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EXPERT COMMITTEE ON ADDICTION-PRODUCING DRUGS

Twelfth Report

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EXPERT COMMITTEE ON ADDICTION-PRODUCING DRUGS

Geneva, 21-27 November 1961

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EXPERT COMMITTEE ON ADDICTION-PRODUCING DRUGS

Twelfth Report

The Expert Committee on Addiction-Producing Drugs met in Geneva from 21-27 November 1961.

Dr O. V. Baroyan, Assistant Director-General, on behalf of the Director-General, opened the session and welcomed the members of the Committee, the representatives of the Secretary-General of the United Nations, and the representative of the Permanent Central Opium Board and the Drug Supervisory Body. Dr N. B. Eddy was elected as Chairman, Dr G. Joachimoglu as Vice-Chairman, and Mr J. R. Nicholls as Rapporteur.

1. Notifications

1.1 *Diphenoxylate preparations*

1.1.1 The Committee considered a request from the Government of the United Kingdom of Great Britain and Northern Ireland for the exemption of two preparations containing diphenoxylate from the provisions of international control. The preparations have the following compositions:

Solid preparation containing:

diphenoxylate (hydrochloride)	2.5	milligrams
atropine sulfate	25	micrograms

and presented in the form of a tablet with a final weight of between 55 and 70 milligrams.

Liquid preparation containing 2 milligrams of diphenoxylate hydrochloride and 20 micrograms of atropine sulfate in 4 millilitres (1 teaspoonful) according to the following formula:

diphenoxylate (hydrochloride)	0.5	milligrams
atropine sulfate	0.005	"
ethyl alcohol	0.16	millilitres
imitation cherry flavour	0.002	"
glycerine	0.45	"
sorbital solution (70%)	0.4	"
red dye colour Index No. 14700 (F.D. & C. Red No. 4)	0.01	milligrams
water	0.0008	millilitres

The Committee concluded that there was no evidence that preparations of the composition stated could give rise to addiction or that they would endanger public health by permitting recovery of diphenoxylate.

For these reasons the Committee was of the opinion that the two preparations specified above should be exempted as provided for in the 1925 Convention. Therefore,

The Expert Committee on Addiction-Producing Drugs

RECOMMENDS that its opinion with respect to these preparations of diphenoxylate be communicated to the Secretary-General of the United Nations.

1.1.2 The Committee has now recommended for exemption four preparations [1] of essentially similar diphenoxylate composition but containing varying amounts of other ingredients. In order to avoid the necessity for applications to be made for exemption of other preparations of the same nature, the Committee considers that there would be no danger to public health if a general exemption were made, limiting specifically the diphenoxylate concentration but otherwise allowing some latitude in formulation. Therefore, the Committee was of the opinion that it would be appropriate to exempt, as provided for in the 1925 Convention, pharmaceutical preparations in solid or liquid form containing not more than 2.5 milligrams of diphenoxylate calculated as base and not less than 25 micrograms of atropine calculated as atropine sulfate per dosage unit, and containing no other substance subject to international control. Therefore,

The Expert Committee on Addiction-Producing Drugs

RECOMMENDS that its opinion with respect to diphenoxylate preparations in general be communicated to the Secretary-General of the United Nations.

1.2 *Droxypropine* [2]

The Committee considered the notification of the Government of the United Kingdom of Great Britain and Northern Ireland requesting a decision as to the status of this substance. The information available at the present time is insufficient for a definite conclusion and the Committee decided to defer its opinion with respect to the addiction liability of droxypropine.

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[1] *Wld Hlth Org. techn. Rep. Ser.*, 1961, **211**, 6 (section 1.7); this report, p. 3, section 1.1.1.

[2] International non-proprietary name proposed for 1-[2-(2-hydroxyethoxy)ethyl]-4-phenyl-4-propionylpiperidine.

1.3 *(—)-3-Hydroxy-*N*-propargylmorphinan*

Referring to the notification of the Government of Switzerland,[1] the Committee was of the opinion that the evidence now shows that the position of this substance is analogous to that of levallorphan and that it cannot be considered either to be an addiction-producing drug or to be capable of conversion into an addiction-producing drug. Therefore,

The Expert Committee on Addiction-Producing Drugs

RECOMMENDS that its opinion with respect to (—)-3-hydroxy-*N*-propargylmorphinan should be communicated to the Secretary-General of the United Nations.

1.4 *Noracymethadol* [2]

Referring to the notification of the Government of the United States of America, the Committee was of the opinion that noracymethadol, because it (1) produces morphine-like effects, (2) will suppress abstinence phenomena of a known morphine addiction, and (3) will sustain a morphine addiction, must be considered to be an addiction-producing drug comparable to morphine and that noracymethadol and its salts should fall under the regime laid down in the 1931 Convention for the drugs specified in Article 1, paragraph 2, Group I of that Convention. Therefore,

The Expert Committee on Addiction-Producing Drugs

RECOMMENDS that its opinion with respect to noracymethadol and its salts be communicated to the Secretary-General of the United Nations.

1.5 *Metethoheptazine* [3]

Metheptazine [4]

In its sixth report [5] the Committee considered the notification of the Government of the United States of America regarding these substances and decided at that time to make no recommendation with respect to their control, but to keep a watch on further experimentation and on any clinical use of the two substances. A review of the evidence has been made

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[1] *Wld Hlth Org. techn. Rep. Ser.*, 1956, **102**, 8 (section 5.1.3).

[2] International non-proprietary name proposed for (±)-alpha-3-acetoxy-6-methylamino-4,4-diphenylheptane.

[3] International non-proprietary name proposed for 1,3-dimethyl-4-phenyl-hexamethyleneimine-4-carboxylic acid ethyl ester.

[4] International non-proprietary name proposed for 1,2-dimethyl-4-phenyl-hexamethyleneimine-4-carboxylic acid methyl ester.

[5] *Wld Hlth Org. tech. Rep. Ser.*, 1956, **102**, 11 (section 5.5.2).

and the Committee has now concluded that metethoheptazine and metheptazine have no addiction liability. Furthermore, there is no indication that either of these substances is convertible into an addiction-producing drug. Consequently the Committee was of the opinion that metethoheptazine and metheptazine should not be regarded either as addiction-producing drugs or as capable of conversion into addiction-producing drugs. Therefore,

The Expert Committee on Addiction-Producing Drugs

RECOMMENDS that its opinion with respect to metethoheptazine and metheptazine should be communicated to the Secretary-General of the United Nations.

1.6 *Nicocodine* [1]

Referring to the notification of the Government of Austria, the Committee was of the opinion that there is no evidence that nicocodine has addiction liability. It is, however, readily convertible into an addiction-producing drug and being a product of one of the phenanthrene alkaloids of opium, it and its salts are, under Article 11 of the 1931 Convention, assimilable to the drugs mentioned in Group I, sub-group (b) or in Group II. Therefore,

The Expert Committee on Addiction-Producing Drugs

RECOMMENDS that its opinion with respect to nicocodine and its salts should be communicated to the Secretary-General of the United Nations.

1.7 *Oxpheneridine* [2]

In its eighth report [3] the Committee considered a notification of the Government of the United States of America regarding oxpheneridine and did not regard it at that time as an addiction-producing substance with morphine-like effect, but made no recommendation. A further review of the evidence has been made and the Committee confirmed the view that oxpheneridine has no addiction liability. Furthermore, there is no indication that it is convertible into an addiction-producing drug. Consequently, the Committee was of the opinion that oxpheneridine should not be regarded either as an addiction-producing drug or as capable of conversion into an addiction-producing drug. Therefore,

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[1] International non-proprietary name proposed for 6-nicotinylcodeine.

[2] International non-proprietary name proposed for 1-(2-hydroxy-2-phenylethyl)-4-phenylpiperidine-4-carboxylic acid ethyl ester.

[3] *Wld Hlth Org. techn. Rep. Ser.*, 1958, **142**, 9 (section 5.2.4).

The Expert Committee on Addiction-Producing Drugs

RECOMMENDS that its opinion with respect to oxpheneridine should be communicated to the Secretary-General of the United Nations.

1.8 *4-Cyano-2-dimethylamino-4,4-diphenylbutane* [1]
2-Methyl-3-morpholino-1,1-diphenylpropanecarboxylic acid [2]
4-Cyano-1-methyl-4-phenylpiperidine [3]

Referring to the notification of the Government of the Netherlands, the Committee was of the opinion that there was no evidence for or against the addiction liability of any of these substances. The Committee noted that each of these substances is a precursor, i.e., an immediate chemical antecedent, of one or more addiction-producing substances already known and under international control, and as far as is known has no other use than for conversion by relatively simple chemical means into such addiction-producing substances. For these reasons each of these substances is properly comparable with, and assimilable to, the drugs specified in Article 1, paragraph 2, Group I, sub-group (b) of the 1931 Convention.

In view of the foregoing the Committee was of the opinion that, in accordance with Article 1, paragraph 2 of the 1948 Protocol, each of these substances and salts should fall under the regime laid down in the 1931 Convention for the drugs specified in Article 1, paragraph 2, Group I of that Convention. Therefore,

The Expert Committee on Addiction-Producing Drugs

RECOMMENDS that its opinion with respect to methadone-intermediate; moramide-intermediate; and pethidine-intermediate-A and their salts be communicated to the Secretary-General of the United Nations.

1.9 *4-Phenylpiperidine-4-carboxylic acid ethyl ester* [4]

Referring to the notification of the Government of the United States of America, the Committee considered that there was no positive evidence of the addiction liability of this substance (also known as norpethidine).

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[1] For purposes of narcotics control the designation methadone-intermediate is suggested.

[2] For purposes of narcotics control the designation moramide-intermediate is suggested.

[3] For purposes of narcotics control the designation pethidine-intermediate-A is suggested.

[4] For purposes of narcotics control the designation pethidine-intermediate-B is suggested.

The Committee noted that this substance is a precursor, i.e., an immediate chemical antecedent, of one or more addiction-producing substances already known and under international control, for example pethidine, and so far as is known has no other use than for conversion by relatively simple chemical means into such addiction-producing substances. For these reasons pethidine-intermediate-B is properly comparable with, and assimilable to, the drugs specified in Article 1, paragraph 2, Group I, sub-group (b), of the 1931 Convention.

In view of the foregoing, the Committee was of the opinion that, in accordance with Article 1, paragraph 2 of the 1948 Protocol, pethidine-intermediate-B and its salts should fall under the regime laid down in the 1931 Convention for the drugs specified in Article 1, paragraph 2, Group I of that Convention. Therefore,

The Expert Committee on Addiction-Producing Drugs

RECOMMENDS that its opinion with respect to pethidine-intermediate-B and its salts be communicated to the Secretary-General of the United Nations.

1.10 From time to time the Committee has had to postpone its conclusions and recommendations with respect to certain substances presented to it in notifications because the evidence available therewith was not sufficiently explicit or complete. In most instances these deferments have been dealt with subsequently. There remain only three substances [1] for which the Committee awaits further evidence.

2. (—)-1-Dimethylamino-1,2-diphenylethane (SPA)

In the Committee's eleventh report [2] note was taken of the use and abuse of (—)-1-dimethylamino-1,2-diphenylethane (SPA) in Japan, with an indication that tests were under way to determine whether or not it could produce physical dependence. These tests have shown no physical dependence and further recent information suggests that the control measures adopted have resulted in some abatement of the abuse. Where such problems are of national importance, the control measures recommended in the eleventh report are appropriate.

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[1] 7-benzoyl-2-morpholinomethyl-1,4-benzodioxane and 7-(*p*-methoxybenzoyl)-2-piperidinomethyl-1,4-benzodioxane (*Wld Hlth Org. techn. Rep. Ser.*, 1959, **160**, 8, section 3.2.1); droxypropine (this report, p. 4, section 1.2).

[2] *Wld Hlth Org. techn. Rep. Ser.*, 1961, **211**, 9 (section 2.2).

3. Khat (*Catha edulis*)

The Committee discussed the characteristics of the habitual use and abuse of khat in certain regions, and the progress in the research on its medical aspects undertaken by the World Health Organization at the invitation of the Economic and Social Council. The Committee was informed, in particular, of the present state of the chemical and pharmacological identification of the active principles of khat. It was of the opinion that clarification on these points is essential and should be available before a sound medical appraisal of the chronic use of khat can be made.

4. Work of International Bodies concerned with Narcotic Drugs

The Committee noted that several matters referred to in the report of the sixteenth session of the Commission on Narcotic Drugs of the Economic and Social Council [1] and in the latest reports of the Permanent Central Opium Board [2] and Drug Supervisory Body [3] had a direct relevance to items of its present agenda.

4.1 From the Commission's report it is apparent that the illicit production of and traffic in heroin continues to increase, in spite of the marked reduction in its medicinal use. In addition, it has been noted that in some areas there is a definite trend towards the use of heroin by opium addicts. A factor in this trend may be the limitation imposed on the use of opium without comparable attention to enforcement of restrictions on the availability of heroin. It is clear, therefore, that further reduction in the availability of heroin, the drug of choice of many addicts, and in the illicit traffic, must be attained by the strictest enforcement of controls.

4.2 The reports of the Permanent Central Opium Board [2] and the Drug Supervisory Body [3] show that the consumption of codeine continues to increase. In the view of the Committee there is no evidence that this can be accounted for by a greater need for antitussives nor apparently has the trend been retarded by the use of new synthetic antitussives. Most likely the increase in codeine consumption has resulted from the large-scale and rapid introduction of new analgesic preparations containing

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[1] United Nations, Commission on Narcotic Drugs (1960) *Report of the Sixteenth session (April-May 1961) — (Economic and Social Council. Official Records : thirty second session. Supplement No. 9)* Geneva (Document E/3512).

[2] United Nations, Permanent Central Opium Board (1960) *Report to the Economic and Social Council on the Work of the Board in 1960*, Geneva (Document E/OB/16).

[3] United Nations, Drug Supervisory Body (1960) *Estimated world requirements of narcotic drugs in 1961*, Geneva (Document E/DSB/18).

codeine, which are readily available without prescription in many areas. In most places such preparations account for the bulk of the codeine used. Codeine has a relatively low addiction liability and codeine addiction appears infrequently in spite of increasing codeine consumption. The use of codeine and codeine preparations will be advantageous as long as it prevents the use of substances of higher addiction liability. It will be hazardous if it leads to a habit of drug administration and induces substitution of a more dangerous drug.

4.3 The Committee discussed a study by the Secretariat on the possibility of establishing a relationship between health conditions and extent of medical care on the one hand and the consumption of internationally controlled drugs with morphine-like effect on the other. The study was initiated by the Permanent Central Opium Board and the Drug Supervisory Body to seek a possible explanation of the considerable differences between countries in the consumption of such drugs as are reported to the PCOB. Furthermore, the international system of estimates of the medical needs of these drugs as administered by the Drug Supervisory Body might benefit from the knowledge of such relationship.

While the data available for the present study allowed certain conclusions to be drawn, the Committee considered that the statistical material underlying such investigations needs to be made more complete, uniform, and reliable before relations, if any, between the actual needs for drugs and the conditions governing them can be established with a sufficient degree of reliability to serve the desired purposes.

4.4 The Committee has repeatedly stressed the need for the earliest possible provision to the medical profession of complete and correct information on the addiction-producing and habit-forming properties of drugs, together with information on their therapeutic properties. The Committee is particularly concerned about the way in which this information is made available and stressed when new substances are presented.

While there is still much room for improvement in this respect, it was noted that in regard to both the desired and undesired effects of such drugs useful information media exist, the development of which should be encouraged.

5. Single Convention on Narcotic Drugs, 1961

The opportunity afforded in this Convention to the World Health Organization to initiate a notification and the more explicit arrangement of the schedules with respect to the degree of hazard to public health will surely expedite the work of this committee. However, delay in the implementation of international control may result from the change in

the mechanism of decision with respect to such control, unless the time scheduling of the work of the international organs concerned with establishing narcotics control can be adapted to the new situation.

6. Medical Control of Addicts

The Committee noted that Article 38 of the Single Convention takes account of the fact that withdrawal and rehabilitation of addicts can be achieved by a variety of means. The Committee noted also a preliminary compilation of national laws and regulations prepared by the Secretariat which shows that, whereas many States have enacted laws for both the compulsory and voluntary admission of addicts for withdrawal treatment, they have given much less attention to, and provided almost no legislation for, the second and essential phase of complete treatment, namely, rehabilitation aimed at reduction of relapses.

Withdrawal must be the first step in treatment; but if cure is to be successful rehabilitation must follow, and some increase in interest in and attention to the latter is shown by the recent establishment of rehabilitation facilities in a number of places. For neither aspect of treatment can precise rules and regulations be laid down to fit every case. The first requires an absolute drug-free environment and the second the efforts and co-operation of all agencies in the community which can help in the medical, social and economic re-establishment of the individual without his reliance on drugs. The Committee would restate its belief that a programme of civil commitment of the addicted individual to medical authority until a cure is attained is well adapted to the overall requirements of treatment.

In connexion with the establishment of treatment and rehabilitation facilities, the Committee would emphasize the immediate need for the broadening of efforts in this direction. It is suggested that one way of initiating or stimulating such efforts would be the organization of seminars in conjunction with broader operational programmes where such organization can be effected in a manner appropriate to the local or regional situation.

7. Research

The Committee heard and discussed accounts of tests for addiction-liability employing the dog and the rat as test subjects. It noted that a report was being prepared by the Secretariat on all the methods now available for tests of addiction liability in animals and man and plans were under way for a scientific group to consider and evaluate these methods.

New research projects on addiction have recently been introduced in various places and scientific programmes for research in the field of alcohol-

ism are being extended to include problems of basic mechanisms and epidemiology of addiction in its broadest sense. The Committee believed that this was a promising approach, taking advantage of the experience so far gained in the related field of alcoholism.

The Committee was also informed that consideration was being given by the World Health Organization to the support of specific research projects in the field of addiction, as it has suggested in earlier reports [1].

8. Coded Information on Narcotics

This project, which has been brought to the attention of this Committee on previous occasions, has been accepted as a responsibility of the Committee on Drug Addiction and Narcotics of the National Research Council, United States of America. The work is supported by funds received by the latter Committee for this specific purpose from the World Health Organization and other sources. Means for multiplication of the code cards are now available and the possibility of transference to an IBM system is under consideration. The collection and coding of the information, therefore, assumes a continuing status and its wider availability may be provided for.

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[1] *Wld Hlth Org. techn. Rep. Ser.*, 1960, **188**, 10 (section 4).

Annex

LIST OF DRUGS UNDER INTERNATIONAL NARCOTICS CONTROL [1]

Common name or INN *	*Chemical designation*	*Expert Committee on Addiction-Producing Drugs*		*Control regime*	
		Report number	*Reference* [2]	*Group*	*Convention*
acetyldihydrocodeine	acetyldihydrocodeine	1	1949, **19**, 30	II	1931
acetylmethadol *	3-acetoxy-6-dimethylamino-4,4-diphenylheptane	1	1949, **19**, 31	I	1931
allylprodine *	3-allyl-1-methyl-4-phenyl-4-propionoxypiperidine	10	1960, **188**, 3	I	1931
alphacetylmethadol *	α-3-acetoxy-6-dimethylamino-4,4-diphenylheptane	4	1954, **76**, 7	I	1931
alphameprodine *	α-3-ethyl-1-methyl-4-phenyl-4-propionoxypiperidine	7	1957, **116**, 8	I	1931
alphamethadol *	α-6-dimethylamino-4,4-diphenyl-3-heptanol	4	1954, **76**, 7	I	1931
alphaprodine *	α-1,3-dimethyl-4-phenyl-4-propionoxypiperidine	1	1949, **19**, 30	I	1931
anileridine *	1-(*p*-aminophenethyl)-4-phenylpiperidine-4-carboxylic acid ethyl ester	7	1957, **116**, 7	I	1931
benzethidine *	1-(2-benzyloxyethyl)-4-phenylpiperidine-4-carboxylic acid ethyl ester	10	1960, **188**, 4	I	1931
benzylmorphine	3-benzylmorphine			I	1931
betacetylmethadol *	β-3-acetoxy-6-dimethylamino-4,4-diphenylheptane	4	1954, **76**, 7	I	1931
betameprodine *	β-3-ethyl-1-methyl-4-phenyl-4-propionoxypiperidine	3	1952, **57**, 7	I	1931
betamethadol *	β-6-dimethylamino-4,4-diphenyl-3-heptanol	5	1955, **95**, 8	I	1931
betaprodine *	β-1,3-dimethyl-4-phenyl-4-propionoxypiperidine	1	1949, **19**, 30	I	1931
cannabis	*Cannabis sativa* L.				1925
clonitazene *	2-*p*-chlorbenzyl-1-diethylaminoethyl-5-nitrobenzimidazole	11	1961, **211**, 4	I	1931
cocaine	methyl ester of benzoylecgonine			I	1931
coca leaf					1925
codeine	3-methylmorphine			II	1931
codeine-N-oxide				I	1931
desomorphine *	dihydrodeoxymorphine			I	1931
dextromoramide *	(+)-4-[2-methyl-4-oxo-3,3-diphenyl-4-(1-pyrrolidinyl)butyl]morpholine	8	1958, **142**, 8	I	1931

[1] For details such as synonyms and the date of coming into force of international control, see *Multilingual list of narcotic drugs under international control* (UN document E/CN 7/341) and *List of drugs under international control* (published annually by the UN, Division of Narcotic Drugs) respectively.

[2] The references given in this column are to *World Health Organization : Technical Report Series*, with the exception of the report published in 1949 which appeared in *Official Records of the World Health Organization*, No. 19.

Common name or INN *	*Chemical designation*	*Expert Committee on Addiction-Producing Drugs*		*Control regime*	
		Report number	*Reference* [1]	*Group*	*Convention*
diampromide *	*N*-[2-(methylphenethylamino)-propyl]-propionanilide	11	1961, **211**, 5	I	1931
diethylthiambutene *	3-diethylamino-1,1-di-(2′-thienyl)-1-butene	6	1956, **102**, 10	I	1931
dihydrocodeine	7,8-dihydrocodeine	1	1949, **19**, 30	II	1931
dihydromorphine	7,8-dihydromorphine			I	1931
dihydromorphine esters				I	1931
dimenoxadol *	2-dimethylaminoethyl 1-ethoxy-1,1-diphenylacetate	9	1959, **160**, 9	I	1931
dimepheptanol *	6-dimethylamino-4,4-diphenyl-3-heptanol	1	1949, **19**, 31	I	1931
dimethylthiambutene *	3-dimethylamino-1,1-di-(2′-thienyl)-1-butene	4	1954, **76**, 9	I	1931
dioxaphetyl butyrate *	ethyl 4-morpholino-2,2-diphenylbutyrate	6	1956, **102**, 9	I	1931
diphenoxylate *	1-(3-cyano-3,3-diphenyl-propyl)-4-phenylpiperidine-4-carboxylic acid ethyl ester	11	1961, **211**, 5	I	1931
dipipanone *	4,4-diphenyl-6-piperidine-3-heptanone	5	1955, **95**, 8	I	1931
ecgonine	(−)-3-hydroxytropane-2-carboxylate			I	1931
ecgonine esters				I	1931
ethylmethyl-thiambutene *	3-ethylmethylamino-1,1-di-(2′-thienyl)-1-butene	4	1954, **76**, 9	I	1931
ethylmorphine	3-ethylmorphine			II	1931
etonitazene *	1-diethylaminoethyl-2-*p*-ethoxybenzyl-5-nitro-benzimidazole	11	1961, **211**, 7	I	1931
etoxeridine *	1-[2-(2-hydroxyethoxy)ethyl]-4-phenylpiperidine-4-carboxylic acid ethyl ester	8	1958, **142**, 9	I	1931
furethidine *	1-(2-tetrahydrofurfuryl-oxyethyl)-4-phenylpiperidine-4-carboxylic acid ethyl ester	10	1960, **188**, 5	I	1931
heroin	diacetylmorphine			I	1931
hydrocodone *	dihydrocodeinone			I	1931
hydrocodone esters				I	1931
hydromorphinol *	14-hydroxydihydromorphine	11	1961, **211**, 7	I	1931
hydromorphone *	dihydromorphinone				1925
hydromorphone esters					1925
hydroxypethidine *	4-(*m*-hydroxyphenyl)-1-methylpiperidine-4-carboxylic acid ethyl ester	1	1949, **19**, 30	I	1931
isomethadone *	6-dimethylamino-5-methyl-4,4-diphenyl-3-hexanone	1	1949, **19**, 31	I	1931
ketobemidone *	4-(*m*-hydroxyphenyl)-1-methyl-4-propionylpiperidine	1	1949, **19**, 30	I	1931
levomethorphan *	(−)-3-methoxy-*N*-methyl-morphinan	3	1952, **57**, 6	I	1931

[1] The references given in this column are to *World Health Organization : Technical Report Series*, with the exception of the report published in 1949 which appeared in *Official Records of the World Health Organization*, No. 19.

Common name or INN *	*Chemical designation*	*Expert Committee on Addiction-Producing Drugs*		*Control regime*	
		Report number	*Reference* [1]	*Group*	*Convention*
levomoramide *	(—)-4-[2-methyl-4-oxo-3,3-diphenyl-4-(1-pyrrolidinyl)-butyl]morpholine	8	1958, **142**, 8	I	1931
levophenacylmorphan *	(—)-3-hydroxy-*N*-phenacylmorphinan	10	1960, **188**, 5	I	1931
levorphanol *	(—)-3-hydroxy-*N*-methylmorphinan	3	1952, **57**, 6	I	1931
metazocine *	2′-hydroxy-2,5,9-trimethyl-6,7-benzomorphan	10	1960, **188**, 6	I	1931
methadone *	6-dimethylamino-4,4-diphenyl-3-heptanone	1	1949, **19**, 30	I	1931
methadone-intermediate	4-cyano-2-dimethylamino-4,4-diphenylbutane	12	1962, **229**, 7	I I	1931 1931
methyldesorphine *	6-methyl-Δ^6-deoxymorphine	4	1954, **76**, 6	I	1931
methyldihydromorphine *	6-methyldihydromorphine	5	1955, **95**, 5	I	1931
metopon *	5-methyldihydromorphinone	1	1949, **19**, 30	I	1931
moramide-intermediate	2-methyl-3-morpholino-1,1-diphenylpropane carboxylic acid	12	1962, **229**, 7	I	1931
morpheridine *	1-(2-morpholinoethyl)-4-phenylpiperidine-4-carboxylic acid ethyl ester	8	1958, **142**, 8	I	1931
morphine				I	1931
morphine esters				I	1931
morphine ethers				I	1931
morphine-N-oxide				I	1931
morphine-N-oxide derivatives				I	1931
morphine pentavalent nitrogen derivatives				I	1931
myrophine *	myristylbenzylmorphine	5	1955, **95**, 6	I	1931
nicomorphine *	3,6-dinicotinylmorphine	9	1959, **160**, 4	I	1931
noracymethadol *	(±)-α-3-acetoxy-6-methylamino-4,4-diphenylheptane	12	1962, **229**, 5	I	1931
norcodeine *	*N*-demethylcodeine	9	1959, **160**, 5	II [2]	1931
norlevorphanol *	(—)-3-hydroxymorphinan	10	1960, **188**, 6	I	1931
normethadone *	6-dimethylamino-4,4-diphenyl-3-hexanone	5	1955, **95**, 7	I	1931
normorphine *	demethylmorphine	9	1959, **160**, 5	I	1931
opium					1925
oxycodone *	14-hydroxydihydrocodeinone			I	1931
oxycodone esters				I	1931
oxymorphone *	14-hydroxydihydromorphinone	5	1955, **95**, 6	I	1931
pethidine *	1-methyl-4-phenylpiperidine-4-carboxylic acid ethyl ester	1	1949, **19**, 30	I	1931
pethidine esters		5	1955, **95**, 9	I	1931
pethidine-intermediate-A	4-cyano-1-methyl-4-phenylpiperidine	12	1962, **229**, 7	I	1931

[1] The references given in this column are to *World Health Organization: Technical Report Series*, with the exception of the report published in 1949 which appeared in *Official Records of the World Health Organization*, No. 19.

[2] Recommended by WHO for this control regime.

Common name or INN *	*Chemical designation*	*Expert Committee on Addiction-Producing Drugs*		*Control regime*	
		Report number	*Reference* [1]	*Group*	*Convention*
pethidine-intermediate-B	4-phenylpiperidine-4-carboxylic acid ethyl ester	12	1962, **229**, 7	I	1931
phenadoxone *	6-morpholino-4,4-diphenyl-3-heptanone	1	1949, **19**, 31	I	1931
phenampromide *	*N*-(1-methyl-2-piperidino-ethyl)propionanilide	11	1961, **211**, 7	I	1931
phenazocine *	2'-hydroxy-5,9-dimethyl-2-phenethyl-6,7-benzomorphan	10	1960, **188**, 6	I	1931
phenomorphan *	3-hydroxy-*N*-phenethylmorphinan	6	1956, **102**, 8	I	1931
phenoperidine *	1-(3-hydroxy-3-phenylpropyl)-4-phenylpiperidine-4-carboxylic acid ethyl ester	11	1961, **211**, 8	I	1931
pholcodine *	morpholinylethylmorphine	3	1952, **57**, 5	II	1931
piminodine *	4-phenyl-1-(3-phenylamino-propyl)piperidine-4-carboxylic acid ethyl ester	10	1960, **188**, 7	I	1931
proheptazine *	1,3-dimethyl-4-phenyl-4-propionoxyazacycloheptane	6	1956, **102**, 11	I	1931
properidine *	1-methyl-4-phenylpiperidine-4-carboxylic acid isopropyl ester	5	1955, **95**, 9	I	1931
propoxyphene *	4-dimethylamino-3-methyl-1,2-diphenyl-2-propionoxy-butane	8	1958, **142**, 7	II [2]	1931
racemethorphan *	(±)-3-methoxy-*N*-methylmorphinan	3	1952, **57**, 7	I	1931
racemoramide *	(±)-4-[2-methyl-4-oxo-3,3-diphenyl-4-(1-pyrrolidinyl)-butyl]morpholine	8	1958, **142**, 8	I	1931
racemorphan *	(±)-3-hydroxy-*N*-methylmorphinan	3	1952, **57**, 6	I	1931
thebacon *	acetyldihydrocodeinone			I	1931
thebaine	3,6-dimethyl-8-dehydromorphine			I	1931
trimeperidine *	1,2,5-trimethyl-4-phenyl-4-propionoxypiperidine	8	1958, **142**, 9	I	1931

[1] The references given in this column are to *World Health Organization : Technical Report Series*, with the exception of the report published in 1949 which appeared in *Official Records of the World Health Organization*, No. 19.

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