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

August 1999

Programme on International Nonproprietary Names (INN)
Quality Assurance & Safety: Medicines
Essential Drugs & other Medicines
World Health Organization
Geneva
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preface</td>
<td>iii</td>
</tr>
<tr>
<td>Reference to the volumes of the <em>WHO Drug Information</em> in which the respective proposed lists of INNs have been published</td>
<td>vi</td>
</tr>
<tr>
<td>Layout of information</td>
<td>vii</td>
</tr>
<tr>
<td>Pharmacological classification with corresponding common stems and their definitions</td>
<td>1-26</td>
</tr>
<tr>
<td>Alphabetical list of stems together with corresponding INNs</td>
<td>28-127</td>
</tr>
<tr>
<td>Alphabetical list of common stems (INDEX)</td>
<td>128-130</td>
</tr>
<tr>
<td>ANNEX 1: INN stems for monoclonal antibodies</td>
<td>131-132</td>
</tr>
<tr>
<td>ANNEX 2: INN Selection procedure</td>
<td>133-134</td>
</tr>
<tr>
<td>ANNEX 3: General principles for guidance in devising INN</td>
<td>135-136</td>
</tr>
<tr>
<td>Why INNs?</td>
<td>137</td>
</tr>
</tbody>
</table>
Preface

WHO'S INN PROGRAMME

WHO has a constitutional responsibility to "develop, establish and promote international standards with respect to biological, pharmaceutical and similar products". This is the basis for many activities within WHO, such as International Nonproprietary Names (INN), WHO Good Manufacturing Practices, the International Pharmacopoeia, the WHO Certification Scheme and many others. The section of the WHO specifically dealing with selection of International Nonproprietary Names for pharmaceutical substances falls under the Department of Essential Drugs and other Medicines.

INN SELECTION PROCEDURE AND CRITERIA

A request for an INN is usually submitted on a form to the World Health Organization. In certain countries, where national nomenclature commissions exist, this is done through the corresponding national nomenclature authority.

Precise information on the chemistry, pharmacological action and use, as well as suggested nonproprietary names, name and address of the manufacturer are to be provided on the form. Each name proposed by the originator of such a request is then examined and a name selected.

All members of the WHO Expert Panel on the International Pharmacopoeia and Pharmaceutical Preparations designated to select nonproprietary names have to agree to the name which is then first published as a proposed INN. During a four-month period, any person can forward comments, or lodge a formal objection to a name, e.g. on grounds of similarity with a trade-name. If no objection is raised the name will be published a second time as recommended INN.

The primary principles for selection are that an INN should be

- distinctive in sound and spelling,
- not too long,
- not liable to confusion with other names in common use.

INNs for substances belonging to a particular group of pharmacologically related substances show their relationship by the use of common stems, which are listed and defined in this document.

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

Further information on the selection procedure and general principles in devising INNs may be found in Annex 2 and 3.
THIS DOCUMENT

This document lists common stems for which chemical and/or pharmacological categories have been established. These stems and their definitions have been selected by the INN experts and are for use when selecting new international nonproprietary names for pharmaceutical substances that belong to an established series of related compounds.

The list is not exhaustive in that it might not include all stems used by the INN Committee. It is the nature of the nomenclature process that new, potential stems are constantly being created and that definitions of older stems may need to be modified as new information becomes available.

Examples of nonproprietary names have been selected from Lists 1 - 81 of Proposed International Nonproprietary Names. They were compared with:

Stems listed in article 9 of the "General Principles for Guidance in Devising International Nonproprietary Names for Pharmaceutical Substances", Annex to List 81 of proposed INN and some well-established old or new stems not included in article 9 of the general principles. Details on stems are indicated as follows:

(x) stems that are included in article 9 of the general principles

(d) stems deleted from article 9 of the general principles

The reference to TRS 581* indicates that the stem is listed in Annex 3 of the 20th Report of the WHO Expert Committee on Nonproprietary Names for Pharmaceutical Substances.

References to syllables 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 given in brackets under the INN definition.

For each stem, the names have been classified as:

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

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

(c) 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 always complete).

The codes given on the left-hand side under each stem refer to the WHO pharmacological classification used in the WHO Drug Evaluation and Monitoring Programme.

Note for trade-mark officers:

In line with the WHO World Health Assembly resolution (WHA46.19**) it would be appreciated if trade-marks were not derived from INNs and if INN stems were not used in trade-marks. This practice endangers the principle that INNs are public property; it can frustrate the rational selection of further INNs for related substances, and it will ultimately compromise the safety of patients by promoting confusion in drug nomenclature.

*Nonproprietary names for pharmaceutical substances, Twentieth Report of the WHO Expert Committee (1975)
** WHA resolution on nonproprietary names for pharmaceutical substances (1993)
Acknowledgements

The INN Secretariat extends its thanks to Dr R. Boudet-Dalbin, Paris, France, for the graphic representations of the chemical formulae in this document.
Reference to the volumes of the *WHO Drug Information* in which the respective proposed lists of INNs have been published:

<table>
<thead>
<tr>
<th>List no. and reference</th>
<th>List no. and reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>14 WHO chronicle 18: 433 (1964)</td>
<td>63  WHO drug information 4: No. 2 (1990)</td>
</tr>
<tr>
<td>15 WHO chronicle 19: 446 (1965)</td>
<td>64  WHO drug information 4: No. 4 (1990)</td>
</tr>
<tr>
<td>27 WHO chronicle 26: 121 (1972)</td>
<td>76  WHO drug information 10: No. 4 (1996)</td>
</tr>
<tr>
<td>33 WHO chronicle 29: No. 3, suppl. (1975)</td>
<td></td>
</tr>
<tr>
<td>34 WHO chronicle 29: No. 9, suppl. (1975)</td>
<td></td>
</tr>
<tr>
<td>35 WHO chronicle 30: No. 3, suppl. (1976)</td>
<td></td>
</tr>
<tr>
<td>36 WHO chronicle 30: No. 9, suppl. (1976)</td>
<td></td>
</tr>
<tr>
<td>37 WHO chronicle 31: No. 3, suppl. (1977)</td>
<td></td>
</tr>
<tr>
<td>38 WHO chronicle 31: No. 9, suppl. (1977)</td>
<td></td>
</tr>
<tr>
<td>39 WHO chronicle 32: No. 3, suppl. (1978)</td>
<td></td>
</tr>
<tr>
<td>40 WHO chronicle 32: No. 9, suppl. (1978)</td>
<td></td>
</tr>
<tr>
<td>41 WHO chronicle 33: No. 3, suppl. (1979)</td>
<td></td>
</tr>
<tr>
<td>42 WHO chronicle 33: No. 9, suppl. (1979)</td>
<td></td>
</tr>
<tr>
<td>43 WHO chronicle 34: No. 3, suppl. (1980)</td>
<td></td>
</tr>
<tr>
<td>44 WHO chronicle 34: No. 9, suppl. (1980)</td>
<td></td>
</tr>
<tr>
<td>46 WHO chronicle 35: No. 5, suppl. (1981)</td>
<td></td>
</tr>
<tr>
<td>49 WHO chronicle 37: No. 2, suppl. (1983)</td>
<td></td>
</tr>
</tbody>
</table>

Lists 1-73 of proposed INN are included in *Cumulative List No. 9, WHO, Geneva (1996)*
Layout of information

Stem

Pharmacological Classification

calcitriol
N.8.0.0.

Action and Use

Vitamin D analogues/derivatives

National Name(s)
USAN

Graphic Formula

INN (English)

List of proposed INN

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

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

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

- alfalcaldiol (40), calcitriol (26), calcipotriol (61), calcitriol (39), colecalciferol (13), ergocalciferol (13), falecalcitriol (74), lexacalcitol (71), maxacalcitol (75), paricalcitol (78), secalciferol (62), seocalcitol (78), tacalcitol (65)
- calcitonin (31) (polypeptide)
- dihydrotachysterol (1)
Pharmacological classification with corresponding examples of common stems and their definitions

<table>
<thead>
<tr>
<th></th>
<th>Pharmacological Classification</th>
<th>Example Stems</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A000</td>
<td>CNS DEPRESSANTS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A100</td>
<td>General anaesthetics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A110</td>
<td>General anaesthetics, volatile</td>
<td>-flurane</td>
<td>general inhalation anaesthetics, halogenated alkane derivatives</td>
</tr>
<tr>
<td>A120</td>
<td>General anaesthetics, other</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A200</td>
<td>Hypnotics - sedatives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A210</td>
<td>Barbiturates</td>
<td>-barb</td>
<td>hypnotics, barbituric acid derivatives</td>
</tr>
<tr>
<td>A220</td>
<td>Hypnotic sedatives, other</td>
<td>-clone</td>
<td>hypnotic tranquillizers</td>
</tr>
<tr>
<td>A220</td>
<td></td>
<td>-plon</td>
<td>pyrazolo[3,4-d]pyrimidine derivatives, used as anxiolytics, sedatives, hypnotics</td>
</tr>
<tr>
<td>A230</td>
<td>Monoureids, hypnotic sedatives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A240</td>
<td>Chloral derivatives, hypnotic sedatives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A300</td>
<td>Centrally acting voluntary muscle tone modifying drugs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A310</td>
<td>Anticonvulsants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A311</td>
<td>Hydantoins, anticonvulsants</td>
<td>-toin</td>
<td>antiepileptics, hydantoins derivatives</td>
</tr>
<tr>
<td>A312</td>
<td>Acetylmethylcarbinol, anticonvulsants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A313</td>
<td>Oxazolidinediones, anticonvulsants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A314</td>
<td>Succinimides, anticonvulsants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A315</td>
<td>Barbiturates, anticonvulsants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A316</td>
<td>Anticonvulsants, other</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A320</td>
<td>Central anticholinergics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A330</td>
<td>Centrally acting voluntary-muscle relaxants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A400</td>
<td>Analgesics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A410</td>
<td>Narcotic analgesics</td>
<td>-adol or -adol-</td>
<td>analgesics</td>
</tr>
<tr>
<td>A410</td>
<td>-azocine</td>
<td>narcotic antagonists/agonists related to 6,7-benzomorphan</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>----------</td>
<td>--------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>A410</td>
<td>-eridine</td>
<td>analgesics, pethidine derivatives</td>
<td></td>
</tr>
<tr>
<td>A410</td>
<td>-ethidine</td>
<td>see -eridine</td>
<td></td>
</tr>
<tr>
<td>A410</td>
<td>-fentanil</td>
<td>narcotic analgesics, fentanyl derivatives</td>
<td></td>
</tr>
<tr>
<td>A410</td>
<td>nal-</td>
<td>narcotic antagonists/agonists related to normorphine</td>
<td></td>
</tr>
<tr>
<td>A410</td>
<td>orphan</td>
<td>narcotic antagonists/agonists, morphinan derivates; -orphine, -orphinol, orphone</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>A420</th>
<th>Analgesics - Antipyretics</th>
<th>-ac</th>
<th>anti-inflammatory agents, ibufenac derivatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>A420</td>
<td>-adol or -adol-</td>
<td></td>
<td>analgesics</td>
</tr>
<tr>
<td>A420</td>
<td>-arit</td>
<td></td>
<td>antiarthritisic substances, acting like clobuzarit and lobenzarit (mechanism different from anti-inflammatory type substances, e.g. -fenamates or -profens)</td>
</tr>
<tr>
<td>A420</td>
<td>-butazone</td>
<td>-buzone:</td>
<td>anti-inflammatory analgesics, phenylbutazone derivatives</td>
</tr>
<tr>
<td>A420</td>
<td>-buzone</td>
<td></td>
<td>anti-inflammatory analgesics, phenylbutazone derivatives</td>
</tr>
<tr>
<td>A420</td>
<td>-fenamate</td>
<td>&quot;-fenamic acid&quot; derivatives</td>
<td></td>
</tr>
<tr>
<td>A420</td>
<td>-fenamic acid</td>
<td></td>
<td>anti-inflammatory, anthranilic acid derivatives</td>
</tr>
<tr>
<td>Code</td>
<td>Class</td>
<td>Prefix</td>
<td>Description</td>
</tr>
<tr>
<td>------</td>
<td>-------------------------------</td>
<td>--------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>A420</td>
<td>-cam</td>
<td>-cam</td>
<td>anti-inflammatory, isoxicam derivatives</td>
</tr>
<tr>
<td>A420</td>
<td>-metacin</td>
<td>-metacin</td>
<td>anti-inflammatory, indometacin derivatives</td>
</tr>
<tr>
<td>A420</td>
<td>-nixin</td>
<td>-nixin</td>
<td>anti-inflammatory, anilinonicotinic acid derivatives</td>
</tr>
<tr>
<td>A420</td>
<td>-profen</td>
<td>-profen</td>
<td>anti-inflammatory agents, ibuprofen derivatives</td>
</tr>
<tr>
<td>A430</td>
<td>Analgesics, other</td>
<td>-adom</td>
<td>analgesics, tifuadom derivatives</td>
</tr>
<tr>
<td>A430</td>
<td>-fenine, phenine</td>
<td>-fenine, phenine</td>
<td>analgesics, glafenine derivatives - (subgroup of fenamic acid group)</td>
</tr>
<tr>
<td>A440</td>
<td>Central antiemetics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A500</td>
<td>Antivertigo drugs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B000</td>
<td>CNS STIMULANTS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B100</td>
<td>Analpeptics</td>
<td>-fylline</td>
<td>N-methylated xanthine derivatives</td>
</tr>
<tr>
<td>B100</td>
<td>-racetam</td>
<td>-racetam</td>
<td>amide type nootropic agents, piracetam derivatives</td>
</tr>
<tr>
<td>B100</td>
<td>-vin- (and -vin-)</td>
<td>-vin-</td>
<td>vinca alkaloids</td>
</tr>
<tr>
<td>B200</td>
<td>Opioid receptor antagonists</td>
<td>-nal-</td>
<td>narcotic antagonists/agonists related to normorphine</td>
</tr>
<tr>
<td>B200</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B200</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B300</td>
<td>Benzodiazepine receptor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B300</td>
<td>antagonists</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C000</td>
<td>PSYCHOPHARMACOLOGICS</td>
<td>-piprazole</td>
<td>psychotropics, phenylpiperazine derivatives (see also -prazole)</td>
</tr>
<tr>
<td>Code</td>
<td>Term</td>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>---------------</td>
<td>------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>C000</td>
<td>-racetam</td>
<td>amide type nootrope agents, piracetam derivatives</td>
<td></td>
</tr>
<tr>
<td>C100</td>
<td>Anxiolytic sedatives</td>
<td>benzodiazepine receptor antagonists/agonists (benzodiazepine derivatives)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-azenil</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-azepam</td>
<td>diazepam derivatives</td>
<td></td>
</tr>
<tr>
<td>C100</td>
<td>-bamate</td>
<td>tranquillizers, propanediol and pentanediol derivatives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-carnil</td>
<td>benzodiazepine receptor antagonists/agonists (carboline derivatives)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-peridone</td>
<td>see -perone: antipsychotics, risperidone derivatives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-perone</td>
<td>tranquillizers, neuroleptics, 4'-fluoro-4-piperidinobutyr ophenone derivatives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-pidem</td>
<td>hypnotics/sedatives, zolpidem derivatives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-plon</td>
<td>pyrazolo[.]pyrimidine derivatives, used as anxiolytics, sedatives, hypnotics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-pride</td>
<td>sulpiride derivatives</td>
<td></td>
</tr>
<tr>
<td>C100</td>
<td>-quinil</td>
<td>benzodiazepine receptor partial agonists (quinoline derivatives), see -azenil</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-spirone</td>
<td>anxiolytics, buspirone derivatives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-zafone</td>
<td>alozafone derivatives</td>
<td></td>
</tr>
<tr>
<td>Code</td>
<td>Name</td>
<td>Example</td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>-----------------------------</td>
<td>------------------------------</td>
<td></td>
</tr>
<tr>
<td>C200</td>
<td>Antipsychotics (neuroleptics)</td>
<td>-perone tranquillizers, neuroleptics, 4'-fluoro-4-piperidinobutyroph enone derivatives; <em>peridol</em>: antipsychotics, haloperidol derivatives; <em>peridone</em>: antipsychotics, risperidone derivatives</td>
<td></td>
</tr>
<tr>
<td>C210</td>
<td>Brain amine depleters</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C220</td>
<td>Central adrenoreceptor antagonists</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C300</td>
<td>Antidepressants</td>
<td>-oxetine antidepressants, fluoxetine derivatives</td>
<td></td>
</tr>
<tr>
<td>C310</td>
<td>MAO inhibitors</td>
<td>-giline MAO-inhibitors type B</td>
<td></td>
</tr>
<tr>
<td>C310</td>
<td></td>
<td>-moxin monoamine oxidase inhibitors, hydrazine derivatives**not part of definition</td>
<td></td>
</tr>
<tr>
<td>C320</td>
<td>Tricyclic antidepressants</td>
<td>-pine tricyclic compounds; <em>dipine</em>: see <em>zepine</em>: antidepressant/neuroleptic; C.0.0.0 <em>apine</em>: psychoactive; A.3.1.0 cipine: antiepileptic; -oxepin, -oxopine, -opine, -tepine</td>
<td></td>
</tr>
<tr>
<td>C320</td>
<td></td>
<td>-pramine substances of the imipramine group</td>
<td></td>
</tr>
<tr>
<td>C320</td>
<td></td>
<td>-triptyline antidepressants, dibenzo[a,d]cycloheptane or cycloheptene derivatives</td>
<td></td>
</tr>
<tr>
<td>C330</td>
<td>Tetracyclic antidepressants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C340</td>
<td>Bicyclic antidepressants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C400</td>
<td>Indirect releasers of catecholamines</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C500</td>
<td>Psychodysleptics (hallucinogens)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C600</td>
<td>CNS metabolites</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Code</td>
<td>Category</td>
<td>Subcategory</td>
<td>Example</td>
</tr>
<tr>
<td>------</td>
<td>----------</td>
<td>-------------</td>
<td>---------</td>
</tr>
<tr>
<td>C700</td>
<td>Serotonin receptor antagonists</td>
<td>-anserin</td>
<td>serotonin receptor antagonists (mostly 5-HT2)</td>
</tr>
<tr>
<td>C700</td>
<td></td>
<td>erg</td>
<td>ergot alkaloid derivatives</td>
</tr>
<tr>
<td>C700</td>
<td></td>
<td>-setron</td>
<td>serotonin receptor antagonists (5-HT3) not fitting into other established groups of serotonin receptor antagonists, see -anserin</td>
</tr>
<tr>
<td>D000</td>
<td>PERIPHERAL NERVOUS SYSTEM DRUGS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D100</td>
<td>Local anaesthetics</td>
<td>-caine</td>
<td>local anaesthetics</td>
</tr>
<tr>
<td>E000</td>
<td>DRUGS ACTING AT SYNAPTIC AND NEUROEFFECCTOR JUNCTIONAL SITES</td>
<td>gab</td>
<td>gabamimetic agents</td>
</tr>
<tr>
<td>E100</td>
<td>Cholinergic agents</td>
<td>-meline</td>
<td>cholinergic agents, arecoline derivatives</td>
</tr>
<tr>
<td>E110</td>
<td>Cholinergic receptor agonists</td>
<td>-dopa</td>
<td>dopamine receptor agonists, dopamine derivatives, used as antiparkinsonism/prolactin inhibitors</td>
</tr>
<tr>
<td>E110</td>
<td></td>
<td>-golide</td>
<td>dopamine receptor agonists, ergoline derivatives</td>
</tr>
<tr>
<td>E111</td>
<td>Muscarinic receptor agonists</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E112</td>
<td>Nicotinic receptor agonists</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E120</td>
<td>Anticholinesterase agents</td>
<td>-stigmine</td>
<td>anticholinesterases (deleted from General Principles in List 24 prop. INN)</td>
</tr>
<tr>
<td>E200</td>
<td>Cholinergic antagonists</td>
<td>trop</td>
<td>atropine derivatives</td>
</tr>
<tr>
<td>E210</td>
<td>Peripheral cholinergic antagonists</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E220</td>
<td>Ganglionic antagonists</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Code</td>
<td>Category</td>
<td>Prefix</td>
<td>Description</td>
</tr>
<tr>
<td>------</td>
<td>-----------------------------------</td>
<td>--------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>E300</td>
<td>Neuromuscular blocking agents</td>
<td>-curium</td>
<td>curare-like substance; see -ium</td>
</tr>
<tr>
<td>E300</td>
<td></td>
<td>-ium</td>
<td>quaternary ammonium compounds; -curium: curare-like substances; -onium</td>
</tr>
<tr>
<td>E400</td>
<td>Adrenergic agents</td>
<td>-azoline</td>
<td>antihistaminics or local vasoconstrictors, antazoline derivatives</td>
</tr>
<tr>
<td>E400</td>
<td></td>
<td>-drine</td>
<td>sympathomimetics; -frine: sympathomimetic, phenethyl derivatives</td>
</tr>
<tr>
<td>E400</td>
<td></td>
<td>-frine</td>
<td>sympathomimetic, phenethyl derivatives</td>
</tr>
<tr>
<td>E400</td>
<td></td>
<td>-terol</td>
<td>bronchodilators, phenethyline derivatives [previously -prenaline or -terenol]</td>
</tr>
<tr>
<td>E410</td>
<td>Beta adrenoreceptor agonists</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E420</td>
<td>Alpha adrenoreceptor agonists</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E500</td>
<td>Adrenoreceptor antagonists</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E510</td>
<td>Alpha adrenoreceptor antagonists</td>
<td>-oxan(e)</td>
<td>benzodioxane derivatives (USAN: alpha-adrenoreceptor antagonists; benzodioxane derivatives)</td>
</tr>
<tr>
<td>E520</td>
<td>Beta adrenoreceptor antagonists</td>
<td>-alol</td>
<td>aromatic ring -CHOH-CH2-NH-R related to -olols</td>
</tr>
<tr>
<td>E520</td>
<td></td>
<td>-olol</td>
<td>beta-adrenoreceptor antagonists; -alol: aromatic ring -CH-CH2-NH-R related to -olols (USAN: combined alpha and beta blockers)</td>
</tr>
<tr>
<td>E530</td>
<td>Catecholamines false transmitters</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
<td>Example</td>
<td>Notes</td>
</tr>
<tr>
<td>------</td>
<td>--------------------------------------------------</td>
<td>------------------</td>
<td>--------------------------------------------</td>
</tr>
<tr>
<td>E540</td>
<td>Adrenergic neurone blocking agents</td>
<td>-serpine</td>
<td>derivatives of Rauwolfia &amp; alkaloids</td>
</tr>
<tr>
<td>E600</td>
<td>Stimulant cathartics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F000</td>
<td>AGENTS ACTING ON SMOOTH MUSCLES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F100</td>
<td>Spasmolytics, general</td>
<td>-verine</td>
<td>spasmyotics with a papaverine-like action</td>
</tr>
<tr>
<td>F200</td>
<td>Vasodilators</td>
<td>-dil</td>
<td>vasodilators</td>
</tr>
<tr>
<td>F200</td>
<td></td>
<td>-entan</td>
<td>endothelin receptor antagonists</td>
</tr>
<tr>
<td>F210</td>
<td>Coronary vasodilators, also calcium channel blockers</td>
<td>-dipine</td>
<td>calcium channel blockers, nifedipine derivatives</td>
</tr>
<tr>
<td>F210</td>
<td></td>
<td>-fradil</td>
<td>calcium channel blockers acting as vasodilators</td>
</tr>
<tr>
<td>F210</td>
<td></td>
<td>-pamil</td>
<td>coronary vasodilators, verapamil derivatives</td>
</tr>
<tr>
<td>F210</td>
<td></td>
<td>-tiazem</td>
<td>calcium channel blockers, diltiazem derivatives</td>
</tr>
<tr>
<td>F220</td>
<td>Peripheral vasodilators</td>
<td>-nicate</td>
<td>antihypercholesterolaemic and/or vasodilating nicotinic acid esters</td>
</tr>
<tr>
<td>F300</td>
<td>Smooth muscle stimulants</td>
<td>erg</td>
<td>ergot alkaloid derivatives</td>
</tr>
<tr>
<td>F310</td>
<td>Vasoconstrictor agents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F400</td>
<td>Agents acting on the uterus</td>
<td>erg</td>
<td>ergot alkaloid derivatives</td>
</tr>
<tr>
<td>G000</td>
<td>HISTAMINE AND ANTIHISTAMINICS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G100</td>
<td>Histamine and histamine-like drugs</td>
<td>-astine</td>
<td>antihistaminics</td>
</tr>
<tr>
<td>G200</td>
<td>Antihistaminics</td>
<td>-astine</td>
<td>antihistaminics</td>
</tr>
<tr>
<td>G200</td>
<td></td>
<td>-tidine</td>
<td>histamine-H2-receptor antagonists, cimetidine derivatives</td>
</tr>
<tr>
<td>G220</td>
<td>Histamine H2-receptor antagonists</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Code</td>
<td>Category</td>
<td>Subcategory</td>
<td>Description</td>
</tr>
<tr>
<td>------</td>
<td>----------</td>
<td>-------------</td>
<td>-------------</td>
</tr>
<tr>
<td>G230</td>
<td>Histamine H3-receptor antagonists</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G300</td>
<td>Histamine metabolism agents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H000</td>
<td>CARDIOVASCULAR AGENTS</td>
<td>-bradine</td>
<td>bradycardic agents</td>
</tr>
<tr>
<td>H100</td>
<td>Cardiac glycosides and drugs with similar action</td>
<td>-dan</td>
<td>cardiac stimulants, pimobendan derivatives</td>
</tr>
<tr>
<td>H100</td>
<td></td>
<td>-rinone</td>
<td>cardiac stimulants, amrinone derivatives</td>
</tr>
<tr>
<td>H200</td>
<td>Agents influencing heart muscle excitability and conductivity</td>
<td>-afenone</td>
<td>antiarrhythmics, propafenone derivatives</td>
</tr>
<tr>
<td>H200</td>
<td></td>
<td>-aj-</td>
<td>antiarrhythmics, ajmaline derivatives</td>
</tr>
<tr>
<td>H200</td>
<td></td>
<td>-cain-</td>
<td>Class I antiarrhythmics, procainamide and lidocaine derivatives (antifibrillants with local anaesthetic activity)</td>
</tr>
<tr>
<td>H200</td>
<td></td>
<td>-ilide</td>
<td>Class III antiarrhythmics, sematilide derivatives</td>
</tr>
<tr>
<td>H200</td>
<td></td>
<td>-isomide</td>
<td>antiarrhythmics, disopyramide derivatives</td>
</tr>
<tr>
<td>H200</td>
<td></td>
<td>-kalant</td>
<td>potassium channel blockers</td>
</tr>
<tr>
<td>H300</td>
<td>Antihypertensives</td>
<td>-azosin</td>
<td>antihypertensive substances, prazosin derivatives</td>
</tr>
<tr>
<td>H300</td>
<td></td>
<td>-dralazine</td>
<td>antihypertensives, hydrazinephthalazine derivatives</td>
</tr>
<tr>
<td>H300</td>
<td></td>
<td>guan-</td>
<td>antihypertensives, guanidine derivatives</td>
</tr>
<tr>
<td>H300</td>
<td></td>
<td>-kalim</td>
<td>potassium channel activators, antihypertensive</td>
</tr>
<tr>
<td>H300</td>
<td></td>
<td>-kiren</td>
<td>renin inhibitors</td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
<td>Suffix</td>
<td>Subgroup</td>
</tr>
<tr>
<td>-------</td>
<td>-------------------------------------</td>
<td>-----------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>H300</td>
<td>-o(nidine)</td>
<td>anti hypertensives, clonidine derivatives</td>
<td></td>
</tr>
<tr>
<td>H300</td>
<td>-pril(at)</td>
<td>angiotensin-converting enzyme inhibitors</td>
<td></td>
</tr>
<tr>
<td>H300</td>
<td>-sartan</td>
<td>angiotensin II receptor antagonists, antihypertensive (non-peptidic)</td>
<td></td>
</tr>
<tr>
<td>H400</td>
<td>Antihyperlipidaemic drugs</td>
<td>-fibrate</td>
<td>clofibrate derivatives (USAN: clofibrate type compounds)</td>
</tr>
<tr>
<td>H400</td>
<td></td>
<td>-nicate</td>
<td>antihypercholesterolaemic and/or vasodilating nicotinic acid esters</td>
</tr>
<tr>
<td>H400</td>
<td></td>
<td>-vastatin</td>
<td>see -stat; antilipidemic substances, HMG CoA reductase inhibitors</td>
</tr>
<tr>
<td>H500</td>
<td>Antivaricose drugs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H510</td>
<td>Sclerosing drugs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H600</td>
<td>Capillary-active drugs, haemostyptics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H700</td>
<td>Calcium channel blockers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H800</td>
<td>Agents influencing the renin-angiotensin system</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H810</td>
<td>Angiotensin converting enzyme inhibitors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H820</td>
<td>Angiotensin receptor antagonists</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I000</td>
<td>BLOOD AND AGENTS ACTING ON THE HAEMOPOIETIC SYSTEM (EXCL. CYTOSTATICS)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I100</td>
<td>Antiflammatory agents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I110</td>
<td>Iron preparations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I120</td>
<td>Haematinics, other (Vit. B-12, folic acid, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I130</td>
<td>Miscellaneous antianaemic agents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>----------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I200</td>
<td>Agents influencing blood coagulation</td>
<td>-cog</td>
<td>(-)epitacog blood coagulation VII, (-)octocog blood factor VIII, (-)nonacog blood factor IX</td>
</tr>
<tr>
<td>I200</td>
<td>-fiban</td>
<td>fibrinogen receptor antagonists (glycoprotein IIb/IIIa receptor antagonists)</td>
<td></td>
</tr>
<tr>
<td>I200</td>
<td>-gatran</td>
<td>thrombin inhibitor, antithrombotic agents</td>
<td></td>
</tr>
<tr>
<td>I200</td>
<td>-parin</td>
<td>heparin derivatives including low molecular mass heparins</td>
<td></td>
</tr>
<tr>
<td>I210</td>
<td>Anticoagulants</td>
<td>-arol</td>
<td>anticoagulants, dicoumarol derivatives</td>
</tr>
<tr>
<td>I210</td>
<td>-grel- or -grel</td>
<td>platelet aggregation inhibitors</td>
<td></td>
</tr>
<tr>
<td>I210</td>
<td>-irudin</td>
<td>hirudin derivatives</td>
<td></td>
</tr>
<tr>
<td>I210</td>
<td>-pafant</td>
<td>platelet-activating factor antagonists</td>
<td></td>
</tr>
<tr>
<td>I210</td>
<td>-troban</td>
<td>thromboxane A2-receptor antagonists; antithrombotic agents</td>
<td></td>
</tr>
<tr>
<td>I220</td>
<td>Prothrombin inhibitors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I230</td>
<td>Prothrombin synthesis inhibitors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I240</td>
<td>Anticoagulant inhibitors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I250</td>
<td>Agents affecting fibrinolysis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I260</td>
<td>Coagulation promoting agents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I261</td>
<td>Blood clotting factors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I300</td>
<td>Blood proteins and their fractions</td>
<td>-poetin</td>
<td>erythropoietin type blood factors</td>
</tr>
<tr>
<td>I310</td>
<td>Blood substitutes (macromolecular)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
<td>Substances</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
<td>------------</td>
<td></td>
</tr>
<tr>
<td>I400</td>
<td>Platelet-function regulators</td>
<td>colony stimulating factors: <em>-grastim</em>: granulocyte colony stimulating factor (G-CSF) type substances; <em>-gramostim</em>: granulocyte macrophage colony stimulating factor (GM-CSF) type substances; <em>-mostim</em>: macrophage stimulating factors (M-CSF) type substances; <em>plestim</em></td>
<td></td>
</tr>
<tr>
<td>I500</td>
<td>Colony stimulating factors</td>
<td>-stim</td>
<td></td>
</tr>
<tr>
<td>I510</td>
<td>Granulocyte stimulating factors</td>
<td><em>-grastim</em> see <em>-stim</em></td>
<td></td>
</tr>
<tr>
<td>I520</td>
<td>Macrophage stimulating factor</td>
<td><em>-mostim</em> macrophage stimulating factors (M-CSF) type substances; see <em>-stim</em></td>
<td></td>
</tr>
<tr>
<td>J000</td>
<td>AGENTS INFLUENCING THE GASTROINTESTINAL TRACT</td>
<td><em>-prazole</em> antiulcer, benzimidazole derivatives</td>
<td></td>
</tr>
<tr>
<td>J000</td>
<td></td>
<td><em>-pride</em> sulphiride derivatives</td>
<td></td>
</tr>
<tr>
<td>J100</td>
<td>Digestives</td>
<td><em>-azepide</em> cholecystokinin receptor antagonist</td>
<td></td>
</tr>
<tr>
<td>J110</td>
<td>Stomachics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>J120</td>
<td>Choleretics (and hepatoprotective agents)</td>
<td><em>-cic</em> hepatoprotective substances with a carboxylic acid group</td>
<td></td>
</tr>
<tr>
<td>J130</td>
<td>Digestive enzymes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>J200</td>
<td>Emetics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>J300</td>
<td>Hepato-protective agents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>J400</td>
<td>Gastro-intestinal anti-infectives (see S000)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>J500</td>
<td>Antidiarrhoeals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
<td>Example</td>
<td>Notes</td>
</tr>
<tr>
<td>------</td>
<td>--------------------------------------</td>
<td>-----------</td>
<td>-----------------------------------------------------------------------</td>
</tr>
<tr>
<td>K000</td>
<td>AGENTS INFLUENCING THE RESPIRATORY TRACT</td>
<td>-ast</td>
<td>antiasthmatic, antiallergics, not acting primarily as antihistaminics; -lukast: leukotriene receptor antagonists; -trodast: thromboxane A2 receptor antagonists, antiasthmatics</td>
</tr>
<tr>
<td>K000</td>
<td>-cromil</td>
<td></td>
<td>antiallergics, cromoglicic acid derivatives</td>
</tr>
<tr>
<td>K000</td>
<td>-exine</td>
<td></td>
<td>mucolytic, bromhexine derivatives</td>
</tr>
<tr>
<td>K000</td>
<td>-lukast</td>
<td></td>
<td>leukotriene receptor antagonists, see -ast</td>
</tr>
<tr>
<td>K000</td>
<td>-steine</td>
<td></td>
<td>mucolytics, other than bromhexine derivatives</td>
</tr>
<tr>
<td>K000</td>
<td>-trodast</td>
<td></td>
<td>see -ast</td>
</tr>
<tr>
<td>K000</td>
<td>-xanox</td>
<td></td>
<td>antiallergic respiratory tract drugs, xanoxic acid derivatives</td>
</tr>
<tr>
<td>K100</td>
<td>Antitussives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>K110</td>
<td>Antitussives - central</td>
<td></td>
<td></td>
</tr>
<tr>
<td>K120</td>
<td>Antitussives - peripheral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>K200</td>
<td>Expectorants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L000</td>
<td>ANTINEOPLASTICS</td>
<td>-(ar)abine</td>
<td>arabinofuranosyl derivatives</td>
</tr>
<tr>
<td>L000</td>
<td>-mestane</td>
<td></td>
<td>aromatase inhibitors</td>
</tr>
<tr>
<td>L000</td>
<td>mito-</td>
<td></td>
<td>antineoplastics, nucleotoxic agents (deleted from General Principles in List 24 prop. INN)</td>
</tr>
<tr>
<td>L000</td>
<td>-platin</td>
<td></td>
<td>antineoplastic agents, platinum derivatives</td>
</tr>
<tr>
<td>L000</td>
<td>-ribine</td>
<td></td>
<td>ribofuranil-derivatives of the &quot;pyrazofurin&quot; type</td>
</tr>
<tr>
<td>L000</td>
<td>-rozole</td>
<td>aromatase inhibitors, imidazole-triazole derivatives</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>---------</td>
<td>------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>L000</td>
<td>-tecan</td>
<td>antineoplastics, topoisomerase I inhibitors</td>
<td></td>
</tr>
<tr>
<td>L100</td>
<td>Immunosuppressants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L200</td>
<td>Alkylating agents</td>
<td>-mustine antineoplastic, alkylating agents, (beta-chloroethyl)amine derivatives</td>
<td></td>
</tr>
<tr>
<td>L200</td>
<td></td>
<td>-sulfan antineoplastic, alkylating agents, methanesulfonates</td>
<td></td>
</tr>
<tr>
<td>L200</td>
<td></td>
<td>-tepa antineoplastics, thiotepa derivatives</td>
<td></td>
</tr>
<tr>
<td>L300</td>
<td>Radioisotopes (except diagnostics)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L310</td>
<td>Radioisotopes - systemic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L320</td>
<td>Radioisotopes - locally applied</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L400</td>
<td>Antineoplastics - antimetabolites</td>
<td>-abine see -arabine, -citabine</td>
<td></td>
</tr>
<tr>
<td>L400</td>
<td></td>
<td>-citabine nucleoside antiviral or antineoplastic agents, cytarabine or azarabine derivatives</td>
<td></td>
</tr>
<tr>
<td>L400</td>
<td></td>
<td>-fur folic acid analogues</td>
<td></td>
</tr>
<tr>
<td>L400</td>
<td></td>
<td>-trexate folic acid analogues</td>
<td></td>
</tr>
<tr>
<td>L400</td>
<td></td>
<td>-uridine uridine derivatives used as antiviral agents and as antineoplastics; also -udine</td>
<td></td>
</tr>
<tr>
<td>L410</td>
<td>Ornithine decarboxylase inhibitors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L500</td>
<td>Antineoplastics - natural products (incl. antibiotics)</td>
<td>-rubicin antineoplastic antibiotics, daunorubicin derivatives</td>
<td></td>
</tr>
<tr>
<td>L500</td>
<td></td>
<td>vin- or -vin- vinca alkaloids</td>
<td></td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
<td>Examples</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>-------------------------------------------------------</td>
<td>-----------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>L600</td>
<td>Antineoplastics - sex hormone analogues and inhibitors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L610</td>
<td>Aromatase inhibitors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L620</td>
<td>Luteinizing hormone-releasing hormone agonists</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M000</td>
<td>METABOLISM AND NUTRITION (EXCL. WATER AND MINERAL METABOLISM)</td>
<td>-stat (or -stat-) enzyme inhibitors; -lipstat: pancreatic lipase inhibitors; -restat or -restat-: aldose-reducing inhibitors; -vastatin: antilipidemic substances, HMG CoA reductase inhibitors</td>
<td></td>
</tr>
<tr>
<td>M100</td>
<td>Anoretics</td>
<td>-orex anoretics</td>
<td></td>
</tr>
<tr>
<td>M200</td>
<td>Dietetics and antiadipositas drugs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M210</td>
<td>Bulk forming drugs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M300</td>
<td>Agents influencing lipid and fat metabolism</td>
<td>-lipstat see -stat</td>
<td></td>
</tr>
<tr>
<td>M300</td>
<td></td>
<td>-vastatin see -stat; antilipidemic substances, HMG CoA reductase inhibitors</td>
<td></td>
</tr>
<tr>
<td>M310</td>
<td>Antiatherosclerosis agents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M320</td>
<td>Lipotropic agents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M330</td>
<td>Lipogenesis inducing agents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M400</td>
<td>Agents influencing protein metabolism</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M410</td>
<td>Anabolic steroids</td>
<td>bol steroids</td>
<td></td>
</tr>
<tr>
<td>M420</td>
<td>Catabolic agents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M430</td>
<td>Amino acids</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M500</td>
<td>Agents influencing carbohydrate metabolism</td>
<td>-restat (or -restat-) see -stat; aldose-reducing inhibitors</td>
<td></td>
</tr>
<tr>
<td>M510</td>
<td>Insulins</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M520</td>
<td>Oral antidiabetics - islet mediated</td>
<td>-formin antihyperglycaemics, phenformin derivatives</td>
<td></td>
</tr>
<tr>
<td>M520</td>
<td>gli-, -gli-</td>
<td>previously gly-; antihyperglycaemics, sulfonamide derivatives</td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>-------------</td>
<td>-------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>M530 Oral antidiabetics - extra pancreatic</td>
<td>gli</td>
<td>antihyperglycaemics, sulfonamide derivatives</td>
<td></td>
</tr>
<tr>
<td>M540 Gluconeogenesis influencing agents</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M600 Agents influencing uric acid metabolism</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M610 Uricosurics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M620 Uric acid synthesis inhibitors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M630 Agents influencing oxalic acid metabolism</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M700 Thyroid and antithyroids</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M710 Thyroid and thyroid hormones</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M720 Thyroid stimulators</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M730 Antithyroids</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M740 Radioactive iodine agents (for therapy)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M800 Enzymes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M810 Enzyme inhibitors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M820 Enzyme stimulators</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N000 AGENTS INFLUENCING WATER AND MINERAL METABOLISM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N100 Diuretics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N110 Carbonic anhydrase inhibitors</td>
<td>-semide</td>
<td>diuretics, furosemide derivatives</td>
<td></td>
</tr>
<tr>
<td>N120 Saluretics</td>
<td>-anide</td>
<td>N.1.2.0 -etanide: diuretics, piretanide derivatives; S.3.0.0 -oxanide: antiparasitic, salicylanilides and analogues</td>
<td></td>
</tr>
<tr>
<td>N120</td>
<td>-etanide</td>
<td>diuretics, piretanide derivatives; see -anide</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>----------</td>
<td>------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>N120</td>
<td>-pamide</td>
<td>diuretics, sulfamoylbenzoic acid derivatives (could be sulfamoylbenzamide)</td>
<td></td>
</tr>
<tr>
<td>N121</td>
<td>Thiazide derivatives</td>
<td>-tizide</td>
<td>diuretics, chlorothiazide derivatives</td>
</tr>
<tr>
<td>N122</td>
<td>Ethacrynic acid derivatives</td>
<td>-crinat</td>
<td>diuretics, etacrynic acid derivatives</td>
</tr>
<tr>
<td>N123</td>
<td>Chlortalidone derivatives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N129</td>
<td>Saluretics, other</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N130</td>
<td>Mercurial diuretics</td>
<td>-mer- (or -mer-)</td>
<td>mercury-containing drugs, antimicrobial or diuretic (deleted from General Principles in List 28 prop. INN) [mer- and -mer- can be used for any type of substances and are no longer restricted to use in INNs for mercury-containing drugs; -mer:polymers</td>
</tr>
<tr>
<td>N170</td>
<td>Purines and other diuretics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N180</td>
<td>Aldosterone inhibitors</td>
<td>-renone</td>
<td>aldosterone antagonists, spironolactone derivate</td>
</tr>
<tr>
<td>N200</td>
<td>Acidifiers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N400</td>
<td>Saline cathartics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N500</td>
<td>Alkalizers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N510</td>
<td>Parenteral alkalizer solutions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N520</td>
<td>Oral antacids</td>
<td>-aldrate</td>
<td>antacids, aluminium salts</td>
</tr>
<tr>
<td>N520</td>
<td></td>
<td>-alox</td>
<td>see -ox</td>
</tr>
<tr>
<td>N600</td>
<td>Fluid and electrolyte replacement therapy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N610</td>
<td>Electrolyte and carbohydrate solutions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
<td>Prefix</td>
<td>Notes</td>
</tr>
<tr>
<td>------</td>
<td>--------------------------------------------------</td>
<td>--------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>N700</td>
<td>Mineral salts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N710</td>
<td>Ion exchange resins</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N800</td>
<td>Vitamin D group and calcium metabolism drugs</td>
<td>calci</td>
<td>Vitamin D analogues/derivatives</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-dronic acid</td>
<td>calcium metabolism regulator, pharmaceutical aid</td>
</tr>
<tr>
<td>P000</td>
<td>VITAMINS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P100</td>
<td>Vitamin A</td>
<td>retin</td>
<td>retinol derivatives</td>
</tr>
<tr>
<td>P200</td>
<td>Vitamin B1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P300</td>
<td>Vitamin B2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P400</td>
<td>Vitamin B6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P500</td>
<td>Vitamin C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P600</td>
<td>Vitamin E</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P700</td>
<td>Nicotinic acid derivatives</td>
<td>-nic</td>
<td>nicotinic acid or nicotinoyl alcohol derivatives</td>
</tr>
<tr>
<td>P800</td>
<td>Vitamins, other</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q000</td>
<td>HORMONES OR HORMONE RELEASE-STIMULATING PEPTIDES</td>
<td>-morelin</td>
<td>see -relin; growth hormone release-stimulating peptides</td>
</tr>
<tr>
<td></td>
<td></td>
<td>prost</td>
<td>prostaglandins; -prostil: prostaglandins, anti-ulcer</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-relin</td>
<td>prehormones or hormone-release stimulating peptides: -morelin: growth hormone release-stimulating peptides; -tirelin: thyrotropin releasing hormone analogues</td>
</tr>
<tr>
<td></td>
<td></td>
<td>som-</td>
<td>growth hormone derivatives</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-tirelin</td>
<td>see -relin; thyrotropin releasing hormone analogues</td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
<td>Prefix</td>
<td>Notes</td>
</tr>
<tr>
<td>------</td>
<td>------------------------------------------------------------------------------</td>
<td>--------</td>
<td>-------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Q100</td>
<td>Hypophysis hormones</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q110</td>
<td>Hypophysis anterior lobe</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q111</td>
<td>Hypophysis anterior lobe hormones</td>
<td>-actide</td>
<td>synthetic polypeptides with a corticotropin-like action</td>
</tr>
<tr>
<td>Q112</td>
<td>Hypophysis anterior lobe inhibitors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q120</td>
<td>Hypophysis posterior lobe (incl. other oxytocics)</td>
<td>-pressin</td>
<td>vasoconstrictors, vasopressin derivatives</td>
</tr>
<tr>
<td>Q120</td>
<td></td>
<td>-tocin</td>
<td>oxytocin derivatives</td>
</tr>
<tr>
<td>Q200</td>
<td>Sex hormones and analogues</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q210</td>
<td>Estrogens, also interceptive contraceptive agents e.g. epostane (51)</td>
<td>estr</td>
<td>estrogens</td>
</tr>
<tr>
<td>Q210</td>
<td></td>
<td>-ifene</td>
<td>antiestrogens, clomifene and tamoxifen derivatives</td>
</tr>
<tr>
<td>Q220</td>
<td>Progestogens</td>
<td>gest</td>
<td>steroids, progestogens</td>
</tr>
<tr>
<td>Q230</td>
<td>Androgens</td>
<td>andr or</td>
<td>steroids, androgens</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-stan-or</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-ster-</td>
<td>androgens/anabolic steroids: -testosterone, -sterone, -ster-, -gesterone, -sterone, sterol, ster, -(a)steride</td>
</tr>
<tr>
<td>Q231</td>
<td>Androgens</td>
<td>-terone</td>
<td>antiandrogens</td>
</tr>
<tr>
<td>Q240</td>
<td>Gonadotrophins and gonadotrophin secretion stimulating drugs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q241</td>
<td>Antagonadotrophins</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q300</td>
<td>Adrenocortical hormones and analogues</td>
<td>cort</td>
<td>corticosteroids, except prednisolone derivatives</td>
</tr>
<tr>
<td>Q300</td>
<td></td>
<td>-olone</td>
<td>steroids other than prednisolone derivatives</td>
</tr>
<tr>
<td>Q300</td>
<td></td>
<td>-onide</td>
<td>steroids for topical use, acetal derivatives</td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
<td>Subdivision</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>--------------------------------------------------</td>
<td>-----------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Q310</td>
<td>Mineralosteroids</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q320</td>
<td>Mineralosteroid antagonists</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q330</td>
<td>Glucosteroids</td>
<td>pred</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>prednisone and prednisolone derivatives;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-methasone or -metasone,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-betasol, -olone</td>
<td></td>
</tr>
<tr>
<td>Q340</td>
<td>Glucosteroids antagonists</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R000</td>
<td>IMMUNOLOGICALS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R100</td>
<td>Sera and immunoglobulins</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R200</td>
<td>Vaccines</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R210</td>
<td>Vaccines, live</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R220</td>
<td>Vaccines, activated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R300</td>
<td>Immunostimulants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R310</td>
<td>Biological response modifier</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S000</td>
<td>ANTI-INFECTIVES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S100</td>
<td>Ectoparasiticides</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S200</td>
<td>Antiseptics and disinfectants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S210</td>
<td>Antiseptics (excl. heavy metal antiseptics)</td>
<td>-nifur-</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>5-nitrofuran derivatives</td>
<td></td>
</tr>
<tr>
<td>S220</td>
<td>Heavy metal antiseptics</td>
<td>-mer-</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>mercury-containing drugs, antimicrobial or diuretic (deleted from General Principles in List 28 prop. INN)</td>
<td>mer- and -mer- can be used for any type of substances and are no longer restricted to use in INNs for mercury-containing drugs</td>
</tr>
<tr>
<td>S230</td>
<td>Detergent antiseptics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S300</td>
<td>Chemotherapeutics of parasitic diseases</td>
<td>-ectin</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>antiparasitics, ivermectin derivatives</td>
<td></td>
</tr>
<tr>
<td>S300</td>
<td></td>
<td>-oxanide</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>antiparasitics, salicylanides and analogues; see -anide</td>
<td></td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
<td></td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S310</td>
<td>Anthelminthics (excl. antinematode agents)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-antel</td>
<td>anthelminthics (undefined group)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-bendazole</td>
<td>anthelminthics, tiabendazole derivatives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-fos (-vos)</td>
<td>insecticides, anthelminthics, pesticides etc., phosphorous derivatives</td>
<td></td>
</tr>
<tr>
<td>S320</td>
<td>Antinematode agents</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-fos- or fos-</td>
<td>various pharmacolog. categories belonging to -fos (other than above)</td>
<td></td>
</tr>
<tr>
<td>S330</td>
<td>Antiprotozoal agents (incl. all arsphenamines)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>arte-</td>
<td>antimalarial agents, artemisinin related compounds</td>
<td></td>
</tr>
<tr>
<td>S330</td>
<td>-nidazole</td>
<td>antiprotozoals, metronidazole derivatives</td>
<td></td>
</tr>
<tr>
<td>S400</td>
<td>Chemotherapeutics of fungal diseases</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-conazole</td>
<td>systemic antifungal agents, miconazole derivatives</td>
<td></td>
</tr>
<tr>
<td>S410</td>
<td>Antifungal agents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S420</td>
<td>Fungicides</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S430</td>
<td>Antifungal antibiotics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S500</td>
<td>Antibiotics, antibacterial and antiviral agents</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-planin</td>
<td>antibacterials (Actinoplanes strains)</td>
<td></td>
</tr>
<tr>
<td>S510</td>
<td>Sulfonamides</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>sulfa-</td>
<td>anti-infectives, sulfonamides</td>
<td></td>
</tr>
<tr>
<td>S520</td>
<td>Antimycobacterials</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-dapsone</td>
<td>antimycobacterials, diaminodiphenylsulfone derivatives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-pirox</td>
<td>see -ox</td>
<td></td>
</tr>
<tr>
<td>S530</td>
<td>Antiviral</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-arabine</td>
<td>arabinofuranosyl derivatives</td>
<td></td>
</tr>
<tr>
<td>S530</td>
<td>-motine</td>
<td>antivirals, quinoline derivatives</td>
<td></td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
<td>Example</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>----------------------</td>
<td>-------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>S530</td>
<td>-rible</td>
<td>ribofuranil-derivatives of the pyrazofurin type</td>
<td></td>
</tr>
<tr>
<td>S530</td>
<td>-uridine</td>
<td>uridine derivatives used as antiviral agents and as antineoplastics;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>vir</td>
<td>antivirals (undefined group);</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-amivir: neuraminidase inhibitors, -cavir: carboxyclic nucleosides,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-virsen: antisense oligonucleotides</td>
<td></td>
</tr>
<tr>
<td>S550</td>
<td>Antibacterial/other</td>
<td>-citabine</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>nucleoside antiviral or antineoplastic agents, cytarabine or azarabine</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>derivatives</td>
<td></td>
</tr>
<tr>
<td>S550</td>
<td>-oxacin</td>
<td>antibacterials, nalidixic acid derivatives</td>
<td></td>
</tr>
<tr>
<td>S550</td>
<td>-prim</td>
<td>antibacterials, trimethoprim derivatives</td>
<td></td>
</tr>
<tr>
<td>S600</td>
<td>Antibiotics (except</td>
<td>-cidin</td>
<td></td>
</tr>
<tr>
<td></td>
<td>antineoplastic</td>
<td>naturally occurring antibiotics (undefined group)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>antibiotics)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S600</td>
<td>-fungin</td>
<td>antifungal antibiotics; USAN: antifungal antibiotics (undefined group)</td>
<td></td>
</tr>
<tr>
<td>S600</td>
<td>-gillin</td>
<td>antibiotics produced by Aspergillus strains</td>
<td></td>
</tr>
<tr>
<td>S600</td>
<td>-monam</td>
<td>monobactam antibiotics</td>
<td></td>
</tr>
<tr>
<td>S600</td>
<td>-mycin</td>
<td>antibiotics, produced by Streptomyces strains (see also -kacin)</td>
<td></td>
</tr>
<tr>
<td>S600</td>
<td>-parcin</td>
<td>for glycopeptide antibiotics</td>
<td></td>
</tr>
<tr>
<td>S600</td>
<td>-penem</td>
<td>analogues of penicillanic acid antibiotics modified in the five-membered ring</td>
<td></td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
<td>Root</td>
<td>Notes</td>
</tr>
<tr>
<td>------</td>
<td>-------------------------------------------------------</td>
<td>--------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>S610</td>
<td>Antibiotics acting on the bacterial cell wall</td>
<td>-carbef</td>
<td>antibiotics, carbacephem derivatives</td>
</tr>
<tr>
<td></td>
<td></td>
<td>cef-</td>
<td>antibiotics, cefalosporanic acid derivatives</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-cillin</td>
<td>antibiotics, 6-aminopenicillanic acid derivatives</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-oxef</td>
<td>see cef-; antibiotics, oxacefelosporanic acid derivatives</td>
</tr>
<tr>
<td>S620</td>
<td>Antibiotics affecting cell membrane and with detergent</td>
<td>-tricin</td>
<td>antibiotics, polyene derivatives</td>
</tr>
<tr>
<td></td>
<td>effect-------------------------------------------------</td>
<td>--------</td>
<td></td>
</tr>
<tr>
<td>S630</td>
<td>Antibiotics affecting protein synthesis</td>
<td>-cycline</td>
<td>antibiotics, tetracycline derivatives</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-kacin</td>
<td>antibiotics, kanamycin and bekanamycin derivatives (obtained from</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><em>Streptomyces kanamyceticus</em>); S.6.5.0.-micin: antibiotics</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>obtained from various <em>Micromonospora</em></td>
</tr>
<tr>
<td>S640</td>
<td>Antibiotics affecting nucleic acid metabolism</td>
<td>rifa-</td>
<td>antibiotics, rifamycin derivatives</td>
</tr>
<tr>
<td>S650</td>
<td>Antibiotics-action unclassified (including beta-lactamase</td>
<td>-bactam</td>
<td>beta-lactamase inhibitors</td>
</tr>
<tr>
<td></td>
<td>inhibitors)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-micin</td>
<td>see -kacin; antibiotics obtained from various <em>Micromonospora</em></td>
</tr>
<tr>
<td>S700</td>
<td>Immunomodulators and immunostimulants (incl. gamma</td>
<td>-imex</td>
<td>immunostimulants</td>
</tr>
<tr>
<td></td>
<td>globulins)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-imod</td>
<td>immunomodulators, both stimulant/suppressive and stimulant</td>
</tr>
<tr>
<td>Code</td>
<td>Term</td>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>------</td>
<td>-------------</td>
<td></td>
</tr>
<tr>
<td>S700</td>
<td>-imus</td>
<td>immunosuppressants (other than antineoplastics)</td>
<td></td>
</tr>
<tr>
<td>S700</td>
<td>-kin</td>
<td>interleukin type substances: -nakin, -leukin, -plestim, -exakin, -kinra, -nakinra</td>
<td></td>
</tr>
<tr>
<td>S700</td>
<td>-leukin</td>
<td>interleukin type substances</td>
<td></td>
</tr>
<tr>
<td>S700</td>
<td>-mab</td>
<td>monoclonal antibodies (see also Annex)</td>
<td></td>
</tr>
<tr>
<td>S700</td>
<td>-stim</td>
<td>colony stimulating factors</td>
<td></td>
</tr>
<tr>
<td>S710</td>
<td>Interferons and immunomodulators</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T000</td>
<td>Locally acting externally-applied agents (INCL. DERMATOLOGIC AND INTERNALLY USED DRUGS)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T100</td>
<td>Locally acting externally-applied agents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T110</td>
<td>Vasodilators (external) - rubefaciens</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T200</td>
<td>Locally acting internally-applied agents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T210</td>
<td>Adsorbents, astringents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T220</td>
<td>Lubricant cathartics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T230</td>
<td>Irritant cathartics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T240</td>
<td>Gastro-intestinal anti-infectives, non-resorbed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T250</td>
<td>Saponins</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T260</td>
<td>Detergents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>T300</td>
<td>Intravaginal contraceptives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
<td>Prefixes</td>
<td>Description</td>
</tr>
<tr>
<td>------</td>
<td>--------------------------------------------</td>
<td>----------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>U000</td>
<td>MISCELLANEOUS DRUGS</td>
<td>-ermin</td>
<td>growth factors; -dermin: epidermal growth factors; -fermin: fibrinoblast growth factors; -nermin: tumour necrosis factor; -sermin: insulin-like growth factors</td>
</tr>
<tr>
<td>U000</td>
<td></td>
<td>gado-</td>
<td>diagnostic agents, gadolinium derivatives</td>
</tr>
<tr>
<td>U100</td>
<td>Diagnostic aids</td>
<td>-fenin</td>
<td>diagnostic aids; (phenylcarbamoyl)methyl iminodiacetic acid derivatives</td>
</tr>
<tr>
<td>U110</td>
<td>Radiocontrast media</td>
<td>io-</td>
<td>iodine-containing contrast media</td>
</tr>
<tr>
<td>U110</td>
<td></td>
<td>-io or iod-</td>
<td>iodine-containing compounds other than contrast media</td>
</tr>
<tr>
<td>U120</td>
<td>Diagnostic aids, other</td>
<td></td>
<td></td>
</tr>
<tr>
<td>U130</td>
<td>Diagnostic radioisotopes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>U200</td>
<td>Chelating agents, detoxicants, etc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>U210</td>
<td>Alcohol detergents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>U300</td>
<td>Anti-inflammatory agents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>U310</td>
<td>Non-antipyretic antirheumatics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>U320</td>
<td>Anti-inflammatory agents, other</td>
<td></td>
<td></td>
</tr>
<tr>
<td>U400</td>
<td>Pharmaceutical adjuncts</td>
<td>cell- or cel-</td>
<td>cellulose derivatives; (cell-ate and -cellose)</td>
</tr>
<tr>
<td>U400</td>
<td></td>
<td>-dronic acid</td>
<td>calcium metabolism regulator, pharmaceutical aid</td>
</tr>
<tr>
<td>V000</td>
<td>UNCLASSIFIED PHARMACOLOGICAL MECHANISMS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V100</td>
<td>Intrauterine contraceptive device</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V200</td>
<td>Medicinal plants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Code</td>
<td>Category</td>
<td>Example</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>------------------------------</td>
<td>------------------</td>
<td></td>
</tr>
<tr>
<td>V300</td>
<td>Homoeopathic preparations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>W000</td>
<td>ENZYMES AND VARIOUS</td>
<td>-ase enzymes; -dismase, -teplase, -uplase</td>
<td></td>
</tr>
<tr>
<td>W000</td>
<td></td>
<td>-stat enzyme inhibitors</td>
<td></td>
</tr>
<tr>
<td>Y000</td>
<td>VETERINARY DRUGS</td>
<td>-nidazole antipROTOZOALS, metronidazole derivatives</td>
<td></td>
</tr>
</tbody>
</table>
ALPHABETICAL LIST OF STEMS TOGETHER WITH CORRESPONDING INNS

-abine  see -arabine, -citabine

-ac (x)  anti-inflammatory agents, ibufenac derivatives
A.4.2.0  TRS 581 (USAN: anti-inflammatory agents (acetic acid derivatives))

\[
\text{H}_2\text{C} - \text{CH}_3 - \begin{array}{c}
\text{C} \\
\text{O} \\
\text{O} \\
\text{H}
\end{array}
\]

- aceclofenac (52), alclofenac (23), amfenac (38), anirolac (52), bendazac (22), bromfenac (55),
cinfenoc (41), clidanac (39), clofurac (42), clopirac (3O), dexpemadolac (71), diclofenac (28), eltenac
(53), etodolac (45), felbinac (54), fenclofenac (3O), fenclorac (33), fentiazac (32), furofenac (40),
ibufenac (14), isoxepac (37), ketorolac (51), lexofenac (38), nepafenac (78), oexpinac (36), oxindanac
(54), pemudolac (58), (quinclorac, ISO name for a herbicide), sulindac (33), tianafac (31), tifurac (57),
tiopinac (4O), zompepirac (37)

- zolac: bufezolac (39), isofezolac (39), lonazolac (34), mofezolac (64), pirazolac (43), trifezolac (34)

(b)  amtolmetin guacil (65), bufexamac (2O)(anti-inflammatory; acetohy-droxamic acid group instead of
acetic acid group)

(c)  clamidoxic acid (17), fencloxic acid (22), metiazinic acid (20), prodolic acid (29), tolmetin (23)

-acetam  see -racetam

-acide (x)  synthetic polypeptides with a corticotropin-like action

Q.1.1.1  (USAN: synthetic corticotropins)

(a)  alsactide (45), codactide (24), giractide (29), norleusactide (18), seractide (31), tetracosactide (18),
tosactide (24), tricosactide (44)
TRS 581
-adol (x) or -adol-
analgesics (14th Report, 1967)
(USAN: analgesics (undefined group))
A.4.1.0
A.4.2/3.0
(a) A.4.1.0: acetylmethadol (5), alimadol (39), alphacetylmethadol (5), alphamethadol (5), betacetylmethadol (5), betamethadol (5), levacetylmethadol (27), noracetylmethadol (12)
A.4.2/3.0: apadoline (74), asimadoline (74), bromadoline (49), ciprefadol (41), ciramadol (39), cloracetadol (16), dibusadol (24), dimenoxadol (7), diproxadol (34), enadoline (68), filenadol (47), flumexadol (36), fluradoline (48), gadoxadol (48), levonantradol (43), lorcinadol (57), moxadolen (45), (deleted in List 48: moxifadole (47)), myfadol (17), nafxadole (50), nantradol (42), nerbacadol (56), oxapadol (40), picenadol (47), pindoline (50), pipradimadol (42), pipramadol (42), pravadoline (60), vafadole (60), profadol (20), ruzadole (71), spiradoline (53), tazadole (52), tolpadol (48), tramadol (22), veradoline (47)
(b) alfadolone (27), hexapradol (12) (CNS stimulant), nadolol (34), quinestradol (15) (estrogenic)
(c) A.4.1.0 dimephtanol (5)

-adom analgesics, tifluadom derivatives
A.4.3.0

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

-afenone antiarrhythmics, propafenone derivatives
(a) alprafenone (62), berlafenone (63), diprafenone (48), etafenone (19), propafenone (29)

-aj-   antiarrhythmics, ajmaline derivatives

H.2.0.0

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

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

-aldrate antacids, aluminium salts
N.5.2.0
(a) carbaldrate (53), potassium glucaldrate (14), sodium glucaspaldrate (17), magaldrate (49), smalladrate (15)

-alol see -olol

-alox see -ox

andr (d) steroids, androgens
Q.2.3.1 (USAN: -andr- androgens)
(a)

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

ii. -stan- (d): androstanolone (4), drostanolone (13), epitiostanol (31) mesteranolone (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), propandrol (13)

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

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

- anide

- etanide
diuretics, piretanide derivatives
N.1.2.0
(USAN: diuretics (piretanide group))

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

(c) besunide (30)

- oxanide
antiparasitic, salicylanilides and analogues
S.3.0.0

(a) bromoxanide (31), clioxanide (19), rafinoxanide (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) (anti-arthritic; gout-remedy); cesforma-nide (39) (antibiotic); polihexanide (24) (antibacterial); tiprostanide (48) (antihypertonic)
-anserin  
serotonin receptor antagonists (mostly 5-HT₂)

C.7.0.0  
(USAN: serotonin receptor antagonists (undefined group))

(a)  
adatanserin (70), altanserin (50), bionanserin (76), butanserin (51), eplivanserin (80), fananserin (69), fibanserin (75), ketalanserin (46), lidanserin (62), pelanserin (57), seganserin (56), tropanserin (55)

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

-antel  
anthelmintics (undefined group)

S.3.1.0  

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

TRS 581

-apine  
see -pine

-(ar)abine  
arabinofuranosyl derivatives

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

(a)  
ancitabine (36), capecitabine (73), cytarabine (14), decitabine (61), emtricitabine (80), enocitabine (46), fazarabine (56), fiaclitabine (59), fludarabine (48), flurocitabine (38), galocitabine (65), gemcitabine (62), ibacitabine (57), nelarabine (80), vidarabine (23), zalcitabine (66)

(c)  
S.5.3.0: ribavirin (31)
-arit  
  antiarthritic substances, acting like clobuzarit and lobenzarit, (mechanism different from anti-inflammatory type substances, e.g. -fenamates or -profens)

A.4.2.0  
  (USAN: antirheumatic substances, acting similarly to lobenzarit)

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

-.arol (d)  
  anticoagulants, dicoumarol derivatives

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

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

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

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

TRS 581

-arone  
  amiodarone (16) (anti-arrhythmic), benzarone (13), benzbromarone (13) (uricosuric), benziodarone (11), brinazarone (64) (calcium channel blocker), bucromarone (48) (antiarrhythmic), diarbarone (15), dronedarone (75) (anti-anginal, antiarrhythmic), etabenzarone (17), fantofarone (65) (calcium channel blocker), furidarone (19), inicarone (27), mecinarone (30), pyridarone (16), rilozarone (58)
arte-  
S.3.3.0  

antimalarial agents, artemisinin related compounds

(a)  
artemether (61), artemisinin (56), artemotil (80), artemimol (81), artesunate (61), arteflene (70)

-ase  
W.0.0.0  

ases  
USAN

(a)  
alglycerase (68), bislisomase (65), bisriniucase (65), brinase (22), cocarboxylase (1), domase alfa (70), hyalosidase (50), hyaluronidase (1), kallidinogenase (22), ocrase (28), pegasparagase (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), orgotein (31), sutilains (18), ubidecarenone (48)

Classification of enzymes

I  
proteinase

(a)  
with -ase suffix:

<table>
<thead>
<tr>
<th>(INN)</th>
<th>(origin)</th>
<th>(use, action)</th>
</tr>
</thead>
<tbody>
<tr>
<td>brinase (22)</td>
<td>Aspergillus oryzae</td>
<td>fibrinolytic</td>
</tr>
<tr>
<td>kallidinogenase (22)</td>
<td>pancreas or urine of mammals</td>
<td>splitting kinin, kallidin from kininogen (vasodilator)</td>
</tr>
<tr>
<td>ocrase (28)</td>
<td>Aspergillus ochraceus</td>
<td>fibrinolytic (topically: cleaning wounds)</td>
</tr>
<tr>
<td>pegasparagase (64)</td>
<td></td>
<td>asparaginase</td>
</tr>
<tr>
<td>promelase (46)</td>
<td>Aspergillus melleus</td>
<td>proteinase (chronic bronchitis)</td>
</tr>
<tr>
<td>Enzyme</td>
<td>Source</td>
<td>Function/Description</td>
</tr>
<tr>
<td>----------------------</td>
<td>-----------------------------</td>
<td>-------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>rasburicase (81)</td>
<td><em>Aspergillus flavus</em></td>
<td>urate oxidase</td>
</tr>
<tr>
<td>(hyperuricaemia)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>serrapeptase (31)</td>
<td><em>Serratia sp. E15</em></td>
<td>proteinase (chronic paranasal sinusitis etc.)</td>
</tr>
<tr>
<td>sfericase (40)</td>
<td><em>Bacillus sphaericus</em></td>
<td>proteinase (chronic paranasal sinusitis etc.)</td>
</tr>
<tr>
<td>streptokinase (6)</td>
<td><em>Streptococcus haemolyticus</em></td>
<td>changing plasminogen into plasmin (activator of fibrinolysis)</td>
</tr>
<tr>
<td>urokinase (16)</td>
<td>human origin</td>
<td>plasminogen activator</td>
</tr>
<tr>
<td>urokinase alfa (27)</td>
<td>recombinant material</td>
<td>plasminogen activator</td>
</tr>
</tbody>
</table>

(b) **without -ase suffix:**

<table>
<thead>
<tr>
<th>Enzyme</th>
<th>Source</th>
<th>Function/Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>batroxobin (29)</td>
<td>the venom of the serpent <em>Bothrops atrox</em></td>
<td>thrombin like enzyme</td>
</tr>
<tr>
<td>bromelains (18)</td>
<td><em>Ananas comosus</em> Merr.</td>
<td>fibrin depolymerizing (antiinflammatory)</td>
</tr>
<tr>
<td>chymopapain (26)</td>
<td>papaya late</td>
<td>proteolytic (chemonucleosis)</td>
</tr>
<tr>
<td>chymotrypsin (10)</td>
<td>mammalian pancreas</td>
<td>proteolytic (antiinflammatory, antioedema)</td>
</tr>
<tr>
<td>defibrotide (44)</td>
<td>mammalian pancreas</td>
<td>proteolytic (antiinflammatory, antioedema)</td>
</tr>
<tr>
<td>sutilains (18)</td>
<td><em>Bacillus subtilis</em></td>
<td>proteolytic</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Enzyme</th>
<th>Source</th>
<th>Function/Description</th>
</tr>
</thead>
</table>
| II  
  **-lipase**
  rizolipase (22)     | *Rhizopus arrhizus* var. Delemar | lipase                                                                              |

<table>
<thead>
<tr>
<th>Enzyme</th>
<th>Source</th>
<th>Function/Description</th>
</tr>
</thead>
</table>
| III  
  **co-enzymes**
  cocarboxylase (1)   | chemically defined          | co-enzyme in the metabolism of pyruvic acid                                         |
|                       |                             |                                                                                     |
|  ubidecarenone (48)   | chemically defined          | naturally occurring co-enzyme, a component in the electron transfer system in mitochondria (congestive heart failure) |
IV  
**-dismase**  enzymes with superoxide dismutase activity  
(USAN: superoxide dismutase activity (exception: orgotein))

(a)  
ledismase (70), sudismase (58)

(c)  
**isomerase**

orgotein (31)  mammalian tissue  
(liver, red blood cell etc.)  superoxide dismutase activity  
(anti-inflammatory)

pegorgotein (72)

V  
**-diplase**  plasminogen activator combined with another enzyme

amediplase (79)

VI  
**-teplase**  tissue-type-plasminogen activators

(a)  
alteplase (59), anistreplase (59), desmoteplase (80), dureplase (62), lanoteplase (76), monteplase (71), nateplase (73), pamiteplase (78), reteplase (69), silteplase (65), tenecteplase (79)

VII  
**-uplase**  urokinase-type-plasminogen activators:

(a)  
nasaruplase (68), saruplase (58)

VIII  
**others**

<table>
<thead>
<tr>
<th>Enzyme</th>
<th>Origin</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>dornase alfa</td>
<td>human origin</td>
<td>treatment of cystic fibrosis</td>
</tr>
<tr>
<td>hyalosidase</td>
<td></td>
<td>hyaluronoglucosaminidase (treatment of myocardial infarction)</td>
</tr>
<tr>
<td>hyaluronidase</td>
<td>various origins</td>
<td>depolymerizing hyaluronic acid (cellular diffusion factor)</td>
</tr>
<tr>
<td>imiglucerase</td>
<td>human origin</td>
<td>(placenta isoenzyme)</td>
</tr>
</tbody>
</table>
penicillinase (10)  Bacillus cereus  inactivating penicillin
ranpirnase (81)  Rana pipiens  ribonuclease (antineoplastic)
streptodornase (6)  Streptococcus haemolyticus  hydrolysing desoxyribonucleoprotein
tilactase (50)  β-D-glactosidase

-ast (x)  antiasthmatic, antiallergics, not acting primarily as antihistaminics
K.O.O.O (BAN: antiasthmatics, antiallergics when not acting primarily as antihistamines)
(USAN: antiasthmatics or antiallergic substances not acting primarily as antihistamines)
(a)
acizanast (72), acrozast (77), andolast (67), asobamast (63), bamaquimast (76), batebulast (66),
binizolast (60), bunaprolast (60), dametralast (54), dazoquinast (54), doqualast (48), eclazolast (55),
eflumast (61), enofelast (67), enoxamast (52), fenprinast (48), filaminast (75), ibudilast (58), idenast
(58), loxanast (46), melquinst (62), ontazolast (72), oxalinitast (49), pemilastast (61), picamilast
(73), picunast (47), pirodomast (64), quazolast (55), raxofelast (68), repirinast (55), revenast (51),
roflumilast (77), scopinast (76), suplastat tosilate (64), tazanast (59), tetrazolast (67), tiacrilast
(52), tibenelast (58), tioxamast (53), tiprinast (50), tranilast (46), zaprinast (46)
-lukast  leukotriene receptor antagonist
(a)
abrilukast (61), cinalukast (70), iralukast (70), montelukast (73), poblukast (70), pranlukast (67),
ritolukast (64), sulukast (63), tomelukast (59), verlukast (65), zafirlukast(71)
-trodast  thromboxane A2 receptor antagonists, antiasthmatics
(a)
imitrodast (70), seratrodast (70)
(c)
bufrolin (34), oxarbazole (38), piolate (44)
-astine (x)  antihistaminics
G.2.0.0  (BAN: antihistamines, not otherwise classifiable)
         (USAN: antihistaminics (histamine-H₁ receptor antagonists))

(a)  acrivastine (51), alinastine (74), azelastine (36), barmastine (59), bepiastine (19), bepotastine (78),
     cabastine(50), carebastine (52), clemastine (22), dorastine (23), ebastine (52), emedastine (59),
     epinastine (55), flezastine (67), levocabastine (50), linetastine (74), mapinastine (72), mizolastine
     (64), oxastine (15), noberastine (59), octastine (37), perastine (15), picloastine (22), rocastine
     (57), setastine (39), talastine (18), temelastine (54), zepastine (26)

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

(c)  astemizole (45), carboxammine (4)

-azam  see - azepam

-azenil  benzodiazepine receptor antagonists/agonists (benzodiazepine derivatives)

(a)  bretazenil (60), flumazenil (55), iomazenil \textsuperscript{125}I (66), sarmazenil (59)
(b)  nabazenil (49)

-carnil  benzodiazepine receptor antagonists/agonists (carboline derivatives)
(a)  abecarnil (60), gedocarnil (61)

-quinil  benzodiazepine receptor partial agonists (quinoline derivatives)
(a)  lirequinil (72), terbequinil (63)
-azepam (x) diazepam derivatives
(BAN: substances of the diazepam group)
C.1.0.0 (USAN: antianxiety agents (diazepam type))

(bromazepam (22), camazepam (30), carbazapam (39), cinolazepam (46), clonazepam (22),
cyprazepam (16), delorazepam (40), diazepam (12), doxazepam (43), elfazepam (36), fletazepam
(31), fludiazepam (36), flunitrazepam (24), flurazepam (20), flutemazepam (58), fluprazepam
(45), fosazepam (27), halazepam (29), icozepam (37), lorazepam (23), lormetazepam (38),
meclonazepam (44), medazepam (20), menitrazepam (22), metaclazepam (46), motrazepam (31),
nimetazepam (26), nitrazepam (16), nordazepam (39), nortrazepam (20), oxazepam (13),
pinanazepam (32), pivoxazepam (34), prazepam (14), profazepam (31), quazepam (36), reclazepam
(53), sulazepam (14), temazepam (22), tetrazepam (17), tolufazepam (51), tuclazepam (40),
uldaazepam (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), lofendazam (36), loprazolam (44), mexazolam (40), midazolam
(40), nefopam (25), oxazolam (25), razobazam (52), tofisopam (26), trepipam (38), triazolam (30),
triflubazam (28), zapizolam (43), zomebazuam (49)

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

TRS 581 not related: anti-anx.: fenobam (36), muscle relax.: xilobam (36)

-azepide cholecystokinin receptor antagonist
J.1.0.0
(a) devazepide (62), pranazepide (75), tarazepide (68)

(c) lorglumide (56)
-azocine
A.4.1.0 narcotic antagonists/agonists related to 6,7-benzomorphan
(USAN: narcotic antagonists/agonists related to 6,7-benzo-morphan)

(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)

(b) streptozocin (33)

related compounds: dezocine (35)

TRS 581

-azolam
see -azepam

-azoline
E.4.O.O. antihistaminics or local vasoconstrictors, antazoline derivatives
(USAN: antihistaminics or local vasoconstrictors of the antazoline group)

(a) antazoline (l), cilutzazoline (61), cirazoline (38), clonazoline (18), coumazoline (26), domazoline (30), fenoxazoline (12), indanazoline (42), metrafaszoline (33), naphazoline (l), nemazo-line (63), oxymetazoline (13), phenamazoline (6), prednazoline (22), tefazoline (24), tinazoline (39), tramazoline (15), xylometazoline (8)

(b) cefazolin (25) (antibiotic)

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

TRS 581
-azeone  see -butazone

-azosin  antihypertensive substances, prazosin derivatives
H.3.0.0  (USAN: antihypertensives (prazosin type))

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

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

-bactam (x)  β-lactamase inhibitors
S.6.5.0  (a)  brobactam (53), sulbactam (44), tazobactam (60)

(C)  clavulanic acid (44)

-bamate (d)  tranquillizers, propanediol and pentanediol derivatives
C.I.O.O  (a)  cyclarbamate (13), meprobarbame (6), nisobamate (21), pentabamate (13), tybamate (14)

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

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

TRS 581
barb (d)  hypnotics, barbituric acid derivatives
A.2.1.O

(USAN: -barb; or -barb-: barbituric acid derivatives)
(BAN: -barb, -barb-: for barbiturates)

![Barbituric acid structure](image)

(a) allobarbital (l), amobarbital (l), aprobarbital (l), barbexa-clone (l6), barbital (4), barbital sodium (4), benzobarbital (25), brallobarbital (4l), carbubarb (14), cyclobarbital (l), difebarbamate (16), eterobarb (32), febarbamate (12), heptabarb (14), hexobarbital (l), methylphenobarbital (l), nealbarbital (ll), pentobarbital (l), phenobarbital (4), phenobarbital sodium (4), probabital sodium (l), proxibarbal (33), secbutabartial (12), secobarbital (4), tetrabarbital (4), thialbarbital (4), thiotetbarbital (4), vinbarbital (l)

(c) butalbital (4), butyalal sodium (8), metharbital (l), methitural (6), methohexital (8), phetharbitol (10), talbutal (17), thiopental sodium (4), vinylbital (12)

prazitune (19)(barbituric acid derivative used as antidepressive) bucocale (17)(barbituric acid derivative used as anti-inflammatory uricosuric)

TRS 581

-bendar  see -dan

-bendazole  anthelmintics, tiabendazole derivatives
S.3.1.O

(USAN: anthelmintics (tiabendazole type))

![Anthelmintics structure](image)

(a) albendazole (35), albendazole oxide (56), bisbendazole (29), cambendazole (24), ciclobendazole (3l), dribendazole (49), etibendazole (49), fenbendazole (29), flubendazole (34), lobendazole (28), luxabendazole (52), mebendazole (24), oxibendazole (30), parbendazole (19), subendazole (3l), tiabendazole (13), triclabendazole (45)
bendazol (12) (vasodilator, also benzimidazole derivative)
L.O.O.O: nocardazole (36), procodazole (36) (also benzimidazole derivative)

oxfordazole (35), tioxidazole (39)
related: furodazole (37) (S.3.1.O)

TRS 581

bol (x)  anabolic steroids  BAN, USAN
M.4.1.0

(BAN: steroids, anabolic)
(USAN: bol- or -bol- : anabolic steroids)

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

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

-bradine  bradycardic agents
H.0.0.0

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

-brate  see -fibrate

-buzone (x)  anti-inflammatory analgesics, phenylbutazone derivatives
A.4.2.0

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

(USAN: anti-inflammatory analgesics of the phenylbutazone type)

mofebutazone (15), oxyphenbutazone (8), phenylbutazone (1)
-zone
aminophenazole (13), bisfenzone (33), famprofazone (21), morazole (12), nifenazole (15), nimazole (20), niprofazone (29), phenazole (4), propyphenazone (1), sulfipyrazole (8)

-zone
clofzone (17), proxifzone (24)

related:
azapropazole (18), benhepazole (15), bumadizone (24), cinnopenta-zone (17), isamfazone (37), metamfazone (12), osmadizone (26), ruvazone (26)

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

TRS 581

-caine (x)
local anaesthetics

D.1.O.O

(a) ambucaine (6), amoxeaine (1), aptocaine (21), articaine (47) (previously carticaine (27)), benzocaine (42), betoxycaine (13), brecaine (49), bumeclaine (25), bupivacaine (17), butacaine (4), butanillicaine (16), chloroproca (6), cinchocaine (1), clibucaine (14), clodacaine (13), clormecaine (17), cyclomethycaine (6), dexivacaine (20), diamocaine (22), elucaine (29), etidocaine (29), fexicaine (25), forocaine (18), hexylcaine (4), hydroxyproca (1), hydroxytettracaine (1), ketocaine (15), leucinocaine (17), levobupivacaine (74), lidocaine (1), lotucaine (27), mepivacaine (11), meppylcaine (4), myrtcaine (15), octacaine (14), oxetacaine (13), oxybuproca (8), parethoxycaine (1), paridocaine (8), phenacaine (4), pinalcaine (32), piperocaine (1), piridocaine (1), pramocaine (4), pribecaine (32), procaine (14), procaine (10), propanoacaine (6), propipocaine (16), propoxyca (4), proxymetacaine (6), pyrocaine (13), quatacaine (18), quiniscocaine (4), risoacaine (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), midalamine (6)

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

H.2.0.0

(BAN: antifibrillants with local anaesthetic activity)
(a) acecanide (39), asocainol (47), barucaainde (52), bucaainide (35), carcaainum chloride (36),
carocainide (46), droxicainide (47), encainide (40), epicanide (40), erocainide (50), flecaainide (37),
guafecainol (38), indecaainide (48)(originally ricainide (47)), itrocaainide (54), ketocaainol (32),
lorainide (38), milacainide (77), modecaainide (63), murocaainide (46), nicainoprol (46), nofeccainide
(44), pilscarainide (62), pincaainide (49), procainamide (l), quinaainol (50), recainam (54),
solpecaainol (55), stirocaainide (47), suricaainide (55), tocaainide (36), transcaainide (51), (verocaainine
(42) - replaced by tiapamil in List 43), zocaainone (41)

Vitamin D analogues/derivatives

(a) alfacalcidol (40), calcifediol (26), calcipotriol (61), calcitriol (39), colecalciferal (13), ergocalciferal
(13), falecalcitriol (74), lexacalcitol (71), maxacalcitol (75), paricalcitol (78), secalciferal (62),
seocalcitol (78), tacalcitol (65)

(b) calcitonin (31) (polypeptide)

(c) dihydrotachysterol (1)

antibiotics, carbacepham derivatives

(a) loracarbef (60)
-carnil  see -azenil

cef-  (x)  antibiotics, cefalosporanic acid derivatives

S.6.1.O  (USAN: cephalosporins)

(a)  cefacetrol (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), cefdimir (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), cefoxazol (34), cefoxitin (29), cefozopran (66), cefpimizole (50), cefpiramide (47), cefpirome (50), cefpodoxime (58), cefprozil (60), cefquinome (59), cefradine (26), cefroticol (34), cefroxadine (42), cefsulodin (38), cefsumide (38), ceftazidime (44), ceferam (55), ceftazole (34), ceftibuten (60), ceftiofur (53), ceftiolene (49), ceftioxide (43), ceftizoxime (42), ceftizoxime alaproxil (77), ceftriaxone (44), cefuracetim (45), cefuroxime (34), cefuzonam (55)

TRS 581
-oxef  antibiotics, oxacefalosporanic acid derivatives

(USAN: antibiotic oxacefalosporanic acid derivatives)

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

---

cell- or  cellulose derivatives
  [cel- in spanish]

U.4.0.0  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  [-elosa in spanish]

(a) -

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

---

-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)
-cidin S.6.O.O. naturally occurring antibiotics (undefined group) (14th Report, 1964)

(USAN: natural antibiotics (undefined group))

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

(b) guancidine (18) (hypotensive)

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

S.61.O (USAN: penicillins)

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 (2O), carfecillin (30), carindacillin (29), ciclacillin (22), clemizole penicillin (8), clometocillin (12), cloxacillin (13), dicloxacillin (16), epicillin (25), fenbenicillin (13), fibracillin (30), fluocxinacillin (17), formidacillin (55), fumoxicillin (47), furbucillin (31), fuzlocillin (47), hetacillin (16), isopropicillin (12), lenampticillin (50), levopropicillin (12), metamicillin (2O), meticillin (12), mezlocillin (34), nefcillin (13), oxacillin (15), oxetacillin (33), penemecillin (16), pheneticillin (11), phenoxybenzyl penicillin (6), phenyrcillin (8), piperacillin (38), pirbenicillin (35), piridicillin (43), piroxicillin (49), pivampicillin (23), prazocillin (27), propicillin (13), quinacillin (14), rotamicillin (35), sarmoxicillin (41), sarpicillin (36), submenicillin (26), sultamicil-lin (48), suncillin (25), talamicillin (31), tameticillin (35), temocillin (46), ticarcillin (29), tifencillin (12), tobicillin (78)

(b) xantocillin (12)

(c) penimepicycline (16), penimocycline (22) (both combinations of a "cillin" with a "cycline")
-cilide: libecilide (32)
S.6.1.0

-cillinam: bacmecillinam (38), mecillinam (32), pivmecillinam (32)
S.6.1.0

TRS 581

-cistene see -stine

-citabine nucleoside antiviral or antineoplastic agents, cytarabine or azarabine derivatives
L.4.0.0

(a) ancitabine (36), capecitabine (72), decitabine (61), enocitabine (46), fiacitabine (59), flurocitabine (38), galocitabine (65), gemcitabine (62), ibacitabine (57), troxacitabine (81), zalcitabine (66)

(b) cytarabine (14), azacitidine (40)

-clone hypnotic tranquillizers
A.2.2.0

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

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

-cog blood coagulation factors
L.2.0.0

(-)eptacog blood coagulation VII: eptacog alfa (activated) (72)
(-)octocog blood factor VIII: moroctocog alfa (72), octocog alfa (73)
(-)nonacog blood factor IX: nonacog alfa (77)
related: tifacogin (78)
-conazole (x) systemic antifungal agents, miconazole derivatives

S.4.O.O (BAN: systemic antifungals of the miconazole group)
(USAN: systemic antifungals (miconazole type))

(a) aliconazole (43), alteconazole (53), azaconazole (45), becliconazole (65), brolaconazole (58), butoconazole (40), ciconazole (59), croconazole (55), (cyproconazole (ISO)), democonazole (42), (dichlorconazole (ISO C17H16Cl2N4O)), doconazole (37), eberconazole (64), econazole (27), eniconazole (44), (etaconazole (ISO)), fenticonazole (44), fluconazole (54), (furconazole (ISO TC 81 N 872 C15H14Cl2F3N2O3)), (hexaconazole (ISO C14H12Cl2N6O)), isoconazole(30), itraconazole(50), ketoconazole (43), lanoconazole (66), miconazole (22), neticonazole (63), omoconazole (45), orconazole (40), oxiconazole (42), parconazole (39), (penconazole, (ISO)), (propiconazole (ISO)), saperconazole (59), sertaconazole (56), sulconazole (38), (tebuconazole (ISO C16H22ClIN0)), terconazole (45)(originally triaconazole), tioconazole (40), (uniconazole (ISO C15H18ClIN0)), valconazole (40), voriconazole (73), ziconazole (50), zoficonazole (43)

(c) bifonazole (44)

cort (x) corticosteroids, except prednisolone derivatives

Q.3.O.O (USAN: -cort-: cortisone derivatives)
(a) amebucort (54), anecortave (80), butoxocort (63), cicortonide (28), corticotropin (68), corticotropin-
in zinc hydroxide (68), cortisone (l), cortisol (30), cortivazol (23), cortodoxone (15), deflazacort
(39) (previously azacort (38)), desoxycortone (4), fluazacort (30), fludrocortisone (6), fludro-
xcortide (12), fluocortin (31), formocortal (18), hydrocortamate (6), hydrocortisone (1), loci-
cortolone dicibate (60), nafiacort (50), nicocortonide (40), nivacortol (24), resocortol (74),
tixocortol (38)

(b) prednisolone derivatives: clocortolone (l6), difluocortolone (18), fluocortolone (15), halocortolone
(31)

(c) aldosterone (6), algestone (22), (also progest. when used as algestone acetophenide), medrysone (l6)

TRS 581

---

USAN

-diuretics, etacrynic acid derivatives

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

---

USAN

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

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

---

USAN

-acridine derivatives

(a) antineoplastic: amsacrine (44), nitracrine (35)
anthelmintics: antimalarials: flosacrine (34), mepacrine (4)
antidepressants: dimetacrine (19), monometacrine (19)
antiparkinsonian: botiacrine (38)
acetylcholinesterase inhibitors: ipidadecrine (73), suronacrine (61), tacidrine (8), velnacrine (61)

(c) acridorex (2l), acriflavinium chloride (l), acrisorcin (13), aminoacridine (l), ethacridine (l), proflavine
(l)
-cromil antiallergics, cromoglicic acid derivatives

K.O.O.O (USAN: antiallergics (cromoglicic acid type))

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

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

-curium see -ium

-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), colimecacycline (33), demeclocycline (25), demecycline (l4), doxycycline (16), etamocycline (18), guamecicycline (22), lymecycline (14), meclocycline (14), meglucycline (22), metacycline (12), minocycline (14), nitrocycline (14), oxytetracycline (l), pecocycline (15), penimepicycline (16), penimocycline (22), pipacycline (12), rolitetracycline (ll), sancycline (15), tetracycline (4)

related: carubicin (40), daunorubicin (20), detorubicin (41), doxorubicin(25), zorubicin (39)
-dan  cardiac stimulants, pimobendan derivatives

H.1.0.0

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

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

-dapsone  antimycobacterials, diaminodiphenylsulfone derivatives (14th Report, 1964)

S.5.2.0

(USAN: antimycobacterial diaminodiphenylsulfone derivatives)

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

-dermin  see -ermin

-dil  vasodilators (18th Report, 1968)

F.2.O.O.

F.2.1.2.O

F.2.O.O(a)

(USAN: -dil; dil-; or -dil-: vasodilators (undefined group))

alprostadil (39), aviptadil (78), belfosdil (61), benfuroidil hemisuccinate (16), biclodil (52), bufolmedil (33), burodiline (26), carpazidil (45), cetiedil (27), cinepaxadiil (50), dopropidil (59), eliprodil (66), fenoxedil (27), flosatidil (64), fostedil (51), fronepidil (59), ifenprofil (27), levosemotiadil (72), manozodil (47), mefenidil (48), minoxidil (25), naftopidil (52), nesapidil (52), perfomedil (60), pinacidil (46), pirbedil (23), pitenodil (37), podiflen (22), stevaladil (34), sulcotidil (30), tipropidil (44), urapidil (27), viquidil (25)
(c)  diltmefone (33)

F.2.1.0

**coronary vasodilators:** bepridil (30), buprednil (44), ecipramidil (40), fendiline (24), fenetradil (30), floredil (28), hexadiline (13), impradil (51), mepramidil (27), metrufidil (23), nicorandil (44), pirozadil (33), pretiadil (27), razi-nodil (38), semotadiil (64), sinitrodil (74), terodiline (16), tixadil (18), trapidil (29)

(c)  diltiap (22), diltiazem (30)

-dilol

carvedilol (50), dioxadiol (53), dramedilol (57), flavodilol (48), mindodilol (52), nipradilol (50)(previously nipradolol), oberadiol (77), parodilol (57), prizidiolol (44), tribendilol (54)

(b)  diloxanide (8)(amebicide), methdilazine (IO) (antihistaminic), phenbutiodil (6)(contrast medium), prodilidinic (12)(analgesc)

-pendyl

cloxypendyl (15), isothypendyl (6), oxyxendyl (13), prothypendyl (6)

-dyl

bisacodyl (13)(lax.), bunamiodyl (IO), iofendylate (12), trihexyphenidyl (1)(antiparksonian)

TRS 58i

---

**calcium channel blockers, nifedipine derivatives**

F.2.1.0

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

---

(a)  amlodipine (53), aranidipine (69), azelnidipine (69), barnidipine (64), benidipine (58), cilnidipine (66), clevidipine (75), cronidipine (61), daripidine (51)(replaces dazodipine (49)), efonidipine (66), elgodipine (61), felodipine (44), flordipine (48), furnidipine (67), iganidipine (70), isradipine (55), lacidipine (57), lemidipine (69), lercanidipine (69)(previously masnidipine), levniguldipine (67), manidipine (59), mesudipine (40), nicardipine (42), nifedipine (27), niguldipine (60), njiludipine (38), niivadipine (52), nimoindipine (40), nisoldipine (42), nitrendipine (42), olradipine (69), oxodipine (52), palonidipine (64), pranidipine (66), riodipine (51), sagandipine (64), sornidipine (58), teludipine (64)(previously taludipine (61))
(b) budipine (36) (central stimulant, antidepressant and antiparkinsonian), prodipine (29) (central stimulant antiparkinsonian)

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

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

\[
\begin{align*}
\text{HO} & \\
\text{HO} & \\
\text{NH}_2 & \text{CH}_2
\end{align*}
\]

(a) carbidopa (37), ciladopa (52), dopamantine (31), droxidopa (57), etilevoda (80), fluorodopa (\(^{18}\text{F}\)) (64), levodopa (21)

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

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

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

(c) dobutamine (29), docarpamine (59), dopexamine (50), fenoldopam (53), levdobutamine (65), methyldopa (12) (alpha-2 adrenoreceptor agonist, cardiotonic)
-dralazine antihypertensives, hydrazinephthalazine derivatives
H.3.O.O (USAN: antihypertensives (hydrazine-phthalazines))

\[
\begin{align*}
\text{HN} & \\
\text{NH}_2 & \\
\text{N} & \\
\end{align*}
\]

(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), butidrine (16), cafedrine (14), cinnamedrine (19), corbadrine (1), dioxethedrin (6), dioxifedrine (41), etaefedrine (14), meludrine (78), methoxyphedrine (6), midodrine (27), norbudrine (17), oxyfedrine (16), pholedrine (1), pseudoephedrine (II), racephedrine (66), ritodrine (22), theophylline ephedrine (14), tinoefedrine (32), trecadrine (53)

not phenethylamine derivatives: levopropylhexedrine (37), octodrine (19), propylhexedrine (6)

(b) bufenadrine (13) (antiemetic) related chemically, chloromerodrin (4) (diuretic), chloromerodrin (197 Hg) (24), dieldrin (10) (insecti-cide), orphenadrine (8) (spasmolytic)

TRS 58l

-frine sympathomimetic, phenethyl derivatives
E.4.0.0

\[
\begin{align*}
\text{N} & \\
\text{H}_2 & \\
\end{align*}
\]

(a) amidefrine mesilate (15), berefrine (68), ciclafrine (33), dimetofrine (27), dipivefrine (39), epinephrine (16), etilefrine (18), etilefrine pivalate (50), geprefrine (38), norepinephrine (45), norfenefrine (16), oxilofrine (62), phenylephrine (1), pivenfrine (42), racepinefrine (41)
-dronic acid  calcium metabolism regulator, pharmaceutical aid  
(USAN: -drone: calcium metabolism regulators)

N.8.0.0  U.4.0.0

(a)  alendronic acid (61), butedronic acid (59), clodronic acid (37), etidronic acid (22), ibandronic acid (71), incadronic acid (70), 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)

-ectin  antiparasitics, ivermectin derivatives
S.3.0.0

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

-entan  endothelin receptor antagonists
F.2.0.0

(a)  bosentan (70), enrasentan (80), tezosentan (81)

erg_  alkaloid derivatives
F.4.O.O  C.7.O.O  (USAN: -erg:- ergot alkaloid derivatives)

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

(b)  ergocalciferol (13)
-eridine analgesics, pethidine derivatives (14th Report, 1964)

(USAN: analgesics (meperidine group))

(a) anileridine (5), carperidine (11), etoxeridine (6), morpheridine (6), oxpheneridine (5), pheneridine (5), phenoperidine (ll), 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)

-ermin growth factors

(USAN: growth factors)

-dermin epidermal growth factors

(a) murodermin (63)

-ferrin fibrinoblast growth factors

(a) ersofermin (66), trafermin (74)

-nermin tumour necrosis factor

(a) plusonermin (73), sonermin (68), tasonermin (76)

-plerin platelet-derived growth factor

becaplermin (74)

-sermin insulin-like growth factors

(a) mecasermin (66)

-termin transforming growth factor

avotermin (77), cetermin (74), liatermin (81)
estr  estrogens  
Q.2.1.O  (USAN: estr--; or -estr-: estrogens)
(a)  alnestrone (24), benzestrol (I), broparestrol (8), cloxestradiol (I2), dienestrol (I), diethylstilbestrol (4), epimestrol (I2), epiestriol (I2), (eptamestrol/etamestroI (49 deleted), estradiol (4), estradiol benzoate (4), estradiol undecylate (16), estradiol valerate (35), estramustine (24), esparapricinate (34), estrazinol (16), estriol succinate (14), estrofurate (25), estrone (4), ethinylestradiol (I), fenestrel (I8), fosfostrol (15), fulvestrant (78), furostilbestrol (I), hexestrol (I), mestranol (I2), methallenestril (6), methestrol (I), moxestrol (24), nilestriol (32), orestrate (I7), polyestradiol phosphate (36), promestriene (31), quinestradiol (15), quinestrol (I4)
(b)  allylestrenol (IO) (progest.), ethylestrenol (13) (anabol.), lynestrenol (I3) (progest.)
-estri-:  edogestrone (22), levonorgestrel (30), megestrol (I3), melengestrol (I3), norgestrel (I7), norgestrienone (I8), pentagestrone (I4), quingestrone (I3)
(c)  chlorotrianisene (6), clomifene (12), enclomifene (33), zuclomifene (33) (antiestrogens)
TRS 581

-etanide  see -anide

-ethidine  see -eridine

-exine  mucolytic, bromhexine derivatives
K.0.0.0

(a)  adamexine (36), bromhexine (20), brovanexine (31), cistinexine (54), dembrexine (56), neltexine (62), oxabrexine (40)
(b)  enefexine (54)(antidepressant), gamfexine (17)(antidepressant)
(c)  ambroxol (32) (dembrexol (50): replaced by dembrexine (56))
-fenamic acid
  anti-inflammatory, anthranilic acid derivatives

-fenamate
  "fenamic acid" derivatives

(a) clofenamic acid (13), enfenamic acid (45), flufenamic acid (13), meclofenamic acid (17), mefenamic acid (13), toltenamicacid (24)
colfenamate (29), etofenamate (29), prefenamate (36), terofenamate (32), ufenamate (50)
(b) clantifen (24), oxyfenamate (13)
phonetically close: clofenamide (13), diclofenamide (13) (N.1.1.O.)
(c) flutiazin (22)

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

phenine
A.4.3.0

(a) antrafenine (35), floctafenine (24), florifenine (50), glafenine (15), nicafenine (40)
(b) spasmyolytic diphenylacetates: adiphenine (1), drofenine (26), other: bufenine (8) (vasodil.),
cinfenine (27) (antidepressant)
-fenin  
U.1.0.0  

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

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

-fentanil  
A.4.1.0  

**narcotic analgesics, fentanyl derivatives**

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

-fiban  
I.2.0.0  

**fibrinogen receptor antagonists (glycoprotein IIb/IIIa receptor antagnists)**

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

-fibrate (x)  
H.4.O.O  

**clofibrate derivatives**

(BAN: substances of the clofibrate group)  
(USAN: clofibrate type compounds)
(a) bezafibrate (35), biclofibrate (28), binifibrate (44), ciprofibrate (36), clinofibrate (39), dulofibrate (43), etofibrate (31), fenifibrate (49), fenofibrate (35), lifibrate (3O), nicofibrate (31), picaflibrate (35), ponfibrate (37), ronifibrate (55), salafibrate (41), serfibrate (34), simfibrate (22), sitofibrate (32), tiaflibrate (33), timofibrate (4O), tucofibrate (33), urefibrate (37), xantifibrate (31)

clofibrac acid (20), clofibrate (13), aluminium clofibrate (31), calcium clofibrate (34), cinnarizine clofibrate (38), etofylline clofibrate (38), magnesium clofibrate (31)

clofibrate (28), plafibrate (39)

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

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

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

TR581

-flapn 5-lipoxygenase-activating protein (FLAP) inhibitor
K.O.O.O
J.O.O.O

quiaplon (72)

-flurande halogenated compounds used as general inhalation anaesthetics
A.I.I.O

(a) alifurane (36), cryofluorane (6), desflurane (62), enfurane (25), isoifurane(28), methoxyflurane (11), norfurane (20), roflurane (12), sevofurane (25), tefurane (12)

(b) apafurane (73)

(c) halothane (6)

TR581

-perflu- perfluorinated compounds used as blood substitutes and/or diagnostic agents

(a) perfluoramine (45), perflubron (66), perflunafene (45)
-formin (d)  antihyperglycaemics, phenformin derivatives
M.5.O.O (USAN: oral hypoglycemics (phenformin type))

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

TR581

-fos  insecticides, anthelminthics, pesticides etc., phosphorous derivatives
(-vos)
S.3.I.O
Y.O.O.O

1.  organophosphorous derivatives:

   \[
   X = O \text{ or } \text{PO}_2^- \\
   R^- \\
   \]

(a)  vet. insecticides:
   quintiofos (25)

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

(c)  vet. insecticides and anthelminthics:
   metrifonate (16)
   anthelmintic: butonate (30)
2. phosphates:

   \[
   \begin{align*}
   &R-O-P-O-R' \\
   &O-R' \\
   \end{align*}
   \]

(a) vet. insecticides:
   clofenvinfos (23)

(b) vet. anthelminthics:
   bromofenofos (43), dichlorvos (28), naftalofos (16)

(c) anthelminthics:
   vincofos (28)

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

(c) vet. anthelminthics:
   fospirate (21), haloxon (16)

3. phosphorothioates:

   \[
   \begin{align*}
   &S \quad \begin{array}{c}
   \text{R} \\
   \text{O-P-O-R'} \\
   \end{array} \\
   \end{align*}
   \]

vet. insecticides:

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

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

4. phosphorodithioates:

   \[
   \begin{align*}
   &S \quad \begin{array}{c}
   \text{R} \\
   \text{S-P-O-R'} \\
   \end{array} \\
   \end{align*}
   \]
(a) benoxafos (22) (vet. pesticide)

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

§ phosphoramidates:

\[
\begin{array}{c}
\text{R}_1 P=\text{O}^N \text{H} \\
\text{R}_2 \text{O}^+ \text{R}^-
\end{array}
\]

crucemate (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), creatinolofosfate (20), dextosfoserine (68), ferfosfate sodium (69), fosmenic acid (49), fosopamine (69), fosquidone (64), furifosmin (70), monophosphothiamine (8), sodium picfosfate (37), sparfosic acid (46), technetium (99m-Tc), tetrofosmin (66), trifosmin (74)

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

-fosine cytostatic: edelfosine (59), fostreicin (55), ilmofosine (56), miltefosine (61), perifosine (78)

-fos-
fosarilate (53), fosazepam (27), foscarnet sodium (42), foscolic acid (12), fosenazide (46), fosfestrol (15), fosfocreatinine (50), fosfomycin (25), fosfonet sodium (35), fosfosal (37), fosfructose (81), fosomidycin (46), fostedil (51)

-fradil calcium channel blockers acting as vasodilators
F.2.1.0

mibefradil (72)

-frine see -drine
antifungal antibiotics (18th Report, 1968)

(USAN: antifungal antibiotics (undefined group))

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

$N$-methylated xanthine derivatives

acefylline clofibrin (44), acefylline piperazine (14), albifylline (66), aminophylline (4), apaxifylline (71), arofylline (75), bamifylline (15), cipamfylline (71), denbufylline (55), dimabefylline (19), diniprofylline (18), diprophylline (l), doxofylline (47), enprofylline (44) etamiphylène (6), etofylline (14), etofylline clofibrate (38), fibrafylline (43)(deleted), fluftylline (48), fluprofylline (50), furafylline (48), guafylline (16), ibsufylline (62), lapraffylline (60), lisofylline (72), lomifylline (37), mercurofylline (l), metascufylline (15), mexafylline (48), midaxifylline (79), nestifylline (64), pentifylline (29), pentoxifylline (29), perbufylline (58), pimefylline (21), propentofylline (46), proxphylline (10), pyridofylline (14), spirofylline (58), stacofylline (73), tazifylline (52), theophylline ephedrine (14), torbafylline (56), triclofylline (19), verofylline (43), visnafylline (24), choline theophyllinate (8), fenetylline (16)

cafedrine (14), dimenhydrinate (l), dimethazan (8), mefarullide (l), mercumatilin sodium (4), piprinhydrinate (8), promethazine teoclote (IO), protheobromine (14), theodrenaline (14), xantifibrate (31), xantinol nicotinate (16)

radicals and groups: teprosilate (29)
<table>
<thead>
<tr>
<th>Entry</th>
<th>Description</th>
<th>USAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>gab</td>
<td>gabamimetic agents</td>
<td></td>
</tr>
<tr>
<td></td>
<td>fengabine (53), gabapentin (46), gaboxadol (48) (used as analgesic), pivagabine (66), pregabalin (78), progabide (43) (used as antiepileptic), retigabine (76), tiagabine (63), tolgabide (53), vigabatrin (52) (anticonvulsants)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>gabexate (35) (proteolytic)</td>
<td></td>
</tr>
<tr>
<td>gado-</td>
<td>diagnostic agents, gadolinium derivatives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>gadobenic acid (64), gadobutrol (66), gadodiamide (63), gadopenamide (60), gadopentetic acid (50), gadoteric acid (59), gadoversetamide (71), gadoxetic acid (71)</td>
<td></td>
</tr>
<tr>
<td>-gatran</td>
<td>thrombin inhibitor, antithrombotic agent</td>
<td></td>
</tr>
<tr>
<td></td>
<td>efegatran (71), inogatran (72), melagatran (74), napsagatran (72)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>argatroban (57)</td>
<td></td>
</tr>
<tr>
<td>gest (x)</td>
<td>steroids, progestogens</td>
<td>BAN, USAN</td>
</tr>
<tr>
<td></td>
<td>altrenogest (46), anagest (16), cingestol (20), clogestol (21), clomegestone (2O), demegestone (24), desogestrel (38), dnxorgestrel (3O), dienogest (49), dydrogesterone (12), edogestrone (22), etonogestrel (65), flugestone (16), gestacolone (23), gestadienol (22), gestodene (37), gestonorone caproate (16), gestrinone (39), haloprogesterone (Il), hydroxyprogesterone (8), levonorgestrel (33) (previously dnxorgestrel), medrogestone (15), medroxyprogesterone (10), medoxyprogesterone(OO), medrogestone (15), megestrol (13), melengestrol (13), metogest (33), norgestereone (14), norgestimate (35), norgestomet (32), norgestrel (17), norgestrienone (18), oxogestone (19), pentagestrone (14), progesterone (4), proligestone (28), promegestone (38), quingestanol (15), quingestrone (13), tigestol (2O), trengestone (22), trimegestone (66)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>algestone (22) (glucorticoid)</td>
<td></td>
</tr>
</tbody>
</table>
(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)

clomesterone (15) (antiestrogen), dimepren(24) (antiestrogen)

- **giline** MAO-inhibitors type B
  C.3.1.0
  (a) clorgiline (23), mofegiline (69), pargiline (13), rasagiline (70), selegiline (39)

- **gillin** antibiotics produced by *Aspergillus strains* (16th Report, 1966)
  S.6.O.O
  (a) fumagillin (1), mitogillin (17)
  (c) mitosper (24), nifungin (24)

- **gli (x)** antihyperglycaemics, sulfonamide derivatives
  (previously (BAN: sulphonamide hypoglycaemics)
gly-) (USAN: gli-: oral hypoglycemics (glipizide type))
  M.5.2./3.0
  (a) gliamillide (33), glibenclamide (18), gliboruride (22), glubutimine (31), glicaramide (28), glicetanile (37), gliclazide (25), (deleted: glidanile (23)), glicondamide (44), gidazamide (24), gilumfide (33), glimepiride (53), glipalamide (62), (glipentide (27) replaced by glisentide (58)), glipizide (27), gliquidone (28), glisamuride (45), glisentide (58)(previously glipentide), gliisindamide (43), glisolamide (43), glisoxepide (24), glybuthiazol (8), glybuzole (15), glycopravimide (17), glycyclamide (12), glyhexamide (15), glymidine sodium (15), glyoctamid (14), glypamide (USAN only), glypinamid (13), glyprothiazol (8), glysobuzole (12)

(b) glycerol (4), glycobiarol (1), glycopyrtronium bromide (12)

(c) 1. acetohexamide (12), butadiazamid (10), chlorpropamide (8), heptolamide (12), metahexamide (10), thiohexamide (12), tolaazamid (12), tolbutamide (6), tolpentamide (12), tolprramide (13)

2. other than sulfonamide derivatives: camiglibose (67), ciglitazone (51), derglitazone (69), dergildole (66), emiglijate (55), eneglizone (64), isagidole (61), linogiride (48), meglitinide (34), midagilizole (57), miglitol (55), mitiglizide (78), naglivan (65), nateglinide (77), pioglitazone (60)
pirogliride (40), repaglinide (65), rosiglitazone (78), tibeglisene (64), troglitazone (68), voglibose (65)

3. peptide: seglitide (57)

TRS 581

dopamine receptor agonists, ergoline derivatives

E.2.0.0

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

-grastim

See -stim

USAN

platelet aggregation inhibitors

I.2.1.0

(USAN: platelet antiaggregants (undefined group))

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

USAN

antihypertensives, guanidine derivatives

H.3.0.0

(USAN: anti-hypertensive substances (guanidine type))
(a) guanabenz (26), guanacline (16), guanadrel (20), guanazodine (27) guancidine (18), guanclofene (36), guanethidine (11), guanfacine (35), guanisouline (15), guanoctol (15), guanoxtine (16), guanoxan (15), guanoxabenz (31), guanoxyfen (16), guabexan (32)

(c) guabexan (32)

-ibine  see -ribine

-icam anti-inflammatory, isoxicam derivatives
A.4.2.0 (USAN: anti-inflammatory agents (isoxicam group))

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

-ifene antiestrogens, clomifene and tamoxifen derivatives
(Q.2.1.0 L.6.0.0) USAN

(a) arzoxifene (80), clomifene (12), droloxifene (53), enclomifene (33), idoxifene (68), lasofoxifene (81), levormeloxifene (73), miproxifene (74), nitromifene (33), ormeloxifene (69), panomifene (58), raloxifene (54), tamoxifen (28), tesmiflene (81), toremifene (53), trioxifene (41), zindoxifene (54), zuclomifene (33), clomifenoxide (54)

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

(c) nafoxidine (16)
-igetide  see -tide

-llide
H.2.0.0  class III antiarrhythmics, sematilide derivatives

![Chemical Structure]

(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
S.7.0.0

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

-imod
S.7.0.0  immunomodulators, both stimulant/suppressive and stimulant

(a) atiprimod (75), defoslimod (79), esonarimod (79), glaspiromod (74), imiquimod (66), ivarimod (60), pidotimod (63), susalimod (73), tiproimod (57)

-imus  immunosuppressants (other than antineoplastics)
S.7.0.0

(a) abetimus (81), gusperimus (68), laflunimus (70), napirimus (60), pimecrolimus (81), sirolimus (69), tacrolimus (66), tresperimus (75)
-ine (d) alkaloids and organic bases

TRS 581 (a) 1120 (24.04%) INNs ending in -ine in Lists 1-48 p.INN

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), iocanlicid acid (77), iodamide (15), iodecimol (51), iodetyl (l), iodixanol (53), iodophthalein sodium (1), iodoxamic acid (26), iodendylate (12), iofratol (67), ioglicic acid (33), iogluclol (41), ioglucomeide (41), ioglumide (40), ioglycamic acid (15), iohexol (43), iodidonic 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), iopydole (14), iosarcol (54), iosefamic acid (14), ioseric acid (33), iosimide (50), iosulamide (39), ioumenetic acid (33), iotalamic acid (13), iotasul (43), iotetic acid (37), iotranic acid (28), iotriseide (60), iotrizoic acid (22), iotrolan (51), iotroxic acid (32), ioversol (56), ioxabrolie acid (53), ioxaglic acid (37), ioxilan (59), ioxitalamic acid (22), ioxotrizioic acid (33), iozomic acid (24)

(c) adipiodone (4), bunamidol (10), dimethiodal sodium (1), diondole (1), ethyl cartrizoaite (12), methiodal sodium (1), metrizamide (26), pheniodol sodium (1), phenobutiodiol (6), propyl docetrazoate (10), propyliodone (1), sodium acetrizoaite (4), sodium amidotrizoate (4), sodium diproztrizoaite (6), sodium metrizoate (13), sodium tyropanoate (12)

---

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

io(d)/-io-

iodine-containing radiopharmaceuticals

(a) ethiodized oil (121I) (24), iobenguane (131I) (57), iodinated (125I) human serum albumin (24), iodinated (131I) human serum albumin (24), iodoctylic acid (125I) (47), iodocholesterol (131I) (39), iofetamine (125I) (51), iolopride (125I) (73), iomazenil (125I) (66), iometin (125I), iometin (131I) (24), sodium iodide (125I) (24), sodium iodide (131I) (24), sodium iodohippurate (131I) (24), sodium iotalamate (125I) (24), sodium iotalamate (131I) (24)

(c) fibrinogen (125I), macrosalb (131I) (33), rose bengal (131I) sodium (24), tolpoivdone (131I) (24)
-irudin  hirudin derivatives
    L.2.1.0  bivalirudin (72), desirudin (70), lepirudin (73), pegmusirudin (77)

-isomide  antiarrhythmics, disopyramide derivatives
    H.2.0.0

    \[
    \begin{align*}
    &H_3C - N - CH_3 \\
    &\text{C} \quad \text{C} \\
    &\text{NH}_2 \\
    &\text{C} \quad \text{C} \\
    &\text{H}_2 \text{C} - \text{CH}_3
    \end{align*}
    \]

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

-ium (x)  quarternary ammonium compounds
    (USAN: -ium or onium)

    neuromuscular blocking agents with a flexible structure
    (a)  azamethionium bromide (1), decamethonium bromide (1), dicolinium iodide (25), dimecolinium iodide (14), fubrogonium iodide (18), hexamethonium bromide (1), mebezonium iodide (16), oxapropium iodide (1), oxydipentonium chloride (1), pentamethonium bromide (1), pentolonium tartrate (4), prodeconium bromide (6), stilonium iodide (32), suxamethonium chloride (1), suxethionium chloride (1), tetrylammonium chloride (1), tiametonium iodide (15), trepirium iodide (25)
    (c)  gallamine triethiodide (1)

    neuromuscular blocking agents with rigid structure
    E.3.0.0  (USAN: -curium, also curonium; neuromuscular blocking agents; quarternary ammonium derivatives)
    (a)  alcuronium chloride (17), atracurium besilate (42), candocurium iodide (70), cisatracurium besilate (73), dacuronium bromide (21), dimethyltubocurarinium chloride (1), doxacurium chloride (58), fazadinium bromide (32), hexafluoronium bromide (12), laudexium metisulfate (4), mivacurium chloride (58), panceuronium bromide (19), pentacyonium chloride (6), phenactropinium
chloride (8), pipécuronium bromide (69), piprocuroium iodide (11), rapacuronium bromide (78), rocuronium bromide (66), stercuronium iodide (21), thiazinum metilsulfate (37), trimetridinium methosulfate (8), truxicurium iodide (22), truxipicurium iodide (22), vecuronium bromide (46)

c) tubocurarine chloride (1)

cholinergic agents

(a) aclatonium napadisilate (44), ambenonium chloride (6), benzpyrinium bromide (1), carpronium chloride (23), demecarium bromide (10), furtrehonium 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), ecithiopate iodide (6), neostigmine bromide (4), obidoxime chloride (16), pralidoxime iodide (10), pyridostigmine bromide (6)

anticholinergic agents

(a) benzilonium bromide (13), benzopyronium bromide (12), beperidium (57), bevonium metilsulfate (19), butropium bromide (30), ciclonium bromide (19), ciclotropium bromide (50), cimetropium bromide (51), clidinium bromide (6), cyclopyronium bromide (12), dimetipirium bromide (37), diponium bromide (15), dotefonium bromide (24), droclidinium bromide (33), emepronium bromide (18), etipirium iodide (22), fenclexonium metilsulfate (20), fenpiverinium bromide (26), fentonium bromide (29), flutropium bromide (50), glycopyronium bromide (12), heteronium bromide (14), hexazonium iodide (15), hexocyclium metilsulfate (6), hexopyronium bromide (13), ipratropium bromide (31), methanthelinium bromide (1), methylbenactyzium bromide (34), metocinium iodide (26), nolinium bromide (37), otolinium bromide (38), oxapium iodide (26), oxitefonium bromide (18), oxitropium bromide (36), oxypenonium bromide (1), oxyprynonium bromide (13), oxysonium iodide (15), pentapipieronium metilsulfate (26), prifinium bromide (20), ritropirronium bromide (33), sintropium bromide (47), sultrounium (18), tatemopium metilsulfate (64), tiemonium iodide (13), timepidium bromide (29), tioptropium bromide (67), tiquizium bromide (47), transtelium bromide (24), trosopium chloride (25), xenyponium bromide (15)

c) atropine methonitrate (4), buzepide metiodide (14), chlorisondamine chloride (6), diphenanil metilsulfate (4), homatropine methylbromide (1), isoopramide iodide (8), mepenzolate bromide (10), octoprine methybromide (10), parazepnolote bromide (14), pipenzolate bromide (6), soldine metilsulfate (11), propaneline bromide (1), propyromazine bromide (12), tridihexethyl iodide (6), tropenzline bromide (11), thiexinol methylbromide (1), tricyclamol chloride (4)
surfactants used as antibacterials and antiseptics

(a)
acriflavium chloride (1), amantaniun chloride (39), benzaalko-nium chloride (1), benzethonium chloride (1), benzododecinium chloride (1), benzoxyonium chloride (36), cefalonium (16), cefnepidium chloride (57), cetalkonium chloride (15), cethexonium chloride (36), cetrimonium bromide (1), cetylpyridinium chloride (1), chlorphenoxium amsonate (8), deditonium bromide (15), denatonium benzoat (15), dequalinium chloride (8), disiquonium chloride (55), dodeclonium bromide (16), dofamium chloride (21), fludazonium chloride (33), furazolidon chloride (15), halopenium chloride (10), hedaquinium chloride (8), lapirium chloride (27), lauralkonium chloride (62), laurcetium bromide (70), laurolinium acetate (12), mecetronium etilsulfate (51), metalkonium chloride (60), methylbenzethonium chloride (1), methylrosanilinium chloride (1), methylthioninium chloride (1), miripirium chloride (63), miristalkonium chloride (41), octafonium chloride (16), opraoniod iodide (76), penocotonium bromide (20), pirralkonium bromide (19), polidironium chloride (67), polixetonium chloride (70), polonium iodide (14), sanguinarium chloride (68), sepaizonium chloride (34), tetradonium bromide (18), tibezonium iodide (32), tiodonium chloride (36), tolloidium chloride (36), toloconium metilsulfate (17), tonzonium bromide (14), triciobisonium chloride (10)

c

domiphen bromide (23)

other agents

amezinium metilsulfate (36), amprolium chloride (16), azaspirium chloride (25), bephenium hydroxyanphothoate (11), bibenzonium bromide (12), bidimazium iodide (27), bretylium tosilate (10), butopyramonium iodide (8), carccinium chloride (36), cloflumil phosphate (42), datelliptium chloride (57), detajnium bitartrate (34), dibropidium chloride (51), ditercalinium chloride (49), edrophonium chloride (4), elliptinum acetate (43), emilium tosilate (37), famiprumin chloride (58), feniodium chloride (23), gallium (67Ga) citrate (33), homidium bromide (36), isometamidium chloride (18), mefenidramium metilsulfate (52), mequatium iodide (61), nolpitantium besilate (75), pinaverium bromide (32), pirdonium bromide (28), prajmalium bitartrate (23), pranolinium chloride (32), pretamazium iodide (29), propagermanium (65), prospidium chloride (22), pyritidium bromide (16), pyrvinium chloride (6), quiondinium bromide (14), quincluimium bromide (40), repagermanium (63), rimazolium metilsulfate (26), roxolinium metilsulfate (33), samarium (153Sm) lexidronam (74), sevitropium mesilate (56), spirogermanium (43), stibazium iodide (13), thienium closilate (12), tipetroium bromide (42), tolonium chloride (4), trazium esilate (54), trethinium tosilate (14), troxonium tosilate (13), troxypyrroloium tosilate (13)

c

alazanine triclofenate (13)(anthel-mimthic), colfosceril palmitate (64) (pulmonary surfactant), dithiazanine iodide (8) (anthel-mimthic), hexadimethrine bromide (8)(heparin antagonist)
-curium (d)  curare-like substances

diphenylmethyl piperazine derivatives

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

homochlorcyclizine (10) (serotonin antagonist)

tranquillizers: etodroxizine (18), hydroxyzine (6)

various: benderizine (40) (antiarrhythmic), declozizine (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), tiracicizine (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), triamyzine (15) (anticholinergic)

indoloquinolines (anticholinergic): metoguizine (17), toguizine (17)

(c)  medibazine (16)
-kacin antibiotics, kanamycin and bekanamycin derivatives (obtained from *Streptomyces kanamyceticus*)

(S.6.3.0)

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

\[
\text{CH}_2\text{OH} \\
\text{HO} \\
\text{CH}_3\text{NH}_2 \text{OH} \\
\text{HO} \\
\text{NH}_2 \text{NH}_2
\]

\[ R = \text{OH or NH}_2 \]

(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)

---

-micin antibiotics obtained from *various Micromonospora*:

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

astromicin (44), betamicin (38), etisomicin (47), gentamicin (22), isepamicin (54), maduramicin (52), megalomicin (37), micromonicin (45), mirosmamicin (58), netilmicin (36), pentisomicin (41), repromicin (37), rosaramicin (41)(prev. rosamicin), semduramicin (60), sisomicin (25)
**Strept. fradiae**: neomycin (I)

**Strept. rimosus** (chemical form, not clarified): neutramycin (15)

**Strept. rimosus**: paromomycin (28)

**Strept. ribosidificus**: ribostamycin (27)

**Strept. lividus**: lividomycin (32)

TRS 581

<table>
<thead>
<tr>
<th>-kalant</th>
<th>potassium channel blockers</th>
</tr>
</thead>
<tbody>
<tr>
<td>H.2.0.0</td>
<td></td>
</tr>
<tr>
<td>(a)</td>
<td>almokalant (64), clamikalant (81), nifekalant (75), terikalant (66)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>-kalim</th>
<th>potassium channel activators, antihypertensive</th>
</tr>
</thead>
<tbody>
<tr>
<td>H.3.0.0</td>
<td></td>
</tr>
<tr>
<td>(a)</td>
<td>aprikalim (64), bimakalim (64), cromakalim (58)/levcromakalim (66), emakalim (66), mazokalim (75), rilmakalim (65), sarakalim (81)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>-kef-</th>
<th>enkephalin agonists</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>casokefamide (65), frakefamide (81), metkefamide (44)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>-kin</th>
<th>interleukin type substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>S.7.0.0</td>
<td></td>
</tr>
<tr>
<td><strong>IL-1</strong>:</td>
<td>-nakin interleukin-1 analogues and derivatives:</td>
</tr>
<tr>
<td></td>
<td>-onakin interleukin-1α analogues and derivatives: pifonakin (77)</td>
</tr>
<tr>
<td></td>
<td>-benakin interleukin-1β analogues and derivatives: mobenakin (72)</td>
</tr>
<tr>
<td><strong>IL-2</strong>:</td>
<td>-leukin interleukin-2 analogues and derivatives: aldesleukin (63), celmoleukin (65), denileukin diftitox (78), teceleukin (54)</td>
</tr>
<tr>
<td></td>
<td>pegaldesleukin (67)</td>
</tr>
<tr>
<td><strong>IL-3</strong>:</td>
<td>-plestim interleukin-3 analogues and derivatives: muplestim (72)</td>
</tr>
</tbody>
</table>
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)
        -kinra  interleukin receptor antagonists

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

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

-kiren  renin inhibitors
H.3.0.0

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

-lubant  leukotriene B₄ receptor antagonist

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

-lukast  leukotriene receptor antagonists, see -ast

-mab  monoclonal antibodies (see also Annex)
S.7.0.0  rat origin

-amab  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): igovomab (74)
**ili(m)** lymphocyte: afelimomab (72), dorlimomab aritox (66), enlimomab (70), enlimomab pegol (77), faralimomab (76), 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)** infectious lesions: sulesomab (75)

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

**tu(m)** tumour (miscellaneous): anatumomab mafenatox (79), arcitumomab (74), altumomab (68), bectumomab (75), detumomab (70), ibritumomab tiuxetan (81), minretumomab (80), satumomab (67), technetium (99mTc) nofetumomab merpental (76), technetium (99mTc) pintumomab (75), tositumomab (80)

**-umab** human origin:

**ba(c)** bacterial: nebacumab (66)

**li(m)** immunomodulator: atorolimumab (80), morolimumab (79)

**tu(m)** tumour: votumumab (70)

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

**-ximab** chimeric origin

**ci(r)** cardiovascular: abciximab (70)

**li(m)** immunomodulator: basiliximab (76), clenoliximab (77), infliximab (77), keliximab (76), priliximab (72)

**tu(m)** tumor: rituximab (77)

**(c)** muromonab CD3 (59)

**-zumab** humanized origin

**li(m)** lymphocyte: daclizumab (78) (previously: dacliximab), mepolizumab (81), natalizumab (79), palivizumab (79), rovelizumab (81)

**tu(m)** tumor: (miscellaneous): cedelizumab (77), lintuzumab (76), sibrotuzumab (81), trastuzumab (78)

**vi(r)** viral: felvizumab (77)
-mantadine  adamantane derivatives
-mantine )
-mantone )

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

antiparkinsonian: E.2.0.0. : carmantadine (3l), dopamantine (3l), memantine (35)

immunostimulant: S.7.0.0 : idramantone (71)

(b) anthelminthic: S.3.1.0 : dimantine (14)

(c) adamexine (36) (mucolytic), amantocillin (17) (antibiotic), bolmantalate (16) (anabolic)

-meline cholinergic agents (muscarine receptor agonists/partial antagonists used in the treatment of Alzheimer's disease)
E.1.0.0

alvameline (79), cevimeline (76), itameline (71), milameline (74), subcomeline (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 (l), mercurobutol (l), otrimerate sodium (51), phenylmercuric borate (4), sodium timerfonate (13), thiomersal (l)

'^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: chloromerodrin (4), chloromerodrin (197 Hg) (24), meralluride (l), mercaptomerin (l), mercuderamide (1), mercumutilin sodium (4), mercurophylline (l), merisoprol (197 Hg) (24) (diagnostic), mersalyl (4)

(b) difemerine (17) (spasmolyt.), dimercaprol (l) (antidote, -SH group), lomerizine (68), (cerebral vasodilator), mercaptopurine (6) (cytostatic, -SH group), nifurmerone (16), pemerid (25) (antituss.), suxemerid (25) (antituss.)

(c) hydrargaphen (10)

-mer polymers:

(a) amilomeron (33), cadexomer (60), carbetimer (50), carbormer (2l), crilanomer (53), dextranomer (33), eldexomer (51), leuciglumer (68), melahtamer (14), poloxamer (34), porfimer sodium (64), sevelamer (77), surfomer (44), zinostatin stimalamer (74)

(b) succimer (42)

-mesine sigma receptor ligands

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

-mestane aromatase inhibitors:

L.0.0.0/Q.2.1.0

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

met(h)asone see pred

-metacin (x) anti-inflammatory, indometacin derivatives

(BAN: anti-inflammatory substances of the indomethacin group)

(USAN: -methacin: anti-inflammatory substances (indomethacin type))

A.4.2.0
(a) acemetacin (32), cinmetacin (24), clometacin (27), delmetacin (48) (originally demetacin (42)), duometacin (27), glucametacin (32), indometacin (13), niometacin (33), oxametacin (37), pimetacin (47), proglumetacin (35), sermetacin (36), talmetacin (46), zidometacin (39)

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

-micin see -kacin

-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)

mitindomide (48)

-monam monobactam antibiotics
S.6.0.0

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

(c) aztreonam (48)

-mostim see -stim

-motine antiviral, quinoline derivatives (19th Report 1970)
S.5.3.0

(USAN: antiviral quinoline derivatives)

famotine (23), memotine (22)
-moxin (d)  monoamine oxidase inhibitors, hydrazine derivatives*

C.3.1.0

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

*not part of definition

(c)  carbenzide (II), etryptamine (12), fenoxypazine (12), iproclozide (13), iproniazid (I), isocarboxazid (II), mebanazine (15), nialamide (10), pargyline (13), phenelzine (10), pheniprazine (II), tranylcypromine (II)

TRS 581

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

L.2.0.0  (USAN: antineoplastic agents ([β-chlorethyl]amine derivatives))

\[
\text{R-N}^\text{Cl} \quad \text{Cl}
\]

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

(c)  chlorambucil (6), chlormethine (I), chlornaphazine (I), cyclophosphamide (10), defosfamide (12), ifosfamide (23), mafosfamide (51), melphalan (8), mitoclomine (18), mitotanamide (17), perfosfamide (66), sargosine (17), sartosfamide (36), trichloromethine (II), trofosfamide (23)

TRS 581

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

S.6.0.0  (USAN: antibiotics, Streptomyces strains)

(a)  amfomycin (12), antelmycin (15), apramycin (31), avilamycin (46), azalomycin (26), azithromycin (58), bambermycin (21), bekamycin (24), berythromycin (26), bicozamycin (38), biniramycin (23), bluensomycin (14), capreomycin (12), carbomycin (I), clarithromycin (59), clindamycin (21),
counamycin (15), daptomycin (58), dihydrostreptomycin (1), diproleandomycin (33), dirithromycin (53), efortomycin (53), endomycin (6), enramycin (23), envionmycin (31), erythromycin (4), estomycin (14 - deleted in List 28), flurithromycin (51), fosfomycin (25), fosmidomycin (46), ganefromycin (68), hachimycin (23), heliomyacin (25), hydroxymycin (8 - deleted in List 28), josamycin (23), kanamycin (10), kitasamycin (13), laiido- mycin (61), lexithromycin (65), lincomycin (13), lividomycin (32), maridomycin (32), midecamycin (30), mikamycin (17), mirincamycin (31), mocimycin (28), natacamycin (15), nebramycin (19), neomycin (1), neutramycin (15), oleandomycin (6), palidomycin (55), paromomycin (10), paulomycin (47), pirlimycin (47), primycin (38), pristinamycin (12), ranimycin (20), relomycin (15), ribostamycin (27), rifamycin (13), rokitamycin (53), roxithromycin (54), salinomycin (37), sedecamycin (55), spectinomycin (13), spiramycin (6), stallimycin (30), steffimycin (20), streptomycin (1), telithromycin (80), terdecamycin (65), tobramycin (28), tropeandomycin (24), trospectomycin (53), vancomycin (6), viomycin (4), virginiamycin (18)

**antibiotics, antineoplastics:**
ambomycin (13), antracycin (17), azotomyacin (13), bleomycin (23), cactinomycin (15), dactinomycin (18), duazomycin (13), lucimycin (13), mitomycin (26), nogalamycin (16), olivomycin (18), pelomiycin (15), peplomycin (44), plicamycin (50) (previously mithramycin (16)), porfiromycin (15), puromycin (15), rufocromomycin (12), sparsomycin (13), talismycin (41)

**antibiotics, antineoplastics, antibacterial:** cirolemycin (21)

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

(c)

**antibiotic, antibacterial:**
aspartokin (11), azidamfenicol (14), cetofenicol (14), chloramphenicol (1), cloramfenicol pantotenate comp. (14), cycloserine (6), novobiocin (6), ostreogrycin (6), rifamide (15), rifampicin (17), streptoliazid (13), streptovaricycin (6), thiampenenicol (10), tylosin (16)

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

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

see also -rubcin
nab  cannabinoids derivatives

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

(a)  cannabinol (23), dronabinol (51), menabitan (49), nabazenil (49), nabilone (49), nabitran (42), naboctate (45), nonabine (47), pirmabin (41), tinabinol (49)

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

---

nal-
A.4.1.0  narcotic antagonists/agonists related to normorphine
B.2.0.0  (USAN: narcotic agonists or antagonists related to normorphine)

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

(b)  nalidixic acid (13)
TR 581

-naritide  see -tide

-nermin  see -ermin

-nercept  tumour necrosis factor antagonist

etanercept (81), lenercept (72)
nico- or nic- or ni-
icotinic acid or nicotinoyl alcohol derivatives

\[
\begin{array}{c}
\text{nic} \text{-: } \text{nico} (43), \text{nico} \text{clonate} (29), \text{nico} \text{codine} (12), \text{nico} \text{ortonide} (40), \text{nico} \text{dicodine} (15), \\
\text{nico} \text{fibrate} (31), \text{nico} \text{furanose} (14), \text{nico} \text{furate} (28), \text{nico} \text{mol} (23), \text{nico} \text{morphine} (7), \text{nico} \text{pholine} \\
(1), \text{nico} \text{andil} (44), \text{nico} \text{thiazone} (10), \text{nico} \text{namide} (4), \text{nico} \text{nic acid} (4), \text{nico} \text{tredole} (72), \\
\text{nico} \text{xamat} (44), \text{nike} \text{hamide} (4)
\end{array}
\]

inositol nicotinate (16), xantinol nicotinate (16)

\[
\begin{array}{c}
\text{nic} \text{-: } \text{nic} \text{afenine} (40), \text{nic} \text{ainoprol} (46), \text{nic} \text{ametate} (15), \text{nic} \text{ardipine} (42), \text{nic} \text{nartine} (72), \\
\text{nic} \text{ergoline} (26), \text{nic} \text{eritol} (23), \text{nice} \text{verine} (15), \text{nictindole} (28), \text{nizofenone} (44)
\end{array}
\]

\[
\begin{array}{c}
\text{ni} \text{-: } \text{nialamide} (10), \text{niprazine} (24), \text{nifenazone} (15), \text{nimetacin} (33), \text{niprofa} \text{zone} (29), \text{nixyl} \text{acid} (17)
\end{array}
\]

-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: nimazon (21)
other: nifungin (24), nimidine (34), nisbutorol (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)

---

nitro- or nit- or ni- or -ni-

NO₂ - derivatives

nifur- all INNs of this series (see under nifur-)

\[
\begin{array}{c}
nipro-: \text{nitroclofene} (41), \text{nitrocycline} (14), \text{nitropan} (15), \text{nitrofural} (1), \text{nitrofurantoin} (11), \\
nitromifene (33), \text{nitroscanate} (33), \text{nitrosulfathiazole} (1), \text{nitroxinil} (19), \text{nitroxline} (15)
\end{array}
\]
nitr:- nitracrine (35), nitrafudam (40), nitramisole (33), nitraquazone (53), nitrazepam (16), nitrefazole (46), nitricholine perchlorate (6)

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

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

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

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

-nidazole (x) antiprotocoals, metronidazole derivatives

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

\[
\text{CH}_3
\]
\[
\text{O}^\text{N}
\]

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

TRS 581

-nidine see -onidine
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 (II), nifurpipone (20), nifurpirinol (22), nifurprazine (16), nifurquinazol (18), nifursemizone (16), nifursol (20), nifurthiazole (14), nifurtimox (21), nifurtinol (36), nifurvidine (17), nifurzide (37)

furalazine (13), furaltadone (17), furazolidone (13), furazolum chloride (15), furmethoxadone (8), levofuraltadone (17), nidroxyzone (6), nihydrazone (10), nitrofural (I), nitrofurantoin (II), thiofurdadene (II)

TR5 81

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

-nixin  
anti-inflammatory, anilinonicotinic acid derivatives

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

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

TR5 81

-ol (d)  
for alcohols and phenols (delete from General Principles in 14th Report)
-olol (x) \( \beta \)-adrenoceptor antagonists

(BAN: beta-adrenoceptor antagonists)

E.5.2.0

aromat. ring -0-CH\(_2\)-CHOH-CH\(_2\)-NH-R

(BAN: beta adrenoceptor blocking agents of the propranolol group)
(USAN: beta-blockers)

\[
\text{\begin{tikzpicture}
\node [circle, draw, text width=2cm, align=center] at (0,0) {
acebutolol (28), adaprolol (63), adimalol (50), afeurolo (40), alprenolol (19), ancariol (47), arnolol (56), artoinolol (48), atenolol (33), befunolol (39), betaxolol (40), bepropol (36), bisoprolol (48), bometolol (42), bopindolol (42), bombedolol (46), bucinolol (43), bucumolol (35), bufetolol (30), bunitrolol (28), bunolol (22), bupronolol (27), butecrolol (38), butefilol (40), carazolol (36), carpinolol (42), carchestol (35), celiprolol (35), cetamolol (47), cicloprolol (48), cinamolol (44), cloranolol (41), crinolol (41) (replaced by pacrinolol (44)), dexpromproanol (21), diacetolol (41), draquinolol (54), ecastolol (56), epamilol (52), ericoxol (50), esatenol (76), esmolol (50), exaporol (32), fallintol (53), flestolol (53), flusoxolol (50), idropranolol (31), imidolol (49) (replaced by adimalol (50)), indenolol (37), indoprolol (48), iproprolol (39), isoxaprolol (45), landiolol (75), levovetaxolol (61), levobunolol (42), levomoprol (58), mepiprolol (36), metipranolol (38), metoprolol (30), moprol (36), nadolol (34), nadoxolol (28), napetolol (39), nebivalol (56), nipradilol (50) (previously nipradolol (49)), oxprenolol (20), pacrinolol (44), pafienol (46), pammolol (36), paranolol (36), penbutolol (25), peniolol (36), pindolol (36), pirepolol (48), practolol (23), primidolol (42), procinolol (25), propranolol (15), ridazol (51), ronactolol (57), soquinolol (43), spirendolol (46), talinolol (28), tazolol (31), teoprocolol (43), tertatolol (48), tienoxalol (56), tilisolol (57), timolol (29), tiprenolol (23), tolamolol (29), toliprolol (28), trigeveolol (56), xibenolol (48), xipranolol (22)
};
\end{tikzpicture}
\]

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

TRS 581

-alol aromatic ring -CH-CH\(_2\)-NH-R related to -olols

OH

(USAN: combined alpha and beta blockers)

\[
\text{\begin{tikzpicture}
\node [circle, draw, text width=2cm, align=center] at (0,0) {
amosulol (50), bendacalol (59), brefonalol (56), bufuralol (31), dextoral (74), dilevalol (50), labelol (35), medroxalol (43), nifenalol (22), pronetalol (14), sotalol (18), sulfnalol (41), butidrine (16)
};
\end{tikzpicture}
\]

(c) butidrine (16)
-alone see pred

-one (d) ketones

(a) 448 (9.62%) INNs ending in -one in Lists 1-48 p.INN

-onide steroids for topical use, acetal derivatives
Q.3.0.0

(a) acrocinonide (27), amcinonide (33), budesonide (37), ciclesonide (62), cicortonide (28), ciprocimonide (38), desonide (24), dexamethasone (80), drocinonide (29), fluclofrone acetonide (22), fluocinolone acetonide (11), flumoxonide (38), fluocinonide (25), halcinonide (29), itrocinonide (62), nicocortinide (40), procinonide (38), rufleponide (72), tralnide (27), triamcinolone benetonide (36), triamcinolone furetonide (36), triamcinolone hexacetonide (15), triclonide (30)

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

TRS 58l

-onidine antihypertensives, clonidine derivatives
H.3.0.0

(a) apraclonidine (59)(control of intraocular pressure), bendonidine (42), brimonidine (66), clonidine (40), flutonidine (31), moxonidine (48), piclonidine (44), tolonidine (28)

related: alinidine (40)(analgesic)
-nidine
H.3.0.0

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

(b) muscle relaxant: tizanidine (43)
topical antiinfective: octenidine (43), piritenidine (57)
antibacterial: sulfaguanidine (4)
vet. coccidiostat: robenidine (25)

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

-onium see -ium

-opamine see -dopa

-orex
M.1.0.0

anorexics

(BAN: anorexic agents, phenethylamine derivatives)
(USAN: anorexants)

(a) acidorex (21), amfeporex (16), aminorex (14), benfluorex (25), clobenzorex (18), cloflox (16),
clominox (14), difmetorex (41), etolorex (20), fenisorex (29), fenproporex (17), flucetorex (30),
fludorex (19), fluminox (14), formetorex (14), furfenorex (16), indanorex (30), mefenorex (19),
morfeorex (26), oxifentorex (20), pentorex (16), picilorex (40), tiflorex (34)

(c) amfebutamone (31), amfecloral (12), amfepramone (13), amfetamine (55), amfetaminil (40),
benzfeftime (55), brolamfetamine (55), clorhentermine (11), clortermine (22), dexamfetamine
(55), dimetamfetamine (38), etilamfetamine (40), fenbutrazate (12), fenfluramine (14), hexaprodol
(12), levamfetamine (12), mephentermine (06), ortetamine (13), phenidmetrazine (ll), phenmetrazine
(6), phentermine (ll)

TR581

orphan
A.4.1.0
B.2.0.0

narcotic antagonists/agonists, morphinan derivates

(USAN: -orphan: morphinan derivatives that are narcotic antagonists or agonists)
(a) A.4.1.0: butorphanol (31), dextromethorphan (1), dextrorphan (1), dimemorfan (30), ketorfanol (49), levomethorphan (1), levophenacylmorphan (9), levorphanol (4), norlevorphanol (9), oxilorphan (31), phenomorphan (5), proxorphan (43), racemethorphan (1), racemorphan (1), xorphanol (48)

TRS 581

B.2.0.0: levallorphan (2)

-orph-:

orphine: acetorphine (17), allorphine (25), buprenorphine (29), cyprenorphine (17), desomorphine (5), diprenorphine (21), etorphine (17), homprenorphine (25), methylidesorphine (5), methylidihydro-morphine (5), 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)

-ox -alox antacids, aluminium derivatives: glucalox (13), sucralox (13)

-dox antibacterials, quinazoline dioxide derivatives:

\[
\begin{aligned}
\text{R} \\
\end{aligned}
\]

carbadox (19), ciadox (44), cinoquadox (40), drazadox (24), mequadox (19), olaquindox (31), temodox (27)

-pirox antimycotic pyridone derivatives:

\[
\begin{aligned}
\text{N} \\
\end{aligned}
\]

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

-xanox anti-allergics, tixanox group:

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

(c) xanoxic acid (33)

others: cefminox (53) (antibiotic), nifurtimox (21) (antiprotozoal), sulbenox (37) (animal growth regulator), acipimox (33) (antilipemic), etofenprox (57) (insecticide)

---

**-oxacin (x)** antibacterials, nalidixic acid derivatives

S.5.5.0 (BAN: antibacterial agents of the cinoxacin group) (USAN: antibacterial agents (nalidixic acid type))

![Structure of Cinoxacin](image)

(a) alatrofloxacin (75), amifloxacin (51), balofloxacin (71), binofloxacin (60), cadrofloxacin (81), cetefloxacin (68), cinoxacin (32), ciprofloxacin (50), clinafloxacin (67), danofloxacin (61), difloxacin (55), droxacin (36), ecenofloxacin (78), enoxacin (49), enrofloxacin (56), esaflloxacin (60), fandrofloxacin (78), fleroxacin (56), gatifloxacin (74), gemifloxacin (81), grepafloxacin (68), ibafloxacin (60), irloxacine (53), levofloxacin (64), lomefloxacin(58), marbofloxacin (65), meraflloxacin (69), miloxacin (40), moxifloxacin (78), nadiifloxacin (64), norfloxacin (46), ofloxacin (49), olamufloxacin (79), orbitofloxacin (68), pazufoxacin (71), pefloxacin (45), premaflloxacin (72), prulifloxacin (72), rosloxacin (36), rutloxacin (57), satafloxacin (62), sitafloxacin (75), sparflloxacin (63), temaflloxacin (58), tioxacin (34), tosufloxacin (60), trovafloxacin (73), vebufloxacin (69)

(c) flumequine (34), nalidixic acid (13), oxolinic acid (15), pipemidic acid (32), piromidic acid (27)

metioxate (34)

---

**-oxan(e)** benzodioxide derivatives:

E.5.1.0 (USAN: α-adrenoreceptor antagonists; benzodioxide derivatives)

![Structure of Benzodioxide](image)
(a) **α-adrenoreceptor antagonists:**
azaloxan (52) (antidepressant), fluparoxan (58) (antidepressant), idazoxan (49)(α₂), imiloxan (52)(α₂) (antidepressant), piperoxan (1) (sympatholytic), proroxan (39)

anti hypertensives:
flesinoxan (55), guabenzan (32), guanoxan (15)

tranquillizers:
butamoxane (12), ethomoxane (12), pentamoxane (12)

related:
efaroxan (59)(α₂)

(b) ambenoxan (21), amoproxan (22), nibroxane (35), razoxane (40)/dextrazoxane (62), sobuzoxane (62), tolboxane (12)

---

-oxanide  see -anide

-oxef  see cef-

-oxepine  see -pine

-oxetine  [antidepressants, fluoxetine derivatives]

C.3.0.0

-oxetine derivatives:
anoxetine (58), dapoxetine (65), duloxetine (68), femoxetine (36), fluoxetine (34), ifoxetine (54), litoxetine (64), nisoxetine (34), omiloxetine (76), paroxetine (38), reboxetine (54), seprooxetine (66), tomoxetine (49)

-oxifene  see -ifene

-oxicam  see -icam
-pafant  
I.2.1.0  
platelet-activating factor antagonists

(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)

-pamide  
N.1.2.0  
diuretics, sulfamoylbenzoic acid derivatives  
(could be sulfamoylbenzamide) (19th Report, 1970)

(USAN: diuretics (sulfamoylbenzoic acid derivatives)

(a)  
alisopamil (18), besulpamide (52), clopamidine (13), indapamid (29), tripamid (44), xipamid (22), zidapamid (50)(previously isodapamid (47))

(b)  
chlorpropamide (8) (hypoglycemic), isopropamide iodide (8) (anticholinergic)

(c)  
bumetanide (24), chlortalidone (12), clorexlolone (15), furosemide (14), sulclamide (15), tiamizide (16)

-pamil  
F.2.1.0  
coronary vasodilators, verapamil derivatives  
(USAN: coronary vasodilators (verapamil type))

(a)  
anipamil (49), dagapamil (52), devapamil (53), dexverapamil (65), emopamil (52), falipamil (48), gallopamil (38), levemopamil (62), nexopamil (67), nronipamil (51), tiapamil (43), verapamil (16)

related: bertosamil (64), bisaramil (60)
-parcin
S.6.0.0

(a) avoparcin (29), orientiparcin (72)

-parin
I.2.0.0

heparin derivatives including low molecular mass heparins and synthetic heparinoids

(a) ardeparin sodium (68), bemiparin sodium (75), certoparin sodium (70), dalteparin sodium (64), enoxaparin sodium (52), fondaparinux sodium (79), heparin sodium (54), minolteparin sodium (73), nadroparin calcium (65), parnaparin sodium (65), reviparin sodium (65), tinzaparin sodium (65)

-penem
S.6.0.0

analogues of penicillanic acid antibiotics modified in the five-membered ring

(USAN: analogues of penicillanic acid antibiotics modified in the five-membered ring)

(a) biapenem (69), faropenem (69), imipenem (50), lenapenem (73), meropenem (60), panipenem (64), ritipenem (67), sulopenem (68)

-perone
C.1.0.0

C.2.0.0

tranquillizers, neuroleptics, 4'-fluoro-4-piperidinobutyrophenone derivatives

(USAN: 4'-fluoro-4-piperidinobutyrophenone derivatives; antianxiety agents; neuroleptics)

(a) aceperone (14), amiperone (14), biriperone (51), carperone (24), cicarperone (28), cinuperone (53), cloroperone (38), declenperone (42), duoperone (54), fenaperone (28), flusipiperone (34), lenperone (27), lodipere(44), 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), spiiperone (17), timiperone (40)

closely related: azabuperone (34), azaperone (18), lodipere (44), zoloperone (39)
-peridol
antipsychotics, haloperidol derivatives:
benperidol (14), bromperidol (33), [clofluperol (18)], droperidol (14), [fluanisone (13)], haloperidol (10), trifluperidol (16)

-peridone
antipsychotics, risperidone derivatives:
abaperidone (80), belaperidone (78), cloperidone (17), iloperidone (69), ocaperidone (64), risperidone (57), tioperidone (37)

(C)
domperidone (36), etoperidone (36) (antiemeti

-pidem
C.1.0.0
hypnotics/sedatives, zolpidem derivatives
alpidem (53), necopidem (66), saripidem (67), zolpidem (53)

-pin(e)
see also Pharm S/Nom 970 (tricyclic compounds)

-dipine
see -dipine

(a)
-zepine
antidepressant/neuroleptic: C.3.2.0: dibenzepin (14), elanzepine (35), emprazepine (30), mezepine (22), nuvenzepine (59), prazepine (15), propizepine (19), tilozepine (40)
tricyclic antiulcer: J.O.O.O: darenzepine (52), pirenzepine (30), siltenzepine (63), telenzepine (50), zolenzepine (48)
tricyclic anticonvulsant: A.3.1.0: carbasepine (15), etazeipe (51), licarbazepine (81), oxcarbazepine (41)
hyperthermia: amezepine (42)

-apine
psychoactive: C.O.O.O: amoxapine (25), batelapine (64), clotiapine (16), clozapine (22), flumezapine (47), fluperlapine (46), loxapine (22), metiapine (22), mirtazapine (61), olanzapine (67), pentiapine (56), perlapine (23), quetiapine (74), rilapine (52), serazapine (63), tenilapine (52)

-cilpine
anteipileptic: 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)
-tepines  citatepine (54), clorotepine (29), damotepine (27), metitepine (27), tropatepine (28)
dosulepin (15)
(b)  atromepine (15), noscapine (7), prozpine (14)
(c)  clobenzepam (25), homopipramol (20), opipramol (15)

-pezole  see -pazole

-pirox  see -ox

-plact  platelet factor 4 analogues and derivatives
        iroplact (74)

-planin  antibacterials (Actinoplanes strains)
        actplanin (34), mideplanin (66), ramoplanin (57), teicoplanin (48)

-plase  see -teplase, -uplase under -ase

-platin  antineoplastic agents, platinum derivatives
        (USAN: antineoplastics (platinum derivatives))
        carboplatin (48), cisplatin (39), dextormetazatin (64), enflorplatin (64), iproplatin (51), lobaplatin (65),
        miboplatin (66), nedaplatin (67), ormaplatin (63), oxaliplatin (56), satraplatin (80), sebriplatin (68),
        spiroplatin (48), zeniplatin (63)

-plon  pyrazolo[3,4-d]pyrimidine derivatives, used as anxiolytics, sedatives, hypnotics
        ocinaplon (72), zaleplon (72)
-poet
I.0.0.0

erythropoietin type blood factors

(a)
epoetin alfa (62), epoetin beta (62), epoetin gamma (67), epoetin epsilon (72), epoetin omega (73)

-porf

benzoporphyrin derivatives

(a)
stannsoporfin (79), temoporfin (70), verteporfin (71)

-poride

Na+/H+ antiport inhibitor

amiloride (18), cariporide (74), eniporide (79)

-prami

substances of the imipramine group

C.3.2.0 (USAN: imipramine type compounds)

(a)
saturated dibenzazepine:
azipramine (36), carpipramine (16), cianopramine (47), ciclopramine (29), clozapramine (28),
clozapramine (17), depramine (31), desipramine (13), imipramine (8), ketimipramine (17),
lofepramine (24), lopramine (24)(replaced by lofepramine (34)), metapramine (34), mosapramine
(64), pumaprazole (76), quinupramine (32), tampramine (54), tienopramine (38), trimipramine (13),
imipraminoxide (36)

(c)
unsaturated dibenzazepine:
carbamazepine (15), homopipramol (20), opipramol (15)

TRS 581
-prazole  antiulcer, benzimidazole derivatives
J.0.0.0  (USAN: antiulcerative benzimidazole derivatives)

(a) cinprazole (34), disuprazole (56), esaprazole (45), esomeprazole (79), fuprazole (39), lansoprazole (60), leminoprazole (68), nepaprazole (74), nilprazole (37), omeprazole (46), pantoprazole (62), picoprazole (46), pumaoprazole (76), rabeprazole (69), saviprazole (62), tenatoprazole (80), timoprazole (35), ufiprazole (58)

-piprazole  psychotropics, phenylpiperazine derivatives
C.0.0.0

(a) aripiprazole (75), dapiprazole (45), elopiprazole (70), enpiprazole (24), lorpiprazole (60), mepiprazole (24), sonepiprazole (80) tolpioprazole (25)
(b) dapiprazole (see above)

pred  prednisone and prednisolone derivatives
Q.3.3.0  (USAN: pred-, -pred- or -pred)

(a) chloroprednisone (12), cloprednol (31), difluprednate (21), domoprednate (47), fluprednidene (19), fluprednisolone (13), halopredone (36), isoflupredone (36), isoprednidene (24), loteprdnol (64), mazipredone (32), meprednisone (15), methylprednisolone (8), methylprednisolone aceponate (52), methylprednisolone sulptide (56), oxisolpred (29), prednazate (16), prednazoline (22), prednicarbate (44), prednustine (31), prednisolamate (13), prednisolone (6), prednisolone steaglate (16), prednisone (6), prenylidene (13), tipredane (54)
-methasone or -metasone: alclometasone (41), amelometasone (74), beclometasone (17), betamethasone (11), betamethasone acibutate (26), cortometasone (29), desoximetasone (20), dexamethasone (8), dexamethasone acefurate (57), flumetasone (13), halometasone (41), icometasone enbutate (70), mometasone (56), parametasone (12)

-betasol: clobetasol (26), doxibetasol (26), ulobetasol (54)

(USAN: steroids (not prednisolone derivatives)):

-olone: clocortolone (16), descinolone (17), diflucortolone (18), flucorolone acetonide (22), fluocinolone acetonide (11), fluocortolone (15), fluorometholone (8), fluperonolone (13), ganaxolone (76), halocortolone (31), rimexolone (38), triamcinolone (8), triamcinolone benetonide (36), triamcinolone furetonide (36), triamcinolone hexacetinone (15)

clobetasone (26), cloticasone (52), deprodone (20), dichlorisone (10), diflorasone (30), flunisolide (11), fluticasone (52), meclorisone (40), timobesone (51)

-olone

steroids other than prednisolone derivatives

A.1.2.0 general anesthetics, pregnanes: alfadolone (27), alfaxalolone (27), minaxolone (39), renanolone (8)

H.2.0.0 anti-arrhythmic: amafolone (40), edifolone (56)

L.6.0.0 cytotatics - sex hormones: drostanolone (13), trestolone (25)

Q.2.3.0 androgens: androstanolone (4), drostanolone (13), mesabalone (29), mestanolone (10), mesterolone (15), metenolone (12), metribolone (17), norethandrolone (6), oxabolone cipionate (14), oxandrolone (12), oxymetholone (11), quinabolone (14), rostrolone (59), stenbolone (17), tibolone (22), trenbolone (24)

J.0.0.0 glycyrrhctic acid derivatives: carbenoxolone (15), clocixolone (33), cinoxolone (33), deloxolone (51), enoxolone (15), roxolonium metilsulfate (33)

Q.2.3.1 oxendolone (42)

various non-steroidal compounds

citiolone (23) (hepato-bil.troubles), clorexolone (15) (diuretic), fenozolone (14) (psychotonic), tioxolone (16) (keratolytic), vistatolon (25) (antiviral)

TRS 581
-prenaline see -terol

-pressin
Q.1.2.0

vasoconstrictors, vasopressin derivatives

\[
\text{H-}
\text{O\&-Tyr-Rhe-Qin-Aen-O\&-Pro-Arg-Gly-NH\&}
\]

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

TRS 581

-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), lintoipride (65), lirexapride (74), lorapride (44), mezacoprave (56), mosapride (66), pancopride (62), raclopride (52), remoxipride (49), renzapride (60), tiapride (28), tinisulpride (44), trazolopride (51), tropapride (48), zacopride (55)

K.0.0.0: cloxacepride (42)

U.1.1.0/C.0.0.0 : iolopride (\(^{123}\)I)(73)

(b) glimepride (66)

(c) C.0.0.0: levosulpiride (63), sulpiride (18)

J.1.0.0: metoclopramide (17)
-pril (x) angiotensin-converting enzyme inhibitors

H.3.O.O (BAN: inhibitors of angiotensin-converting enzyme)
(USAN: antihypertensive agents (captopril type))

(a) alacepril (50), benazepril (58), captopril (39), ceronapril (64), cilazapril (53), delapril (54), enalapril (46), fosinopril (56), idrapril (66), imidapril (60), indapril (50), libenapril (58), lisinopril (50), moexipril (60), moveltipril (58), orbutopril (57), pentopril (53), perindopril (53), pivopril (52), quinapril (54), ramipril (52), renaptapril (55), spirapril (56), temocapril (64), trandolapril (53), utipapril (63), zabicipril (58), zofenopril (51)

-prilat (x)

(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), utipaprilat (65), zabiciprilat (64), zofenoprilat (63)

-prim S.5.5.0 antibacterials, trimethoprim derivatives

(a) aditoprim (49), baquiloprim (56), brodimoprim (44), epiroprim (44), metioprim (42), ormetoprim (21), tetroxoprim (33), trimethoprim (11), vanepirim (48)

(c) diaveridine (18)

-profen (x) anti-inflammatory agents, ibuprofen derivatives

A.4.2.0 (USAN: anti-inflammatory or analgesic substances (ibuprofen type))
alminoprofen (40), araprofen (65), atliaprofen (74), bakeprofen (61), benoxaprofen (34), bermoprofen (57), bifeprofen (57), carprofen (35), cicloprofen (32), cliaprofen(32), dexibuprofen (61), dexindoprofen (49), dexketoprofen (70), esflurbiprofen (56), fenoprofen (26), flunoxaprofen (44), fluprofen (18), flurbiprofen (28), frabuprofen (51), furaprofen (42), furciprofen (44), hexaprofen (30), ibuprofen (16), indoprofen (32), isoprofen (40), ketoprofen (28), lobilprofen (53), lonaprofen (44), losmiprofen (61), loxoprofen(50), mabuprofen (64), mexoprofen (33), miroprofen (44), odalprofen (66), pelubiprofen (76), piketoprofen (40), pirprofen (32), pranoprofen (38), suprofen (31), tazeaprofen (50), tetriprofen (29), tilnoprofen arbamel (74), tioxaprofen (39), vedaprofen (72), ximoprofen (37), zaltoprofen (64), zoliprofen (55)

(b) aprofene (12) (antispasm. coron. vasodil.), diprofene (12) (antispasm. blood vessels)

(c) brofezil (31), protizinic acid (27), tiaprofenic acid (30)

TRS 581

---

**prostaglandins**

Q.0.0.0

(USAN: -prost- or -prost: prostaglandin derivatives)

(a) alfaprostol (45), alprostadil (39), ataprost (62), beraprost (59), butaprost (55), carboprost (36), cicaprost (54), cipro-stene (51), climprost (68), cloprostenol (33), delroprostene (42), dimoxaprost (52), dinoprost (26), dinoprostone (26), doxaprost(34), enisoprost (50), epoprostenol (44), epitaloprost (56), etiproston (46), fenprocyclidine (42), flunoprost (53), fluprostanol (33), frosiprost (55), gemeprost (42), iloprost (48)(originally ciloprost (46)), lanproston (72), latanoprost (67), limaprost (56), luprostol (44), meteneprost (45), misoprostol (47), naxaprostene (58), nileprost (45), nocloprost (51), oxoprostol (44), penprostene (37), pinilprost (71), piriprost (51), prostalene (34), remiprostil (65), rosaprostol (48), sulprostone (37), taprostene (58), tiaprost (41), tiluprost (51), tiprostanide (48), travoprost (80), unoprostone (66), vapirost (58), viprostol (53)

**prostaglandins, anti-ulcer**

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

TRS 581
quinoline derivatives (deleted from General Principles in List 28 prop. INN)

(a) antimalarial: amodiaquine (l), amopyroquine (8), chloroquine (4), hydroxychloroquine (8), mefloquine (33), moxipraquine (26), pamaquine (4), pentaquine (4), primaquine (l), quinocide (34), tafenoquine (80), tebuquine (49)

amebicidal: clamoxyquine (16), mebiqueine (29) (gastroin test. antiseptic), benzoxiquine (18) (antiseptic), cletoquine (20) (anti-inflammatory), cloxiquine (30) (antiseptic), debrisoquine (15) (hypotensive agent), esproquine (31) (cardiovascular agent), flumequine (34) (antibacterial), guanisoquine (15) (hypotensive agent), nifuroquine (36), oxarniquine (28) (schistosomacide)

(c) antirheumat., antigout (antimalarial): acequinoline (22), cinchopen (l), neocinchopen (l), oxycinchopen (6)
antibact.: actinoquinol (15), aminoquinuride (45), broquinaldol (17), broxaline (12), chlorquinaldol (l), cloquinol (16), dequalinium chloride (8), diiodohydroxyquinoline (l), laurolinium acetate (12), nitroxoline (15), quindecamine (15), tilbroquinol (45), tilquinol (45)
antifungal: hedaaquinum chloride (8)
antihelmin: pyrvinium chloride (6)
treatment of leishmaniasis etc.: aminoquinol (22), sitamaquine (80)
amebicidal: cloquinate (ll), dehydroemetine (15), quinamidine (40)
antiproteas: oxolinic acid (15)
coccidiostat: arnamol (21), buquinolate (16), ciproquinate (22), decoquinate (20), nequinate (22), proquinolate (17), quindoxin (26) (growth promoter for pigs and poultry)
growth promoter, bactericidal: cinoguquidox (40), olaquinone (31) (quinoloxaline derivative)
antiviral: famotine (23), memotine (22) antihypertensive: amiquinsin (17), leniquinsin (18), peraquinsin (29) (quinazolinone derivative), trethionium tosilate (14), quinuclium bromide (40)
heart failure: buquineran (40)
diuretic: quinacarbate (31)
vasodilator, treatment of cerebrovascular insuff.: viquidil (25)
curarizing agent: dimethyl tubocurarinium chloride (l), laudexium metilsulfate (4), tubocurarine chloride (l)
anti-cholinergic: toquizine (17), tiquizium bromide (47)
antispasm, muscle relaxant: dimoxyline (l), drotaverine (17), ethaverine (4), flucarbril (14), nicervine (15), octaverine (18), quinetalate (16)
bronchodilator: quinpranaline (17), tretoquinol (21), (bronchial asthma)
oxytocic: quipazine (17)
algesic: giafenine (15), metofoline (12)
local anaesthetic: cinchocaine (l), euprocin (22), quinisocaine (4)
**antitus**: quindamine (34), noscapine (7)
**diagnostic aid**: quinaldine blue (17)
**antihist**: pirquinozol (43), tritoqualine (14)
**antihyperlipidemic**: climiqualine (33) (isoquin. der.)
**anti-ulcer**: isotiquimide (49), tigunamide (35)

---

- **racetam**
  - **B.1.0.0**
    - amide type nootrope agents, piracetam derivatives
      - (BAN: substances of the piracetam group)
      - (USAN: nootropic substances (piracetam type))

- **C.0.0.0**
  - related: tenilsetam (51)

---

- **-relin (x)**
  - **Q.0.0.0**
    - prehormones or hormone-release stimulating peptides
      - (BAN: hypophyseal hormone release-stimulating peptides)

- **(a)**
  - **LHRH-release-stimulating peptides**: avorelin (74), buserelin (36), deslorelin (61), gonadorelin (32), goserelin (55), histrelin (53), leuprolin (47), lutrelin (51), nafarelin (50), triptorelin (56)
  - **growth hormone release-stimulating peptides**: dumorelin (59), examorelin (72), ipamorelin (78), pralmorelin (77), rismorelin (74), sermorelin (56), somatorelin (57), tabimorelin (80)
  - **-tirelin**
    - thyrotropin releasing hormone analogues:
      - (a)
        - azetirelin (60), fertirelin (42), montirelin (58), orotirelin (58), posatirelin (60), protirelin (31), taltirelin (75)
      - (a)
        - other: corticorelin (64)

---

TR 581
-relis  

hormone-release inhibiting peptides

(a) abarelis (78), cetrorelis (64), detirelax (56), ganirelax (65), iturelax (79), prazirelax (81), ramorelix (68), teverelis (71)

-renone  
aldosterone antagonists, spironolactone derivates

N.1.8.0  
(USAN: aldosterone antagonists (spironolactone type))

(a) canrenoic acid (20) and potassium canrenoate (20), canrenone (20), dicirenone (50), drospirenone (63), mespirenone (51), spironolactone (45)

(b) bromchlorenone (12)(antifungal), menatetrenone (28) (antihemor-rhagic), teprenone (50), ubidecarenone (48)(in congestive heart failure)

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

retin  
retinol derivatives

P.1.0.0  
(USAN: -retin-)

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

(b) noretynodrel (13), secretin (1), tretinimum tosilate (14)
-ribine  
L.0.0.0./  
S.5.3.0  

Ribofuranyl-derivatives of the "pyrazofurin" type

(a) azaribine (19), cladribine (68), loxoribine (64), mizoribine (46), triciribine (46)
(c) pirazofurin (31), ribavirin (31), riboprine (20), tiazofurine (48)
related: benaxibine (50)

rif-
S.6.4.0

Antibiotics, rifamycin derivatives

(a) rifabutin (52), rifalazil (78), rifametane (61), rifamexil (67), rifamide (15), rifampicin (17), rifamycin (13), rifapentine (43), rifaximin (49) (previously rifaxidine (48))
-rinone  cardiac stimulants, amrinone derivatives
H.1.0.0

(USAN: cardiotonic agents (amrinone type))

\[
\begin{align*}
\text{N} & \quad \text{N} \\
\text{Ar} & \quad \text{Ar}
\end{align*}
\]

(a) amrinone (38), bemarinone (57), medorinone (54), milrinone (50), nanterinone (60), olprinone (70), pelrinone (53), saterinone (56), toborinone (72), vesnarinone (57)

(b) gestrinone (39), indacrinone (51), taziprinone (48)

-rizine  see -azine

-rozen  aromatase inhibitors, imidazole-triazole derivatives
L.0.0.0

anastrozole (72), fadrozole (64), finrozole (81), letrozole (70), liarozole (64), vorozole (64)

-rubicin  antineoplastic antibiotics, daunorubicin derivatives
L.5.0.0

(USAN: antineoplastic antibiotics (daunorubicin type))

\[
\begin{align*}
\text{O} & \quad \text{O} \\
\text{OCH}_3 & \quad \text{OCH}_3 \\
\text{CH}_3 & \quad \text{CH}_3 \\
\text{N} & \quad \text{N}
\end{align*}
\]
aclarubicin (44), amrubicin (65), carubicin (40), daunorubicin (20), detorubicin (41), doxorubicin (25), epirubicin (48) (originally pidorubicin (47)), esorubicin (47), galarubicin (80), idarubicin (47), leurubicin (64), medorubicin (47), nemorubicin (71), pirarubicin (55), rodozubicin (54), valrubicin (79), zorubicin (39)

USAN

salicylic acid derivatives

(USAN: -sal-; -sal; or sal-)

\[
\text{sal-} \quad \text{analgesic anti-inflammatory} \quad A.4.2.0: \text{choline salicylate (15), imidazole salicylate (51),}
\]

salacetamide (1), salcolex (23), saletamide (20), salfluverine (29), salicylamide (1), salnacedin (73),

salprotoside (31), salsalate (28), salverine (15)

various: salantel (29) (anthelmintic), salinazid (8) (antituberc.)

-sal analgesic anti-inflammatory A.4.2.0: detanosal (23), diflunisal (33), fendosal (35), flufenisal

(22), fosfosal (37), guacetisal (40), guajmesal (50), parcetasal (65), pranosal (24), sulprosal (36),

tenosal (63)

antithrombotic: flufosal (42)

various: antituberc.: fenamisal (15), thiomersal (1) (disinfect.), triflusal (37) (antithrombotic)

-sal- analgesic anti-inflammatory A.4.2.0: acetaminosaloi (1), acetylsalicylic acid (IP), carbasalate
calcium (27), carsalam (13), etersalate (50), etosalamide (14), parsalmide (32), talosalate (43)

various: calcium benzamidosalicylate (10), homosalate (28) (sunscreen agent), lasalocid (30)
(antibiotic. vet.), mersalyl (4) (mercurial diuretic), osalmid (15) (choleretic), xenysalate (12)
(antiseborrheic)

salazo- phenylazosalicylic acid derivatives antibact.

S.5.1.0: salazodine (22), salazosulfamidine (11), salazosulfamid (1), salazosulfathiazole (1)

-salazine/-salazide: mesalazine (52), olsalazine (52), sulfasalazine (55), balsalazine (48), ipsalazine (48)

-salan brominated salicylamide derivatives disinfect. S.2.1.0: bensalan (18), dibromsalan (14),

flusalan (16), fursalan (18), metabromsalan (16), tiosalan (18), tribromosalan (14)
(b) non-salicylic acid derivatives: macrosalb (Tc) (33), trioxysalen (16) (pigmenting agent)
bronchodil.: levosalbutamol (78), salbutamol (20), salmefamol (23)

(c) analgesic, anti-inflammatory A.4.2.0: aloxiprin (13), anilamate (13), benorilate (21), brosotamide (29), cresotamide (28), dibusadol (24), dipyracetyl (6), ethenzamide (10), fenamifuril (16), hydroxytoluic acid (17), sodium gentisate (1), sodium glucaspidrate (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 deriv.), mercurial diuretics N.1.3.0: mercuderamide (1)
antihelmintics S.3.1.0: bromoxanide (31), cloxanide (19), niclosamide (13), rafoxanide (24)
closantel (36), flurantel (25), resorantel (23)
antifungals S.4.0.0: bucloxanide (16), exalamide (37), pentalamide (13)

See also Pharm S/Nom 557

<table>
<thead>
<tr>
<th>-sartan</th>
<th>angiotensin II receptor antagonists, antihypertensive (non-peptidic)</th>
</tr>
</thead>
<tbody>
<tr>
<td>H.3.0.0</td>
<td>abitesartan (73), candesartan (71), elisartan (72), embusartan (78), eprosartan (71), forasartan (74), irbesartan (71), losartan (66), milfasartan (76), olmesartan (80), pomisartan (73), ripisartan (73), saprisartan (72), tasosartan (72), telmisartan (70), valsartan (68), zolasartan (70)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>-semide</th>
<th>diuretics, furosemide derivatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>N.1.1.0</td>
<td>azosemide (35), furosemide (14), galosemide (33), torasemide (35)</td>
</tr>
</tbody>
</table>
**-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)

TRS 581

---

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

(BAN: serotonin receptor antagonists (5HT₃) used as antihyper-tensives)

(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), zosetron (64)

---

**som-**  growth hormone derivatives

Q.0.0.0

(a) somagropove (63), somalapor (62), somatosalm (69), somatrem (54), somatropin (56), somavubove (63), somenopor (62), somfasepor (66), sometribove (54), sometripor (55), somidobove (58)

(b) somatorelin (57), somantadine (51), somatostatin (46)

---

**-spirone**  anxiolytics, buspirone derivatives

C.1.0.0

(a) alnespirone (70), binspirone (65), buspirone (30), enilospirone (52), perospirone (71), revospirole (61), tandospirone (60), tiospirone (57), umespirone (60), zalospirone (64)

(c) gepirone (54), ipsapirone (54)
-stat- enzyme inhibitors
-stat or (BAN: -stat: enzyme inhibitors)
-stat-
-castat dopamine β-hydroxylase inhibitors nepicastat (78)
-estat elastase inhibitors sivelestat (78)
-listat pancreatic lipase inhibitors
(a) orlistat (66)
-mastat matrix metalloproteinase inhibitors
(a) batimastat (70), cipemastat (81), ilomastat (73), marimastat (75), solimastat (80)
-restat or aldose reductase inhibitors:
-restat- M.5.0.0
(a) alrestatin (37), epalrestat (55), fidarestat (78), imirestat (59), minirestat (76), ponalrestat (58), tolrestat (51), zenarestat (64), zoprestat (64)
-vastatin antihyperlipidaemic substances, HMG CoA reductase inhibitors:
H.4.0.0
(a) atorvastatin (71), bervastatin (72), cerivastatin (74), crilva-statin (63), dalvastatin (64), fluvastatin (62), glenavastatin (70), itavastatin (80),Lovastatin (57), mevastatin (44), pravastatin (57), simvas- tatin (58)
proteolytic enzyme inhibitors: aloxistatin (57), ulinastatin (56); camostat (46), nafamostat (53), patamostat (69), sepimostat (68)

various:
azalanstat (73) : lanosterol 14α-demethylase inhibitor
benurestat (31) : urease inhibitor
cilastatin (50) : renal dehydropeptidase inhibitor
nystatin (6) : antifungal antibiotic
pentostatin (38) : vidarabin activity potentiator; inhibitor of enzymatic deaminative metabolism
pepsstatin (28) : pepsin inhibitor
somatostatin (43) : growth hormone release inhibiting factor
tendamistat (44) : amylase inhibitor
vistatol (25) : antiviral antibiotic
zinostatin (40) : antineoplastic
zinostatin stimalamer (74)
-steine  
mucolytics, other than bromhexine derivatives  
(BAN: substances of the acetylcysteine group)

K.0.0.0  
acetylcysteine (13), bencisteine (30), carbocisteine (34), cartasteine (72), dacisteine (49), danosteine (53), erdosteine (56), fudosteine (77), guaisteine (57), isalsteine (63), letosteine (38), mecyisteine (13), midesteine (63), moguisteine (61), nesosteine (52), omonasteine (40), prenisteine (42), salmisteine (58), taurosteine (63), telmesteine (63)

-ster-  
androgens/anabolic steroids

Q.2.3.1
(a)  
-testosterone: cloxotestosterone (12), methyltestosterone (4), testosterone (4), testosterone ketolaurate (16)

-sterone: bolasterone (13), fluoxymesterone (6), oxymesterone (12), prasterone (23), tiomesterone (14)

-ster-: mesterolone (15), penmesterol (14), rosterolone (59)

(b)  
progestational steroids
-gersterone: dydrogesterone (12), haloprogesterone (11), hydroxyprogesterone (8), medroxyprogesterone (10), norgesterone (14), progesterone (4)

-sterone: dimethisterone (8), ethisterone (4), norethisterone (6), norvinisterone (10)

various:  
-sterone: aldosterone (6) (corticosteroid), calusterone (23) (antineoplastic)

-sterol: azacosterol (16) (hypcholesterolemic), dihydrotabch-sterol (1) (antihypoparathyroid), iodocholesterol (131)(39)

ster: nisterime (38) (contragestational agent), stercuronium, iodide (21) (neuromuscular blocking agent)

-(a)steride  
(USAN: testosterone reductase inhibitors) - antineoplastic:

bexlosteride (81), dutasteride (78), epristeride (69), finasteride (62), izonsteride (81), turosteride (67)
-stigmine (d) acetylcholinesterase inhibitors
E.1.2.0
(a) distigmine bromide (16), eptastigmine (62), ganstigmine (81), neostigmine bromide (4), pyridostigmine bromide (6), quilostigmine (76), rivastigmine (77), terestigmine (77)
(c) eseridine (53)

-stim
USAN
L.5.0.0

*colony stimulating factors*
ancestim (79) (cell growth factor), pegacaristim (80) (megakaryocyte growth factor)

-distim
combination of two different types of colony stimulating factors
(a) milodistim (74), leridistim (80)

-grastim
granulocyte colony stimulating factor (G-CSF) type substances
(a) filgrastim (64), lenograstim (64), nartograstim (66), pegnartogra-stim (80)

-gramostim
granulocyte macrophage colony stimulating factor (GM-CSF) types substances
(a) ecogramostim (62), molgramostim (64), regramostim (64), sargramostim (66)

-mostim
macrophage stimulating factors (M-CSF) type substances
(a) cilmostim (71), mimrostim (65)

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

-sulfa-
anti-infectives, sulfonamides

BAN, USAN
S.5.1.0

(BAN: sulpha-)
(USAN: antimicrobial sulfonamides)

(a) sulfabenz (17), sulfabenzamide (27), sulfacarbamide (12), sulfacecol (30), sulfacetamide (1), sulfachlorpyridazine (10), sulfachrysoide (1), sulfacetine (23), sulfaclemide (17), sulfaclorazole (25), sulfalclozone (25), sulfadiasulfone sod. (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), sulfamethizole (1), sulfamethoxazole (14), sulfamethoxypridazine (8), sulfametomidine (12), sulfametoxypazine (17), sulfametrole (31), sulfamonemethoxine (11), sulfamoxole (12), sulfanilamide (4), sulfanitran (15), sulfaperin (14), sulfaphenazole (10), sulfaproxyline (4), sulfapyrazole (18), sulfapyridine (1), sulfquinoxaline (46), sulfasalazine (55), sulfasomizole (10), sulfasuccinamide (41), sulfasymazine (12), sulfathiazole (4), sulfathiourea (1), sulfatolamide (10), sulfatroxazole (29), sulfatrozole (24)

(b) sulfarsphenamine (4)

c) benzylsulfamide (l), glucosulfamide (l), maleylsulfathiazole (l), mesulfamide (41), nitrosulfathiazole (1), phthalysulfamethizole (6), phthalysulfathiazole (1), salazodine (22), salazosulfa-dimidine (ll), salazosulfamide (1), salazosulfathiazole (1), stearylsubamide (l), succinylsulfathiazole (4), sulfitosomide (l), vanillylsulfamide (l), mafenide (1) (sulfonamide, but not sulfanilamide)

TRS 581

-sulfan
L.2.0.0 antineoplastic, alkylating agents, methanesulfonates

(a) busulfan (6), imposulfan (35), mannosulfan (24), piposulfan (15), ritrosulfan (33), treosulfan (26)

TR S 581

-tan
neurokinin (tachykinin) receptor antagonists

-pitant
neurokinin NK1 (substance P) receptor antagonist

(a) dapitant (74), lanepitant (77), nolpitantium besilate (75)

-dutant
neurokinin NK2, receptor antagonist

nepadutant (78), sareductant (75)

-netant
neurokinin NK3, receptor antagonist

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

-tecan antineoplastics, topoisomerase I inhibitors

(USAN: anti-neoplastics (camptothecine derivatives)

' exatecan (81), irinotecan (64), lurtotecan (74), topotecan (65)
-tep
L.2.0.0  
antineoplastics, thiotepa derivatives

(USAN: antineoplastic thiotepa derivatives)

(a)  azatepa (12), pumitepa (48), thiotepa (10)

-tepine  
see -pine

-teplase  
tissue type plasminogen activators, see -ase item VI

-terol (x)  
bronchodilators, phenethylamine derivatives

(previously
-prenaline
or
-terenol
unofficial)

(USAN: bronchodilators (phenethylamine derivatives))

(a)  amiterol (26), bamberterol (49), bitolterol (34), broxaterol (51), carbuterol (29), cimaterol (54), clenbuterol (28), colterol (36), difeterol (36), divabuterol (51), etanterol (53),

E.4.0.0  
fenoterol (26), formoterol (44), imoxiterol (52), mabuterol (46), naminterol (53), nardeterol (62), picumeterol (64), pirbuterol (30), procaterol (37), reproterol (30), rimiterol (26), salmeterol (55), sulfonterol (31), tobuterol (45), tulobuterol (40), zilpaterol (60), zinterol (38)

cardiac stimulants:
metaterol (43), prenalterol (38), xamoterol (48); clorprenaline (17), hexoprenaline (21), isoprenaline (1), levisoprenaline (10), metiprenaline (24), orciprenaline (14), quiniprenaline (17)
deterenol (25), soterenol (20)

(b)  azacosterol (16), dihydrotachysterol (1), penmesterol (14)

(c)  dioxethedrine (6), isoetarine (13), methoxyphenamine (1), pseudoephedrine (II), salbutamol (20), salmefamol (23), terbutaline (22)

TRS 581
-terone  antiandrogens (Q.2.3.0)

(a) abiraterone (74), benorterone (15), cyproterone (16), delanerone (42), inocoterone (54), osaterone (68), zanoterone (67)

(b) oxendolone (42)

(c) clometerone (15) (anti-estrogen)

-tiazem calcium channel blockers, diltiazem derivatives F.2.1.0

clentiazem (61), diltiazem (30), iprotiazem (56), nictiazem (54), siratiazem (68)

-tide peptides and glycopeptides (for special groups of peptides see -actide, -pressin, -relin, -tocin)

analgesic: ziconotide (78)

angiogenesis inhibitor: cilengitide (81)

antibiotic: nosiheptide (35)

antidiabetic: amlintide (76), seglitide (57), pramlintide (74)

antidiarrheal: lagatide (75)

antithrombotic: eptifibatide (78)

angiotensin convers. inhibitor: teprotide (36)

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), penetide (70), technetium (99m) Tc acpitide (78), teriparatide (50)
gastro-intestinal bleeding/antineoplastic: ilatretotide (66), lanreotide (64), octreotide (52), pentetreotide (66), vapreotide (62)

gut motility increasing: ociltide (52)

immunomodulator: almurtide (74), goralatide (72), murabutude (49), pentigetide (60), pimelautide (53), preztide copper acetate (67), romurtide (61), tabilautide (60), temurtide (60)

neuromodulator: ebratide (56)

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

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

sedative: emideltide (70)

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

(b) defibrotide (44)(nucleotide), diamfenetide (28)(fasciolicide), diclometide (19) (behaviour modifier), fludroxcotide (12), gisentide (58)

-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), lamididine (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 (6508, publication deferred, not yet in clinical trial), zaltidine (54)

(b) benzethidine (9), furethidine (9), guanethidine (11), hexetidine (6), hydroxypethidine (5), pethidine (4), propinetidine (12)

azacitidine (40) (antineoplastic)

(c) metiamide (30)
-tirelin  see -relin

-tiline  see -triptyline

-tizide  \[ \text{diuretics, chlorothiazide derivatives} \]

N.1.2.1  \begin{align*}
&\text{USAN: thiazide: diuretics (thiazide derivatives))} \\
&\text{(a) altizide (13), bemetizide (27), butizide (13), carmetizide (30), epitizide (13), hydrobentizide (14), mebutizide (15), paraflutizide (16), penflutizide (29), sumetizide (20)} \\
&\text{(c) bendroflumethiazide (11), benzthiazide (10), chlorothiazide (8), cyclopenthiazide (12), cyclothiazide (12), disulfamide (11), ethiazide (14), flumethiazide (10), hydrochlorothiazide (10), hydroflumethiazide (10), methyclothiazide (11), polythiazide (12), teclothiazide (12), trichlormethiazide (11)} \\
\end{align*}

TR 581

-tocin  \[ \text{oxytocin derivatives} \]

Q.1.2.0  \begin{align*}
&\text{USAN} \\
&\text{(a) argiprestocin (13), aspartocin (11), carbetocin (45), cargutocin (35), demoxytocin (22), nacartocin (49), oxytocin (13)} \\
\end{align*}

-tron (d)  \[ \text{antiepileptics, hydantoin derivatives} \]

A.3.1.1  \begin{align*}
&\text{USAN} \\
&\text{(a) albutoin (13), doxenitoin (31), ethotoin (6), fosphenytoin (62), mephenytoin (l), metetoin (12), phenytoin (4)} \\
&\text{ropitoin (40) (H.20.0.)} \\
&\text{(b) clodantoin (13) (antifungal), nitrofurantoin (ll) (antibact.)} \\
\end{align*}

TR 581
-trexate (x) folic acid analogues

L.4.0.0 (USAN: folic acid analogues used as antimetabolites)

(a) edatrexate (61), ketotrexate (50), methotrexate (10), trimetrexate (46)

-tricine 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)

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

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

(C) alniditan (72)

-triptilne antidepressants, dibenzo[a,d]cycloheptane or cycloheptene derivatives

C.3.2.0 (USAN: antidepressants (dibenzo[a,d]cycloheptane derivatives))

\[
\text{Dibenzo}\[a,d]\text{cycloheptane or cycloheptene derivatives}
\]
(a) amitriptyline (II), butriptyline (16), cotriptyline (26), intriptyline (26), nortriptyline (12), octriptyline (33), protriptyline (14), amitriptylineoxide (36), demexiptiline (43), levprotiline (56), noxiptiline (20), oxaprotile (45), setiptiline (56)

(b) oxetriptyline (21) (anticonvuls.)

(c) hepzidine (15)

TRS 581 see also Pharm S/Nom 970

-troban
I.2.1.0

**thromboxane A_2-receptor antagonists; antithrombotic agents**

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

---

**trop**

E.2.0.0

(USAN: trop-; or -trop-)

![Chemical Structure](attachment:image)

(a) **parasympatholytic/anticholinergic**: E.2.2.0:

tertiary amines:
atropine oxyde (12), benzatropine (4), decitropine (18), etbybenzatropine (12), eucatropine (1), tropatepine (28), tropicamide (11), tropigline (8), tropodifene (18)

closely related:
esbatropate (65)

quaternary ammonium salts:
atropine methonitrte (4), butropium bromide (30), ciclotropium bromide (50), cimetropium bromide (51), flutropium bromide (50), homatropine methylbromide (1), ipratropium bromide (28), octatropine methylbromide (10), oxtropium bromide (36), phenaactropinium chloride (8), ritoproprion bromide (33), sevitropium mesilate (56), sintropium bromide (47), sultrpiumonium (18), tematropium methylsulfate (64), tiotropium bromide (67), tipetropium bromide(42), tropenziline bromide(11), xenytopium bromide (15)

various:
clobenztropine (13)(antihistaminic), cyheptopine (15) (antiarhythmic), deptropine (12)(antiasthmatic), revatropate (74) (bronchodilator), tropabazate (41)(tranquillizer), troptaserin (55), tropapride (48)(antipsychotic), tropirine (20) (respiratory disorders), tropisetron (62)
(b) dextropropoxyphene (7), somatropin (56)

(c) parasympatholytic/anticholinergic, tertiary amines: poskine (8), prampine (11), tigloidin (14)

various: zepastine (26)(antihistaminic)

-uplase urokinase type plasminogen activator, see -ase item VII

-ur see -uridine

-uracil uracil derivatives used as thyroid antagonists and as antineoplastics

\[ \text{thyroid antagonists: iodothiouracil (I), methylthiouracil (I), propylthiouracil (I)} \]

L.4.0.0: eniluracil (77), fluorouracil (13)

-uridine uridine derivatives used as antiviral agents and as antineoplastics

S.5.3.0
L.4.0.0

L.4.0.0: broxuridine (30), doxifluoridine (44)

related: carmofur (45), clanfenur (58), tegafur (41)

S.5.3.0: fialuridine (68), floxuridine (16), idoxuridine (17), trifluridine (37)

-vudine (USAN: vudine: antineoplastics; antivirals (zidovudine type))

related: alovudine (68), brivudine (59), clevudine (78), edoxudine (52), epervudine (61), fozivudine tidoxil (73), lamivudine (66), netivudine (72), sorivudine (64), stavudine (65), zidovudine (56)
-vastatin  see -stat-

-verine (x)  spasmolytics with a papaevine-like action
F.1.0.0.  
(USAN: spasmolytics having a papaevine-like action)

(a) alverine (16), amifloverine (28), betamiverine (6), butaverine (13), camiverine (29), caroverine (28), clofverine (31), demeliverine (17), denaverine (25), dexeceoverine (53), dicycloverine (6), dhexyverine (4), dipiproverine (10), diprooverine (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), pareverine (38), penoverine (6), pramiverine (21), prenoverine (41), propiverine (45), rociverine (33), salflumerine (29), salverine (15), seccoverine (38), temiverine (76), zardaverine (59)

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), camyloph (12), cinnamedrine (19), cyclandelate (8), difemerine (17), disopromin (11), dimoxylin (1), fenipirone (17), feniramidol (12), metindizate (16), oxybutynin (13), papaveroline (29), pentapiperide (10), prozapine (14), triclaestaz (10), tropenzilone bromide (11)

TRS 581

vin- and vin- (x)  vinca alkaloids
(USAN: vin-; or -vin-)

(a) B.1.0.0 stim. of cerebrovasc. circul.: apovincamine (48), brovincamine (42), vinbume (45), vincamine (22), vincanol (37), vincantrol (51), vincinate (47), vindeburnol (49), vinmegallate (59), vintocetin (36), vintoline (35), vintoperol (6)

L.5.0.0 cytostatic: vinblastine (12), vindristine (13), vindestine (35), vinepidine (50), vinflumine (76), vinformide (38), vinsulfite (64), vinglycinate (16), vinleucinol (64), vingleur (13), vinorelbine (57), vinrosidine (13), vintriptol (51), vinzolidine (46)

(b) barbiturates: vinvarbital (1), vinylbital (12), others: vincof (28) (phosphate, antihelmintic), vinitamol (16) (vit. B. deriv., antineuralgic)
<table>
<thead>
<tr>
<th>Prefix</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>vir</td>
<td>antivirals (undefined group)</td>
</tr>
<tr>
<td>S.5.3.0</td>
<td>(USAN: -vir; -vir; or vir-)</td>
</tr>
</tbody>
</table>

(a) aciclovir (42), adefovir (72), alvircpect sudotox (69), amitivir (67), atevidine (69), buciclovir (52), cidofovir (72), delavirdine (71), denoticovir (70), desciclovir (55), efavirenz (78), enviradene (49), enrviroxine (44), famaciclovir (61), ganciclovir (56), loviride (70), maribavir (80), nevirapine (66), penciclovir (61), pirodavir (63), ribavirin (31), roaciclovir (62), talviraline (75), tivirapine (74), trovirdine (73), valaciclovir (69), valganciclovir (78), viroxime (49), zinviroxime (44)

-amivir neuraminidase inhibitors: oseltamivir (80), zanamivir (72)
-cavir carbocyclic nucleosides: abacavir (76), lobucavir (72)
-gosivir glucoside inhibitors: celgosivir (77)
-navir HIV protease inhibitors: amprnavir (79), droxinavir (74), indinavir (74), lasinavir (76), lopinavir (80), nelfinavir (76), palinavir (74), ritonavir (74), saquinavir (69), telinavir (73), tipranavir (80)

-virsen antisense oligonucleotides: afovirsen (70), fomivirsen (75), trecovirsen (77)
(b) virginiamycin (18), viridofulvin (16)
(c) avridine (50)

-vudine see -uridine

-xanox see -ox

-zafone alozafone derivatives

![Alozafone Derivative](attachment:image.png)
(a) alozafone (40), avizafone (64), ciprazafone (50), dinazafone (46), dulozafone (56), lorzafone (48), oxazafone (45), rilmazafone (55)

-zepine  see -pine

-zone  see -butazone
# INDEX PAGE
ALPHABETICAL LIST OF COMMON STEMS

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>abine (see -arabine)</td>
<td>-bactam</td>
</tr>
<tr>
<td>-ac</td>
<td>-bactam</td>
</tr>
<tr>
<td>-acetam (see racetam)</td>
<td>-bameate</td>
</tr>
<tr>
<td>-actide</td>
<td>barb</td>
</tr>
<tr>
<td>-adol, -adol-</td>
<td>-bendazole</td>
</tr>
<tr>
<td>-adom</td>
<td>bol</td>
</tr>
<tr>
<td>-afenone</td>
<td>-bradine</td>
</tr>
<tr>
<td>-aj-</td>
<td>-brazulide (see -brazulide)</td>
</tr>
<tr>
<td>-al</td>
<td>-brute (see -fibrate)</td>
</tr>
<tr>
<td>-aldrate</td>
<td>-brutazone (see -brutazone)</td>
</tr>
<tr>
<td>-alol (see -olol)</td>
<td>-brutone (see -brutone)</td>
</tr>
<tr>
<td>-alox (see -ox)</td>
<td>-brutone (see -brutone)</td>
</tr>
<tr>
<td>-amivir (see -vir)</td>
<td>-brutone (see -brutone)</td>
</tr>
<tr>
<td>andr</td>
<td>-brutone (see -brutone)</td>
</tr>
<tr>
<td>-anide</td>
<td>-brutone (see -brutone)</td>
</tr>
<tr>
<td>-anserin</td>
<td>-brute (see -fibrate)</td>
</tr>
<tr>
<td>-antel</td>
<td>-brutone (see -brutone)</td>
</tr>
<tr>
<td>-apine (see -pine)</td>
<td>-brutone (see -brutone)</td>
</tr>
<tr>
<td>-(ar)abine</td>
<td>-brutone (see -brutone)</td>
</tr>
<tr>
<td>-arit</td>
<td>-brutone (see -brutone)</td>
</tr>
<tr>
<td>-arol</td>
<td>-brutone (see -brutone)</td>
</tr>
<tr>
<td>-arone</td>
<td>-brutone (see -brutone)</td>
</tr>
<tr>
<td>-arte</td>
<td>-brute (see -fibrate)</td>
</tr>
<tr>
<td>-ase</td>
<td>-brutone (see -brutone)</td>
</tr>
<tr>
<td>-ast</td>
<td>-brutone (see -brutone)</td>
</tr>
<tr>
<td>-astine</td>
<td>-brutone (see -brutone)</td>
</tr>
<tr>
<td>-azam</td>
<td>-brutone (see -brutone)</td>
</tr>
<tr>
<td>-azenil</td>
<td>-brutone (see -brutone)</td>
</tr>
<tr>
<td>-azepam</td>
<td>-brutone (see -brutone)</td>
</tr>
<tr>
<td>-azepide</td>
<td>-brutone (see -brutone)</td>
</tr>
<tr>
<td>-azocine</td>
<td>-brutone (see -brutone)</td>
</tr>
<tr>
<td>-azolam (see -azepam)</td>
<td>-brutone (see -brutone)</td>
</tr>
<tr>
<td>-azoline</td>
<td>-brutone (see -brutone)</td>
</tr>
<tr>
<td>-azone (see butazone)</td>
<td>-brutone (see -brutone)</td>
</tr>
<tr>
<td>-azosin</td>
<td>-brutone (see -brutone)</td>
</tr>
<tr>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>-caine</td>
<td>-dan</td>
</tr>
<tr>
<td>-cain-</td>
<td>-dapsone</td>
</tr>
<tr>
<td>calc</td>
<td>-dermin (see -ermin)</td>
</tr>
<tr>
<td>-carbef (see cef-)</td>
<td>-dil</td>
</tr>
<tr>
<td>-carnil (see -zenil)</td>
<td>-dilol</td>
</tr>
<tr>
<td>-cavir (see vir-)</td>
<td>-distim (see -stimm)</td>
</tr>
<tr>
<td>cef-</td>
<td>-dosemide (see -dosemide)</td>
</tr>
<tr>
<td>cel-</td>
<td>-dosemide (see -dosemide)</td>
</tr>
<tr>
<td>cell-ate</td>
<td>-dosemide (see -dosemide)</td>
</tr>
<tr>
<td>cellose</td>
<td>-dosemide (see -dosemide)</td>
</tr>
<tr>
<td>cell- or cel-</td>
<td>-dosemide (see -dosemide)</td>
</tr>
<tr>
<td>-cic</td>
<td>-dosemide (see -dosemide)</td>
</tr>
<tr>
<td>-cidin</td>
<td>-dosemide (see -dosemide)</td>
</tr>
<tr>
<td>-cillide (see -cillin)</td>
<td>-dosemide (see -dosemide)</td>
</tr>
<tr>
<td>-cillin</td>
<td>-dosemide (see -dosemide)</td>
</tr>
<tr>
<td>-cillanam</td>
<td>-dosemide (see -dosemide)</td>
</tr>
<tr>
<td>-cisteine (see steine)</td>
<td>-dosemide (see -dosemide)</td>
</tr>
<tr>
<td>-citabine</td>
<td>-dosemide (see -dosemide)</td>
</tr>
<tr>
<td>-clone</td>
<td>-dosemide (see -dosemide)</td>
</tr>
<tr>
<td>-cog</td>
<td>-dosemide (see -dosemide)</td>
</tr>
<tr>
<td>-conazole</td>
<td>-dosemide (see -dosemide)</td>
</tr>
<tr>
<td>cort</td>
<td>-dosemide (see -dosemide)</td>
</tr>
<tr>
<td>-crinat</td>
<td>-dosemide (see -dosemide)</td>
</tr>
<tr>
<td>-crine</td>
<td>-dosemide (see -dosemide)</td>
</tr>
<tr>
<td>-cromil</td>
<td>-dosemide (see -dosemide)</td>
</tr>
<tr>
<td>-curium (see -ium)</td>
<td>-dosemide (see -dosemide)</td>
</tr>
<tr>
<td>-cycline</td>
<td>-dosemide (see -dosemide)</td>
</tr>
<tr>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>-dopa</td>
<td>-ectin</td>
</tr>
<tr>
<td>-dralazine</td>
<td>-entan</td>
</tr>
<tr>
<td>-drine</td>
<td>(-)eptacog (see -cog)</td>
</tr>
<tr>
<td>-dronic acid/dronate</td>
<td>erg</td>
</tr>
<tr>
<td>-dutant (see -tant)</td>
<td>-eridine</td>
</tr>
<tr>
<td>E</td>
<td>F</td>
</tr>
<tr>
<td>-ectin</td>
<td>-eridine</td>
</tr>
<tr>
<td>-entan</td>
<td>-ermin</td>
</tr>
<tr>
<td>(-)eptacog (see -cog)</td>
<td>-estr</td>
</tr>
<tr>
<td>erg</td>
<td>-ethidine (see -ethidine)</td>
</tr>
<tr>
<td>-eridine</td>
<td>-exakin (see -kin)</td>
</tr>
<tr>
<td>-ermin</td>
<td>-exine</td>
</tr>
<tr>
<td>estr</td>
<td>fenamatic acid</td>
</tr>
<tr>
<td>-etanide (see -anide)</td>
<td>-fenamate</td>
</tr>
<tr>
<td>-ethidine (see -ethidine)</td>
<td>-fenine</td>
</tr>
<tr>
<td>-eridine</td>
<td>-fenin</td>
</tr>
<tr>
<td>-exakin (see -kin)</td>
<td>-fentaril</td>
</tr>
<tr>
<td>-exine</td>
<td>-fermin (see -ermin)</td>
</tr>
<tr>
<td>-fermin (see -ermin)</td>
<td>-fiban</td>
</tr>
<tr>
<td>-fiban</td>
<td>-fibrat</td>
</tr>
<tr>
<td>-fibrat</td>
<td>-flamon</td>
</tr>
<tr>
<td>-fluron</td>
<td>-formin</td>
</tr>
<tr>
<td>-formin</td>
<td>-fos</td>
</tr>
<tr>
<td>fos</td>
<td>-fradil</td>
</tr>
<tr>
<td>-fradil</td>
<td>-frine (see -drine)</td>
</tr>
<tr>
<td>-frine (see -drine)</td>
<td>-fungin</td>
</tr>
<tr>
<td>-fungin</td>
<td>-fylline</td>
</tr>
<tr>
<td>-fylline</td>
<td>-gab</td>
</tr>
<tr>
<td>G</td>
<td>gab</td>
</tr>
<tr>
<td>-gadosta</td>
<td>-gatoran</td>
</tr>
<tr>
<td>-gadosta</td>
<td>-gest</td>
</tr>
<tr>
<td>-gatoran</td>
<td>-gestr (see estr)</td>
</tr>
<tr>
<td>-gatoran</td>
<td>-giline</td>
</tr>
</tbody>
</table>
-gillin
-gli
-golide
-grastim (see -stim)
-grel- and -grel
-guan-
-I
-ibine (see -ribine)
-icam
-ifene
-igetide (see -tide)
-ilide
-imex
-imod
-imus
-in
-io-
-iod- or -io-
-irudin
-isomide
-ium
-izine (-yzine)
-K
-kacin
-kalant
-kalim
-kef-
-kin
-kinra (see -kin)
-kiren
-L
-leukin (see -kin)
-lubant
-lukast (see -ast)
-M
-mab
-mantadine
-mantine
-meline
-mer
-mer
-mesine
-mestane
-met(h)asone (see pred)
-metacin
-micin (see -kacin)
-mifene (see -ifene)
-mito-
-monam
-mostim (see -stim)
-motine
-moxin
-mustine
-mycin
-N
-nab
-nakin (see -kin)
-nakinra (see -kin)
-nal-
-naratide
-nermin (see -ermin)
-nercept
-ni-
-nicate
-nidazole
-nidine(see -onidine)
nifur-
-nil (see -azenil)
-nixin
(-)nonacog (see -cog)
-O
-octakin (see -kin)
(-)octocog (see -cog)
-ol
-olol
-olone (see pred)
-one
-onide
-onidine
-onium (see -ium)
-opamine (see -dopa)
-orex
-orphan/orfan
-orph-
-ox
-oxacin
-oxan(e)
-oxamide
-oxef (see cef-)
-oxepine (see -pine)
-oxetine
-oxicam (see -icam)
-oxifene (see -ifene)
-P
-pafant
-pamide
-pamil
-parcin
-parin
-pendyl (see -dil)
-penem
-perfl(u)- (see -flurane)
-perone
-peridol
-peridone (see -perone)
-pidem
-pin(e)
-piprazole (see -prazole)
-pirox (see -ox)
-pitant (see -tant)
-plact
-planin
-plase (see -ase)
-platin
-plermin (see -ermin)
-plestim (see -stim or -kin)
-plon
-poetin
-porfir
-poride
-pramine
-prazole
-pred
-prenaline (see -terol)
-pressin
-pride
-pril-/prilat
-prim
-profen
-prost
-prostil
-Q
-quin(e)
-quinil (see -azenil)
-R
-ractam
-relin
-relix
-renone
-retin
-ribine
rifam
-riprin
-riprune (see -riprin)
-riprotec
-riprizone (see -riprotec)
-riprizole
-riprubicin
S
-sal
-sentral
-semide
-sermin (see -sermin)
-serpine
-sertronic (see -sertronic)
-som-
-spiromite
-stat/-stat-
-stane
-steine
-stery-
-stigmexine
-stim
-sulfam-
-sulfan
T
-tant
-tecan
-tepa
-tepyrene (see -tepyrene)
-teplase (see -teplase)
-teprine (see -teprine)
-terol
-terone
-tiazem
-tide
-tidine
-tilde
-tilde (see -tilde)
-terelin (see -terelin)
-tirzide
-tocin
-toin
-trexate
-tricin
-triptan
-triptylene
-troprast (see -troprast)
trop
ANNEX 1

INNs for monoclonal antibodies

The following stem system was adopted by the members of the Expert Advisory Panel on the International Pharmacopoeia and Pharmaceutical Preparations designated to deal with the selection of nonproprietary names for naming monoclonal antibodies.

I. General stem: -mab

II. Sub-stems for source of product:

<table>
<thead>
<tr>
<th>u</th>
<th>human</th>
</tr>
</thead>
<tbody>
<tr>
<td>o</td>
<td>mouse</td>
</tr>
<tr>
<td>a</td>
<td>rat</td>
</tr>
<tr>
<td>e</td>
<td>hamster</td>
</tr>
<tr>
<td>i</td>
<td>primate</td>
</tr>
<tr>
<td>xi</td>
<td>chimeric</td>
</tr>
<tr>
<td>zu</td>
<td>humanized</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>-ba(c)-</th>
<th>bacterial</th>
</tr>
</thead>
<tbody>
<tr>
<td>-ci(r)-</td>
<td>cardiovascular</td>
</tr>
<tr>
<td>-le(s)-</td>
<td>infectious lesions</td>
</tr>
<tr>
<td>-li(m)-</td>
<td>immunomodulator</td>
</tr>
<tr>
<td>-vi(r)-</td>
<td>viral</td>
</tr>
</tbody>
</table>

**tumours:**

<table>
<thead>
<tr>
<th>-co(l)-</th>
<th>colon</th>
</tr>
</thead>
<tbody>
<tr>
<td>-go(t)-</td>
<td>testis</td>
</tr>
<tr>
<td>-go(v)-</td>
<td>ovary</td>
</tr>
<tr>
<td>-ma(r)-</td>
<td>mammary</td>
</tr>
<tr>
<td>-me(l)-</td>
<td>melanoma</td>
</tr>
<tr>
<td>-pr(o)</td>
<td>prostate</td>
</tr>
<tr>
<td>-tu(m)-</td>
<td>miscellaneous</td>
</tr>
</tbody>
</table>

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. For monoclonals conjugated to a toxin, the -tox stem must be included as part of the name selected for the toxin.

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.
ANNEX 2

PROCEDURE FOR THE SELECTION OF RECOMMENDED INTERNATIONAL NONPROPRIETARY NAMES FOR PHARMACEUTICAL SUBSTANCES*

The following procedure shall be followed by the World Health Organization in the selection of recommended International Nonproprietary Names for pharmaceutical substances, in accordance with the World Health Assembly resolution WHA3.11:

1. Proposals for recommended international nonproprietary names shall be submitted to the World Health Organization on the form provided therefor.

2. Such proposals shall be submitted by the Director-General of the World Health Organization to the members of the Expert Advisory Panel on the International Pharmacopoeia and Pharmaceutical Preparations designated for this purpose, for consideration in accordance with the “General principles for guidance in devising International Nonproprietary Names”, appended to this procedure. The name used by the person discovering or first developing and marketing a pharmaceutical substance shall be accepted, unless there are compelling reasons to the contrary.

3. Subsequent to the examination provided for in article 2, the Director-General of the World Health Organization shall give notice that a proposed international nonproprietary name is being considered.

   A. Such notice shall be given by publication in the Chronicle of the World Health Organization* and by letter to Member States and to national pharmacopoeia commissions or other bodies designated by Member States.

      (i) Notice may also be sent to specific persons known to be concerned with a name under consideration.

   B. Such notice shall:

      (i) set forth the name under consideration;

      (ii) identify the person who submitted a proposal for naming the substance, if so requested by such person;

      (iii) identify the substance for which a name is being considered;

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

      (v) state the authority under which the World Health Organization is acting and refer to these rules of procedure.
C. In forwarding the notice, the Director-General of the World Health Organization shall request that Member States take such steps as are necessary to prevent the acquisition of proprietary rights in the proposed name during the period it is under consideration by the World Health Organization.

4. Comments on the proposed name may be forwarded by any person to the World Health Organization within four months of the date of publication, under article 3, of the name in the Chronicle of the World Health Organization.

5. A formal objection to a proposed name may be filed by any interested person within four months of the date of publication, under article 3, of the name in the Chronicle of the World Health Organization.

Such objection shall:

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

6. Where there is a formal objection under article 5, the World Health Organization may either reconsider the proposed name or use its good offices to attempt to obtain withdrawal of the objection. Without prejudice to the consideration by the World Health Organization of a substitute name or names, a name shall not be selected by the World Health Organization as a recommended international nonproprietary name while there exists a formal objection thereto filed under article 5 which has not been withdrawn.

7. Where no objection has been filed under article 5, or all objections previously filed have been withdrawn, the Director-General of the World Health Organization shall give notice in accordance with subsection A of article 3 that the name has been selected by the World Health Organization as a recommended international nonproprietary name.

8. In forwarding a recommended international nonproprietary name to Member States under article 7, the Director-General of the World Health Organization shall:

A. request that it be recognized as the nonproprietary name for the substance; and

B. request that Member States take such steps as are necessary to prevent the acquisition of proprietary rights in the name, including prohibiting registration of the name as a trade-mark or trade-name.


1 The title of this publication was changed to WHO Chronicle in January 1959. From 1987 onwards lists of INNs are published in WHO Drug Information.
ANNEX 3

GENERAL PRINCIPLES FOR GUIDANCE IN DEVISING INTERNATIONAL NONPROPRIETARY NAMES FOR PHARMACEUTICAL SUBSTANCES*

1. International Nonproprietary Names (INN) should be distinctive in sound and spelling. They should not be inconveniently long and should not be liable to confusion with names in common use.

2. The INN for a substance belonging to a group of pharmacologically related substances should, where appropriate, show this relationship. Names that are likely to convey to a patient an anatomical, physiological, pathological or therapeutic suggestion should be avoided.

*These primary principles are to be implemented by using the following secondary principles:

3. In devising the INN of the first substance in a new pharmacological group, consideration should be given to the possibility of devising suitable INN for related substances, belonging to the new group.

4. In devising INN for acids, one-word names are preferred; their salts should be named without modifying the acid name, e.g. "oxacillin" and "oxacillin sodium", "ibufenac" and "ibufenac sodium".

5. INN for substances which are used as salts should in general apply to the active base or the active acid. Names for different salts or esters of the same active substance should differ only in respect of the name of the inactive acid or the inactive base.

For quaternary ammonium substances, the cation and anion should be named appropriately as separate components of a quaternary substance and not in the amine-salt style.

6. The use of an isolated letter or number should be avoided; hyphenated construction is also undesirable.

7. To facilitate the translation and pronunciation of INN, "f" should be used instead of "ph", "t" instead of "th", "e" instead of "ae" or "oe", and "i" instead of "y"; the use of the letters "h" and "k" should be avoided.

8. Provided that the names suggested are in accordance with these principles, names proposed by the person discovering or first developing and marketing a pharmaceutical preparation, or names already officially in use in any country, should receive preferential consideration.

9. Group relationship in INN (see Guiding Principle 2) should if possible be shown by using a common stem. The following list contains examples of stems for groups of substances, particularly for new groups. There are many other stems in active use.1 Where a stem is shown without any hyphens it may be used anywhere in the name.
<table>
<thead>
<tr>
<th>Latin</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>-acum</td>
<td>-ac</td>
</tr>
<tr>
<td>-actidum</td>
<td>-actide</td>
</tr>
<tr>
<td>-adolum</td>
<td>-adol</td>
</tr>
<tr>
<td>-adol-</td>
<td>-adol-</td>
</tr>
<tr>
<td>-astum</td>
<td>-ast</td>
</tr>
<tr>
<td>-astinum</td>
<td>-astine</td>
</tr>
<tr>
<td>-azepamum</td>
<td>-azepam</td>
</tr>
<tr>
<td>-bactatum</td>
<td>-bactam</td>
</tr>
<tr>
<td>bol</td>
<td>bol</td>
</tr>
<tr>
<td>-buzonum</td>
<td>-buzone</td>
</tr>
<tr>
<td>-cain-</td>
<td>-cain-</td>
</tr>
<tr>
<td>-cainum</td>
<td>-caine</td>
</tr>
<tr>
<td>-cef-</td>
<td>-cef-</td>
</tr>
<tr>
<td>-cilinum</td>
<td>-cilin</td>
</tr>
<tr>
<td>-conazolum</td>
<td>-conazole</td>
</tr>
<tr>
<td>cort</td>
<td>cort</td>
</tr>
<tr>
<td>-dipinum</td>
<td>-dipine</td>
</tr>
<tr>
<td>-fibrate</td>
<td>-fibrate</td>
</tr>
<tr>
<td>gest</td>
<td>gest</td>
</tr>
<tr>
<td>gli-</td>
<td>gli-</td>
</tr>
<tr>
<td>io-</td>
<td>io-</td>
</tr>
<tr>
<td>-ium</td>
<td>-ium</td>
</tr>
<tr>
<td>-metacinum</td>
<td>-metacin</td>
</tr>
<tr>
<td>-mycinum</td>
<td>-mycin</td>
</tr>
<tr>
<td>-nidazolum</td>
<td>-nidazole</td>
</tr>
<tr>
<td>-ololum</td>
<td>-olol</td>
</tr>
<tr>
<td>-oxacinum</td>
<td>-oxacin</td>
</tr>
<tr>
<td>-pridum</td>
<td>-pride</td>
</tr>
<tr>
<td>-pril(at)um</td>
<td>pril(at)</td>
</tr>
<tr>
<td>-profenum</td>
<td>-profen</td>
</tr>
<tr>
<td>prost</td>
<td>prost</td>
</tr>
<tr>
<td>-relinum</td>
<td>-relin</td>
</tr>
<tr>
<td>-terolum</td>
<td>-terol</td>
</tr>
<tr>
<td>-tideinum</td>
<td>-tideine</td>
</tr>
<tr>
<td>-trexatum</td>
<td>-trexate</td>
</tr>
<tr>
<td>-verinum</td>
<td>-verine</td>
</tr>
<tr>
<td>vin-</td>
<td>vin-</td>
</tr>
<tr>
<td>-vin-</td>
<td>-vin-</td>
</tr>
</tbody>
</table>

anti-inflammatory agents of the ibufenac group
synthetic polypeptides with a corticotropin-like action
analgetics
antiasthmatic, antiallergic substances not acting primarily as antihistaminics
antihistaminics
diazepam derivatives
β-lactamase inhibitors
steroids, anabolic
anti-inflammatory analgesics, phenylbutazone derivatives
antifibrillant substances with local anaesthetic activity
local anaesthetics
antibiotics, cefalosporanic acid derivatives
antibiotics, derivatives of 6-aminopenicillanic acid
systemic antifungal agents, miconazole derivatives
corticosteroids, except prednisolone derivatives
(calcium channel blockers, nifedipine derivatives
clofibrate derivatives
steroids, progestogens
sulfonamide hypoglycaemics
iodine-containing contrast media
quaternary ammonium compounds
anti-inflammatory substances, indometacin derivatives
antibiotics, produced by Streptomyces strains
antiprotozoal substances, metronidazole derivatives
β-adrenergoreceptor antagonists
antibacterial agents, nalidixic acid derivatives
sulpiride derivatives
angiotensin-converting enzyme inhibitors
anti-inflammatory substances, ibuprofen derivatives
prostaglandins
hypophysal hormone release-stimulating peptides
bronchodilators, phenylethylamine derivatives
histamine H₂-receptor antagonists
folic acid antagonists
spasmolytics with a papaverine-like action
vinca alkaloids

* 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.
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, labelling, 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 7000 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, DCF Dénomination Commune Française, DCIt Denominazione Commune Italiana, JAN Japanese Accepted Name, USAN United States Approved 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.