

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

2009



**World Health
Organization**

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Programme on International Nonproprietary Names (INN)
Quality Assurance and Safety: Medicines
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The use of stems in the selection of International Nonproprietary Names (INN) for pharmaceutical substances

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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 - 101) 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 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 2 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 3 explains the nomenclature scheme for monoclonal antibodies. 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 WHA46.19 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 1 and 2.

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 - 101* 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).

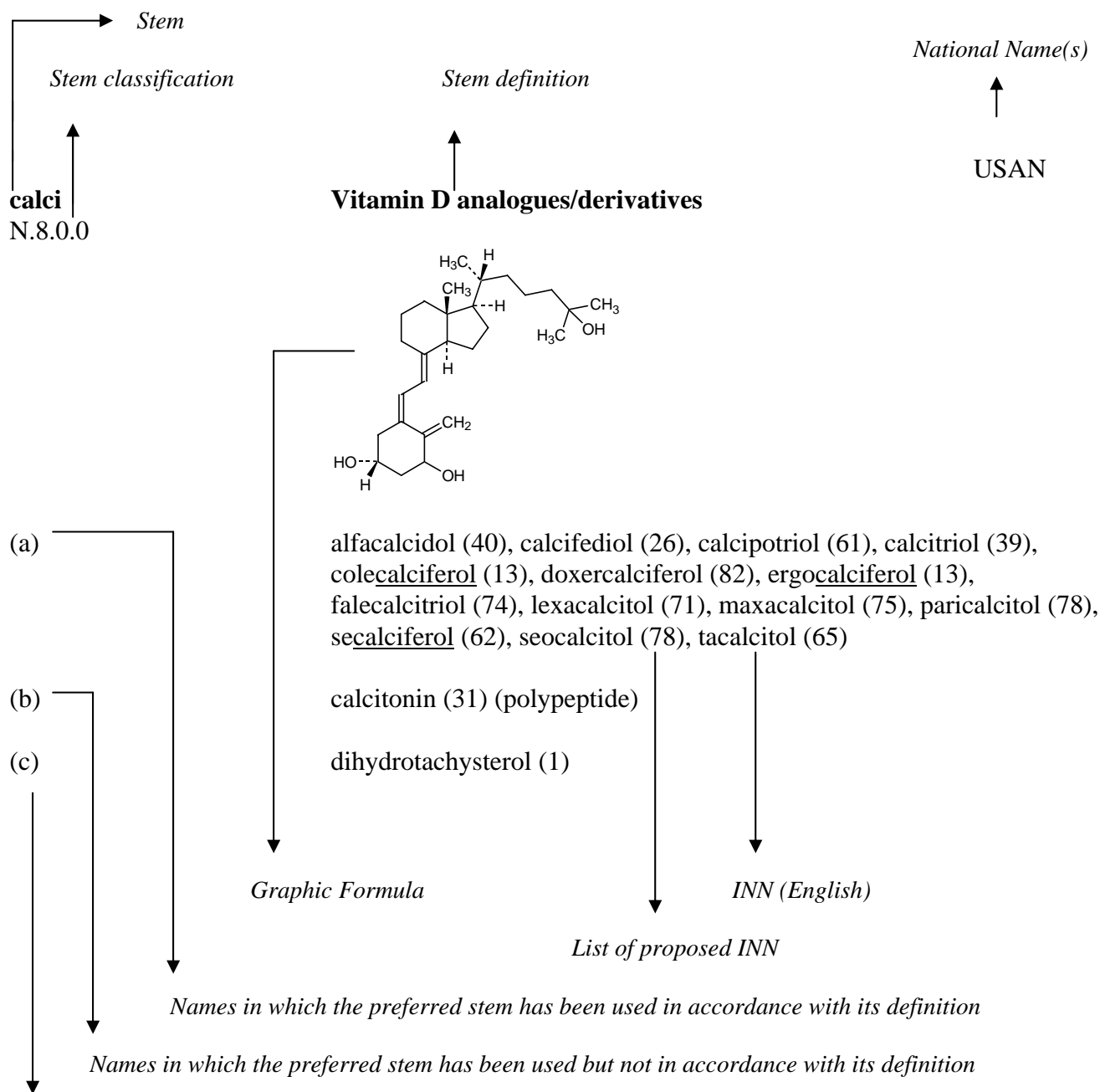
2. References to nationally used syllables published in the British Approved Names (BAN) Dictionary and the USP Dictionary of USAN and International Drug Names have also been made wherever applicable. Whenever the BAN or USAN definitions are not identical to the INN definition they are set out in brackets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

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

Layout of information



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 that were formerly used, but are no longer formally acknowledged by the INN Programme.

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
 -bercept (see -cept)
 -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-)
 -cept
 -cic
 -ciclovir (see vir)
 -cidin
 -ciguat
 -cillide (see -cillin)
 -cillin
 -cillinam (see -cillin)
 -cilpine (see -pine)
 -cisteine (see -steine)
 -citabine

-clone
 -cocept (see -cept)
 -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
 -dotril (see -tril/-trilat)
 -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

-farcept (see -cept)
-fenamate (see -fenamic acid)
-fenamic acid
-fenin
-fenine
-fentanil
-fentine
-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
-gliptin (see 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
-ki(n)- (see -mab)
-kinra
-kiren

L

-lefacept (see -cept)
-leukin (see -kin)
-listat (see -stat)
-lubant
-lukast (see -ast)
-lutril (see -tril/-trilat)

M

-mab
-mantadine
-mantine (see -mantadine)
-mantone (see -mantadine)
-mapimod (see -imod)
-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
-mulin
-mustine
-mycin

N

nab
-nacept (see -cept)
-nabant
-nakin (see -kin)
-nakinra (see -kinra)
nal-
-naritide (see -tide)
-navir (see vir)
-nermin (see -ermin)
-nercept (see -cept)
-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)
 -patril/-patrilat (see -tril/-trilat)
 -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
 pris
 -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)
 -rolimus (see -imus)
 -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

-tacept (see cept)
 -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
 -tril/-trilat
 -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
-vircept (see -cept)
-viroc (see 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, tifleuadom 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	antagonists of the ionotropic non-NMDA (<i>N</i> -methyl-D-aspartate) glutamate receptors (Namely the AMPA (amino-hydroxymethyl-isoxazole-propionic acid) and/or KA (kainite antagonist) receptors)
andr	steroids, androgens
-anib	angiogenesis inhibitors
-anide	saluretics
-anserin	serotonin receptor antagonists (mostly 5-HT ₂)
-antel	anthelmintics (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, benzodiazepine derivatives
-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	β_3 -adrenoreceptor agonists
-benakin (see -kin)	interleukin-1 analogues and derivatives
-bendan (see -dan)	cardiac stimulants, pimobendan derivatives
-bendazole	anthelmintics, tiabendazole derivatives
-bermin (see -ermin)	vascular endothelial growth factors
-bercept (see -cept)	target: VEGF receptors
-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, carbacephem derivatives
-carnil (see -azenil)	benzodiazepine receptor antagonists/agonists (carboline derivatives)
-castat (see -stat)	dopamine-hydroxylase inhibitors
-cavir (see vir)	carbocyclic nucleosides
cef-	antibiotics, cephalosporanic 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
-cept	receptor molecules, native or modified (a preceding infix should designate the target)
-cic	hepatoprotective substances with a carboxylic acid group
-ciclovir (see vir)	antivirals, bicyclic heterocycles compounds
-cidin	naturally occurring antibiotics (undefined group)
-ciguat	guanylate cyclase activators and stimulators
-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
-cistine (see -steine)	mucolytics, other than bromhexine derivatives
-citabine	nucleoside antiviral or antineoplastic agents, cytarabine or azactidine derivatives
-clone	hypnotic tranquillizers
-cocept (see -cept)	target: complement receptors
-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
-dapson	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

-farcept (see -cept)	target: subgroup of interferon receptors
-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)	fibroblast 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, anthelmintics, 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	<i>N</i> -methylated xanthine derivatives

G	
gab	gabamimetic agents
gado-	diagnostic agents, gadolinium derivatives
-gastran	thrombin inhibitor, antithrombotic agent
-gene	gene therapy products
gest	steroids, progestogens
-gestr- (see estr)	estrogens
-giline	MAO-inhibitors type B
-gillin	antibiotics produced by <i>Aspergillus strain</i>
gli	antihyperglycaemics
-gliptin (see gli)	dipeptidyl aminopeptidase–IV inhibitors
-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 <i>Streptomyces kanamyceticus</i>)
-kalant	potassium channel blockers
-kalim	potassium channel activators, antihypertensive
-kef-	enkephalin agonists
-kin	interleukin type substances
-ki(n)- (see -mab)	target: interleukin
-kinra (see -kin)	interleukin receptor antagonists
-kiren	renin inhibitors

L

-lefacept (see -cept)	target: lymphocyte function-associated antigen 3 receptors
-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
-mapimod (see -imod)	mitogen-activated protein (MAP) kinase inhibitors
-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 <i>various Micromonospor</i>
-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
-mulin	antibacterials, pleuromulin derivatives
-mustine	antineoplastic, alkylating agents, (β -chloroethyl)amine derivatives
-mycin	antibiotics, produced by <i>Streptomyces</i> strains (see also -kacin)

N

nab	cannabinol derivatives
-nabant	cannabinoid receptors antagonists
-nacept (see -cept)	target: interleukin-1 receptors
-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 (see -cept)	target: tumour necrosis factor
-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-nitrofurans derivatives
-nil (see -azenil)	benzodiazepine receptor antagonists/agonists (benzodiazepine derivatives)
nitro-/nitr-/nit-/ni-/ni-	NO ₂ - derivatives
-nixin	anti-inflammatory, anilinic 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 14 th 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 derivatives
orphan	narcotic antagonists/agonists, morphinan derivatives
-otemin (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 (<i>Actinoplanes</i> 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	imidazopyrimidine or pyrazolopyrimidine 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
-pris-	steroidal compounds acting on progesterone receptors (excluding -gest- compounds)
-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 derivatives
-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
-rolimus (see -imus)	immunosuppressants, rapamycin derivatives
-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 <i>Rauwolfia</i> 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

-tacept (see -cept)	cytotoxic T lymphocyte-associated antigen 4 (CTLA-4) receptors
-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[<u>a</u> , <u>d</u>]cycloheptane or cycloheptene 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
-tril/trilat	endopeptidase inhibitors
-tricin	antibiotics, polyene derivatives
-triptan	serotonin (5HT ₁) receptor agonists, sumatriptan derivatives
-triptyline	antidepressants, dibenzo[<u>a</u> , <u>d</u>]cycloheptane or cycloheptene 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)
-vircept (see -cept)	target: antiviral receptors
-virsen	antisense oligonucleotides
-vos (see fos)	insecticides, anthelmintics, 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	<i>-flurane</i>	halogenated compounds used as general inhalation anaesthetics
A120	General anaesthetics, other		
A200	Hypnotics - sedatives		
A210	Barbiturates	<i>barb</i>	hypnotics, barbituric acid derivatives
A220	Hypnotic sedatives, other	<i>-clone</i>	hypnotic tranquillizers
A220		<i>-plon</i>	imidazopyrimidine or pyrazolopyrimidine 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	<i>-bersat</i>	anticonvulsants, benzoylamino-benzpyran derivatives
A311	Hydantoins, anticonvulsants	<i>-toin</i>	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	<i>-adol</i> or <i>-adol-</i>	analgesics
A410		<i>-azocine</i>	narcotic antagonists/agonists related to 6,7-benzomorphan
A410		<i>-eridine</i>	analgesics, pethidine derivatives
A410		<i>-ethidine</i>	see <i>-eridine</i>
A410		<i>-fentanil</i>	narcotic analgesics, fentanil derivatives
A410		<i>nal-</i>	narcotic antagonists/agonists related to normorphine
A410		<i>orphan</i>	narcotic antagonists/agonists, morphinan derivatives; <i>-orphine</i> , <i>-orphinol</i> , <i>-orphone</i>
A420	Analgesics - Antipyretics	<i>-ac</i>	anti-inflammatory agents, ibufenac derivatives
A420		<i>-adol</i> or <i>-adol-</i>	analgesics
A420		<i>-arit</i>	antiarthritic substances, acting like clobuzarit and lobenzarit (mechanism different from anti-inflammatory type substances, e.g. <i>-fenamates</i> or <i>-profens</i>)
A420		<i>-bufen</i>	non-steroidal anti-inflammatory agents, <i>arylbutanoic acid</i> derivatives
A420		<i>-butazone</i>	<i>-buzone</i> : anti-inflammatory analgesics, phenylbutazone derivatives
A420		<i>-buzone</i>	anti-inflammatory analgesics, phenylbutazone derivatives
A420		<i>-coxib</i>	selective cyclo-oxygenase inhibitors
A420		<i>-fenamate</i>	" <i>-fenamic acid</i> " derivatives
A420		<i>-fenamic acid</i>	anti-inflammatory, anthranilic acid derivatives

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

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

C310		<i>-moxin</i>	monoamine oxidase inhibitors, hydrazine derivatives
C320	Tricyclic antidepressants	<i>-pin(e)</i>	tricyclic compounds; <i>dipine</i> : see <i>--dipine</i> ; <i>-zepine</i> : antidepressant/neuroleptic; C.0.0.0 <i>-apine</i> : psychoactive; A.3.1.0 <i>cilpine</i> : antiepileptic; <i>-oxepin</i> , <i>-oxopine</i> , <i>-sopine</i> , <i>-tepine</i>
C320		<i>-pramine</i>	substances of the imipramine group
C320		<i>-trityline</i>	antidepressants, dibenzo[a,d]cycloheptane or cycloheptene derivatives
C330	Tetracyclic antidepressants		
C340	Bicyclic antidepressants		
C400	Indirect releasers of catecholamines		
C500	Psychodysleptics (hallucinogens)		
C600	CNS metabolites		
C700	Serotonin receptor antagonists	<i>-anserin</i>	serotonin receptor antagonists (mostly 5-HT ₂)
C700		<i>erg</i>	ergot alkaloid derivatives
C700		<i>-setron</i>	serotonin receptor antagonists (5-HT ₃) not fitting into other established groups of serotonin receptor antagonists, see <i>-anserin</i>
E000	DRUGS ACTING AT SYNAPTIC AND NEUROEFFECTOR JUNCTIONAL SITES	<i>gab</i>	gabamimetic agents
E000	Local anaesthetics	<i>-caine</i>	local anaesthetics

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

E410	Beta adrenoreceptor agonists		
E420	Alpha adrenoreceptor agonists		
E500	Adrenoreceptor antagonists		
E510	Alpha adrenoreceptor antagonists	<i>-oxan(e)</i>	benzodioxane derivatives
E520	Beta adrenoreceptor antagonists	<i>-alol</i>	aromatic ring -CHOH-CH ₂ -NH-R related to -olols
E520		<i>-olol</i>	beta-adrenoreceptor antagonists; <i>-alol</i> : aromatic ring -CH-CH ₂ -NH-R related to -olols
E530	Catecholamines false transmitters		
E540	Adrenergic neurone blocking agents	<i>-serpine</i>	derivatives of <i>Rauwolfia</i> alkaloids
E600	Stimulant cathartics		
F000	AGENTS ACTING ON SMOOTH MUSCLES		
F100	Spasmolytics, general	<i>-verine</i>	spasmolytics with a papaverine-like action
F200	Vasodilators	<i>-afil</i>	inhibitors of PDE5 with vasodilator action
F200		<i>-dil</i>	vasodilators
F200		<i>-entan</i>	endothelin receptor antagonists
F210	Coronary vasodilators, also calcium channel blockers	<i>-dipine</i>	calcium channel blockers, nifedipine derivatives
F210		<i>-fradil</i>	calcium channel blockers acting as vasodilators
F210		<i>-pamil</i>	coronary vasodilators, verapamil derivatives
F210		<i>-tiazem</i>	calcium channel blockers, diltiazem derivatives
F220	Peripheral vasodilators	<i>-nicate</i>	antihypercholesterolaemic and/or vasodilating nicotinic acid esters

F300	Smooth muscle stimulants		
F310	Vasoconstrictor agents		
F400	Agents acting on the uterus	<i>erg</i>	ergot alkaloid derivatives
G000	HISTAMINE AND ANTIHISTAMINICS		
G100	Histamine and histamine-like drugs		
G200	Antihistaminics	<i>-astine</i>	antihistaminics
G210	Histamine H₁-receptor antagonists	<i>-tadine</i>	histamine-H ₁ receptor antagonists, tricyclic compounds
G220	Histamine H₂-receptor antagonists	<i>-tidine</i>	histamine-H ₂ -receptor antagonists, cimetidine derivatives
G230	Histamine H₃-receptor antagonists		
G300	Histamine metabolism agents		
H000	CARDIOVASCULAR AGENTS	<i>-bradine</i>	bradycardic agents
H000		<i>-denoson</i>	adenosine A receptor agonists
H000		<i>-vaptan</i>	vasopressin receptor antagonists
H100	Cardiac glycosides and drugs with similar action	<i>-dan</i>	cardiac stimulants, pimobendan derivatives
H100		<i>-rinone</i>	cardiac stimulants, amrinone derivatives
H200	Agents influencing heart muscle excitability and conductivity	<i>-afenone</i>	antiarrhythmics, propafenone derivatives
H200		<i>-aj-</i>	antiarrhythmics, ajmaline derivatives
H200		<i>-cain-</i>	Class I antiarrhythmics, procainamide and lidocaine derivatives (antifibrillants with local anaesthetic activity)
H200		<i>-ilide</i>	Class III antiarrhythmics, sotalolol derivatives

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

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	<i>-cog</i>	(-) <i>eptacog</i> : blood coagulation VII, (-) <i>octocog</i> : blood factor VIII, (-) <i>nonacog</i> : blood factor IX
I200		<i>-cogin</i>	blood coagulation cascade inhibitors
I200		<i>-fiban</i>	fibrinogen receptor antagonists (glycoprotein IIb/IIIa receptor antagonists)
I200		<i>-gafran</i>	thrombin inhibitor, antithrombotic agents
I200		<i>-parin</i>	heparin derivatives including low molecular mass heparins
I210	Anticoagulants	<i>-arol</i>	anticoagulants, dicoumarol derivatives
I210		<i>-grel-</i> or <i>-grel</i>	platelet aggregation inhibitors
I210		<i>-irudin</i>	hirudin derivatives
I210		<i>-pafant</i>	platelet-activating factor antagonists
I210		<i>-troban</i>	thromboxane A ₂ -receptor antagonists; antithrombotic agents

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	<i>-poetin</i>	erythropoietin type blood factors
I310	Blood substitutes (macromolecular)		
I400	Platelet-function regulators		
I500	Colony stimulating factors	<i>-stim</i>	colony stimulating factors: <i>-distim</i> : combination of two different types of CSF; <i>-gramostim</i> : granulocyte macrophage colony stimulating factor (GM-CSF) type substances; <i>-grastim</i> : granulocyte colony stimulatory factor (G-CSF) type substances; <i>-mostim</i> : macrophage stimulating factors (M-CSF) type substances; <i>-plestim</i> : interleukin-3 analogues and derivatives
I510	Granulocyte stimulating factors	<i>-grastim</i>	see <i>-stim</i>
I520	Macrophage stimulating factor	<i>-mostim</i>	macrophage stimulating factors (M-CSF) type substances; see <i>-stim</i>
J000	AGENTS INFLUENCING THE GASTROINTESTINAL TRACT	<i>-emcinal</i>	erythromycin derivatives lacking antibiotic activity, motilin agonists
J000		<i>-glumide</i>	cholecystokinin antagonists, antiulcer, anxiolytic agents
J000		<i>-prazole</i>	antiulcer, benzimidazole derivatives
J000		<i>-pride</i>	sulpiride derivatives
J000		<i>-serod</i>	serotonin receptor antagonists and partial agonists
J100	Digestives	<i>-azepide</i>	cholecystokinin receptor antagonists

J110	Stomachics		
J120	Choleretics (and hepatoprotective agents)	<i>-cic</i>	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	<i>-ast</i>	antiasthmatics or antiallergics, not acting primarily as antihistaminics; <i>-lukast</i> : leukotriene receptor antagonist; <i>-milast</i> : phosphodiesterase IV (PDE IV) inhibitors; <i>-trodist</i> : thromboxane A ₂ receptor antagonists, antiasthmatics, <i>-zolast</i> : leukotriene biosynthesis inhibitors
K000		<i>-cromil</i>	antiallergics, cromoglicic acid derivatives
K000		<i>-exine</i>	mucolytic, bromhexine derivatives
K000		<i>-fentrine</i>	inhibitors of phosphodiesterases
K000		<i>-lukast</i>	leukotriene receptor antagonists, see <i>-ast</i>
K000		<i>-steine</i>	mucolytics, other than bromhexine derivatives
K000		<i>-trodist</i>	thromboxane A ₂ receptor antagonists, antiasthmatics ;see <i>-ast</i>
K000		<i>-xanox</i>	antiallergic respiratory tract drugs, xanoxic acid derivatives
K100	Antitussives		
K110	Antitussives - central		
K120	Antitussives - peripheral		

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

L200		<i>-tepa</i>	antineoplastics, thiotepa derivatives
L300	Radioisotopes (except diagnostics)		
L310	Radioisotopes - systemic		
L320	Radioisotopes - locally applied		
L400	Antineoplastics - antimetabolites	<i>-abine</i>	see <i>-arabine</i> , <i>-citabine</i>
L400		<i>-citabine</i>	nucleoside antiviral or antineoplastic agents, cytarabine or azactidine derivatives
L400		<i>-trexate</i>	folic acid analogues
L400		<i>-uridine</i>	uridine derivatives used as antiviral agents and as antineoplastics; also <i>-udine</i>
L410	Ornithine decarboxylase inhibitors		
L500	Antineoplastics - natural products (incl. antibiotics)	<i>-rubicin</i>	antineoplastic antibiotics, daunorubicin derivatives
L500		<i>vin-</i> or <i>-vin-</i>	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)	<i>-stat</i> (or <i>-stat-</i>)	enzyme inhibitors; <i>-lipastat</i> : pancreatic lipase inhibitors; <i>-restat</i> or <i>-restat-</i> : aldose-reducing inhibitors; <i>-vastatin</i> : antihyperlipidaemic substances, HMG CoA reductase inhibitors
M100	Anorectics	<i>-orex</i>	anorectics
M200	Dietetics and antiadipositas drugs		
M210	Bulk forming drugs		

M300	Agents influencing lipid and fat metabolism	<i>-imibe</i>	antihyperlipidaemics, acyl CoA:cholesterol acyltransferase (ACAT) inhibitors
M300		<i>-lipastat</i>	see <i>-stat</i>
M300		<i>-vastatin</i>	see <i>-stat</i> ; antihyperlipidaemic substances, HMGCoA reductase inhibitors
M310	Antiatherosclerosis agents		
M320	Lipotropic agents		
M321		<i>-begron</i>	β_3 -adrenoreceptor agonists
M330	Lipogenesis inducing agents		
M400	Agents influencing protein metabolism		
M410	Anabolic steroids	<i>bol</i>	anabolic steroids
M420	Catabolic agents		
M430	Amino acids		
M500	Agents influencing carbohydrate metabolism	<i>-restat</i> (or <i>-restat-</i>)	see <i>-stat</i> ; aldose-reductase inhibitors
M510	Insulins		
M520	Oral antidiabetics - islet mediated	<i>-formin</i>	antihyperglycaemics, phenformin derivatives
M520		<i>gli-</i> , <i>-gli-</i>	previously <i>gly-</i> ; antihyperglycaemics
M520		<i>-glitazar</i>	peroxisome proliferator activating receptor (PPAR) agonists
M520		<i>-glitazone</i>	peroxisome proliferator activating receptor (PPAR) agonists, thiazolidinedione derivatives
M530	Oral antidiabetics - extra pancreatic	<i>gli</i>	antihyperglycaemics

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	<i>-thiouracil</i>	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	<i>-semide</i>	diuretics, furosemide derivatives
N120	Saluretics	<i>-anide</i>	N.1.2.0 <i>-etanide</i> : diuretics, piretanide derivatives; S.3.0.0 <i>-oxanide</i> : antiparasitic, salicylanilides and analogues
N120		<i>-etanide</i>	diuretics, piretanide derivatives; see <i>-anide</i>

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

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

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

Q330	Glucosteroids	<i>pred</i>	prednisone and prednisolone derivatives; <i>-methasone</i> or <i>-metasone</i> , <i>-betasol</i> , <i>-olone</i>
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)	<i>-nifur-</i>	5-nitrofuran derivatives
S220	Heavy metal antiseptics	<i>-mer-</i>	mercury-containing drugs, antimicrobial or diuretic (deleted from General Principles in List 28 prop. INN) [<i>mer-</i> and <i>-mer-</i> 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	<i>-ectin</i>	antiparasitics, ivermectin derivatives
S300		<i>-oxanide</i>	antiparasitics, salicylanilides and analogues; see <i>-anide</i>
S310	Anthelmintics (excl. antinematode agents)	<i>-antel</i>	anthelmintics (undefined group)
S310		<i>-bendazole</i>	anthelmintics, tiabendazole derivatives

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

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

S630		<i>-kacin</i>	antibiotics, kanamycin and bekanamycin derivatives (obtained from <i>Streptomyces kanamyceticus</i>); S.6.5.0: <i>-micin</i> : antibiotics obtained from various <i>Micromonospora</i>
S640	Antibiotics affecting nucleic acid metabolism	<i>rifa-</i>	antibiotics, rifamycin derivatives
S650	Antibiotics-action unclassified (including β-lactamase inhibitors)	<i>-bactam</i>	β -lactamase inhibitors
S650		<i>-micin</i>	see <i>-kacin</i> ; antibiotics obtained from various <i>Micromonospora</i>
S700	Immunomodulators and immunostimulants (incl. gamma globulins)	<i>imex</i>	immunostimulants
S700		<i>-imod</i>	immunomodulators, both stimulant/suppressive and stimulant
S700		<i>-imus</i>	immunosuppressants (other than antineoplastics)
S700		<i>-kin</i>	interleukin type substances: <i>-nakin</i> , <i>-leukin</i> , <i>-trakin</i> , <i>-exakin</i> , <i>-octakin</i> , <i>-decakin</i> , <i>-elvekin</i> , <i>-dodekin</i> , <i>tredekin</i> , <i>-octadekin</i>
S700		<i>-kinra</i>	interleukin-receptors antagonists: <i>-nakinra</i> , <i>-trakinra</i>
S700		<i>-mab</i>	monoclonal antibodies (see also Annex)
S700		<i>-stim</i>	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		<i>-ermin</i> : growth factors; <i>-dermin</i> : epidermal growth factors; <i>-fermin</i> : fibrino-blast growth factors; <i>-nermin</i> : tumour necrosis factor; <i>-sermin</i> : insulin-like growth factors
U000		<i>gado-</i>	diagnostic agents, gadolinium derivatives
U100	Diagnostic aids	<i>-fenin</i>	diagnostic aids; (phenyl-carbamoyl)methyl iminodiacetic acid derivatives
U110	Radiocontrast media	<i>io-</i>	iodine-containing contrast media
U110		<i>-io-</i> or <i>iod-</i>	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	<i>-lubant</i>	phospholipase A ₂ inhibitors

U310	Non-antipyretic antirheumatics		
U320	Anti-inflammatory agents, other		
U400	Pharmaceutical adjuncts	<i>cell-</i> or <i>cel-</i>	cellulose derivatives; (<i>cell-ate</i> and <i>-cellose</i>)
U400		<i>-dronic acid</i>	calcium metabolism regulator, pharmaceutical aid
V000	UNCLASSIFIED PHARMACOLOGICAL MECHANISMS		
V100	Intrauterine contraceptive device		
V200	Medicinal plants		
V300	Homoeopathic preparations		
W000	ENZYMES AND VARIOUS	<i>-ase</i>	enzymes; <i>-dismase</i> , <i>-teplase</i> , <i>-uplase</i>
W000		<i>-pladib</i>	phospholipase A ₂ inhibitors
W000		<i>-stat</i>	enzyme inhibitors
Y000	VETERINARY DRUGS	<i>-nidazole</i>	antiprotozoals and radiosensitizers, metronidazole derivatives

PART IV

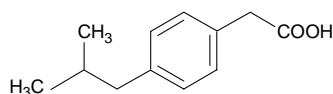
ALPHABETICAL LIST OF STEMS TOGETHER WITH CORRESPONDING INNS

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

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

USAN

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



- (a) -clofenac: aceclofenac (52), alclofenac (23), diclofenac (28), fenclofenac (30)
-dolac: dexipemedolac (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)
-

-acetam **see -racetam**

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

USAN

Q.1.1.1 (USAN: synthetic corticotropins)

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

BAN, USAN

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

A.4.1.0

A.4.2/3.0 (USAN: analgesics (mixed opiate receptor agonists/antagonists))

- (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)

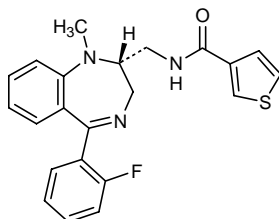
A.4.2/3.0: apadoline (74), asimadoline (74), befiradol (99), bromadoline (49), ciprefadol (41), ciramadol (39), cloracetadol (16), dibusadol (24), dimenoxadol (7), diproxadol (34), enadoline (68), faxeladol (97), filenadol (47), flumexadol (36), fluradoline (48), gaboxadol (48), levonantradol (43), lorcinadol (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)

-adom **analgesics, tifluadom derivatives**

A.4.3.0

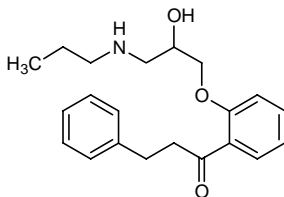


- (a) lufuradom (50), tifluadom (48)

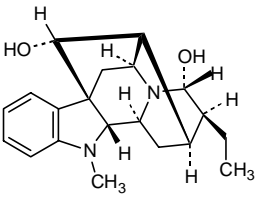
USAN

-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: PDE5 inhibitors)	
(a)	avanafil (92), bemaflafil (90), dasantafil (91), gisadenafil (101), 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)	
		USAN
-al (d)	aldehydes (deleted from General Principles in 14 th Report)	
		USAN
-aldrate	antacids, aluminium salts	
N.5.2.0		
(a)	carbaldrate (53), potassium glucaldrate (14), magaldrate (49), simaldrate (15), sodium glucaspaldrate (17)	
	<u>algeldrate</u> (15), <u>almadrate</u> sulfate (15), <u>almagodrate</u> (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 (USAN: ionotropic non-NMDA glutamate receptors (AMPA and/or KA receptors) antagonists)

(a) becampanel (90), fanapanel (80), irampanel (82), perampanel (97), 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**

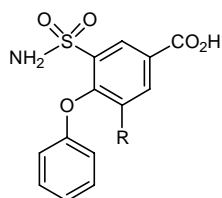
L.0.0.0

(a) beloranib (100), bevasiranib (99), brivanib alaninate (97), cediranib (95), motesanib (97), pazopanib (94), pegaptanib (88), semaxanib (85), toceranib (100), vandetanib (91), vatalanib (84)

USAN

-anide*-etanide* diuretics, piretanide derivatives

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

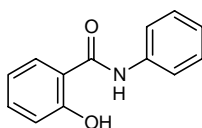


(a) bumetanide (24), piretanide (33)

(c) besunide (30)

-oxanide antiparasitics, salicylanilides and analogues

S.3.0.0 (USAN: antiparasitics (salicylanilide derivatives))



(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-HT₂)C.7.0.0 (USAN: serotonin 5-HT₂ receptor antagonists)

(a) adatanserin (70), altanserin (50), blonanserin (76), butanserin (51), eplivanserin (80), fananserin (69), flibanserin (75), iferanserin (89), ketanserin (46), lidanserin (62),

nelotanserin (101), pelanserin (57), pimavanserin (97), pruvanserin (90), seganserin (56), trelanserin (97), tropanserin (55)

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

USAN

-antel **anthelmintics (undefined group)**

S.3.1.0

- (a) amidantel (40), carbantel (35), closantel (36), derquantel (99), epsiprantel (57), febantel (38), flurantel (25), monepantel (98), morantel (22), oxantel (31), pexantel (22), praziquantel (34), pyrantel (17), resorantel (23), salantel (29), zilantel (33), antelmecin (15)

USAN

-antrone **antineoplastics; anthraquinone derivatives**

L.0.0.0/
L.5.0.0 (USAN: -antrone as above, and -(x)antrone with following definition: antineoplastics, mitoxantrone derivatives aza-anthracenedione class of antitumor agents)

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

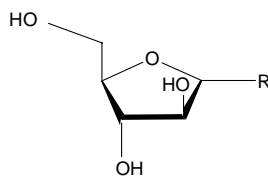
-apine **see -pine**

USAN

-(ar)abine **arabinofuranosyl derivatives**

L.4.0.0/
S.5.3.0

(USAN: -arabine: antineoplastic (arabinofuranosyl derivatives))

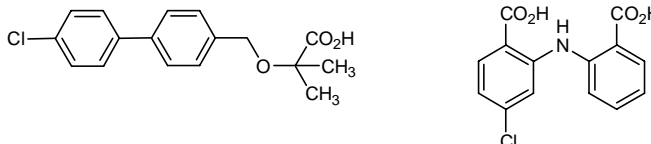


- (a) clofarabine (90), cytarabine (14), fludarabine (48), nelarabine (80), vidarabine (23)
See also the stem -citabine: ancitabine (36), capecitabine (73), decitabine (61), elvucitabine (89), emtricitabine (80), enocitabine (46), fiacitabine (59), flurocitabine (38), galocitabine (65), gemcitabine (62), ibacitabine (57), sapacitabine (94), tezacitabine (84), torcitabine (87), troxacitabine (81), valopicitabine (93), valtorcitabine (90), zalcitabine (66)
- (c) S.5.3.0: ribavirin (31)
-

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 (lobenzarit type))



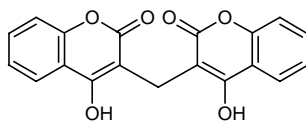
(a) actarit (62), bindarit (64), clobuzarit (44), lobenzarit (46), romazarit (60)

(c) tarenflurbil (97)

USAN

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

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



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

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

(c) diarbarone (15), ethyl biscoumacetate (4), phenprocoumon (11), tecarfarin (101), warfarin (23)

USAN

-arone

(USAN: antiarrhythmics)

amiodarone (16) (antiarrhythmic), benzarone (13), benzbromarone (13) (uricosuric), benziodarone (11), brinazarone (64) (calcium channel blocker), bucomarone (48) (antiarrhythmic), budiodarone (101), 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

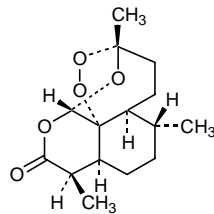
P.1.1.0.0 (USAN: -arot-: arotinoids, and -arotene: arotinoid derivatives)

- (a) adarotene (100), amsilarotene (98), betacarotene (38), bexarotene (80), etarotene (64), linarotene (65), mofarotene (70), palovarotene (99), sumarotene (64), tamibarotene (73), tazarotene (72), temarotene (54)

USAN

arte- antimalarial agents, artemisinin related compounds

S.3.3.0



- (a) arteflene (70), artemether (61), artemifone (92), artemisinin (56), artemotil (80), artemimol (81), arterolane (97), artesunate (61)

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), eufausease (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 enzymesI 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)	<i>Aspergillus ochraceus</i>	fibrinolytic (topically: cleaning wounds)
	pegaspargase (64)		asparaginase
	promelase (46)	<i>Aspergillus melleus</i>	proteinase (chronic bronchitis)
	rasburicase (81)	<i>Aspergillus flavus</i>	urate oxidase (hyperuricaemia)
	serrapeptase (31)	<i>Serratia sp.</i> E15	proteinase (chronic paranasal sinusitis etc.)
	sfericase (40)	<i>Bacillus sphaericus</i>	proteinase (chronic paranasal sinusitis etc.)
	streptokinase (6)	<i>Streptococcus haemolyticus</i>	changing plasminogen into plasmin (activator of fibrinolysis)
	urokinase (48)	human origin	plasminogen activator
	urokinase alfa (27)	recombinant material	plasminogen activator
(c)	<u>without -ase suffix:</u>		
	batroxobin (29)	the venom of the serpent <i>Bothropsatrox</i>	thrombin like enzyme
	bromelains (18)	<i>Ananas comosus</i> Merr.	fibrin depolymerizing (anti-inflammatory)
	chymopapain (26)	papaya latex	proteolytic (chemonucleolysis)
	chymotrypsin (10)	mammalian pancreas	proteolytic (anti-inflammatory, antioedema)
	defibrotide (44)	mammalian pancreas	proteolytic (anti-inflammatory, antioedema)
	fibrinolysin (human) (10)	human	fibrinolytic
	sutilains (18)	<i>Bacillus subtilis</i>	proteolytic

II -lipase

	bucelipase alfa (95)	human origin	lipase
	rizolipase (22)	<i>Rhizopus arrhizus</i> var. Delemar	lipase

III	<u>co-enzymes</u>		
(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)
USAN			
IV	<u>-dismase</u> enzymes with superoxide dismutase activity (USAN: superoxide dismutase activity (exception: orgotein))		
(a)	ledismase (70), sudismase (58)		
(c)	<u>isomerase</u> orgotein (31)	mammalian tissue (liver, red blood cell etc.)	superoxide dismutase activity (anti-inflammatory)
	pegorgotein (72)		
V	<u>-diplase</u> plasminogen activator combined with another enzyme amediplase (79)		
USAN			
VI	<u>-teplase</u> tissue-type plasminogen activators		
(a)	alteplase (59), desmoteplase (80), duteplase (62), lanoteplase (76), monteplase (71), nateplase (73), pamiteplase (78), reteplase (69), silteplase (65), tenecteplase (79)		
(c)	anistreplase (59)		
USAN			
VII	<u>-uplase</u> urokinase-type plasminogen activators		
(a)	nasaruplase (68), nasaruplase beta (85), saruplase (58)		
VIII	<u>others</u>		
	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)	<i>Agkistrodon contrix contrix</i>	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)	<i>Euphausia superba</i>	digests proteins and selected cell surface adhesion molecules (wound healing; vaginal/oral candidosis)
galsulfase (92)	recombinant	Maroteaux-Lamy syndrome
glucarpidase (92)	<i>Pseudomonadaceae gen. sp.</i>	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	
pegloticase (98)	<i>Sus scrofa</i>	uricase
penicillinase (10)	<i>Bacillus cereus</i>	inactivating penicillin

ranpirnase (81)	<i>Rana pipiens</i>	ribonuclease (antineoplastic)
streptodornase (6)	<i>Streptococcus haemolyticus</i>	hydrolysing desoxyribonucleoprotein
taliglucerase alfa (101)	recombinant	beta-glucocerebrosidase
tilactase (50)		β-D-galactosidase
velaglucerase alfa (98)		beta-glucocerebrosidase

 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), firategrast (96), ibudilast (58), idenast (58), loxanast (46), melquinast (62), oxalinast (49), pemirolast (61), picumast (47), pirodomast (64), raxofelast (68), repirinast (55), revenast (51), scopinast (76), suplatostilate (64), tazanolast (59), tiacrilast (52), tibenelast (58), tioxamast (53), tiprinast (50), tranilast (46), valategrast (93), zaprinast (46), zaurategrast (101)	
-lukast	leukotriene receptor antagonist	USAN
(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	USAN
(a)	apremilast (97), catramilast (95), cilomilast (82), lirimilast (86), oglemilast (94), piclamilast (73), roflumilast (77), tetomilast (91), tofimilast (85)	
-trodast	thromboxane A₂ receptor antagonists, antiasthmatics (USAN: thromboxane A ₂ receptor antagonists)	USAN
(a)	imitrodast (70), seratrodast (70)	
-zolast	leukotriene biosynthesis inhibitors (USAN: benzoxazole derivatives)	USAN
(a)	binizolast (60), eclazolast (55), ontazolast (72), quazolast (55), tetrazolast (67),	
(c)	bufrolin (34), oxarbazole (38), pirolate (44)	

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

-astine (x) **antihistaminics** BAN, USAN

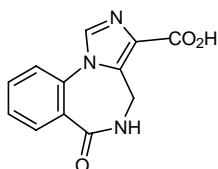
G.2.0.0 (BAN: antihistamines, not otherwise classifiable)
 (USAN: antihistaminics (histamine-H₁ receptor antagonists))

- (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)
-

-azam **see - azepam**

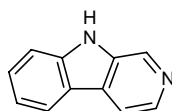
-azenil **benzodiazepine receptor antagonists/agonists (benzodiazepine derivatives)**

(USAN: benzodiazepine receptor antagonists/agonists)



- (a) bretazenil (60), flumazenil (55), iomazenil ¹²³I (66), sarmazenil (59)
- (b) nabazenil (49)

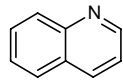
-carnil **benzodiazepine receptor antagonists/agonists (carboline derivatives)**



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

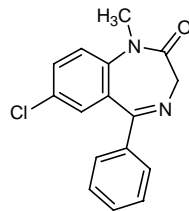
-quinil benzodiazepine receptor agonists, also partial or inverse (quinoline derivatives)

(USAN: benzodiazepine receptor agonists, also partial or inverse (quinoline derivatives))



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

BAN; USAN

-azepam (x) diazepam derivativesC.1.1.0 (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 (31), 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), zapisolam (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, benzodiazepine derivatives

J.1.1.0.0 (USAN: cholecystokinin receptor antagonists)

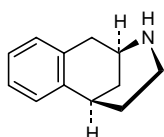
(a) devazepide (62), pranazepide (75), sograzepide (101), tarazepide (68)

(c) lorglumide (56)

 USAN

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

A.4.1.1.0 (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)

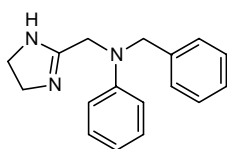
(b) streptozocin (33)

-azolam see -azepam

 USAN

-azoline antihistaminics or local vasoconstrictors, antazoline derivatives

E.4.0.0.0 (USAN: antihistaminics/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)

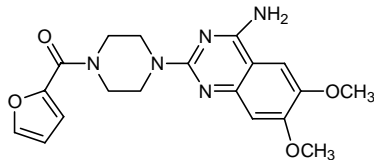
(c) tetryzoline (6), metizoline (22)

-azone **see -buzone**

-azosin **antihypertensive substances, prazosin derivatives**

USAN

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), tipentoin (55)

-bactam **β -lactamase inhibitors**

BAN; USAN

S.6.5.0

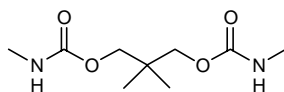
(a) brobactam (53), sulbactam (44), tazobactam (60)

(c) clavulanic acid (44)

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

BAN, USAN

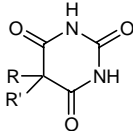
C.1.0.0 (USAN: tranquilizers/antiepileptics (propanediol and pentanediol groups))



(a) carisbamate (96), cyclarbamate (13), felbamate (54), meprobamate (6), nisobamate (21), pentabamate (13), tybamate (14)

(b) dife**bar**bamate (16), fe**bar**bamate (12), lor**bar**bamate (24), phen**bar**probamate (10)

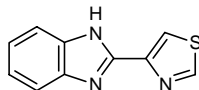
(c) mebutamate (12), metaglycodol (12) (not a carbamate)

		BAN, USAN
barb (d)	hypnotics, barbituric acid derivatives	
A.2.1.0	(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), eterobarb (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)	

		USAN
-begron	β_3-adrenoreceptor agonists	
M.3.2.1		
(a)	amibegron (94), fasobegron (98), mantabegron (88), mirabegron (98), rafabegron (88), ritobegron (91), solabegron (90), talibegron (86)	

-benakin **see -kin**

-bendan **see -dan**

		USAN
-bendazole	anthelmintics, tiabendazole derivatives	
S.3.1.0	(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), parabendazole (19), subendazole (31), tiabendazole (13), triclabendazole (45)

(b) bendazol (12) (vasodilator, also benzimidazole derivative)
L.0.0.0: nocodazole (36), procodazole (36) (also benzimidazole derivative)

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

related: furodazole (37) (S.3.1.0)

-bercept **see -cept**

-bermin **see -ermin**

-betasol **see pred**

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

USAN

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

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

bol (x) **anabolic steroids**

BAN, USAN

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)

-bradine **bradycardic agents**

H.0.0.0

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

-brate **see -fibrate**

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

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

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

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

L.0.0.0

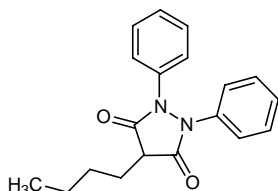
(a) batabulin (90), cevipabulin (96), denibulin (95), eribulin (97), fosbretabulin (100), indibulin (91), mivobulin (77), omrabulin (99), rosabulin (95), taltobulin (91)

(b) thyroglobulin (26)

-butazone **see -buzone**

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

A.4.2.0



(a) feclobuzone (27), kebutzone (19), pipebutzone (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

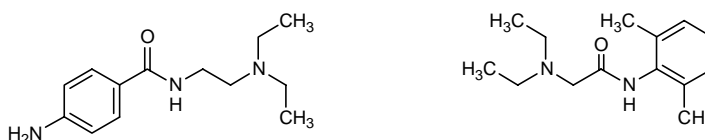
D.1.0.0

- (a) ambucaine (6), amoxecaine (1), aptocaine (21), articaine (47) (previously carticaine (27)), benzocaine (42), betoxycaine (13), bucricaine (49), bumecaine (25), bupivacaine (17), butacaine (4), butanilcaine (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 (1), paridocaine (8), phenacaine (4), pinolcaine (32), piperocaine (1), piridocaine (1), 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 (1), cryofluorane (6), diperodon (1), dyclonine (6), midamaline (6)

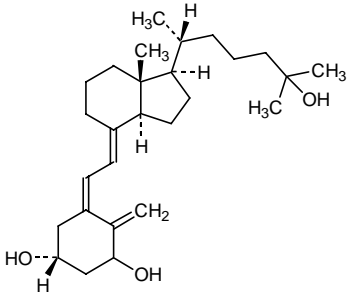
BAN

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

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

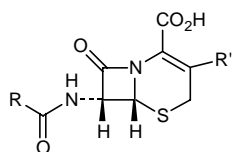


- (a) acecainide (39), asocainol (47), barucainide (52), bucainide (35), carcainium chloride (36), carocainide (46), droxicainide (47), encainide (40), epicainide (40), erocainide (50), flecainide (37), guafecainol (38), indecainide (48) (originally ricainide (47)), itrocainide (54), ketocainol (32), lorcainide (38), milacainide (77), modocainide (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 (41)

		USAN
calci	Vitamin D analogues/derivatives	
N.8.0.0	(USAN: Vitamin D analogues)	
		
(a)	alfacalcidol (40), atocalcitol (88), becocalcidiol (92), calcifediol (26), calcipotriol (61), calcitriol (39), <u>colecalfiferol</u> (13), <u>doxercalfiferol</u> (82), ecalcidene (85), eldecalcitol (97), elocalcitol (95), <u>ergocalciferol</u> (13), <u>falecalcitriol</u> (74), inecalcitol (87), lexacalcitol (71), maxacalcitol (75), paricalcitol (78), <u>secalciferol</u> (62), seocalcitol (78), tacalcitol (65)	
(b)	calcitonin (31) (polypeptide)	
(c)	dihydrotachysterol (1)	

		USAN
-carbef	antibiotics, carbacephem derivatives	
S.6.1.0		
(a)	loracarbef (60)	
-carnil	see -azenil	
-castat	see -stat	
-cavir	see vir	

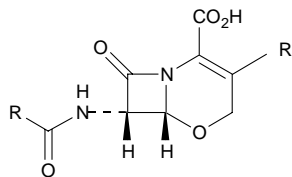
		BAN, USAN
cef- (x)	antibiotics, cefalosporanic acid derivatives	
S.6.1.0	(USAN: cephalosporins)	



- (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), ceftaroline fosamil (97), ceftazidime (44), cefteram (55), ceftazole (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)

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

-cept **receptor molecules, native or modified (a preceding infix should designate the target)**

S.7.0.0

- (a) *-ber-* vascular endothelial growth factor (VEGF) receptors
 aflibercept (96)
- co-* complement receptors
 mirococept (91)
- far-* subgroup of interferon receptors
 bifarcept (86)
- lefa-* lymphocyte function-associated antigen 3 receptors
 alefacept (84)
- na-* interleukin-1 receptors
 riloncept (95)
- ner-* Tumour Necrosis Factor (TNF) receptors
 baminercept (99), etanercept (81), lenercept (72), onercept (82), pegsunercept (87)
- ta-* cytotoxic T lymphocyte-associated antigen 4 (CTLA-4) receptors
 abatacept (91), belatacept (93)
- vir-* antiviral receptors
 alvircept sudotox (69)
- other:* briobacept (98)

 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, 1964)**

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

- (a) candicidin (17), gramicidin (1), gramicidin S (26), methocidin (6)
- (b) guancidine (18) (hypotensive)

USAN

-ciguat **guanylate cyclase activators and stimulators**

F.2.0.0

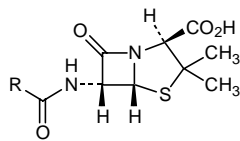
- (a) ataciguat (88), cinaciguat (97), etriciguat (88), lificiguat (95), riociguat (98)

-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 (15), 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 (16), penimocycline (22)

-cillide

S.6.1.0 libecillide (32)

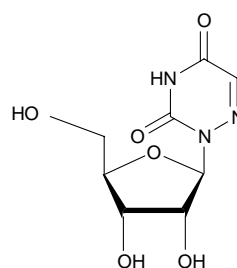
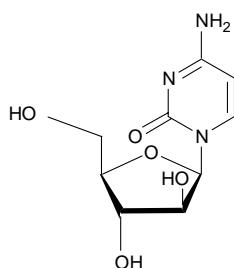
-cillinam

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

-cillinam see **-cillin****-cilpine** see **-pine****-cisteine** see **-steine****-citabine** **nucleoside antiviral or antineoplastic agents, cytarabine or azacytidine derivatives** USAN

(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)

-clone **hypnotic tranquillizers** USAN

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)

-cocept see **-cept**

USAN

-cog blood coagulation factors

I.2.0.0

- (-)*eptacog* blood coagulation VII: eptacog alfa (activated) (77), eptacog alfa pegol (activated) (101), vatreptacog alfa (activated) (98)
- (-)*octocog* blood factor VIII: beroctocog alfa (98), moroctocog alfa (72), octocog alfa (73)
- (-)*nonacog* blood factor IX: nonacog alfa (77)
- (-)*tridecacog* blood factor XIII: catridecacog (99)

USAN

-cogin blood coagulation cascade inhibitors

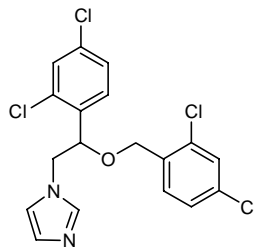
I.2.0.0

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 C₁₇H₁₇Cl₂N₃O)), doconazole (37), eberconazole (64), econazole (27), embeconazole (92), enilconazole (44), (etaconazole (ISO)), fenticonazole (44), fluconazole (54), fosfluconazole (83), (furconazole (ISO/TC 81 N 872 C₁₅H₁₄Cl₂F₃N₃O₂)), (hexaconazole (ISO C₁₄H₁₇Cl₂N₃O)), isavuconazole (96), 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 C₁₆H₂₂ClN₃O)), terconazole (45) (originally triaconazole), tioconazole (40), (uniconazole

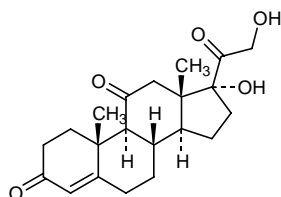
(ISO C₁₅H₁₈ClN₃O)), valconazole (40), voriconazole (73), zinoconazole (50), zoficonazole (43)

(c) bifonazole (44), isavuconazonium chloride (96)

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)

USAN

-coxib selective cyclo-oxygenase inhibitors

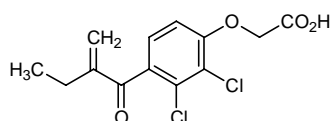
A.4.2.0 (USAN: cyclooxygenase-2 inhibitors)

(a) apricoxib (99), celecoxib (80), cimicoxib (89), deracoxib (80), etoricoxib (84), firocoxib (89), lumiracoxib (87), mavacoxib (94), parecoxib (80), robenacoxib (91), rofecoxib (80), tilmacoxib (84), valdecoxib (80)

USAN

-crinat diuretics, etacrynic acid derivatives

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

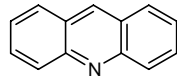


(a) brocrinat (51), sulicrinat (52)

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

 USAN

-crine (d) acridine derivatives

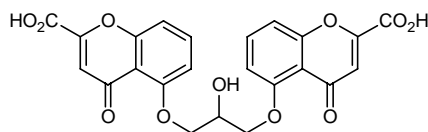


- (a) antineoplastics: amsacrine (44), nitracrine (35)
anthelmintics; antimalarials: floxacrine (34), mepacrine (4)
antidepressants: dimetacrine (19), monometacrine (19)
antiparkinsonian: botiacrine (38)
acetylcholinesterase inhibitors: ipidacrine (73), suronacrine (61), tacrine (8), velnacrine (61)
- (c) acridorex (21), acriflavinium chloride (1), acrisorcin (13), aminoacridine (1), ethacridine (1), proflavine (1)

 USAN

-cromil antiallergics, cromoglicic acid derivatives

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



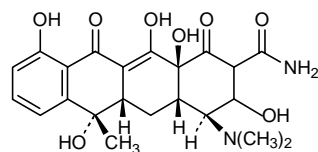
- (a) ambicromil (48) (replacement of probicromil (46)), isocromil (39), minocromil (50), nedocromil (50), proxicromil (39), terbucromil (38), texacromil (58)
- (c) cromitrile (46), cromoglicate lisetil (72), cromoglicic acid (18)

-curium see -ium

 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),

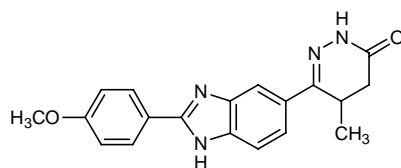
etamocycline (18), guamecycline (22), lymecycline (14), meclocycline (14), meglucycline (22), metacycline (12), minocycline (14), nitrocyline (14), oxytetracycline (1), pecocycline (15), penimepicycline (16), penimocycline (22), pipacycline (12), rolitetracycline (11), sancycline (15), tetracycline (4), tigecycline (86)

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

 USAN

-dan cardiac stimulants, pimobendan derivatives

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



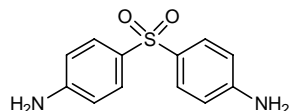
(a) adibendan (57), bemorodan (61), imazodan (55), indolidan (57), levosimendan (68), meribendan (62), pimobendan (46), prinnoxodan (64), senazodan (85), simendan (66)

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

 USAN

-dapson e antimycobacterials, diaminodiphenylsulfone derivatives (14th Report, 1964)

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



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

-decakin see -kin

 USAN

-denoson adenosine A receptor agonists

H.0.0.0

apadenoson (94), binadenoson (90), capadenoson (95), regadenoson (91), seladenoson (91), sonedenoson (101), tecadenoson (87)

-dermin see -ermin

USAN

-dil **vasodilators (18th Report, 1968)**

F.2.0.0

F.2.1./2.0 (USAN: -dil; dil-; or -dil-: vasodilators (undefined group))

F.2.0.0

(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 (18), 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)

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

USAN

(a) mibefradil (72)

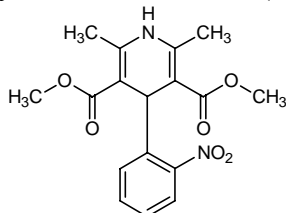
-pendyl cloxypendyl (15), isothipendyl (6), oxypendyl (13), prothipendyl (6)

-dyl bisacodyl (13) (laxative), bunamiodyl (10), iofendylate (12), trihexyphenidyl (1) (antiparksonian)

-dilol **see -dil**

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

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), levamlodipine (98), levniguldipine (67), mesudipine (40), nicardipine (42), nifedipine (27), niguldipine (60), niludipine (38), nilvadipine (52), nimodipine (40), nisoldipine (42), nitrendipine (42), olradipine (69), oxodipine (52), rioidipine (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)

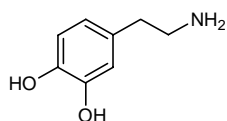
-dismase **enzymes with superoxide dismutase activity, see -ase item V**

-distim **see -stim**

-dodekin **see -kin**

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

E.1.1.0 (USAN: dopamine receptor agonists)



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

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

(USAN: -pamine: dopaminergics (butopamine type))

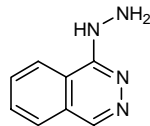
- (a) butopamine (43), cliopamine (59), denopamine (50), dopamine (18), fosopamine (69), ibopamine (43), octopamine (32), oxidopamine (37) (glaucoma), ractopamine (54) (1 of 4 isomers of butopamine)
- (b) tiopropamine (36) (gastric and duodenal ulcers), tolpropamine (13) (antihistaminic)
- (c) dobutamine (29), docarpamine (59), dopexamine (50), fenoldopam (53), levodopamine (65), methyldopa (12) (alpha-2 adrenoreceptor agonist, cardiogenic), zelandopam (84)

-dotril see -tril/trilat**-dox see -ox/-alox**

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)

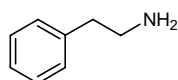
-drine sympathomimetics (16th Report, 1966)

E.4.0.0

- (a) alifedrine (49), bedradrine (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 (197 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)

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)

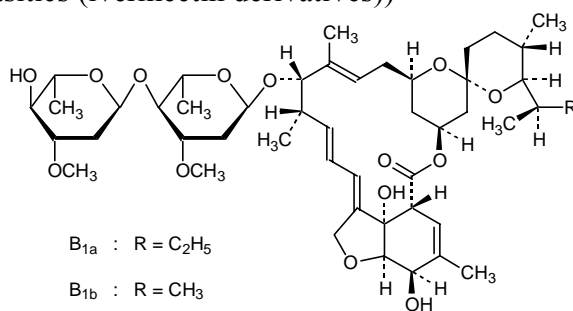
-dutant **see -tant****-dyl** **see -dil**

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)

-elestat **see -stat**

-elvekin **see -kin**

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)

-enicokin **see -kin**

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), macitentan (99), nebentan (90), sitaxentan (83), tezosentan (81), zibotentan (94)

(-)eptacog **see -cog**

USAN

erg **ergot alkaloid derivatives**

F.4.0.0

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

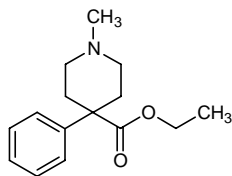
(a) acetergamine (18), amesergide (67), brazergoline (37), bromerguride (51), cabergoline (54), cianergoline (47), delergotriole (42), dihydroergotamine (16), disulergine (45), dosergoside (54), ergometrine (4), ergotamine (4), etisulergine (47), lergotriole (32), lysergide (8), mergocriptine (54), mesulergine (47), metergoline (18), metergotamine (29), methylergometrine (1), methysergide (11), nicergoline (26), pergolide (41), propisergide (35), proterguride (50), romergoline (66), sergolexole (60), terguride (50), tiomergine (42), voxergolide (61)

(b) ergocalciferol (13)

USAN

-eridine analgesics, pethidine derivatives (14th Report, 1964)

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 (18) (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

-bermin vascular endothelial growth factors

- (a) telbermin (85)

-dermin epidermal growth factors

- (a) murodermin (63), nepidermin (97)

-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), dulanermin (99), plusonermin (73), sonermin (68), tasonermin (76)

-plermin platelet-derived growth factor

- (a) becaplermin (74)

<i>-sermin</i>	insulin-like growth factors
(a)	mecasermin (66), mecasermin rinfabate (91)
<i>-termin</i>	transforming growth factor
(a)	cetermin (74), liatermin (81)
<i>-otermin</i>	bone morphogenic proteins
(a)	avotermin (77), dibotermin alfa (89), eptotermin alfa (89), radotermin (92)
<i>Others:</i>	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.)
<i>-gestr-:</i>	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)

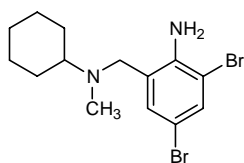
-etanide **see -anide**

-ethidine **see -eridine**

-exakin **see -kin**

-exine mucolytic, bromhexine derivatives

K.0.0.0



- (a) adamexine (36), bromhexine (20), brovanexine (31), cistinexine (54), dembexine (56), neltexine (62), oxabrexine (40)
- (b) enefexine (54) (antidepressant), gamfexine (17) (antidepressant)
- (c) ambroxol (32) (dembrexol (50): replaced by dembexine (56))

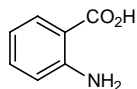
-farcept see -cept**-fenamate see -fenamic acid**

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

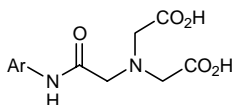


- (a) clofenamic acid (13), enfenamic acid (45), flufenamic acid (13), meclofenamic acid (17), mefenamic acid (13), tolfenamic acid (24)
- colfenamate (29), etofenamate (29), pefenamate (36), terofenamate (32), ufenamate (50)
- (b) clantifen (24), oxyfenamate (13)
- phonetically close: clofenamide (13), diclofenamide (13) (N.1.1.0)
- (c) flutiazin (22)

USAN

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

U.1.0.0



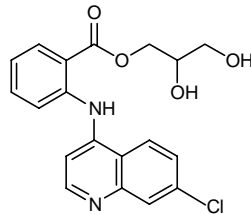
- (a) arclofenin (52), butilfenin (41), disofenin (43), etifenin (43), galtifenin (59), lidofenin (39), mebrotfenin (47)

USAN

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

(USAN: -fenine: analgesics (fenamic acid subgroup))

A.4.3.0

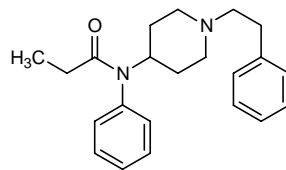


- (a) antrafenine (35), floctafenine (24), florifenine (50), glafenine (15), nicafenine (40)
- (b) spasmolytic diphenylacetates: adiphenine (1), drofenine (26)
other: buphenine (8) (vasodilator), cifenine (27) (antidepressant)

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)

USAN

-fentrine **inhibitors of phosphodiesterases**

K.0.0.0

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

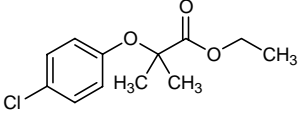
-fermin **see -ermin**

USAN

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

I.2.0.0

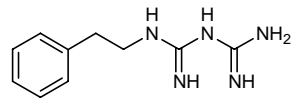
- carafiban (78), elarofiban (83), fradafiban (72), gantofiban (80), lamifiban (72), lefradafiban (75), lotrafiban (78), orbofiban (75), roxifiban (77), sibrafiban (77), tirofiban (73), xemilofiban (74)

		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), choline fenofibrate (97), 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 (31) clofibride (28), plafibride (39)	
	<u>related:</u> arhalofenate (101), 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)	
-filermin	see -ermin	
-flapon	5-lipoxygenase-activating protein (FLAP) inhibitor	USAN
K.0.0.0		
J.0.0.0	quiflapon (72), veliflapon (95)	
-flurane	halogenated compounds used as general inhalation anaesthetics	USAN
A.1.1.0	(USAN: general inhalation anaesthetics (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)	

USAN

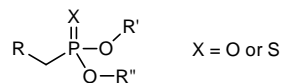
-formin (d) antihyperglycaemics, phenformin derivatives

M.5.2.0 (USAN: hypoglycemics (phenformin type))



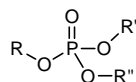
- (a) benfosformin (29), buformin (17), etoformin (34), metformin (21), phenformin (10), tiformin (22)

USAN

-fos (-vos) insecticides, anthelmintics, pesticides etc., phosphorous derivativesS.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 anthelmintics:

metrifonate (16)

anthelmintic: butonate (30)2. phosphates:

- (a) vet. insecticides:
clofenvinfos (23)

vet. anthelmintics:

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

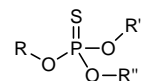
anthelmintics: vincofos (28)

(b) triclofos (13) (hypnotic, sedative)

(c) vet. anthelmintics:

fospirate (21), haloxon (16)

3. phosphorothioates:

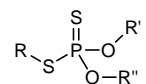


vet. insecticides:

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

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

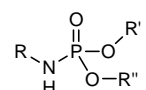
4. phosphorodithioates:



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

(c) carbofenotion (23) (vet. insecticide), dioxation (16) (vet. insecticide), (malathion (46) (deleted!))

5. phosphoramidates



crufomate (16), uredofos (37)

anthelmintic:

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), furifosmin (70), monophosthiamine (8), sodium picofosfate (37), sparfosic acid (46), technetium (^{99m}Tc), tetrofosmin (66), trifosmin (74)

-fosfamide: alkylating agents of the cyclophosphamide group

(USAN: isophosphoramidate mustard derivatives)

canfosfamide (92), cyclophosphamide (10), defosfamide (12), glufosfamide (77), ifosfamide (23), mafosfamide (51), palifosfamide (99), perfosfamide (66), sufosfamide (36), trofosfamide (23)

-fosine cytostatic

edelfosine (59), ilmofosine (56), miltefosine (61), perifosine (78)

fos-

fosalvudine tidoxil (95), fosamprenavir (83), fosaprepitant (94), fosarilate (53), fosazepam (27), fosbretabulin (100), foscarnet sodium (42), foscolic acid (12), fosenazide (48), fosfestrol (15), fosfluconazole (83), fosfluridine tidoxil (93), fosfocreatinine (50), fosfomycin (25), fosfonet sodium (35), fosfosal (37), fosfructose (81), fosinopril (69), fosinoprilat (62), fosmenic acid (49), fosmidomycin (46), fosopamine (69), fosphenytoin (62), fospirate (21), fospropofol (100), fosquidone (64), fostamatinib (100), fostedil (51), fostriecin (55), fosveset (83)

-fovir **see vir**

USAN

-fradil **see -dil**

-frine **see -drine**

USAN

-fungin **antifungal antibiotics (18th Report, 1968)**

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

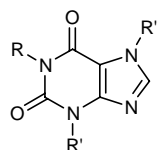
S.4.3.0

(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)

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 (21), propentofylline (46), proxyphylline (10), pyridofylline (14), rolofylline (98), 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)

		USAN
gab	gabamimetic agents	
E.0.0.0		
(a)	fengabine (53), gabapentin (46), gabapentin enacarbil (94), gaboxadol (48) (used as analgesic), imagabalin (101), lesogaberan (100), pivagabine (66), pregabalin (78), progabide (43) (used as antiepileptic), retigabine (76), tiagabine (63), tolgabide (53), vigabatrin (52) (anticonvulsants)	
(b)	gabexate (35) (proteolytic)	
		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), gadodentate (91), gadodiamide (63), gadomelitol (85), gadopenamide (60), gadopentetic acid (50), gadoteric acid (59), gadoversetamide (71), gadoxetic acid (71)	
		USAN
-gatra-	thrombin inhibitors, antithrombotic agents	
I.2.0.0	(USAN: thrombin inhibitors (argatroban type))	
(a)	dabigatran (83), dabigatran etexilate (87), efegatran (71), flovagatran (97), inogatran (72), melagatran (74), napsagatran (72), sofigatran (95), ximelagatran (84)	
(c)	argatroban (57)	

USAN

-gene **gene therapy products** (see also Annex 4)

A two-word name approach has been selected:

Word 1	<i>-gene</i>	<i>gene component</i>
	<i>-ermin(o)-</i>	growth factor
	<i>-kin(o)-</i>	interleukin
	<i>-lim(o)-</i>	immunomodulator
	<i>-mul-</i>	multiple gene
	<i>-tus-</i>	tumour suppression
Word 2	<i>-vec</i>	<i>vector component is a virus</i>
	<i>-repvec</i>	<i>replicating viral vector</i>
	<i>-adeno-</i>	adenovirus
	<i>-cana-</i>	canarypox virus
	<i>-herpa-</i>	herpes virus
	<i>-lenti-</i>	lentivirus
	<i>-morbilli-</i>	paramoxyviridae morbillivirus
	<i>-parvo-</i>	adeno-associated virus (parvoviridae dependovirus)
	<i>-retro-</i>	other retrovirus
	<i>-vaci-</i>	vaccinia virus
	<i>-plasmid</i>	<i>in case the vector is a plasmid</i>

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), alipogene tiparvovec (99), amolimogene bepiplasmid (98), beperminogene perplasmid (95), golnerminogene pradenovec (101), riferminogene pecaplastmid (100), sitimagene ceradenovec (97), taberminogene vadenovec (100), tipapkinogene sovacivec (101), velimogene aliplasmid (97)

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), dextnorgestrel (30), dienogest (49), dydrogesterone (12), edogestron (22), etonogestrel (65), flugestone (16), gestaclone (23), gestadienol (22), gestodene (37), gestonorone caproate (16), gestrinone (39), haloprogestone (11), hydroxyprogesterone (8), levonorgestrel (33) (previously dextnorgestrel), medrogestone (15), medoxyprogesterone (10), medoxyprogesterone (10), medrogestone (15), megestrol (13), 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), quingestron (13), tigestol (20), tosagestin (86), trengestone (22), trimegestone (66)

- (b) algestone (22) (glucocorticoid)
- (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)

-gestr- see **estr**

-giline MAO-inhibitors type B

USAN

C.3.1.0

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

-gillin antibiotics produced by *Aspergillus strains* (16th Report, 1966)

USAN

S.6.0.0

- (a) fumagillin (1), mitogillin (17)
- (c) mitosper (24), nifungin (24)

gli (x) antihyperglycaemics
(previously gly-)

BAN, USAN

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), glyclop~~py~~ramide (17), glycyclamide (12), glyhexamide (15), glymidine sodium (15), glyoctamide (14), glyparamide (USAN only), glypinamide (13), glyprothiazol (8), glysobuzole (12)
- 2. other than sulfonamide derivatives:** atigliflozin (100), camiglibose (67), dapagliflozin (97), deriglidole (66), emiglitate (55), imeglimin (98), ingliforib (85), isaglidole (61), limiglidole (100), linoglriride (48), managlinat dialanetil (96), meglitinide (34), midaglizole (57), miglitol (55), mitiglinide (78), naglivan (65), nateglinide (77), piragliatin (97), pirogliride (40), remogliflozin etabonate (98), repaglinide (65), sergliflozin etabonate (98), teglicar (91), tibeglisene (64), 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), glycobinarsol (1), glycopyrronium bromide (12)

- gliptin **dipeptidyl aminopeptidase–IV inhibitors**

M.5.2.0

- (a) alogliptin (96), carmegliptin (98), denagliptin (94), dutogliptin (100), gosogliptin (101), linagliptin (99), melogliptin (99), saxagliptin (92), sitagliptin (94), teneligliptin (99), vildagliptin (90)

-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), indeglitazar (100), 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)
- (c) inolitazone (99)

-gliptin **see gli**

-glitazar **see gli**

-glitazone **see gli**

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

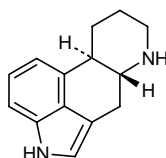
USAN

J.0.0.0/C.1.0.0

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

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

E.1.1.0



- (a) adrogolide (82), naxagolide (60), pergolide (41), quinagolide (62), voxergolide (61)
- (c) rotigotine (83)
-

-gosivir **see vir**

-gramostim **see -stim**

-grastim **see -stim**

-grel- **platelet aggregation inhibitors**

-grel

USAN

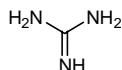
I.2.1.0

- (a) anagrelide (42), camonagrel (61), cangrelor (97), clopidogrel (57), dazmegrel (51), elinogrel (101), furegrelate (53), isbogrel (59), itazigrel (56), midazogrel (53), nafagrel (64), nicogrelate (48), oxagrelate (47), ozagrel (55), pamicogrel (70), parogrelil (94), pirmagrel (53), prasugrel (91), regrelor (97), 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



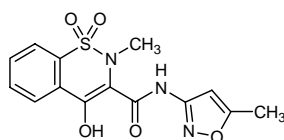
- (a) guanabenz (26), guanacline (16), guanadrel (20), guanazodine (27), guancidine (18), guanclofine (36), guanethidine (11), guanfacine (35), guanisoquine (15), guanochlor (15), guanoctine (16), guanoxan (15), guanoxabenz (31), guanoxyfen (16), guabenxan (32)
- (c) guabenxan (32)

-ibine **see -ribine**

USAN

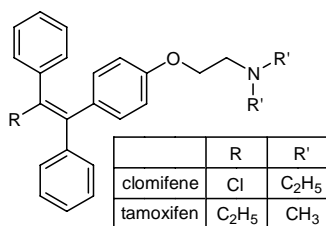
-icam **anti-inflammatory, isoxicam derivatives**

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)

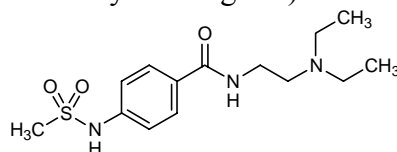
- (a) acolbifene (86), clomifenoxide (54), tesmilifene (81)
-oxifene: afimoxifene (95), arzoxifene (80), basedoxifene (86), droloxifene (53), idoxifene (68), lasofoxifene (81), levormeloxifene (73), miproxifene (74), ormeloxifene (69), pipendoxifene (84), raloxifene (54), tamoxifen (28), trioxifene (41), zindoxifene (54)
-mifene: clomifene (12), enclomifene (33), fispemifene (89), nitromifene (33), ospemifene (85), panomifene (58), sivifene (99), toremifene (53), zuclomifene (33)
- (b) dextropropoxyphene (7), levopropoxyphene (7), suloxifen (30) (bronchodilator)
- (c) nafoxidine (16)

-igetide **see -tide**

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

USAN

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)

imex (d) **immunostimulants**

USAN

S.7.0.0

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

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

USAN

M.3.0.0

(a) avasimibe (80), canosimibe (100), eflucimibe (84), eldacimibe (76), ezetimibe (83), lecimibide (70), octimibate (52), pactamibe (89)

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

USAN

S.7.0.0 (USAN: immunomodulators)

(a) agatolimod (98), apilimod (95), atiprimod (75), cridanimod (83), defoslimod (79), epetirimod (97), fingolimod (91), golotimod (97), esonarimod (79), glaspimod (74), iguratimod (86), imiquimod (66), ivarimod (60), laquinimod (85), litenimod (96), paquinimod (94), pidotimod (63), rabeximod (97), resiquimod (82), sotirimod (94), susalimod (73), tasquinimod (93), tiprotimod (57)

-mapimod **mitogen-activated protein (MAP) kinase inhibitors**

(a) balamapimod (96), bentamapimod (98), doramapimod (88), losmapimod (101), pamapimod (96), talmapimod (99), semapimod (89)

USAN

-imus immunosuppressants (other than antineoplastics)

S.7.0.0 (USAN: immunosuppressives)

- (a) abetimus (81), anisperimus (82), gusperimus (68), laflunimus (70), manitimus (93), napirimus (60), tresperimus (75)

-rolimus immunosuppressants, rapamycin derivatives

- (a) everolimus (82), pimecrolimus (81), ridaforolimus (101), sirolimus (69), tacrolimus (66), temsirolimus (94), zotarolimus (94)

-ine (d) alkaloids and organic bases

- (a) 1638 (20.8%) INNs ending in *-ine* in Lists 1-101 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), 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), io세famic acid (14), io세ric 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), diiodone (1), ethyl cartrizoate (12), methiodal sodium (1), metrizamide (26), pheniodol sodium (1), phenobutiodil (6), propyl docetrizoate (10), propyl iodone (1), sodium acetrizoate (4), sodium amidotrizoate (4), sodium diprotrizoate (6), sodium metrizoate (13), sodium tyropanoate (12)

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

- (a) ethiodized oil (¹³¹I) (24), iobenguane (¹³¹I) (57), iocanlidic acid (¹²³I) (77), iodinated (¹²⁵I) human serum albumin (24), iodinated (¹³¹I) human serum albumin (24), iodine (¹²⁴I)

girentuximab (101), iodocetylic acid (^{123}I) (47), iodocholesterol (^{131}I) (39), iodofiltic acid (^{123}I) (95), iofetamine (^{123}I) (51), ioflupane (^{123}I) (75), iolopride (^{123}I) (73), iomazenil (^{123}I) (66), iometin (^{125}I) (24), iometin (^{131}I) (24), iometopane (^{123}I) (76), 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)

 USAN

-irudin hirudin derivatives

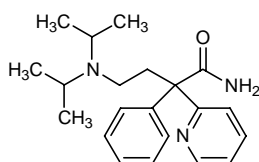
I.2.1.0 (USAN: anticoagulants (hirudin type))

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

 USAN

-isomide antiarrhythmics, disopyramide derivatives

H.2.0.0



- (a) actisomide (60), bidisomide (63), pentisomide (59)
 (c) disopyramide (12)

 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 also ammonium compounds)

- (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), truxipicrium iodide (22)

-others: dimethyltubocurarinium chloride (1), fazadinium bromide (32), hexafluronium bromide (12), laudexium metilsulfate (4), pentacynium chloride (6), phenactropinium chloride (8), piprocurarium iodide (11), thiazinanium 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), benzopyrroonium bromide (12), beperidium (57), bevonium metilsulfate (19), butropium bromide (30), ciclonium bromide (19), ciclotropium bromide (50), cimetrogium bromide (51), clidinium bromide (6), cyclopyrroonium bromide (12), dimetipirium bromide (37), diponium bromide (15), dotefonium bromide (24), droclidinium bromide (33), emepronium bromide (18), etipirium iodide (22), fenclexonium metilsulfate (20), fempiverinium bromide (26), fentonium bromide (29), flutropium bromide (50), glycopyrroonium bromide (12), heteronium bromide (14), hexasonium iodide (15), hexocyclium metilsulfate (6), hexopyrroonium bromide (13), ipratropium bromide (31), methanthelinium bromide (1), methylbenactyziium 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), xenytrropium 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)

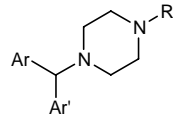
S.2.3.0 **surfactants used as antibacterials and antiseptics**

- (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), methylthionium 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), albitiazolium bromide (101), 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), enisamium iodide (101), famiraprinium chloride (58), feniodium chloride (23), gallium (⁶⁷Ga) citrate (33), homidium bromide (36), isavuconazonium chloride (96), 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 (¹⁵³Sm) lexidronam (74), sevotropium 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), troxypyrronium tosilate (13)
- (c) alazanine triclofenate (13) (anthelmintic), colfosceril palmitate (64) (pulmonary surfactant), dithiazanine iodide (8) (anthelmintic), hexadimethrine bromide (8) (heparin antagonist)
-

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



- (a) antihistaminics: G.2.0.0: buclizine (4), cetirizine (51), chlorcyclizine (1), clocinazine (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)

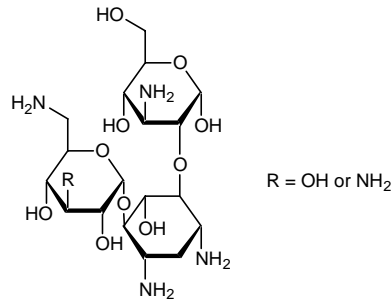
pyrazine derivatives: ampyzine (15) (central nervous stimulant), triampyzine (15) (anticholinergic)

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

- (c) medibazine (16)
-

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

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



(a) amikacin (30), arbekacin (56), butikacin (41), 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)

-kalant **potassium channel blockers** USAN

(USAN: potassium channel antagonists)

H.2.0.0

(a) adekalant (83), almokalant (64), clamikalant (81), inakalant (95), nifekalant (75), pinokalant (82), terikalant (66), vernakalant (96)

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

(USAN: potassium channel agonists)

H.3.0.0

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

USAN

-kef-**enkephalin agonists**

(USAN: enkephalin agonists (various indications))

casokefamide (65), frakefamide (81), metenkefalin (97), metkefamide (44)

USAN

-kin**interleukin type substances**

S.7.0.0

(a)

IL-1 :

*-nakin*interleukin-1 analogues and derivatives*-onakin*: interleukin-1 α analogues and derivatives: pifonakin (77)*-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)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)

IL-21

*-enicokin*interleukin -21 human analogues and derivatives: denenicokin (99)

(c)

IL-3:

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

			USAN
-kinra		interleukin receptor antagonists	
IL-1	<i>-nakinra</i>	<u>interleukin-1 receptor antagonists</u> : anakinra (72)	
IL-4	<i>-trakinra</i>	<u>interleukin-4 receptor antagonists</u> : pitrakinra (84)	

			USAN
-kiren		renin inhibitors	
H.3.0.0			
(a)		aliskiren (83), ciprokiren (69), ditekiren (62), enalkiren (61), remikiren (66), terlakiren (66), zankiren (70)	

-lefacept		see -cept	
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-leukin		see -kin	
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-listat		see -stat	
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			USAN
-lubant		leukotriene B₄ receptor antagonists	
		(USAN: leukotriene receptor antagonists (treatment of inflammatory skin disorders))	
U.3.0.0			
(a)		amelubant (85), moxilubant (78), ticolubant (76)	

-lukast		leukotriene receptor antagonists, see -ast	
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-lutril		see -tril	
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BAN, USAN

-mab **monoclonal antibodies** (see also Annex 3)

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), blinatumomab (100), detumomab (70), epitumomab (82), epitumomab cituxetan (89), ibritumomab tiuxetan (81), minretumomab (80), mitumomab (82), naptumomab estafenatox (96), racotumomab (100), satumomab (67), taplitumomab paptox (84), technetium (^{99m}Tc) nofetumomab merpentan (76), technetium (^{99m}Tc) pintumomab (75), tenatumomab (98), tositumomab (80)*Others:* catomaxomab (92), ertumaxomab (92)*-umab* **human origin:***ba(c)* bacterial: nebacumab (66), raxibacumab (92)*ci(r)* cardiovascular: ramucirumab (100)*fung* fungal: efungumab (95)

<i>ki(n)</i>	<u>interleukin</u> : briakinumab (101), canakinumab (97), fezakinumab (101), ustekinumab (99)
<i>li(m)</i>	<u>immunomodulator</u> : adalimumab (82), adecatumumab (90), atorolimumab (80), fresolimumab (101), golimumab (91), belimumab (89), bertilimumab (88), ipilimumab (94), lerdelimumab (83), metelimumab (86), morolimumab (79), primumab (89), sifalimumab (101), tremelimumab (97), zanolimumab (90), ziralimumab (84)
<i>os</i>	<u>bone</u> : denosumab (94)
<i>tu(m)</i>	<u>tumour</u> : cixutumumab (100), conatumumab (99), daratumumab (101), figitumumab (100), intetumumab (101), iratumumab (94), lexatumumab (95), lucatumumab (98), mapatumumab (93), necitumumab (100), ofatumumab (93), panitumumab (96), rilatumumab (101), robatumumab (100), teprotumumab (101), votumumab (70), zalutumumab (93)
<i>vi(r)</i>	<u>viral</u> : exbivirumab (91), foravirumab (99), libivirumab (91), rafivirumab (99), regavirumab (71), sevirumab (66), tuvirumab (66)
<i>Other:</i>	stamulumab (94), gantenerumab (97)
<i>-ximab</i>	chimeric origin
<i>ba(c)</i>	<u>bacterial</u> : pagibaximab (93)
<i>ci(r)</i>	<u>cardiovascular</u> : abciximab (70), volociximab (93)
<i>li(m)</i>	<u>immunomodulator</u> : basiliximab (76), clenoliximab (77), galiximab (89), infliximab (77), keliximab (76), lumiliximab (90), priliximab (72), teneliximab (87), vopaliximab (87)
<i>me(l)</i>	<u>melanoma</u> : ecromeximab (87)
<i>tu(m)</i>	<u>tumor</u> : girentuximab (101), bavituximab (95), cetuximab (82), iodine (¹²⁴ I) girentuximab (101), rituximab (77), siltuximab (100)
(c)	muromonab CD3 (59), otelixizumab (98)
<i>-zumab</i>	humanized origin
<i>anib</i>	<u>angiogenesis inhibitor</u> : ranibizumab (90)
<i>ba(c)</i>	<u>bacterial</u> : tefibazumab (92)
<i>ci(r)</i>	<u>cardiovascular</u> : alacizumab pegol (98), bevacizumab (83), etaracizumab (99), tadocizumab (94)
<i>ki(n)</i>	<u>interleukin</u> : anrukinzumab (98), lebrikizumab (101)

<i>li(m)</i>	<u>lymphocyte</u> : apolizumab (87), aselizumab (88), certolizumab pegol (90), daclizumab (78) (previously: dacliximab), eculizumab (87), efalizumab (85), erlizumab (84), fontolizumab (87), ibalizumab (97), mepolizumab (81), natalizumab (79), ocrelizumab (94), omalizumab (84), palivizumab (79), pascolizumab (87), pexelizumab (85), reslizumab (85), rontalizumab (101), rovelizumab (81), ruplizumab (83), siplizumab (87), talizumab (89), teplizumab (97), tocilizumab (90), toralizumab (87), vedolizumab (100), visilizumab (84)
<i>toxa</i>	<u>toxin as target</u> : urtoxazumab (90)
<i>tu(m)</i>	<u>tumor: (miscellaneous)</u> : alemtuzumab (83), bivatuzumab (83), cantuzumab mertansine (89), cedelizumab (77), citatuzumab bogatox (99), dacetuzumab (98), elotuzumab (100), epratuzumab (82), farletuzumab (100), gemtuzumab (83), inotuzumab ozogamicin (92), labetuzumab (85), lintuzumab (76), matuzumab (88), milatuzumab (98), obinutuzumab (101), oportuzumab monatox (100), pertuzumab (89), sibrotuzumab (81), tucotuzumab celmoleukin (94), tigatuzumab (98), trastuzumab (78), veltuzumab (98), yttrium (⁹⁰ Y) tacatuzumab tetraxetan (93)
<i>vi(r)</i>	<u>viral</u> : felvizumab (77), motavizumab (95)
<i>Other:</i>	bapineuzumab (93), otelixizumab (98), solanezumab (100), tanezumab (99)

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

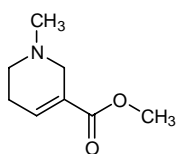
- (a) antiviral: S.5.3.0: amantadine (15), rimantadine (17), somantadine (51), tromantadine (28)
- antiparkinsonian: E.2.0.0: carmantadine (31), dopamantine (31), memantine (35)
- immunostimulant: S.7.0.0: idramantone (71)
- (b) anthelminthic: S.3.1.0: dimantine (14)
- (c) adafenoxate (48) (nootropic agent), adamexine (36) (mucolytic), adapalene (64) (antiacne agent), adaprolol (63) (β -adrenoreceptor antagonist), adatanserin (70) (serotonin receptor antagonist), amantanium bromide (39) (disinfectant), amantocillin (17) (antibiotic), bolmantalate (16) (anabolic), meclinertant (88) (neurotensin antagonist), mantabegron (88) (β_3 -adrenoreceptor agonist), saxagliptin (92) (antidiabetic), vildagliptin (90) (antidiabetic)
-

-mapimod see **-imod**

-mastat see **-stat**

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

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



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

mer- or -mer- (d) **¹mercury-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), mercurbutol (1), otimerate sodium (51), phenylmercuric borate (4), sodium timerfonate (13), thiomersal (1)

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)

N.1.3.0 diuretic: chlormerodrin (4), chlormerodrin (¹⁹⁷Hg) (24), meralluride (1), mercaptomerin (1), mercuderamide (1), mercumatilin sodium (4), mercurophylline (1), merisoprol (¹⁹⁷Hg) (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), suxemerid (25) (antitussive)

(c) hydrargaphen (10)

-mer **polymers** USAN

(a) amilomer (33), azoximer bromide (97), bixalomer (101), cadexomer (60), carbetimer (50), carbomer (21), crilanomer (53), dextranomer (33), eldexomer (60), 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

cutamesine (100), igmesine (68), panamesine (73), siramesine (81)

USAN

-mestane aromatase inhibitors

L.0.0.0 (USAN: antineoplastics, aromatase inhibitors)

/Q.2.1.0

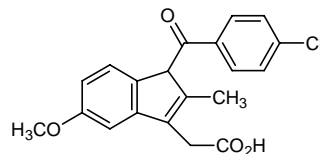
exemestane (65), formestane (66), minamestane (64)

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), pimmetacin (47), proglumetacin (35), sermetacin (36), talmetacin (46), zidometacin (39)

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

-met(h)asone see pred

USAN

-micin antibiotics obtained from various *Micromonospora*

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

astromicin (44), betamicin (38), etisomicin (47), evernimicin (82), fidaxomicin (100), 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)

-mifene **see -ifene**

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

L.0.0.0

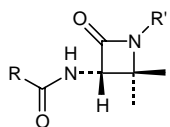
(a) mitobronitol (20), mitocarcin (25), mitoclomine (18), mitoflaxone (60), mitogillin (17), mitoguazone (20), mitolactol (26), mitomalcin (19), mitomycin (26), mitonafide (40), mitopodozide (17), mitoquidone (54), mitosper (24), mitotane (21), mitotenamine (17), mitoxantrone (44), mitozolomide (51)

(c) mitindomide (48)

USAN

-monam **monobactam antibiotics**

S.6.0.0



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

(c) aztreonam (48)

-morelin **see -relin**

-mostat **see -stat**

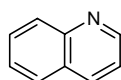
USAN

-mostim **see -stim**

USAN

-motine **antivirals, quinoline derivatives (19th Report 1970)**

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



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

USAN

-moxin (d) monoamine oxidase inhibitors, hydrazine derivatives

C.3.1.0

- (a) benmoxin (20), cimemoxin (17), domoxin (14), octamoxin (15)
- (c) carbenzide (11), etryptamine (12), fenoxypopazine (12), iproclozide (13), iproniazid (1), isocarboxazid (11), mebanazine (15), nialamide (10), pargyline (13), phenelzine (10), pheniprazine (11), tranlycypromine (11)

USAN

-mulin antibacterials, pleuromulin derivatives

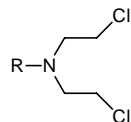
S.6.0.0

- (a) azamulin (54), pleuromulin (35), retapamulin (91), tiamulin (35), valnemulin (74)
- (b) nonathymulin (56), thymostimulin (45)

USAN

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

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



- (a) alestramustine (68), ambamustine (60), atrimustine (61), bendamustine (48), bofomustine (44), carmustine (24), ditiomustine (49), ecomustine (61), elmustine (49), estramustine (24), fotemustine (57), galamustine (61), laromustine (98), 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), palifosfamide (99), perfosfamide (66), sarcolysin (17), sufosfamide (36), trichlormethine (11), trofosfamide (23)

BAN, USAN

-mycin (x) antibiotics, produced by *Streptomyces* strains (see also -kacin)S.6.0.0 (USAN: antibiotics, *Streptomyces* strains)

- (a) alvespimycin (96), amfomycin (12), antelmecin (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), modithromycin (101), 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), retaspimycin (99), ribostamycin (27), rifamycin (13), rokitamycin (53), roxithromycin (54), salinomycin (37), sedecamycin (55), spectinomycin (13), spiramycin (6), stallimycin (30), steffimycin (20), streptomycin (1), tanespimycin (96), telithromycin (80), terdecamycin (65), tobramycin (28), troleandomycin (24), trospectomycin (53), tulathromycin (87) (vet.), vancomycin (6), viomycin (4), virginiamycin (18)

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 pantotenat 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:

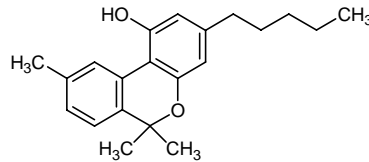
daunorubicin (20), mitomalcin (19), streptonigrin (14) (deleted in List 33)

see also -rubicin

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), prinaberel (95)

USAN

-nabant **cannabinoid receptors antagonists**

E.0.0.0

- (a) drinabant (99), ibipinabant (99), otenabant (99), rimonabant (83), rosonabant (97), surinabant (93), taranabant (97)

-nacept **see -cept****-nakin** **see -kin****-nakinra** **see -kinra**

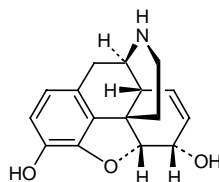
USAN

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

A.4.1.0

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

B.2.0.0



- a) methylnaltrexone bromide (96), nalbuphine (21), nalfurafine (87), nalmefene (49) (originally nalmetrene (47)), nalmexone (19), nalorphine (1), naloxone (13), naltrexone (29)
- (b) nalidixic acid (13)

-naritide see **-tide**

-navir see **vir**

-nermin see **-ermin**

-nercept see **-cept**

-nertant see **-tant**

-netant see **-tant**

-nicate see **nico-**

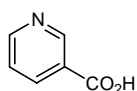
-nicline **nicotinic acetylcholine receptor partial agonists / agonists**

USAN

E.1.1.2

(a) altinicline (82), dianicline (93), ispronnicline (93), pozanicline (100), rivanicline (93), sofinicline (100), tebanicline (86), varenicline (89)

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



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), xantanol 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) **NO₂ - 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)

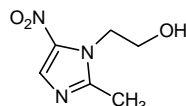
BAN, USAN

-nidazole (x) antiprotozoals and radiosensitizers, metronidazole derivatives

S.3.3.0

(USAN: antiprotozoal substances (metronidazole type))

Y.0.0.0



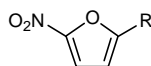
- (a) abunidazole (52), azanidazole (38), bamnidazole (37), benznidazole (31), carnidazole (32), doranidazole (90), etanidazole (57), fexinidazole (37), flunidazole (21), ipronidazole (21), metronidazole (11), misonidazole (38), moxnidazole (33), ornidazole (28), panidazole (24), pimonidazole (57), pirinidazole (32), propenidazole (45), ronidazole (18), satranidazole (48), secnidazole (30), sulnidazole (33), ternidazole (34), tinidazole (21), tivanidazole (48)
- (c) dimetridazole (17), nimorazole (22), stirimazole (25)

-nidinesee **-onidine**

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), nifurtimos (21), nifurtoinol (36), nifurvidine (17), nifurzide (37)

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

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

nitro- **NO₂ - derivatives**
or nitr- or nit-
or ni- or -ni-

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-: nitarstone (17), ranitidine (41)

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

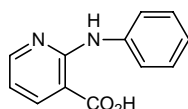
ni-dipine: nicardipine (42), nifedipine (27), niludipine (38), nisoldipine (42), nitrendipine (42), vatamidipine (77)

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

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)

(-)nonacog see **-cog**

-octakin see **-kin**

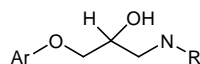
(-)octocog see **-cog**

-ol (d) for alcohols and phenols (deleted from General Principles in 14th Report)

BAN; USAN

-olol (x) β -adrenoreceptor antagonists

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

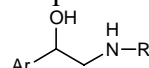


aromat. ring -O-CH₂-CHOH-CH₂-NH-R

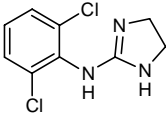
- (a) acebutolol (28), adaprolol (63), adimolol (50), afurololol (40), alprenolol (19), ancamolol (47), arnolol (56), arotinolol (48), atenolol (33), befunolol (39), betaxolol (40), bevantolol (36), bisoprolol (48), bometolol (42), bopindolol (42), bornaprolol (46), bucindolol (43), bucumolol (35), bufetolol (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)), dexneбивolol (98), dexpropranolol (21), diacetolol (41), draquinolol (54), ecastolol (56), epanolol (52), ericolol (50), esatenolol (76), esmolol (50), exaprolol (32), falintolol (53), fleistolol (53), flusoxolol (50), idropranolol (31), imidolol (49) (replaced by adimolol (50)), indenolol (37), indopanlol (48), iprocrolol (39), isoxaprolol (45), landiolol (75), levobetaxolol (61), levobunolol (42), levomoprolol (58), levoneбивolol (98), mepindolol (36), metipranolol (38), metoprolol (30), moprolol (36), nadolol (34), nadoxolol (28), nafetolol (39), neбивolol (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)

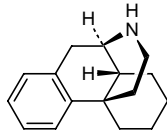
-alol aromatic ring -CH-CH₂-NH-R related to -olols
OH

(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)
-

		USAN
-olone	see pred	
-onakin	see -kin	
-one (d)	ketones	
(a)	630 (approx. 8.0 %) INNs ending in <i>-one</i> in Lists 1-101 of proposed INNs	
		BAN, USAN
-onide	steroids for topical use, acetal derivatives	
Q.3.0.0		
(a)	acrocinnonide (27), amcinonide (33), budesonide (37), ciclesonide (62), cicortonide (28), ciprocinonide (38), desonide (24), dexbudesonide (80), drocinonide (29), fluclorolone acetone (22), fluocinolone acetone (11), flumoxonide (38), fluocinonide (25), halcinonide (29), itrocinnonide (62), nicocortonide (40), procinnonide (38), rofleponide (72), tralonide (27), triamcinolone benetonide (36), triamcinolone furetonide (36), triamcinolone hexacetone (15), triclone (30)	
(c)	amcinafal (25), amcinafide (25)	
-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) <u>related</u> : alinidine (40) (analgesic)	
-nidine		
H.3.0.0		
(a)	related antihypertensives: betanidine (13), indanidine (50), rilmenidine (57), tiamenidine (28)	
(b)	<u>muscle relaxant</u> : tizanidine (43) <u>topical anti-infective</u> : octenidine (43), pirtenidine (57) <u>antibacterial</u> : sulfaguanidine (4) <u>vetirinary coccidiostatic</u> : robenidine (25)	
(c)	dexlofexidine (48), levlofexidine (48), lofexidine (33)	

-onium	see -ium	
-opamine	see -dopa	
-orex	anorexics	BAN; USAN
M.1.0.0	(BAN: anorexic agents, phenethylamine derivatives) (USAN: anorexiant)	
(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), mafenorex (19), morforex (26), oxifentorex (20), pentorex (16), picilorex (40), tiflorex (34)	
(b)	almorexant (98)	
(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)	
orphan	narcotic antagonists/agonists, morphinan derivates	USAN
A.4.1.0		
B.2.0.0	(USAN: -orphan: narcotic antagonists/agonists (morphinan derivatives))	
		
(a)	<u>A.4.1.0</u> : butorphanol (31), dextromethorphan (1), dextrorphan (1), dimemorfan (30), ketorfanol (49), levomethorphan (1), levophenacymorphan (9), levorphanol (4), norlevorphanol (9), oxilorphan (31), phenomorphan (5), proxorphan (43), racemethorphan (1), racemorphan (1), xorphanol (48)	
	<u>B.2.0.0</u> : levallorphan (2)	
-orph-	-orphine : acetorphine (17), alletorphine (25), buprenorphine (29), cyprenorphine (17), desomorphine (5), diprenorphine (21), etorphine (17), homprenorphine (25), methyl-desorphine (5), methyl-dihydromorphine (5), morphine glucuronide (92), nalorphine (1), nicomorphine (7), normorphine (7)	

-orphinol: hydromorphinol (11)

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

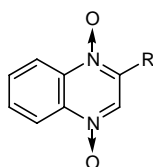
(b) emorfazone (44), morforex (26), morpheridine (6), orphenadrine (8)

-otermin see **-ermin**

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

(a) glucalox (13), sucralox (13)

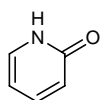
(b) *-dox* antibacterials, quinazoline dioxide derivatives:
(USAN: -adox: antibacterials (quinoline dioxide derivatives))



carbadox (19), ciadox (44), cinoquidox (40), drazidox (24), mequidox (19), olaquindox (31), temodox (27)

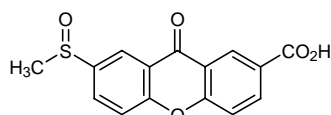
-pirox antimycotics, pyridone derivatives:

USAN



ciclopirox (26), metipirox (26), rilopirox (56)

-xanox antiallergics, tixanox group:
(USAN: antiallergic respiratory tract drugs (xanoxic acid derivatives))



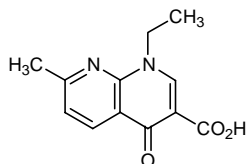
amlexanox (55), mepixanox (49), sudexanox (44), tixanox (37), traxanox (44)

others: acipimox (33) (antihyperlipidaemic), bifeprunox (87) (antipsychotic), cefminox (53) (antibiotic), deferasirox (86) (chelating agent), etofenprox (57) (insecticide), nifurtimox (21) (antiprotozoal), pardoprinox (96) (antiparkinsonian), sulbenox (37) (animal growth regulator), xanoxic acid (33) (bronchodilator)

BAN, USAN

-oxacin (x) antibacterials, nalidixic acid derivatives

S.5.5.0 (BAN: antibacterial agents of the cinoxacin group)
 (USAN: antibacterial (quinolone derivatives))

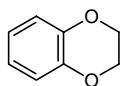


- (a) cinoxacin (32), droxacin (36), fleroxacin (56), enoxacin (49), garenoxacin (87), irloxacin (53), miloxacin (40), nemonoxacin (96), ozenoxacin (96), rosoxacin (36), tioxacin (34)
-floxacin: alatrofloxacin (75), amifloxacin (51), balofloxacin (71), besifloxacin (98), binfloxacin (60), cadrofloxacin (81), cetefloxacin (68), ciprofloxacin (50), clinafloxacin (67), danofloxacin (61), delafloxacin (100), 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)
- (b) quarfloxin (98)
- (c) flumequine (34), nalidixic acid (13), oxolinic acid (15), pipemidic acid (32), piromidic acid (27), metioxate (34)

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) (α_2), imiloxan (52) (α_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 β -adrenoreceptor antagonist), domoxin (14), doxazosin (47), enoxamast (52) (antiallergic), spiroxatrine (14) (analgesic)

related: dexefaroxan (76) (β -adrenoreceptor antagonist), efaroxan (59) (α_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)

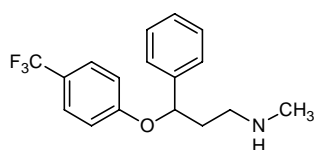
-oxanide **see -anide** USAN

-oxef **see cef-** USAN

-oxepin **see -pine**

-oxetine **antidepressants, fluoxetine derivatives** USAN

C.3.0.0



- (a) ansoxetine (58), dapoxetine (65), duloxetine (68), esreboxetine (99), femoxetine (36), fluoxetine (34), ifoxetine (54), litoxetine (64), nisooxetine (34), omiloxetine (76), paroxetine (38), reboxetine (54), seproxetine (66), tomoxetine (49)

-oxicam **see -icam**

-oxifene **see -ifene**

-oxopine **see -pine**

-pafant **platelet-activating factor antagonists** BAN; USAN

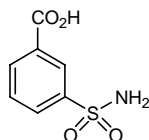
I.2.1.0

- (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)
-

USAN

-pamide **diuretics, sulfamoylbenzoic acid derivatives**
(could be sulfamoylbenzamide) (19th Report, 1970)

N.1.2.0 (USAN: diuretics (sulfamoylbenzoic acid derivatives))

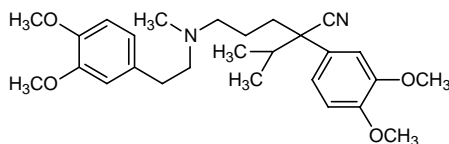


- (a) alipamide (18), besulpamide (52), clopamide (13), indapamide (29), tripamide (44), xipamide (22), zidapamide (50) (previously isodapamide (47))
- (b) chlorpropamide (8) (hypoglycemic), isopropamide iodide (8) (anticholinergic)
- (c) bumetanide (24), chlortalidone (12), clorexolone (15), furosemide (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)

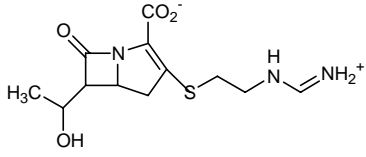
related: bertosamil (64), bisaramil (60)

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), semuloparin sodium (99), tinzaparin sodium (65)	
-parinux	synthetic heparinoids	
	(USAN: antithrombotic indirect selective synthetic factor Xa inhibitors)	
(a)	fondaparinux sodium (83) (replaces fondaparin sodium (79)), idrabiotaparinux sodium (97), idraparinux sodium (84)	
-patril/-patrilat	see -tril/-trilat	
-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), razupenem (101), ritipenem (67), sulopenem (68), tacapenem (87), tebipenem (82), tomopenem (95)	
perfl(u)-	perfluorinated compounds used as blood substitutes and/or diagnostic agents	USAN
	(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**

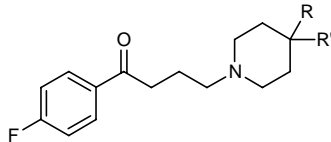
USAN

-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)

tricyclic anticonvulsant: A.3.1.0: carbamazepine (15), eslicarbazepine (91), etazepine (51), licarbazepine (81), oxcarbazepine (41)

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), zicronapine (100)

-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**

-pirox see **-ox/-alox**

USAN

-pitant see **-tant**

-plact **platelet factor 4 analogues and derivatives**

USAN

iroplact (74)

USAN

-pladib **phospholipase A₂ inhibitors**

W.0.0.0

darapladib (94), ecopladib (90), efipladib (92), giripladib (96), goxalaplادib (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**

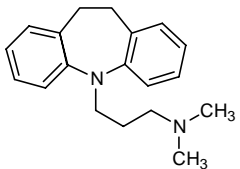
USAN

-plon **imidazopyrimidine or pyrazolopyrimidine derivatives, used as anxiolytics, sedatives, hypnotics**

A.2.2.0 (USAN: non-benzodiazepine anxiolytics, sedatives, hypnotics)

C.1.0.0

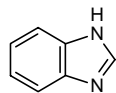
adiplon (98), divaplon (61), fasiplon (61), indiplon (86), ocinaplon (72), panadiplon (65), taniplon (61), zaleplon (72)

		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 kappa (97), epoetin omega (73), epoetin theta (95), epoetin zeta (92)	
		USAN
-porfin	benzoporphyrin derivatives	
(a)	lemuteporfin (91), padeliporfin (96), 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)	<u>saturated dibenzazepine:</u> 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)	<u>unsaturated dibenzazepine:</u> carbamazepine (15), homopipramol (20), opipramol (15)	

USAN

-prazole antiulcer, benzimidazole derivatives

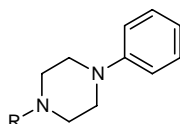
J.0.0.0 (USAN: antiulcer agents (benzimidazole derivatives))



- (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

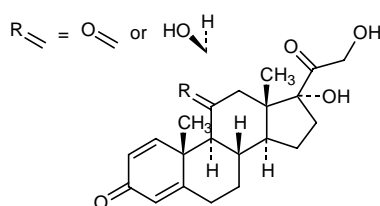


- (a) aripiprazole (75), dapiprazole (45), elopiprazole (70), enpiprazole (24), lorpiprazole (60), mepiprazole (24), sonpiprazole (80), tolpiprazole (25)

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) various non-steroidal compounds
 citiolone (23) (hepatobil. troubles), clorexolone (15) (diuretic), fenozolone (14) (psychotonic), tioxolone (16) (keratolytic), vistatolon (25) (antiviral)

- (c) **-betasol**: clobetasol (26), doxibetasol (26), ulobetasol (54)
- (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 cipeccilate (94), flumetasone (13), halometasone (41), icometasone enbutate (70), mometasone (56), paramethasone (12)
- (c) **-olone**: steroids not used as glucocorticosteroids
(USAN: steroids (not prednisolone derivatives))
bardoxolone (101), clocortolone (16), descinolone (17), diflucortolone (18), fluclorolone acetone (22), fluocinolone acetone (11), fluocortolone (15), fluorometholone (8), fluperolone (13), halocortolone (31), rimexolone (38), triamcinolone (8), triamcinolone benetonide (36), triamcinolone furetonide (36), triamcinolone hexacetone (15)
- (c) clobetasone (26), cloticasone (52), deprodone (20), dichlorisone (10), diflorasone (30), flunisolide (11), fluticasone (52), fluticasone furoate (96), meclorisone (40), timobesone (51)

-olone

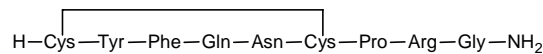
- A.1.2.0 general anesthetics, pregnanes: alfadolone (27), alfaxalone (27), eltanolone (65), ganaxolone (76), minaxolone (39), renanolone (8)
- H.2.0.0 antiarrhythmic: amafolone (40), edifolone (56)
- H.4.0.0 antihyperlipidaemic: colestolone (59)
- J.0.0.0 glycyrrhetic acid derivatives: carbenoxolone (15), ciclozolone (33), cinoxolone (33), deloxolone (51), enoxolone (15), roxolonium metilsulfate (33)
- 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)

-prenaline see **-terol**

USAN

-pressin vasoconstrictors, vasopressin derivatives

Q.1.2.0



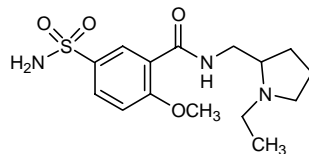
- (a) argipressin (13), desmopressin (33), felypressin (13), lypressin (13), ornipressin (22), terlipressin (46), vasopressin injection (16)

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 (¹²³I) (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), orbutoipril (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)

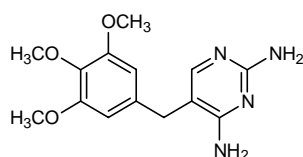
-prilat (x) USAN

(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)

-prim **antibacterials, trimethoprim derivatives** USAN

S.5.5.0



- (a) aditoprim (49), baquiloprim (56), brodimoprim (44), epioprim (44), iclaprim (88), metioprim (42), ormetoprim (21), tetroxoprim (33), trimethoprim (11), vaneprim (48)
- (c) diaveridine (18)

-pris- **steroidal compounds acting on progesterone receptors (excluding -gest- compounds)** USAN

Q.2.0.0 (USAN: -prisnil: selective progesterone receptor modulators (SPRM); -pristone: progesterone receptor antagonists)

- (a) aglepristone (70), asoprisnil (88), asoprisnil ecamate (89), lonaprisan (97), mifepristone (54), onapristone (58), toripristone (61), ulipristal (96)
- (c) epristeride (69), saprisartan (72), and the stem *-pristin* selected for antibacterials, pristinamycin derivatives

-pristin **antibacterials, pristinamycin derivatives** USAN

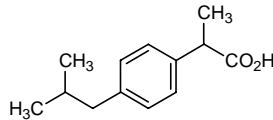
S.6.0.0

- (a) dalfopristin (67), efepristin (75), flopristin (98), quinupristin (65), linopristin (98), 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), bifeuprofen (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), furclopuprofen (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), odaloprofen (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.), difprofene (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: prostaglandins)

- (a) alfaprostol (45), alprostadil (39), ataprost (62), beraprost (59), bimatoprost (85), butaprost (55), carboprost (36), cicaprost (54), ciprostone (51), clinprost (68), cloprostenol (33), cobiprostone (98), delprostenate (42), dimoxaprost (52), dinoprost (26), dinoprostone (26), doxaprost (34), ecraprost (83), eganoprost (84), enisoprost (50), epoprostenol (44), eptaloprost (56), etiprost (46), fenprostalene (42), flunoprost (53), fluprostenol (33), froxiprost (55), gemeprost (42), iloprost (48) (originally ciloprost (46)), lanprost (72), latanoprost (67), limaprost (56), lubiprostone (89), luprostiol (44), meteneprost (45), misoprostol (47), naxaprostene (58), nileprost (45), nocloprost (51), oxoprostol (44), penprostene (37), pimilprost (71), piriprost (51), posaraprost (97), prostalene (34), remiprostil (65), rivenprost (93), rosaprostol (48), sulprostone (37), taprostene (58), tiaprost (41), tafluprost (89), tilsuprost (51), tiprostanide (48), travoprost (80), treprost (87), unoprostone (66), vapiprost (58), viprostol (53)

-prostil prostaglandins, anti-ulcer

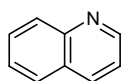
- (a) arbaprostil (35), deprostil (32), enprostil (50), mexiprostil (52), ornoprostil (56), rioprostil (49), spiriprostil (63), trimoprostil (49)

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)

-quine (d) **quinoline derivatives (deleted from General Principles in List 28 prop. quin 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)

acequinoline (22), actinoquinol (15), aminoquinol (22), amquinatate (21), amiquinsin (17), aminoquinuride (45), benzoxiquine (18), broquinaldol (17), buquineran (40), buquinolate (16), clamoxyquine (16), cletoquine (20), chlorquinaldol (1), cinoquidox (40), ciproquinatate (22), clioquinol (16), cloquinatate (11), cloxiquine (30), debrisoquine (15), decoquinatate (20), diiodohydroxyquinoline (1), esproquine (31), flumequine (34), guanisoquine (15), hedaquinium chloride (8), intiquinatine (99), iquindamine (34), isotiquimide (49), leniquinsin (18), mebiquine (29), nequinatate (22), nifuroquine (36), olaquinox (31), oxamniquine (28), peraquinsin (29), pirquinozol (43), proquinolate (17), quinaldine blue (17), quincarbonate (31), quindecamine (15), quinoxin (26), quinetalate (16), quinfamide (40), quinisocaine (4), quinprenaline (17), quinuclium bromide (40), quipazine (17), sitamaquine (80), tilbroquinol (45), tiliquinol (45), tiquinamide (35), tiquizium bromide (47), toquizine (17), tretoquinol (21), viquidil (25)

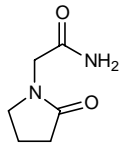
(c) broxaldine (12), cinchocaine (1), cinchophen (1), climiqualine (33), dehydroemetine (15), dequalinium chloride (8), dimethyltubocurarinium chloride (1), dimoxyline (1), drotaverine (17), ethaverine (4), euprocine (22), famotidine (23), flucarbril (14), glafenine (15), laudexium metilsulfate (4), laurolinium acetate (12), memotidine (22), metofoline (12), neocinchophen (1), niceverine (15), nitroxoline (15), noscapine (7), octaverine (18), oxolinic acid (15), oxycinchophen (6), pyrvinium chloride (6), trethinium tosilate (14), tritoqualine (14), tubocurarine chloride (1)

-quinil **see -azenil**

BAN; USAN

-racetam **amide type nootrope agents, piracetam derivatives**

B.1.0.0 (BAN: substances of the piracetam group)
 (USAN: nootropes (piracetam type))



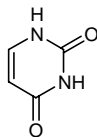
- (a) aloracetam (62), aniracetam (44), brivaracetam (93), cebaracetam (66), coluracetam (86), dimiracetam (68), doliracetam (53), dupracetam (38), etiracetam (40), fasoracetam (78), fonturacetam (101), imuracetam (42), levetiracetam (62), molracetam (55), nebracetam (59), nefiracetam (64), nicoracetam (63), oxiracetam (43), piracetam (22), pramiracetam (46), rolziracetam (54), seletracetam (93)

related: tenilsetam (51)

USAN

-racil **uracil type antineoplastics**

L.0.0.0



- (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)

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), busorelin (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) anamorelin (97), capromorelin (83), dumorelin (59), examorelin (72), ipamorelin (78), macimorelin (100), pralmorelin (77), rismorelin (74), sermorelin (56), somatorelin (57), tabimorelin (80), tesamorelin (96)

-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)

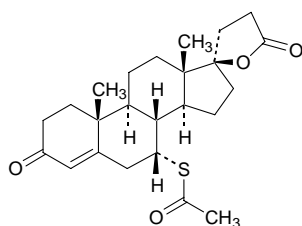
(c) thyrotropin alfa (78) (thyrotropin releasing hormone (TRH) analog)

-relix **hormone-release inhibiting peptides** USAN

(a) abarelix (78), cetrotorelix (66), degarelix (86), detirelix (56), ganirelix (65), iturelix (79), ozarelix (94), prazarelix (81), ramorelix (69), teverelix (78)

-renone **aldosterone antagonists, spironolactone derivates** USAN

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)

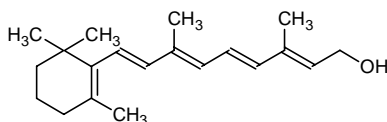
(c) oxprenoate potassium (53), prorenoate potassium (32), spironolactone (11), spiroxasone (14)

-restat **see -stat**

USAN

retin **retinol derivatives**

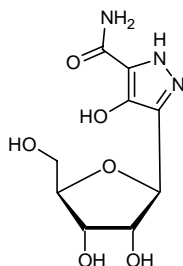
P.1.0.0 (USAN: -retin- or -retin)



(a) acitretin (56) (previously etretin (51)), alitretinoin (80), doretinel (60), etretinate (41), fenretinide (51), isotretinoin (41), motretinide (38), pelretin (60), peretinoin (98), retinol (18), tretinoin (25), tretinoin tocoferil (66)

(b) noretynodrel (13), secretin (1), trethinium tosilate (14)

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)

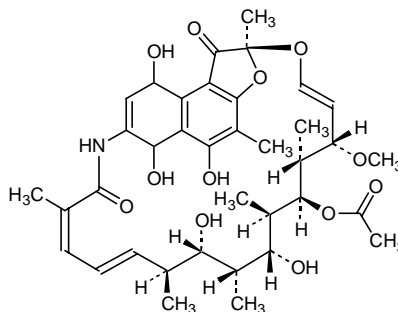
(c) pirazofurin (31), ribavirin (31), riboprine (20), tiazofurine (48)

related: benaxibine (50)

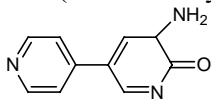
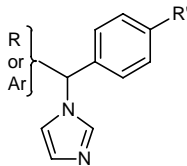
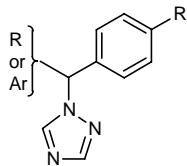
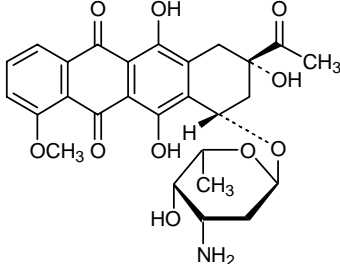
USAN

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))

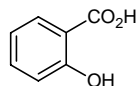
		USAN
-rinone	cardiac stimulants, amrinone derivatives	
H.1.0.0	(USAN: cardiotonics (amrinone type))	
		
(a)	amrinone (38), bemarkinone (57), medorinone (54), milrinone (50), nanterinone (60), olprinone (70), pelrinone (53), saterinone (56), toborinone (72), vesnarinone (57)	
(b)	<u>gestrinone</u> (39), <u>indacrinone</u> (51), <u>taziprinone</u> (48)	
-rizine	see -izine	
-rolimus	see -imus	
		USAN
-rozole	aromatase inhibitors, imidazole-triazole derivatives	
L.0.0.0		
		
	anastrozole (72), fadrozole (64), finrozole (81), letrozole (70), liarozole (64), talarozole (99), vorozole (64)	
		USAN
-rsen	antisense oligonucleotides	
	aganirsen (101), alicaforsen (85), aprinocarsen (89), beclanorsen (01), cenersen (97), custirsen (99), mipomersen (99), oblimersen (87), trabedersen (97) <u>-virsen (antivirals)</u> : afovirsen (71), fomivirsen (75), miravirsen (101), trecovirsen (77)	
		USAN
-rubicin	antineoplastic antibiotics, daunorubicin derivatives	
L.5.0.0	(USAN: antineoplastic antibiotics (daunorubicin type))	
		

- (a) aclarubicin (44), amrubicin (65), berubicin (98), 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)

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), salfluerine (29), salicylamide (1), salnacedin (73), salprotoside (31), salsalate (28), salverine (15)

various

salafibrate (41) (antihyperlipidaemic), salantel (29) (anthelmintic), salinazid (8) (antituberculosis agent), salirasib (97) (antineoplastic)

-sal analgesic anti-inflammatory A.4.2.0

detanosal (23), diflunisal (33), fendosal (35), flufenisal (22), fosfosal (37), guacetisal (40), guaimesal (50), paracetasal (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) (choloretic), susalimod (73) (immunomodulator), xenysalate (12) (antiseborrheic)

salazo- phenylazosalicylic acid derivatives antibacterial S.5.1.0

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.2.1.0

bensalan (18), dibromsalan (14), flusalan (16), fursalan (18), metabromsalan (16), tiosalan (18), tribromsalan (14)

(b) non-salicylic acid derivatives

fosalvudine tidoxil (95), macrosalb (^{99m}Tc) (33), rusalatide (96), trioxysalen (16) (pigmenting agent)

bronchodilators

levosalbutamol (78), salbutamol (20), salmefamol (23)

(c) analgesic, anti-inflammatory A.4.2.0

aloxiprin (13), anilamate (13), benorilate (21), brosetamide (29), cresotamide (28), dibusadol (24), dipyracetyl (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 (16), flualamide (20)

saluretics N.1.2.0: xipamide (22) (sulfamoyl derivative),

mercurial diuretics N.1.3.0: mercuderamide (1)

anthelmintics S.3.1.0: 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

 USAN
-sartan **angiotensin II receptor antagonists, antihypertensive (non-peptidic)**

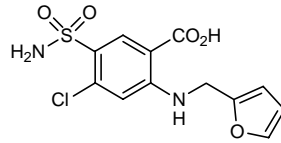
H.3.0.0 (USAN: -sartan: angiotensin II receptor antagonists)

abitesartan (73), azilsartan (95), azilsartan medoxomil (97), 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)

USAN

-semide diuretics, furosemide derivatives

N.1.1.0



- (a) azosemide (35), furosemide (14), galosemide (33), sulosemide (49), torasemide (35)

-sermin see -ermin

USAN

-serod serotonin receptor antagonists and partial agonists

J.0.0.0

- (a) capeserod (94), piboserod (79), sulamserod (82), tegaserod (79)

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)

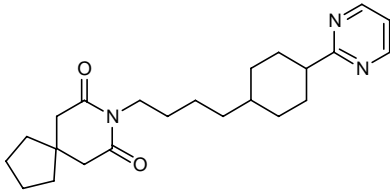
BAN, USAN

-setron serotonin receptor antagonists (5-HT₃) not fitting into other established groups of serotonin receptor antagonists

(BAN: serotonin receptor antagonists (5HT₃) used as antihypertensives)

(USAN: serotonin 5-HT₃ 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)

		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)	<u>-bove: bovine type substances:</u> somagrebove (63), somavubove (63), sometribove (54), somidobove (58) <u>-por: porcine-type substances:</u> somalapor (62), somenopor (62), somfasepor (66), sometripopor (55) <u>-salm: salmon-type substances:</u> somatosalm (69) <u>Others:</u> somatrem (54), somatropin (56)	
(b)	somatorelin (57), somantadine (51), somatostatin (46)	
-sopine	see -pine	
		USAN
-spirone	anxiolytics, buspirone derivatives	
C.1.0.0		
		
(a)	alnespirone (70), binspirone (65), buspirone (30), enilospirone (52), perospirone (71), revospirone (61), tandospirone (60), tiospirone (57), umespirone (60), zalospirone (64)	
(c)	eptapirone (82), gepirone (54), ipsapirone (54)	
		BAN; USAN
-stat- or -stat	enzyme inhibitors	
-castat	<u>dopamine β-hydroxylase inhibitors</u>	
(a)	etamicastat (101), nepicastat (78)	
-elestat	<u>elastase inhibitors</u>	
(a)	depelestat (91), freselestat (89), sivelestat (78)	
-inostat	<u>histone deacetylase inhibitors</u>	
(a)	belinostat (97), dacinostat (89), entinostat (99), givinostat (101), mocetinostat (101), panobinostat (96), 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:
- | | |
|----------------------------|---|
| afegostat (101) | β -glucocerebrosidase inhibitor |
| apratostat (93): | inhibition of TNF- α converting enzyme |
| azalanstat (73): | lanosterol 14 α -demethylase inhibitor |
| begacestat (97) | gamma secretase inhibitor |
| benurestat (31): | urease inhibitor |
| cilastatin (50): | renal dehydropeptidase inhibitor |
| conestat alfa (98) | human plasma protease C1 inhibitor |
| ezatiostat (98) | glutathione-S-transferase inhibitor |
| febuxostat (85): | xanthine oxydase and xanthine dehydrogenase inhibitor |
| imetelstat (101) | antineoplastic, telomerase inhibitor |
| lapaquistat (96) | squalene synthase inhibitor |
| migalastat (95): | alpha-galactosidase A enzyme inhibitor |
| miglustat (85): | glucosyltransferase inhibitor |
| niraxostat (99): | xanthine oxydase inhibitor |
| nystatin (6): | antifungal antibiotic |
| pentostatin (38): | vidarabin activity potentiator; inhibitor of enzymatic deaminative metabolism |
| pepstatin (28): | pepsin inhibitor |
| semgacestat (99): | gamma secretase inhibitor |
| somatostatin (43): | growth hormone release inhibiting factor |
| talabostat (92): | antineoplastic |
| tendamistat (44): | amylase inhibitor |
| tosedostat (99) | antineoplastic, aminopeptidase 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 (86) (replaces itavastatin (80)), pravastatin (57), rosuvastatin (94), simvastatin (58), tenivastatin (85)	
		BAN
-steine	mucoytics, 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)	<u>progestational steroids</u>	
	-gesterone: dydrogesterone (12), haloprogesterone (11), hydroxyprogesterone (8), medroxyprogesterone (10), norgesterone (14), progesterone (4), segesterone (89)	
	-sterone: dimethisterone (8), ethisterone (4), norethisterone (6), norvinisterone (10)	
<u>various:</u>	-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) aneastim (79) (cell growth factor), garnocestim (85) (immunomodulator), pegacaristim (80) (megakaryocyte growth factor), romiplostim (97) (platelet stimulating factor)

-distim combination of two different types of colony stimulating factors
(USAN: conjugates 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

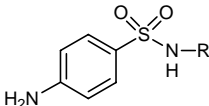
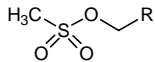
(a) filgrastim (64), lenograstim (64), nartograstim (66), pegfilgrastim (85), pegnartograstim (80)

-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), sulfacloamide (17), sulfaclozole (25), sulfaclozine (25), sulfadiazulfone 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), sulfamethoxy pyridazine (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 (1), 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)	
		USAN
-sulfan	antineoplastic, alkylating agents, methanesulfonates	
L.2.0.0		
		
(a)	busulfan (6), improsulfan (35), mannosulfan (24), piposulfan (15), ritrosulfan (33), treosulfan (26)	
-tacept	see -cept	
-tadekin	see -kin	

USAN

-tadine histamine-H₁ receptor antagonists, tricyclic compoundsG.2.1.0 (USAN: -(a)tadine: tricyclic histaminic-H₁ receptor antagonists, loratadine derivative)

(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 NK₁ (substance P) receptor antagonist

(a) aprepitant (84), befetupitant (91), burapitant (101), casopitant (94), dapitant (74), ezlopitant (82), figopitant (82), fosaprepitant (94), lanepitant (77), maropitant (90), netupitant (90), nolpitantium besilate (75), orvepitant (94), rolapitant (97), serlopitant (100), vestipitant (91), vofopitant (82)

-dutant neurokinin NK₂ receptor antagonist

(a) ibodutant (98), nepadutant (78), saredutant (75)

-nertant neurotensin antagonist

(a) meclinertant (88) (replaces reminertant (85))

-netant neurokinin NK₃ receptor antagonist

(a) osanetant (74), talnetant (81)

USAN

-taxel antineoplastics, taxane derivatives

L.0.0.0

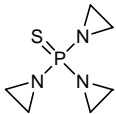
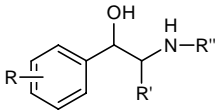
cabazitaxel (98), docetaxel (71), larotaxel (94), milataxel (91), ortataxel (87), paclitaxel (68), paclitaxel ceribate (91), paclitaxel poliglumex (90), simotaxel (94), tesetaxel (93)

USAN

-tecan antineoplastics, topoisomerase I inhibitors

L.0.0.0 (USAN: antineoplastics (camptothecine derivatives))

afeletecan (85), atiratecan (101), belotecan (91), cositecan (100), delimotecan (97), diflomotecan (84), elemotecan (92), exatecan (81), exatecan alideximer (89), gimatecan (86), irinotecan (64), lurtotecan (74), mureletecan (85), namitecan (100), pegamotecan (91), rubitecan (82), topotecan (65)

		USAN
-tepa	antineoplastics, thiotepa derivatives	
L.2.0.0		
(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)	<p>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), milveterol (97), naminterol (53), nardeterol (62), olodaterol (101), picumeterol (64), procateterol (37), reproterol (30), rimiterol (26), salmeterol (55), sulfoneterol (31), zilpaterol (60), zinterol (38)</p> <p><u>-buterol</u>: bambuterol (49), carbuterol (29), clenbuterol (28), divabuterol (51), mabuterol (46), pirbuterol (30), tobuterol (45), tulobuterol (40)</p> <p><u>cardiac stimulants</u>: metaterol (43), prenalterol (38), xamoterol (48); clorprenaline (17), hexoprenaline (21), isoprenaline (1), levisoprenaline (10), metiprenaline (24), orciprenaline (14), quinprenaline (17)</p> <p>deterenol (25), soterenol (20)</p>	
(b)	azacosterol (16), dihydrotachysterol (1), penmesterol (14)	
(c)	dioxethedrine (6), isoetarine (13), methoxyphenamine (1), pseudoephedrine (11), salbutamol (20), salmefamol (23), terbutaline (22)	

-terone antiandrogens

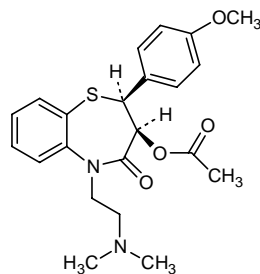
(Q.2.3.1)

- (a) abiraterone (74), benorterone (15), cyproterone (16), delanterone (42), inocoterone (54), osaterone (68), topterone (39), 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)antiarrhythmic: danegaptide (101), rotigaptide (94)antidepressant: nemifitide (87)antidiabetic: albiglutide (97), amlintide (76), davalintide (101), exenatide (89), liraglutide (87), lixisenatide (99), pramlintide (74), seglitide (57), semaglutide (101), taspoglutide (99)antidiarrhoeal: lagatide (75)antithrombotic: eptifibatide (78)

antiviral: enfuvirtide (85), tifuvirtide (91)

autoimmune disorders: dirucotide (100)

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)

expectorant (in cystic fibrosis): lancovutide (99)

gastro-intestinal bleeding/antineoplastic: edotreotide (84), ilatreotide (66), lanreotide (64), octreotide (52), pentetreotide (66), vapreotide (62)

gastrointestinal functions normalizing agent: linaclotide (96), teduglutide (90)

growth stimulant-veterinary: nosiheptide (35)

gut motility increasing: ociltide (52)

hormone analogue: semparatide (80), tridecactide (97)

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), tertomotide (98), tigapotide (95), tiplimotide (82)

inhibition of growth hormone release: pasireotide (90)

kallicrein inhibitor: ecallantide (93)

melanocortin receptor agonist: afamelanotide (100), bremelanotide (95)

neuromodulator: davunetide (100), ebiratide (56), obinepitide (96)

peptic ulcer: sulglicotide (29), triletide (50)

pulmonary surfactant: lusupultide (80), sinapultide (78)

sedative: emideltide (70)

thrombin fragment: rusalatide (96)

transforming growth factor inhibitor: disitertide (99)

treatment of Alzheimer's disease: vanutide cridifcar (100)

treatment of Parkinson's disease: doreptide (58), pareptide (38)

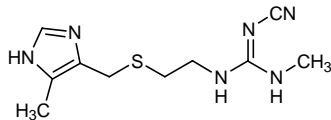
treatment of coeliac disease: larazotide (99)

- (b) defibrotide (44) (nucleotide), diamfenetide (28) (fasciocide), diclometide (19) (behaviour modifier), fludroxycortide (12), glisentide (58)
- (c) angiotensin II (65), angiotensinamide (12)

BAN, USAN

-tidine (x) histamine-H₂-receptor antagonists, cimetidine derivatives

G.2.0.0 (BAN: H₂-receptor antagonists of the cimetidine group)
(USAN: H₂-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)

-tiline see -triptyline

USAN

-tinib tyrosine kinase inhibitors

L.0.0.0

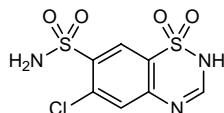
- (a) axitinib (94), bafetinib (99), bosutinib (94), canertinib (87), dasatinib (94), dovitinib (97), erlotinib (85), fostamatinib (100), gefitinib (85), imatinib (86), lapatinib (89), lestaurtinib (91), masitinib (96), mubritinib (90), neratinib (97), nilotinib (94), pelitinib (93), saracatinib (99), selumetinib (100), sunitinib (93), tandutinib (91), telatinib (99)

-tirelin see -relin

USAN

-tizide **diuretics, chlorothiazide derivatives**

N.1.2.1 (USAN: thiazide: diuretics (thiazide derivatives))

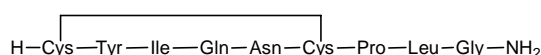


- (a) altizide (13), bemetizide (27), butizide (13), carmetizide (30), epitizide (13), hydrobentizide (14), mebutizide (15), paraflutizide (16), penflutizide (29), sumetizide (20)
- (c) bendroflumethiazide (11), benzthiazide (10), chlorothiazide (8), cyclopenthiazide (12), cyclothiazide (12), disulfamide (11), ethiazide (14), flumethiazide (10), hydrochlorothiazide (10), hydroflumethiazide (10), methyclothiazide (11), polythiazide (12), teclotiazide (12), trichlormethiazide (11)

USAN

-tocin **oxytocin derivatives**

Q.1.2.0

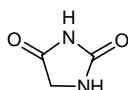


- (a) argiprestocin (13), aspartocin (11), carbetocin (45), cargutocin (35), demoxytocin (22), nacartocin (49), oxytocin (13)

USAN

-toin (d) **antiepileptics, hydantoin derivatives**

A.3.1.1



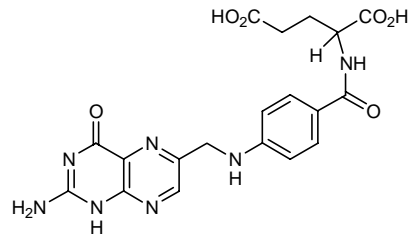
- (a) albutoin (13), doxenitoin (31), ethotoin (6), fosphenytoin (62), imepitoin (96), mephentoin (1), metetoin (12), phenytoin (4)
- ropitoin (40) (H.2.0.0.)
- (b) clodantoin (13) (antifungal), nitrofurantoin (11) (antibacterial)

-trakin **see -kin****-trakinra** **see -kinra****-tredekin** **see -kin**

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)

USAN

-trexed antineoplastics; thymidilate synthetase inhibitors

L.0.0.0

nolatrexed (78), pemetrexed (78), plevitrexed (89), raltitrexed (94)

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)

tril/trilat endopeptidase inhibitors

H.3.0.0

candoxatril (62), candoxatrilat (62)

-dotril dexecadotril (73), ecadotril (68), fasidotril (74), racecadotril (73)*-lutrill* daglutril (90)*-patril/-patrilat* gemopatrilat (84), ilepatril (95), omapatrilat (78), sampatrilat (74)

-triptan **serotonin (5-HT₁) receptor agonists, sumatriptan derivatives** USAN

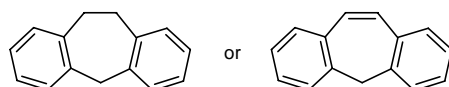
C.0.0.0 (USAN: antimigraine agents (5-HT₁ receptor agonists))

(a) almotriptan (76), avitriptan (76), donitriptan (82), eletriptan (74), frovatriptan (78), naratriptan (69), oxitriptan (39), rizatriptan (75), sumatriptan (59), zolmitriptan (74)

(c) alniditan (72)

-triptyline **antidepressants, dibenzo[*a,d*]cycloheptane or cycloheptene derivatives** USAN

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

-troban **thromboxane A₂-receptor antagonists; antithrombotic agents** USAN

I.2.1.0 (USAN: antithrombotics (thromboxane A₂ receptor antagonists))

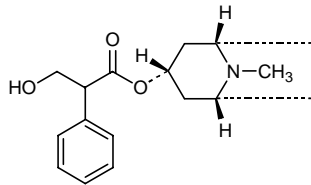
argatroban (57), daltroban (57), domitroban (73), ifetroban (71), linotroban (69), mipitroban (73), ramatroban (73), sulotroban (55), terutroban (93)

-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), benztropine (4), decitropine (18), etybenztropine (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), cimetroplium bromide (51), darotropium bromide (99), flutropium bromide (50), homatropine methylbromide (1), ipratropium bromide (28), octatropine methylbromide (10), oxitropium bromide (36), phenactropinium chloride (8), ritropirronium bromide (33), sevotropium mesilate (56), sintropium bromide (47), sultroponium (18), tematropium metilsulfate (64), tiotropium bromide (67), tipetropium bromide (42), tropenziline bromide (11), xentropium 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), tropantiole (97) (chelating agent), tropisetron (62) (serotonin antagonist)

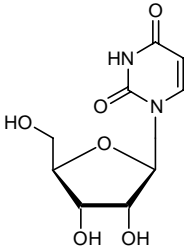
(b) dextropropoxyphene (7), somatropin (56), varfollitropin alfa (101)(c) parasympatholytic/anticholinergic, tertiary amines:

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		
	<u>L.4.0.0</u> : broxuridine (30), doxifluridine (44)	
	<u>related</u> : carmofur (45), clanfenur (58), tegafur (41)	
	<u>S.5.3.0</u> : fialuridine (68), floxuridine (16), fosfluridine tidoxil (93), idoxuridine (17), navuridine (84), ropidoxuridine (97), 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)	
		USAN
-vaptan	vasopressin receptor antagonists	
H.0.0.0		
(a)	conivaptan (82), lixivaptan (83), mozavaptan (87), nelivaptan (98), relcovaptan (82), satavaptan (93), tolvaptan (83)	
-vastatin	see -stat	
-vec	see -gene for gene therapy products	
		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), fempiprane (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.1.0.0 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 (1), vinylbital (12)

others: vincofos (28) (phosphate, anthelmintic), vintiamol (16) (vitamin B derivative, antineuralgic)

-vircept

see -cept

BAN; USAN

vir

antivirals (undefined group)

S.5.3.0

(USAN: -vir; -vir; or vir-)

(a)

alisporivir (100), alvircept sudotox (69), amdoxovir (85), amenamevir (100), amitivir (67), ancriviroc (92), atevirdine (69), balapiravir (100), bevirimat (96), boceprevir (97), capravirine (83), ciluprevir (90), dapivirine (86), delavirdine (71), denotivir (70), efavirenz (78), elvitegravir (97), emivirine (82), enfuvirtide (85), enviroxime (44),

	etravirine (88), favipiravir (98), filibuvir (101), lersivirine (101), litomeglovir (84), loviride (70), maribavir (80), maraviroc (91), nesbuvir (98), nevirapine (66), opavirine (83), pirodavir (63), raltegravir (97), ribavirin (31), rilpivirine (91), rupintrivir (88), taribavirin (95), talviraline (75), tecovirimat (99), telaprevir (94), tifuvirtide (91), tivirapine (74), tomeglovir (84), trovirdine (73), viroxime (49), zinviroxime (44)
<i>-amivir</i>	<u>neuraminidase inhibitors</u> : laninamivir (100), oseltamivir (80), peramivir (86), zanamivir (72)
<i>-cavir</i>	<u>carbocyclic nucleosides</u> : abacavir (76), entecavir (82), lobucavir (72)
<i>-ciclovir</i>	<u>bicyclic heterocycle compounds</u> : aciclovir (42), buciclovir (52), desciclovir (55), detivaciclovir (86), famciclovir (61), ganciclovir (56), lagociclovir (101), lagociclovir valactate (101), omaciclovir (84), penciclovir (61), rociclovir (62), tivaciclovir (86), valaciclovir (69), valganciclovir (78), valomaciclovir (84)
<i>-fovir</i>	<u>phosphonic acid derivatives</u> : adefovir (72), alamifovir (89), cidofovir (72), pradefovir (93), tenofovir (82)
<i>-gosivir</i>	<u>glucoside inhibitors</u> : celgosivir (77)
<i>-navir</i>	<u>HIV protease inhibitors</u> : 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)
<i>-viroc</i>	<u>CCR5 (Chemokine CC motif receptor 5) receptor antagonists</u> : ancriviroc (92), aplaviroc (94), maraviroc (94), vicriviroc (94)
<i>-virsen</i>	see <i>-rsen</i>
<i>-virumab</i>	see <i>mab</i>
(b)	<u>virginiamycin</u> (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)
-viroc	see -vir
-virsen	see -rsen
-virumab	see -mab

-vos **see -fos**

-vudine **see -uridine**

-xaban **blood coagulation factor X_A inhibitors, antithrombotics**

USAN

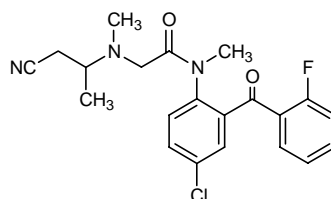
(a) apixaban (93), betrixaban (98), edoxaban (99), eribaxaban (98), fidexaban (91), otamixaban (86), rivaroxaban (90), razaxaban (90), tanexaban (101)

-xanox **see -ox/-alox**

-yzine **see -izine**

-zafone **alozafone derivatives**

C.1.1.0.0



(a) alozafone (40), avizafone (64), ciprazafone (50), dinazafone (46), dulozafone (56), lorzafone (48), oxazafone (45), rilmazafone (55)

-zepine **see -pine**

-zone **see -buzone**

-zotan **5-HT_{1A} receptor agonists/antagonists acting primarily as neuroprotectors**

USAN

ebalzotan (72), lecozotan (93), naluzotan (101), osemozotan (87), piclozotan (92), robalzotan (90), sarizotan (94)

ANNEX 1

PROCEDURE FOR THE SELECTION OF RECOMMENDED INTERNATIONAL NONPROPRIETARY NAMES FOR PHARMACEUTICAL SUBSTANCES¹

The following procedure shall be followed by the World Health Organization (hereinafter also referred to as “WHO”) in the selection of recommended international nonproprietary names for pharmaceutical substances, in accordance with resolution WHA3.11 of the World Health Assembly, and in the substitution of such names.

Article 1

Proposals for recommended international nonproprietary names and proposals for substitution of such names shall be submitted to WHO on the form provided therefor. The consideration of such proposals shall be subject to the payment of an administrative fee designed only to cover the corresponding costs of the Secretariat of WHO (“the Secretariat”). The amount of this fee shall be determined by the Secretariat and may, from time to time, be adjusted.

Article 2

Such proposals shall be submitted by the Secretariat to the members of the Expert Advisory Panel on the International Pharmacopoeia and Pharmaceutical Preparations designated for this purpose, such designated members hereinafter referred to as “the INN Expert Group”, for consideration in accordance with the “General principles for guidance in devising International Nonproprietary Names for Pharmaceutical Substances”, annexed to this procedure.² 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.

Article 3

Subsequent to the examination provided for in article 2, the Secretariat shall give notice that a proposed international nonproprietary name is being considered.

(a) Such notice shall be given by publication in *WHO Drug Information*³ and by letter to Member States and to national and regional pharmacopoeia commissions or other bodies designated by Member States.

(i) Notice shall also be sent to the person who submitted the proposal (“the original applicant”) and other 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 the 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 WHO is acting and refer to these rules of procedure.

¹ See Annex 1 in WHO Technical Report Series, No. 581, 1975. The original text was adopted by the Executive Board in resolution EB15.R7 and amended in resolution EB43.R9.

² See Annex 2

³ Before 1987, lists of international nonproprietary names were published in the *Chronicle of the World Health Organization*.

(c) In forwarding the notice, the Secretariat 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 WHO.

Article 4

Comments on the proposed name may be forwarded by any person to WHO within four months of the date of publication, under article 3, of the name in *WHO Drug Information*.

Article 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 *WHO Drug Information*.

Such objection shall:

- (i) identify the person objecting;
- (ii) state his or her interest in the name;
- (iii) set forth the reasons for his or her objection to the name proposed.

Article 6

Where there is a formal objection under article 5, WHO 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 WHO of a substitute name or names, a name shall not be selected by WHO as a recommended international nonproprietary name while there exists a formal objection thereto filed under article 5 which has not been withdrawn.

Article 7

Where no objection has been filed under article 5, or all objections previously filed have been withdrawn, the Secretariat shall give notice in accordance with subsection (a) of article 3 that the name has been selected by WHO as a recommended international nonproprietary name.

Article 8

In forwarding a recommended international nonproprietary name to Member States under article 7, the Secretariat 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 and to prohibit registration of the name as a trademark or trade name.

Article 9

(a) In the extraordinary circumstance that a previously recommended international nonproprietary name gives rise to errors in medication, prescription or distribution, or a demonstrable risk thereof, because of similarity with another name in pharmaceutical and/or prescription practices, and it appears that such errors or potential errors cannot readily be resolved through other interventions than a possible substitution of a previously recommended international nonproprietary name, or in the event that a previously recommended international nonproprietary name differs substantially from the nonproprietary name approved in a significant number of Member States, or in other such extraordinary circumstances that justify a substitution of a recommended international nonproprietary name, proposals to that effect may be filed by any interested person. Such proposals shall be submitted on the form provided therefor and shall:

- (i) identify the person making the proposal;
- (ii) state his or her interest in the proposed substitution; and
- (iii) set forth the reasons for the proposal; and

(iv) describe, and provide documentary evidence regarding, the other interventions undertaken in an effort to resolve the situation, and the reasons why these other interventions were inadequate.

Such proposals may include a proposal for a new substitute international nonproprietary name, devised in accordance with the General principles, which takes into account the pharmaceutical substance for which the new substitute international nonproprietary name is being proposed.

The Secretariat shall forward a copy of the proposal, for consideration in accordance with the procedure described in subsection (b) below, to the INN Expert Group and the original applicant or its successor (if different from the person bringing the proposal for substitution and provided that the original applicant or its successor is known or can be found through diligent effort, including contacts with industry associations).

In addition, the Secretariat shall request comments on the proposal from:

(i) Member States and national and regional pharmacopoeia commissions or other bodies designated by Member States (by including a notice to that effect in the letter referred to in article 3(a), and

(ii) any other persons known to be concerned by the proposed substitution.

The request for comments shall:

(i) state the recommended international nonproprietary name that is being proposed for substitution (and the proposed substitute name, if provided);

(ii) identify the person who submitted the proposal for substitution (if so requested by such person);

(iii) identify the substance to which the proposed substitution relates and reasons put forward for substitution;

(iv) set forth the time within which comments will be received and the person and place to whom they should be directed; and

(v) state the authority under which WHO is acting and refer to these rules of procedure.

Comments on the proposed substitution may be forwarded by any person to WHO within four months of the date of the request for comments.

(b) After the time period for comments referred to above has elapsed, the Secretariat shall forward any comments received to the INN Expert Group, the original applicant or its successor and the person bringing the proposal for substitution. If, after consideration of the proposal for substitution and the comments received, the INN Expert Group, the person bringing the proposal for substitution and the original applicant or its successor all agree that there is a need to substitute the previously recommended international nonproprietary name, the Secretariat shall submit the proposal for substitution to the INN Expert Group for further processing.

Notwithstanding the foregoing, the original applicant or its successor shall not be entitled to withhold agreement to a proposal for substitution in the event the original applicant or its successor has no demonstrable continuing interest in the recommended international nonproprietary name proposed for substitution.

In the event that a proposal for substitution shall be submitted to the INN Expert Group for further processing, the INN Expert Group will select a new international nonproprietary name in accordance with the General principles referred to in article 2 and the procedure set forth in articles 3 to 8 inclusive. The notices to be given by the Secretariat under article 3 and article 7, respectively, including to the original applicant or its successor (if not the same as the person proposing the substitution, and provided that the original applicant or its successor is known or can be found through diligent effort, including contacts with industry associations), shall in such event indicate that the new name is a substitute for a previously recommended international nonproprietary name and that Member States may wish to make transitional arrangements in order to accommodate existing products that use the previously recommended international nonproprietary name on their label in accordance with national legislation.

If, after consideration of the proposal for substitution and the comments received in accordance with the procedure described above, the INN Expert Group, the original applicant or its successor and the person bringing the proposal for substitution do not agree that there are compelling reasons for substitution of a previously recommended international nonproprietary name, this name shall be retained (provided always that the original applicant or its successor shall not be entitled to withhold agreement to a proposal for substitution in the event that the original applicant or its successor has no demonstrable continuing interest in the recommended international nonproprietary name proposed to be substituted). In such an event, the Secretariat shall advise the person having proposed the substitution, as well as the original applicant or its successor (if not the same as the person proposing the substitution, and provided that the original applicant or its successor is known or can be found through diligent effort, including contacts with industry associations), Member States, national and regional pharmacopoeia commissions, other bodies designated by Member States, and any other persons known to be concerned by the proposed substitution that, despite a proposal for substitution, it has been decided to retain the previously recommended international nonproprietary name (with a description of the reason(s) why the proposal for substitution was not considered sufficiently compelling).

ANNEX 2

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.

<i>Latin</i>	<i>English</i>	
-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, cephalosporanic acid derivatives
-cillinum	-cillin	antibiotics, 6-aminopenicillanic acid derivatives
-conazolium	-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
-gatanum	-gatan	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 <i>Streptomyces</i> strains
-nidazolium	-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 3

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. Please kindly note that this nomenclature scheme is currently under revision.

I. **General stem:** *-mab*

II. **Sub-stems for source of product:**

<i>u</i>	human
<i>o</i>	mouse
<i>a</i>	rat
<i>e</i>	hamster
<i>i</i>	primate
<i>xi</i>	chimeric
<i>zu</i>	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:**

<i>-ba(c)-</i>	bacterial
<i>-ci(r)-</i>	cardiovascular
<i>-fung-</i>	fungal
<i>-le(s)-</i>	inflammatory lesions

<i>-li(m)-</i>	immunomodulator
<i>-os-</i>	bone
<i>-vi(r)-</i>	viral

tumours:

<i>-co(l)-</i>	colon
<i>-go(t)-</i>	testis
<i>-go(v)-</i>	ovary
<i>-ma(r)-</i>	mammary
<i>-me(l)-</i>	melanoma
<i>-pr(o)-</i>	prostate
<i>-tu(m)-</i>	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. -tox and -toxa:

For monoclonals conjugated to a toxin, the suffix *-tox* can be used in the second word. When the antibody is directed against a toxin, the infix *-toxa-* can be used in the name.

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 broad consultative process. A two-word name approach has been selected:

Word 1	-gene	gene component
	-ermin(o)-	growth factor
	-kin(o)-	interleukin
	-lim(o)-	immunomodulator
	-mul-	multiple gene
	-tusu-	tumour suppression

prefix	infix	suffix
random to contribute to euphonious and distinctive name	-ermin(o)- -kin(o)- -mul- -lim(o)- -tusu- etc.	-gene

Word 2	-vec	vector component is a virus
	-repvec	replicating viral vector
	-adeno-	adenovirus
	-cana-	canarypox virus
	-herpa-	herpes virus
	-lenti-	lentivirus
	-morbilli-	paramoxyviridae morbillivirus
	-parvo-	adeno-associated virus (parvoviridae dependovirus)
	-retro-	other retrovirus
	-vaci-	vaccinia virus
	-plasmid	in case the vector is a plasmid

prefix	infix	suffix		
random to contribute to euphonious and distinctive name	-adeno- -cana- -herpa- -lenti- -morbilli- -parvo- -retro- -vaci-	adenovirus canarypox virus herpes virus lentivirus paramoxyviridae morbillivirus adeno-associated virus (parvoviridae dependovirus) other retrovirus vaccinia virus	-vec -repvec	virus replicating viral vector
		-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	<i>Chron. Wld Hlth Org.</i> 7 : 299 (1953)
2	<i>Chron. Wld Hlth Org.</i> 8 : 216 (1954)
3	<i>Chron. Wld Hlth Org.</i> 9 : 313 (1954)
4	<i>Chron. Wld Hlth Org.</i> 10 : 28 (1956)
5	<i>Chron. Wld Hlth Org.</i> 11 : 231 (1957)
6	<i>Chron. Wld Hlth Org.</i> 12 : 102 (1958)
7	<i>WHO Chronicle</i> 13 : 105 (1959)
8	<i>WHO Chronicle</i> 13 : 152 (1959)
9	<i>WHO Chronicle</i> 14 : 168 (1960)
10	<i>WHO Chronicle</i> 14 : 244 (1960)
11	<i>WHO Chronicle</i> 15 : 314 (1961)
12	<i>WHO Chronicle</i> 16 : 385 (1962)
13	<i>WHO Chronicle</i> 17 : 389 (1963)
14	<i>WHO Chronicle</i> 18 : 433 (1964)
15	<i>WHO Chronicle</i> 19 : 446 (1965)
16	<i>WHO Chronicle</i> 20 : 216 (1966)
17	<i>WHO Chronicle</i> 21 : 70 (1967)
18	<i>WHO Chronicle</i> 21 : 478 (1967)
19	<i>WHO Chronicle</i> 22 : 112 (1968)
20	<i>WHO Chronicle</i> 22 : 407 (1968)
21	<i>WHO Chronicle</i> 23 : 183 (1969)
22	<i>WHO Chronicle</i> 23 : 418 (1969)
23	<i>WHO Chronicle</i> 24 : 119 (1970)
24	<i>WHO Chronicle</i> 24 : 413 (1970)
25	<i>WHO Chronicle</i> 25 : 123 (1971)
26	<i>WHO Chronicle</i> 25 : 415 (1971)
27	<i>WHO Chronicle</i> 26 : 121 (1972)
28	<i>WHO Chronicle</i> 26 : 414 (1972)
29	<i>WHO Chronicle</i> 27 : 120 (1973)
30	<i>WHO Chronicle</i> 27 : 380 (1973)
31	<i>WHO Chronicle</i> 28 : 133 (1974)
32	<i>WHO Chronicle</i> 28 : No. 9, suppl. (1974)
33	<i>WHO Chronicle</i> 29 : No. 3, suppl. (1975)
34	<i>WHO Chronicle</i> 29 : No. 9, suppl. (1975)
35	<i>WHO Chronicle</i> 30 : No. 3, suppl. (1976)
36	<i>WHO Chronicle</i> 30 : No. 9, suppl. (1976)
37	<i>WHO Chronicle</i> 31 : No. 3, suppl. (1977)
38	<i>WHO Chronicle</i> 31 : No. 9, suppl. (1977)
39	<i>WHO Chronicle</i> 32 : No. 3, suppl. (1978)
40	<i>WHO Chronicle</i> 32 : No. 9, suppl. (1978)
41	<i>WHO Chronicle</i> 33 : No. 3, suppl. (1979)
42	<i>WHO Chronicle</i> 33 : No. 9, suppl. (1979)
43	<i>WHO Chronicle</i> 34 : No. 3, suppl. (1980)
44	<i>WHO Chronicle</i> 34 : No. 9, suppl. (1980)
45	<i>WHO Chronicle</i> 35 : No. 3, suppl. (1981)
46	<i>WHO Chronicle</i> 35 : No. 5, suppl. (1981)
47	<i>WHO Chronicle</i> 36 : No. 2, suppl. (1982)
48	<i>WHO Chronicle</i> 36 : No. 5, suppl. (1982)
49	<i>WHO Chronicle</i> 37 : No. 2, suppl. (1983)
50	<i>WHO Chronicle</i> 37 : No. 5, suppl. (1983)
51	<i>WHO Chronicle</i> 38 : No. 2, suppl. (1984)
52	<i>WHO Chronicle</i> 38 : No. 4, suppl. (1984)

List no. and reference

53	<i>WHO Chronicle</i> 39 : No. 1, suppl. (1985)
54	<i>WHO Chronicle</i> 39 : No. 4, suppl. (1985)
55	<i>WHO Chronicle</i> 40 : No. 1, suppl. (1986)
56	<i>WHO Chronicle</i> 40 : No. 5, suppl. (1986)
57	<i>WHO Drug Information</i> 1 : No. 2 (1987)
58	<i>WHO Drug Information</i> 1 : No. 3 (1987)
59	<i>WHO Drug Information</i> 2 : No. 2 (1988)
60	<i>WHO Drug Information</i> 2 : No. 4 (1988)
61	<i>WHO Drug Information</i> 3 : No. 2 (1989)
62	<i>WHO Drug Information</i> 3 : No. 4 (1989)
63	<i>WHO Drug Information</i> 4 : No. 2 (1990)
64	<i>WHO Drug Information</i> 4 : No. 4 (1990)
65	<i>WHO Drug Information</i> 5 : No. 2 (1991)
66	<i>WHO Drug Information</i> 5 : No. 4 (1991)
67	<i>WHO Drug Information</i> 6 : No. 2 (1992)
68	<i>WHO Drug Information</i> 6 : No. 4 (1992)
69	<i>WHO Drug Information</i> 7 : No. 2 (1993)
70	<i>WHO Drug Information</i> 7 : No. 4 (1993)
71	<i>WHO Drug Information</i> 8 : No. 2 (1994)
72	<i>WHO Drug Information</i> 8 : No. 4 (1994)
73	<i>WHO Drug Information</i> 9 : No. 2 (1995)
74	<i>WHO Drug Information</i> 9 : No. 4 (1995)
75	<i>WHO Drug Information</i> 10 : No. 2 (1996)
76	<i>WHO Drug Information</i> 10 : No. 4 (1996)
77	<i>WHO Drug Information</i> 11 : No. 2 (1997)
78	<i>WHO Drug Information</i> 11 : No. 4 (1997)
79	<i>WHO Drug Information</i> 12 : No. 2 (1998)
80	<i>WHO Drug Information</i> 12 : No. 4 (1998)
81	<i>WHO Drug Information</i> 13 : No. 2 (1999)
82	<i>WHO Drug Information</i> 13 : No. 4 (2000)
83	<i>WHO Drug Information</i> 14 : No. 2 (2000)
84	<i>WHO Drug Information</i> 14 : No. 4 (2000)
85	<i>WHO Drug Information</i> 15 : No. 2 (2001)
86	<i>WHO Drug Information</i> 16 : No. 1 (2002)
87	<i>WHO Drug Information</i> 16 : No. 2 (2002)
88	<i>WHO Drug Information</i> 17 : No. 1 (2003)
89	<i>WHO Drug Information</i> 17 : No. 3 (2003)
90	<i>WHO Drug Information</i> 18 : No. 1 (2004)
91	<i>WHO Drug Information</i> 18 : No. 2 (2004)
92	<i>WHO Drug Information</i> 18 : No. 4 (2004)
93	<i>WHO Drug Information</i> 19 : No. 2 (2005)
94	<i>WHO Drug Information</i> 19 : No. 4 (2005)
95	<i>WHO Drug Information</i> 20 : No. 2 (2006)
96	<i>WHO Drug Information</i> 20 : No. 4 (2006)
97	<i>WHO Drug Information</i> 21 : No. 2 (2007)
98	<i>WHO Drug Information</i> 21 : No. 4 (2007)
99	<i>WHO Drug Information</i> 22 : No. 2 (2008)
100	<i>WHO Drug Information</i> 22 : No. 4 (2008)
101	<i>WHO Drug Information</i> 23 : No. 2 (2009)

Lists 1-101 of proposed INN are included in *Cumulative List* No. 13, WHO, Geneva, 2009 (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 8100 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.

26 October 2009

