Supplement to WHO Chronicle, 1983, Vol. 37, No. 2 (April)

## International Nonproprietary Names for Pharmaceutical Substances

In accordance with article 3 of the Procedure for the Selection of Recommended International Nonproprietary Names for Pharmaceutical Substances, notice is hereby given that the following names are under consideration by the World Health Organization as Proposed International Nonproprietary Names.

Comments on, or formal objections to, the proposed names may be forwarded by any person to the Pharmaceuticals unit of the World Health Organization within four months of the date of their publication in the WHO Chronicle, e.g. for List 49 Prop. INN not later than 31 August 1983.

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

### Proposed International Nonproprietary Names (Prop. INN): List 492

Proposed International Nonproprietary Name (Latin, English) Chemical Name or Description, Molecular and Graphic Formulae Chemical Abstracts Service (CAS) registry number

acidum egtazicum egtazic acid [ethylenebis(oxyethylenenitrilo)]tetraacetic acid C<sub>14</sub>H<sub>24</sub>N<sub>2</sub>O<sub>10</sub> 67-42-5

Comprehensive information on the INN programme can be found in: WHO Technical Report Series, No. 581, 1975 [Nanproprietary Names for Pharmaceutical Substances Twentieth Report of the WHO Expert Committee), ISBN 92 4 120881 4 (price, Sw. fr. 6.-); an account of this publication will be found on page 24 of this Supplement (Annex 2). All names from Lists 1-47 of Proposed International Nonproprietary Names (INN) for Pharmaceutical Substances Cumulative List No. 6, 1982, World Health Organization, Geneva (ISBN 92 4 056013 0) (price: Sw. fr. 55.-). This publication consists, in the main, of a computer printout which groups together all the proposed and recommended international nonproprietary names (INN)—in Latin, English, French, Russian, and Spanish-published up to April 1982. The printout also indicates in which of the 47 individual lists of proposed names and 21 lists of recommended names each INN was originally published, and gives references to national nonproprietary names, pharmacopoeia monographs, and other sources. In addition, the list contains molecular formulae and Chemical Abstracts Service registry numbers for each printout also proposed names and contains an experience, national nonproprietary names, pharmacopoeia monographs, and other sources. In addition, the list contains molecular formulae and Chemical Abstracts Service registry numbers are indexed in a series of annexes. A final annex describes the procedure for selecting recommended INN and outlines the general principles to be followed in devising these names. All the textual material published in this volume appears in both English and French.

These publications may be obtained, direct or through booksellers, from the sales agents listed on the back cover of the WHO Chronicle. Orders from countries where sales agents have not yet been appointed may be addressed to. World Health Organization, Distribution and Sales Service, 1211 Geneva 27, Switzerland

<sup>1</sup> See Annex 1, p. 23

<sup>&</sup>lt;sup>2</sup> Other lists of proposed and recommended international nonproprietary names can be found in Cumulative List No. 6, 1982.

acidum fosmenicum fosmenic acid

(3-cyclohexen-1-ylhydroxymethyl)phosphinic acid C<sub>7</sub>H<sub>13</sub>O<sub>3</sub>P 13237-70-2

aditoprimum aditoprim 2,4-diamino-5-[4-(dimethylamino)-3,5-dimethoxybenzyl]pyrimidine  $C_{18}H_{21}N_{5}O_{2} \\ 56066-63-8$ 

$$(H_3C)_2N \longrightarrow CH_2 \longrightarrow NH_2$$

$$H_3CO \longrightarrow CH_2 \longrightarrow NH_2$$

alfuzosinum alfuzosin  $(\pm)$ -N-[3-[(4-amino-6,7-dimethoxy-2-quinazolinyl)methylamino]propyl]tetrahydro-2-furamide C<sub>19</sub>H<sub>27</sub>N<sub>5</sub>O<sub>4</sub> 81403-80-7

$$\begin{array}{c|c}
O & & & & & & & \\
O & & & & & & \\
O & & & & & & \\
C & & & & & & \\
O & & & & & & \\
C & & & & & & \\
O & & & & & & \\
C &$$

alifedrinum alifedrine 1-cyclohexyl-3-[[( $\alpha$ S, $\beta$ R)- $\beta$ -hydroxy- $\alpha$ -methylphenethyl]amino]-1-propanone C<sub>18</sub>H<sub>27</sub>NO<sub>2</sub> 78756-61-3

$$\begin{array}{c|c}
 & H & CH_3 \\
 & \vdots & \vdots \\
 & C & -C & -NH - CH_2 - CH_2 - C
\end{array}$$

alpiropridum alpiropride (±)-N-[(1-allyl-2-pyrrolidinyl)methyl]-4-amino-5-(methylsulfamoyl)-o-anisamide C17H2\*N4O4S 81982-32-3

$$CH_{2}-CH=CH_{2}$$

$$OCH_{3}$$

$$H_{3}C-NH-O_{2}S$$

$$NH_{2}$$

pamilum اamil 2-[3-[(m-methoxyphenethyl)methylamino]propyl]-2-(m-methoxyphenyl)-tetradecanenitrile C<sub>34</sub>H<sub>52</sub>N<sub>2</sub>O<sub>2</sub> 83200-10-6

$$\begin{array}{c} & & & & \\ & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & &$$

bambuterolum bambuterol

)

( $\pm$ )-5-[2-(tert-butylamino)-1-hydroxyethyl]-m-phenylene bis(dimethylcarbamate) C<sub>18</sub>H<sub>28</sub>N<sub>3</sub>O<sub>5</sub> 81732-65-2

bithionoloxidum bithionoloxide 2,2'-sulfinylbis[4,6-dichlorophenol]  $C_{12}H_6Cl_4O_3S$  844-26-8

boforsinum boforsin  $\begin{array}{ll} (3R,4aR,5S,6S,6aS,10S,10aR,10bS)-dodecahydro-5,6,10,10b-tetrahydroxy-3,4a,7,7,10a-pentamethyl-3-vinyl-1$H-naphtho[2,1-b]pyran-1-one, 5-acetate $C_{22}H_{34}O_7$ & 66575-29-9 \end{array}$ 

bromadolinum bromadoline  $\begin{array}{ll} \textit{trans-p-} bromo-\textit{N-} \{2\text{-}(dimethylamino}) cyclohexyl] benzamide \\ C_{16}H_{21}BrN_{2}O \\ & 67579\text{-}24\text{-}2 \end{array}$ 

$$\mathsf{Br} = \left( \begin{array}{c} \mathsf{O} \\ \mathsf{H} \\ \mathsf{C} \\ \mathsf{NH} \end{array} \right)^{\mathsf{N}(\mathsf{CH}_3)_2}$$

bucladesinum bucladesine

N-(9-β-D-ribofuranosyl)-9H-purin-6-yl)butyramide cyclic 3′,5′-(hydrogen phosphate) 2′-butyrate C<sub>18</sub>H<sub>24</sub>N<sub>5</sub>O<sub>8</sub>P 362-74-3

bucricainum bucricaine

9-(butylamino)-1,2,3,4-tetrahydroacridine  $C_{17}H_{22}N_2$  316-15-4

caracemidum caracemide

N-acetyl-N, O-bis(methylcarbamoyl)hydroxylamine  $C_0H_{11}N_3O_4$  81424-67-1

cefetametum cefetamet  $\begin{array}{lll} \{6R,7R\}-7-\{2-\{2-amino-4-thiazoly\}\} & \text{glyoxylamido}]-3-methyl-8-oxo-5-thia-1-azabi-cyclo} \\ \{42.0\} & \text{oct-}2-ene-2-carboxylic acid } 7^2-\{Z\}-\{D-methyloxime\} \\ C_{14}H_{15}N_5O_5S_2 & 65052-63-3 \end{array}$ 

ceftiolenum ceftiolene  $\begin{array}{lll} (6R,7R)-7-[2-(2-amino-4-thiazolyl)glyoxylamido]-3-[(\it{E})-2-[[4-(formylmethyl)-1,4,5,6-tetrahydro-5,6-dioxo-\it{as-triazin-3-yl}]thio]vinyl]-8-oxo-5-thia-1-azabi-cyclo[4.2.0]oct-2-ene-2-carboxylic acid 7^2-(\it{Z})-(\it{O}-methyloxime) \\ C_{20}H_{18}N_{8}O_{8}S_{3} & 77360-52-2 \end{array}$ 

$$H_{2}N$$

$$S$$

$$OCH_{3}$$

$$OCH_{3}$$

$$OCH_{3}$$

$$OCH_{3}$$

$$OCH_{4}$$

$$OCH_{2}$$

$$OCH_{2}$$

$$OCH_{2}$$

$$OCH_{2}$$

$$OCH_{3}$$

$$OCH_{3}$$

$$OCH_{4}$$

$$OCH_{2}$$

$$OCH_{3}$$

$$OCH_{4}$$

$$OCH_{2}$$

$$OCH_{4}$$

$$OCH_{4}$$

$$OCH_{2}$$

$$OCH_{4}$$

$$OCH_{5}$$

$$O$$

cısapridum cisapride cis-4-amıno-5-chloro-N-[1-[3-(p-fluorophenoxy)propyl]-3-methoxy-4-piperidyl]-o-anisamide C<sub>23</sub>H<sub>29</sub>ClFN<sub>2</sub>O<sub>4</sub> 81098-60-4

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & \\ & & \\ &$$

dacisteinum dacisteine N-acetyl-L-cysteine, acetate (ester) C<sub>7</sub>H<sub>11</sub>NO<sub>4</sub>S 18725-37-6

dazodipinum dazodipine diethyl 4-(4-benzofurazanyl)-1,4-dihydro-2,6-dimethyl-3,5-pyridinedicarboxylate  $C_{19}H_{21}N_3O_5 \qquad 72803-02-2$ 

$$\begin{array}{c|c} H_3C & H & CH_3 \\ \hline H_5C_2O - C & C & C - OC_2H_5 \\ \hline O & O & O \\ \hline N & O & O \\ \hline \end{array}$$

dexindoprofenum dexindoprofen

(+)-(S)- $\rho$ -(1-oxo-2-isoindolinyl)hydratropic acid  $C_{17}H_{15}NO_3$  53086-13-8

dienogestum dienogest 17-hydroxy-3-oxo-19-nor-17 $\alpha$ -pregna-4,9-diene-21-nitrile  $C_{20}H_{25}NO_2$  65928-58-7

ditercalinii chloridum ditercalinium chloride 
$$\begin{array}{c} \mathsf{CH_2-CH_2-N} \\ \mathsf{H_3CO} \\ \\ \mathsf{N} \\ \mathsf{H} \end{array} \begin{array}{c} \mathsf{CH_2-CH_2-N} \\ \mathsf{N} \\ \mathsf{C} \\ \mathsf{C} \\ \mathsf{N} \\ \mathsf{H} \end{array} \begin{array}{c} \mathsf{N} \\ \mathsf{C} \\ \mathsf{N} \\ \mathsf{H} \\ \mathsf{N} \\ \mathsf{N} \\ \mathsf{H} \end{array} \begin{array}{c} \mathsf{OCH_2-CH_2-N} \\ \mathsf{N} \\$$

ditiomustinum ditiomustine

dribendazolum dribendazole methyl 5-(cyclohexylthio)-2-benzimidazolecarbamate C<sub>15</sub>H<sub>19</sub>N<sub>3</sub>O<sub>2</sub>S 63667-16-3

edetolum edetol 1,1',1"',1"''-(ethylenedinitrile)tetra-2-propanol  $C_{14}H_{22}N_2O_4$  102-60-3

elmustinum elmustine 1-(2-chloroethyl)-3-(2-hydroxyethyl)-1-nitrosourea  $C_5H_{10}ClN_3O_3$  60784-46-5

enoxacinum enoxacin 1-ethyl-6-fluoro-1,4-dıhydro-4-oxo-7-(1-piperazınyl)-1,8-naphthyridine-3-carboxylic acid  $C_{19}H_{17}FN_4O_3$  74011-58-8

enviradenum enviradene (E)-2-amino-1-(isopropylsulfonyl)-6-(1-phenylpropenyl)benzimidazole  $C_{19}H_{21}N_3O_2S \\ 80883-55-2$ 

eproxindinum eproxindine

 $(\pm)$ -N-[3-(diethylamino)-2-hydroxypropyl]-3-methoxy-1-phenylindole-2-carboxamide  $C_{23}H_{29}N_3O_3$  83200-08-2

) eubendazolum etibendazole

methyl 5-[2-(p-fluorophenyl)-1,3-dioxolan-2-yl]-2-benzimidazolecarbamate Cı<sub>18</sub>H<sub>18</sub>FN<sub>3</sub>O<sub>4</sub> 64420-40-2

fenirofibratum fenirofibrate ( $\pm$ )-2-[[ $\alpha$ -(p-chlorophenyl)- $\alpha$ -hydroxy-p-tolyl]oxy]-2-methylpropionic acid C<sub>17</sub>H<sub>17</sub>ClO<sub>4</sub> 54419-31-7

fezolamınum fezolamine  $\begin{array}{lll} 1\text{-}[3\text{-}(dimethylamino)propyi]\text{-}3,4\text{-}diphenylpyrazole} \\ C_{20}H_{23}N_3 & 80410\text{-}36\text{-}2 \end{array}$ 

flumazepilum flumazepil ethyl 8-fluoro-5,6-dıhydro-5-methyl-6-oxo-4H-imidazo[1,5-a][1,4]benzodiaze-pıne-3-carboxylate C15H14FN2O3 78755-81-4

)

$$\mathsf{F} \overset{\mathsf{O}}{\underset{\mathsf{C}}{\prod}} \mathsf{C} - \mathsf{OC}_2 \mathsf{H}_5$$

idazoxanum ıdazoxan  $(\pm)$ -2-(1,4-benzodioxan-2-yl)-2-imidazoline  $C_{11}H_{12}N_2O_2$  79944-58-4

imidololum imidolol

 $\label{eq:continuous} \begin{array}{ll} (\pm)\text{-1-[3-[[2-hydroxy-3-(1-naphthyloxy)propyl]amino]-3-methylbutyl]-2-benzimidazolinone} \\ \text{C}_{25}\text{H}_{29}\text{N}_3\text{O}_3 & 78459-19-5 \end{array}$ 

isotiquimidum isotiquimide  $(\pm)$ -5,6,7,8-tetrahydro-4-methylthio-8-quinolinecarboxamide C<sub>11</sub>H<sub>14</sub>N<sub>2</sub>S 56717-18-1

) ketorfanolum ketorfanol

17-{cyclopropylmethyl}-4-hydroxymorphinan-6-one  $C_{20}H_{25}NO_2$  79798-39-3

magaldratum magaldrate aluminium magnesium hydroxide sulfate, hydrate (anhydrous) (Al $_5$ Mg $_1$ o(OH) $_3$ I(SO4) $_2$ .xH $_2$ O) 74978-16-8

menabitanum menabitan (±)-8-(1,2-dimethylheptyl)-1,3,4,5-tètrahydro-5,5-dimethyl-2-(2-propynyl)-2H-[1]benzopyrano[4,3-c]pyridin-10-yl  $\alpha$ ,2-dimethyl-1-piperidinebutyrate C<sub>37</sub>H<sub>56</sub>N<sub>2</sub>O<sub>3</sub> 83784-21-8

mepixanoxum mepixanox 3-methoxy-4-(piperidinomethyl)xanthen-9-one C<sub>20</sub>H<sub>21</sub>NO<sub>3</sub> 17854-59-0

mifobatum mifobate dimethyl {p-chloro-\$\alpha\$-hydroxybenzyl}phosphonate, dimethyl phosphate C11H12ClO7P2 76541-72-5

murabutidum murabutide 2-acetamido-3- $\mathcal{O}$ -[(R)-1-[[(S)-1-[[(R)-3-carbamoyl-1-carboxypropyl]carbamoyl]ethyl]-2-deoxy-D-glucopyranose, butyl ester C<sub>23</sub>H<sub>40</sub>N<sub>4</sub>O<sub>11</sub> 74817-61-1

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nabazenilum nabazenil 3-{1,2-dimethylheptyl}-7,8,9,10-tetrahydro-6,6,9-trimethyl-6H-dibenzo[b,d]pyran-1-yl hexahydro-1H-azepine-1-butyrate C<sub>35</sub>H<sub>55</sub>NO<sub>3</sub> 58019-65-1

nabilonum nabilone  $(\pm)$ - trans-3-(1,1-dimethylheptyl)-6,6a,7,8,10,10a-hexahydro-1-hydroxy-6,6-dimethyl-9H-dibenzo[ $b,\sigma$ ]pyran-9-one C24H3sO3 51022-71-0

nacartocinum nacartocin

1-(3-mercaptopropionic acid)-2-[3-(p-ethylphenyl)-L-alanine]-6-(L-2-aminobutyric acid)oxytocin C<sub>46</sub>H<sub>71</sub>N<sub>11</sub>O<sub>11</sub>S 77727-10-7

nafimidonum nafimidone

2-imidazol-1-yl-2'-acetonaphthone  $C_{15}H_{12}N_2O$  64212-22-2

nipradololum nipradolol  $8\text{-}[2\text{-hydroxy-3-(isopropylamino)propoxy}]\text{-}3\text{-}chromanol, 3-nitrate} $C_{15}H_{22}N_2O_6$ 81486-22-8$ 

nomegestrolum nomegestrol 17-hydroxy-6-methyl-19-norpregna-4,6-diene-3,20-dione  $C_{21}H_{28}O_3$  58691-88-6

ofloxacinum ofloxacin

( $\pm$ )-9-fluoro-2,3-dihydro-3-methyl-10-(4-methyl-1-piperazinyl)-7-oxo-7*H*-pyrido[1,2,3-*de*]-1,4-benzoxazine-6-carboxylic acid 83380-47-6

oxalinastum oxalinast (  $\pm$  )-(6,7,8,8a-tetrahydro-2-oxo-3-acenaphthenyl)oxamic acid C14H13NO4 70009-66-4

panuraminum panuramine  $\begin{array}{lll} \hbox{1-benzoyl-3-[1-(2-naphthylmethyl)-4-piperidyi]urea} \\ \hbox{C}_{24}\hbox{H}_{25}\hbox{N}_3\hbox{O}_2 & 80349-58-2 \end{array}$ 

O NH-C-NH-N-CH<sub>2</sub>

pincamidum pincainide 2,3,4,5,6,7-hexahydro-1H-azepine-1-aceto-2',6'-xylidide  $C_{16}H_{24}N_2O$  83471-41-4

piraxelatum piraxelate 3,3,5-trimethylcyclohexyl 2-oxo-1-pyrrolidineacetate  $C_{15}H_{25}NO_3$  82209-39-0

CH<sub>2</sub>-C-O CH<sub>3</sub>

pirenoxinum pirenoxine 1-hydroxy-5-oxo-5H-pyrido[3,2-a]phenoxazine-3-carboxylic acid C18H8N2Os 1043-21-6

piroxicillınum piroxicillin  $\begin{array}{ll} (2S,5R,6R)\text{-}6\text{-}[(R)\text{-}2\text{-}(\rho\text{-hydroxyphenyl})\text{-}2\text{-}[3\text{-}[4\text{-hydroxy}\text{-}2\text{-}(\rho\text{-sulfamoylanilino})\text{-}5\text{-pyrimidinyl}]ureido]acetamido]\text{-}3,3\text{-}dimethyl\text{-}7\text{-}oxo\text{-}4\text{-}thia\text{-}1\text{-}azabi-cyclo}[3.2.0]heptane\text{-}2\text{-}carboxylic acid}\\ C_{27}H_{20}N_0O_9S_2 & 82509\text{-}56\text{-}6 \end{array}$ 

plaunotolum plaunotol  $(2Z_6E)$ -2-[(3E)-4,8-dimethyl-3,7-nonadienyl]-6-methyl-2,6-octadiene-1,8-diol  $C_{20}H_{24}O_2$  64218-02-6

remoxipridum remoxipride (-)-(S)-3-bromo-N-[(1-ethyl-2-pyrrolidinyl)methyl]-2,6-dimethoxybenzamide  $C_{16}H_{23}BrN_2O_3 \\ 80125-14-0$ 

rioprostilum rioprostil (2*R*,3*R*,4*R*)-4-hydroxy-2-(7-hydroxyheptyl)-3-[(*E*)-(4*RS*)-(4-hydroxy-4-methyl-1-octenyl)]cyclopentanone C<sub>21</sub>H<sub>38</sub>O<sub>4</sub> 77287-05-9

rolgamidinum rolgamidine trans-N-(diaminomethylene)-2,5-dimethyl-3-pyrroline-1-acetamide C₃H₁₅N₄O 66608-04-6

$$\begin{array}{c} O \\ \parallel \\ CH_2-C-N=C \\ \downarrow \\ CH_3 \\ \downarrow \\ CH_3 \\ \downarrow \\ H \end{array}$$

sofalconum sofalcone [5-[(3-methyl-2-butenyl)oxy]-2-[ $\rho$ -[(3-methyl-2-butenyl)oxy]cınnamoyl]phenoxy]acetic acid C<sub>27</sub>H $_{\infty}$ O<sub>6</sub> 64506-49-6

sulosemidum sulosemide

 $2\text{-(furfurylamino)-4-phenoxy-5-sulfamoylbenzenesulfonic acid }C_{17}H_{16}N_2O_7S_2 \\ 82666-62-4$ 

taltrimidum taltrimide

j

N-isopropyl-1,3-dioxo-2-isoindolineethanesulfonamide  $C_{13}H_{16}N_2O_4S$  81428-04-8

tebuquinum tebuquine 3-[(tert-butylamino)methyl]-4'-chioro-5-[(7-chioro-4-quinolyl)amino}-2-biphenylol  $C_{25}H_{25}Cl_2N_3O$  74129-03-6

thymopentinum thymopentin

N-[N-(N²-L-arginyl-L-lysyl)-L- $\alpha$ -aspartyl]-L-valyl]-L-tyrosine C3aH4aNaOa 69558-55-0

tinabinolum tinabinol 8-{1,2-dimethylheptyl}-1,2,3,5-tetrahydro-5,5-dimethylthiopyrano[2,3-c][1]benzopyran-10-ol C221H24O2S 50708-95-7

tizabrinum tizabrin (1R,3S,5R)-2,2,5-trimethyl-3-thiomorpholinecarboxylic acid, 1-oxide C<sub>8</sub>H<sub>15</sub>NO<sub>2</sub>S 83573-53-9

tomoxetinum tomoxetine

( – )-N-methyl-3-phenyl-3-(o-tolyloxy)propylamine C<sub>17</sub>H<sub>21</sub>NO 83015-26-3

$$\mathsf{H_3C} \longrightarrow \mathsf{CH} - \mathsf{CH_2} - \mathsf{CH_2} - \mathsf{NH} - \mathsf{CH_3}$$

trimoprostilum trimoprostil (Z)-7-[(1R,2R,3R)-2-[(E)-(3R)-3-hydroxy-4,4-dimethyl-1-octenyl]-3-methyl-5-oxocyclopentyl]-5-heptenoic acid  $C_{23}H_{34}O_4 \qquad 69900-72-7$ 

vindeburnolum vindeburnol viroximum viroxime 2-amino-6-benzoyl-1-{isopropylsulfonyl}benzimidazole oxime, mixture of E and Z isomers  $\begin{array}{c} -C_{17}H_{18}N_4O_3S \end{array}$ 

isomer Z.z.nvîroxime

isomer E. enviroxime

zomebazamum zomebazam 4,8-dihydro-1,3,8-trimethyl-4-phenylpyrazolo[3,4-b][1,4]diazepine-5,7(1H,6H)-dione C<sub>15</sub>H<sub>16</sub>N<sub>4</sub>O<sub>2</sub> 78466-70-3

# AMENDMENTS TO PREVIOUS LISTS

#### Vol. 34, No. 9

#### International Nonproprietary Names (Prop. INN): List 44

p. 22 sulmazolum sulmazole replace chemical name and graphic formula by 2-[2-methoxy-4-(methylsulfinyl)phenyl]-3H-imidazo[4,5-b]pyridine

#### Vol. 35, No. 5

### International Nonproprietary Names (Prop. INN): List 46

p 7 delete

insert

disoprofolum disoprofol propofolum propofol

Vol. 36, No. 2

### International Nonproprietary Names (Prop. INN): List 47

p 11 delete

. 11

insert

nalmetrenum nalmetrene nalmefenum nalmefene

p. 16 eptamestrol/etamestrol

replace correction under List 46 p. INN (WHO Chronicle, Vol. 35, No. 5) by the following.

p 8 delete

eptamestrolum eptamestrol

### Vol. 36, No. 5

### International Nonproprietary Names (Prop. INN): List 48

p 4 delete

p. 17

insert

biprofenidum biprofenide bifepramidum bifepramide

p. 5 butantronum

replace the O atom in the ring structure by a C atom

butantrone

delete

insert

rıfaxidinum rifaxidin rifaximinum rifaximin

rosaprostolum rosaprostol

replace chemical name and structure by the following: (1RS,2SR,5RS)-2-hexyl-5-hydrocyclopentaneheptanoic acid, mixture with (1RS,2SR,5SR)-2-hexyl-5-hydroxycyclopentaneheptanoic acid

p. 25 ridaflone/ridiflone

replace correction under List 46 p. INN (WHO Chronicle, Vol. 35, No. 5) by the following:

p. 16 delete

ridaflonum ridaflone

#### Annex 1

# 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 ernational Pharmacopoeia and armaceutical 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<sup>1</sup> 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.<sup>1</sup>
- 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*.<sup>1</sup>
  - 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 nonproprietary name while there exists a formal objection thereto 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.
- \* Text adopted by the Executive Board of WHO in resolution EB15 R7 [Off Rec Wid Hith Org. 1955, 60, 3) and amended by the Board in resolution EB43 R9 [Off Rec Wid Hith Org. 1969, 173, 10]
- The title of this publication was changed to WHO Chronicle in January 1959

# 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 stem from the following list The stem should only be used for substances of the appropriate group. Where a stem is shown without any hyphens it may be used anywhere in the name.

Subsidiary group relationships should be shown by devising INN which show similarities to and are analogous with a previously named substance

Latin -actidum andr -arolum -azepamum -bactamum bol -buzonum -cainum cefcillinum cort -cyclinum estr -fibratum -forminum gest gli- iolum -metacinum -mycinum -nidazolum -ololum -onidum -orexum -praminum -profenum prost -relinum sulfaterolum -tizidum -tizidum -trexatum -verinum	-bactam bol -buzone -caine cef- -cillin cort -cycline estr -fibrate -formin gest gli- io- -ium	French -actide andr -arol -azépam -bactame bol -buzone -caine céfcilline cort -cycline estr -fibrate -formine gest gli- ioium -métacine -mycine -nidazole -olol -onide -orex -pramine -profène prost -réline stiride -tizide -trexate -vérine	synthetic polypeptides with a corticotrophin-like action steroids, androgens anticoagulants of the dicoumarol group substances of the diazepam group \$\beta\$-lactamase inhibitors steroids, anabolic anti-inflammatory analgesics of the phenylbutazone group local anaesthetics antibiotics, derivatives of Cefalosporanic acid antibiotics, derivatives of 6-aminopenicillanic acid corticosteroids, except those of the prednisolone group antibiotics of the tetracycline group estrogenic substances substances of the clofibrate group hypoglycemics of the phenformin group steroids, progestogens sulfonamide hypoglycemics iodine-containing contrast media quaternary ammonium compounds anti-inflammatory substances of the indometacin group antibiotics, produced by \$Streptomyces\$ strains antiprotozoal substances of the metronidazole group \$\beta\$-adrenergic blocking agents of the propranolol group steroids for tropical use, containing an acetal group anorexigenic agents, phenethylamine derivates substances of the imipramine group anti-inflammatory substances of the ibuprofen group prostaglandins hypophyseal hormone release-stimulating peptides sulfonamides, anti-infective bronchodilators, phenethylamine derivates Ha-receptor antagonists diuretics of the chlorothiazide group folic acid antagonists spasmolytics with a papaverine-like action	
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#### Annex 2

# NONPROPRIETARY NAMES FOR PHARMACEUTICAL SUBSTANCES: TWENTIETH REPORT OF THE WHO EXPERT COMMITTEE

In its twentieth report<sup>1</sup> 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 recent change has been the extension to the naming of syn-

thetic 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. Also reported is the intention to change the practice with regard to the no-

menclature of individual members of polymeric series.

Other sections of the report concern instructions to be followed by bodies making application for international nonproprietary names, the availability of computer-printed cumulative lists of international nonproprietary names, information supplied by WHO Member States concerning their official use of national or interna-

tional names for pharmaceutical products, and proposals relative to the withdrawal of international nonproprietary names allocated to substances that are no longer in use.

The official texts relating to the procedures for selecting, and general guidance for devising, international nonproprietary names are reproduced

in two annexes to the report Other annexes give examples of international nonproprietary names that incorporate selected stems, the most frequently used initial groups of letters in international nonproprietary names, a historical review of the programme of selecting international nonproprietary names, some useful

literature references, and a model of the form to be used in all applications for international nonproprietary names.

<sup>1</sup> WHO Technical Report Series, No 581, 1975 [Nonproprietary Names for Pharmaceviical Substances: Twentieth Report of the WHO Expert Committee], ISBN 92 4 120581 4 Price Sw fr. 6—