|---|---|
| -ase | enzymes |
| -ast | antiasthmatics or antiallergics, not acting primarily as antihistaminics |
| -(a)steride (see -ster-) | androgens/anabolic steroids |
| -astine | antihistaminics |
| -azam (see -azepam) | diazepam derivatives |
| -azenil | benzodiazepine receptor antagonists/agonists (benzodiazepine derivatives) |
| -azepam | diazepam derivatives |
| -azepide | cholecystokinin receptor antagonists |
| -azocine | narcotic antagonists/agonists related to 6,7-benzomorphan |
| -azolam (see -azepam) | diazepam derivatives |
| -azoline | antihistaminics or local vasoconstrictors, antazoline derivatives |
| -azone (see -buzone) | anti-inflammatory analgesics, phenylbutazone derivatives |
| -azosin | antihypertensive substances, prazosin derivatives |

**B**

| | |
|---|---|
| -bactam | β-lactamase inhibitors |
| -bamate | tranquillizers, propanediol and pentanediol derivatives |
| barb | hypnotics, barbituric acid derivatives |
| -begron | $\beta_3$-adrenoreceptor agonists |
| -benakin (see -kin) | interleukin-1 analogues and derivatives |
| -bendan (see -dan) | cardiac stimulants, pimobendan derivatives |
| -bendazole | anthelminthics, tiabendazole derivatives |
| -bermin (see -ermin) | vascular endothelial growth factors |
| -bersat | anticonvulsants, benzoylamino-benzpyran derivatives |
| -betasol (see pred) | prednisone and prednisolone derivatives |
| bol | anabolic steroids |
| -bradine | bradycardic agents |
| -brate (see -fibrate) | clofibrate derivatives |
| -bufen | non-steroidal anti-inflammatory agents, arylbutanoic acid derivatives |
| -bulin | antineoplastics; mitotic inhibitor, tubulin binder |
| -butazone (see -buzone) | anti-inflammatory analgesics, phenylbutazone derivatives |
| -buzone | anti-inflammatory analgesics, phenylbutazone derivatives |

**C**

| | |
|---|---|
| -caine | local anaesthetics |
| -cain- | class I antiarrhythmics, procainamide and lidocaine derivatives |
| calci | vitamin D analogues/derivatives |
| -carbef | antibiotics, carbacepham derivatives |
| -carnil (see -azenil) | benzodiazepine receptor antagonists/agonists (carboline derivatives) |
| -castat (see -stat) | dopamine-hydroxylase inhibitors |
| -cavir (see vir) | carbocyclic nucleosides |
| cef- | antibiotics, cefalosporanic acid derivatives |
| cell-/cel- | cellulose derivatives |
| cell-ate (see cell-/cel-) | cellulose ester derivatives for substances containing acidic residues |
| -cellose (see cell-/cel-) | cellulose ether derivatives |
| -cic | hepatoprotective substances with a carboxylic acid group |
| -ciclovir (see vir) | antivirals, bicyclic heterocycles compounds |
| -cidin | naturally occurring antibiotics (undefined group) |
| -cillide (see -cillin) | antibiotics, 6-aminopenicillanic acid derivatives |
| -cillin | antibiotics, 6-aminopenicillanic acid derivatives |
| -cillinam (see -cillin) | antibiotics, 6-aminopenicillanic acid derivatives |
| -cilpine (see -pine) | tricyclic compounds |
| -cisteine (see -steine) | mucolytics, other than bromhexine derivatives |
| -citabine | nucleoside antiviral or antineoplastic agents, cytarabine or azactidine derivatives |
| -clone | hypnotic tranquillizers |
| -cog | blood coagulation factors |
| -cogin | blood coagulation cascade inhibitors |
| -conazole | systemic antifungal agents, miconazole derivatives |
| cort | corticosteroids, except prednisolone derivatives |
| -coxib | selective cyclo-oxygenase inhibitors |
| -crinat | diuretics, etacrynic acid derivatives |
| -crine | acridine derivatives |
| -cromil | antiallergics, cromoglicic acid derivatives |
| -curium (see -ium) | curare-like substances |
| -cycline | antibiotics, tetracycline derivatives |

**D**

| | |
|---|---|
| -dan | cardiac stimulants, pimobendan derivatives |
| -dapsone | antimycobacterials, diaminodiphenylsulfone derivatives |
| -decakin (see -kin) | interleukin-10 analogues and derivatives |
| -denoson | adenosine A receptor agonists |
| -dermin (see -ermin) | epidermal growth factors |
| -dil | vasodilators |
| -dilol (see -dil) | vasodilators |
| -dipine | calcium channel blockers, nifedipine derivatives |
| -dismase (see -ase) | enzymes with superoxide dismutase activity, see -ase item V |
| -distim (see -stim) | combination of two different types of colony stimulating factors |
| -dodekin (see -kin) | interleukin-12 analogues and derivatives |
| -dopa | dopamine receptor agonists, dopamine derivatives, used as antiparkinsonism/prolactin inhibitors |
| -dox (see -ox/-alox) | antibacterials, quinazoline dioxide derivatives |
| -dralazine | antihypertensives, hydrazinephthalazine derivatives |
| -drine | sympathomimetics |
| -dronic acid | calcium metabolism regulator, pharmaceutical aid |
| -dutant (see -tant) | neurokinin $NK_2$ receptor antagonist |
| -dyl (see -dil) | vasodilators |

**E**

| | |
|---|---|
| -ectin | antiparasitics, ivermectin derivatives |
| -elestat (see -stat) | elastase inhibitors |
| -elvekin (see -kin) | interleukin-11 analogues and derivatives |
| -emcinal | erythromycin derivatives lacking antibiotic activity, motilin agonists |
| -entan | endothelin receptor antagonists |
| (-)eptacog (see -cog) | blood coagulation VII |
| erg | ergot alkaloid derivatives |
| -eridine | analgesics, pethidine derivatives |
| -ermin | growth factors |
| estr | estrogens |
| -etanide (see -anide) | diuretics, piretanide derivatives |
| -ethidine (see -eridine) | analgesics, pethidine derivatives |

| | |
|---|---|
| -exakin (see -kin) | interleukin-6 analogues and derivatives |
| -exine | mucolytic, bromhexine derivatives |

F

| | |
|---|---|
| -fenamate (see -fenamic acid) | "fenamic acid" derivatives |
| -fenamic acid | anti-inflammatory, anthranilic acid derivatives |
| -fenin | diagnostic aids; (phenylcarbamoyl)methyl iminodiacetic acid derivatives |
| -fenine | analgesics, glafenine derivatives (subgroup of fenamic acid group) |
| -fentanil | narcotic analgesics, fentanyl derivatives |
| -fentrine | inhibitors of phosphodiesterases |
| -fermin (see -ermin) | fibrinoblast growth factors |
| -fiban | fibrinogen receptor antagonists (glycoprotein IIb/IIIa receptor antagonists) |
| -fibrate | clofibrate derivatives |
| -filermin (see -ermin) | leukemia-inhibiting factor |
| -flapon | 5-lipoxygenase-activating protein (FLAP) inhibitor |
| -flurane | halogenated compounds used as general inhalation anaesthetics |
| -formin | antihyperglycaemics, phenformin derivatives |
| fos | insecticides, anthelminthics, pesticides etc., phosphorous derivatives |
| -fovir (see vir) | phosphonic acid derivatives |
| -fradil | calcium channel blockers acting as vasodilators |
| -frine (see -drine) | sympathomimetic, phenethyl derivatives |
| -fungin | antifungal antibiotics |
| -fylline | *N*-methylated xanthine derivatives |

**G**

| | |
|---|---|
| gab | gabamimetic agents |
| gado- | diagnostic agents, gadolinium derivatives |
| -gatran | thrombin inhibitor, antithrombotic agent |
| -gene | gene therapy products |
| gest | steroids, progestogens |
| -gestr- (see estr) | estrogens |
| -giline | MAO-inhibitors type B |

| | |
|---|---|
| -gillin | antibiotics produced by *Aspergillus strain* |
| gli | antihyperglycaemics |
| -glitazar (see gli) | peroxisome proliferator activating receptor (PPAR) agonists |
| -glitazone (see gli) | peroxisome proliferator activating receptor (PPAR) agonists, thiazolidinedione derivatives |
| -glumide | CCK antagonists, antiulcer, anxiolytic agent |
| -golide | dopamine receptor agonists, ergoline derivatives |
| -gosivir (see vir) | glucoside inhibitors |
| -gramostim (see -stim) | granulocyte macrophage colony stimulating factor (GM-CSF) types substances |
| -grastim (see -stim) | granulocyte colony stimulating factor (G-CSF) type substances |
| -grel-/-grel | platelet aggregation inhibitors |
| guan- | antihypertensives, guanidine derivatives |

**I**

| | |
|---|---|
| -ibine (see -ribine) | ribofuranyl-derivatives of the “pyrazofurin” type |
| -icam | anti-inflammatory, isoxicam derivatives |
| -ifene | antiestrogens, clomifene and tamoxifen derivatives |
| -igetide (see -tide) | peptides and glycopeptides |
| -ilide | class III antiarrhythmics, sematilide derivatives |
| imex | immunostimulants |
| -imibe | antihyperlipidaemics, acyl CoA: cholesterol acyltransferase (ACAT) inhibitors |
| -imod | immunomodulators, both stimulant/suppressive and stimulant |
| -imus | immunosuppressants (other than antineoplastics) |
| -ine | alkaloids and organic bases |
| -inostat (see stat) | histone deacetylase inhibitors |
| io- | iodine-containing contrast media |
| iod-/-io- | iodine-containing compounds other than contrast media |
| -irudin | hirudin derivatives |
| -isomide | antiarrhythmics, disopyramide derivatives |
| -ium | quaternary ammonium compounds |
| -izine (-yzine) | diphenylmethyl piperazine derivatives |

**K**

| | |
|---|---|
| -kacin | antibiotics, kanamycin and bekanamycin derivatives (obtained from *Streptomyces kanamyceticus*) |
| -kalant | potassium channel blockers |
| -kalim | potassium channel activators, antihypertensive |
| -kef- | enkephalin agonists |
| -kin | interleukin type substances |
| -kinra (see -kin) | interleukin receptor antagonists |
| -kiren | renin inhibitors |

**L**

| | |
|---|---|
| -leukin (see -kin) | interleukin-2 analogues and derivatives |
| -listat (see -stat) | pancreatic lipase inhibitors |
| -lubant | leukotriene $B_4$ receptor antagonist |
| -lukast (see -ast) | leukotriene receptor antagonists |

**M**

| | |
|---|---|
| -mab | monoclonal antibodies |
| -mantadine | adamantane derivatives |
| -mantine (see -mantadine) | adamantane derivatives |
| -mantone (see -mantadine) | adamantane derivatives |
| -mastat (see -stat) | matrix metalloproteinase inhibitors |
| -meline | cholinergic agents (muscarine receptor agonists/partial antagonists used in the treatment of Alzheimer's disease) |
| mer-/-mer | mercury-containing drugs, antimicrobial or diuretic (deleted from General Principles in List 28 prop. INN) |
| -mer | polymers |
| -mesine | sigma receptor ligands |
| -mestane | aromatase inhibitors |
| -metacin | anti-inflammatory, indometacin derivatives |
| -met(h)asone (see pred) | prednisone and prednisolone derivatives |
| -micin | antibiotics obtained from *various Micromonospor* |
| -mifene (see -ifene) | antiestrogens, clomifene and tamoxifen derivatives |
| -milast (see -ast) | phosphodiesterase IV (PDE IV) inhibitors |
| mito- | antineoplastics, nucleotoxic agents (deleted from General Principles in List 24 prop. INN) |

| | |
|---|---|
| -monam | monobactam antibiotics |
| -morelin (see -relin) | growth hormone release-stimulating peptides |
| -mostim (see -stim) | macrophage stimulating factors (M-CSF) type substances |
| -motine | antivirals, quinoline derivatives |
| -moxin | monoamine oxidase inhibitors, hydrazine derivatives |
| -mustine | antineoplastic, alkylating agents, (β-chloroethyl)amine derivatives |
| -mycin | antibiotics, produced by *Streptomyces* strains (see also -kacin) |

**N**

| | |
|---|---|
| nab | cannabinol derivatives |
| -nakin (see -kin) | interleukin-1 analogues and derivatives |
| -nakinra (see -kin) | interleukin-1 receptor antagonists |
| nal- | narcotic antagonists/agonists related to normorphine |
| -naritide (see -tide) | peptides and glycopeptides |
| -navir (see vir) | HIV protease inhibitors |
| -nermin (see -ermin) | tumour necrosis factor |
| -nercept | tumour necrosis factor antagonist |
| -nertant (see -tant) | neurotensin antagonist |
| -netant (see -tant) | neurokinin $NK_3$ receptor antagonist |
| -nicate (see nico-) | antihypercholesterolaemic and/or vasodilating nicotinic acid esters |
| -nicline | nicotinic acetylcholine receptor partial agonists / agonists |
| nico-/nic-/ni- | nicotinic acid or nicotinoyl alcohol derivatives |
| -nidazole | antiprotozoals and radiosensitizers, metronidazole derivatives |
| -nidine (see -onidine) | antihypertensives, clonidine derivatives |
| nifur- | 5-nitrofuran derivatives |
| -nil (see -azenil) | benzodiazepine receptor antagonists/agonists (benzodiazepine derivatives) |
| nitro-/nitr-/nit-/ni-/-ni- | $NO_2$ - derivatives |
| -nixin | anti-inflammatory, anilinonicotinic acid derivatives |
| (-)nonacog (see -cog) | blood factor IX |

**O**

| | |
|---|---|
| octakin (see -kin) | interleukin-8 analogues and derivatives |
| (-)octocog (see -cog) | blood factor VIII |
| -ol | for alcohols and phenols (deleted from General Principles in 14th Report) |

| | |
|---|---|
| -olol | β-adrenoreceptor antagonists |
| -olone (see pred) | steroids other than prednisolone derivatives |
| -onakin (see -kin) | interleukin-1 analogues and derivatives |
| -one | ketones |
| -onide | steroids for topical use, acetal derivatives |
| -onidine | antihypertensives, clonidine derivatives |
| -onium (see -ium) | quaternary ammonium compounds |
| -opamine (see -dopa) | dopaminergic agents dopamine derivatives used as cardiac stimulant/antihypertensives/diuretics |
| -orex | anorexics |
| -orph- (see orphan) | narcotic antagonists/agonists, morphinan derivates |
| orphan | narcotic antagonists/agonists, morphinan derivates |
| -otermin (see -ermin) | bone morphogenetic proteins |
| -ox/-alox | antacids, aluminium derivatives |
| -oxacin | antibacterials, nalidixic acid derivatives |
| -oxan(e) | benzodioxane derivatives |
| -oxanide (see -anide) | antiparasitics, salicylanilides and analogues |
| -oxef (see cef-) | antibiotics, oxacefalosporanic acid derivatives |
| -oxepin (see -pine) | tricyclic compounds |
| -oxetine | antidepressants, fluoxetine derivatives |
| -oxicam (see -icam) | anti-inflammatory, isoxicam derivatives |
| -oxifene (see -ifene) | antiestrogens, clomifene and tamoxifen derivatives |
| -oxopine (see -pine) | tricyclic compounds |

**P**

| | |
|---|---|
| -pafant | platelet-activating factor antagonists |
| -pamide | diuretics, sulfamoylbenzoic acid derivatives (could be sulfamoylbenzamide) |
| -pamil | coronary vasodilators, verapamil derivatives |
| -parcin | for glycopeptide antibiotics |
| -parin | heparin derivatives including low molecular mass heparins |
| -parinux (see -parin) | synthetic heparinoids |
| -pendyl (see -dil) | vasodilators |
| -penem | analogues of penicillanic acid antibiotics modified in the five-membered ring |

| | |
|---|---|
| perfl(u)- | perfluorinated compounds used as blood substitutes and/or diagnostic agents |
| -peridol (see -perone) | antipsychotics, haloperidol derivatives |
| -peridone (see -perone) | antipsychotics, risperidone derivatives |
| -perone | tranquillizers, neuroleptics, 4'-fluoro-4-piperidinobutyrophenone derivatives |
| -pidem | hypnotics/sedatives, zolpidem derivatives |
| -pin(e) | tricyclic compounds |
| -piprazole (see -prazole) | psychotropics, phenylpiperazine derivatives |
| -pirone (see -spirone) | anxiolytics, buspirone derivatives |
| -pirox (see -ox/-alox) | antimycotic pyridone derivatives |
| -pitant (see -tant) | neurokinin $NK_1$ (substance P) receptor antagonist |
| -plact | platelet factor 4 analogues and derivatives |
| -pladib | phospholipase $A_2$ inhibitors |
| -planin | antibacterials (*Actinoplanes* strains) |
| -plase (see -ase) | enzymes |
| -plasmid (see -gene) | gene therapy products |
| -platin | antineoplastic agents, platinum derivatives |
| -plermin (see -ermin) | platelet-derived growth factor |
| -plestim (see -stim and -kin) | interleukin-3 analogues and derivatives |
| -plon | pyrazolo[.]pyrimidine derivatives, used as anxiolytics, sedatives, hypnotics |
| -poetin | erythropoietin type blood factors |
| -porfin | benzoporphyrin derivatives |
| -poride | $Na^+/H^+$ antiport inhibitor |
| -pramine | substances of the imipramine group |
| -prazole | antiulcer, benzimidazole derivatives |
| pred | prednisone and prednisolone derivatives |
| -prenaline (see -terol) | bronchodilators, phenethylamine derivatives |
| -pressin | vasoconstrictors, vasopressin derivatives |
| -pride | sulpiride derivatives |
| -pril | angiotensin-converting enzyme inhibitors |
| -prilat (see -pril) | angiotensin-converting enzyme inhibitors |
| -prim | antibacterials, trimethoprim derivatives |
| -pristin | antibacterials, pristinamycin derivatives |

| | |
|---|---|
| -profen | anti-inflammatory agents, ibuprofen derivatives |
| prost | prostaglandins |
| -prostil (see prost) | prostaglandins, anti-ulcer |

**Q**

| | |
|---|---|
| -quidar | drugs used in multidrug resistance, quinoline derivatives |
| -quin(e) | quinoline derivatives (deleted from General Principles in List 28 prop. INN) |
| -quinil (see -azenil) | benzodiazepine receptor agonists, also partial or inverse (quinoline derivatives) |

**R**

| | |
|---|---|
| -racetam | amide type nootrope agents, piracetam derivatives |
| -racil | uracil type antineoplastics |
| -relin | prehormones or hormone-release stimulating peptides |
| -relix | hormone-release inhibiting peptides |
| -renone | aldosterone antagonists, spironolactone derivates |
| -restat (see -stat) | aldose reductase inhibitors |
| retin | retinol derivatives |
| -ribine | ribofuranyl-derivatives of the "pyrazofurin" type |
| rifa- | antibiotics, rifamycin derivatives |
| -rinone | cardiac stimulants, amrinone derivatives |
| -rizine (see -izine) | antihistaminics/cerebral (or peripheral) vasodilators |
| -rozole | aromatase inhibitors, imidazole-triazole derivatives |
| -rsen | antisense oligonucleotides |
| -rubicin | antineoplastic antibiotics, daunorubicin derivatives |

**S**

| | |
|---|---|
| sal | salicylic acid derivatives |
| -sartan | angiotensin II receptor antagonists, antihypertensive (non-peptidic) |
| -semide | diuretics, furosemide derivatives |
| -sermin (see -ermin) | insulin-like growth factors |
| -serod | serotonin receptor antagonists and partial agonists |
| -serpine | derivatives of *Rauwolfia* alkaloids |
| -setron | serotonin receptor antagonists (5-$HT_3$) not fitting into other established groups of serotonin receptor antagonists |

| | |
|---|---|
| som- | growth hormone derivatives |
| -sopine (see -pine) | tricyclic compounds |
| -spirone | anxiolytics, buspirone derivatives |
| -stat/-stat- | enzyme inhibitors |
| -steine | mucolytics, other than bromhexine derivatives |
| -ster- | androgens/anabolic steroids |
| -stigmine | acetylcholinesterase inhibitors |
| -stim | colony stimulating factors |
| sulfa- | anti-infectives, sulfonamides |
| -sulfan | antineoplastic, alkylating agents, methanesulfonates |

**T**

| | |
|---|---|
| -tadine | tricyclic histamine-$H_1$ receptor antagonists, tricyclic compounds |
| -tant | neurokinin (tachykinin) receptor antagonists |
| -taxel | antineoplastics; taxane derivatives |
| -tecan | antineoplastics, topoisomerase I inhibitors |
| -tepa | antineoplastics, thiotepa derivatives |
| -tepine (see -pine) | tricyclic compounds |
| -teplase (see -ase) | tissue type plasminogen activators, see -ase item VI |
| -termin (see -ermin) | transforming growth factor |
| -terol | bronchodilators, phenethylamine derivatives |
| -terone | antiandrogens |
| -thiouracil (see -racil) | uracil derivatives used as thyroid antagonists |
| -tiazem | calcium channel blockers, diltiazem derivatives |
| -tide | peptides and glycopeptides (for special groups of peptides see -actide, -pressin, -relin, -tocin) |
| -tidine | histamine-$H_2$-receptor antagonists, cimetidine derivatives |
| -tilide (see -ilide) | class III antiarrhythmics, sematilide derivatives |
| -tiline (see -triptyline) | antidepressants, dibenzo[a,d]cycloheptane or cyclopheptene derivatives |
| -tinib | tyrosine kinase inhibitors |
| -tirelin (see -relin) | thyrotropin releasing hormone analogues |
| -tizide | diuretics, chlorothiazide derivatives |
| -tocin | oxytocin derivatives |
| -toin | antiepileptics, hydantoin derivatives |

| | |
|---|---|
| -trakin (see -kin) | interleukin-4 analogues and derivatives |
| -trexate | folic acid analogues |
| -tricin | antibiotics, polyene derivatives |
| -triptan | serotonin ($5HT_1$) receptor agonists, sumatriptan derivatives |
| -triptyline | antidepressants, dibenzo[a,d]cycloheptane or cyclopheptene derivatives |
| -troban | thromboxane $A_2$-receptor antagonists; antithrombotic agents |
| -trodast (see -ast) | thromboxane $A_2$-receptor antagonists, antiasthmatics |
| trop | atropine derivatives |

**U**

| | |
|---|---|
| -uplase (see -ase) | urokinase type plasminogen activator, see -ase item VII |
| -ur (see -uridine) | uridine derivatives used as antiviral agents and as antineoplastics |
| -uridine | uridine derivatives used as antiviral agents and as antineoplastics |

**V**

| | |
|---|---|
| -vaptan | vasopressin receptor antagonists |
| -vastatin (see -stat) | antihyperlipidaemic substances, HMG CoA reductase inhibitors |
| -vec (see -gene) | gene therapy product |
| -verine | spasmolytics with a papaverine-like action |
| vin-/-vin- | vinca alkaloids |
| vir | antivirals (undefined group) |
| -virsen | antisense oligonucleotides |
| -vos (see fos) | insecticides, anthelminthics, pesticides etc., phosphorus derivatives |
| -vudine (see -uridine) | uridine derivatives used as antiviral agents and as antineoplastics |

**X**

| | |
|---|---|
| -xaban | blood coagulation factor $X_A$ inhibitors, antithrombotics |
| -xanox (see -ox/-alox) | anti-allergics, tixanox group |

**Y**

| | |
|---|---|
| -yzine (see -izine) | diphenylmethyl piperazine derivatives |

**Z**

| | |
|---|---|
| -zafone | alozafone derivatives |
| -zepine (see -pine) | tricyclic compounds |
| -zolast (see -ast) | leukotriene biosynthesis inhibitors |
| -zone (see -buzone) | anti-inflammatory analgesics, phenylbutazone derivatives |
| -zotan | 5-$HT_{1A}$ receptor agonists / antagonists acting primarily as neuroprotectors |

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# PART III

## Stem classification with corresponding examples of stems and their definition

| | | | |
|---|---|---|---|
| **A000** | **CNS DEPRESSANTS** | | |
| **A100** | **General anaesthetics** | | |
| **A110** | **General anaesthetics, volatile** | *-flurane* | halogenated compounds used as general inhalation anaesthetics |
| **A120** | **General anaesthetics, other** | | |
| **A200** | **Hypnotics - sedatives** | | |
| **A210** | **Barbiturates** | *barb* | hypnotics, barbituric acid derivatives |
| **A220** | **Hypnotic sedatives, other** | *-clone* | hypnotic tranquillizers |
| **A220** | | *-plon* | pyrazolo[.]pyrimidine derivatives, used as anxiolytics, sedatives, hypnotics |
| **A230** | **Monoureids, hypnotic sedatives** | | |
| **A240** | **Chloral derivatives, hypnotic sedatives** | | |
| **A300** | **Centrally acting voluntary muscle tone modifying drugs** | | |
| **A310** | **Anticonvulsants** | *-bersat* | anticonvulsants, benzoylamino-benzpyran derivatives |
| **A311** | **Hydantoins, anticonvulsants** | *-toin* | antiepileptics, hydantoin derivatives |
| **A312** | **Acetylureas, anticonvulsants** | | |
| **A313** | **Oxazolidinediones, anticonvulsants** | | |
| **A314** | **Succinimides, anticonvulsants** | | |
| **A315** | **Barbiturates, anticonvulsants** | | |
| **A316** | **Anticonvulsants, other** | | |
| **A320** | **Central anticholinergics** | | |
| **A330** | **Centrally acting voluntary-muscle relaxants** | | |

| | | | |
|---|---|---|---|
| **A400** | **Analgesics** | | |
| **A410** | **Narcotic analgesics** | *-adol* or *-adol-* | analgesics |
| **A410** | | *-azocine* | narcotic antagonists/agonists related to 6,7-benzomorphan |
| **A410** | | *-eridine* | analgesics, pethidine derivatives |
| **A410** | | *-ethidine* | see *-eridine* |
| **A410** | | *-fentanil* | narcotic analgesics, fentanil derivatives |
| **A410** | | *nal-* | narcotic antagonists/agonists related to normorphine |
| **A410** | | *orphan* | narcotic antagonists/agonists, morphinan derivates; *-orphine*, *-orphinol*, *-orphone* |
| **A420** | **Analgesics - Antipyretics** | *-ac* | anti-inflammatory agents, ibufenac derivatives |
| **A420** | | *-adol* or *-adol-* | analgesics |
| **A420** | | *-arit* | antiarthritic substances, acting like clobuzarit and lobenzarit (mechanism different from anti-inflammatory type substances, e.g. *-fenamates* or *-profens*) |
| **A420** | | *-bufen* | non-steroidal anti-inflammatory agents, *arylbutanoic acid* derivatives |
| **A420** | | *-butazone* | *-buzone*: anti-inflammatory analgesics, phenylbutazone derivatives |
| **A420** | | *-buzone* | anti-inflammatory analgesics, phenylbutazone derivatives |
| **A420** | | *-coxib* | selective cyclo-oxygenase inhibitors |
| **A420** | | *-fenamate* | "*-fenamic acid*" derivatives |
| **A420** | | *-fenamic acid* | anti-inflammatory, anthranilic acid derivatives |
| **A420** | | *-icam* | anti-inflammatory, isoxicam derivatives |

| | | | |
|---|---|---|---|
| **A420** | | *-metacin* | anti-inflammatory, indometacin derivatives |
| **A420** | | *-nixin* | anti-inflammatory, anilinonicotinic acid derivatives |
| **A420** | | *-profen* | anti-inflammatory agents, ibuprofen derivatives |
| **A430** | **Analgesics, other** | *-adom* | analgesics, tifluadom derivatives |
| **A430** | | *-fenine, phenine* | analgesics, glafenine derivatives - (subgroup of fenamic acid group) |
| **A440** | **Central antiemetics** | | |
| **A500** | **Antivertigo drugs** | | |
| **B000** | **CNS STIMULANTS** | *-ampanel* | antagonists of the ionotropic non-NMDA (*N*-methyl-D-aspartate) glutamate receptors (Namely the AMPA (amino-hydroxymethyl-isoxazole-propionic acid) and/or KA (kainite antagonist) receptors) |
| **B100** | **Analeptics** | *-fylline* | *N*-methylated xanthine derivatives |
| **B100** | | *-racetam* | amide type nootrope agents, piracetam derivatives |
| **B100** | | *vin-* (and *-vin-*) | vinca alkaloids |
| **B200** | **Opioid receptor antagonists** | *nal-* | narcotic antagonists/agonists related to normorphine |
| **B200** | | *orphan* | narcotic antagonists/agonists, morphinan derivates |
| **B300** | **Benzodiazepine receptor antagonists** | | |
| **C000** | **PSYCHOPHARMACOLOGICS** | *-piprazole* | psychotropics, phenylpiperazine derivatives *(future use is discouraged due to conflict with the stem –prazole)* |
| **C000** | | *-racetam* | amide type nootrope agents, piracetam derivatives |
| **C000** | | *-zotan* | 5-$HT_{1A}$ receptor agonists/antagonists acting primarly as neuroprotectors |

| | | | |
|---|---|---|---|
| **C100** | **Anxiolytic sedatives** | *-azenil* | benzodiazepine receptor antagonists/agonists (benzodiazepine derivatives) |
| **C100** | | *-azepam* | diazepam derivatives |
| **C100** | | *-bamate* | tranquillizers, propanediol and pentanediol derivatives |
| **C100** | | *-carnil* | benzodiazepine receptor antagonists/agonists (carboline derivatives) |
| **C100** | | *-peridone* | see *-perone*: antipsychotics, risperidone derivatives |
| **C100** | | *-perone* | tranquillizers, neuroleptics, 4'-fluoro-4-piperidino-butyrophenone derivatives |
| **C100** | | *-pidem* | hypnotics/sedatives, zolpidem derivatives |
| **C100** | | *-plon* | pyrazolo[.]pyrimidine derivatives, used as anxiolytics, sedatives, hypnotics |
| **C100** | | *-pride* | sulpiride derivatives |
| **C100** | | *-quinil* | benzodiazepine receptor agonists also partial or inverse (quinoline derivatives), see *-azenil* |
| **C100** | | *-spirone* | anxiolytics, buspirone derivatives |
| **C100** | | *-zafone* | alozafone derivatives |
| **C200** | **Antipsychotics (neuroleptics)** | *-perone* | tranquillizers, neuroleptics, 4'-fluoro-4-piperidinobutyrophenone derivatives; *-peridol*: antipsychotics, haloperidol derivatives; *-peridone*: antipsychotics, risperidone derivatives |
| **C210** | **Brain amine depleters** | | |
| **C220** | **Central adrenoreceptor antagonists** | | |
| **C300** | **Antidepressants** | *-oxetine* | antidepressants, fluoxetine derivatives |
| **C310** | **MAO inhbitors** | *-giline* | MAO-inhibitors type B |

| | | | |
|---|---|---|---|
| **C310** | | *-moxin* | monoamine oxidase inhibitors, hydrazine derivatives |
| **C320** | **Tricyclic antidepressants** | *-pin(e)* | tricyclic compounds; *dipine*: see *--dipine*; *-zepine*: antidepressant/neuroleptic; C.0.0.0 *-apine*: psychoactive; A.3.1.0 *cilpine*: antiepileptic; *-oxepin, -oxopine, -sopine, -tepine* |
| **C320** | | *-pramine* | substances of the imipramine group |
| **C320** | | *-triptyline* | antidepressants, dibenzo[a,d]cycloheptane or cyclopheptene derivatives |
| **C330** | **Tetracyclic antidepressants** | | |
| **C340** | **Bicyclic antidepressants** | | |
| **C400** | **Indirect releasers of catecholamines** | | |
| **C500** | **Psychodysleptics (hallucinogens)** | | |
| **C600** | **CNS metabolites** | | |
| **C700** | **Serotonin receptor antagonists** | *-anserin* | serotonin receptor antagonists (mostly 5-$HT_2$) |
| **C700** | | *erg* | ergot alkaloid derivatives |
| **C700** | | *-setron* | serotonin receptor antagonists (5-$HT_3$) not fitting into other established groups of serotonin receptor antagonists, see *-anserin* |
| **D000** | **PERIPHERAL NERVOUS SYSTEM DRUGS** | | |
| **D100** | **Local anaesthetics** | *-caine* | local anaesthetics |
| **E000** | **DRUGS ACTING AT SYNAPTIC AND NEUROEFFECTOR JUNCTIONAL SITES** | *gab* | gabamimetic agents |

| | | | |
|---|---|---|---|
| **E100** | **Cholinergic agents** | *-meline* | cholinergic agents (muscarine receptor agonists/partial antagonists used in the treatment of Alzheimer's disease) |
| **E110** | **Cholinergic receptor agonists** | *-dopa* | dopamine receptor agonists, dopamine derivatives, used as antiparkinsonism/prolactin inhibitors |
| **E110** | | *-golide* | dopamine receptor agonists, ergoline derivatives |
| **E111** | **Muscarinic receptor agonists** | | |
| **E112** | **Nicotinic receptor agonists** | *-nicline* | nicotinic acetylcholine receptor partial agonists / agonists |
| **E120** | **Anticholinesterase agents** | *-stigmine* | anticholinesterases (deleted from General Principles in List 24 prop. INN) |
| **E200** | **Cholinergic antagonists** | *trop* | atropine derivatives |
| **E210** | **Peripheral cholinergic antagonists** | | |
| **E220** | **Ganglionic antagonists** | | |
| **E300** | **Neuromuscular blocking agents** | *-curium* | curare-like substance; see *-ium* |
| **E300** | | *-ium* | quaternary ammonium compounds; *-curium*: curare-like substances; *-onium* |
| **E400** | **Adrenergic agents** | *-azoline* | antihistaminics or local vasoconstrictors, antazoline derivatives |
| **E400** | | *-drine* | sympathomimetics; *-frine*: sympathomimetic, phenethyl derivatives |
| **E400** | | *-frine* | sympathomimetic, phenethyl derivatives |
| **E400** | | *-terol* | bronchodilators, phenethylamine derivatives [previously *-prenaline* or *-terenol*] |

| | | | |
|---|---|---|---|
| **E410** | **Beta adrenoreceptor agonists** | | |
| **E420** | **Alpha adrenoreceptor agonists** | | |
| **E500** | **Adrenoreceptor antagonists** | | |
| **E510** | **Alpha adrenoreceptor antagonists** | *-oxan(e)* | benzodioxane derivatives |
| **E520** | **Beta adrenoreceptor antagonists** | *-alol* | aromatic ring<br>-CHOH-$CH_2$-NH-R related to -ololS |
| **E520** | | *-olol* | beta-adrenoreceptor antagonists;<br>*-alol*: aromatic ring<br>-CH-$CH_2$-NH-R related to -ololS |
| **E530** | **Catecholamines false transmitters** | | |
| **E540** | **Adrenergic neurone blocking agents** | *-serpine* | derivatives of *Rauwolfia* alkaloids |
| **E600** | **Stimulant cathartics** | | |
| **F000** | **AGENTS ACTING ON SMOOTH MUSCLES** | | |
| **F100** | **Spasmolytics, general** | *-verine* | spasmolytics with a papaverine-like action |
| **F200** | **Vasodilators** | *-afil* | inhibitors of PDE5 with vasodilator action |
| **F200** | | *-dil* | vasodilators |
| **F200** | | *-entan* | endothelin receptor antagonists |
| **F210** | **Coronary vasodilators, also calcium channel blockers** | *-dipine* | calcium channel blockers, nifedipine derivatives |
| **F210** | | *-fradil* | calcium channel blockers acting as vasodilators |
| **F210** | | *-pamil* | coronary vasodilators, verapamil derivatives |
| **F210** | | *-tiazem* | calcium channel blockers, diltiazem derivatives |
| **F220** | **Peripheral vasodilators** | *-nicate* | antihypercholesterolaemic and/or vasodilating nicotinic acid esters |

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| **F300** | **Smooth muscle stimulants** | | |
| **F310** | **Vasoconstrictor agents** | | |
| **F400** | **Agents acting on the uterus** | *erg* | ergot alkaloid derivatives |
| **G000** | **HISTAMINE AND ANTIHISTAMINICS** | | |
| **G100** | **Histamine and histamine-like drugs** | | |
| **G200** | **Antihistaminics** | *-astine* | antihistaminics |
| **G210** | **Histamine $H_1$-receptor antagonists** | *-tadine* | histamine-$H_1$ receptor antagonists, tricyclic compounds |
| **G220** | **Histamine $H_2$-receptor antagonists** | *-tidine* | histamine-$H_2$-receptor antagonists, cimetidine derivatives |
| **G230** | **Histamine $H_3$-receptor antagonists** | | |
| **G300** | **Histamine metabolism agents** | | |
| **H000** | **CARDIOVASCULAR AGENTS** | *-bradine* | bradycardic agents |
| **H000** | | *-denoson* | adenosine A receptor agonists |
| **H000** | | *-vaptan* | vasopressin receptor antagonists |
| **H100** | **Cardiac glycosides and drugs with similar action** | *-dan* | cardiac stimulants, pimobendan derivatives |
| **H100** | | *-rinone* | cardiac stimulants, amrinone derivatives |
| **H200** | **Agents influencing heart muscle excitability and conductivity** | *-afenone* | antiarrhythmics, propafenone derivatives |
| **H200** | | *-aj-* | antiarrhythmics, ajmaline derivatives |
| **H200** | | *-cain-* | Class I antiarrhythmics, procainamide and lidocaine derivatives (antifibrillants with local anaesthetic activity) |
| **H200** | | *-ilide* | Class III antiarrhythmics, sematilide derivatives |

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| **H200** | | *-isomide* | antiarrhythmics, disopyramide derivatives |
| **H200** | | *-kalant* | potassium channel blockers |
| **H300** | **Antihypertensives** | *-azosin* | antihypertensive substances, prazosin derivatives |
| **H300** | | *-dralazine* | antihypertensives, hydrazinephthalazine derivatives |
| **H300** | | *guan-* | antihypertensives, guanidine derivatives |
| **H300** | | *-kalim* | potassium channel activators, antihypertensive |
| **H300** | | *-kiren* | renin inhibitors |
| **H300** | | *-(o)nidine* | antihypertensives, clonidine derivatives |
| **H300** | | *-pril(at)* | angiotensin-converting enzyme inhibitors |
| **H300** | | *-sartan* | angiotensin II receptor antagonists, antihypertensive (non-peptidic) |
| **H400** | **Antihyperlipidaemic drugs** | *-fibrate* | clofibrate derivatives |
| **H400** | | *-nicate* | antihypercholesterolaemic and/or vasodilating nicotinic acid esters |
| **H400** | | *-vastatin* | see *-stat*; antihyperlipidaemic substances, HMG CoA reductase inhibitors |
| **H500** | **Antivaricose drugs** | | |
| **H510** | **Sclerosing drugs** | | |
| **H600** | **Capillary-active drugs, haemostyptics** | | |
| **H700** | **Calcium channel blockers** | | |

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| **H800** | **Agents influencing the renin-angiotensin system** | | |
| **H810** | **Angiotensin converting enzyme inhibitors** | | |
| **H820** | **Angiotensin receptor antagonists** | | |
| **I000** | **BLOOD AND AGENTS ACTING ON THE HAEMOPOIETIC SYSTEM (EXCL. CYTOSTATICS)** | | |
| **I100** | **Antianaemic agents** | | |
| **I110** | **Iron preparations** | | |
| **I120** | **Haematinics, other (Vit. B-12, folic acid, etc.)** | | |
| **I130** | **Miscellaneous antianaemic agents** | | |
| **I200** | **Agents influencing blood coagulation** | *-cog* | *(-)eptacog:* blood coagulation VII, *(-)octocog:* blood factor VIII, *(-)nonacog:* blood factor IX |
| **I200** | | *-cogin* | blood coagulation cascade inhibitors |
| **I200** | | *-fiban* | fibrinogen receptor antagonists (glycoprotein IIb/IIIa receptor antagonists) |
| **I200** | | *-gatran* | thrombin inhibitor, antithrombotic agents |
| **I200** | | *-parin* | heparin derivatives including low molecular mass heparins |
| **I210** | **Anticoagulants** | *-arol* | anticoagulants, dicoumarol derivatives |
| **I210** | | *-grel-* or *-grel* | platelet aggregation inhibitors |
| **I210** | | *-irudin* | hirudin derivatives |
| **I210** | | *-pafant* | platelet-activating factor antagonists |
| **I210** | | *-troban* | thromboxane $A_2$-receptor antagonists; antithrombotic agents |

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| **I220** | **Prothrombin inhibitors** | | |
| **I230** | **Prothrombin synthesis inhibitors** | | |
| **I240** | **Anticoagulant inhibitors** | | |
| **I250** | **Agents affecting fibrinolysis** | | |
| **I260** | **Coagulation promoting agents** | | |
| **I261** | **Blood clotting factors** | | |
| **I300** | **Blood proteins and their fractions** | *-poetin* | erythropoietin type blood factors |
| **I310** | **Blood substitutes (macromolecular)** | | |
| **I400** | **Platelet-function regulators** | | |
| **I500** | **Colony stimulating factors** | *-stim* | colony stimulating factors: *-distim*: combination of two different types of CSF; *-gramostim*: granulocyte macrophage colony stimulating factor (GM-CSF) type substances; *-grastim*: granulocyte colony stimulatory factor (G-CSF) type substances; *-mostim:* macrophage stimulating factors (M-CSF) type substances; *-plestim:* interleukin-3 analogues and derivatives |
| **I510** | **Granulocyte stimulating factors** | *-grastim* | see *-stim* |
| **I520** | **Macrophage stimulating factor** | *-mostim* | macrophage stimulating factors (M-CSF) type substances; see *-stim* |
| **J000** | **AGENTS INFLUENCING THE GASTROINTESTINAL TRACT** | *-emcinal* | erythromycin derivatives lacking antibiotic activity, motilin agonists |
| **J000** | | *-glumide* | cholecystokinine antagonists, antiulcer, anxiolytic agents |
| **J000** | | *-prazole* | antiulcer, benzimidazole derivatives |
| **J000** | | *-pride* | sulpiride derivatives |
| **J000** | | *-serod* | serotonin receptor antagonists and partial agonists |
| **J100** | **Digestives** | *-azepide* | cholecystokinin receptor antagonists |

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| **J110** | **Stomachics** | | |
| **J120** | **Choleretics (and hepatoprotective agents)** | *-cic* | hepatoprotective substances with a carboxylic acid group |
| **J130** | **Digestive enzymes** | | |
| **J200** | **Emetics** | | |
| **J300** | **Hepato-protective agents** | | |
| **J400** | **Gastro-intestinal anti-infectives (see S000)** | | |
| **J500** | **Antidiarrhoeals** | | |
| **K000** | **AGENTS INFLUENCING THE RESPIRATORY TRACT** | *-ast* | antiasthmatics or antiallergics, not acting primarily as antihistaminics; *-lukast*: leukotriene receptor antagonist; *-milast*: phosphodiesterase IV (PDE IV) inhibitors; *-trodast*: thromboxane $A_2$ receptor antagonists, antiasthmatics, *-zolast*: leukotriene biosynthesis inhibitors |
| **K000** | | *-cromil* | antiallergics, cromoglicic acid derivatives |
| **K000** | | *-exine* | mucolytic, bromhexine derivatives |
| **K000** | | *-fentrine* | inhibitors of phosphodiesterases |
| **K000** | | *-lukast* | leukotriene receptor antagonists, see *-ast* |
| **K000** | | *-steine* | mucolytics, other than bromhexine derivatives |
| **K000** | | *-trodast* | thromboxane $A_2$ receptor antagonists, antiasthmatics ;see *-ast* |
| **K000** | | *-xanox* | antiallergic respiratory tract drugs, xanoxic acid derivatives |
| **K100** | **Antitussives** | | |
| **K110** | **Antitussives - central** | | |
| **K120** | **Antitussives - peripheral** | | |

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| **K200** | **Expectorants** | | |
| **L000** | **ANTINEOPLASTICS** | *-anib* | angiogenesis inhibitors |
| **L000** | | *-antrone* | antineoplastics; anthraquinone derivatives |
| **L000** | | *-(ar)abine* | arabinofuranosyl derivatives |
| **L000** | | *-bulin* | antineoplastics; mitotic inhibitors, tubulin binders |
| **L000** | | *-mestane* | aromatase inhibitors |
| **L000** | | *mito-* | antineoplastics, nucleotoxic agents (deleted from General Principles in List 24 prop. INN) |
| **L000** | | *-platin* | antineoplastic agents, platinum derivatives |
| **L000** | | *-quidar* | drugs used in multidrug resistance; quinoline derivatives |
| **L000** | | *-racil* | uracil type antineoplastics |
| **L000** | | *-ribine* | ribofuranil-derivatives of the "pyrazofurin" type |
| **L000** | | *-rozole* | aromatase inhibitors, imidazole-triazole derivatives |
| **L000** | | *-taxel* | antineoplastics; taxane derivatives |
| **L000** | | *-tecan* | antineoplastics, topoisomerase I inhibitors |
| **L000** | | *-tinib* | tyrosine kinase inhibitors |
| **L000** | | *-trexed* | antineoplastics; thymidilate synthetase inhibitors |
| **L100** | **Immunosuppressants** | | |
| **L200** | **Alkylating agents** | *-mustine* | antineoplastic, alkylating agents, (beta-chloroethyl)amine derivatives |
| **L200** | | *-sulfan* | antineoplastic, alkylating agents, methanesulfonates |

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| **L200** | | *-tepa* | antineoplastics, thiotepa derivatives |
| **L300** | **Radioisotopes (except diagnostics)** | | |
| **L310** | **Radioisotopes - systemic** | | |
| **L320** | **Radioisotopes - locally applied** | | |
| **L400** | **Antineoplastics - antimetabolites** | *-abine* | see *-arabine, -citabine* |
| **L400** | | *-citabine* | nucleoside antiviral or antineoplastic agents, cytarabine or azactidine derivatives |
| **L400** | | *-trexate* | folic acid analogues |
| **L400** | | *-uridine* | uridine derivatives used as antiviral agents and as antineoplastics; also *-udine* |
| **L410** | **Ornithine decarboxylase inhibitors** | | |
| **L500** | **Antineoplastics - natural products (incl. antibiotics)** | *-rubicin* | antineoplastic antibiotics, daunorubicin derivatives |
| **L500** | | *vin-* or *-vin-* | vinca alkaloids |
| **L600** | **Antineoplastics - sex hormone analogues and inhibitors** | | |
| **L610** | **Aromatase inhibitors** | | |
| **L620** | **Luteinizing hormone-releasing hormone agonists** | | |
| **M000** | **METABOLISM AND NUTRITION (EXCL. WATER AND MINERAL METABOLISM)** | *-stat* (or *-stat-*) | enzyme inhibitors; *-lipastat*: pancreatic lipase inhibitors; *-restat* or *-restat-*: aldose-reducing inhibitors; *-vastatin*: antihyperlipidaemic substances, HMG CoA reductase inhibitors |
| **M100** | **Anorectics** | *-orex* | anore**c**tics |
| **M200** | **Dietetics and antiadipositas drugs** | | |
| **M210** | **Bulk forming drugs** | | |

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| **M300** | **Agents influencing lipid and fat metabolism** | *-imibe* | antihyperlipidaemics, acyl CoA:cholesterol acyltransferase (ACAT) inhibitors |
| **M300** | | *-lipastat* | see *-stat* |
| **M300** | | *-vastatin* | see *-stat*; antihyperlipidaemic substances, HMGCoA reductase inhibitors |
| **M310** | **Antiatherosclerosis agents** | | |
| **M320** | **Lipotropic agents** | | |
| **M321** | | *-begron* | $\beta_3$-adrenoreceptor agonists |
| **M330** | **Lipogenesis inducing agents** | | |
| **M400** | **Agents influencing protein metabolism** | | |
| **M410** | **Anabolic steroids** | *bol* | anabolic steroids |
| **M420** | **Catabolic agents** | | |
| **M430** | **Amino acids** | | |
| **M500** | **Agents influencing carbohydrate metabolism** | *-restat* (or *-restat-*) | see *-stat*; aldose-reductase inhibitors |
| **M510** | **Insulins** | | |
| **M520** | **Oral antidiabetics - islet mediated** | *-formin* | antihyperglycaemics, phenformin derivatives |
| **M520** | | *gli-, -gli-* | previously *gly-*; antihyperglycaemics |
| **M520** | | *-glitazar* | peroxisome proliferator activating receptor (PPAR) agonists |
| **M520** | | *-glitazone* | peroxisome proliferator activating receptor (PPAR) agonists, thiazolidinedione derivatives |
| **M530** | **Oral antidiabetics - extra pancreatic** | *gli* | antihyperglycaemics |

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| **M540** | **Gluconeogenesis influencing agents** | | |
| **M600** | **Agents influencing uric acid metabolism** | | |
| **M610** | **Uricosurics** | | |
| **M620** | **Uric acid synthesis inhibitors** | | |
| **M630** | **Agents influencing oxalic acid metabolism** | | |
| **M700** | **Thyroid and antithyroids** | | |
| **M710** | **Thyroid and thyroid hormones** | | |
| **M720** | **Thyroid stimulators** | | |
| **M730** | **Antithyroids** | *-thiouracil* | uracil derivatives used as thyroid antagonists |
| **M740** | **Radioactive iodine agents (for therapy)** | | |
| **M800** | **Enzymes** | | |
| **M810** | **Enzyme inhibitors** | | |
| **M820** | **Enzyme stimulators** | | |
| **N000** | **AGENTS INFLUENCING WATER AND MINERAL METABOLISM** | | |
| **N100** | **Diuretics** | | |
| **N110** | **Carbonic anhydrase inhibitors** | *-semide* | diuretics, furosemide derivatives |
| **N120** | **Saluretics** | *-anide* | N.1.2.0 *-etanide*: diuretics, piretanide derivatives; S.3.0.0 *-oxanide*: antiparasitic, salicylanilides and analogues |
| **N120** | | *-etanide* | diuretics, piretanide derivatives; see *-anide* |

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| **N120** | | *-pamide* | diuretics, sulfamoylbenzoic acid derivatives (could be sulfamoylbenzamide) |
| **N121** | **Thiazide derivatives** | *-tizide* | diuretics, chlorothiazide derivatives |
| **N122** | **Ethacrynic acid derivatives** | *-crinat* | diuretics, etacrynic acid derivatives |
| **N123** | **Chlortalidone derivatives** | | |
| **N129** | **Saluretics, other** | | |
| **N130** | **Mercurial diuretics** | *-mer-* (or *-mer-*) | mercury-containing drugs, antimicrobial or diuretic (deleted from General Principles in List 28 prop. INN) [*mer-* and *-mer-* can be used for any type of substances and are no longer restricted to use in INNs for mercury-containing drugs; *-mer*: polymers] |
| **N170** | **Purines and other diuretics** | | |
| **N180** | **Aldosterone inhibitors** | *-renone* | aldosterone antagonists, spironolactone derivates |
| **N200** | **Acidifiers** | | |
| **N400** | **Saline cathartics** | | |
| **N500** | **Alkalizers** | | |
| **N510** | **Parenteral alkalizer solutions** | | |
| **N520** | **Oral antacids** | *-aldrate* | antacids, aluminium salts |
| **N520** | | *-alox* | see *-ox* |
| **N600** | **Fluid and electrolyte replacement therapy** | | |
| **N610** | **Electrolyte and carbohydrate solutions** | | |
| **N700** | **Mineral salts** | | |
| **N710** | **Ion exchange resins** | | |

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| **N800** | **Vitamin D group and calcium metabolism drugs** | *calci* | Vitamin D analogues/derivatives |
| **N800** | | *-dronic acid* | calcium metabolism regulator, pharmaceutical aid |
| **P000** | **VITAMINS** | | |
| **P100** | **Vitamin A** | *-arotene* | arotinoid derivatives |
| **P100** | | *retin* | retinol derivatives |
| **P200** | **Vitamin B1** | | |
| **P300** | **Vitamin B2** | | |
| **P400** | **Vitamin B6** | | |
| **P500** | **Vitamin C** | | |
| **P600** | **Vitamin E** | | |
| **P700** | **Nicotinic acid derivatives** | *-nic* | nicotinic acid or nicotinoyl alcohol derivatives |
| **P800** | **Vitamins, other** | | |
| **Q000** | **HORMONES OR HORMONE RELEASE-STIMULATING PEPTIDES** | *-morelin* | see *-relin*; pituitary hormone release-stimulating peptides |
| **Q000** | | *prost* | prostaglandins; *-prostil*: prostaglandins, anti-ulcer |
| **Q000** | | *-relin* | pituitary hormone-release stimulating peptides: *-morelin*: growth hormone release-stimulating peptides; *-tirelin*: thyrotropin releasing hormone analogues |
| **Q000** | | *som-* | growth hormone derivatives |
| **Q000** | | *-tirelin* | see *-relin*; thyrotropin releasing hormone analogues |
| **Q100** | **Hypophysis hormones** | | |
| **Q110** | **Hypophysis anterior lobe** | | |

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| **Q111** | **Hypophysis anterior lobe hormones** | *-actide* | synthetic polypeptides with a corticotropin-like action |
| **Q112** | **Hypophysis anterior lobe inhibitors** | | |
| **Q120** | **Hypophysis posterior lobe (incl. other oxytocics)** | *-pressin* | vasoconstrictors, vasopressin derivatives |
| **Q120** | | *-tocin* | oxytocin derivatives |
| **Q200** | **Sex hormones and analogues** | | |
| **Q210** | **Estrogens, also interceptive contraceptive agents e.g. epostane (51)** | *estr* | estrogens |
| **Q210** | | *-ifene* | antiestrogens, *clomifene* and *tamoxifen* derivatives |
| **Q220** | **Progestogens** | *gest* | steroids, progestogens |
| **Q230** | **Androgens** | *andr* or *–stan-* or *–ster-* | steroids, androgens |
| **Q230** | | *-ster-* | androgens/anabolic steroids: *-testosterone*, *-sterone, -ster-, -gesterone, -sterone, sterol, ster, -(a)steride* |
| **Q231** | **Androgens** | *-terone* | antiandrogens |
| **Q240** | **Gonadotrophins and gonadotrophin secretion stimulating drugs** | | |
| **Q241** | **Antigonadotrophins** | | |
| **Q300** | **Adrenocortical hormones and analogues** | *cort* | corticosteroids, except prednisolone derivatives |
| **Q300** | | *-olone* | steroids other than prednisolone derivatives |
| **Q300** | | *-onide* | steroids for topical use, acetal derivatives |
| **Q310** | **Mineralosteroids** | | |
| **Q320** | **Mineralosteroid antagonists** | | |

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| **Q330** | **Glucosteroids** | *pred* | prednisone and prednisolone derivatives; *-methasone* or *-metasone*, *-betasol*, *-olone* |
| **Q340** | **Glucosteroids antagonists** | | |
| **R000** | **IMMUNOLOGICALS** | | |
| **R100** | **Sera and immunoglobulins** | | |
| **R200** | **Vaccines** | | |
| **R210** | **Vaccines, live** | | |
| **R220** | **Vaccines, activated** | | |
| **R300** | **Immunostimulants** | | |
| **R310** | **Biological response modifier** | | |
| **S000** | **ANTI-INFECTIVES** | | |
| **S100** | **Ectoparasiticides** | | |
| **S200** | **Antiseptics and disinfectants** | | |
| **S210** | **Antiseptics (excl. heavy metal antiseptics)** | *-nifur-* | 5-nitrofuran derivatives |
| **S220** | **Heavy metal antiseptics** | *-mer-* | mercury-containing drugs, antimicrobial or diuretic (deleted from General Principles in List 28 prop. INN) [*mer-* and *-mer-* can be used for any type of substances and are no longer restricted to use in INNs for mercury-containing drugs] |
| **S230** | **Detergent antiseptics** | | |
| **S300** | **Chemotherapeutics of parasitic diseases** | *-ectin* | antiparasitics, ivermectin derivatives |
| **S300** | | *-oxanide* | antiparasitics, salicylanilides and analogues; see *-anide* |
| **S310** | **Anthelminthics (excl. antinematode agents)** | *-antel* | anthelminthics (undefined group) |
| **S310** | | *-bendazole* | anthelminthics, tiabendazole derivatives |

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| **S310** | | *-fos (-vos)* | insecticides, anthelmintics, pesticides etc., phosphorous derivatives |
| **S310** | | *-fos-* or *fos-* | various pharmacological categories belonging to *-fos* (other than above) |
| **S320** | **Antinematode agents** | | |
| **S330** | **Antiprotozoal agents (incl. all arsphenamines)** | *arte-* | antimalarial agents, artemisinin related compounds |
| **S330** | | *-nidazole* | antiprotozoals and radiosensitizers, metronidazole derivatives |
| **S400** | **Chemotherapeutics of fungal diseases** | *-conazole* | systemic antifungal agents, miconazole derivatives |
| **S410** | **Antifungal agents** | | |
| **S420** | **Fungicides** | | |
| **S430** | **Antifungal antibiotics** | | |
| **S500** | **Antibiotics, antibacterial and antiviral agents** | *-planin* | antibacterials (*Actinoplanes* strains) |
| **S510** | **Sulfonamides** | *sulfa-* | anti-infectives, sulfonamides |
| **S520** | **Antimycobacterials** | *-dapsone* | antimycobacterials, diaminodiphenylsulfone derivatives |
| **S520** | | *-pirox* | see *-ox* |
| **S530** | **Antiviral** | *-arabine* | arabinofuranosyl derivatives |
| **S530** | | *-motine* | antivirals, quinoline derivatives |
| **S530** | | *-ribine* | ribofuranil-derivatives of the *pyrazofurin* type |
| **S530** | | *-uridine* | uridine derivatives used as antiviral agents and as antineoplastics; *-udine* |
| **S530** | | *vir* | antivirals (undefined group): *-amivir, -cavir, -ciclovir, -fovir, -gosivir, -navir, -virsen, -virumab* |
| **S550** | **Antibacterial/other** | *-citabine* | nucleoside antiviral or antineoplastic agents, cytarabine or azactidine derivatives |

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| **S550** | | *-oxacin* | antibacterials, nalidixic acid derivatives |
| **S550** | | *-prim* | antibacterials, trimethoprim derivatives |
| **S600** | **Antibiotics (except antineoplastic antibiotics)** | *-cidin* | naturally occurring antibiotics (undefined group) |
| **S600** | | *-fungin* | antifungal antibiotics |
| **S600** | | *-gillin* | antibiotics produced by *Aspergillus* strains |
| **S600** | | *-monam* | monobactam antibiotics |
| **S600** | | *-mycin* | antibiotics, produced by *Streptomyces* strains (see also *-kacin*) |
| **S600** | | *-parcin* | for glycopeptide antibiotics |
| **S600** | | *-penem* | analogues of penicillanic acid antibiotics modified in the five-membered ring |
| **S600** | | *-pristin* | antibacterials, pristinamycin derivatives |
| **S610** | **Antibiotics acting on the bacterial cell wall** | *-carbef* | antibiotics, carbacepham derivatives |
| **S610** | | *cef-* | antibiotics, cefalosporanic acid derivatives |
| **S610** | | *-cillin* | antibiotics, 6-aminopenicillanic acid derivatives |
| **S610** | | *-oxef* | see *cef-*; antibiotics, oxacefalosporanic acid derivatives |
| **S620** | **Antibiotics affecting cell membrane and with detergent effect** | *-tricin* | antibiotics, polyene derivatives |
| **S630** | **Antibiotics affecting protein synthesis** | *-cycline* | antibiotics, tetracycline derivatives |

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| **S630** | | *-kacin* | antibiotics, kanamycin and bekanamycin derivatives (obtained from *Streptomyces kanamyceticus*); S.6.5.0: *-micin*: antibiotics obtained from *various Micromonospora* |
| **S640** | **Antibiotics affecting nucleic acid metabolism** | *rifa-* | antibiotics, rifamycin derivatives |
| **S650** | **Antibiotics-action unclassified (including β-lactamase inhibitors)** | *-bactam* | β-lactamase inhibitors |
| **S650** | | *-micin* | see *-kacin*; antibiotics obtained from various *Micromonospora* |
| **S700** | **Immunomodulators and immunostimulants (incl. gamma globulins)** | *imex* | immunostimulants |
| **S700** | | *-imod* | immunomodulators, both stimulant/suppressive and stimulant |
| **S700** | | *-imus* | immunosuppressants (other than antineoplastics) |
| **S700** | | *-kin* | interleukin type substances: *-nakin, -leukin, -trakin, -exakin, -octakin, -decakin, -elvekin, -dodekin, tredekin, -octadekin* |
| **S700** | | *-kinra* | interleukin-receptors antagonists: *- nakinra, -trakinra* |
| **S700** | | *-mab* | monoclonal antibodies (see also Annex) |
| **S700** | | *-stim* | colony stimulating factors |
| **S710** | **Interferons and immunomodulators** | | |
| **T000** | **LOCALLY ACTING AGENTS (INCL. DERMATOLOGIC AND INTERNALLY USED DRUGS)** | | |
| **T100** | **Locally acting externally-applied agents** | | |

| | | | |
|---|---|---|---|
| **T110** | **Vasodilators (external) - rubefaciens** | | |
| **T200** | **Locally acting internally-applied agents** | | |
| **T210** | **Adsorbents, astringents** | | |
| **T220** | **Lubricant cathartics** | | |
| **T230** | **Irritant cathartics** | | |
| **T240** | **Gastro-intestinal anti-infectives, non-resorbed** | | |
| **T250** | **Saponins** | | |
| **T260** | **Detergents** | | |
| **T300** | **Intravaginal contraceptives** | | |
| **U000** | **MISCELLANEOUS DRUGS** | | -*ermin*: growth factors; -*dermin*: epidermal growth factors; -*fermin*: fibrino-blast growth factors; -*nermin*: tumour necrosis factor; -*sermin*: insulin-like growth factors |
| **U000** | | *gado-* | diagnostic agents, gadolinium derivatives |
| **U100** | **Diagnostic aids** | *-fenin* | diagnostic aids; (phenyl-carbamoyl)methyl iminodiacetic acid derivatives |
| **U110** | **Radiocontrast media** | *io-* | iodine-containing contrast media |
| **U110** | | *-io-* or *iod-* | iodine-containing compounds other than contrast media |
| **U120** | **Diagnostic aids, other** | | |
| **U130** | **Diagnostic radioisotopes** | | |
| **U200** | **Chelating agents, detoxicants, etc.** | | |
| **U210** | **Alcohol deterrents** | | |
| **U300** | **Anti-inflammatory agents** | *-lubant* | phospholipase $A_2$ inhibitors |

| | | | |
|---|---|---|---|
| **U310** | **Non-antipyretic antirheumatics** | | |
| **U320** | **Anti-inflammatory agents, other** | | |
| **U400** | **Pharmaceutical adjuncts** | *cell-* or *cel-* | cellulose derivatives; (*cell-ate* and -*cellose*) |
| **U400** | | *-dronic acid* | calcium metabolism regulator, pharmaceutical aid |
| **V000** | **UNCLASSIFIED PHARMACOLOGICAL MECHANISMS** | | |
| **V100** | **Intrauterine contraceptive device** | | |
| **V200** | **Medicinal plants** | | |
| **V300** | **Homoeopathic preparations** | | |
| **W000** | **ENZYMES AND VARIOUS** | *-ase* | enzymes; *-dismase, -teplase, -uplase* |
| **W000** | | *-pladib* | phospholipase $A_2$ inhibitors |
| **W000** | | *-stat* | enzyme inhibitors |
| **Y000** | **VETERINARY DRUGS** | *-nidazole* | antiprotozoals and radiosensitizers, metronidazole derivatives |

# PART IV

## ALPHABETICAL LIST OF STEMS TOGETHER WITH CORRESPONDING INNS

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**-abine** **see -arabine, -citabine**

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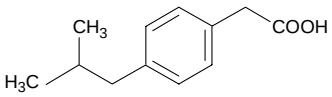
USAN

**-ac (x)** **anti-inflammatory agents, ibufenac derivatives**

A.4.2.0 (USAN: anti-inflammatory agents (acetic acid derivatives))




(a) -clofenac: aceclofenac (52), alclofenac (23), diclofenac (28), fenclofenac (30)
-dolac: dexpemedolac (71), etodolac (45), pemedolac (58)
-fenac: amfenac (38), bromfenac (55), furofenac (40), ibufenac (14), lexofenac (38), nepafenac (78)
-zolac: bufezolac (39), isofezolac (39), lonazolac (34), mofezolac (64), pirazolac (43), trifezolac (34)
others: anirolac (52), bendazac (22), cinfenoac (41), clidanac (39), clofurac (42), clopirac (30), eltenac (53), felbinac (54), fenclorac (33), fentiazac (32), isoxepac (37), ketorolac (51), oxepinac (36), oxindanac (54), (quinclorac, ISO name for a herbicide), sulindac (33), tianafac (31), tifurac (57), tiopinac (40), zomepirac (37)

(b) bufexamac (20) (anti-inflammatory; acetohydroxamic acid group instead of acetic acid group)

(c) amtolmetin guacil (65), clamidoxic acid (17), fenclozic acid (22), metiazinic acid (20), prodolic acid (29), tolmetin (23)

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**-acetam** **see -racetam**

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USAN

**-actide (x)** **synthetic polypeptides with a corticotropin-like action**

Q.1.1.1 (USAN: synthetic corticotropins)

(a) alsactide (45), codactide (24), giractide (29), norleusactide (18), seractide (31), tetracosactide (18), tosactide (24), tricosactide (44)

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BAN, USAN

**-adol (x) or -adol-** **analgesics (14th Report, 1967)**

A.4.1.0
A.4.2/3.0 (USAN: analgesics (undefined group))

(a) A.4.1.0: acetylmethadol (5), alimadol (39), alphacetylmethadol (5), alphamethadol (5), axomadol (87), betacetylmethadol (5), betamethadol (5), indantadol (94), levacetylmethadol (27), noracymethadol (12), tapentadol (87)

A.4.2/3.0: apadoline (74), asimadoline (74), bromadoline (49), ciprefadol (41), ciramadol (39), cloracetadol (16), dibusadol (24), dimenoxadol (7), diproxadol (34), enadoline (68), filenadol (47), flumexadol (36), fluradoline (48), gaboxadol (48), levonantradol (43), lorcinadol (57), moxadolen (45), (deleted in List 48: moxifadol (47)), myfadol (17), nafoxadol (50), nantradol (42), nerbacadol (56), oxapadol (40), picenadol (47), pinadoline (50), pipradimadol (42), pipramadol (42), pravadoline (60), vadoline (60), profadol (20), radolmidine (82), ruzadolane (71), spiradoline (53), tazadolene (52), tolpadol (48), tramadol (22), veradoline (47)

(b) alfadolone (27), hexapradol (12) (CNS stimulant), nadolol (34), quinestradol (15) (estrogenic)

(c) A.4.1.0: dimepheptanol (5)

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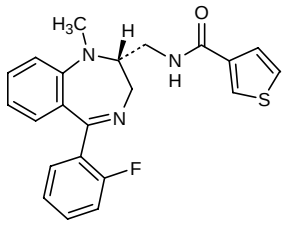
**-adom** **analgesics, tifluadom derivatives**

A.4.3.0




(a) lufuradom (50), tifluadom (48)

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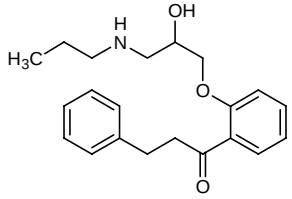
USAN

**-afenone** **antiarrhythmics, propafenone derivatives**

H.2.0.0




(a) alprafenone (62), berlafenone (63), diprafenone (48), etafenone (19), propafenone (29)

USAN

**-afil** **inhibitors of phosphodiesterase PDE5 with vasodilator action**

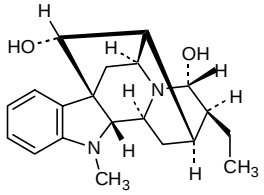
F.2.0.0 (USAN: phosphodiesterase PDE5 inhibitors)

(a) avanafil (92), beminafil (90), dasantafil (91), lodenafil carbonate (94), mirodenafil (95), sildenafil (75), tadalafil (85), udenafil (93), vardenafil (82)

USAN

**-aj-** **antiarrhythmics, ajmaline derivatives**

H.2.0.0




(a) detajmium bitartrate (34), lorajmine (34), prajmalium bitartrate (23)

**-al (d)** **aldehydes**
(deleted from General Principles in 14th Report)

USAN

**-aldrate** **antacids, aluminium salts**

N.5.2.0

(a) carbaldrate (53), potassium glucaldrate (14), magaldrate (49), simaldrate (15), sodium glucaspaldrate (17)

algeldrate (15), almadrate sulfate (15), almagodrate (52)

(c) alexitol sodium (45), almagate (41), almasilate (43), dosmalfate (75), glucalox (13), hydrotalcite (23), lactalfate (53), sucralox (13)

USAN

**-alol** **see -olol**

**-alox** **see -ox**

**-amivir** **see -vir**

USAN

**-ampanel** **antagonists of the ionotropic non-NMDA (*N*-methyl-D-aspartate) glutamate receptors (Namely the AMPA (amino-hydroxymethyl-isoxazole-propionic acid) and/or KA (kainite antagonist) receptors)**

B.0.0.0

(a) becampanel (90), fanapanel (80), irampanel (82), talampanel (80), tezampanel (95), zonampanel (85)

USAN

**andr (d)** **steroids, androgens**

Q.2.3.0 (USAN: -andr- androgens)

(a) i. andr: androstanolone (4), methandriol (1), nandrolone (22), norethandrolone (6), ovandrotone albumin (52), silandrone (18)

ii. -stan- (d): androstanolone (4), drostanolone (13), epitiostanol (31), mestanolone (10), stanozolol (18), epostane (51) (contraceptive)

iii. -ster- (d): calusterone (23), cloxotestosterone (12), fluoxymesterone (6), mesterolone (15), methyltestosterone (4), oxymesterone (12), penmesterol (14), prasterone (23), testosterone (4), testosterone ketolaurate (16), tiomesterone (14)

(b) i. andr: oxandrolone (12), propetandrol (13)

ii. ster: aldosterone (6), bolasterone (13), dihydrotachysterol (1), dimethisterone (8), ethisterone (4), norethisterone (6), norvinisterone (6), stercuronium iodide (21) (neuromuscular blocking agent)

(c) metandienone (12), oxymetholone (11), trestolone (25) (antineoplastic androgen)

USAN

**-anib** **angiogenesis inhibitors**

L.0.0.0

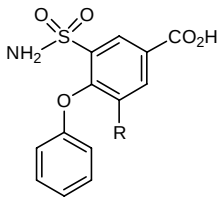
(a) cediranib (95), pazopanib (94), pegaptanib (88), semaxanib (85), vandetanib (91), vatalanib (84)

USAN

**-anide**

*-etanide* diuretics, piretanide derivatives

N.1.2.0 (USAN: diuretics (piretanide type))

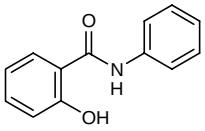


(a) bumetanide (24), piretanide (33)

(c) besunide (30)

*-oxanide* antiparasitics, salicylanilides and analogues

S.3.0.0



(a) bromoxanide (31), clioxanide (19), rafoxanide (24)

thioanalogues: brotianide (24)

related: diloxanide (8), nitazoxanide (45)

(b) closantel (36), flurantel (25), niclosamide (13), resorantel (23), salantel (29)

(c) oxyclozanide (16)

other *–anides*: aurothioglycanide (1) (antiarthritic; gout-remedy), ceforanide (39) (antibiotic), oglufanide (86) (immunomodulator), polihexanide (24) (antibacterial), tiprostanide (48) (antihypertonic)

BAN, USAN

**-anserin** **serotonin receptor antagonists (mostly 5-$HT_2$)**

C.7.0.0 (USAN: serotonin 5-$HT_2$ receptor antagonists)

(a) adatanserin (70), altanserin (50), blonanserin (76), butanserin (51), eplivanserin (80), fananserin (69), flibanserin (75), iferanserin (89), ketanserin (46), lidanserin (62), pelanserin (57), pruvanserin (90), seganserin (56), tropanserin (55)

(b) serotonin receptor antagonists, psychoactive: cinanserin (17), glemanserin (68), mianserin (20), ritanserin (51)

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USAN

**-antel** **anthelminthics (undefined group)**

S.3.1.0

(a) amidantel (40), carbantel (35), closantel (36), epsiprantel (57), febantel (38), flurantel (25), morantel (22), oxantel (3l), pexantel (22), praziquantel (34), pyrantel (l7), resorantel (23), salantel (29), zilantel (33), antelmycin (15)

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USAN

**-antrone** **antineoplastics; anthraquinone derivatives**

L.0.0.0/
L.5.0.0

(a) ametantrone (45), banoxantrone (90), butantrone (49), ledoxantrone (76), losoxantrone (68), mitoxantrone (44), nortopixantrone (87), piroxantrone (59), pixantrone (89), teloxantrone (68), topixantrone (87)

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**-apine** **see -pine**

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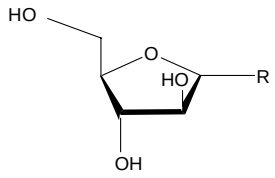
USAN

**-(ar)abine** **arabinofuranosyl derivatives**

L.4.0.0/
S.5.3.0 (USAN: -arabine: antineoplastic arabinofuranosyl derivatives)




(a) clofarabine (90), cytarabine (14), fludarabine (48), nelarabine (80), vidarabine (23)
See also the stem -citabine: ancitabine (36), capecitabine (73), decitabine (61), elvucitabine (89), emtricitabine (80), enocitabine (46), fiacitabine (59), flurocitabine (38), galocitabine (65), gemcitabine (62), ibacitabine (57), sapacitabine (94), tezacitabine (84), torcitabine (87), troxacitabine (81), valopicitabine (93), valtorcitabine (90), zalcitabine (66)

(c) S.5.3.0: ribavirin (31)

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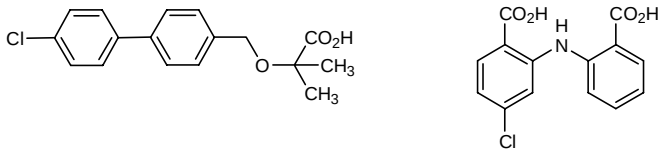
USAN

**-arit** **antiarthritic substances, acting like clobuzarit and lobenzarit (mechanism different from anti-inflammatory type substances, e.g. -fenamates or -profens)**

A.4.2.0 (USAN: antirheumatic substances (lobenzarit type))

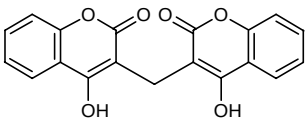


(a) actarit (62), bindarit (64), clobuzarit (44), lobenzarit (46), romazarit (60)

USAN

**-arol (d)** **anticoagulants, dicoumarol derivatives**

I.2.1.0 (USAN: anticoagulants (dicoumarol type))



(a) acenocoumarol (6), clocoumarol (31), coumetarol (13), dicoumarol (23), tioclomarol (31), xylocoumarol (15)

(b) cloridarol (29) (coron. vasodil.), fluindarol (16) (anticoag. of indonedione-type)

(c) diarbarone (15), ethyl biscoumacetate (4), phenprocoumon (11), warfarin (23)

USAN

**-arone**

(USAN: antiarrhythmics)

amiodarone (16) (antiarrhythmic), benzarone (13), benzbromarone (13) (uricosuric), benziodarone (11), brinazarone (64) (calcium channel blocker), bucromarone (48) (antiarrhythmic), celivarone (94), diarbarone (15), dronedarone (75) (antianginal, antiarrhythmic), etabenzarone (17), fantofarone (65) (calcium channel blocker), furidarone (19), inicarone (27), mecinarone (30), pyridarone (16), rilozarone (58)

USAN

**-arotene** **arotinoid derivatives**

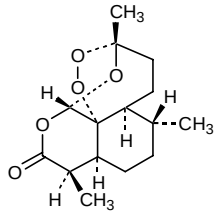
P.1.0.0 (USAN: -arot-: arotinoids, and -arotene: arotinoid derivatives)

(a) betacarotene (38), bexarotene (80), etarotene (64), linarotene (65), mofarotene (70), sumarotene (64), tamibarotene (73), tazarotene (72), temarotene (54)

USAN

**arte-** **antimalarial agents, artemisinin related compounds**

S.3.3.0



(a) artemether (61), artemifone (92), artemisinin (56), artemotil (80), artenimol (81), artesunate (61), arteflene (70)

USAN

**-ase** **enzymes**

W.0.0.0

(a) agalsidase alfa (84), agalsidase beta (84), alglucerase (68), alglucosidase alfa (91), brinase (22), bucelipase alfa (95), cocarboxylase (1), dornase alfa (70), eufauserase (84), galsulfase (92), glucarpidase (92), hyalosidase (50), hyaluronidase (1), idursulfase (90), kallidinogenase (22), ocrase (28), pegaspargase (64), penicillinase (10), promelase (47), rizolipase (22), serrapeptase (31), sfericase (40), streptodornase (6), streptokinase (6), tilactase (50), urokinase (48)

(c) batroxobin (29), bromelains (18), chymopapain (26), chymotrypsin (10), defibrotide (44), fibrinolysin (human) (10), orgotein (31), sutilains (18), ubidecarenone (48)

Classification of enzymes

I proteinase

(a) with *-ase* suffix:

| (INN) | (origin) | (use, action) |
|---|---|---|
| brinase (22) | *Aspergillus oryzae* | fibrinolytic |
| kallidinogenase (22) | pancreas or urine of mammals | splitting kinin, kallidin from kininogen (vasodilator) |
| ocrase (28) | *Aspergillus ochraceus* | fibrinolytic (topically: cleaning wounds) |
| pegaspargase (64) | | asparaginase |
| promelase (46) | *Aspergillus melleus* | proteinase (chronic bronchitis) |

| | | |
|---|---|---|
| rasburicase (81) | *Aspergillus flavus* | urate oxidase (hyperuricaemia) |
| serrapeptase (31) | *Serratia sp.* E15 | proteinase (chronic paranasal sinusitis etc.) |
| sfericase (40) | *Bacillus sphaericus* | proteinase (chronic paranasal sinusitis etc.) |
| streptokinase (6) | *Streptococcus haemolyticus* | changing plasminogen into plasmine (activator of fibrinolysis) |
| urokinase (48) | human origin | plasminogen activator |
| urokinase alfa (27) | recombinant material | plasminogen activator |

(c) without *-ase* suffix:

| | | |
|---|---|---|
| batroxobin (29) | the venom of the serpent *Bothopsatrox* | thrombin like enzyme |
| bromelains (18) | *Ananas comosus* Merr. | fibrin depolymerizing (anti-inflammatory) |
| chymopapain (26) | papaya late | proteolytic (chemonucleosis) |
| chymotrypsin (10) | mammalian pancreas | proteolytic (anti-inflammatory, antioedema) |
| defibrotide (44) | mammalian pancreas | proteolytic (anti-inflammatory, antioedema) |
| fibrinolysin (human) (10) | human | fibrinolytic |
| sutilains (18) | *Bacillus subtilis* | proteolytic |

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II *-lipase*

| | | |
|---|---|---|
| bucelipase alfa (95) | human origin | lipase |
| rizolipase (22) | *Rhizopus arrhizus* var. Delemar | lipase |

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| | | | |
|---|---|---|---|
| III | co-enzymes | | |
| (a) | cocarboxylase (1) | chemically defined | co-enzyme in the metabolism of pyruvic acid |
| (c) | ubidecarenone (48) | chemically defined | naturally occurring co-enzyme, a component in the electron transfer system in mitochondria (congestive heart failure) |

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USAN

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|---|---|---|---|
| IV | *-dismase* enzymes with superoxide dismutase activity | | |
| | (USAN: superoxide dismutase activity (exception: orgotein)) | | |
| (a) | ledismase (70), sudismase (58) | | |
| (c) | isomerase | | |
| | orgotein (31) | mammalian tissue (liver, red blood cell etc.) | superoxide dismutase activity (anti-inflammatory) |
| | pegorgotein (72) | | |

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| | | | |
|---|---|---|---|
| V | *-diplase* plasminogen activator combined with another enzyme | | |
| | amediplase (79) | | |

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USAN

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|---|---|---|---|
| VI | *-teplase* tissue-type plasminogen activators | | |
| (a) | alteplase (59), anistreplase (59), desmoteplase (80), duteplase (62), lanoteplase (76), monteplase (71), nateplase (73), pamiteplase (78), reteplase (69), silteplase (65), tenecteplase (79) | | |

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USAN

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|---|---|---|---|
| VII | *-uplase* urokinase-type plasminogen activators | | |
| (a) | nasaruplase (68), nasaruplase beta (85), saruplase (58) | | |

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| | | | |
|---|---|---|---|
| VIII | others | | |
| | agalsidase alfa (84) | human origin | treatment of deficiency of alpha-galactosidase activity (Fabry's disease) |

| | | |
|---|---|---|
| agalsidase beta (84) | *hamster* | treatment of deficiency of alpha-galactosidase activity (Fabry's disease) |
| alfimeprase (85) | *Agkistrodon contrix contrix* | antithrombotic |
| alglucerase (68) | human origin (placenta isoenzyme) | glucocerebrosidase |
| alglucosidase alfa (91) | recombinant | treatment of Pompe's disease |
| dornase alfa (70) | human origin | treatment of cystic fibrosis |
| epafipase (85) | human origin | antiallergic, antiasthmatic |
| eufauserase (84) | *Euphausia Superba* | digests proteins and selected cell surface adhesion molecules (wound healing; viginal/oral candidosis) |
| galsulfase (92) | recombinant | Maroteaux-Lamy syndrome |
| glucarpidase (92) | *Pseudomonadadaceae gen. sp.* | adjunctive treatment of patients at risk of methotrexate toxicity |
| hyalosidase (50) | | hyaluronoglucosaminidase (treatment of myocardial infarction) |
| hyaluronidase (1) | various origins | depolymerizing hyaluronic acid (cellular diffusion factor) |
| idursulfase (90) | | treatment of Hunter Syndrome (Mucopolysaccharidosis Type II), degrades glycosaminoglycans heparan and dermatan sulfate |
| imiglucerase (72) | human origin (placenta isoenzyme) | |
| laronidase (85) | human origin | |
| pegademase (63) | Origin should be indicated | |
| penicillinase (10) | *Bacillus cereus* | inactivating penicillin |
| ranpirnase (81) | *Rana pipiens* | ribonuclease (antineoplastic) |

| | | |
|---|---|---|
| streptodornase (6) | *Streptococcus haemolyticus* | hydrolysing desoxyribonucleoprotein |
| tilactase (50) | | β-D-glactosidase |

BAN; USAN

**-ast (x)** **antiasthmatics or antiallergics, not acting primarily as antihistaminics**

K.0.0.0 (BAN: antiasthmatics, antiallergics when not acting primarily as antihistamines) (USAN: antiasthmatics / antiallergics: not acting primarily as antihistamines; leukotriene biosynthesis inhibitors)

(a) acitazanolast (72), acreozast (77), andolast (67), asobamast (63), ataquimast (82), bamaquimast, (76), batebulast (66), bunaprolast (60), dametralast (54), dazoquinast (54), doqualast (48), eflumast (61), enofelast (67), enoxamast (52), fenprinast (48), filaminast (75), ibudilast (58), idenast (58), loxanast (46), melquinast (62), oxalinast (49), pemirolast (61), picumast (47), pirodomast (64), raxofelast (68), repirinast (55), revenast (51), scopinast (76), suplatast tosilate (64), tazanolast (59), tiacrilast (52), tibenelast (58), tioxamast (53), tiprinast (50), tranilast (46), valategrast (93), zaprinast (46)

**-lukast** **leukotriene receptor antagonist**

(a) ablukast (61), cinalukast (70), iralukast (70), masilukast (94), montelukast (73), pobilukast (70), pranlukast (67), ritolukast (64), sulukast (63), tipelukast (95), tomelukast (59), verlukast (65), zafirlukast (71)

**-milast** **phosphodiesterase IV (PDE IV) inhibitors**

(a) catramilast (95), cilomilast (82), lirimilast (86), oglemilast (94), piclamilast (73), roflumilast (77), tetomilast (91), tofimilast (85)

**-trodast** **thromboxane $A_2$ receptor antagonists, antiasthmatics**

(a) imitrodast (70), seratrodast (70)

**-zolast** **leukotriene biosynthesis inhibitors**

(a) binizolast (60), eclazolast (55), ontazolast (72), quazolast (55), tetrazolast (67),

(c) bufrolin (34), oxarbazole (38), pirolate (44)

**-(a)steride** **see -ster-**

BAN, USAN

**-astine (x)** **antihistaminics**

G.2.0.0 (BAN: antihistamines, not otherwise classifiable)
(USAN: antihistaminics (histamine-$H_1$ receptor antagonists))

(a) acrivastine (51), alinastine (74), azelastine (36), bamirastine (91), barmastine (59),. bepiastine (19), bepotastine (78), bilastine (82), cabastinen (50), carebastine (52), clemastine (22), dorastine (23), ebastine (52), emedastine (59), epinastine (55), flezelastine (67), levocabastine (50), linetastine (74), mapinastine (72), mizolastine (64), moxastine (15), noberastine (59), octastine (37), perastine (15), piclopastine (22), rocastine (57), setastine (39), talastine (18), temelastine (54), zepastine (26)

(b) cloperastine (18) (antitussive), vinblastine (12) (vinca-alkaloid)

(c) astemizole (45), carbinoxamine (4)

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**-azam** **see - azepam**

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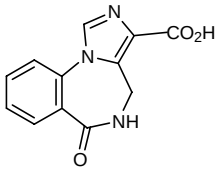
USAN

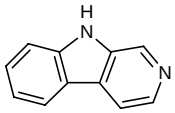
**-azenil** **benzodiazepine receptor antagonists/agonists (benzodiazepine derivatives)**




(a) bretazenil (60), flumazenil (55), iomazenil $^{123}$I (66), sarmazenil (59)

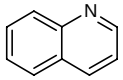
(b) nabazenil (49)

**-carnil** **benzodiazepine receptor antagonists/agonists (carboline derivatives)**




(a) abecarnil (60), gedocarnil (61)

**-quinil** **benzodiazepine receptor agonists, also partial or inverse (quinoline derivatives)**




(a) lirequinil (72), radequinil (93) (replaces resequin (90)) , terbequinil (63)

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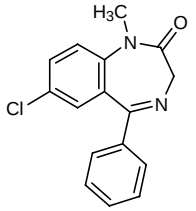
BAN; USAN

**-azepam (x)** **diazepam derivatives**

C.1.0.0 (BAN: substances of the diazepam group)
(USAN: antianxiety agents (diazepam type))




(a) bromazepam (22), camazepam (30), carburazepam (39), cinolazepam (46), clonazepam (22), cyprazepam (16), delorazepam (40), diazepam (12), doxefazepam (43), elfazepam (36), fletazepam (31), fludiazepam (36), flunitrazepam (24), flurazepam (20), flutemazepam (58), flutoprazepam (45), fosazepam (27), halazepam (29), iclazepam (37), lorazepam (23), lormetazepam (38), meclonazepam (44), medazepam (20), menitrazepam (22), metaclazepam (46), motrazepam (31), nimetazepam (26), nitrazepam (16), nordazepam (39), nortetrazepam (20), oxazepam (13), pinazepam (32), pivoxazepam (34), prazepam (14), proflazepam (31), quazepam (36), reclazepam (53), sulazepam (14), temazepam (22), tetrazepam (17), tolufazepam (51), tuclazepam (40), uldazepam (30)

not true benzodiazepines: bentazepam (33), clotiazepam (30), lopirazepam (36), premazepam (45), ripazepam (33), zolazepam (28)

related: adinazolam (45), alprazolam (30), arfendazam (39), clazolam (29), climazolam (51), clobazam (25), clobenzepam (25), cloxazolam (29), ecopipam (80), estazolam (3l), flutazolam (32), haloxazolam (38), ketazolam (26), levotofisopam (92), lofendazam (36), loprazolam (44), mexazolam (40), midazolam (40), nefopam (25), oxazolam (25), razobazam (52), tofisopam (26), trepipam (38), triazolam (30), triflubazam (28), zapizolam (43), zomebazam (49)

(c) brotizolam (40), chlordiazepoxide (11), ciclotizolam (40), demoxepam (23), dipotassium clorazepate (17), ethyl carfluzepate (43), ethyl dirazepate (44), ethyl loflazepate (43), etizolam (40), potassium nitrazepate (17)

not related: anxiolytic: fenobam (36), muscle relax.: xilobam (36)

USAN

**-azepide** **cholecystokinin receptor antagonists**

J.1.0.0

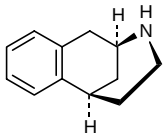
(a) devazepide (62), pranazepide (75), tarazepide (68)

(c) lorglumide (56)

USAN

**-azocine** **narcotic antagonists/agonists related to 6,7-benzomorphan**

A.4.1.0 (USAN: narcotic antagonists/agonists, 6,7-benzomorphan)



(a) anazocine (30), bremazocine (43), butinazocine (53), carbazocine (16), cogazocine (36), cyclazocine (14), eptazocine (45), gemazocine (29), ibazocine (36), ketazocine (34), metazocine (9), moxazocine (38), pentazocine (14), phenazocine (9), quadazocine (54), tonazocine (46), volazocine (19)
related compounds: dezocine (35)

(b) streptozocin (33)

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**-azolam** **see -azepam**

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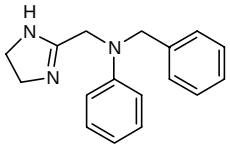
USAN

**-azoline** **antihistaminics or local vasoconstrictors, antazoline derivatives**

E.4.0.0 (USAN: antihistamines/local vasoconstrictors (antazoline type))



(a) antazoline (1), cilutazoline (61), cirazoline (38), clonazoline (18), coumazoline (26), domazoline (30), fenoxazoline (12), indanazoline (42), metrafazoline (33), naphazoline (1), nemazoline (63), oxymetazoline (13), phenamazoline (6), prednazoline (22), tefazoline (24), tinazoline (39), tramazoline (15), xylometazoline (8)

(b) cefazolin (25) (antibiotic)

(c) tetryzoline (6), metizoline (22)

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**-azone** **see -buzone**

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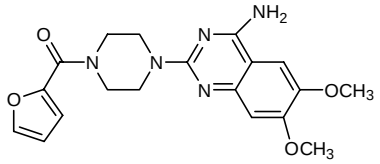
USAN

**-azosin** **antihypertensive substances, prazosin derivatives**

H.3.0.0 (USAN: antihypertensives (prazosin type))



(a) bunazosin (50), doxazosin (47), neldazosin (60), prazosin (22), quinazosin (17), terazosin (44), tiodazosin (41), trimazosin (31)

related: alfuzosin (49), tamsulosin (65), tipentosin (55)

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BAN; USAN

**-bactam** **β-lactamase inhibitors**

S.6.5.0

(a) brobactam (53), sulbactam (44), tazobactam (60)

(c) clavulanic acid (44)

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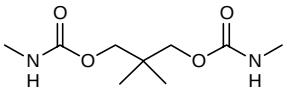
BAN, USAN

**-bamate** **tranquillizers, propanediol and pentanediol derivatives**

C.1.0.0 (USAN: tranquilizers/antiepileptics (propanediol and pentanediol groups))



(a) cyclarbamate (13), felbamate (54), meprobamate (6), nisobamate (21), pentabamate (13), tybamate (14)

(b) difebarbamate (16), febarbamate (12), lorbamate (24), phenprobamate (10)

(c) mebutamate (12), metaglycodol (12) (not a carbamate)

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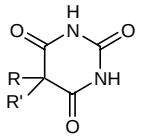
BAN, USAN

**barb (d)** **hypnotics, barbituric acid derivatives**

A.2.l.0 (BAN: -barb, -barb-: for barbiturates)
(USAN: -barb; or -barb-: barbituric acid derivatives)



(a) allobarbital (1), amobarbital (1), aprobarbital (1), barbexaclone (16), barbital (4), barbital sodium (4), benzobarbital (25), brallobarbital (41), carbubarb (14), cyclobarbital (1), difebarbamate (16), etherobarb (32), febarbamate (12), heptabarb (14), hexobarbital (1), methylphenobarbital (1), nealbarbital (11), pentobarbital (1), phenobarbital (4), phenobarbital sodium (4), probarbital sodium (1), proxibarbal (33), secbutabarbital (12), secobarbital (4), tetrabarbital (4), thialbarbital (4), thiotetrabarbital (4), vinbarbital (1)

(c) butalbital (4), buthalital sodium (8), metharbital (1), methitural (6), methohexital (8), phetharbital (10), talbutal (17), thiopental sodium (4), vinylbital (12)

(c) prazitone (19) (barbituric acid derivative used as antidepressive), bucolome (17) (barbituric acid derivative used as anti-inflammatory uricosuric)

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USAN

**-begron** **$\beta_3$-adrenoreceptor agonists**

M.3.2.1

(a) amibegron (94), mantabegron (88), rafabegron (88), ritobegron (91), solabegron (90), talibegron (86)

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**-benakin** **see -kin**

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**-bendan** **see -dan**

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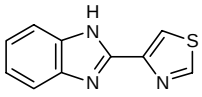
USAN

**-bendazole** **anthelminthics, tiabendazole derivatives**

S.3.l.0 (USAN: anthelmintics (tiabendazole type))



(a) albendazole (35), albendazole oxide (56), bisbendazole (29), cambendazole (24), ciclobendazole (31), dribendazole (49), etibendazole (49), fenbendazole (29), flubendazole

(34), lobendazole (28), luxabendazole (52), mebendazole (24), oxibendazole (30), parbendazole (19), subendazole (31), tiabendazole (13), triclabendazole (45)

(b) bendazol (l2) (vasodilator, also benzimidazole derivative)
L.0.0.0: nocodazole (36), procodazole (36) (also benzimidazole derivative)

(c) oxfendazole (35), tioxidazole (39)

related: furodazole (37) (S.3.l.0)

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**-bermin** **see -ermin**

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**-betasol** **see pred**

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USAN

**-bersat** **anticonvulsants, benzoylamino-benzpyran derivatives**

A.3.1.0 (USAN: anticonvulsants; antimigraine (benzoylamino-benzpyran derivatives))

(a) carabersat (85), tidembersat (84), tonabersat (85)

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BAN, USAN

**bol (x)** **anabolic steroids**

M.4.1.0 (BAN: steroids, anabolic)
(USAN: bol- or -bol- : anabolic steroids)

(a) bolandiol (16), bolasterone (13), bolazine (21), boldenone (20), bolenol (19), bolmantalate (16), clostebol (22), enestebol (22), furazabol (16), mebolazine (21), mibolerone (27), norboletone (15), norclostebol (22)
-bolone: formebolone (31), mesabolone (29), metribolone (17), oxabolone cipionate (14), quinbolone (14), roxibolone (40), stenbolone (17), tibolone (22), trenbolone (24)

(c) ethylestrenol (13), hydroxystenozole (10), metandienone (12), metenolone (12), oxandrolone (12), propetandrol (13), tiomesterone (14)

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**-bradine** **bradycardic agents**

H.0.0.0

(a) cilobradine (63), ivabradine (75), zatebradine (62)

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**-brate** **see -fibrate**

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USAN

**-bufen** **non-steroidal anti-inflammatory agents, *arylbutanoic acid* derivatives**

A.4.2.0 (USAN: non-steroidal anti-inflammatory agents, fenbufen derivatives)

(a) butibufen (32), fenbufen (30), furobufen (30), indobufen (39), metbufen (43)

USAN

**-bulin** **antineoplastics; mitotic inhibitors, tubulin binders**

L.0.0.0

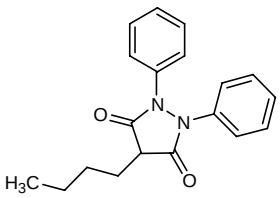
(a) batabulin (90), denibulin (95), indibulin (91), mivobulin (77), rosabulin (95), taltobulin (91)

(b) thyroglobulin (26)

**-butazone** **see -buzone**

**-buzone (x)** **anti-inflammatory analgesics, phenylbutazone derivatives**

A.4.2.0




(a) feclobuzone (27), kebuzone (19), pipebuzone (25), suxibuzone (24), tribuzone (33)

**-butazone** (USAN: anti-inflammatory analgesics (phenylbutazone type)) USAN

mofebutazone (15), oxyphenbutazone (8), phenylbutazone (1)

**-azone** aminophenazone (13), bisfenazone (33), famprofazone (21), morazone (12), nifenazone (15), nimazone (20), niprofazone (29), phenazone (4), propyphenazone (1), sulfinpyrazone (8)

**-zone** clofezone (17), proxifezone (24)

related: azapropazone (18), benhepazone (15), bumadizone (24), cinnopentazone (17), isamfazone (37), metamfazone (12), osmadizone (26), ruvazone (26)

(c) benzpiperylone (12), butopyrammonium iodide (8), dibupyrone (17), metamizole sodium (53), metazamide (16), piperylone (11)

BAN, USAN

**-caine (x)** **local anaesthetics**

D.1.0.0

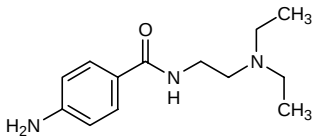
(a) ambucaine (6), amoxecaine (1), aptocaine (21), articaine (47) (previously carticaine (27)), benzocaine (42), betoxycaine (13), bucricaine (49), bumecaine (25), bupivacaine (17), butacaine (4), butanilicaine (16), chloroprocaine (6), cinchocaine (1), clibucaine (14), clodacaine (13), clormecaine (17), cyclomethycaine (6), dexivacaine (20), diamocaine (22), edronocaine (84), elucaine (29), etidocaine (29), fexicaine (25), fomocaine (18), hexylcaine (4), hydroxyprocaine (1), hydroxytetracaine (1), ipravacaine (85), ketocaine (15), leucinocaine (17), levobupivacaine (74), lidocaine (1), lotucaine (27), mepivacaine (11), meprylcaine (4), myrtecaine (15), octacaine (14), oxetacaine (13), oxybuprocaine (8), parethoxycaine (l), paridocaine (8), phenacaine (4), pinolcaine (32), piperocaine (l), piridocaine (l), pramocaine (4), pribecaine (32), prilocaine (14), procaine (10), propanocaine (6), propipocaine (16), propoxycaine (4) proxymetacaine (6), pyrrocaine (13), quatacaine (18), quinisocaine (4), risocaine (26), rodocaine (27), ropivacaine (50), tetracaine (4), tolycaine (16), trapencaine (56), trimecaine (11), vadocaine (57)

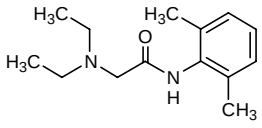
(c) amolanone (6), benzyl alcohol (l), cryofluorane (6), diperodon (l), dyclonine (6), midamaline (6)

BAN

**-cain- (x)** **Class I antiarrhythmics, procainamide and lidocaine derivatives**

H.2.0.0 (BAN: antifibrillants with local anaesthetic activity)



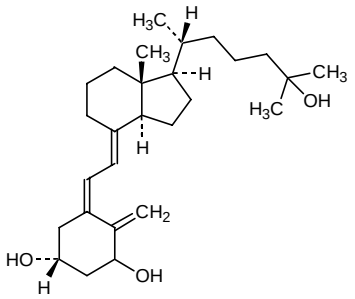




(a) acecainide (39), asocainol (47), barucainide (52), bucainide (35), carcainium chloride (36), carocainide (46), droxicainide (47), encainide (40), epicainide (40), erocainide (50), flecainide (37), guafecainol (38), indecainide (48) (originally ricainide (47)), itrocainide (54), ketocainol (32), lorcainide (38), milacainide (77), modecainide (63), murocainide (46), nicainoprol (46), nofecainide (44), pilsicainide (62), pincainide (49), procainamide (1), quinacainol (50), recainam (54), solpecainol (55), stirocainide (47), suricainide (55), tocainide (36), transcainide (51), (verocainine (42) - replaced by tiapamil in List 43), zocainone (4l)

USAN

**calci** **Vitamin D analogues/derivatives**

N.8.0.0



(a) alfacalcidol (40), atocalcitol (88), becocalcidiol (92), calcifediol (26), calcipotriol (61), calcitriol (39), colecalciferol (13), doxercalciferol (82), ecalcidene (85), elocalcitol (95), ergocalciferol (13), falecalcitriol (74), inecalcitol (87), lexacalcitol (71), maxacalcitol (75), paricalcitol (78), secalciferol (62), seocalcitol (78), tacalcitol (65)

(b) calcitonin (31) (polypeptide)

(c) dihydrotachysterol (1)

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USAN

**-carbef** **antibiotics, carbacephem derivatives**

S.6.1.0

(a) loracarbef (60)

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**-carnil** **see -azenil**

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**-castat** **see -stat**

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**-cavir** **see vir**

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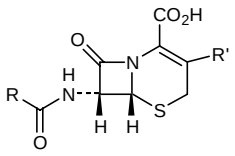
BAN, USAN

**cef- (x)** **antibiotics, cefalosporanic acid derivatives**

S.6.1.0 (USAN: cephalosporins)

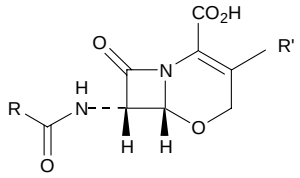


(a) cefacetrile (25), cefaclor (36), cefadroxil (33), cefalexin (18), cefaloglycin (16), cefalonium (16), cefaloram (16), cefaloridine (15), cefalotin (14), cefamandole (30), cefaparole (33), cefapirin (23), cefatrizine (34), cefazaflur (36), cefazedone (36), cefazolin (25),

cefbuperazone (48), cefcanel (59), cefcanel daloxate (59), cefcapene (68), cefclidine (64), cefDaloxime (64), cefdinir (61), cefditoren (66), cefedrolor (53), cefempidone (58), cefepime (57), cefetamet (49), cefetecol (64), cefetrizole (44), cefivitril (52), cefixime (53), cefizopran (66), cefluprenam (71), cefmatilen (81), cefmenoxime (44), cefmepidium chloride (57), cefmetazole (39), cefminox (53), cefodizime (44), cefonicid (42), cefoperazone (42), ceforanide (39), cefoselis (71), cefotaxime (40), cefotetan (48), cefotiam (40), cefoxazole (34), cefoxitin (29), cefozopran (66), cefpimizole (50), cefpiramide (47), cefpirome (50), cefpodoxime (58), cefprozil (60), cefquinome (59), cefradine (26), cefrotil (34), cefroxadine (42), cefsulodin (38), cefsumide (38), ceftazidime (44), cefteram (55), ceftezole (34), ceftibuten (60), ceftiofur (53), ceftiolene (49), ceftioxide (43), ceftizoxime (42), ceftizoxime alaproxil (77), ceftobiprole (92), ceftobiprole medocaril (92), ceftriaxone (44), cefuracetime (45), cefuroxime (34), cefuzonam (55)

**-oxef** **antibiotics, oxacefalosporanic acid derivatives**

S.6.1.0 (USAN: antibiotic oxacefalosporanic acid derivatives)




(a) flomoxef (55), latamoxef (46)

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**cell- or cel-** **cellulose derivatives [cel- in Spanish]**

U.4.0.0

(a) celucloral (40)

(c) celiprolol (35)

**cell-ate** **cellulose ester derivatives for substances containing acidic residues**

U.4.0.0 **[cel-ato in Spanish]**

(a) cellaburate (23), cellacefate (18)

**-cellose** **cellulose ether derivatives**

U.4.0.0 **[-celosa in Spanish]**

(a) -

(c) carmellose (45), croscarmellose (48), ethylcellulose (80), hyetellose (80), hymetellose (80), hyprolose (80), hypromellose (18), methylcellulose (4)

USAN

**-cic** **hepatoprotective substances with a carboxylic acid group**

J.1.2.0 (USAN: hepatoprotectives (timonacic group))

(a) limazocic (69), tidiacic (33), timonacic (33), (tiofacic (45) replaced by stepronin (46))

(b) bisorcic (34) (psychostimulant)

(c) stepronin (46)

USAN

**-cidin** **naturally occurring antibiotics (undefined group) (14th Report, l964)**

S.6.0.0 (USAN: natural antibiotics (undefined group))

(a) candicidin (17), gramicidin (1), gramicidin S (26), methocidin (6)

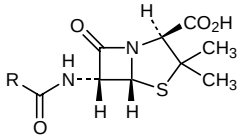
(b) guancidine (18) (hypotensive)

**-cillide** **see -cillin**

BAN, USAN

**-cillin (x)** **antibiotics, 6-aminopenicillanic acid derivatives**

S.6.1.0 (USAN: penicillins)




(a) adicillin (14), almecillin (14), amantocillin (17), amoxicillin (27), ampicillin (13), apalcillin (39), aspoxicillin (50), azidocillin (19), azlocillin (36), bacampicillin (32), benethamine penicillin (1), benzathine benzylpenicillin (18), benzylpenicillin (53), carbenicillin (20), carfecillin (30), carindacillin (29), ciclacillin (22), clemizole penicillin (8), clometocillin (12), cloxacillin (13), dicloxacillin (16), epicillin (25), fenbenicillin (13), fibracillin (30), flucloxacillin (17), fomidacillin (55), fumoxicillin (47), furbucillin (31), fuzlocillin (47), hetacillin (16), isopropicillin (12), lenampicillin (50), levopropicillin (12), metampicillin (20), meticillin (12), mezlocillin (34), nafcillin (13), oxacillin (l5), oxetacillin (33), penamecillin (16), pheneticillin (11), phenoxymethyl penicillin (6), phenyracillin (8), piperacillin (38), pirbenicillin (35), piridicillin (43), piroxicillin (49), pivampicillin (23), prazocillin (27), propicillin (13), quinacillin (14), rotamicillin (35), sarmoxicillin (41), sarpicillin (36), sulbenicillin (26), sultamicillin (48), suncillin (25), talampicillin (31), tameticillin (35), temocillin (46), ticarcillin (29), tifencillin (12), tobicillin (78)

(b) xantocillin (12)

(c) penimepicycline (l6), penimocycline (22)

**-cillide**

S.6.1.0 libecillide (32)

**-cillinam**

S.6.1.0 bacmecillinam (38), mecillinam (32), pivmecillinam (32)

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**-cillinam** **see -cillin**

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**-cilpine** **see -pine**

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**-cisteine** **see -steine**

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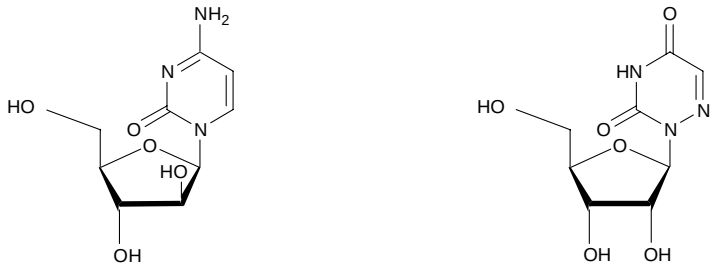
USAN

**-citabine** **nucleoside antiviral or antineoplastic agents, cytarabine or azactidine derivatives**

(USAN: nucleoside antiviral or antineoplastic agents, cytarabine or azarabine derivatives)

L.4.0.0




(a) ancitabine (36), apricitabine (95), capecitabine (73), decitabine (61), dexelvucitabine (95), elvucitabine (89), emtricitabine (80), enocitabine (46), fiacitabine (59), flurocitabine (38), galocitabine (65), gemcitabine (62), ibacitabine (57), sapacitabine (94), tezacitabine (84), torcitabine (87), troxacitabine (81), valopicitabine (93), valtorcitabine (90), zalcitabine (66)

(c) cytarabine (14), azacitidine (40)

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USAN

**-clone** **hypnotic tranquillizers**

A.2.2.0 (USAN: hypnotic / tranquillizers (zopiclone type))

(a) barbexaclone (16), eszopiclone (87), pagoclone (74), pazinaclone (70), suproclone (46), suriclone (43), suproclone (46), zopiclone (39)

(b) gestaclone (23), pimeclone (20)

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USAN

**-cog** **blood coagulation factors**

I.2.0.0

*(-)eptacog* blood coagulation VII: eptacog alfa (activated) (72)

*(-)octocog* blood factor VIII: beroctocog alfa (95), moroctocog alfa (72), octocog alfa (73)

*(-)nonacog* blood factor IX: nonacog alfa (77)

USAN

**-cogin** **blood coagulation cascade inhibitors**

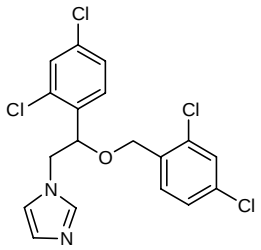
I.2.0.0

drotrecogin alfa (activated) (86), taneptacogin alfa (90), tifacogin (78)

BAN; USAN

**-conazole (x)** **systemic antifungal agents, miconazole derivatives**

S.4.0.0 (BAN: systemic antifungals of the miconazole group)
(USAN: systemic antifungals (miconazole type))



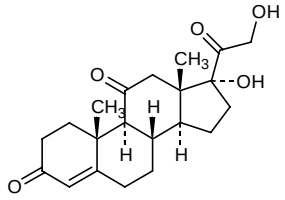

(a) albaconazole (87), aliconazole (43), alteconazole (53), arasertaconazole (93), azaconazole (45), becliconazole (65), brolaconazole (58), butoconazole (40), cisconazole (59), croconazole (55), (cyproconazole (ISO)), democonazole (42), (diniconazole (ISO $C_{17}H_{17}Cl_2N_3O$)), doconazole (37), eberconazole (64), econazole (27), embeconazole (92), enilconazole (44), (etaconazole (ISO)), fenticonazole (44), fluconazole (54), fosfluconazole (83), (furconazole (ISO/TC 81 N 872 $C_{15}H_{14}Cl_2F_3N_3O_2$)), (hexaconazole (ISO $C_{14}H_{17}Cl_2N_3O$)), isoconazole (30), itraconazole (50), ketoconazole (43), lanoconazole (66), luliconazole (86), miconazole (22), neticonazole (63), omoconazole (45), orconazole (40), oxiconazole (42), parconazole (39), (penconazole, (ISO)), posaconazole (82), (propiconazole (ISO)), pramiconazole (95), ravuconazole (83), saperconazole (59), sertaconazole (56), sulconazole (38), (tebuconazole (ISO $C_{16}H_{22}ClN_3O$)), terconazole (45) (originally triaconazole), tioconazole (40), (uniconazole (ISO $C_{15}H_{18}ClN_3O$)), valconazole (40), voriconazole (73), zinoconazole (50), zoficonazole (43)

(c) bifonazole (44)

BAN, USAN

**cort (x)** **corticosteroids, except prednisolone derivatives**

Q.3.0.0 (USAN: -cort-: cortisone derivatives)




(a) amebucort (54), anecortave (80), butixocort (63), cicortonide (28), corticotropin (68), corticotropin-zinc hydroxide (68), cortisone (1), cortisuzol (30), cortivazol (23), cortodoxone (15), deflazacort (39) (previously azacort (38)), desoxycortone (4), fluazacort (30), fludrocortisone (6), fludroxycortide (12), fluocortin (31), formocortal (18), hydrocortamate (6), hydrocortisone (1), locicortolone dicibate (60), naflocort (50), nicocortonide (40), nivacortol (24), resocortol (74), tixocortol (38)

(b) prednisolone derivatives: clocortolone (16), difluocortolone (18), fluocortolone (15), halocortolone (31)

(c) aldosterone (6), algestone (22) (also progest. when used as algestone acetophenide), medrysone (16)

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USAN

**-coxib** **selective cyclo-oxygenase inhibitors**

A.4.2.0 (USAN: cyclooxygenase-2 inhibitors)

(a) celecoxib (80), cimicoxib (89), deracoxib (80), etoricoxib (84), firocoxib (89), lumiracoxib (87), mavacoxib (94), parecoxib (80), robenacoxib (91), rofecoxib (80), tilmacoxib (84), valdecoxib (80)

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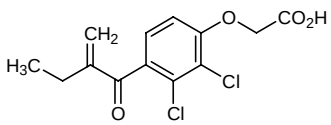
USAN

**-crinat** **diuretics, etacrynic acid derivatives**

N.1.2.2 (USAN: diuretics (ethacrynic acid derivatives))




(a) brocrinat (51), sulicrinat (52)

(c) etacrynic acid (14), furacrinic acid (29), indacrinone (51), tienilic acid (25)

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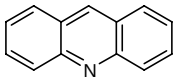
USAN

**-crine (d)** **acridine derivatives**



(a) antineoplastics: amsacrine (44), nitracrine (35)
anthelminthics; antimalarials: floxacrine (34), mepacrine (4)
antidepressants: dimetacrine (19), monometacrine (19)
antiparkinsonian: botiacrine (38)
acetylcholinesterase inhibitors: ipidacrine (73), suronacrine (61), tacrine (8), velnacrine (61)

(c) acridorex (2l), acriflavinium chloride (l), acrisorcin (l3), aminoacridine (l), ethacridine (l), proflavine (l)

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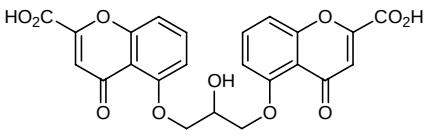
USAN

**-cromil** **antiallergics, cromoglicic acid derivatives**

K.0.0.0 (USAN: antiallergics (cromoglicic acid derivatives))



(a) ambicromil (48) (replacement of probicromil (46)), isocromil (39), minocromil (50), nedocromil (50), proxicromil (39), terbucromil (38), texacromil (58)

(c) cromitrile (46), cromoglicate lisetil (72), cromoglicic acid (l8)

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**-curium** **see -ium**

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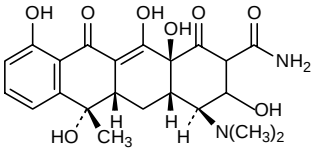
BAN; USAN

**-cycline (d)** **antibiotics, tetracycline derivatives**

S.6.3.0 (BAN: antibiotics of the tetracycline group)
(USAN: antibiotics (tetracycline derivatives))



(a) amicycline (14), apicycline (17), cetocycline (39), chlortetracycline (4), clomocycline (16), colimecycline (33), demeclocycline (25), demecycline (14), doxycycline (16), etamocycline (18), guamecycline (22), lymecycline (14), meclocycline (14), meglucycline

(22), metacycline (12), minocycline (14), nitrocycline (14), oxytetracycline (1), pecocycline (15), penimepicycline (16), penimocycline (22), pipacycline (12), rolitetracycline (11), sancycline (15), tetracycline (4), tigecycline (86)

related: carubicin (40), daunorubicin (20), detorubicin (41), doxorubicin (25), zorubicin (39)

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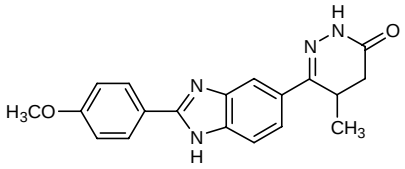
USAN

**-dan** **cardiac stimulants, pimobendan derivatives**

H.1.0.0 (USAN: positive inotropic agents (pimobendan type))



(a) adibendan (57), bemorodan (61), imazodan (55), indolidan (57), levosimendan (68), meribendan (62), pimobendan (46), prinoxodan (64), senazodan (85), simendan (66)

(b) nitrodan (15), tyromedan (15)

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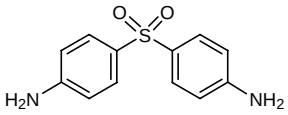
USAN

**-dapsone** **antimycobacterials, diaminodiphenylsulfone derivatives (14th Report, l964)**

S.5.2.0 (USAN: antimycobacterial (diaminodiphenylsulfone derivatives))



(a) acedapsone (22), amidapsone (28), dapsone (23)

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**-decakin** **see -kin**

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USAN

**-denoson** **adenosine A receptor agonists**

H.0.0.0

apadenoson (94), binodenoson (90), capadenoson (95), regadenoson (91), selodenoson (91), tecadenoson (87)

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**-dermin** **see –ermin**

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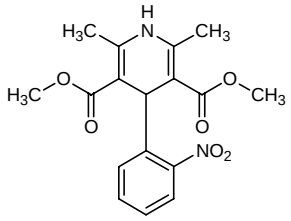
| | | USAN |
|---|---|---|
| **-dil** | **vasodilators (18th Report, l968)** | |
| F.2.0.0<br>F.2.l./2.0 | (USAN: -dil; dil-; or -dil-: vasodilators (undefined group)) | |
| F.2.0.0<br>(a) | alprostadil (39), aviptadil (78), belfosdil (61), benfurodil hemisuccinate (16), biclodil (52), buflomedil (33), burodiline (26), carprazidil (45), cetiedil (27), cinepaxadil (50), dopropidil (59), eliprodil (66), fenoxedil (27), flosatidil (64), fostedil (51), fronepidil (59), ifenprodil (27), levosemotiadil (72), manozodil (47), mefenidil (48), minoxidil (25), naftopidil (52), naminidil (87), nesapidil (52),perfomedil (60), pinacidil (46), piribedil (23), pitenodil (37), podilfen (22), stevaladil (34), suloctidil (30), tipropidil (44), urapidil (27), viquidil (25) | |
| (c) | dilmefone (33) | |
| F.2.1.0 | | |
| (a) | coronary vasodilators: bepridil (30), bumepidil (44), ecipramidil (40), fendiline (24), fenetradil (30), floredil (28), hexadiline (13), ipramidil (51), mepramidil (27), metrifudil (23), nicorandil (44), pirozadil (33), pretiadil (27), razi-nodil (38), semotiadil (64), sinitrodil (74), terodiline (16), tixadil (l8), trapidil (29) | |
| (c) | dilazep (22), diltiazem (30) | |
| **-dilol** | carvedilol (50), dioxadilol (53), dramedilol (57), flavodilol (48), mindodilol (52), nipradilol (50) (previously nipradolol), oberadilol (77), parodilol (57), prizidilol (44), tribendilol (54) | |
| (b) | diloxanide (8) (amebicide), methdilazine (10) (antihistaminic), phenobutiodil (6) (contrast medium), prodilidine (12) (analgesic) | |
| **-pendyl** | cloxypendyl (15), isothipendyl (6), oxypendyl (13), prothipendyl (6) | |
| **-dyl** | bisacodyl (13) (laxative), bunamiodyl (10), iofendylate (12), trihexyphenidyl (l) (antiparksonian) | |

| | |
|---|---|
| **-dilol** | **see -dil** |

BAN; USAN

**-dipine (x)** **calcium channel blockers, nifedipine derivatives**

F.2.1.0 (BAN: calcium ion channel antagonists)
(USAN: phenylpyridine vasodilators (nifedipine type))



(a) amlodipine (53), clevidipine (75), darodipine (51) (replaces dazodipine (49)), elgodipine (61), felodipine (44), flordipine (48), isradipine (55), lacidipine (57), lemildipine (69), levniguldipine (67), mesudipine (40), nicardipine (42), nifedipine (27), niguldipine (60), niludipine (38), nilvadipine (52), nimodipine (40), nisoldipine (42), nitrendipine (42), olradipine (69), oxodipine (52), riodipine (51), sagandipine (64), teludipine (64) (previously taludipine (61))
-nidipine: aranidipine (69), azelnidipine (69), barnidipine (64), benidipine (58), cilnidipine (66), cronidipine (61), efonidipine (66), furnidipine (67), iganidipine (70), lercanidipine (69) (previously masnidipine), manidipine (59), palonidipine (64), pranidipine (66), sornidipine (58)

(b) budipine (36) (central stimulant, antidepressant and antiparkinsonian), prodipine (29) (central stimulant antiparkinsonian)

**-dismase** **enzymes with superoxide dismutase activity, see -ase item V**

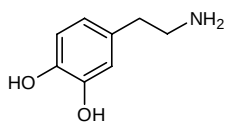
**-distim** **see -stim**

**-dodekin** **see -kin**

USAN

**-dopa** **dopamine receptor agonists, dopamine derivatives, used as antiparkinsonism/ prolactin inhibitors**

E.1.1.0 (USAN: dopamine receptor agonists)



(a) carbidopa (37), ciladopa (52), dopamantine (31), droxidopa (57), etilevodopa (80), fluorodopa ($^{18}$F) (64), levodopa (21), melevodopa (83)

**-opamine** **dopaminergic agents dopamine derivatives used as cardiac stimulant/ antihypertensives/diuretics**

(a) butopamine (43), cliropamine (59), denopamine (50), dopamine (18), fosopamine (69), ibopamine (43), octopamine (32), oxidopamine (37) (glaucoma), ractopamine (54) (1 of 4 isomers of butopamine)

(b) tiopropamine (36) (gastric and duodenal ulcers), tolpropamine (13) (antihistaminic)

(c) dobutamine (29), docarpamine (59), dopexamine (50), fenoldopam (53), levdobutamine (65), methyldopa (12) (alpha-2 adrenoreceptor agonist, cardiotonic), zelandopam (84)

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**-dox** **see -ox/-alox**

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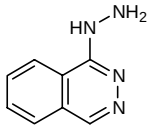
USAN

**-dralazine** **antihypertensives, hydrazinephthalazine derivatives**

H.3.0.0 (USAN: antihypertensives (hydrazine-phthalazines))




(a) budralazine (33), cadralazine (41), dihydralazine (4), endralazine (39), hydralazine (1), mopidralazine (52), oxdralazine (38), picodralazine (18), pildralazine (48), todralazine (26)

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**-drine** **sympathomimetics (l6th Report, l966)**

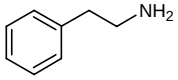
E.4.0.0

(a) alifedrine (49), bedoradrine (95), butidrine (16), cafedrine (14), cinnamedrine (19), corbadrine (1), dioxethedrin (6), dioxifedrine (41), etafedrine (14), meluadrine (78), methoxyphedrine (6), midodrine (27), norbudrine (17), oxyfedrine (16), pholedrine (1), pseudoephedrine (11), racephedrine (66), ritodrine (22), theophylline ephedrine (14), tinofedrine (32), trecadrine (53)
not phenethylamine derivatives: levopropylhexedrine (37), octodrine (19), propylhexedrine (6)

(b) bufenadrine (13) (antiemetic) related chemically, chlormerodrin (4) (diuretic), chlormerodrin (l97 Hg) (24), dieldrin (10) (insecticide), orphenadrine (8) (spasmolytic)

**-frine** **sympathomimetic, phenethyl derivatives**

E.4.0.0



(a) amidefrine mesilate (15), berefrine (68), ciclafrine (33), dimetofrine (27), dipivefrine (39), epinephrine (16), etilefrine (18), etilefrine pivalate (50), gepefrine (38), norepinephrine (45), norfenefrine (16), oxilofrine (62), phenylephrine (1), pivenfrine (42), racepinefrine (41)

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USAN

**-dronic acid** **calcium metabolism regulator, pharmaceutical aid**

N.8.0.0
U.4.0.0 (USAN: -dronate: calcium metabolism regulators)

(a) alendronic acid (61), butedronic acid (59), clodronic acid (37), etidronic acid (22), ibandronic acid (71), incadronic acid (70), lidadronic acid (84), medronic acid (39), minodronic acid (78), neridronic acid (61), olpadronic acid (71), oxidronic acid (42), pamidronic acid (59), piridronic acid (58), risedronic acid (62), tiludronic acid (60), zoledronic acid (71)

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**-dutant** **see -tant**

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**-dyl** **see -dil**

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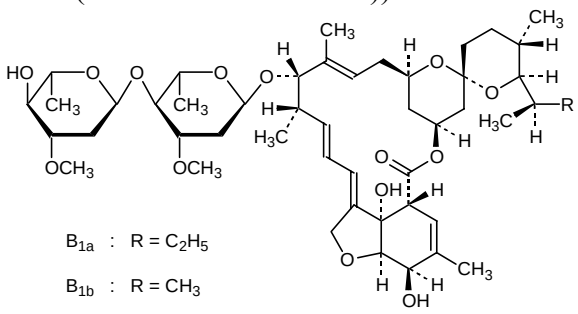
USAN

**-ectin** **antiparasitics, ivermectin derivatives**

(USAN: antiparasitics (ivermectin derivatives))

S.3.0.0




(a) abamectin (53), dimadectin (73), doramectin (63), eprinomectin (73), fuladectin (71), ivermectin (44), latidectin (88), moxidectin (61), nemadectin (60), selamectin (81)

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**-elestat** **see -stat**

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**-elvekin** **see -kin**

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USAN

**-emcinal** **erythromycin derivatives lacking antibiotic activity, motilin agonists**

J.0.0.0 (USAN: erythromycin derivatives lacking antibiotic activity)

(a) alemcinal (84), idremcinal (81), mitemcinal (86)

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USAN

**-entan** **endothelin receptor antagonists**

F.2.0.0

(a) ambrisentan (85), atrasentan (83), avosentan (93), bosentan (70), clazosentan (90), darusentan (82), edonentan (86), enrasentan (80), fandosentan (87), feloprentan (85), nebentan (90), sitaxentan (83), tezosentan (81), zibotentan (94)

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**(-)eptacog** **see -cog**

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USAN

**erg** **ergot alkaloid derivatives**

F.4.0.0
C.7.0.0 (USAN: -erg-: ergot alkaloid derivatives)

(a) acetergamine (18), amesergide (67), brazergoline (37), bromerguride (51), cabergoline (54), cianergoline (47), delergotrile (42), dihydroergotamine (16), disulergine (45), dosergoside (54), ergometrine (4), ergotamine (4), etisulergine (47), lergotrile (32), lysergide (8), mergocriptine (54), mesulergine (47), metergoline (18), metergotamine (29), methylergometrine (l), methysergide (11), nicergoline (26), pergolide (41), propisergide (35), proterguride (50), romergoline (66), sergolexole (60), terguride (50), tiomergine (42), voxergolide (61)

(b) ergocalciferol (l3)

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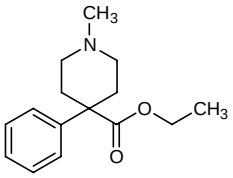
USAN

**-eridine** **analgesics, pethidine derivatives (l4th Report, l964)**

A.4.1.0 (USAN: analgesics (meperidine type))




(a) anileridine (5), carperidine (11), etoxeridine (6), morpheridine (6), oxpheneridine (5), pheneridine (5), phenoperidine (11), properidine (5), sameridine (68), trimeperidine (6)

| | |
|---|---|
| (b) | diaveridine (l8) (coccidiostat.), eseridine (53), nexeridine (34) (somewhat related) |
| (c) | benzethidine (9), butoxylate (14), diphenoxylate (10), fetoxilate (21), furethidine (9), hydroxypethidine (5), pethidine (4), piminodine (9) |

USAN

| | |
|---|---|
| **-ermin** | **growth factors** |
| U.0.0.0 | (USAN: growth factors) |
| *-bermin* | **vascular endothelial growth factors** |
| (a) | telbermin (85) |
| *-dermin* | **epidermal growth factors** |
| (a) | murodermin (63) |
| *-fermin* | **fibroblast growth factors** |
| (a) | ersofermin (66), palifermin (86), repifermin (82), trafermin (74), velafermin (94) |
| *-filermin* | **leukemia-inhibiting factor** |
| (a) | emfilermin (82) |
| *-nermin* | **tumour necrosis factor** |
| (a) | ardenermin (88), plusonermin (73), sonermin (68), tasonermin (76) |
| *-plermin* | **platelet-derived growth factor** |
| (a) | becaplermin (74) |
| *-sermin* | **insulin-like growth factors** |
| (a) | mecasermin (66), mecasermin rinfabate (91) |
| *-termin* | **transforming growth factor** |
| (a) | cetermin (74), liatermin (81) |
| *-otermin* | **bone morphogenic proteins** |
| (a) | avotermin (77), dibotermin alfa (89), eptotermin alfa (89), radotermin (92) |
| *Others:* | dapiclermin (93) |

BAN; USAN

**estr** **estrogens**

Q.2.1.0 (USAN: estr-; or -estr-: estrogens)

(a) almestrone (24), benzestrol (1), broparestrol (8), cloxestradiol (12), dienestrol (1), diethylstilbestrol (4), epiestriol (12), epimestrol (22), (eptamestrol/etamestrol (49) deleted), estradiol (4), estradiol benzoate (4), estradiol undecylate (16), estradiol valerate (35), estramustine (24), estrapronicate (34), estrazinol (16), estriol succinate (14), estrofurate (25), estrone (4), ethinylestradiol (1), fenestrel (18), fosfestrol (15), fulvestrant (78), furostilbestrol (1), hexestrol (1), mestranol (12), methallenestril (6), methestrol (1), moxestrol (24), nilestriol (32), orestrate (17), polyestradiol phosphate (36), promestriene (31), quinestradol (15), quinestrol (14)

(b) alfatradiol (84) (topical), allylestrenol (10) (progest.), ethylestrenol (13) (anabol.), lynestrenol (13) (progest.)

-gestr-: edogestrone (22), levonorgestrel (30), megestrol (13), melengestrol (13), norgestrel (17), norgestrienone (18), pentagestrone (14), quingestrone (13)

(c) chlorotrianisene (6), clomifene (12), enclomifene (33), zuclomifene (33) (antiestrogens)

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**-etanide** **see -anide**

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**-ethidine** **see -eridine**

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**-exakin** **see -kin**

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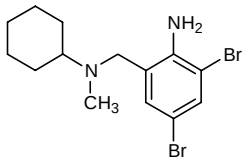
**-exine** **mucolytic, bromhexine derivatives**

K.0.0.0




(a) adamexine (36), bromhexine (20), brovanexine (31), cistinexine (54), dembrexine (56), neltenexine (62), oxabrexine (40)

(b) enefexine (54) (antidepressant), gamfexine (17) (antidepressant)

(c) ambroxol (32) (dembrexol (50): replaced by dembrexine (56))

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**-fenamate** **see -fenamic acid**

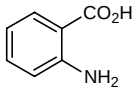
USAN

**-fenamic acid** **anti-inflammatory, anthranilic acid derivatives**

**-fenamate** **"fenamic acid" derivatives**

(USAN: -fenamic acid: anti-inflammatory (anthranilic acid derivatives); -fenamate: "fenamic acid" ester or salt derivatives)

A.4.2.0




(a) clofenamic acid (13), enfenamic acid (45), flufenamic acid (13), meclofenamic acid (17), mefenamic acid (13), tolfenamic acid (24)

colfenamate (29), etofenamate (29), prefenamate (36), terofenamate (32), ufenamate (50)

(b) clantifen (24), oxyfenamate (13)

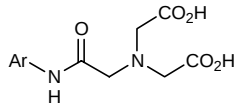
phonetically close: clofenamide (13), diclofenamide (13) (N.1.1.0)

(c) flutiazin (22)

USAN

**-fenin** **diagnostic aids; (phenylcarbamoyl)methyl iminodiacetic acid derivatives**

U.1.0.0

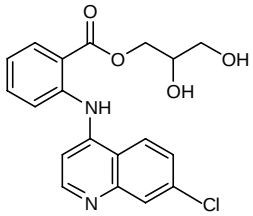



(a) arclofenin (52), butilfenin (41), disofenin (43), etifenin (43), galtifenin (59), lidofenin (39), mebrofenin (47)

USAN

**-fenine phenine** **analgesics, glafenine derivatives (subgroup of fenamic acid group)**

A.4.3.0



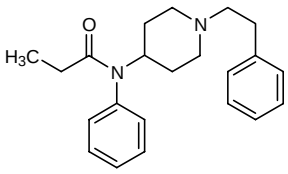

(a) antrafenine (35), floctafenine (24), florifenine (50), glafenine (15), nicafenine (40)

(b) spasmolytic diphenylacetates: adiphenine (1), drofenine (26)
other: buphenine (8) (vasodilator), cinfenine (27) (antidepressant)

USAN

**-fentanil** **narcotic analgesics, fentanyl derivatives**

A.4.1.0



(a) alfentanil (43), brifentanil (62), carfentanil (39), fentanyl (14), lofentanil (43), mirfentanil (64), ocfentanil (61), remifentanil (67), sufentanil (36), trefentanil (67)

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**-fermin** **see -ermin**

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USAN

**-fentrine** **inhibitors of phosphodiesterases**

K.0.0.0

(a) benafentrine (44), pumafentrine (86), tolafentrine (70)

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USAN

**-fiban** **fibrinogen receptor antagonists (glycoprotein IIb/IIIa receptor antagonists)**

I.2.0.0

carafiban (78), elarofiban (83), fradafiban (72), gantofiban (80), lamifiban (72), lefradafiban (75), lotrafiban (78), orbofiban (75), roxifiban (77), sibrafiban (77), tirofiban (73), xemilofiban (74)

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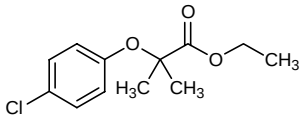
BAN, USAN

**-fibrate (x)** **clofibrate derivatives**

H.4.0.0 (BAN: substances of the clofibrate group)
(USAN: antihyperlipidaemics (clofibrate type))



(a) bezafibrate (35), biclofibrate (28), binifibrate (44), ciprofibrate (36), clinofibrate (39), dulofibrate (43), etofibrate (31), fenirofibrate (49), fenofibrate (35), lifibrate (30), nicofibrate (31), picafibrate (35), ponfibrate (37), ronifibrate (55), salafibrate (41), serfibrate (34), simfibrate (22), sitofibrate (32), tiafibrate (33), timofibrate (40), tocofibrate (33), urefibrate (37), xantifibrate (31)

clofibric acid (20), clofibrate (13), aluminium clofibrate (31), calcium clofibrate (34), cinnarizine clofibrate (38), etofylline clofibrate (38), magnesium clofibrate (3l)

clofibride (28), plafibride (39)

related: beclobrate (35), eniclobrate (39), gemfibrozil (34), halofenate (20), lifibrol (62), metibride (53), terbufibrol (35), tibric acid (33), (fibrafylline (43) deleted)

(b) bromebric acid (25) (prophylaxis of migraine), fibracillin (30) (antibiotic)

(c) nafenopin (24), treloxinate (25)

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**-filermin** **see -ermin**

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USAN

**-flapon** **5-lipoxygenase-activating protein (FLAP) inhibitor**

K.0.0.0
J.0.0.0

quiflapon (72)

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USAN

**-flurane** **halogenated compounds used as general inhalation anaesthetics**

A.1.1.0 (USAN: general inhalation anesthetics (halogenated alkane derivatives))

(a) aliflurane (36), cryofluorane (6), desflurane (62), enflurane (25), isoflurane (28), methoxyflurane (11), norflurane (20), roflurane (12), sevoflurane (25), teflurane (12)

(b) apaflurane (73)

(c) fluroxene (12), halothane (6)

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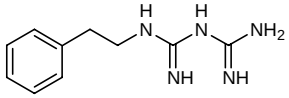
USAN

**-formin (d)** **antihyperglycaemics, phenformin derivatives**

M.5.0.0 (USAN: hypoglycemics (phenformin type))




(a) benfosformin (29), buformin (17), etoformin (34), metformin (21), phenformin (10), tiformin (22)

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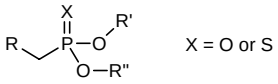
**-fos (-vos)** **insecticides, anthelminthics, pesticides etc., phosphorous derivatives**

S.3.1.0
Y.0.0.0

1. organophosphorous derivatives:




(a) vet. insecticides:

quintiofos (25)

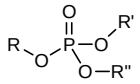
(b) toldimfos (23) (vet. phosphorous source)

(c) vet. insecticides and anthelminthics:

metrifonate (16)

anthelmintic: butonate (30)

2. phosphates:




(a) vet. insecticides:

clofenvinfos (23)

vet. anthelminthics:

bromofenofos (43), dichlorvos (28), naftalofos (16)

anthelminthics:

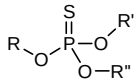
vincofos (28)

(b) triclofos (l3) (hypnotic, sedative)

(c) vet. anthelminthics:

fospirate (21), haloxon (16)

3. phosphorothioates:

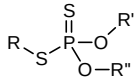


vet. insecticides:

(a) bromofos (25), coumafos (16), fenclofos (23), temefos (31)

(c) dimpylate (16), phoxim (20) (vet. insecticide and anthelmintic), pyrimitate (16)

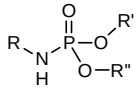
4. phosphorodithioates:



(a) benoxafos (22) (vet. pesticide)

(c) carbofenotion (23) (vet. insecticide), dioxation (l6) (vet. insecticide), (malathion (46) (deleted!))

5. phosphoramidates



crufomate (16), uredofos (37)

anthelminthic:

imcarbofos (44)

**-fos- or fos-** **various pharmacological categories belonging to fos (other than those above):**

***-fos-***
alafosfalin (41), amifostine (44), belfosdil (61), benfosformin (29), butafosfan (38), cifostodine (50), creatinolfosfate (20), dexfosfoserine (68), ferpifosate sodium (69), fosmenic acid (49), fosopamine (69), fosquidone (64), furifosmin (70), monophosphothiamine (8), sodium picofosfate (37), sparfosic acid (46), technetium ($^{99m}$Tc), tetrofosmin (66), trifosmin (74)

***-fosfamide*** alkylating agents of the cyclophosphamide group
canfosfamide (92), cyclophosphamide (10), defosfamide (12), glufosfamide (77), ifosfamide (23), mafosfamide (51), perfosfamide (66), sufosfamide (36), trofosfamide (23)

***-fosine*** cytostatic
edelfosine (59), ilmofosine (56), miltefosine (61), perifosine (78)

***fos-***

fosarilate (53), fosalvudine tidoxil (95), fosazepam (27), foscarnet sodium (42), foscolic acid (12), fosenazide (46), fosfestrol (15), fosfocreatinine (50), fosfomycin (25), fosfonet sodium (35), fosfosal (37), fosfructose (81), fosmidomycin (46), fostedil (51), fostriecin (55)

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**-fovir** **see vir**

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USAN

**-fradil** **calcium channel blockers acting as vasodilators**

F.2.1.0

mibefradil (72)

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**-frine** **see -drine**

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USAN

**-fungin** **antifungal antibiotics (18th Report, l968)**

S.6.0.0 (USAN: antifungal antibiotics (undefined group))
S.4.3.0

(a) abafungin (74), anidulafungin (81), basifungin (72), caspofungin (80), cilofungin (60), fusafungine (15), kalafungin (20), micafungin (84), nifungin (24), oxifungin (40), sinefungin (39), triafungin (40)

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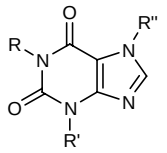
USAN

**-fylline** ***N*-methylated xanthine derivatives**

B.1.0.0 (USAN: theophylline derivatives)




(a) acefylline clofibrol (44), acefylline piperazine (14), albifylline (66), aminophylline (4), apaxifylline (71), arofylline (75), bamifylline (15), cipamfylline (71), denbufylline (55), dimabefylline (19), diniprofylline (18), diprophylline (1), doxofylline (47), enprofylline (44), etamiphylline (6), etofylline (14), etofylline clofibrate (38), fibrafylline (43) (deleted), flufylline (48), fluprofylline (50), furafylline (48), guaifylline (16), isbufylline (62), istradefylline (89), laprafylline (60), lisofylline (72), lomifylline (37), mercurophylline (1), metescufylline (15), mexafylline (48), midaxifylline (79), naxifylline (86), nestifylline (64), pentifylline (29), pentoxifylline (29), perbufylline (58), pimefylline (2l), propentofylline (46), proxyphylline (10), pyridofylline (14), spirofylline (58), stacofylline (73), tazifylline (52), theophylline ephedrine (14), torbafylline (56), triclofylline (19), verofylline (43), visnafylline (24), choline theophyllinate (8), fenetylline (16)

(c) cafedrine (14), dimenhydrinate (1), dimethazan (8), meralluride (1), mercumatilin sodium (4), piprinhydrinate (8), promethazine teoclate (10), protheobromine (14), theodrenaline (14), xantifibrate (31), xantinol nicotinate (16)

radicals and groups: teprosilate (29)

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USAN

**gab** **gabamimetic agents**

E.0.0.0

(a) fengabine (53), gabapentin (46), gabapentin enacarbil (94), gaboxadol (48) (used as analgesic), pivagabine (66), pregabalin (78), progabide (43) (used as antiepileptic), retigabine (76), tiagabine (63), tolgabide (53), vigabatrin (52) (anticonvulsants)

(b) gabexate (35) (proteolytic)

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USAN

**gado-** **diagnostic agents, gadolinium derivatives**

U.0.0.0 (USAN: gadolinium derivatives (principally for diagnostic use))

(a) gadobenic acid (64), gadobutrol (66), gadocoletic acid (85), gadodenterate (91), gadodiamide (63), gadomelitol (85), gadopenamide (60), gadopentetic acid (50), gadoteric acid (59), gadoversetamide (71), gadoxetic acid (71)

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USAN

**-gatran** **thrombin inhibitors, antithrombotic agents**

I.2.0.0 (USAN: thrombin inhibitors (argatroban type))

(a) dabigatran (83), dabigatran etexilate (87), efegatran (71), inogatran (72), melagatran (74), napsagatran (72), sofigatran (95), ximelagatran (84)

(c) argatroban (57)

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**-gene** **gene therapy products**

A two-word name approach has been selected:

| ***Word 1*** | *-gene* | *gene component* |
|---|---|---|
| | *-lim(o)-* | immunomodulators |
| | *-tusu-* | tumour suppression |
| | *-ermin(o)-* | growth factors |
| | *-kin(o)-* | interleukins |
| | *-mul-* | multiple genes |

| | | | |
|---|---|---|---|
| ***Word 2*** | *-vec* | | *vector component is a virus* |
| | | *-lenti-* | lentiviruses |
| | | *-retro-* | other retroviruses |
| | | *-adeno-* | adenoviruses |
| | | *-vari-* | vacciniae |
| | | *-cana-* | canarypox viruses |
| | | *-herpa-* | herpes viruses |
| | *-plasmid* | | *in case the vector is a plasmid* |

In case of naked DNA, there is no need for a second word in the name.
In case of antisense nucleotides, please refer to the already existing stem *-rsen.*

(a) alferminogene tadenovec (95), beperminogene perplasmid (95)

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BAN, USAN

**gest (x)** **steroids, progestogens**

Q.2.2.0 (USAN: -gest-: progestins)

(a) altrenogest (46), anagestone (16), cingestol (20), clogestone (21), clomegestone (20), demegestone (24), desogestrel (38), dexnorgestrel (30), dienogest (49), dydrogesterone (12), edogestrone (22), etonogestrel (65), flugestone (16), gestaclone (23), gestadienol (22), gestodene (37), gestonorone caproate (16), gestrinone (39), haloprogesterone (11), hydroxyprogesterone (8), levonorgestrel (33) (previously dexnorgestrel), medrogestone (15), medroxyprogesterone (10), medoxyprogesterone (10), medrogestone (l5), megestrol (l3), melengestrol (13), metogest (33), norelgestromin (83), norgesterone (14), norgestimate (35), norgestomet (32), norgestrel (17), norgestrienone (18), oxogestone (19), pentagestrone (14), progesterone (4), proligestone (28), promegestone (38), quingestanol (15), quingestrone (13), tigestol (20), tosagestin (86), trengestone (22), trimegestone (66)

(b) algestone (22) (glucorticoid)

(c) allylestrenol (10), chlormadinone (12), cismadinone (12), delmadinone (23), dimethisterone (8), ethisterone (4), ethynerone (17), etynodiol (13), hydromadinone (12), lynestrenol (13), metynodiol (27), norethisterone (6), noretynodrel (13), norvinisterone (10)

clometerone (15) (antiestrogen), dimepregnen (24) (antiestrogen)

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**-gestr-** **see estr**

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USAN

**-giline** **MAO-inhibitors type B**

C.3.1.0

(a) clorgiline (23), mofegiline (69), pargiline (13), rasagiline (70), selegiline (39)

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USAN

**-gillin** **antibiotics produced by *Aspergillus strains* (16th Report, l966)**

S.6.0.0

(a) fumagillin (1), mitogillin (17)

(c) mitosper (24), nifungin (24)

BAN, USAN

**gli (x)** **antihyperglycaemics**
(previously gly-)

M.5.2./3.0 (BAN: sulphonamide hypoglycaemics)
(USAN: gli-: antihyperglycaemics)

(a) **1. sulfonamide derivatives:** gliamilide (33), glibenclamide (18), glibornuride (22), glibutimine (31), glicaramide (28), glicetanile (37), gliclazide (25), (deleted: glidanile (23)), glicondamide (44), glidazamide (24), gliflumide (33), glimepiride (53), glipalamide (62), glipizide (27), gliquidone (28), glisamuride (45), glisentide (58) (previously glipentide (27)), glisindamide (43), glisolamide (43), glisoxepide (24), glybuthiazol (8), glybuzole (15), glyclopyramide (17), glycyclamide (12), glyhexamide (15), glymidine sodium (15), glyoctamide (14), glyparamide (USAN only), glypinamide (13), glyprothiazol (8), glysobuzole (12)

**2. other than sulfonamide derivatives:** camiglibose (67), denagliptin (94), deriglidole (66), emiglitate (55), ingliforib (85), isaglidole (61), linogliride (48), meglitinide (34), midaglizole (57), miglitol (55), mitiglinide (78), naglivan (65), nateglinide (77), pirogliride (40), repaglinide (65), saxagliptin (92), sitagliptin (94), teglicar (91), tibeglisene (64), vildagliptin (90), voglibose (65)

**3. peptide:** seglitide (57)

(b) cromoglicate lisetil (72), cromoglicic acid (18), ioglicic acid (33), ioxaglic acid (37), sulglicotide (29) (treatment of peptic ulcers), tropigline (08)

(c) acetohexamide (12), butadiazamide (10), carbutamide (36), chlorpropamide (8), heptolamide (12), metahexamide (10), palmoxiric acid (48), thiohexamide (12), tolazamide (12), tolbutamide (6), tolpentamide (12), tolpyrramide (13)

**gly-** *prior to revision of the General Principles*
(a) glybuthiazol (08), glybuzole (15), glyclopyramide (17), glycyclamide (13), glyhexamide (15), glymidine sodium (15), glyoctamide (14), glypinamide (13), glyprothiazol (08), glysobuzole (12)

(c) glycerol (4), glycobiarsol (l), glycopyrronium bromide (12)

**-glitazar** **peroxisome proliferator activating receptor (PPAR) agonists** USAN

(USAN: PPAR agonists (not thiazolidene derivatives))

M.5.2.0

(a) aleglitazar (95), cevoglitazar (94), farglitazar (84), imiglitazar (91), muroglitazar (90), naveglitazar (92), oxeglitazar (88), peliglitazar (92), pemaglitazar (92), ragaglitazar (85), reglitazar (87), sipoglitazar (93), sodelglitazar (95), tesaglitazar (85)

**-glitazone** **peroxisome proliferator activating receptor (PPAR) agonists, thiazolidinedione derivatives** USAN

(USAN: PPST agonists (thiazolidene derivatives))

M.5.2.0

(a) ciglitazone (50), balaglitazone (84), darglitazone (69), edaglitazone (91), englitazone (64), lobeglitazone (95), netoglitazone (85), pioglitazone (60), rivoglitazone (87), rosiglitazone (78), troglitazone (69)

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**-glitazar** **see gli**

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**-glitazone** **see gli**

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USAN

**-glumide** **cholecystokinine antagonists, antiulcer, anxiolytic agents**

J.0.0.0/C.1.0.0

(a) proglumide (16), lorglumide (56), tomoglumide (56), loxiglomide (57), dexloxiglumide (65), spiroglumide (70), amiglumide (85), itriglumide (82)

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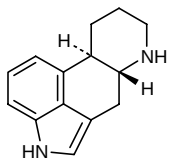
**-golide** **dopamine receptor agonists, ergoline derivatives**

E.1.1.0




(a) adrogolide (82), naxagolide (60), pergolide (41), quinagolide (62), voxergolide (61)

(c) rotigotine (83)

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**-gosivir** **see vir**

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**-gramostim** **see -stim**

**-grastim** **see -stim**

USAN

**-grel-**
**-grel** **platelet aggregation inhibitors**

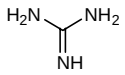
I.2.1.0 (USAN: platelet aggregation inhibitors (undefined group))

(a) anagrelide (42), camonagrel (61), cangrelor (82), clopidogrel (57), dazmegrel (51), furegrelate (53), isbogrel (59), itazigrel (56), midazogrel (53), nafagrel (64), nicogrelate (48), oxagrelate (47), ozagrel (55), pamicogrel (70), parogrelil (94), pirmagrel (53), prasugrel (91), ridogrel (59), rolafagrel (65), samixogrel (72), sarpogrelate (63), satigrel (67), sunagrel (52), terbogrel (75), ticagrelor (95), trifenagrel (53)

USAN

**guan-** **antihypertensives, guanidine derivatives**

H.3.0.0



(a) guanabenz (26), guanacline (l6), guanadrel (20), guanazodine (27), guancidine (18), guanclofine (36), guanethidine (11), guanfacine (35), guanisoquine (15), guanoclor (15), guanoctine (16), guanoxan (15), guanoxabenz (31), guanoxyfen (16), guabenxan (32)

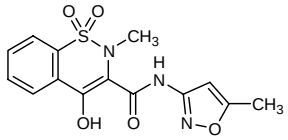
(c) guabenxan (32)

**-ibine** **see -ribine**

USAN

**-icam** **anti-inflammatory, isoxicam derivatives**

A.4.2.0 (USAN: anti-inflammatory agents (isoxicam type))

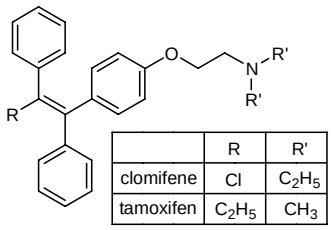


(a) ampiroxicam (56), droxicam (52), enolicam (45), isoxicam (30), lornoxicam (59), meloxicam (52), piroxicam (32), sudoxicam (27), tenoxicam (44), tesicam (25)

USAN

**-ifene** **antiestrogens, clomifene and tamoxifen derivatives**

(Q.2.1.0
L.6.0.0)




| | R | R' |
|---|---|---|
| clomifene | Cl | $C_2H_5$ |
| tamoxifen | $C_2H_5$ | $CH_3$ |

(a) acolbifene (86), clomifenoxide (54), tesmilifene (81)
-oxifene: afimoxifene (95), arzoxifene (80), bazedoxifene (86), droloxifene (53), idoxifene (68), lasofoxifene (81), levormeloxifene (73), miproxifene (74), ormeloxifene (69), pipendoxifene (84), raloxifene (54), tamoxifen (28), trioxifene (41), zindoxifene (54)
-mifene: clomifene (12), enclomifene (33), fispemifene (89), nitromifene (33), ospemifene (85), panomifene (58), toremifene (53), zuclomifene (33)

(b) dextropropoxyphene (7), levopropoxyphene (7), suloxifen (30) (bronchodilator)

(c) nafoxidine (16)

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**-igetide** **see -tide**

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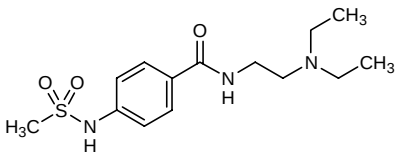
USAN

**-ilide** **class III antiarrhythmics, sematilide derivatives**

H.2.0.0 (USAN: class III antiarrhythmic agents)




(a) ambasilide (59), artilide (67), azimilide (72), dofetilide (65), ersentilide (72), ibutilide (63), ipazilide (62), risotilide (62), sematilide (58), trecetilide (79)

(b) bromacrylide (13), ftaxilide (32), gliamilide (33)

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USAN

**imex (d)** **immunostimulants**

S.7.0.0

(a) azimexon (40), forfenimex (55), imexon (37), roquinimex (53), ubenimex (56)

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USAN

**-imibe** **antihyperlipidaemics, acyl CoA: cholesterol acyltransferase (ACAT) inhibitors**

M.3.0.0

(a) avasimibe (80), eflucimibe (84), eldacimibe (76), ezetimibe (83), lecimibide (70), octimibate (52), pactamibe (89)

USAN

**-imod** **immunomodulators, both stimulant/suppressive and stimulant**

S.7.0.0 (USAN: immunomodulators)

(a) apilimod (95), atiprimod (75), cridanimod (83), defoslimod (79), doramapimod (88), fingolimod (91), esonarimod (79), glaspimod (74), iguratimod (86), imiquimod (66), ivarimod (60), laquinimod (85), paquinimod (94), pidotimod (63), resiquimod (82), semapimod (89), sotirimod (94), susalimod (73), tasquinimod (93), tiprotimod (57)

USAN

**-imus** **immunosuppressants (other than antineoplastics)**

S.7.0.0 (USAN: immunosuppressives)

(a) abetimus (81), anisperimus (82), everolimus (82), gusperimus (68), laflunimus (70), manitimus (93), napirimus (60), pimecrolimus (81), sirolimus (69), tacrolimus (66), temsirolimus (92), tresperimus (75), zotarolimus (94)

**-ine (d)** **alkaloids and organic bases**

(a) 1611 (20.5%) INNs ending in *-ine* in Lists 1-95 of Proposed INNs

**-inostat** **see stat**

BAN, USAN

**io- (x)** **iodine-containing contrast media**

U.1.1.0

(a) iobenzamic acid (14), iobitridol (68), iobutoic acid (20), iocarmic acid (22), iocetamic acid (18), iocanlidic acid (77), iodamide (15), iodecimol (51), iodetryl (1), iodixanol (53), iodophthalein sodium (1), iodoxamic acid (26), iofendylate (12), iofratol (67), ioglicic acid (33), ioglucol (41), ioglucomide (41), ioglunide (40), ioglycamic acid (15), iohexol (43), iolidonic acid (26), iolixanic acid (26), iomeglamic acid (26), iomeprol (54), iomorinic acid (37), iopamidol (40), iopanoic acid (1), iopentol (52), iophenoic acid (4), ioprocemic acid (39), iopromide (44), iopronic acid (28), iopydol (14), iopydone (14), iosarcol (54), iosefamic acid (14), ioseric acid (33), iosimenol (88), iosimide (50), iosulamide (39), iosumetic acid (33), iotalamic acid (13), iotasul (43), iotetric acid (37), iotranic acid (28),

iotriside (60), iotrizoic acid (22), iotrolan (51), iotroxic acid (32), ioversol (56), ioxabrolic acid (53), ioxaglic acid (37), ioxilan (59), ioxitalamic acid (22), ioxotrizoic acid (33), iozomic acid (24)

(c) adipiodone (4), bunamiodyl (10), dimethiodal sodium (1), diodone (1), ethyl cartrizoate (12), methiodal sodium (1), metrizamide (26), pheniodol sodium (1), phenobutiodil (6), propyl docetrizoate (10), propyliodone (1), sodium acetrizoate (4), sodium amidotrizoate (4), sodium diprotrizoate (6), sodium metrizoate (13), sodium tyropanoate (12)

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**iod-)**
**-io-)** **iodine-containing compounds other than contrast media**

**io(d)-/-io-** **radiopharmaceuticals, iodine-contained**

(a) ethiodized oil ($^{131}$I) (24), iobenguane ($^{131}$I) (57), iodofiltic acid ($^{123}$I) (95), iodinated ($^{125}$I) human serum albumin (24), iodinated ($^{131}$I) human serum albumin (24), iodocetylic acid ($^{123}$I) (47), iodocholesterol ($^{131}$I) (39), iofetamine ($^{123}$I) (51), iolopride ($^{123}$I) (73), iomazenil ($^{123}$I) (66), iometin ($^{125}$I), iometin ($^{131}$I) (24), sodium iodide ($^{125}$I) (24), sodium iodide ($^{131}$I) (24), sodium iodohippurate ($^{131}$I) (24), sodium iotalamate ($^{125}$I) (24), sodium iotalamate ($^{131}$I) (24)

(c) fibrinogen ($^{125}$I), macrosalb ($^{131}$I) (33), rose bengal ($^{131}$I) sodium (24), tolpovidone ($^{131}$I) (24)

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USAN

**-irudin** **hirudin derivatives**

I.2.1.0 (USAN: anticoagulants (hirudin type))

bivalirudin (72), desirudin (70), lepirudin (73), pegmusirudin (77)

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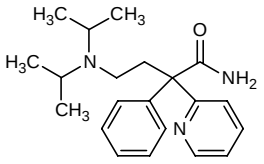
USAN

**-isomide** **antiarrhythmics, disopyramide derivatives**

H.2.0.0




(a) actisomide (60), bidisomide (63), pentisomide (59)

(c) disopyramide (12)

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BAN, USAN

**-ium (x)** **quaternary ammonium compounds**

(USAN: -ium or onium: quaternary ammonium derivatives)

E.3.0.0 **neuromuscular blocking agents with a flexible structure**

(a) azamethonium bromide (1), decamethonium bromide (1), dicolinium iodide (25), dimecolinium iodide (14), fubrogonium iodide (18), hexamethonium bromide (1), mebezonium iodide (16), oxapropanium iodide (1), oxydipentonium chloride (1), pentamethonium bromide (1), pentolonium tartrate (4), prodeconium bromide (6), stilonium iodide (32), suxamethonium chloride (1), suxethonium chloride (1), tetrylammonium bromide (1), tiametonium iodide (15), trepirium iodide (25)

(c) gallamine triethiodide (1)

E.3.0.0 **neuromuscular blocking agents with rigid structure**

(USAN: -curium, also curonium; neuromuscular blocking agents; quaternary ammonium derivatives)

(a) -curonium: alcuronium chloride (17), candocuronium iodide (70), dacuronium bromide (21), pancuronium bromide (19), pipecuronium bromide (69), rapacuronium bromide (78), rocuronium bromide (66), stercuronium iodide (21), vecuronium bromide (46)

-curium (d) (curare-like substances): atracurium besilate (42) , cisatracurium besilate (73), doxacurium chloride (58), gantacurium chloride (91), mivacurium chloride (58), truxicurium iodide (22), truxipicurium iodide (22)

-others: dimethyltubocurarinium chloride (1), fazadinium bromide (32), hexafluronium bromide (12), laudexium metilsulfate (4), pentacynium chloride (6), phenactropinium chloride (8), piprocurarium iodide (11), thiazinamium metilsulfate (37), trimethidinium methosulfate (8)

(c) tubocurarine chloride (1)

E.1.0.0 **cholinergic agents**

(a) aclatonium napadisilate (44), ambenonium chloride (6), benzpyrinium bromide (1), carpronium chloride (23), demecarium bromide (10), furtrethonium iodide (1)

(c) acetylcholine chloride (4), charbacol (4), choline alfoscerate (29), choline chloride (4), choline gluconate (1), choline salicylate (15) (analgesic), choline theophyllinate (8) (smooth muscle relaxant), methacholine chloride (1), nitricholine perchlorate (6) (antihypertensive), distigmine bromide (16), ecothiopate iodide (6), neostigmine bromide (4), obidoxime chloride (16), pralidoxime iodide (10), pyridostigmine bromide (6)

E.2.0.0 **anticholinergic agents**

(a) aclidinium bromide (95), benzilonium bromide (13), benzopyrronium bromide (12), beperidium (57), bevonium metilsulfate (19), butropium bromide (30), ciclonium bromide (19), ciclotropium bromide (50), cimetropium bromide (51), clidinium bromide (6), cyclopyrronium bromide (12), dimetipirium bromide (37), diponium bromide (15), dotefonium bromide (24), droclidinium bromide (33), emepronium bromide (18), etipirium iodide (22), fenclexonium metilsulfate (20), fenpiverinium bromide (26), fentonium bromide (29), flutropium bromide (50), glycopyrronium bromide (12), heteronium bromide (14), hexasonium iodide (15), hexocyclium metilsulfate (6), hexopyrronium bromide (13), ipratropium bromide (31), methanthelinium bromide (1), methylbenactyzium bromide (34), metocinium iodide (26), nolinium bromide (37), otilonium bromide (38), oxapium iodide (26), oxitefonium bromide (18), oxitropium bromide (36), oxyphenonium bromide (1), oxypyrronium bromide (13), oxysonium iodide (15), pentapiperium metilsulfate (26), prifinium bromide (20), ritropirronium bromide (33), sintropium bromide (47), sultroponium (18), tematropium metilsulfate (64), tiemonium iodide (13), timepidium bromide (29), tiotropium bromide (67), tiquizium bromide (47), trantelinium bromide (24), trospium chloride (25), xenytropium bromide (15)

(c) atropine methonitrate (4), buzepide metiodide (14), chlorisondamine chloride (6), diphemanil metilsulfate (4), homatropine methylbromide (1), isopropramide iodide (8), mepenzolate bromide (10), octatropine methylbromide (10), parapenzolate bromide (14), pipenzolate bromide (6), poldine metilsulfate (11), propantheline bromide (1), propyromazine bromide (12), tridihexethyl iodide (6), tropenziline bromide (11), thihexinol methylbromide (1), tricyclamol chloride (4)

S.2.3.0 **surfactants used as antibacterials and antiseptics**

(a) acriflavinium chloride (1), amantanium bromide (39), benzalkonium chloride (1), benzethonium chloride (1), benzododecinium chloride (1), benzoxonium chloride (36), cefalonium (16), cefmepidium chloride (57), cetalkonium chloride (15), cethexonium chloride (36), cetrimonium bromide (1), cetylpyridinium chloride (1), chlorphenoctium amsonate (8), deditonium bromide (15), denatonium benzoate (15), dequalinium chloride (8), disiquonium chloride (55), dodeclonium bromide (16), dofamium chloride (21), fludazonium chloride (33), furazolium chloride (15), halopenium chloride (10), hedaquinium chloride (8), lapirium chloride (27), lauralkonium chloride (62), laurcetium bromide (70), laurolinium acetate (12), mecetronium etilsulfate (51), metalkonium chloride (60), methylbenzethonium chloride (1), methylrosanilinium chloride (1), methylthioninium chloride (1), miripirium chloride (63), miristalkonium chloride (41), octafonium chloride (16), opratonium iodide (76), penoctonium bromide (20), pirralkonium bromide (19), polidronium chloride (67), polixetonium chloride (70), prolonium iodide (14), sanguinarium chloride (68), sepazonium chloride (34), tetradonium bromide (18), tibezonium iodide (32), tiodonium chloride (36), toliodium chloride (36), toloconium metilsulfate (17), tonzonium bromide (14), triclobisonium chloride (10)

(c) domiphen bromide (23)

**other agents**

alagebrium chloride (91), amezinium metilsulfate (36), amprolium chloride (16), azaspirium chloride (25), bephenium hydroxynaphthoate (11), bibenzonium bromide (12), bidimazium iodide (27), bretylium tosilate (10), butopyrammonium iodide (8), carcainium chloride (36), clofilium phosphate (42), datelliptium chloride (57), detajmium bitartrate (34), dibrospidium chloride (51), ditercalinium chloride (49), edrophonium chloride (4), elliptinium acetate (43), emilium tosilate (37), famiraprinium chloride (58), feniodium chloride (23), gallium ($^{67}$Ga) citrate (33), homidium bromide (36), isometamidium chloride (18), mefenidramium metilsulfate (52), meldonium (86), mequitamium iodide (61), nolpitantium besilate (75), pinaverium bromide (32), pirdonium bromide (28), prajmalium bitartrate (23), pranolium chloride (32), pretamazium iodide (29), propagermanium (65), prospidium chloride (22), pyritidium bromide (16), pyrvinium chloride (6), quindonium bromide (14), quinuclium bromide (40), repagermanium (63), rimazolium metilsulfate (26), roxolinium metilsulfate (33), samarium ($^{153}$Sm) lexidronam (74), sevitropium mesilate (56), spirogermanium (43), stilbazium iodide (13), thenium closilate (12), tipetropium bromide (42), tolonium chloride (4), trazium esilate (54), trethinium tosilate (14), troxonium tosilate (13), troxypyrrolium tosilate (13)

(c) alazanine triclofenate (13) (anthelminthic), colfosceril palmitate (64) (pulmonary surfactant), dithiazanine iodide (8) (anthel-minthic), hexadimethrine bromide (8) (heparin antagonist)

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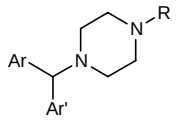
**-izine (-yzine)** **diphenylmethyl piperazine derivatives**




(a) antihistaminics: G.2.0.0: buclizine (4), cetirizine (51), chlorcyclizine (1), clocinizine (15), cyclizine (1), efletirizine (71), elbanizine (60), flotrenizine (48), levocetirizine (78), pibaxizine (62), trenizine (48)

homochlorcyclizine (10) (serotonin antagonist)

tranquillizers: etodroxizine (18), hydroxyzine (6)

various: benderizine (40) (antiarrhythmic), decloxizine (19) (respiratory insufficiency), ropizine (36) (anticonvulsant)

**-rizine** **antihistaminics/cerebral (or peripheral) vasodilators**

belarizine (36), buterizine (42), cinnarizine (11), dotarizine (50), flunarizine (22), lifarizine (66), tagorizine (72), tamolarizine (66), trelnarizine (62)

chemically related: pipoxizine (32) (respiratory insufficiency)

(b) phenothiazine derivatives: chloracyzine (12) (vasodilator), fluacizine (25) (sedative), moracizine (25) (antiarrhythmic), tiracizine (62) (antiarrhythmic)

benzilate esters: benactyzine (6) (tranquillizer), benaprizine (26) (anti-parkinsonian)

phenylpiperazine: dimetholizine (10) (antiallergic), dropropizine (18)/levodropropizine (64) (antitussive)
antibiotic "cef": cefatrizine (34)

pyrazine derivatives: ampyzine (15) (central nervous stimulant), triampyzine (15) (anticholinergic)

indoloquinolines (anticholinergic): metoquizine (17), toquizine (17)

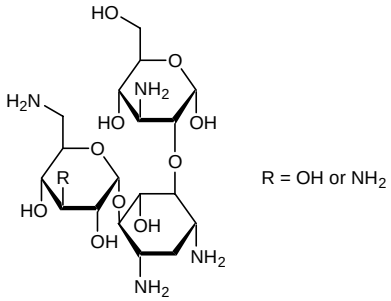
(c) medibazine (16)

---

USAN

**-kacin** **antibiotics, kanamycin and bekanamycin derivatives (obtained from *Streptomyces kanamyceticus*)**

S.6.3.0 (USAN: antibiotics obtained from *Streptomyces kanamyceticus* (related to kanamycin))




(a) amikacin (30), arbekacin (56), butikacin (4l), dibekacin (31), propikacin (43)

(c) bekanamycin (24), kanamycin (10)

other aminoglycoside antibiotics:

*Strept. griseus*: dihydrostreptomycin (1) (semisynthetic), streptomycin (1), streptoniazid (13) (semisynthetic)

*Strept. tenebrarius*: apramycin (31), nebramycin (19) (mixture of several antibiotics, including apramycin and tobramycin), tobramycin (28)

*Bacillus circularis*: butirosin (25)

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USAN

**-kalant** **potassium channel blockers**

(USAN: potassium channel antagonists)

H.2.0.0

(a) adekalant (83), almokalant (64), clamikalant (81), inakalant (95), nifekalant (75), terikalant (66), pinokalant (82)

BAN, USAN

**-kalim** **potassium channel activators, antihypertensive**

(USAN: potassium channel agonists)

H.3.0.0

(a) aprikalim (64), bimakalim (64), cromakalim (58), levcromakalim (66), emakalim (66), mazokalim (75), rilmakalim (65), sarakalim (81)

USAN

**-kef-** **enkephalin agonists**

(USAN: enkephalin agonists (various indications))

casokefamide (65), frakefamide (81), metkefamide (44)

USAN

**-kin** **interleukin type substances**

S.7.0.0

(a)

| | | |
|---|---|---|
| IL-1 : | *-nakin* | interleukin-1 analogues and derivatives<br>*-onakin:* interleukin-1 α analogues and derivatives: pifonakin (77)<br>*-benakin:* interleukin-1 β analogues and derivatives: mobenakin (72) |
| IL-2 : | *-leukin* | interleukin-2 analogues and derivatives: adargileukin alfa (89), aldesleukin (63), celmoleukin (65), denileukin diftitox (78), teceleukin (54)<br><br>pegaldesleukin (67), tucotuzumab celmoleukin (95) |
| IL-4 : | *-trakin* | interleukin-4 analogues and derivatives: binetrakin (82) |
| IL-6 : | *-exakin* | interleukin-6 analogues and derivatives: atexakin alfa (72) |
| IL-8 : | *-octakin* | interleukin-8 analogues and derivatives: emoctakin (74) |
| IL-10 : | *-decakin* | interleukin-10 analogues and derivatives: ilodecakin (81) |

IL-11 : *-elvekin* interleukin-11 analogues and derivatives: oprelvekin (76)

IL-12 : *-dodekin* interleukin-12 analogues and derivatives: edodekin alfa (79)

IL-13: *-tredekin* interleukin-13 analogues and derivatives: cintredekin besudotox (92)

IL-18 : *-octadekin* interleukin-18 human analogues and derivatives: iboctadekin (92)

tadekinig alfa (90) (fraction of IL-18 human)

(c) IL-3: *-plestim***:** interleukin-3 analogues and derivatives:
muplestim (72), daniplestim (76)

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*-kinra* **interleukin receptor antagonists**

IL-1 *-nakinra* interleukin-1 receptor antagonists: anakinra (72)

IL-4 *-trakinra* interleukin-4 receptor antagonists: pitrakinra (84)

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USAN

**-kiren** **renin inhibitors**

H.3.0.0

(a) aliskiren (83), ciprokiren (69), ditekiren (62), enalkiren (61), remikiren (66), terlakiren (66), zankiren (70)

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**-leukin** **see -kin**

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**-listat** **see -stat**

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USAN

**-lubant** **leukotriene $B_4$ receptor antagonists**

(USAN: leukotriene receptor antagonists (treatment of inflammatory skin disorders))

U.3.0.0

(a) amelubant (85), moxilubant (78), ticolubant (76)

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**-lukast** **leukotriene receptor antagonists, see -ast**

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BAN, USAN

**-mab** **monoclonal antibodies** (see also Annex)

S.7.0.0

*-amab* rat origin

*-emab* hamster origin

*-imab* primate origin

*-omab* **mouse origin:**

*ba(c)* bacterial: edobacomab (69)

*co(l)* colon: edrecolomab (74), nacolomab tafenatox (71)

*go(v)* ovary (tumours): abagovomab (95), igovomab (74), oregovomab (86)

*li(m)* lymphocyte: afelimomab (72), dorlimomab aritox (66), elsilimomab (89), enlimomab (70), enlimomab pegol (77), faralimomab (76), gavilimomab (84), inolimomab (71), maslimomab (66), nerelimomab (76), odulimomab (73), telimomab aritox (66), vepalimomab (80), zolimomab aritox (69)

*ci(r)* cardiovascular: biciromab (66), imciromab (66)

*le(s)* inflammatory lesions: besilesomab (92), lemalesomab (84), sulesomab (75), technetium ($^{99m}$Tc) fanolesomab (86)

*pr(o)* tumour (prostate): capromab (70)

*tu(m)* tumour (miscellaneous): anatumomab mafenatox (79), arcitumomab (74), altumomab (68), bectumomab (75), detumomab (70), epitumomab (82), epitumomab cituxetan (89), ibritumomab tiuxetan (81), minretumomab (80), mitumomab (82), satumomab (67), taplitumomab paptox (84), technetium ($^{99m}$Tc) nofetumomab merpentan (76), technetium ($^{99m}$Tc) pintumomab (75), tositumomab (80)

*Others:* catomaxomab (92), ertumaxomab (92)

*-umab* **human origin:**

*ba(c)* bacterial: nebacumab (66), raxibacumab (92)

*fung* fungal: efungumab (95)

*li(m)* immunomodulator: adalimumab (82), adecatumumab (90), atorolimumab (80), golimumab (91), belimumab (89), bertilimumab (88), ipilimumab (94),

lerdelimumab (83), metelimumab (86), morolimumab (79), pritumumab (89), ticilimumab (94), zanolimumab (90), ziralimumab (84)

*os* bone: denosumab (94)

*tu(m)* tumour: iratumumab (94), lexatumumab (95), mapatumumab (93), ofatumumab (93), panitumumab (91), votumumab (70), zalutumumab (93)

*vi(r)* viral: exbivirumab (91), libivirumab (91), regavirumab (71), sevirumab (66), tuvirumab (66)

*Other:* stamulumab (94)

*-ximab* **chimeric origin**

*ba(c)* bacterial: pagibaximab (93)

*ci(r)* cardiovascular: abciximab (70), volociximab (93)

*li(m)* immunomodulator: basiliximab (76), clenoliximab (77), galiximab (89), infliximab (77), keliximab (76), lumiliximab (90), priliximab (72), teneliximab (87), vapaliximab (87)

*me(l)* melanoma: ecromeximab (87)

*tu(m)* tumor: bavituximab (95), cetuximab (82), rituximab (77)

(c) muromonab CD3 (59)

*-zumab* **humanized origin**

*anib* angiogenesis inhibitor: ranibizumab (90)

*ba(c)* bacterial: tefibazumab (92)

*ci(r)* cardiovascular: bevacizumab (83), tadocizumab (94)

*li(m)* lymphocyte: apolizumab (87), aselizumab (88), certolizumab pegol (90), daclizumab (78) (previously: dacliximab), eculizumab (87), efalizumab (85), erlizumab (84), fontolizumab (87), mepolizumab (81), natalizumab (79), ocrelizumab (94), omalizumab (84), palivizumab (79), pascolizumab (87), pexelizumab (85), reslizumab (85), rovelizumab (81), ruplizumab (83), siplizumab (87), talizumab (89), tocilizumab (90), toralizumab (87), visilizumab (84)

*toxa* toxin as target: urtoxazumab (90)

*tu(m)* tumor: (miscellaneous): alemtuzumab (83), bivatuzumab (83), cantuzumab mertansine (89), cedelizumab (77), epratuzumab (82), gemtuzumab (83),

inotuzumab ozogamicin (92), labetuzumab (85), lintuzumab (76), matuzumab (88), pertuzumeb (89), sibrotuzumab (81), tucotuzumab celmoleukin (94), trastuzumab (78), yttrium ($^{90}$Y) tacatuzumab tetraxetan (93)

*vi(r)* viral: felvizumab (77), motavizumab (95)

*Other:* bapineuzumab (93)

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USAN

**-mantadine**
**-mantine**
**-mantone** **adamantane derivatives**

(USAN: -mantadine or -mantine: antivirals/antiparkinsonians (adamantane derivatives))

(a) antiviral: S.5.3.0: amantadine (15), rimantadine (17), somantadine (51), tromantadine (28)

antiparkinsonian: E.2.0.0: carmantadine (31), dopamantine (31), memantine (35)

immunostimulant: S.7.0.0: idramantone (71)

(b) anthelminthic: S.3.l.0: dimantine (14)

(c) adafenoxate (48) (nootropic agent), adamexine (36) (mucolytic), adapalene (64) (antiacne agent), adaprolol (63) (ß-adrenoreceptor antagonist), adatanserin (70) (serotonin receptor antagonist), amantanium bromide (39) (disinfectant), amantocillin (17) (antibiotic), bolmantalate (16) (anabolic), meclinertant (88) (neurotensin antagonist), mantabegron (88) ($\beta_3$-adrenoreceptor agonist), saxagliptin (92) (antidiabetic), vildagliptin (90) (antidiabetic)

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**-mastat** **see -stat**

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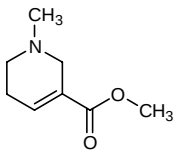
USAN

**-meline** **cholinergic agents (muscarine receptor agonists/partial antagonists used in the treatment of Alzheimer's disease)**

E.1.0.0 (USAN: cholinergic agonists (arecoline derivatives used in the treatment of Alzheimer's disease))




alvameline (79), cevimeline (76), itameline (71), milameline (74), sabcomeline (76), tazomeline (77), xanomeline (70)

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| | |
|---|---|
| **mer- or -mer- (d)** | **[1]mercury-containing drugs, antimicrobial or diuretic (deleted from General Principles in List 28 prop. INN)** |
| (a) | S.2.2.0 antimicrobial: meralein sodium (13), merbromin (1), mercurobutol (1), otimerate sodium (51), phenylmercuric borate (4), sodium timerfonate (13), thiomersal (1)<br><br>[1]*mer-* and *-mer-* can be used for any type of substances and are no longer restricted to use in INNs for mercury-containing drugs (18th Consultation on INNs 1988)<br><br>N.1.3.0 diuretic: chlormerodrin (4), chlormerodrin ($^{197}$Hg) (24), meralluride (1), mercaptomerin (1), mercuderamide (1), mercumatilin sodium (4), mercurophylline (1), merisoprol ($^{197}$Hg) (24) (diagnostic), mersalyl (4) |
| (b) | difemerine (17) (spasmolytic), dimercaprol (1) (antidote, -SH group), lomerizine (68), (cerebral vasodilator), mercaptopurine (6) (cytostatic, -SH group), nifurmerone (16), pemerid (25)<br><br>suxemerid (25) (antitussive) |
| (c) | hydrargaphen (10) |

| | USAN |
|---|---|
| **-mer** | **polymers** |
| (a) | amilomer (33), cadexomer (60), carbetimer (50), carbomer (21), crilanomer (53), dextranomer (33), eldexomer (51), exatecan alideximer (89), hemoglobin glutamer (80), hemoglobin raffimer (89), leuciglumer (68), maletamer (14), poloxamer (34), porfimer sodium (64), sevelamer (77), surfomer (44), zinostatin stimalamer (74) |
| (b) | succimer (42) |

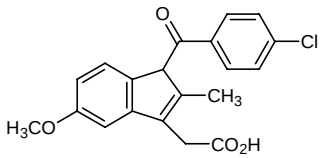
| | USAN |
|---|---|
| **-mesine** | **sigma receptor ligands** |
| | igmesine (68), panamesine (73), siramesine (81) |

| | USAN |
|---|---|
| **-mestane** | **aromatase inhibitors** |
| L.0.0.0 /Q.2.1.0 | (USAN: antineoplastics, aromatase inhibitors)<br><br>exemestane (65), formestane (66), minamestane (64) |

BAN; USAN

**-metacin (x)** **anti-inflammatory, indometacin derivatives**

A.4.2.0 (BAN: anti-inflammatory substances of the indomethacin group)
(USAN: -metacin: anti-inflammatory substances (indomethacin type))




(a) acemetacin (32), cinmetacin (24), clometacin (27), delmetacin (48) (originally demetacin (42)), duometacin (27), glucametacin (32), indometacin (13), niometacin (33), oxametacin (37), pimetacin (47), proglumetacin (35), sermetacin (36), talmetacin (46), zidometacin (39)

other anti-inflammatory, indole derivatives: etoprindole (22), indopine (12), indoxole (17), nictindole (28)

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**-met(h)asone** **see pred**

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USAN

**-micin** **antibiotics obtained from various *Micromonospora***

(S.6.5.0) (USAN: antibiotics (*Micromonospora* strains))

astromicin (44), betamicin (38), etisomicin (47), evernimicin (82), gentamicin (22), isepamicin (54), maduramicin (52), megalomicin (37), micronomicin (45), mirosamicin (58), netilmicin (36), ozogamicin (83), pentisomicin (41), repromicin (37), rosaramicin (41) (prev. rosamicin), semduramicin (60), sisomicin (25)

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**-mifene** **see -ifene**

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**mito- (d)** **antineoplastics, nucleotoxic agents (deleted from General Principles in List 24 prop. INN)**

L.0.0.0

(a) mitobronitol (20), mitocarcin (25), mitoclomine (18), mitoflaxone (60), mitogillin (17), mitoguazone (20), mitolactol (26), mitomalcin (19), mitomycin (26), mitonafide (40), mitopodozide (17), mitoquidone (54), mitosper (24), mitotane (21), mitotenamine (17), mitoxantrone (44), mitozolomide (51)

(c) mitindomide (48)

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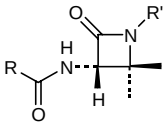
USAN

**-monam** **monobactam antibiotics**

S.6.0.0



(a) carumonam (51), gloximonam (54), oximonam (54), pirazmonam (58), tigemonam (57)

(c) aztreonam (48)

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**-morelin** **see -relin**

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USAN

**-mostim** **see -stim**

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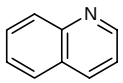
USAN

**-motine** **antivirals, quinoline derivatives (19th Report l970)**

S.5.3.0 (USAN: antivirals (quinoline derivatives))



(a) famotine (23), memotine (22)

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USAN

**-moxin (d)** **monoamine oxidase inhibitors, hydrazine derivatives**

C.3.l.0

(a) benmoxin (20), cimemoxin (17), domoxin (14), octamoxin (15)

(c) carbenzide (11), etryptamine (12), fenoxypropazine (12), iproclozide (13), iproniazid (1), isocarboxazid (11), mebanazine (15), nialamide (10), pargyline (13), phenelzine (10), pheniprazine (11), tranylcypromine (11)

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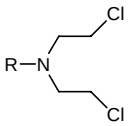
USAN

**-mustine** **antineoplastic, alkylating agents, (β-chloroethyl)amine derivatives**

L.2.0.0 (USAN: antineoplastic agents (chlorethylamine derivatives))



(a) alestramustine (68), ambamustine (60), atrimustine (61), bendamustine (48), bofumustine (44), carmustine (24), ditiomustine (49), ecomustine (61), elmustine (49), estramustine (24), fotemustine (57), galamustine (61), lomustine (27), mannomustine (8), neptamustine (48) (originally pentamustine (45)), nimustine (37), prednimustine (31), ranimustine (55), semustine (27), spiromustine (47), tallimustine (68), tauromustine (50), uramustine (13)

(c) canfosfamide (92), chlorambucil (6), chlormethine (1), chlornaphazine (1), cyclophosphamide (10), defosfamide (12), glufosfamide (77), ifosfamide (23), mafosfamide (51), melphalan (8), metamelfalan (41), mitoclomine (18), mitotenamine (17), perfosfamide (66), sarcolysin (17), sufosfamide (36), trichlormethine (11), trofosfamide (23)

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BAN, USAN

**-mycin (x) antibiotics, produced by *Streptomyces* strains (see also -kacin)**

S.6.0.0 (USAN: antibiotics, *Streptomyces* strains)

(a) amfomycin (12), antelmycin (15), apramycin (31), avilamycin (46), azalomycin (26), azithromycin (58), bambermycin (21), bekanamycin (24), berythromycin (26), bicozamycin (38), biniramycin (23), bluensomycin (14), capreomycin (12), carbomycin (1), cethromycin (87), clarithromycin (59), clindamycin (21), coumamycin (15), daptomycin (58), dihydrostreptomycin (1), diproleandomycin (33), dirithromycin (53), efrotomycin (53), endomycin (6), enramycin (23), enviomycin (31), erythromycin (4), estomycin (14 - deleted in List 28), flurithromycin (51), fosfomycin (25), fosmidomycin (46), gamithromycin (95), ganefromycin (68), hachimycin (23), heliomycin (25), hydroxymycin (8 - deleted in List 28), josamycin (23), kanamycin (10), kitasamycin (13), laidlomycin (61), lexithromycin (65), lincomycin (13), lividomycin (32), maridomycin (32), midecamycin (30), mikamycin (17), mirincamycin (31), mocimycin (28), natamycin (15), nebramycin (19), neomycin (1), neutramycin (15), oleandomycin (6), paldimycin (55), paromomycin (10), paulomycin (47), pirlimycin (47), primycin (38), pristinamycin (12), ranimycin (20), relomycin (15), ribostamycin (27), rifamycin (13), rokitamycin (53), roxithromycin (54), salinomycin (37), sedecamycin (55), spectinomycin (13), spiramycin (6), stallimycin (30), steffimycin (20), streptomycin (1), telithromycin (80), terdecamycin (65), tobramycin (28), troleandomycin (24), trospectomycin (53), tulathromycin (87) (vet.), vancomycin (6), viomycin (4), virginiamycin (l8)

antibiotics, antineoplastics:
ambomycin (13), antramycin (17), azotomycin (13), bleomycin (23), cactinomycin (15), dactinomycin (18), duazomycin (13), lucimycin (13), mitomycin (26), nogalamycin (16), olivomycin (18), peliomycin (15), peplomycin (44), plicamycin (50) (previously mithramycin (16)), porfiromycin (15), puromycin (15), rufocromomycin (12), sparsomycin (13), talisomycin (41)

antibiotics, antineoplastics, antibacterial:
cirolemycin (21)

antibiotic, antifungal:
hamycin (17), lidimycin (20), rutamycin (14)

(c) antibiotic, antibacterial:
aspartocin (11), azidamfenicol (14), cetofenicol (14), chloramphenicol (1), cloramfenicol pantotenate complex (14), cycloserine (6), novobiocin (6), ostreogrycin (6), rifamide (15), rifampicin (17), streptoniazid (13), streptovarycin (6), thiamphenicol (10), tylosin (16)

antibiotic, antifungal:
amphotericin B (10), candicidin (17), filipin (20), kalafungin (20), nystatin (6), viridofulvin (16)

antibiotic, antineoplastic:
daunorubicin (20), mitomalcin (19), streptonigrin (14) (deleted in List 33)

see also -rubicin

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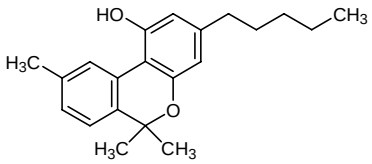
USAN

**nab** **cannabinol derivatives**

(USAN: -nab; or -nab-: cannabinol derivatives)




(a) cannabinol (23), dronabinol (51), menabitan (49), nabazenil (49), nabilone (49), nabitan (42), naboctate (45), nonabine (47), pirnabin (41), rimonabant (83), tinabinol (49)

(b) fenabutene (26), guanabenz (26), muromonab-CD3 (59), nabumetone (44)

---

**-nakin** **see -kin**

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**-nakinra** **see -kinra**

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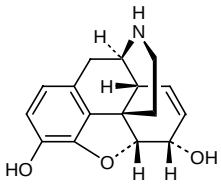
USAN

**nal-** **narcotic antagonists/agonists related to normorphine**

A.4.1.0
B.2.0.0

(USAN: arcotic agonists or antagonists (normorphine type))




a) nalbuphine (21), nalfurafine (87), nalmefene (49) (originally nalmetrene (47)), nalmexone (19), nalorphine (1), naloxone (13), naltrexone (29)

(b) nalidixic acid (13)

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**-naritide** **see -tide**

**-navir** **see vir**

**-nermin** **see -ermin**

**-nercept** **tumour necrosis factor antagonist**

etanercept (81), lenercept (72), onercept (82), pegsunercept (87)

**-nertant** **see -tant**

**-netant** **see -tant**

**-nicate** **see nico-**

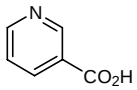
USAN

**-nicline** **nicotinic acetylcholine receptor partial agonists / agonists**

E.1.1.2

(a) altinicline (82), dianicline (93), ispronicline (93), rivanicline (93), tebanicline (86), varenicline (89)

**nico- or nic- or ni-** **nicotinic acid or nicotinoyl alcohol derivatives**




**nico**-: nicoboxil (43), nicoclonate (29), nicocodine (12), nicocortonide (40), nicodicodine (15), nicofibrate (31), nicofuranose (14), nicofurate (28), nicomol (23), nicomorphine (7), nicopholine (1), nicorandil (44), nicothiazone (10), nicotinamide (4), nicotinic acid (4), nicotredole (72), nicoxamat (44), nikethamide (4)

inositol nicotinate (16), xantinol nicotinate (16)

**nic**-: nicafenine (40), nicainoprol (46), nicametate (15), nicardipine (42), nicanartine (72), nicergoline (26), niceritrol (23), niceverine (15), nictindole (28), nizofenone (44)

**ni**-: nialamide (10), niaprazine (24), nifenazone (15), niometacin (33), niprofazone (29), nixylic acid (17)

**-nicate**: **antihypercholesterolaemic and/or vasodilating nicotinic acid esters**

H.4.0.0
F.2.2.0

(a) ciclonicate (33), derpanicate (58), estrapronicate (34), glunicate (51), hepronicate (22), micinicate (44), pantenicate (56), sorbinicate (33)

(b) nitrile derivative: nimazone (21)
other: nifungin (24), nimidane (34), nisbuterol (38)

(c) **$NO_2$ - derivatives**: acenocoumarol (6) (anticoag.), azathioprine (12) and tiamiprine (15) (antimetabolites), bronopol (14) (antiseptic), chloramphenicol (1) (antibiotic), clonazepam (22) (sed.), flurantel (25) (anthelmintic), flutamide (33) (nonsteroid anti-androgen)

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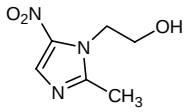
BAN, USAN

**-nidazole (x)** **antiprotozoals and radiosensitizers, metronidazole derivatives**

S.3.3.0 (USAN: antiprotozoal substances (metronidazole type))
Y.0.0.0




(a) abunidazole (52), azanidazole (38), bamnidazole (37), benznidazole (31), carnidazole (32), doranidazole (90), etanidazole (57), fexinidazole (37), flunidazole (21), ipronidazole (21), metronidazole (11), misonidazole (38), moxnidazole (33), ornidazole (28), panidazole (24), pimonidazole (57), pirinidazole (32), propenidazole (45), ronidazole (18), satranidazole (48), secnidazole (30), sulnidazole (33), ternidazole (34), tinidazole (21), tivanidazole (48)

(c) dimetridazole (17), nimorazole (22), stirimazole (25)

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**-nidine** **see -onidine**

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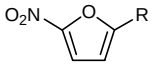
USAN

**nifur- (d)** **5-nitrofuran derivatives**

S.2.1.0




(a) nifuradene (16), nifuraldezone (17), nifuralide (34), nifuratel (17), nifuratrone (24), nifurdazil (16), nifurethazone (10), nifurfoline (20), nifurimide (18), nifurizone (22), nifurmazole (22), nifurmerone (16), nifuroquine (36), nifuroxazide (14), nifuroxime (11), nifurpipone (20), nifurpirinol (22), nifurprazine (16), nifurquinazol (18), nifursemizone

(16), nifursol (20), nifurthiazole (14), nifurtimox (21), nifurtoinol (36), nifurvidine (17), nifurzide (37)

(c) furalazine (13), furaltadone (17), furazolidone (13), furazolium chloride (15), furmethoxadone (8), levofuraltadone (17), nidroxyzone (6), nihydrazone (10), nitrofural (1), nitrofurantoin (11), thiofuradene (11)

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**-nil** **see -azenil, also for -carnil, -quinil**

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**nitro- or nitr- or nit- or ni- or -ni-** **$NO_2$ - derivatives**

**nifur**- all INN of this series (see under nifur-)

**nitro**-: nitroclofene (41), nitrocycline (14), nitrodan (15), nitrofural (1), nitrofurantoin (11), nitromifene (33), nitroscanate (33), nitrosulfathiazole (1), nitroxinil (19), nitroxoline (15)

**nitr**-: nitracrine (35), nitrafudam (40), nitramisole (33), nitraquazone (53), nitrazepam (16), nitrefazole (46), nitricholine perchlorate (6)

**nit- and -nit**-: nitarsone (17), ranitidine (41)

**ni**-: nibroxane (35), niclofolan (20), niclosamide (13), nidroxyzone (6), nifenalol (22), nihydrazone (10), nimesulide (44), nimorazole (22), niridazole (17)

**ni-dipine**: nicardipine (42), nifedipine (27), niludipine (38), nisoldipine (42), nitrendipine (42), vatamidipine (77)

**-nidazole**: for INNs of this series see under –nidazole

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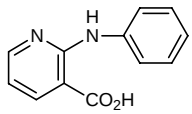
USAN

**-nixin** **anti-inflammatory, anilinonicotinic acid derivatives**

A.4.2.0




(a) butanixin (32), clonixin (22), diclonixin (31), flunixin (31), isonixin (34), metanixin (31)

(c) clonixeril (22), niflumic acid (17), nixylic acid (17)

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**(-)nonacog** **see -cog**

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**-octakin** **see -akin**

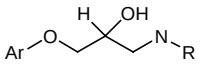
**(-)octocog** **see -cog**

**-ol (d)** **for alcohols and phenols (deleted from General Principles in l4th Report)**

BAN; USAN

**-olol (x)** **β-adrenoreceptor antagonists**

E.5.2.0 (BAN: beta-adrenoreceptor antagonists)
(USAN: beta-blockers (propranolol type))



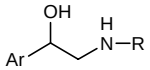

aromat. ring -O-$CH_2$-CHOH-$CH_2$-NH-R

(a) acebutolol (28), adaprolol (63), adimolol (50), afurolol (40), alprenolol (19), ancarolol (47), arnolol (56), arotinolol (48), atenolol (33), befunolol (39), betaxolol (40), bevantolol (36), bisoprolol (48), bometolol (42), bopindolol (42), bornaprolol (46), bucindolol (43), bucumolol (35), bufetolol (30), bunitrolol (28), bunolol (22), bupranolol (27), butocrolol (38), butofilolol (40), carazolol (36), carpindolol (42), carteolol (35), celiprolol (35), cetamolol (47), cicloprolol (48), cinamolol (44), cloranolol (41), crinolol (41) (replaced by pacrinolol (44)), dexpropranolol (21), diacetolol (41), draquinolol (54), ecastolol (56), epanolol (52), ericolol (50), esatenolol (76), esmolol (50), exaprolol (32), falintolol (53), flestolol (53), flusoxolol (50), idropranolol (31), imidolol (49) (replaced by adimolol (50)), indenolol (37), indopanolol (48), iprocrolol (39), isoxaprolol (45), landiolol (75), levobetaxolol (61), levobunolol (42), levomoprolol (58), mepindolol (36), metipranolol (38), metoprolol (30), moprolol (36), nadolol (34), nadoxolol (28), nafetolol (39), nebivolol (56), nipradilol (50) (previously nipradolol (49)), oxprenolol (20), pacrinolol (44), pafenolol (46), pamatolol (36), pargolol (36), penbutolol (25), penirolol (36), pindolol (23), pirepolol (48), practolol (23), primidolol (42), procinolol (25), propranolol (15), ridazolol (51), ronactolol (57), soquinolol (43), spirendolol (46), talinolol (28), tazolol (31), teoprolol (43), tertatolol (48), tienoxolol (56), tilisolol (57), timolol (29), tiprenolol (23), tolamolol (29), toliprolol (28), trigevolol (56), xibenolol (48), xipranolol (22)

(b) Q.2.3.0: stanozolol (18) (anabolic steroid)

**-alol** **aromatic ring -CH(OH)-$CH_2$-NH-R related to -olols**

(USAN: combined alpha and beta blockers)



(a) amosulalol (50), bendacalol (59), brefonalol (56), bufuralol (31), dexsotalol (74), dilevalol (50), labetalol (35), medroxalol (43), nifenalol (22), pronetalol (14), sotalol (18), sulfinalol (41)

(c) butidrine (16)

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USAN

**-olone** **see pred**

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**-onakin** **see -kin**

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**-one (d)** **ketones**

(a) 624 (8.0 %) INNs ending in *-one* in Lists 1-95 of Proposed INNs

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BAN, USAN

**-onide** **steroids for topical use, acetal derivatives**

Q.3.0.0

(a) acrocinonide (27), amcinonide (33), budesonide (37), ciclesonide (62), cicortonide (28), ciprocinonide (38), desonide (24), dexbudesonide (80), drocinonide (29), fluclorolone acetonide (22), fluocinolone acetonide (11), flumoxonide (38), fluocinonide (25), halcinonide (29), itrocinonide (62), nicocortonide (40), procinonide (38), rofleponide (72), tralonide (27), triamcinolone benetonide (36), triamcinolone furetonide (36), triamcinolone hexacetonide (15), triclonide (30)

(c) amcinafal (25), amcinafide (25)

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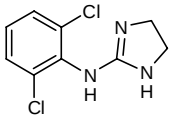
**-onidine** **antihypertensives, clonidine derivatives**

H.3.0.0




(a) apraclonidine (59) (control of intraocular pressure), benclonidine (42), brimonidine (66), clonidine (40), flutonidine (31), moxonidine (48), piclonidine (44), tolonidine (28)
related: alinidine (40) (analgesic)

**-nidine**

H.3.0.0

(a) related antihypertensives: betanidine (13), indanidine (50), rilmenidine (57), tiamenidine (28)

(b) muscle relaxant: tizanidine (43)
topical anti-infective: octenidine (43), pirtenidine (57)
antibacterial: sulfaguanidine (4)
vetirinary coccidiostatic: robenidine (25)

(c) dexlofexidine (48), levlofexidine (48), lofexidine (33)

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**-onium** **see -ium**

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**-opamine** **see -dopa**

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BAN; USAN

**-orex** **anorexics**

M.1.0.0 (BAN: anorexic agents, phenethylamine derivatives)
(USAN: anorexiants)

(a) acridorex (21), amfepentorex (16), aminorex (14), benfluorex (25), clobenzorex (18), cloforex (16), clominorex (14), difemetorex (41), etolorex (20), fenisorex (29), fenproporex (17), flucetorex (30), fludorex (19), fluminorex (14), formetorex (14), furfenorex (16), indanorex (30), mefenorex (19), morforex (26), oxifentorex (20), pentorex (16), picilorex (40), tiflorex (34)

(c) bupropion (84) (replaces amfebutamone (31)), amfecloral (12), amfepramone (13), amfetamine (55), amfetaminil (40), benzfetamine (55), brolamfetamine (55), chlorphentermine (11), clortermine (22), dexamfetamine (55), dimetamfetamine (38), etilamfetamine (40), fenbutrazate (12), fenfluramine (14), hexapradol (12), levamfetamine (12), levmetamfetamine (83), lisdexamfetamine (94), mephentermine (6), ortetamine (13), phendimetrazine (11), phenmetrazine (6), phentermine (11)

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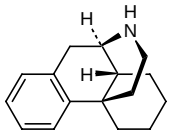
USAN

**orphan** **narcotic antagonists/agonists, morphinan derivates**

A.4.1.0
B.2.0.0 (USAN: -orphan: narcotic antagonists/agonists (morphinan derivatives))




(a) A.4.1.0: butorphanol (31), dextromethorphan (1), dextrorphan (1), dimemorfan (30), ketorfanol (49), levomethorphan (1), levophenacylmorphan (9), levorphanol (4), norlevorphanol (9), oxilorphan (31), phenomorphan (5), proxorphan (43), racemethorphan (1), racemorphan (1), xorphanol (48)

B.2.0.0: levallorphan (2)

**-orph-** **-orphine**: acetorphine (17), alletorphine (25), buprenorphine (29), cyprenorphine (17), desomorphine (5), diprenorphine (21), etorphine (17), homprenorphine (25), methyldesorphine (5), methyldihydromorphine (5), morphine glucuronide (92), nalorphine (1), nicomorphine (7), normorphine (7)

**-orphinol**: hydromorphinol (11)

**-orphone**: conorfone (46), hydromorphone (1), oxymorphone (5), pentamorphone (60), semorphone (67)

(b) emorfazone (44), morforex (26), morpheridine (6), orphenadrine (8)

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**-otermin** **see -ermin**

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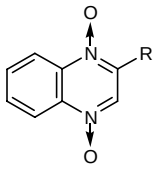
**-ox** **antacids, aluminium derivatives** (see also -aldrate)
**-alox**

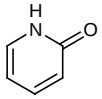
(a) glucalox (13), sucralox (13)

(b) *-dox* antibacterials, quinazoline dioxide derivatives:



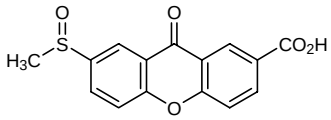
carbadox (19), ciadox (44), cinoquidox (40), drazidox (24), mequidox (19), olaquindox (31), temodox (27)

*-pirox* antimycotics, pyridone derivatives: USAN



ciclopirox (26), metipirox (26), rilopirox (56)

*-xanox* antiallergics, tixanox group: USAN
(USAN: antiallergic respiratory tract drugs)



amlexanox (55), mepixanox (49), sudexanox (44), tixanox (37), traxanox (44)

others: acipimox (33) (antihyperlipidaemic), bifeprunox (87) (antipsychotic), cefminox (53) (antibiotic), deferasirox (86) (chelating agent), etofenprox (57) (insecticide),

nifurtimox (21) (antiprotozoal), sulbenox (37) (animal growth regulator), xanoxic acid (33) (bronchodilator)

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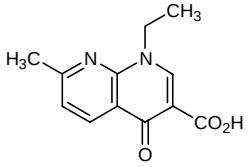
BAN, USAN

**-oxacin (x)** **antibacterials, nalidixic acid derivatives**

S.5.5.0 (BAN: antibacterial agents of the cinoxacin group)
(USAN: antibacterial agents (quinolone derivatives))




(a) cinoxacin (32), droxacin (36), fleroxacin (56), enoxacin (49), garenoxacin (87), irloxacin (53), miloxacin (40), rosoxacin (36), tioxacin (34)
-floxacin: alatrofloxacin (75), amifloxacin (51), balofloxacin (71), binfloxacin (60), cadrofloxacin (81), cetefloxacin (68), ciprofloxacin (50), clinafloxacin (67), danofloxacin (61), difloxacin (55), ecenofloxacin (78), enrofloxacin (56), esafloxacin (60), fandofloxacin (78), finafloxacin (85), gatifloxacin (74), gemifloxacin (81), grepafloxacin (68), ibafloxacin (60), levofloxacin (64), levonadifloxacin (95), lomefloxacin (58), marbofloxacin (65), merafloxacin (69), moxifloxacin (78), nadifloxacin (64), norfloxacin (46), ofloxacin (49), olamufloxacin (79), orbifloxacin (68), pazufloxacin (71), pefloxacin (45), pradofloxacin (84), premafloxacin (72), prulifloxacin (72), rufloxacin (57), sarafloxacin (62), sitafloxacin (75), sparfloxacin (63), temafloxacin (58), tosufloxacin (60), trovafloxacin (73), vebufloxacin (69), zabofloxacin (93)

(c) flumequine (34), nalidixic acid (13), oxolinic acid (15), pipemidic acid (32), piromidic acid (27), metioxate (34)

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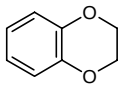
USAN

**-oxan(e)** **benzodioxane derivatives**

E.5.1.0 (USAN: -oxan: α-adrenoreceptor antagonists; benzodioxane derivatives)




(a) **α-adrenoreceptor antagonists:** azaloxan (52) (antidepressant), fluparoxan (58) (antidepressant), idazoxan (49) ($\alpha_2$), imiloxan (52) ($\alpha_2$) (antidepressant), piperoxan (1) (sympatholytic), proroxan (39)
**antihypertensives:** flesinoxan (55), guabenxan (32), guanoxan (15)
**tranquillizers**: butamoxane (12), ethomoxane (12), pentamoxane (12)
**muscle relaxant**: ambenoxan (21)

oxa, axa, ox: acoxatrine (14) (cardiovascular analeptic), axamozide (53) (neuroleptic), cinepaxadil (50) (coronary vasodilator), dioxadilol (53) (slight ß-adrenoreceptor antagonist), domoxin (14), doxazosin (47) (monoamine-oxydase inhibitor), enoxamast (52) (antiallergic), spiroxatrine (14) (analgesic)

related: dexefaroxan (76) (β-adrenoreceptor antagonist), efaroxan (59) ($\alpha_2$)

(b) amoproxan (22), nibroxane (35), razoxane (40), dexrazoxane (62), sobuzoxane (62), tolboxane (12)

(c) aplindore (92), bendacalol (59), binospirone (65), capeserod (94), eltoprazine (57), lecozotan (93), lurtotecan (50), osemozotan (87), quincarbate (31), silibinin (38), sulamserod (82)

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USAN

**-oxanide** **see -anide**

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USAN

**-oxef** **see cef-**

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**-oxepin** **see -pine**

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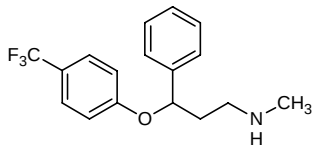
USAN

**-oxetine** **antidepressants, fluoxetine derivatives**

C.3.0.0




(a) ansoxetine (58), dapoxetine (65), duloxetine (68), femoxetine (36), fluoxetine (34), ifoxetine (54), litoxetine (64), nisoxetine (34), omiloxetine (76), paroxetine (38), reboxetine (54), seproxetine (66), tomoxetine (49)

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**-oxicam** **see -icam**

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**-oxifene** **see -ifene**

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**-oxopine** **see -pine**

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BAN; USAN

**-pafant** **platelet-activating factor antagonists**

I.2.1.0

(a) apafant (60), bepafant (60), dacopafant (63), foropafant (75), israpafant (76), lexipafant (70), minopafant (80), modipafant (65), nupafant (70), rocepafant (71), setipafant (72), tulopafant (64)

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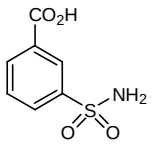
USAN

**-pamide** **diuretics, sulfamoylbenzoic acid derivatives (could be sulfamoylbenzamide) (19th Report, l970)**

N.1.2.0 (USAN: diuretics (sulfamoylbenzoic acid derivatives))



(a) alipamide (18), besulpamide (52), clopamide (13), indapamide (29), tripamide (44), xipamide (22), zidapamide (50) (previously isodapamide (47))

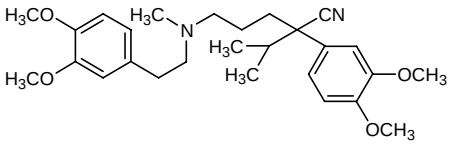
(b) chlorpropamide (8) (hypoglycemic), isopropamide iodide (8) (anticholinergic)

(c) bumetanide (24), chlortalidone (12), clorexolone (15), furosemide (14), sulclamide (15), tiamizide (16)

USAN

**-pamil** **coronary vasodilators, verapamil derivatives**

F.2.1.0 (USAN: coronary vasodilators (verapamil type))



(a) anipamil (49), dagapamil (52), devapamil (53), dexverapamil (65), emopamil (52), falipamil (48), gallopamil (38), levemopamil (62), nexopamil (67), ronipamil (51), tiapamil (43), verapamil (16)

related: bertosamil (64), bisaramil (60)

USAN

**-parcin** **glycopeptide antibiotics**

S.6.0.0

(a) avoparcin (29), orientiparcin (72)

USAN

**-parin** **heparin derivatives including low molecular mass heparins**

I.2.0.0 (USAN: heparin derivatives and low molecular weight (or depolymerized) heparins)

(a) ardeparin sodium (68), bemiparin sodium (75), certoparin sodium (70), dalteparin sodium (64), deligoparin sodium (89), enoxaparin sodium (52), heparin sodium (54), livaraparin calcium (85), minolteparin sodium (73), nadroparin calcium (65), parnaparin sodium (65), reviparin sodium (65), tinzaparin sodium (65)

**-parinux** **synthetic heparinoids**

(USAN: antithrombotic indirect selective synthetic factor Xa inhibitors)

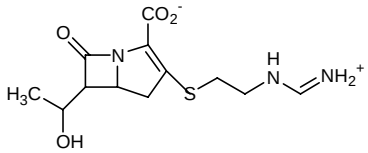
(a) fondaparinux sodium (83) (replaces fondaparin sodium (79)), idraparinux sodium (84)

**-pendyl** **see -dil**

USAN

**-penem** **analogues of penicillanic acid antibiotics modified in the five-membered ring**

S.6.0.0 (USAN: antibacterials, antibiotics (carbapenem derivatives))




(a) biapenem (69), doripenem (83), ertapenem (84), faropenem (69), imipenem (50), lenapenem (73), meropenem (60), panipenem (64), ritipenem (67), sulopenem (68), tacapenem (87), tebipenem (82), tomopenem (95)

USAN

**perfl(u)-** **perfluorinated compounds used as blood substitutes and/or diagnostic agents**

(USAN: blood substitutes and/or diagnostics (perfluorochemicals))

(a) perflexane (82), perflisobutane (92), perfluamine (45), perflubrodec (87), perflubron (66), perflubutane (91) perflunafene (45), perflutren (82)

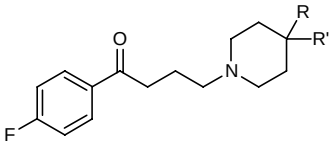
**-peridol** **see -perone**

**-peridone** **see -perone**

USAN

**-perone** **tranquillizers, neuroleptics, 4'-fluoro-4-piperidinobutyrophenone derivatives**

C.1.0.0
C.2.0.0 (USAN: antianxiety agents/neuroleptics ; 4'-fluoro-4-piperidinobutyrophenone derivatives)




(a) aceperone (14), amiperone (14), biriperone (51), carperone (24), cicarperone (28), cinuperone (53), cloroperone (38), declenperone (42), duoperone (54), fenaperone (28), fluspiperone (34), lenperone (27), melperone (34), metrenperone (56), milenperone (37), mindoperone (38), moperone (14), nonaperone (44), pipamperone (17), pirenperone (46), prideperone (54), primaperone (17), propyperone (16), roxoperone (17), setoperone (51), spiperone (17), timiperone (40)

closely related: azabuperone (34), azaperone (18), lodiperone (44), zoloperone (39)

USAN

**-peridol** **antipsychotics, haloperidol derivatives**

benperidol (14), bromperidol (33), [clofluperol (18)], droperidol (14), [fluanisone (13)], haloperidol (10), trifluperidol (16)

USAN

**-peridone** **antipsychotics, risperidone derivatives**
abaperidone (80), belaperidone (78), cloperidone (17), iloperidone (69), lusaperidone (82), ocaperidone (64), paliperidone (83), risperidone (57), tioperidone (37)

(c) domperidone (36), etoperidone (36) (antiemetic)

USAN

**-pidem** **hypnotics/sedatives, zolpidem derivatives**

C.1.0.0

alpidem (53), necopidem (66), saripidem (67), zolpidem (53)

**-pin(e)** **see also Pharm S/Nom 970 (tricyclic compounds)**

*-dipine* see *-dipine*

(a) dosulepin (15)

*-zepine* antidepressant/neuroleptic: C.3.2.0: dibenzepin (14), elanzepine (35), enprazepine (30), mezepine (22), nuvenzepine (59), prazepine (15), propizepine (19), tilozepine (40)

| | |
|---|---|
| | tricyclic antiulcer: J.0.0.0: darenzepine (52), pirenzepine (30), siltenzepine (63), telenzepine (50), zolenzepine (48)<br><br>tricyclic anticonvulsant: A.3.1.0: carbamazepine (15), eslicarbazepine (91), etazepine (51), licarbazepine (81), oxcarbazepine (41)<br><br>hyperthermia: amezepine (42) |
| *-apine* | psychoactive: C.0.0.0: amoxapine (25), asenapine (87), batelapine (64), clotiapine (16), clozapine (22), esmirtazapine (93), flumezapine (47), fluperlapine (46), loxapine (22), metiapine (22), mirtazapine (61), olanzapine (67), pentiapine (56), perlapine (23), quetiapine (74), rilapine (52), serazapine (63), tenilapine (52) |
| *-cilpine* | antiepileptic: A.3.1.0: dizocilpine (60) |
| *-oxepin* | beloxepin (75), cidoxepin (17), doxepin (15), maroxepin (54), metoxepin (33), pinoxepin (18), savoxepin (56), spiroxepin (32) |
| *-oxopine* | traboxopine (58) |
| *-sopine* | adosopine (63) |
| *-tepine* | citatepine (54), clorotepine (29), damotepine (27), metitepine (27), tropatepine (28) |
| (b) | atromepine (15), noscapine (7), prozapine (14) |
| (c) | clobenzepam (25), homopipramol (20), opipramol (15) |

**-piprazole** **see -prazole**

**-pirone** **see -spirone**

USAN

**-pirox** **see -ox/-alox**

**-pitant** **see -tant**

USAN

**-plact** **platelet factor 4 analogues and derivatives**

iroplact (74)

| | | |
|---|---|---|
| | | USAN |
| **-pladib** | **phospholipase $A_2$ inhibitors** | |
| W.0.0.0 | | |
| | darapladib (94), ecopladib (90), efipladib (92), goxalapladib (94), rilapladib (94), varespladib (87) | |
| | | USAN |
| **-planin** | **antibacterials (*Actinoplanes* strains)** | |
| S.5.0.0 | | |
| | actaplanin (34), mideplanin (66), ramoplanin (57), teicoplanin (48) | |
| **-plase** | **see -teplase, -uplase under -ase** | |
| **-plasmid** | **see -gene** for gene therapy products | |
| | | USAN |
| **-platin** | **antineoplastic agents, platinum derivatives** | |
| L.0.0.0 | (USAN: antineoplastics (platinum derivatives)) | |
| (a) | carboplatin (48), cisplatin (39), dexormaplatin (64), enloplatin (64), eptaplatin (83), iproplatin (51), lobaplatin (65), miboplatin (66), miriplatin (85), nedaplatin (67), ormaplatin (63), oxaliplatin (56), picoplatin (87), satraplatin (80), sebriplatin (68), spiroplatin (48), triplatin tetranitrate (87), zeniplatin (63) | |
| **-plermin** | **see -ermin** | |
| **-plestim** | **see -stim and -kin** | |
| | | USAN |
| **-plon** | **pyrazolo[.]pyrimidine derivatives, used as anxiolytics, sedatives, hypnotics** | |
| A.2.2.0<br>C.1.0.0 | (USAN: non-benzodiazepine anxiolytics, sedatives, hypnotics) | |
| | divaplon (61), fasiplon (61), indiplon (86), ocinaplon (72), panadiplon (65), taniplon (61), zaleplon (72) | |

BAN; USAN

**-poetin** **erythropoietin type blood factors**

I.3.0.0 (USAN: erythropoietins)

(a) darbepoetin alfa (85), epoetin alfa (62), epoetin beta (62), epoetin delta (85), epoetin gamma (67), epoetin epsilon (72), epoetin omega (73), epoetin theta (95), epoetin zeta (92)

USAN

**-porfin** **benzoporphyrin derivatives**

(a) lemuteporfin (91), padoporfin (93), rostaporfin (83), stannsoporfin (79), talaporfin (83), temoporfin (70), verteporfin (71)

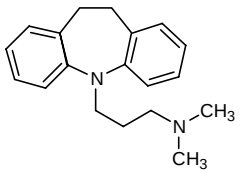
**-poride** **$Na^+/H^+$ antiport inhibitor**

amiloride (18), cariporide (74), eniporide (79), rimeporide (92), sabiporide (84), zoniporide (85)

BAN, USAN

**-pramine** **substances of the imipramine group**

C.3.2.0 (USAN: antidepressants (imipramine type))



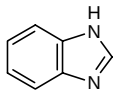

(a) saturated dibenzazepine:
azipramine (36), carpipramine (16), cianopramine (47), ciclopramine (29), clocapramine (28), clomipramine (17), depramine (31), desipramine (13), imipramine (8), ketimipramine (17), lofepramine (24), lopramine (24) (replaced by lofepramine (34)), metapramine (34), mosapramine (64), quinupramine (32), tampramine (54), tienopramine (38), trimipramine (13), imipraminoxide (36)

(c) unsaturated dibenzazepine:
carbamazepine (15), homopipramol (20), opipramol (15)

USAN

**-prazole** **antiulcer, benzimidazole derivatives**

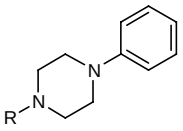
J.0.0.0 (USAN: antiulcer agents (benzimidazole derivatives))



(a) cinprazole (34), dexlansoprazole (93), disuprazole (56), esaprazole (45), esomeprazole (79), fuprazole (39), ilaprazole (86), lansoprazole (60), leminoprazole (68), levolansoprazole (93), nepaprazole (74), nilprazole (37), omeprazole (46), pantoprazole (62), picoprazole (46), pumaprazole (76), rabeprazole (69), saviprazole (62), tenatoprazole (80), timoprazole (35), ufiprazole (58)

**-piprazole** **psychotropics, phenylpiperazine derivatives** *(Future use is discouraged due to conflict with the stem -prazole)*

C.0.0.0




(a) aripiprazole (75), dapiprazole (45), elopiprazole (70), enpiprazole (24), lorpiprazole (60), mepiprazole (24), sonepiprazole (80) tolpiprazole (25)

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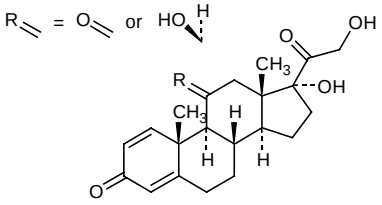
USAN

**pred** **prednisone and prednisolone derivatives**

Q.3.3.0 (USAN: pred-; -pred- or -pred)




(a) chloroprednisone (12), cloprednol (31), difluprednate (21), domoprednate (47), etiprednol dicloacetate (88), fluprednidene (19), fluprednisolone (13), halopredone (36), isoflupredone (36), isoprednidene (24), loteprednol (64), mazipredone (32), meprednisone (15), methylprednisolone (8), methylprednisolone aceponate (52), methylprednisolone suleptanate (56), oxisopred (29), prednazate (16), prednazoline (22), prednicarbate (44), prednimustine (31), prednisolamate (13), prednisolone (6), prednisolone steaglate (16), prednisone (6), prednylidene (13), tipredane (54)

(b) <u>various non-steroidal compounds</u>
citiolone (23) (hepatobil. troubles), clorexolone (15) (diuretic), fenozolone (14) (psychotonic), tioxolone (16) (keratolytic), vistatolon (25) (antiviral)

(c) **-methasone or -metasone**: alclometasone (41), amelometasone (74), beclometasone (17), betamethasone (11), betamethasone acibutate (26), cormetasone (29), desoximetasone (20), dexamethasone (8), dexamethasone acefurate (57), dexamethasone cipecilate (94), flumetasone (13), halometasone (41), icometasone enbutate (70), mometasone (56), paramethasone (12)

(c) **-betasol**: clobetasol (26), doxibetasol (26), ulobetasol (54)

(c) **-olone**:
(USAN: steroids (not prednisolone derivatives))
clocortolone (16), descinolone (17), diflucortolone (18), fluclorolone acetonide (22), fluocinolone acetonide (11), fluocortolone (15), fluorometholone (8), fluperolone (13), halocortolone (31), rimexolone (38), triamcinolone (8), triamcinolone benetonide (36), triamcinolone furetonide (36), triamcinolone hexacetonide (15)

(c) clobetasone (26), cloticasone (52), deprodone (20), dichlorisone (10), diflorasone (30), flunisolide (11), fluticasone (52), fluticasone furoate (95), meclorisone (40), timobesone (51)

**-olone** steroids other than prednisolone derivatives

A.1.2.0 general anesthetics, pregnanes: alfadolone (27), alfaxalone (27), eltanolone (65), ganaxolone (76), minaxolone (39), renanolone (8)

H.2.0.0 antiarrhythmic: amafolone (40), edifolone (56)

H.4.0.0 antihyperlipidaemic: colestolone (59)

L.6.0.0 cytostatics - sex hormones: drostanolone (13), trestolone (25)

Q.2.3.0 androgens: androstanolone (4), drostanolone (13), mestanolone (10), metenolone (12), nandrolone (22), norethandrolone (6), oxandrolone (12), oxymetholone (11)
Q.2.3.1 oxendolone (42), mesterolone (15), rosterolone (59)

M.4.1.0 bolone (see bol, anabolic steroids): formebolone (31), mesabolone (29), metribolone (17), oxabolone cipionate (14), quinbolone (14), roxibolone (40), stenbolone (17), tibolone (22), trenbolone (24)

J.0.0.0 glycyrrhetic acid derivatives: carbenoxolone (15), cicloxolone (33), cinoxolone (33), deloxolone (51), enoxolone (15), roxolonium metilsulfate (33)

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**-prenaline** **see -terol**

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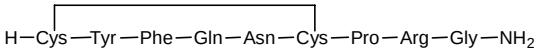
USAN

**-pressin** **vasoconstrictors, vasopressin derivatives**

Q.1.2.0




(a) argipressin (13), desmopressin (33), felypressin (13), lypressin (13), ornipressin (22), terlipressin (46), vasopressin injection (16)

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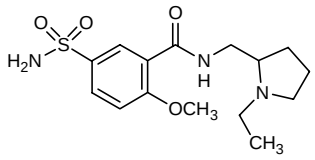
BAN; USAN

**-pride (x)** **sulpiride derivatives**

C.0.0.0
J.1.0.0



(a) C.0.0.0: alizapride (43), alpiropride (49), amisulpride (44), batanopride (61), broclepride (43), cisapride (49), dazopride (50), denipride (58), etacepride (52), eticlopride (52), flubepride (35), nemonapride (63) (previously emonapride (61)), peralopride (43), prosulpride (43), prucalopride (78), sulmepride (43), sultopride (26), sulverapride (44), veralipride (43)

J.1.0.0: alepride (40), bromopride (27), cinitapride (41), cipropride (41), clebopride (32), dobupride (57), irolapride (55), isosulpride (36), itopride (66), lintopride (65), lirexapride (74), lorapride (44), mezacopride (56), mosapride (66), pancopride (62), raclopride (52), remoxipride (49), renzapride (60), tiapride (28), ticalopride (83), tinisulpride (44), trazolopride (51), tropapride (48), zacopride (55)

K.0.0.0: cloxacepride (42)

U.1.1.0/C.0.0.0: iolopride ($^{123}$I) (73)

(b) glimepride (66)

(c) C.0.0.0: levosulpiride (63), sulpiride (18)

J.1.0.0: metoclopramide (17)

BAN, USAN

**-pril (x)** **angiotensin-converting enzyme inhibitors**

H.3.0.0 (BAN: inhibitors of angiotensin-converting enzyme)
(USAN: antihypertensive agents (ACE inhibitors))

(a) alacepril (50), benazepril (58), captopril (39), ceronapril (64), cilazapril (53), delapril (54), enalapril (46), fosinopril (56), idrapril (66), imidapril (60), indolapril (50), libenzapril (58), lisinopril (50), moexipril (60), moveltipril (58), orbutopril (57), pentopril (53), perindopril (53), pivopril (52), quinapril (54), ramipril (52), rentiapril (55), spirapril (56), temocapril (64), trandolapril (53), utibapril (63), zabicipril (58), zofenopril (51)

**-prilat (x)** USAN

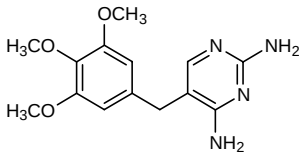
(USAN: antihypertensives (ACE inhibitors) (diacid analogs of the -pril entity))

(a) benazeprilat (58), cilazaprilat (54), enalaprilat (50), fosinoprilat (62), imidaprilat (71), moexiprilat (67), perindoprilat (56), quinaprilat (60), ramiprilat (53), spiraprilat (60), temocaprilat (78), trandolaprilat (60), utibaprilat (65), zabiciprilat (64), zofenoprilat (63)

USAN

**-prim** **antibacterials, trimethoprim derivatives**

S.5.5.0



(a) aditoprim (49), baquiloprim (56), brodimoprim (44), epiroprim (44), iclaprim (88), metioprim (42), ormetoprim (21), tetroxoprim (33), trimethoprim (11), vaneprim (48)

(c) diaveridine (18)

USAN

**-pristin** **antibacterials, pristinamycin derivatives**

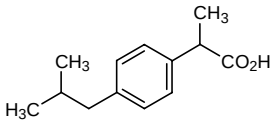
S.6.0.0

(a) dalfopristin (67), efepristin (75), quinupristin (65), volpristin (80)

BAN; USAN

**-profen (x)** **anti-inflammatory agents, ibuprofen derivatives**

A.4.2.0 (USAN: anti-inflammatory/analgesic agents (ibuprofen type))



(a) alminoprofen (40), araprofen (65), atliprofen (74), bakeprofen (61), benoxaprofen (34), bermoprofen (57), bifeprofen (57), carprofen (35), cicloprofen (32), cliprofen (32), dexibuprofen (61), dexindoprofen (49), dexketoprofen (70), esflurbiprofen (56), fenoprofen (26), flunoxaprofen (44), fluprofen (18), flurbiprofen (28), frabuprofen (51), furaprofen (42), furcloprofen (44), hexaprofen (30), ibuprofen (16), indoprofen (32), isoprofen (40), ketoprofen (28), lobuprofen (53), lonaprofen (44), losmiprofen (61), loxoprofen (50), mabuprofen (64), mexoprofen (33), miroprofen (44), odalprofen (66), pelubiprofen (76), piketoprofen (40), pirprofen (32), pranoprofen (38), suprofen (31), tazeprofen (50), tetriprofen (29), tilnoprofen arbamel (74), tioxaprofen (39), vedaprofen (72), ximoprofen (37), zaltoprofen (64), zoliprofen (55)

(b) aprofene (12) (antispasm. coron. vasodil.), diprofene (12) (antispasm. blood vessels)

(c) brofezil (31), protizinic acid (27), tiaprofenic acid (30)

BAN, USAN

**prost (x)** **prostaglandins**

Q.0.0.0 (USAN: -prost- or -prost: prostaglandin derivatives)

(a) alfaprostol (45), alprostadil (39), ataprost (62), beraprost (59), bimatoprost (85), butaprost (55), carboprost (36), cicaprost (54), ciprostene (51), clinprost (68), cloprostenol (33), delprostenate (42), dimoxaprost (52), dinoprost (26), dinoprostone (26), doxaprost (34), ecraprost (83), eganoprost (84), enisoprost (50), epoprostenol (44), eptaloprost (56), etiproston (46), fenprostalene (42), flunoprost (53), fluprostenol (33), froxiprost (55), gemeprost (42), iloprost (48) (originally ciloprost (46)), lanproston (72), latanoprost (67), limaprost (56), lubiprostone (87), luprostiol (44), meteneprost (45), misoprostol (47), naxaprostene (58), nileprost (45), nocloprost (51), oxoprostol (44), penprostene (37), pimilprost (71), piriprost (51), prostalene (34), remiprostil (65), rivenprost (93), rosaprostol (48), sulprostone (37), taprostene (58), tiaprost (41), tafluprost (89), tilsuprost (51), tiprostanide (48), travoprost (80), treprostinil (87), unoprostone (66), vapiprost (58), viprostol (53)

**-prostil** **prostaglandins, anti-ulcer**

(a) arbaprostil (35), deprostil (32), enprostil (50), mexiprostil (52), ornoprostil (56), rioprostil (49), spiriprostil (63), trimoprostil (49)

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USAN

**-quidar** **drugs used in multidrug resistance; quinoline derivatives**

L.0.0.0 (USAN: multidrug resistance inhibitors (quinoline derivatives))

dofequidar (88), laniquidar (85), tariquidar (86), zosuquidar (86)

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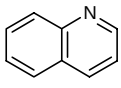
**-quine (d) quin** **quinoline derivatives (deleted from General Principles in List 28 prop. INN)**




(a) antimalarial: amodiaquine (1), amopyroquine (8), bulaquine (82), chloroquine (4), ferroquine (95), hydroxychloroquine (8), mefloquine (33), moxipraquine (26), pamaquine (4), pentaquine (4), primaquine (1), quinocide (34), tafenoquine (80), tebuquine (49)

amebicide: clamoxyquine (16), mebiquine (29) (gastrointestinal antiseptic), benzoxiquine (18) (antiseptic), cletoquine (20) (anti-inflammatory), cloxiquine (30) (antiseptic), debrisoquine (15) (hypotensive agent), esproquine (3l) (cardiovascular agent), flumequine (34) (antibacterial), guanisoquine (l5) (hypotensive agent), nifuroquine (36), oxamniquine (28) (schistosomacide)

(c) antirheumat., antigout (antimalarial): acequinoline (22), cinchophen (l), neocinchophen (l), oxycinchophen (6)

antibacterial: actinoquinol (15), aminoquinuride (45), broquinaldol (17), broxaldine (12), chlorquinaldol (1), clioquinol (16), dequalinium chloride (8), diiodohydroxyquinoline (1), laurolinium acetate (12), nitroxoline (15), quindecamine (15), tilbroquinol (45), tiliquinol (45)

antifungal: hedaquinium chloride (8)

anthelmintic: pyrvinium chloride (6)

treatment of leishmaniasis etc: aminoquinol (22), sitamaquine (80)

amebicide: cloquinate (11), dehydroemetine (15), quinfamide (40)

antiproteus: oxolinic acid (15)

coccidiostat: amquinate (21), buquinolate (16), ciproquinate (22), decoquinate (20), nequinate (22), proquinolate (17), quindoxin (26) (growth promoter for pigs and poultry)

growth promoter, bactericide: cinoquidox (40), olaquindox (31) (quinoxaline derivative)

antiviral: famotine (23), memotine (22)

antihypertensive: amiquinsin (17), leniquinsin (18), peraquinsin (29) (quinazolinone derivative), trethinium tosilate (14), quinuclium bromide (40)
heart failure: buquineran (40)

diuretic: quincarbate (31)

vasodilator, treatment of cerebrovascular insuff.: viquidil (25)

curarizing agent: dimethyltubocurarinium chloride (1), laudexium metilsulfate (4), tubocurarine chloride (1)

anti-cholinergic: toquizine (17), tiquizium bromide (47)

antispasm. muscle relaxant: dimoxyline (1), drotaverine (17), ethaverine (4), flucarbril (14), niceverine (15), octaverine (18), quinetalate (16)

bronchodilator: quinprenaline (17), tretoquinol (21), (bronchial asthma)

oxytocic: quipazine (17)

analgesic: glafenine (15), metofoline (12)

local anaesthetic: cinchocaine (1), euprocin (22), quinisocaine (4)

antitussive: iquindamine (34), noscapine (7)

diagnostic aid: quinaldine blue (17)

antihistaminic: pirquinozol (43), tritoqualine (14)

antihyperlipidemic: climiqualine (33) (isoquinoline derivative)

anti-ulcer: isotiquimide (49), tiquinamide (35)

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**-quinil** **see -azenil**

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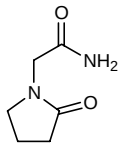
BAN; USAN

**-racetam** **amide type nootrope agents, piracetam derivatives**

B.1.0.0 (BAN: substances of the piracetam group)
(USAN: nootropes (piracetam type))



(a) aloracetam (62), aniracetam (44), brivaracetam (93), cebaracetam (66), coluracetam (86), dimiracetam (68), doliracetam (53), dupracetam (38), etiracetam (40), fasoracetam (78), imuracetam (42), levetiracetam (62), molracetam (55), nebracetam (59), nefiracetam (64), nicoracetam (63), oxiracetam (43), piracetam (22), pramiracetam (46), rolziracetam (54), seletracetam (93)

related: tenilsetam (51)

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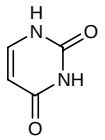
USAN

**-racil** **uracil type antineoplastics**

L.0.0.0 (USAN: -racil: uracil type antineoplastics)



(a) eniluracil (77), fluorouracil (13), gimeracil (80), oteracil (80)

**-thiouracil** **uracil derivatives used as thyroid antagonists**

M.7.3.0
(a) iodothiouracil (01), methylthiouracil (01), propylthiouracil (01)

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BAN; USAN

**-relin (x)** **pituitary hormone-release stimulating peptides**

Q.0.0.0 (BAN: hypophyseal hormone release-stimulating peptides)
(USAN: prehormones or hormone-release stimulating peptides)

(a) LHRH-release-stimulating peptides: avorelin (74), buserelin (36), deslorelin (61), gonadorelin (32), goserelin (55), histrelin (53), leuprorelin (47), lutrelin (51), nafarelin (50), peforelin (93), triptorelin (56)

**-morelin** growth hormone release-stimulating peptides: USAN

(a) capromorelin (83), dumorelin (59), examorelin (72), ipamorelin (78), pralmorelin (77), rismorelin (74), sermorelin (56), somatorelin (57), tabimorelin (80)

**-tirelin** thyrotropin releasing hormone analogues: USAN

(a) azetirelin (60), fertirelin (42), montirelin (58), orotirelin (58), posatirelin (60), protirelin (31), taltirelin (75)

other: corticorelin (64) (diagnostic agent)

(c) thyrotropin alfa (78) (thyrotropin releasing hormone (TRH) analog)

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USAN

**-relix** **hormone-release inhibiting peptides**

(a) abarelix (78), cetrorelix (64), degarelix (86), detirelix (56), ganirelix (65), iturelix (79), ozarelix (94), prazarelix (81), ramorelix (68), teverelix (71)

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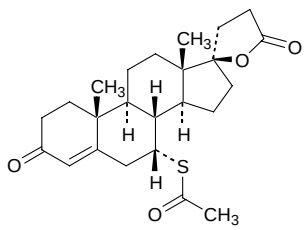
USAN

**-renone** **aldosterone antagonists, spironolactone derivates**

N.1.8.0 (USAN: aldosterone antagonists (spironolactone type))




(a) canrenoic acid (20) and potassium canrenoate (20), canrenone (20), dicirenone (50), drospirenone (63), eplerenone (77), mespirenone (51), spirorenone (45)

(b) bromchlorenone (12) (antifungal), menatetrenone (28) (antihemorrhagic), teprenone (50), ubidecarenone (48) (in congestive heart failure)

(c) oxprenoate potassium (53), prorenoate potassium (32), spironolactone (11), spiroxasone (14)

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**-restat** **see -stat**

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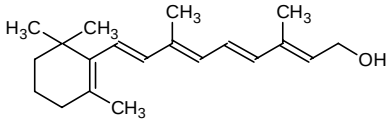
USAN

**retin** **retinol derivatives**

P.1.0.0 (USAN: -retin- or -retin)



(a) acitretin (56) (previously etretin (51)), alitretinoin (80), doretinel (60), etretinate (41), fenretinide (51), isotretinoin (41), motretinide (38), pelretin (60), retinol (18), tretinoin (25), tretinoin tocoferil (66)

(b) noretynodrel (13), secretin (1), trethinium tosilate (14)

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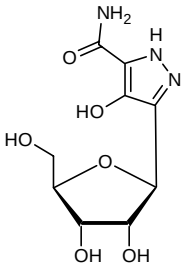
USAN

**-ribine** **ribofuranyl-derivatives of the "pyrazofurin" type**

L.0.0.0/
S.5.3.0



(a) azaribine (19), cladribine (68), isatoribine (83), loxoribine (64), mizoribine (46), triciribine (46)

(c) pirazofurin (31), ribavirin (31), riboprine (20), tiazofurine (48)

related: benaxibine (50)

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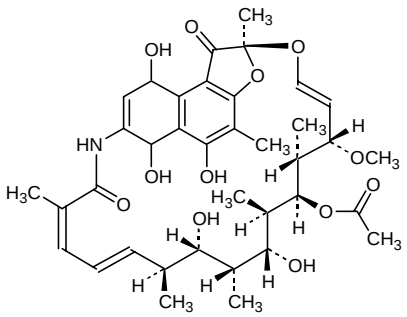
USAN

**rifa-** **antibiotics, rifamycin derivatives**

S.6.4.0



(a) rifabutin (52), rifalazil (78), rifametane (61), rifamexil (67), rifamide (15), rifampicin (17), rifamycin (13), rifapentine (43), rifaximin (49) (previously rifaxidine (48))

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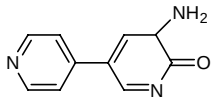
USAN

**-rinone** **cardiac stimulants, amrinone derivatives**

H.1.0.0 (USAN: cardiotonics (amrinone type))



(a) amrinone (38), bemarinone (57), medorinone (54), milrinone (50), nanterinone (60), olprinone (70), pelrinone (53), saterinone (56), toborinone (72), vesnarinone (57)

(b) gestrinone (39), indacrinone (51), taziprinone (48)

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**-rizine** **see -izine**

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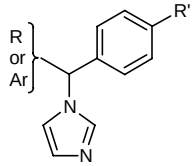
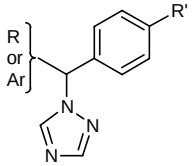
USAN

**-rozole** **aromatase inhibitors, imidazole-triazole derivatives**

L.0.0.0





anastrozole (72), fadrozole (64), finrozole (81), letrozole (70), liarozole (64), vorozole (64)

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USAN

**-rsen** **antisense oligonucleotides**

alicaforsen (85), aprinocarsen (89), oblimersen (87)
-virsen (antivirals): afovirsen (71), fomivirsen (75), trecovirsen (77)

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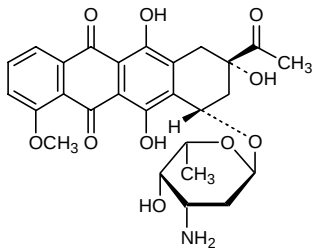
USAN

**-rubicin** **antineoplastic antibiotics, daunorubicin derivatives**

L.5.0.0 (USAN: antineoplastic antibiotics (daunorubicin type))



(a) aclarubicin (44), amrubicin (65), carubicin (40), daunorubicin (20), detorubicin (41), doxorubicin (25), epirubicin (48) (originally pidorubicin (47)), esorubicin (47), galarubicin (80), idarubicin (47), ladirubicin (83), leurubicin (64), medorubicin (47), nemorubicin (71), pirarubicin (55), rodorubicin (54), sabarubicin (90), valrubicin (79), zorubicin (39)

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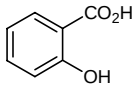
USAN

**sal** **salicylic acid derivatives**

(USAN: -sal-; -sal; or sal-: anti-inflammatory agents (salicylic acid derivatives))




(a) **sal-** analgesic anti-inflammatory A.4.2.0
choline salicylate (15), imidazole salicylate (51), salacetamide (1), salcolex (23), saletamide (20), salfluverine (29), salicylamide (1), salnacedin (73), salprotoside (31), salsalate (28), salverine (15)

various
salafibrate (41) (antihyperlipidaemic), salantel (29) (anthelmintic), salinazid (8) (antituberculosis agent)

**-sal** analgesic anti-inflammatory A.4.2.0
detanosal (23), diflunisal (33), fendosal (35), flufenisal (22), fosfosal (37), guacetisal (40), guaimesal (50), parcetasal (65), pranosal (24), sulprosal (36), tenosal (63)

antithrombotic
flufosal (42)

various: antituberc.
fenamisal (15), thiomersal (1) (disinfect.), triflusal (37) (antithrombotic)

**-sal-** analgesic anti-inflammatory A.4.2.0
acetaminosalol (1), acetylsalicylic acid (IP), carbasalate calcium (27), carsalam (13), etersalate (50), etosalamide (14), isalmadol (92), parsalmide (32), talosalate (43)

various
amotosalen (85), calcium benzamidosalicylate (10), homosalate (28) (sunscreen agent), lasalocid (30) (antibiotic (veterinary)), mersalyl (4) (mercurial diuretic), octisalate (83) (sunscreen), osalmid (15) (choleretic), susalimod (73) (immunomodulator), xenysalate (12) (antiseborrheic)

**salazo-** phenylazosalicylic acid derivatives antibacterial S.5.l.0
salazodine (22), salazosulfadimidine (11), salazosulfamide (1), salazosulfathiazole (1)

**-salazine/-salazide**
dersalazine (86), mesalazine (52), olsalazine (52), sulfasalazine (55), balsalazide (48), ipsalazide (48)

**-salan** brominated salicylamide derivatives disinfectant S.2.l.0
bensalan (18), dibromsalan (14), flusalan (16), fursalan (18), metabromsalan (16), tiosalan (18), tribromsalan (14)

(b) non-salicylic acid derivatives
macrosalb ($^{99m}$Tc) (33), trioxysalen (l6) (pigmenting agent)

bronchodilators
levosalbutamol (78), salbutamol (20), salmefamol (23)

(c) analgesic, anti-inflammatory A.4.2.0
aloxiprin (13), anilamate (13), benorilate (21), brosotamide (29), cresotamide (28), dibusadol (24), dipyrocetyl (6), ethenzamide (10), fenamifuril (16), gentisic acid (01), hydroxytoluic acid (17), sodium gentisate (1), sodium glucaspaldrate (17)

various
4-aminosalicylates of the *-caine* series D.1.0.0: ambucaine (6), hydroxyprocaine (1), hydroxytetracaine (1), propoxycaine (4)

antihypertensives H.3.0.0
labetalol (35)

antitussives K.1.0.0
alloclamide (l6), flualamide (20)

saluretics N.l.2.0
xipamide (22) (sulfamoyl derivative),

mercurial diuretics N.l.3.0
mercuderamide (1)

anthelmintics S.3.l.0
bromoxanide (31), clioxanide (19), niclosamide (13), rafoxanide (24)
closantel (36), flurantel (25), resorantel (23)

antifungals S.4.0.0
buclosamide (16), exalamide (37), pentalamide (13)

See also Pharm S/Nom 557

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USAN

**-sartan** **angiotensin II receptor antagonists, antihypertensive (non-peptidic)**

H.3.0.0 (USAN: -sartan: angiotensin II receptor antagonists)

abitesartan (73), azilsartan (95), candesartan (71), elisartan (72), embusartan (78), eprosartan (71), forasartan (74), irbesartan (71), losartan (66), milfasartan (76), olmesartan (93), olmesartan medoxomil (86), pomisartan (73), pratosartan (85), ripisartan (73), saprisartan (72), tasosartan (72), telmisartan (70), valsartan (68), zolasartan (70)

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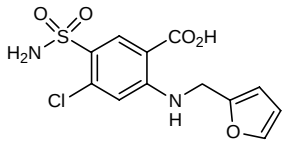
USAN

**-semide** **diuretics, furosemide derivatives**

N.1.1.0



(a) azosemide (35), furosemide (14), galosemide (33), sulosemide (49), torasemide (35)

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**-sermin** **see -ermin**

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USAN

**-serod** **serotonin receptor antagonists and partial agonists**

J.0.0.0

(a) capeserod (94), piboserod (79), sulamserod (82), tegaserod (79)

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USAN

**-serpine (d)** **derivatives of *Rauwolfia* alkaloids**

E.5.4.0

(a) bietaserpine (14), mefeserpine (15), reserpine (4)

(c) chloroserpidine (11), deserpidine (6), methoserpidine (11), metoserpate (20), rescimetol (44), rescinnamine (6), syrosingopine (10)

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BAN, USAN

**-setron** **serotonin receptor antagonists (5-$HT_3$) not fitting into other established groups of serotonin receptor antagonists**

(BAN: serotonin receptor antagonists ($5HT_3$) used as antihypertensives)
(USAN: serotonin 5-$HT_3$ antagonists)

(a) alosetron (66), azasetron (68), bemesetron (64), cilansetron (68), dolasetron (65), fabesetron (74), galdansetron (72), granisetron (59), indisetron (76), itasetron (68), lerisetron (69), lurosetron (69), mirisetron (72), ondansetron (59), palonosetron (74), ramosetron (70), ricasetron (70), tropisetron (62), zatosetron (64)

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USAN

**som-** **growth hormone derivatives**

Q.0.0.0 (USAN: growth hormone derivatives)
(USAN: som- -bove: bovine somatotropin derivatives)
(USAN: som- -por: porcine sonatotropin derivatives)

(a) -bove: bovine type substances: somagrebove (63), somavubove (63), sometribove (54), somidobove (58)
-por: porcine-type substances: somalapor (62), somenopor (62), somfasepor (66), sometripor (55)
-salm: salmon-type substances: somatosalm (69)
Others: somatrem (54), somatropin (56)

(b) somatorelin (57), somantadine (51), somatostatin (46)

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**-sopine** **see -pine**

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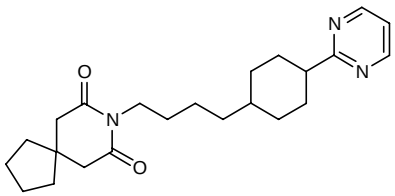
USAN

**-spirone** **anxiolytics, buspirone derivatives**

C.1.0.0




(a) alnespirone (70), binospirone (65), buspirone (30), enilospirone (52), perospirone (71), revospirone (61), tandospirone (60), tiospirone (57), umespirone (60), zalospirone (64)

(c) eptapirone (82), gepirone (54), ipsapirone (54)

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BAN; USAN

**-stat- or -stat** **enzyme inhibitors**

*-castat* dopamine β-hydroxylase inhibitors
(a) nepicastat (78)

*-elestat* elastase inhibitors
(a) depelestat (91), freselestat (89), sivelestat (78)

*-inostat* histone deacetylase inhibitors
(a) dacinostat (89), vorinostat (94)

*-listat* gastrointestinal lipase inhibitors
(a) cetilistat (91), orlistat (66)

*-mastat* matrix metalloproteinase inhibitors

(a) batimastat (70), cipemastat (81), ilomastat (73), marimastat (75), prinomastat (82), rebimastat (89), solimastat (80), tanomastat (82)

*-mostat* proteolytic enzyme inhibitors:

(a) camostat (46), nafamostat (53), patamostat (69), sepimostat (68)

(c) aloxistatin (57), ulinastatin (56)

*-restat* or *-restat-* aldose reductase inhibitors

M.5.0.0

(a) alrestatin (37), epalrestat (55), fidarestat (78), imirestat (59), lidorestat (87), minalrestat (76), ponalrestat (58), ranirestat (91), risarestat (82), tanomastat (82), tolrestat (51), zenarestat (64), zopalrestat (64)

various:

apratastat (93): inhibition of TNF-α converting enzyme
azalanstat (73): lanosterol 14α-demethylase inhibitor
benurestat (31): urease inhibitor
cilastatin (50): renal dehydropeptidase inhibitor
febuxostat (85): xanthine oxydase and xanthine dehydrogenase inhibitor
lapaquistat (95): squalene synthase inhibitor
migalastat (95): alpha-galactosidase A enzyme inhibitor
miglustat (85): glucosyltransferase inhibitor
nystatin (6): antifungal antibiotic
pentostatin (38): vidarabin activity potentiator; inhibitor of enzymatic deaminative metabolism
pepstatin (28): pepsin inhibitor
piraxostat (95): xanthine oxydase inhibitor
somatostatin (43): growth hormone release inhibiting factor
talabostat (92): antineoplastic
tendamistat (44): amylase inhibitor
vistatolon (25): antiviral antibiotic
zinostatin (40): antineoplastic
zinostatin stimalamer (74)

**-vastatin** **antihyperlipidaemic substances, HMG CoA reductase inhibitors** USAN

H.4.0.0

(a) atorvastatin (71), bervastatin (72), cerivastatin (74), crilvastatin (63), dalvastatin (64), fluvastatin (62), glenvastatin (70), lovastatin (57), mevastatin (44), pitavastatin (83) (replaces itavastatin (80)), pravastatin (57), rosuvastatin (83), simvastatin (58), tenivastatin (85)

BAN

| | |
|---|---|
| **-steine** | **mucolytics, other than bromhexine derivatives** |
| K.0.0.0 | (BAN: substances of the acetylcysteine group) |
| (a) | acetylcysteine (13), bencisteine (30), carbocisteine (34), cartasteine (72), dacisteine (49), danosteine (53), erdosteine (56), fudosteine (77), guaisteine (57), isalsteine (63), letosteine (38), mecysteine (13), midesteine (63), moguisteine (61), nesosteine (52), omonasteine (40), prenisteine (42), salmisteine (58), taurosteine (63), telmesteine (63) |

USAN

| | |
|---|---|
| **-ster-** | **androgens/anabolic steroids** |
| Q.2.3.1 | |
| (a) | **-testosterone**: cloxotestosterone (12), methyltestosterone (4), testosterone (4), testosterone ketolaurate (16) |
| | **-sterone**: bolasterone (13), fluoxymesterone (6), oxymesterone (12), prasterone (23), tiomesterone (14) |
| | **-ster-**: mesterolone (15), penmesterol (14), rosterolone (59) |
| (b) | progestational steroids |
| | **-gesterone**: dydrogesterone (12), haloprogesterone (11), hydroxyprogesterone (8), medroxyprogesterone (10), norgesterone (14), progesterone (4), segesterone (89) |
| | **-sterone**: dimethisterone (8), ethisterone (4), norethisterone (6), norvinisterone (10) |
| various: | **-sterone**: aldosterone (6) (corticosteroid), calusterone (23) (antineoplastic) |
| | **-sterol**: azacosterol (16) (hypocholesterolemic), dihydrotachysterol (1) (antihypoparathyroid), iodocholesterol ($^{131}$I) (39) |
| | **ster**: nisterime (38) (contraceptive agent), stercuronium iodide (21) (neuromuscular blocking agent) |
| **-(a)steride** | (USAN: -steride: testosterone reductase inhibitors) - antineoplastic |
| | bexlosteride (81), dutasteride (78), epristeride (69), finasteride (62), izonsteride (81), lapisteride (85), turosteride (67) |

USAN

**-stigmine (d)** **acetylcholinesterase inhibitors**

E.1.2.0 (USAN: cholinesterase inhibitors (physostigmine type))

(a) distigmine bromide (16), eptastigmine (62), ganstigmine (81), neostigmine bromide (4), pyridostigmine bromide (6), quilostigmine (76), rivastigmine (77), terestigmine (77)

(c) eseridine (53)

USAN

**-stim** **colony stimulating factors**

I.5.0.0
(a) ancestim (79) (cell growth factor), garnocestim (85) (immunomodulator), pegacaristim (80) (megakaryocyte growth factor)

**-distim** **combination of two different types of colony stimulating factors**

(a) leridistim (80), milodistim (74)

**-gramostim** **granulocyte macrophage colony stimulating factor (GM-CSF) types substances**

(a) ecogramostim (62), molgramostim (64), regramostim (64), sargramostim (66)

**-grastim** **granulocyte colony stimulating factor (G-CSF) type substances**

(a) filgrastim (64), lenograstim (64), nartograstim (66), pegfilgrastim (85), pegnartograstim (80)

**-mostim** **macrophage stimulating factors (M-CSF) type substances**

(a) cilmostim (71), lanimostim (91), mirimostim (65)

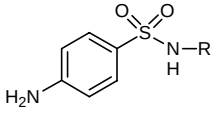
**-plestim** **interleukin-3 analogues and derivatives**

(a) daniplestim (76), muplestim (72)

BAN, USAN

**sulfa-** **anti-infectives, sulfonamides**

S.5.1.0 (BAN: sulpha-)
(USAN: antimicrobial (sulfonamides derivatives))



(a) sulfabenz (17), sulfabenzamide (27), sulfacarbamide (12), sulfacecole (30), sulfacetamide (1), sulfachlorpyridazine (10), sulfachrysoidine (1), sulfacitine (23), sulfaclomide (17), sulfaclorazole (25), sulfaclozine (25), sulfadiasulfone sodium (1), sulfadiazine (4), sulfadiazine sodium (4), sulfadicramide (4), sulfadimethoxine (10), sulfadimidine (1), sulfadoxine (20), sulfaethidole (8), sulfafurazole (1), sulfaguanidine (4), sulfaguanole (23), sulfalene (12), sulfaloxic acid (15), sulfamazone (40), sulfamerazine (4), sulfamerazine sodium (4), sulfamethizole (1), sulfamethoxazole (14), sulfamethoxypyridazine (8), sulfametomidine (12), sulfametoxydiazine (17), sulfametrole (31), sulfamonomethoxine (11), sulfamoxole (12), sulfanilamide (4), sulfanitran (15), sulfaperin (14), sulfaphenazole (10), sulfaproxyline (4), sulfapyrazole (18), sulfapyridine (1), sulfaquinoxaline (46), sulfasalazine (55), sulfasomizole (10), sulfasuccinamide (41), sulfasymazine (12), sulfathiazole (4), sulfathiourea (l), sulfatolamide (10), sulfatroxazole (29), sulfatrozole (24)

(b) galsulfase (92), idursulfase (90), sulfarsphenamine (4)

(c) benzylsulfamide (1), glucosulfamide (1), maleylsulfathiazole (1), mesulfamide (41), nitrosulfathiazole (1), phthalylsulfamethizole (6), phthalylsulfathiazole (1), salazodine (22), salazosulfa-dimidine (11), salazosulfamide (1), salazosulfathiazole (1), stearylsulfamide (1), succinylsulfathiazole (4), sulfisomidine (1), vanyldisulfamide (1), mafenide (1) (sulfonamide, but not sulfanilamide)

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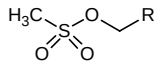
USAN

**-sulfan** **antineoplastic, alkylating agents, methanesulfonates**

L.2.0.0




(a) busulfan (6), improsulfan (35), mannosulfan (24), piposulfan (15), ritrosulfan (33), treosulfan (26)

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**-tadekin** **see -kin**

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USAN

**-tadine** **histamine-$H_1$ receptor antagonists, tricyclic compounds**

G.2.1.0

(a) alcaftadine (94), azatadine (18), cyproheptadine (10), desloratadine (80), loratadine (54), napactadine (46), olopatadine (72), rupatadine (74), vapitadine (95)

(b) amantadine (15), carmantadine (31), rimantadine (17), somantadine (51), tromantadine (28) (see -mantadine)

---

USAN

**-tant** **neurokinin (tachykinin) receptor antagonists**

*-pitant* neurokinin $NK_1$ (substance P) receptor antagonist

(a) aprepitant (84), befetupitant (91), casopitant (94), dapitant (74), ezlopitant (82), figopitant (82), fosaprepitant (94), lanepitant (77), maropitant (90), netupitant (90), nolpitantium besilate (75), orvepitant (94), vestipitant (91), vofopitant (82)

*-dutant* neurokinin $NK_2$ receptor antagonist

(a) nepadutant (78), saredutant (75)

*-nertant* neurotensin antagonist

(a) meclinertant (88) (replaces reminertant (85))

*-netant* neurokinin $NK_3$ receptor antagonist

(a) osanetant (74), talnetant (81)

USAN

**-taxel** **antineoplastics, taxane derivatives**

L.0.0.0

docetaxel (71), larotaxel (94), milataxel (91), ortataxel (87), paclitaxel (68), paclitaxel ceribate (91), paclitaxel poliglumex (90), simotaxel (94), tesetaxel (93)

USAN

**-tecan** **antineoplastics, topoisomerase I inhibitors**

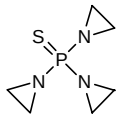
L.0.0.0 (USAN: antineoplastics (camptothecine derivatives))

afeletecan (85), belotecan (91), diflomotecan (84), elemotecan (92), exatecan (81), exatecan alideximer (89), gimatecan (86), irinotecan (64), lurtotecan (74), mureletecan (85), pegamotecan (91), rubitecan (82), topotecan (65)

USAN

**-tepa** **antineoplastics, thiotepa derivatives**

L.2.0.0 (USAN: antineoplastic thiotepa derivatives)




(a) azatepa (12), pumitepa (48), thiotepa (10)

**-tepine** **see -pine**

USAN

**-teplase** **tissue type plasminogen activators, see -ase item VI**

USAN

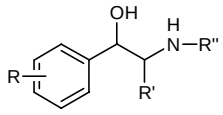
**-termin** **see -ermin**

BAN, USAN

**-terol (x)** **bronchodilators, phenethylamine derivatives**

(previously -prenaline
or -terenol unofficial)

E.4.0.0




(a) amiterol (26), arformoterol (90), bitolterol (34), broxaterol (51), carmoterol (91), cimaterol (54), colterol (36), difeterol (36), etanterol (53), fenoterol (26), formoterol (44), imoxiterol (52), indacaterol (91), naminterol (53), nardeterol (62), picumeterol (64), procaterol (37), reproterol (30), rimiterol (26), salmeterol (55), sulfonterol (3l), zilpaterol (60), zinterol (38)
-buterol: bambuterol (49), carbuterol (29), clenbuterol (28), divabuterol (51), mabuterol (46), pirbuterol (30), tobuterol (45), tulobuterol (40)

cardiac stimulants:
metaterol (43), prenalterol (38), xamoterol (48); clorprenaline (17), hexoprenaline (21), isoprenaline (1), levisoprenaline (10), metiprenaline (24), orciprenaline (14), quinprenaline (17)

deterenol (25), soterenol (20)

(b) azacosterol (16), dihydrotachysterol (1), penmesterol (14)

(c) dioxethedrine (6), isoetarine (13), methoxyphenamine (1), pseudoephedrine (11), salbutamol (20), salmefamol (23), terbutaline (22)

**-terone** **antiandrogens**

(Q.2.3.1)

(a) abiraterone (74), benorterone (15), cyproterone (16), delanterone (42), inocoterone (54), osaterone (68), zanoterone (67)

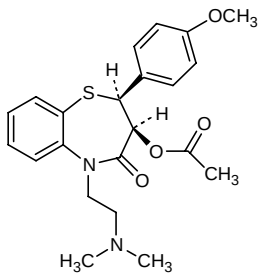
(b) oxendolone (42), rosterolone (60)

(c) clometerone (15) (antiestrogen)

USAN

**-tiazem** **calcium channel blockers, diltiazem derivatives**

F.2.1.0



clentiazem (61), diltiazem (30), iprotiazem (56), nictiazem (54), siratiazem (68)

USAN

**-tide** **peptides and glycopeptides (for special groups of peptides see -actide, -pressin, -relin, -tocin)**

analgesic: leconotide (86), ziconotide (78)

angiogenesis inhibitor: cilengitide (81)

angiotensin convers. inhibitor: teprotide (36)

anti-inflammatory: icrocaptide (89)

antiarrythmic: rotigaptide (94)

antidepressant: nemifitide (87)

antidiabetic: amlintide (76), exenatide (89), liraglutide (87), pramlintide (74), seglitide (57),

antidiarrhoeal: lagatide (75)

antithrombotic: eptifibatide (78)

antiviral: enfuvirtide (85), tifuvirtide (91)

atrial natriuretic factor type substance: anaritide (57), neseritide (80), ularitide (69)

cardiac stimulant: carperitide (65)

diagnostic: betiatide (58), bibapcitide (78), ceruletide (34), depreotide (80), mertiatide (60), pendetide (70), technetium ($^{99m}$Tc) apcitide (78), teriparatide (50)

gastro-intestinal bleeding/antineoplastic: edotreotide (84), ilatreotide (66), lanreotide (64), octreotide (52), pentetreotide (66), vapreotide (62)

gastrointestinal functions normalizing agent: teduglutide (90)

growth stimulant-veterinary: nosiheptide (35)

gut motility increasing: ociltide (52)

hormone analogue: semparatide (80)

immunological agents - antineoplastic: almurtide (74), delmitide (92), disomotide (94), edratide (89), goralatide (72), mifamurtide (95), murabutide (49), ovemotide (94), pentigetide (60), pimelautide (53), prezatide copper acetate (67), rolipoltide (94), romurtide (61), tabilautide (60), temurtide (60), tigapotide (95), tiplimotide (82)

inhibition of growth hormone release: pasireotide (90)

kallicrein inhibitor: ecallantide (93)

melanocortin receptor agonist: bremelanotide (95)

neuromodulator: ebiratide (56)

peptic ulcer: sulglicotide (29), triletide (50)

pulmonary surfactant: lusupultide (80), sinapultide (78)

sedative: emideltide (70)

treatment of Parkinson's disease: doreptide (58), pareptide (38)

(b) defibrotide (44) (nucleotide), diamfenetide (28) (fasciolicide), diclometide (19) (behaviour modificator), fludroxycortide (12), glisentide (58)

(c) angiotensin II (65), angiotensinamide (12)

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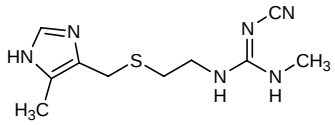
BAN, USAN

**-tidine (x) histamine-$H_2$-receptor antagonists, cimetidine derivatives**

G.2.0.0 (BAN: $H_2$-receptor antagonists of the cimetidine group)
(USAN: $H_2$-receptor antagonists (cimetidine type))




(a) bisfentidine (57), cimetidine (33), dalcotidine (76), donetidine (56), ebrotidine (57), etintidine (44), famotidine (48), lafutidine (70), lamtidine (48), lavoltidine (61) (previously loxtidine (48)), lupitidine (53), mifentidine (50), niperotidine (54), nizatidine (48), osutidine (76), oxmetidine (44), pibutidine (78), quisultidine (47) (replaced by quisultazine (51)), ramixotidine (55), ranitidine (41), roxatidine (54), sufotidine (54), tiotidine (44), tuvatidine (54), venritidine (67), zaltidine (54)

(b) azacitidine (40) (antineoplastic), benzethidine (9), furethidine (9), guanethidine (11), hexetidine (6), hydroxypethidine (5), pethidine (4), propinetidine (12)

(c) metiamide (30)

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**-tiline** **see -triptyline**

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USAN

**-tinib** **tyrosine kinase inhibitors**

L.0.0.0

(a) axitinib (94), bosutinib (94), canertinib (87), dasatinib (94), erlotinib (85), gefitinib (85), imatinib (86), lapatinib (89), lestaurtinib (91), mubritinib (90), nilotinib (94), pelitinib (93), sunitinib (93), tandutinib (91)

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**-tirelin** **see -relin**

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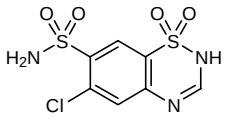
USAN

**-tizide** **diuretics, chlorothiazide derivatives**

N.1.2.1 (USAN: thiazide: diuretics (thiazide derivatives))




(a) altizide (13), bemetizide (27), butizide (13), carmetizide (30), epitizide (13), hydrobentizide (14), mebutizide (15), paraflutizide (16), penflutizide (29), sumetizide (20)

(c) bendroflumethiazide (11), benzthiazide (10), chlorothiazide (8), cyclopenthiazide (12), cyclothiazide (12), disulfamide (11), ethiazide (14), flumethiazide (10), hydrochlorothiazide (10), hydroflumethiazide (10), methyclothiazide (11), polythiazide (12), teclothiazide (12), trichlormethiazide (11)

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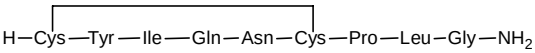
USAN

**-tocin** **oxytocin derivatives**

Q.1.2.0




(a) argiprestocin (13), aspartocin (11), carbetocin (45), cargutocin (35), demoxytocin (22), nacartocin (49), oxytocin (13)

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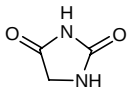
USAN

**-toin (d)** **antiepileptics, hydantoin derivatives**

A.3.1.1



(a) albutoin (13), doxenitoin (3l), ethotoin (6), fosphenytoin (62), mephenytoin (1), metetoin (12), phenytoin (4)

ropitoin (40) (H.2.0.0.)

(b) clodantoin (13) (antifungal), nitrofurantoin (11) (antibacterial)

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**-trakin** **see -kin**

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**-trakinra** **see -kinra**

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**-tredekin** **see -kin**

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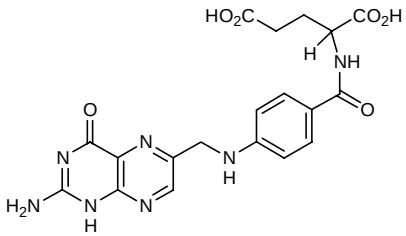
USAN

**-trexate (x)** **folic acid analogues**

L.4.0.0 (USAN: antimetabolites (folic acid analogues))



(a) edatrexate (61), ketotrexate (50), methotrexate (10), pralatrexate (92), trimetrexate (46)

(c) aminopterin sodium (04)

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USAN

**-trexed** **antineoplastics; thymidilate synthetase inhibitors**

L.0.0.0

nolatrexed (78), pemetrexed (78), plevitrexed (89), raltitrexed (94)

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USAN

**-tricin** **antibiotics, polyene derivatives**

S.6.2.0

(a) mepartricin (34), partricin (27)

(b) tyrothricin (1)

(c) amphotericin B (10), candicidin (17), filipin (20), hachimycin (23), hamycin (17), levorin (15), mocimycin (28), natamycin (15), nystatin (6), pecilocin (16)

USAN

**-triptan** **serotonin (5-$HT_1$) receptor agonists, sumatriptan derivatives**

C.0.0.0 (USAN: antimigraine agents (5-$HT_1$ receptor agonists))

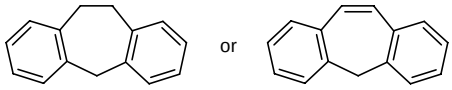
(a) almotriptan (76), avitriptan (76), donitriptan (82), eletriptan (74), frovatriptan (78), naratriptan (69), oxitriptan (39), rizatriptan (75), sumatriptan (59), zolmitriptan (74)

(c) alniditan (72)

USAN

**-triptyline** **antidepressants, dibenzo[a,d]cycloheptane or cyclopheptene derivatives**

C.3.2.0 (USAN: antidepressants (dibenzo[a,d]cycloheptane derivatives))




(a) amitriptyline (11), butriptyline (16), cotriptyline (26), intriptyline (26), nortriptyline (12), octriptyline (33), protriptyline (14), amitriptylinoxide (36), demexiptiline (43), levoprotiline (56), noxiptiline (20), oxaprotiline (45), setiptiline (56)

(b) oxitriptyline (21) (anticonvulsant)

(c) hepzidine (15)

see also Pharm S/Nom 970

USAN

**-troban** **thromboxane $A_2$-receptor antagonists; antithrombotic agents**

I.2.1.0 (USAN: antithrombotics (thromboxane $A_2$ receptor antagonists)

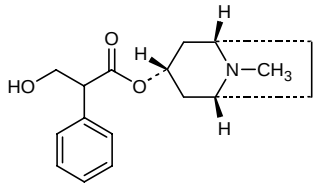
argatroban (57), daltroban (57), domitroban (73), ifetroban (71), linotroban (69), mipitroban (73), ramatroban (73), sulotroban (55), terutroban (93)

**-trodast** **see -ast**

USAN

**trop** **atropine derivatives**

E.2.0.0 (USAN: trop- ; or –trop-)




(a) parasympatholytic/anticholinergic: E.2.2.0:
tertiary amines:
atropine oxyde (12), benzatropine (4), decitropine (18), etybenzatropine (12), eucatropine (1), tropatepine (28), tropicamide (11), tropigline (8), tropodifene (18)

closely related:
esbatropate (65)

quaternary ammonium salts:
atropine methonitrate (4), butropium bromide (30), ciclotropium bromide (50), cimetropium bromide (51), flutropium bromide (50), homatropine methylbromide (1), ipratropium bromide (28), octatropine methylbromide (10), oxitropium bromide (36), phenactropinium chloride (8), ritropirronium bromide (33), sevitropium mesilate (56), sintropium bromide (47), sultroponium (18), tematropium metilsulfate (64), tiotropium bromide (67), tipetropium bromide (42), tropenziline bromide (11), xenytropium bromide (15)

various:
clobenztropine (13) (antihistaminic), cyheptropine (15) (antiarrhythmic), deptropine (12) (antiasthmatic), revatropate (74) (bronchodilator), tropabazate (41) (tranquillizer), tropanserin (55) (serotonin receptor antagonist), tropapride (48) (antipsychotic), tropirine (20) (respiratory disorders), tropisetron (62) (serotonin antagonist)

(b) dextropropoxyphene (7), somatropin (56)

(c) parasympatholytic/anticholinergic, tertiary amines:
poskine (8), prampine (11), tigloidin (14)

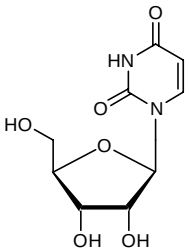
various:
zepastine (26) (antihistaminic)

**-uplase** **urokinase type plasminogen activator, see -ase item VII**

USAN

**-uridine** **uridine derivatives used as antiviral agents and as antineoplastics**

S.5.3.0
L.4.0.0




L.4.0.0: broxuridine (30), doxifluridine (44)

related: carmofur (45), clanfenur (58), tegafur (41)

S.5.3.0: fialuridine (68), floxuridine (16), fosfluridine tidoxil (93), idoxuridine (17), navuridine (84), trifluridine (37)

**-vudine** (USAN: -vudine: antineoplastics; antivirals (zidovudine type))

(a) alovudine (68), brivudine (59), clevudine (78), epervudine (61), fosalvudine tidoxil (95), fozivudine tidoxil (73), lamivudine (66), netivudine (72), sorivudine (64), stavudine (65), telbivudine (88), zidovudine (56)

(c) edoxudine (52)

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USAN

**-vaptan** **vasopressin receptor antagonists**

H.0.0.0

(a) conivaptan (82), lixivaptan (83), mozavaptan (87), relcovaptan (82), satavaptan (93), tolvaptan (83)

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**-vastatin** **see -stat**

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**-vec** **see -gene** for gene therapy products

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BAN, USAN

**-verine (x)** **spasmolytics with a papaverine-like action**

F.1.0.0 (USAN: spasmolytic agents (papaverine type))

(a) alverine (16), amifloverine (28), bietamiverine (6), butaverine (13), camiverine (29), caroverine (28), clofeverine (31), demelverine (17), denaverine (25), dexsecoverine (53), dicycloverine (6), dihexyverine (4), dipiproverine (10), diproteverine (51), drotaverine (17),

elziverine (57), ethaverine (4), febuverine (27), fenoverine (28), floverine (28), heptaverine (16), ibuverine (21), idaverine (55), mebeverine (14), milverine (52), mofloverine (28), moxaverine (36), nafiverine (16), niceverine (15), octaverine (18), pargeverine (38), pentoxyverine (6), pramiverine (21), prenoverine (41), propiverine (45), rociverine (33), salfluverine (29), salverine (15), secoverine (38), temiverine (76), zardaverine (59)
Related:
fenpiverinium bromide (26), pinaverium bromide (32)

(b) cinnamaverine (10) (anticholinergic, tert. amine), diaveridine (18)

(c) spasmolytics chemically related to some of the above INN ending in *-verine*

butetamate (17), butinoline (14), camylofin (12), cinnamedrine (19), cyclandelate (8), difemerine (17), diisopromin (11), dimoxylin (1), fenpiprane (17), fenyramidol (12), metindizate (16), oxybutynin (13), papaveroline (29), pentapiperide (10), prozapine (14), triclazate (10), tropenziline bromide (11)

---

USAN

**vin- and -vin- (x)** **vinca alkaloids**

(USAN: vin-; or -vin-)

(a) B.l.0.0 stimulation of cerebrovascular circulation
apovincamine (48), brovincamine (42), vinburnine (45), vincamine (22), vincanol (37), vincantril (51), vinconate (47), vindeburnol (49), vinmegallate (59), vinpocetin (36), vinpoline (35), vintoperol (61)

L.5.0.0 cytostatic
vinblastine (12), vincristine (13), vindesine (35), vinepidine (50), vinflumine (76), vinformide (38), vinfosiltine (64), vinglycinate (16), vinleucinol (64), vinleur (13), vinorelbine (57), vinrosidine (13), vintriptol (51), vinzolidine (46)

(b) barbiturates
vinbarbital (l), vinylbital (12)
others: vincofos (28) (phosphate, anthelmintic), vintiamol (16) (vitamin B derivative, antineuralgic)

---

BAN; USAN

**vir** **antivirals (undefined group)**

S.5.3.0 (USAN: -vir; -vir; or vir-)

(a) alvircept sudotox (69), amdoxovir (85), amitivir (67), ancriviroc (92), atevirdine (69), capravirine (83), ciluprevir (90), dapivirine (86), delavirdine (71), denotivir (70), efavirenz (78), emivirine (82), enfuvirtide (85), enviradene (49), enviroxime (44), etravirine (88), litomeglovir (84), loviride (70), maribavir (80), maraviroc (91), nevirapine (66), opaviraline (83), pirodavir (63), ribavirin (3l), rilpivirine (91), rupintrivir (88), taribavirin (95), talviraline (75), telaprevir (94), tifuvirtide (91), tivirapine (74), tomeglovir (84), trovirdine (73), viroxime (49), zinviroxime (44)

*-amivir* neuraminidase inhibitors: oseltamivir (80), peramivir (86), zanamivir (72)

*-cavir* carbocyclic nucleosides: abacavir (76), entecavir (82), lobucavir (72)

*-ciclovir* bicyclic heterocycle compounds: aciclovir (42), buciclovir (52), desciclovir (55), detiviciclovir (86), famciclovir (61), ganciclovir (56), omaciclovir (84), penciclovir (61), rociclovir (62), tiviciclovir (86), valaciclovir (69), valganciclovir (78), valomaciclovir (84)

*-fovir* phosphonic acid derivatives: adefovir (72), alamifovir (89), cidofovir (72), pradefovir (93), tenofovir (82)

*-gosivir* glucoside inhibitors: celgosivir (77)

*-navir* HIV protease inhibitors: amprenavir (79), atazanavir (88), brecanavir (94), darunavir (88), droxinavir (74), fosamprenavir (83), indinavir (74), lasinavir (76), lopinavir (80), mozenavir (84), nelfinavir (76), palinavir (74), ritonavir (74), saquinavir (69), telinavir (73), tipranavir (80)

*-virsen* see *-rsen*

*-virumab* see *mab*

(b) virginiamycin (18), viridofulvin (16)

(c) aranotin (21), arildone (38), avridine (50), didanosine (64), disoxaril (55), dimepranol (42), foscarnet sodium (42), fosfonet sodium (35), ketoxal (22), impacarzine (36), inosine (42), lodenosine (75), metisazone (14), moroxydine (22), pleconaril (77), tilorone (24), xenazoic acid (11)

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**-vos** **see -fos**

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**-vudine** **see -uridine**

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USAN

**-xaban** **blood coagulation factor $X_A$ inhibitors, antithrombotics**

(a) apixaban (93), fidexaban (91), otamixaban (86), rivaroxaban (90), razaxaban (90)

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**-xanox** **see -ox/-alox**

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**-yzine** **see -izine**

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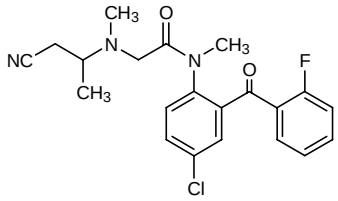
**-zafone** **alozafone derivatives**

C.1.0.0




(a) alozafone (40), avizafone (64), ciprazafone (50), dinazafone (46), dulozafone (56), lorzafone (48), oxazafone (45), rilmazafone (55)

**-zepine** **see -pine**

**-zone** **see -buzone**

USAN

**-zotan** **5-$HT_{1A}$ receptor agonists/antagonists acting primarly as neuroprotectors**

ebalzotan (72), lecozotan (93), osemozotan (87), piclozotan (92), robalzotan (90), sarizotan (94)

# ANNEX 1

## INN Stems for monoclonal antibodies

The following stem system was adopted by the members of the Expert Advisory Panel on the International Pharmacopoeia and Pharmaceutical Preparations designated to deal with the selection of nonproprietary names for naming monoclonal antibodies.

**I. General stem:** *-mab*

**II. Sub-stems for source of product:**

| | |
|---|---|
| *u* | human |
| *o* | mouse |
| *a* | rat |
| *e* | hamster |
| *i* | primate |
| *xi* | chimeric |
| *zu* | humanized |

The distinction between chimeric and humanized antibodies is as follows:

A chimeric antibody is one that contains contiguous foreign-derived amino acids comprising the entire variable region of both heavy and light chains linked to heavy and light constant regions of human origin.

A humanized antibody has segments of foreign-derived amino acids interspersed among variable region segments of human-derived amino acid residues and the humanized heavy-variable and light-variable regions are linked to heavy and light constant regions of human origin.

**III. Sub-stems for disease or target class:**

| | |
|---|---|
| *-ba(c)-* | bacterial |
| *-ci(r)-* | cardiovascular |
| *-fung-* | fungal |
| *-le(s)-* | inflammatory lesions |

| | |
|---|---|
| *-li(m)-* | immunomodulator |
| *-os-* | bone |
| *-vi(r)-* | viral |

tumours:

| | |
|---|---|
| *-co(l)-* | colon |
| *-go(t)-* | testis |
| *-go(v)-* | ovary |
| *-ma(r)-* | mammary |
| *-me(l)-* | melanoma |
| *-pr(o)-* | prostate |
| *-tu(m)-* | miscellaneous |

Whenever there is a problem in pronunciation, the final letter of the sub-stems for diseases or targets may be deleted, e.g. *-vi(r)-, -ba(c)-, -li(m)-, -co(l)-*, etc.

**IV. Prefix:**

Should be random e.g. the only requirement is to contribute to a euphonious and distinctive name.

**V. Second word:**

If the product is radiolabelled or conjugated to another chemical, such as toxin, identification of this conjugate is accomplished by use of a separate, second word or acceptable chemical designation.

If the monoclonal antibody is used as a carrier for a radioisotope, the latter will be listed first in the INN, e.g. technetium ($^{99m}$Tc) pintumomab.

**VI. *-toxa-* infix:**

For monoclonals conjugated to a toxin, the infix *–toxa-* can be inserted either into the first (main) name or included in the second word.

# ANNEX 2

## PROCEDURE FOR THE SELECTION OF RECOMMENDED INTERNATIONAL NONPROPRIETARY NAMES FOR PHARMACEUTICAL SUBSTANCES*

The following procedure shall be followed by the World Health Organization in the selection of recommended International Nonproprietary Names for pharmaceutical substances, in accordance with the World Health Assembly resolution WHA3.11:

1. Proposals for recommended international nonproprietary names shall be submitted to the World Health Organization on the form provided therefor.

2. Such proposals shall be submitted by the Director-General of the World Health Organization to the members of the Expert Advisory Panel on the International Pharmacopoeia and Pharmaceutical Preparations designated for this purpose, for consideration in accordance with the "General principles for guidance in devising International Nonproprietary Names", appended to this procedure. The name used by the person discovering or first developing and marketing a pharmaceutical substance shall be accepted, unless there are compelling reasons to the contrary.

3. Subsequent to the examination provided for in article 2, the Director-General of the World Health Organization shall give notice that a proposed international nonproprietary name is being considered.

A. Such notice shall be given by publication in the *Chronicle of the World Health Organization*[1] and by letter to Member States and to national pharmacopoeia commissions or other bodies designated by Member States.

(i) Notice may also be sent to specific persons known to be concerned with a name under consideration.

B. Such notice shall:

(i) set forth the name under consideration;

(ii) identify the person who submitted a proposal for naming the substance, if so requested by such person;

(iii) identify the substance for which a name is being considered;

(iv) set forth the time within which comments and objections will be received and the person and place to whom they should be directed;

(v) state the authority under which the World Health Organization is acting and refer to these rules of procedure.

C. In forwarding the notice, the Director-General of the World Health Organization shall request that Member States take such steps as are necessary to prevent the acquisition of proprietary rights in the proposed name during the period it is under consideration by the World Health Organization.

4. Comments on the proposed name may be forwarded by any person to the World Health Organization within four months of the date of publication, under article 3, of the name in the *Chronicle of the World Health Organization.*

5. A formal objection to a proposed name may be filed by any interested person within four months of the date of publication, under article 3, of the name in the *Chronicle of the World Health Organization*.

Such objection shall:

(I) identify the person objecting;

(ii) state his interest in the name;

(iii) set forth the reasons for his objection to the name proposed.

6. Where there is a formal objection under article 5, the World Health Organization may either reconsider the proposed name or use its good offices to attempt to obtain withdrawal of the objection. Without prejudice to the consideration by the World Health Organization of a substitute name or names, a name shall not be selected by the World Health Organization as a recommended international nonproprietary name while there exists a formal objection thereto filed under article 5 which has not been withdrawn.

7. Where no objection has been filed under article 5, or all objections previously filed have been withdrawn, the Director-General of the World Health Organization shall give notice in accordance with subsection A of article 3 that the name has been selected by the World Health Organization as a recommended international nonproprietary name.

8. In forwarding a recommended international nonproprietary name to Member States under article 7, the Director-General of the World Health Organization shall:

A. request that it be recognized as the nonproprietary name for the substance; and

B. request that Member States take such steps as are necessary to prevent the acquisition of proprietary rights in the name, including prohibiting registration of the name as a trade-mark or trade-name.

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*Text adopted by the Executive Board of WHO in resolution EB15.R7 (*Off. Rec. Wld Health Org.*, 1955, **60**, 3) and amended by the Board in resolution EB43.R9 (*Off. Rec. Wld Hlth Org*., 1969, **173**, 10) and in resolution EB115.R4 (EB115/2005/REC/1).

1. The title of this publication was changed to *WHO Chronicle* in January 1959. From 1987 onwards lists of INNs are published in *WHO Drug Information.*

# ANNEX 3

## GENERAL PRINCIPLES FOR GUIDANCE IN DEVISING INTERNATIONAL NONPROPRIETARY NAMES FOR PHARMACEUTICAL SUBSTANCES*

1. International Nonproprietary Names (INN) should be distinctive in sound and spelling. They should not be inconveniently long and should not be liable to confusion with names in common use.

2. The INN for a substance belonging to a group of pharmacologically related substances should, where appropriate, show this relationship. Names that are likely to convey to a patient an anatomical, physiological, pathological or therapeutic suggestion should be avoided.

*These primary principles are to be implemented by using the following secondary principles:*

3. In devising the INN of the first substance in a new pharmacological group, consideration should be given to the possibility of devising suitable INN for related substances, belonging to the new group.

4. In devising INN for acids, one-word names are preferred; their salts should be named without modifying the acid name, e.g. ”oxacillin” and “oxacillin sodium”, “ibufenac” and “ibufenac sodium”.

5. INN for substances which are used as salts should in general apply to the active base or the active acid. Names for different salts or esters of the same active substance should differ only in respect of the name of the inactive acid or the inactive base.

For quaternary ammonium substances, the cation and anion should be named appropriately as separate components of a quaternary substance and not in the amine-salt style.

6. The use of an isolated letter or number should be avoided; hyphenated construction is also undesirable.

7. To facilitate the translation and pronunciation of INN, “f” should be used instead of “ph”, “t” instead of “th”, “e” instead of “ae” or “oe”, and “i” instead of “y”; the use of the letters “h” and “k” should be avoided.

8. Provided that the names suggested are in accordance with these principles, names proposed by the person discovering or first developing and marketing a pharmaceutical preparation, or names already officially in use in any country, should receive preferential consideration.

9. Group relationship in INN (see Guiding Principle 2) should if possible be shown by using a common stem. The following list contains examples of stems for groups of substances, particularly for new groups. There are many other stems in active use.* Where a stem is shown without any hyphens it may be used anywhere in the name.

| *Latin* | *English* | |
|---|---|---|
| *-acum* | *-ac* | anti-inflammatory agents, ibufenac derivatives |
| *-adolum* | *-adol )* | analgesics |
| *-adol-* | *-adol- )* | |
| *-astum* | *-ast* | antiasthmatic, antiallergic substances not acting primarily as antihistaminics |
| *-astinum* | *-astine* | antihistaminics |
| *-azepamum* | *-azepam* | diazepam derivatives |
| *bol* | *bol* | anabolic steroids |
| *-cain-* | *-cain-* | class I antiarrhythmics, procainamide and lidocaine derivatives |
| *-cainum* | *-caine* | local anaesthetics |
| *cef-* | *cef-* | antibiotics, cefalosporanic acid derivatives |
| *-cillinum* | *-cillin* | antibiotics, 6-aminopenicillanic acid derivatives |
| *-conazolum* | *-conazole* | systemic antifungal agents, miconazole derivatives |
| *cort* | *cort* | corticosteroids, except prednisolone derivatives |
| *-coxibum* | *-coxib* | selective cyclo-oxygenase inhibitors |
| *-entanum* | *-entan* | endothelin receptor antagonists |
| *gab* | *gab* | gabamimetic agents |
| *gado-* | *gado-* | diagnostic agents, gadolinium derivatives |
| *-gatranum* | *-gatran* | thrombin inhibitors, antithrombotic agents |
| *gest* | *gest* | steroids, progestogens |
| *gli* | *gli* | antihyperglycaemics |
| *io-* | *io-* | iodine-containing contrast media |
| *-metacinum* | *-metacin* | anti-inflammatory substances, indometacin derivatives |
| *-mycinum* | *-mycin* | antibiotics, produced by *Streptomyces* strains |
| *-nidazolum* | *-nidazole* | antiprotozoals, metronidazole derivatives |
| *-ololum* | *-olol* | β-adrenoreceptor antagonists |
| *-oxacinum* | *-oxacin* | antibacterials, nalidixic acid derivatives |
| *-platinum* | *-platin* | antineoplastic agents, platinum derivatives |
| *-poetinum* | *-poetin* | erythropoietin type blood factors |
| *-pril(at)um* | *-pril(at)* | angiotensin-converting enzyme inhibitors |
| *-profenum* | *-profen* | anti-inflammatory substances, ibuprofen derivatives |
| *prost* | *prost* | prostaglandins |
| *-relinum* | *-relin* | pituitary hormone release-stimulating peptides |
| *-sartanum* | *-sartan* | angiotensin II receptor antagonists, antihypertensive (non-peptidic) |
| *-vaptanum* | *-vaptan* | vasopressin receptor antagonists |
| *vin-* | *vin- )* | vinca alkaloids |
| *-vin-* | *-vin- )* | |

* In its twentieth report (WHO Technical Report Series, No. 581, 1975), the WHO Expert Committee on Nonproprietary Names for Pharmaceutical Substances reviewed the general principles for devising, and the procedures for selecting, international nonproprietary names (INN) in the light of developments in pharmaceutical compounds in recent years. The most significant change has been the extension to the naming of synthetic chemical substances of the practice previously used for substances originating in or derived from natural products. This practice involves employing a characteristic “stem” indicative of a common property of the members of a group. The reasons for, and the implications of, the change are fully discussed.

# ANNEX 4

## INNs FOR GENE THERAPY PRODUCTS

The following nomenclature scheme was adopted by the members of the INN Expert Group designated to deal with the selection of nonproprietary names in December 2005 after a braod consultative process.

A two-word name approach has been selected:

***Word 1*** *-gene* *gene component*

| | |
|---|---|
| *-lim(o)-* | immunomodulators |
| *-tusu-* | tumour suppression |
| *-ermin(o)-* | growth factors |
| *-kin(o)-* | interleukins |
| *-mul-* | multiple genes |

| **prefix** | **infix** | | **suffix** |
|---|---|---|---|
| random to contribute to euphonious and distinctive name | *-lim(o)-*<br>*-tusu-*<br>*-ermin(o)-*<br>*-kin(o)-*<br>*-mul-*<br>etc. | immunomodulators<br>tumour suppression<br>growth factors<br>interleukins<br>multiple genes | *-gene* |

***Word 2*** *-vec* *vector component is a virus*

| | |
|---|---|
| *-lenti-* | lentiviruses |
| *-retro-* | other retroviruses |
| *-adeno-* | adenoviruses |
| *-vari-* | vacciniae |
| *-cana-* | canarypox viruses |
| *-herpa-* | herpes viruses |

*-plasmid* *in case the vector is a plasmid*

| **prefix** | **infix** | | **suffix** | |
|---|---|---|---|---|
| random to contribute to euphonious and distinctive name | *-lenti-*<br>*-retro-*<br>*-adeno-*<br>*-vari-*<br>*-cana-*<br>*-herpa-* | lentiviruses<br>other retroviruses<br>adenoviruses<br>vaccinia viruses<br>canarypox viruses<br>herpes viruses | *-vec* | virus |
| | | | *-plasmid* | plasmid |

In case of naked DNA, there is no need for a second word in the name.

In case of antisense oligonucleotides, please refer to the already existing stem *-rsen*.

# ANNEX 5

## Reference to publications containing proposed lists of INNs

| List no. | and reference |
|---|---|
| 1 | *Chron. Wld Hlth Org.* **7**: 299 (1953) |
| 2 | *Chron. Wld Hlth Org.* **8**: 216 (1954) |
| 3 | *Chron. Wld Hlth Org.* **9**: 313 (1954) |
| 4 | *Chron. Wld Hlth Org.* **10**: 28 (1956) |
| 5 | *Chron. Wld Hlth Org.* **11**: 231 (1957) |
| 6 | *Chron. Wld Hlth Org.* **12**: 102 (1958) |
| 7 | *WHO chronicle* **13**: 105 (1959) |
| 8 | *WHO chronicle* **13**: 152 (1959) |
| 9 | *WHO chronicle* **14**: 168 (1960) |
| 10 | *WHO chronicle* **14**: 244 (1960) |
| 11 | *WHO chronicle* **15**: 314 (1961) |
| 12 | *WHO chronicle* **16**: 385 (1962) |
| 13 | *WHO chronicle* **17**: 389 (1963) |
| 14 | *WHO chronicle* **18**: 433 (1964) |
| 15 | *WHO chronicle* **19**: 446 (1965) |
| 16 | *WHO chronicle* **20**: 216 (1966) |
| 17 | *WHO chronicle* **21**: 70 (1967) |
| 18 | *WHO chronicle* **21**: 478 (1967) |
| 19 | *WHO chronicle* **22**: 112 (1968) |
| 20 | *WHO chronicle* **22**: 407 (1968) |
| 21 | *WHO chronicle* **23**: 183 (1969) |
| 22 | *WHO chronicle* **23**: 418 (1969) |
| 23 | *WHO chronicle* **24**: 119 (1970) |
| 24 | *WHO chronicle* **24**: 413 (1970) |
| 25 | *WHO chronicle* **25**: 123 (1971) |
| 26 | *WHO chronicle* **25**: 415 (1971) |
| 27 | *WHO chronicle* **26**: 121 (1972) |
| 28 | *WHO chronicle* **26**: 414 (1972) |
| 29 | *WHO chronicle* **27**: 120 (1973) |
| 30 | *WHO chronicle* **27**: 380 (1973) |
| 31 | *WHO chronicle* **28**: 133 (1974) |
| 32 | *WHO chronicle* **28**: No. 9, suppl. (1974) |
| 33 | *WHO chronicle* **29**: No. 3, suppl. (1975) |
| 34 | *WHO chronicle* **29**: No. 9, suppl. (1975) |
| 35 | *WHO chronicle* **30**: No. 3, suppl. (1976) |
| 36 | *WHO chronicle* **30**: No. 9, suppl. (1976) |
| 37 | *WHO chronicle* **31**: No. 3, suppl. (1977) |
| 38 | *WHO chronicle* **31**: No. 9, suppl. (1977) |
| 39 | *WHO chronicle* **32**: No. 3, suppl. (1978) |
| 40 | *WHO chronicle* **32**: No. 9, suppl. (1978) |
| 41 | *WHO chronicle* **33**: No. 3, suppl. (1979) |
| 42 | *WHO chronicle* **33**: No. 9, suppl. (1979) |
| 43 | *WHO chronicle* **34**: No. 3, suppl. (1980) |
| 44 | *WHO chronicle* **34**: No. 9, suppl. (1980) |
| 45 | *WHO chronicle* **35**: No. 3, suppl. (1981) |
| 46 | *WHO chronicle* **35**: No. 5, suppl. (1981) |
| 47 | *WHO chronicle* **36**: No. 2, suppl. (1982) |
| 48 | *WHO chronicle* **36**: No. 5, suppl. (1982) |
| 49 | *WHO chronicle* **37**: No. 2, suppl. (1983) |
| 50 | *WHO chronicle* **37**: No. 5, suppl. (1983) |
| 51 | *WHO chronicle* **38**: No. 2, suppl. (1984) |
| 52 | *WHO chronicle* **38**: No. 4, suppl. (1984) |
| 53 | *WHO chronicle* **39**: No. 1, suppl. (1985) |
| 54 | *WHO chronicle* **39**: No. 4, suppl. (1985) |
| 55 | *WHO chronicle* **40**: No. 1, suppl. (1986) |
| 56 | *WHO chronicle* **40**: No. 5, suppl. (1986) |
| 57 | *WHO drug information* **1**: No. 2 (1987) |
| 58 | *WHO drug information* **1**: No. 3 (1987) |
| 59 | *WHO drug information* **2**: No. 2 (1988) |
| 60 | *WHO drug information* **2**: No. 4 (1988) |
| 61 | *WHO drug information* **3**: No. 2 (1989) |
| 62 | *WHO drug information* **3**: No. 4 (1989) |
| 63 | *WHO drug information* **4**: No. 2 (1990) |
| 64 | *WHO drug information* **4**: No. 4 (1990) |
| 65 | *WHO drug information* **5**: No. 2 (1991) |
| 66 | *WHO drug information* **5**: No. 4 (1991) |
| 67 | *WHO drug information* **6**: No. 2 (1992) |
| 68 | *WHO drug information* **6**: No. 4 (1992) |
| 69 | *WHO drug information* **7**: No. 2 (1993) |
| 70 | *WHO drug information* **7**: No. 4 (1993) |
| 71 | *WHO drug information* **8**: No. 2 (1994) |
| 72 | *WHO drug information* **8**: No. 4 (1994) |
| 73 | *WHO drug information* **9**: No. 2 (1995) |
| 74 | *WHO drug information* **9**: No. 4 (1995) |
| 75 | *WHO drug information* **10**: No. 2 (1996) |
| 76 | *WHO drug information* **10**: No. 4 (1996) |
| 77 | *WHO drug information* **11**: No. 2 (1997) |
| 78 | *WHO drug information* **11**: No. 4 (1997) |
| 79 | *WHO drug information* **12**: No. 2 (1998) |
| 80 | *WHO drug information* **12**: No. 4 (1998) |
| 81 | *WHO drug information* **13**: No. 2 (1999) |
| 82 | *WHO drug information* **13**: No. 4 (2000) |
| 83 | *WHO drug information* **14**: No. 2 (2000) |
| 84 | *WHO drug information* **14**: No. 4 (2000) |
| 85 | *WHO drug information* **15**: No. 2 (2001) |
| 86 | *WHO drug information* **16**: No. 1 (2002) |
| 87 | *WHO drug information* **16**: No. 2 (2002) |
| 88 | *WHO drug information* **17**: No. 1 (2003) |
| 89 | *WHO drug information* **17**: No. 3 (2003) |
| 90 | *WHO drug information* **18**: No. 1 (2004) |
| 91 | *WHO drug information* **18**: No. 2 (2004) |
| 92 | *WHO drug information* **18**: No. 4 (2004) |
| 93 | *WHO drug information* **19**: No. 2 (2005) |
| 94 | *WHO drug information* **19**: No. 4 (2005) |
| 95 | *WHO drug information* **20**: No. 2 (2006) |

Lists 1-91 of proposed INN are included in *Cumulative List* No. 11, WHO, Geneva, 2004 (available in CD-ROM only)

# ANNEX 6

## WHY INNs?

Since the number of drug substances being registered during the last decades is constantly increasing, there is a strong need to ensure the identification of each pharmaceutical compound by a unique, universally available and accepted name. The existence of an international nomenclature system for pharmaceutical products is crucial for the clear identification, safe prescription and dispensing of medicines to patients, and for communication and exchange of information among health professionals and scientists worldwide.

An **International Nonproprietary Name (INN)** identifies a pharmaceutical substance by a **unique name that is globally recognized and is public property**. A nonproprietary name is also known as a generic name. Generic names are intended to be used in pharmacopoeias, labeling, advertising, drug regulation and scientific literature.

WHO has a constitutional mandate to offer recommendations to its Member States on any matter that falls within its competence. This includes setting norms and standards for pharmaceutical products moving in international commerce.

The INN system as it exists today was initiated in 1950 by the *World Health Assembly resolution WHA3.11* and began operating in 1953, when the first list of International Nonproprietary Names for pharmaceutical substances was published.

So far, some 8000 names have been designated as INNs, and this number is growing every year by some 120 – 150 new INNs.

INNs are selected in close collaboration with national nomenclature commissions (e.g. BAN *British Approved name*, JAN *Japanese Accepted Name*, USAN *United States Adopted Name* etc.). Today, the INN Committee assumes the leading role in assigning generic names to drug substances. Instances where a national generic name for a new pharmaceutical substance is different from the INN are rare exceptions.

As unique names, INNs have to be distinctive in sound and spelling, and should not be liable to confusion with other names in common use (e.g. trade marks). To make INNs universally available they are formally placed by WHO in the public domain, hence their designation as “nonproprietary”. They can be used without any restriction whatsoever to identify pharmaceutical substances. The clear depiction of INNs on labels assures that prescribers and users alike can easily identify the nature of the pharmacologically active substance in a brand product. The use of INNs is already common in research and clinical documentation, while the importance of the programme is growing further due to the expanding use of generic names for pharmaceutical products.

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