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## International Non-Proprietary Names for Pharmaceutical Preparations

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In accordance with paragraph 3 of the Procedure for the Selection of Recommended International Non-Proprietary Names for Pharmaceutical Preparations,<sup>1</sup> notice is hereby given that the following names are under consideration by the World Health Organization as Proposed International Non-Proprietary Names.

Comments on, or formal objections to, the

proposed names may be forwarded by any person to the Pharmaceutical unit of the World Health Organization within four months of the date of their publication in the *WHO Chronicle*.

The inclusion of a name in the lists of proposed international non-proprietary names does not imply any recommendation for the use of the substance in medicine or pharmacy.

### PROPOSED INTERNATIONAL NON-PROPRIETARY NAMES (*Prop. I.N.N.*): LIST 13<sup>2</sup>

<i>Proposed International Non-Proprietary Name (Latin, English)</i>	<i>Chemical Name or Description</i>
aceclidinum aceclidine	3-quinuclidinol acetate
acetaminum acetamine	<i>N</i> -[(4-amino-2-methyl-5-pyrimidinyl)methyl]- <i>N</i> -(4-hydroxy-2-mercapto-1-methyl-1-butenyl)formamide <i>O,S</i> -diacetate
acetryptinum acetryptine	3-(2-aminoethyl)indol-5-yl methyl ketone
acetylcysteinum acetylcysteine	<i>N</i> -acetylcysteine
acidum clofenamicum clofenamic acid	<i>N</i> -(2,3-dichlorophenyl)anthranilic acid
acidum flufenamicum flufenamic acid	<i>N</i> -( $\alpha,\alpha,\alpha$ -trifluoro- <i>m</i> -tolyl)anthranilic acid
acidum fusidicum fusidic acid	an antibiotic substance obtained from cultures of <i>Fusidium coccineum</i> , or the same substance produced by any other means
acidum fyticum fytic acid	phytic acid
acidum iotalamicum iotalamic acid	5-acetamido-2,4,6-triiodo- <i>N</i> -methylisophthalamic acid
acidum kainicum kainic acid	2-carboxy-4-isopropenyl-3-pyrrolidineacetic acid

<sup>1</sup> See Annex, p. 398.

<sup>2</sup> Other lists of proposed international non-proprietary names can be found in *Chron. Wld Hlth Org.*, 1953, 7, 299; 1954, 8, 216, 313; 1956, 10, 28, 1957, 11, 231; 1958, 12, 102; *WHO Chronicle*, 1959, 13, 105, 152; 1960, 14, 168, 244; 1961, 15, 314; 1962, 16, 385. Lists of recommended international non-proprietary names were published in *Chron. Wld Hlth Org.*, 1955, 9, 185; *WHO Chronicle*, 1959, 13, 106, 463; 1962, 16, 101.

acidum mefenamicum mefenamic acid	<i>N</i> -2,3-xylylanthranilic acid
acidum nalidixicum nalidixic acid	1-ethyl-1,4-dihydro-7-methyl-4-oxo-1,8-naphthyridine-3-carboxylic acid
acrisorcinum acrisorcin	9-aminoacridine compound with 4-hexylresorcinol
alazani triclofenas alazanine triclofenate	3-ethyl-2-[3-(3-ethyl-2-benzothiazolinylidene)propenyl] benzothiazolium 2,4,5-trichlorophenoxide compound with 2,4,5-trichlorophenol
albutoinum albutoin	3-allyl-5-isobutyl-2-thiohydantoin
aloxiprinum aloxiprin	basic aluminium acetylsalicylate complex
altizidum <u>altizide</u>	3-[(allylthio)methyl]-6-chloro-3,4-dihydro-2 <i>H</i> -1,2,4-benzothiadiazine-7-sulfonamide 1,1-dioxide
ambomycinum ambomycin	an antibiotic substance obtained from cultures of <i>Streptomyces ambofaciens</i> , or the same substance produced by any other means
amfepramonum amfepramone	2-(diethylamino)propiofenone
ampicillinum ampicillin	(—)-6-(2-amino-2-phenylacetamido)-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid
ampyriminum ampyrimine	2,4,7-triamino-5-phenylpyrimido[4.5- <i>d</i> ]pyrimidine
anazolenum natricum <u>sodium anazole</u>	4-[(4-anilino-5-sulfo-1-naphthyl)azo]-5-hydroxy-2,7-naphthalenedisulfonic acid, trisodium salt
anilamatum anilamate	methylcarbamate of salicylanilide
argipressinum argipressin	8-argininevasopressin
argiprestocinum argiprestocin	8-arginineoxytocin
azotomycinum azotomycin	an antibiotic substance obtained from cultures of <i>Streptomyces ambofaciens</i> , or the same substance produced by any other means
batiololum <u>batiol</u>	3-(octadecyloxy)-1,2-propanediol
benfotiaminum benfotiamine	<i>N</i> -[(4-amino-2-methyl-5-pyrimidinyl)methyl]- <i>N</i> -(4-hydroxy-2-mercapto-1-methyl-1-butenyl)formamide <i>S</i> -benzoate <i>O</i> -phosphate
bentiaminum bentiamine	<i>N</i> -[(4-amino-2-methyl-5-pyrimidinyl)methyl]- <i>N</i> -(4-hydroxy-2-mercapto-1-methyl-1-butenyl)formamide <i>O</i> , <i>S</i> -dibenzoate
benzaronium <u>benzarone</u>	2-ethyl-3-benzofuranyl <i>p</i> -hydroxyphenyl ketone
benzbromaronum benzbromarone	3,5-dibromo-4-hydroxyphenyl 2-ethyl-3-benzofuranyl ketone
benzilonii bromidum benzilonium bromide	1,1-diethyl-3-hydroxypyrrolidinium bromide benzilate

*Proposed International  
Non-Proprietary Name  
(Latin, English)*

*Chemical Name or Description*

benzodepum benzodepa	benzyl [bis(1-aziridinyl)phosphinyl]carbamate
benzquinamidum benzquinamide	<i>N,N</i> -diethyl-1,3,4,6,7,11b-hexahydro-2-hydroxy-9,10-dimethoxy-2 <i>H</i> -benzo[ <i>a</i> ]quinolizine-3-carboxamide acetate
betahistinum betahistine	2-[(2-methylamino)ethyl]pyridine
betanidinum betanidine	1-benzyl-2,3-dimethylguanidine
betoxycainum betoxycaine	2-[2-(diethylamino)ethoxy]ethyl 3-amino-4-butoxybenzoate
bisacodylum bisacodyl	4,4'-(2-pyridylmethylene)diphenol diacetate
bisbentiaminum bisbentiamine	<i>N,N'</i> -[dithiobis[2-(2-hydroxyethyl)-1-methylvinylene]] bis{ <i>N</i> [(4-amino-2-methyl-5-pyrimidinyl)methyl]formamide}
bolasteronum bolasterone	7 $\alpha$ ,17-dimethyltestosterone
bromacrylidum bromacrylide	<i>N</i> [(3-bromopropionamido)methyl]acrylamide
bufenadrinum bufenadrine	2-( <i>o</i> - <i>tert</i> -butyl- <i>a</i> -phenylbenzyloxy)- <i>N,N</i> -dimethylethylamine
butaperazinum butaperazine	1-{10-[3-(4-methyl-1-piperazinyl)propyl]phenothiazin-2-yl}-1-butanone
butaverinum butaverine	butyl-3-(3-phenyl-1-piperidyl)propionate
butizidum butizide	3-isobutyl-6-chloro-3,4-dihydro-2 <i>H</i> -1,2,4-benzothiadiazine-7-sulfonamide 1,1-dioxide
butopiprinum butopiprine	2-butoxyethyl <i>a</i> -phenyl-2-piperidineacetate
carsalamum carsalam	2 <i>H</i> -1,3-benzoxazine-2,4(3 <i>H</i> )-dione
clefamidum clefamide	2,2-dichloro- <i>N</i> -2-hydroxyethyl- <i>N</i> -[ <i>p</i> -( <i>p</i> -nitrophenoxy)benzyl]acetamide
clobenztropinum clobenztropine	3-( <i>p</i> -chloro- <i>a</i> -phenylbenzyloxy)tropane
clodacainum clodacaine	2'-chloro-2-[(2-diethylaminoethyl)ethylamino]acetanilide
clodantoinum clodantoin	5-(1-ethylpentyl)-3-(trichloromethylthio)hydantoin
clofenamidum clofenamide	4-chloro- <i>m</i> -benzenedisulfonamide
clofibratum clofibrate	ethyl 2-( <i>p</i> -chlorophenoxy)-2-methylpropionate
clonitratum clonitrate	3-chloro-1,2-propanediol dinitrate

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clopamidum <u>clopamide</u>	4-chloro- <i>N</i> -( <i>cis</i> -2,6-dimethylpiperidino)-3-sulfamoylbenzamide
cloralum betainum cloral betaine	chloral hydrate compound with betaine
cloramfenicoli pantotenas cloramfenicol pantotenat	chloramphenicol complex with calcium pantothenate
clorindionum clorindione	2-( <i>p</i> -chlorophenyl)-1,3-indanedione
cloxacillinum cloxacillin	6-[3-( <i>o</i> -chlorophenyl)-5-methyl-4-isoxazolecarboxamido]-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid
colecalfiferolum colecalfiferol	cholecalciferol
coumetarolum coumetarol	4,4'-dihydroxy-3,3'-(2-methoxyethylidene) dicoumarin
cyamemazinium cyamemazine	10-[3-(dimethylamino)-2-methylpropyl]phenothiazine-2-carbonitrile
cyclarbamatum cyclarbamate	1,1-cyclopentanedimethanol dicarbanilate
cycloguanili embonas cycloguanil embonate	4,6-diamino-1-( <i>p</i> -chlorophenyl)-1,2-dihydro-2,2-dimethyl- <i>s</i> -triazine compound (2:1) with 4,4'-methylenebis[3-hydroxy-2-naphthoic acid]
cyclomenolum cyclomenol	2-cyclohexyl-3,5-xylenol
cyclovalonum cyclovalone	2,6-divanillylidene cyclohexanone
desipraminum desipramine	10,11-dihydro-5-(3-methylaminopropyl)-5 <i>H</i> -dibenz[ <i>b,f</i> ]azepine
dexoadrolum dexoadrol	(+)-2-(2,2-diphenyl-1,3-dioxolan-4-yl)piperidine
diclofenamidum diclofenamide	4,5-dichloro- <i>m</i> -benzenedisulfonamide
dietroxinum dietroxine	5,5-diethyldihydro-2 <i>H</i> -1,3-oxazine-2,4(3 <i>H</i> )-dione
difenidolum difenidol	$\alpha,\alpha$ -diphenyl-1-piperidinebutanol
dimefadanum dimefadane	<i>N,N</i> -dimethyl-3-phenyl-1-indanamine
dimetindenum dimetindene	2-{1-[2-(2-dimethylaminoethyl)inden-3-yl]ethyl}pyridine
dioxadrolum dioxadrol	2-(2,2-diphenyl-1,3-dioxolan-4-yl)piperidine
dipyridamolum dipyridamole	2,2',2'',2'''-[(4,8-dipiperidinopyrimido[5,4- <i>d'</i> ]pyrimidine-2,6-diyl)dinitrilo]tetraethanol
doxapramum <u>doxapram</u>	1-ethyl-4-(2-morpholinoethyl)-3,3-diphenyl-2-pyrrolidinone
drostanolonum drostanolone	17 $\beta$ -hydroxy-2 $\alpha$ -methyl-5 $\alpha$ -androstane-3-one

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duazomycinum duazomycin	an antibiotic substance obtained from cultures of <i>Streptomyces ambofaciens</i> , or the same substance produced by any other means
efloxatum <u>efloxate</u>	ethyl[(4-oxo-2-phenyl-4 <i>H</i> -1-benzopyran-7-yl)oxy]acetate
epitizidum epitizide	6-chloro-3,4-dihydro-3-[(2,2,2-trifluoroethyl)thio]methyl}-2 <i>H</i> -1,2,4-benzothiadiazine-7-sulfonamide 1,1-dioxide
eritrityli tetranitras eritrityl tetranitrate	erythritol tetranitrate
ethylestrenolum ethylestrenol	17 $\alpha$ -ethyl-19-nor-pregn-4-en-17-ol
etoxazenum etoxazene	4-[( <i>p</i> -ethoxyphenyl)azo]- <i>m</i> -phenylenediamine
etymemazinum etymemazine	10-(3-dimethylamino-2-methylpropyl)-2-ethylphenothiazine
etynodioli acetat. etynodiol acetate	19-nor-17 $\alpha$ -pregn-4-en-20-yne-3 $\beta$ ,17-diol diacetate
felypressinum felypressin	2-(phenylalanine)-8-lysinevasopressin
fenbenicillinum fenbenicillin	3,3-dimethyl-7-oxo-6-(2-phenoxy-2-phenylacetamido)-thia-1-azabicyclo[3.2.0.]heptane-2-carboxylic acid
fencarbamidum fencarbamide	5-2-diethylaminoethyl diphenylthiocarbamate
fenyripolum fenyripol	$\alpha$ -(2-pyrimidinylaminomethyl)benzyl alcohol
fluانىsonum fluانىsone	4'-fluoro-4-[4-( <i>o</i> -methoxyphenyl)-1-piperazinyl]butyrophenone
flumetasolum flumetasone	6 $\alpha$ ,9-difluoro-11 $\beta$ ,17,21-trihydroxy-16 $\alpha$ -methylpregna-1,4-diene-3,20-dione
fluorouracilum fluorouracil	5-fluorouracil
fluperolum fluperolone	9-fluoro-11 $\beta$ ,17,21-trihydroxy-21-methylpregna-1,4-diene-3,20-dione 21-acetate
fluprednisolum fluprednisolone	6 $\alpha$ -fluoro-11 $\beta$ ,17,21-trihydroxypregna-1,4-diene-3,20-dione
fluorotylum <u>fluorotyl</u>	bis(2,2,2-trifluoroethyl) ether
furalazinium furalazine	3-amino-6-[2-(5-nitro-2-furyl)vinyl]- <i>as</i> -triazine
furazolidonum furazolidone	3-[(5-nitrofurfurylidene)amino]-2-oxazolidinone
galantaminum galantamine	1,2,3,4,6,7,7a,11c-octahydro-9-methoxy-2-methylbenzofuro[4,3,2- <i>efg</i> ][2]benzazocin-6-ol
glucaloxum <u>glucalox</u>	glycerol complex with aluminium hydroxide
glypinamidum glypinamide	1-( <i>p</i> -chlorophenylsulfonyl)-3-(hexahydro-1 <i>H</i> -azepin-1-yl)urea

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hexadilinum hexadiline	2-(2,2-dicyclohexylvinyl)piperidine
hexamidinum hexamidine	4,4'-(hexamethylenedioxy)dibenzamidine
hexopyrronii bromidum hexopyrronium bromide	1,1-dimethylpyrrolidinium bromide $\alpha$ -phenylcyclohexane glycolate
indometacinum indometacin	1-( <i>p</i> -chlorobenzoyl)-5-methoxy-2-methylindole-3-acetic acid
iproclozidum iproclozide	<i>p</i> -chlorophenoxyacetic acid 2-isopropylhydrazide
isoctarinum isoctarine	$\alpha$ -(1-isopropylaminopropyl)protocatechuyl alcohol
itramini tosylas <sup>3</sup> itramin tosylate	2-aminoethanol nitrate(ester) <i>p</i> -toluenesulfonate
kitasamycinum kitasamycin	an antibiotic substance obtained from cultures of <i>Streptomyces kitasatoensis</i> , or the same substance produced by any other means
leiopyrrolum leiopyrrole	1-[ <i>o</i> -[2-(diethylamino)ethoxy]phenyl]-2-methyl-5-phenylpyrrole
levoglutamidum levoglutamide	glutamine
levoxadrolum levoxadrol	(—)-2-(2,2-diphenyl-1,3-dioxolan-4-yl)piperidine
lincomycinum lincomycin	an antibiotic substance obtained from cultures of <i>Streptomyces lincolnensis</i> , or the same substance produced by any other means
lucimycinum lucimycin	an antibiotic substance obtained from cultures of <i>Streptomyces lucensis</i> , or the same substance produced by any other means
lynestrenolum lynestrenol	19-nor-17 $\alpha$ -pregn-4-en-20-yn-17-ol
lypressinum <u>lypressin</u>	8-lysinevasopressin
mecloaxaminum mecloaxamine	2-[( <i>p</i> -chloro- $\alpha$ -methyl- $\alpha$ -phenylbenzyl)oxy]- <i>N,N</i> -dimethylpropylamine
mecysteinum mecysteine	methyl ester of cysteine
megestrolum <u>megestrol</u>	17-hydroxy-6-methylpregna-4,6-diene-3,20-dione
melengestrolum melengestrol	17-hydroxy-6-methyl-16-methylenepregna-4,6-diene-3,20-dione
menotrophinum menotrophin	human menopausal gonadotrophin
meraleinum natrium sodium meralein	<i>o</i> -[6-hydroxy-5-(hydroxymercuri)-2,7-diiodo-3-oxo-3 <i>H</i> -xanthen-9-yl] benzenesulfonic acid, sodium salt
meturedepum meturedepa	[bis(2,2-dimethyl-1-aziridinyl)phosphinyl]carbamic acid ethyl ester

<sup>3</sup> Itramin is the proposed International Non-proprietary Name for the substance having the chemical name " aminoethyl nitrate " (*Prop. I.N.N.*, List 1)

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metyraponum metyrapone	2-methyl-1,2-di-3-pyridyl-1-propanone
molinazonum molinazone	3-morpholino-1,2,3-benzotriazin-4(3 <i>H</i> )-one
morinamidum morinamide	<i>N</i> -(morpholinomethyl)pyrazinecarboxamide
nafeillinum nafeillin	6-(2-ethoxy-1-naphthamido)-3,3-dimethyl-7-oxo-4-thia-1-azabicyclo [3.2.0]heptane-2-carboxylic acid
naloxonum naloxone	12-allyl-7,7a,8,9-tetrahydro-3,7a-dihydroxy-4a <i>H</i> -8,9c-iminoethano- phenanthro[4,5- <i>bcd</i> ]furan-5(6 <i>H</i> )-one
natrii bitionolas sodium bitionolate	disodium 2,2'-thiobis(4,6-dichlorophenoxide)
natrii etasulfas sodium etasulfate	2-ethylhexyl sodium sulfate
natrii metrizoas sodium metrizoate	sodium 3-acetamido-2,4,6-triiodo-5- <i>N</i> -methylacetamidobenzoate
natrii radio-iodidum ( <sup>131</sup> I) sodium radio-iodide ( <sup>131</sup> I)	
natrii timerfonas sodium timerfonate	ethyl[( <i>p</i> -sulfophenyl)thio]mercury, sodium salt
niclosamidum niclosamide	2',5-dichloro-4'-nitrosalicylanilide
nonapyrimum nonapyrimine	4-nonylamino-7 <i>H</i> -pyrrolo[2,3- <i>d</i> ]pyrimidine
noretynodrelum noretynodrel	17-hydroxy-17 <i>α</i> -pregn-5(10)-en-20-yn-3-one
octotiaminum octotiamine	8-{[2-[ <i>N</i> -[(4-amino-2-methyl-5-pyrimidinyl)methyl]formamido]- 1-(2-hydroxyethyl)propenyl]dithio}-6-mercaptooctanoic acid, methyl ester acetate
ortetaminum ortetamine	<i>o</i> , <i>α</i> -dimethylphenethylamine
oxazepamum oxazepam	7-chloro-1,3-dihydro-3-hydroxy-5-phenyl-2 <i>H</i> -1,4-benzodiazepin-2-one
oxetacainum oxetacaine	2,2'-(2-hydroxyethylimino)bis[ <i>N</i> -( <i>α</i> , <i>α</i> -dimethylphenethyl)- <i>N</i> - methylacetamide]
oxomemazinum oxomemazine	10-[3-(dimethylamino)-2-methylpropyl]phenothiazine, 5,5-dioxide
oxonazinum oxonazine	<i>N</i> <sup>2</sup> , <i>N</i> <sup>2</sup> -diallylmelamine <i>N</i> <sup>2</sup> -oxide
oxybutyninum oxybutynin	4-diethylamino-2-butynyl <i>α</i> -phenylcyclohexaneglycolate
oxyclipinum oxyclipine	[1-methyl-3-piperidyl <i>α</i> -phenylcyclohexaneglycolate
oxyfenamatum oxyfenamate	<i>β</i> -ethyl- <i>β</i> -hydroxyphenethyl carbamate

<i>Proposed International Non-Proprietary Name (Latin, English)</i>	<i>Chemical Name or Description</i>
oxymetazolinum oxymetazoline	6- <i>tert</i> -butyl-3-(2-imidazolin-2-ylmethyl)-2,4-dimethylphenol
oxypendylum oxypendyl	4-[3-(10 <i>H</i> -pyrido[3,2- <i>b</i> ][1,4]benzothiazin-10-yl)propyl]-1-piperazineethanol
oxypyrronii bromidum oxypyrronium bromide	2-(2-hydroxyethyl)-1,1-dimethylpyrrolidinium bromide $\alpha$ -phenylcyclohexaneglycolate
oxytocinum oxytocin	oxytocin
pargylinum pargyline	<i>N</i> -methyl- <i>N</i> -2-propynylbenzylamine
paxamatum paxamate	4-biphenyl methylcarbamate
pentabamatum pentabamate	3-methyl-2,4-pentanediol dicarbamate
pentalamidum pentalamide	<i>o</i> -(pentyloxy)benzamide
periciazinum periciazine	10-[3-(4-hydroxypiperidino)propyl]phenothiazine-2-carbonitrile
picloxydinum picloxydine	1,1'-[1,4-piperazinediyl]bis(imidocarbonyl)]bis[3-( <i>p</i> -chlorophenyl)guanidine]
pimetinum pimetine	4-benzyl-1-(2-dimethylaminoethyl)piperidine
poldini methylsulfas poldine methylsulfate	1-methyl-2-pyrrolidinemethanol benzilate methylsulfate
prednisolamatum prednisolamate	11 $\beta$ ,17,21-trihydroxypregna-1,4-diene-3,20-dione 21- <i>N,N</i> -diethylglycine ester
prednylidenum prednylidene	11 $\beta$ ,17,21-trihydroxy-16-methylenepregna-1,4-diene-3,20-dione
propetandrolum propetandrol	19-nor-17 $\alpha$ -pregn-4-ene-3 $\beta$ ,17-diol 3-propionate
propicillinum propicillin	3,3-dimethyl-7-oxo-6-(2-phenoxybutyramido)-4-thia-1-azabicyclo [3.2.0.]heptane-2-carboxylic acid
prosultiaminum prosultiamine	<i>N</i> -[4-amino-2-methyl-5-pyrimidinyl)methyl]- <i>N</i> -[4-hydroxy-1-methyl-2-(propyldithio)-1-butenyl] formamide
pyrrocainum pyrrocaine	1-pyrrolidineacetanilide
quingestronum quingestrone	3-(cyclopentyloxy)pregna-3,5-dien-20-one
radio-aurum ( <sup>198</sup> Au)-colloidale radio gold ( <sup>198</sup> Au) colloidal	
radiocyanocobalamnum ( <sup>60</sup> Co) radiocyanocobalamin ( <sup>60</sup> Co)	vitamin B <sub>12</sub> containing radioactive cobalt
radiotolpovidonum ( <sup>131</sup> I) radiotolpovidone ( <sup>131</sup> I)	$\omega$ -( <i>p</i> -iodo- <sup>131</sup> I-benzyl)-2-(2-oxo-1-pyrrolidinyl)ethamer (derivative of <i>p</i> -toluidine polyvinylpyrrolidone obtained by partial iodization with <sup>131</sup> I)
renytolinum renytoline	$\alpha$ -fluoren-9-ylidene- <i>p</i> -toluamidine



*Proposed International  
Non-Proprietary Name  
(Latin, English)*

*Chemical Name or Description*

rifamycinum rifamycin	an antibiotic substance obtained from cultures of <i>Streptomyces mediterranei</i> , or the same substance produced by any other means
sparsomycinum sparsomycin	an antibiotic substance obtained from cultures of <i>Streptomyces sparsogenes</i> , or the same substance produced by any other means
sparteinum sparteine	sparteine
spectinomycinum spectinomycin	an antibiotic substance obtained from cultures of <i>Streptomyces spectabilis</i> , or the same substance produced by any other means
stilbazii iodidum stilbazium iodide	1-ethyl-2,6-bis( <i>p</i> -1-pyrrolidinylstyryl)pyridinium iodide
streptoniazidum streptoniazid	isonicotinic acid hydrazide, hydrazone with streptomycin
sucraloxum sucralox	sucrose complex with aluminium hydroxide
sultiamum sultiame	benzenesulfonamide <i>p</i> -(tetrahydro-2 <i>H</i> -1,2-thiazin-2-yl)- <i>S</i> , <i>S</i> -dioxide
teclozanum teclozan	<i>N,N'</i> -( <i>p</i> -phenylenedimethylene)bis[2,2-dichloro- <i>N</i> -(2-ethoxyethyl)acetamide]
tiabendazolum tiabendazole	2-(4-thiazolyl)benzimidazole
tiemondii iodidum tiemonium iodide	4-[3-hydroxy-3-phenyl-3-(2-thienyl)propyl]-4-methylmorpholinium iodide
tifenamium tifenamil	<i>S</i> -(2-diethylamino)ethyl diphenylthioacetate
tolpropaminum tolpropamine	<i>N,N</i> -dimethyl-3-phenyl-3-( <i>p</i> -tolyl)propylamine
tolpyrramidum tolpyrramide	<i>N-p</i> -tolylsulfonyl-1-pyrrolidinecarboxamide
triclofosum triclofos	2,2,2-trichloroethyl dihydrogen phosphate
trimetamidum trimetamide	<i>N</i> -(2-amino-6-methyl-3-pyridylmethyl)-3,4,5-trimethoxybenzamide
trimipraminum trimipramine	10,11-dihydro-5-(3-dimethylamino-2-methylpropyl)-5 <i>H</i> -dibenz[ <i>b,f</i> ]azepine
trometamolum trometamol	2-amino-2-(hydroxymethyl)-1,3-propanediol
troxonii tosylas troxonium tosylate	triethyl(2-hydroxyethyl)ammonium <i>p</i> -toluenesulfonate 3,4,5-trimethoxybenzoate
troxypyrrolii tosylas troxypyrrolium tosylate	1-ethyl-1-(2-hydroxyethyl)pyrrolidinium <i>p</i> -toluenesulfonate 3,4,5-trimethoxybenzoate
tyloxapolum tyloxapol	polymer of <i>p</i> -(1,1,3,3-tetramethylbutyl)phenol with ethylene glycol and formaldehyde
uramustinum uramustine	5-[bis(2-chloroethyl)amino]uracil
uredepum uredepa	ethyl[bis(1-aziridinyl)phosphinyl]carbamate

*Proposed International  
Non-Proprietary Name  
(Latin, English)*

*Chemical Name or Description*

vincristinum		an alkaloid obtained from <i>Vinca rosea</i>
<u>vincristine</u>		
vinleurosimum		an alkaloid obtained from <i>Vinca rosea</i>
vinleurosine		
vinrosidinum		an alkaloid obtained from <i>Vinca rosea</i>
vinrosidine		
virgimycinum		an antibiotic substance obtained from cultures of <i>Streptomyces virginiae</i> ,
virgimycin		or the same substance produced by any other means

NOTE

aminophenazonum	replaces	amidopyrinum
aminophenazone		amidopyrine
		( <i>Chron. Wld Hlth Org.</i> , 1956, 10, 28)
ergocalciferolum	replaces	calciferolum
ergocalciferol		calciferol
		( <i>Chron. Wld Hlth Org.</i> , 1956, 10, 28; <i>WHO Chronicle</i> , 1959, 13, 463)

## Annex

### PROCEDURE FOR THE SELECTION OF RECOMMENDED INTERNATIONAL NON-PROPRIETARY NAMES FOR PHARMACEUTICAL PREPARATIONS \*

The following procedure shall be followed by the World Health Organization in the selection of recommended international non-proprietary names for pharmaceutical preparations, in accordance with the World Health Assembly resolution WHA3.11:

- Proposals for recommended international non-proprietary names shall be submitted to the World Health Organization on the form provided therefor.
- 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 Non-proprietary Names", appended to this procedure. The name used by the person discovering or first developing and marketing a pharmaceutical preparation shall be accepted, unless there are compelling reasons to the contrary.
- Subsequent to the examination provided for in article 2, the Director-General of the World Health Organization shall give notice that a proposed international non-proprietary name is being considered.
  - Such notice shall be given by publication in *WHO Chronicle* and by letter to Member States and to national pharmacopoeia commissions or other bodies designated by Member States.
    - Notice may also be sent to specific persons known to be concerned with a name under consideration.
  - Such notice shall:
    - set forth the name under consideration;
    - identify the person who submitted a proposal for naming the substance, if so requested by such person;
    - identify the substance for which a name is being considered;
    - set forth the time within which comments and objections will be received and the person and place to whom they should be directed;
    - state the authority under which the World Health Organization is acting and refer to these rules of procedure.

\* Text adopted by the Executive Board of WHO in resolution EB15.R7 (*Off. Rec. Wld Hlth Org.*, 1955, 60, 3).

- 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 *WHO Chronicle*.
  5. A formal objection to a proposed name may be filed by any interested person within four months of the date of publication, under article 3, of the name in *WHO Chronicle*.
    - A. 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 non-proprietary 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 non-proprietary name.
  8. In forwarding a recommended international non-proprietary name to Member States under article 7, the Director-General of the World Health Organization shall:
    - A. request that it be recognized as the non-proprietary 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.

#### **General Principles for Guidance in Devising International Non-Proprietary Names for Pharmaceutical Preparations \***

1. Names should be distinctive in sound and spelling. They should not be inconveniently long and should not be liable to confusion with names already in common use.
2. The name for a substance belonging to a group of pharmacologically related substances should show this relationship. The name should be free from any anatomical, physiological, pathological or therapeutic suggestion.
 

The above primary principles are to be implemented by utilization of the following secondary principles.
3. In devising the name of the first substance in a new pharmacological group (the parent substance), consideration should be given to the possibility of devising suitable names for related substances belonging to the new group.
4. Syllables such as "methylhydro" and "chlor" should preferably be abbreviated (to "medro" and "clo", etc.).
5. Names 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). Exceptions may have to be made for those cases in which pharmacological activity may reside in both parts of the salt or ester.

\* As revised in November 1961 by the Sub-Committee on Non-Proprietary Names of the Expert Committee on Specifications for Pharmaceutical Preparations (unpublished report WHO/Pharm/394).

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 translation and pronunciation "f" should preferably be used instead of "ph", "t" instead of "th", and "e" instead of "ae" or "oe".
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 names (see item 2) should preferably be shown by using common syllables in the following list. The syllables should, if possible, be used only for such substances.

Subsidiary group relationships should be shown by devising names which show similarities to and are analogous with a previously named substance, the parent substance.

At the end of the list are general chemical syllables. Should they come into conflict with other suggested syllables, the suffix conveying the best information should be used.

<i>Latin</i>	<i>English</i>	<i>French</i>	
	-andr- or -stan- or -ster- }	-andr- or -stan- or -ster- }	steroids, androgenic
-arolum	-arol	-arol	anticoagulants
-barbum	-barb	-barbe	barbituric acids
-cainum	-caine	-caine	local anaesthetics of the procaine type
-cillinum	-cillin	-cilline	penicillins; derivatives of carboxy-6-amino-penicillanic acid
	-cort-	-cort-	steroids, glucocorticoids and mineralocorticoids, other than prednisolone derivatives
-crinum	-crine	-crine	acridine derivatives, antimicrobial
-curinum	-curine	-curine	curare-like drugs
-cyclinum	-cycline	-cycline	antibiotics, tetracycline derivatives
-dionum	-dione	-dione	antiepileptics derived from oxazolidinedione
	-estr-	-estr-	estrogenic drugs
	-gest-	-gest-	steroids, progestative
	-gly-	-gly-	antidiabetics, oral
	-mer-	-mer-	mercury-containing drugs, antimicrobial or diuretic
-mycinum	-mycin	-mycine	antibiotics, produced by <i>Streptomyces</i> strains
-quinum	-quine	-quine	quinoline derivatives, used as antimalarials
-stiginum	-stigmine	-stigmine	anticholinesterases
	-sulfa-	-sulfa-	sulfonamides, used as antimicrobials
-toinum	-toin	-toïne	antiepileptics which are hydantoin-derivatives
-verinum	-verine	-vérine	spasmolytics with a papaverine-like action
-olum	-ol	-ol	alcohols and phenols (-OH group)
-alum	-al	-al	aldehydes
-inum	-ine	-ine	alkaloids and organic bases
-onum	-one	-one	ketones and other substances containing the CO group
-onium	-onium	-onium	quaternary amines
-anum	-ane	-ane	saturated hydrocarbons
-enum	-ene	-ène	unsaturated hydrocarbons