International Journal of Homoeopathic Sciences

E-ISSN: 2616-4493
P-ISSN: 2616-4485
www.homoeopathicjournal.com
IJHS 2020; 4(3): 155-159
Received: 13-05-2020
Accepted: 15-06-2020

Dr. Dewesh Kumar Dewanshu
MD (Hom- Hom. Pharmacy)
Assistant Professor, Dept. of Homoeopathic Pharmacy
Govt. Homoeopathic Medical College & Hospital, Paraspani, Godda, Jharkhand, India

Dr. Upasana Kumari
P.G.T. (Dept. of Hom- Materia Medica), G.D. Memorial Homoeopathic Medical College and Hospital, East Ramkrishna Nagar Patna, Bihar, India

Corresponding Author:
Dr. Dewesh Kumar Dewanshu
MD (Hom- Hom. Pharmacy)
Assistant Professor, Dept. of Homoeopathic Pharmacy
Govt. Homoeopathic Medical College & Hospital, Paraspani, Godda, Jharkhand, India

An over view on homoeopathic pharmacopoeia of India

Dr. Dewesh Kumar Dewanshu and Dr. Upasana Kumari

Abstract
The ideal of any Homoeopathic Pharmacopoeia is to give to the manufacturer specific directions with respect to identification, collection, preparation, preservation of the source material and the finished product and ensure the physician the availability of a standard drug material. Here is mentioned the history of development of homoeopathic pharmacopoeia and content of HPI.

Keywords: Pharmacopoeia, monograph, appendix

Introduction

Pharmacopoeia: [*Greek* - '*Pharmacon*' means- drug; '*Poies*' means -to make.] means a book, containing the formulae and methods of preparation of medicines used in the treatment of disease.[1]

Definition

It is the supreme authoritative book, published by an authority, government of any country that deals with the rules and regulations of standardization of drug substances. It contains direction for collection of drug substances from different sources, their preparation, preservation and standard that determine their strength and purity [2].

A standard pharmacopoeia enables the practitioner to rely with confidence upon remedies prepared everywhere in a proper and uniform manner and to place in his hands a trustworthy guide. The object of the homoeopathic pharmacopoeia is to list remedies used in homoeopathic treatment and give adequate instructions as to their identity and preparation, aiming to give preference to preparations of the drug similar to those used in the original proving [2].

History of development of homoeopathic pharmacopoeia

The history of pharmacopoeias involves the history of pharmacy, for as Pharmacopoeias evolved from crude handbooks to the present work of high scientific value, even so as the practice of homoeopathic pharmacy progressed from preparation of medicines by Hahnemann himself to the standardized medication produced on a large scale [3].

Hahnemann combined in himself a physician, a pharmacologist and pharmacist as well. In fact, he was his own Columbus in every field of medicine. Besides being a discoverer of new system of therapy he may justifiably be styled as the father of experimental pharmacology as he was the first to ascertain the positive effect of drugs on healthy human beings. Homoeopathy was born when Hahnemann started his revolutionary career in the field of therapeutics with the publication in 1796, of an article in Hufland journal, under the title 'Essay on a new principle for ascertaining the curative power of the drugs'. He started as a pharmacologist and a therapeutist ended as a discoverer of a complete system of medicine comprising its science portion and art portions well. The fruits of his herculean labor in the field of pharmacology or pharmacodynamics are preserved in 'Materia medica Pura' and 'Chronic diseases, their peculiar nature and their homoeopathic cure.' Though he left no special book on pharmacopoeia, his scattered record served as the basis of the homoeopathic pharmacopoeias of the future. These scattered materials served as a nucleus of the homoeopathic pharmacopoeia of the future. From records it is found that the first homoeopathic pharmacopoeia was published by Dr. C. Caspari (Leipzig, Germany) in 1825 [4].

The government of India constituted homoeopathic pharmacopoeia committee in 1962 for the purpose of preparing the homoeopathic pharmacopoeia of India with the following objectives: [5]

a) To prepare a pharmacopoeia of homoeopathic drugs whose therapeutic usefulness has been proved on the lines of American, German and British homoeopathic pharmacopoeia.
b) To lay down principles and standard for the preparation of homoeopathic drugs.
c) To lay down test of identity, quality, purity, and
d) Such other matters as are incidental and necessary for the preparation of homoeopathic pharmacopoeia.

Some general notice mentioned for homoeopathic pharmacopoeia of India [6]:

Title
The title of this book, including the supplements thereto is the Homoeopathic Pharmacopoeia of India, First edition. When the abbreviation HPI is used, it shall be presumed to refer to the current edition of the Homoeopathic Pharmacopoeia of India.

Name of the drugs
The main title of each drug is given in Latin or the conventional name used by the profession. The abbreviation given below the main title of each drug has the same significance as the main title.

Synonyms
While the main title of the drug or its abbreviation alone should be used as the descriptive name on the label or in prescribing, the alternating names in Hindi, English, French and German language are given.

Initial capital latter in the text
Whenever the names of drugs, processes or substances occur in the text of homoeopathic pharmacopoeia of India and are printed with capital initial letter, such substances will be deemed to be substances of the Homoeopathic Pharmacopoeia of India.

Italics
Words printed in Italics refer to reagents, substances, or processes described in an Appendix. Italics type also used in the systematic names of plants, animal and micro-organism and for some sub headings.

Official
The word "official" wherever used in the pharmacopoeia or with reference thereto is synonymous with 'Pharmacopoeia' and applies to any statement included in the General notice, Monographs and Appendices of the pharmacopoeia.

Official standards
The standards of purity and strength stated in the monographs of the pharmacopoeia, with the exception given below, constitute standards for the official substances.

Chemical formula
The chemical formula and molecular weight given at the beginning of the monographs are those of the chemically pure substances and not to be regarded as an indication of purity of the official drug.

Method of manufacture of chemical substances
Unless specifically described in monograph a chemical substance may be prepared by any method provide the substance conforms to the Pharmacopoeial standards.

Temperature
Unless otherwise specified, all temperatures refer to the Centigrade scale. All measurements are made at 25^{O} unless otherwise specified.

Solubility
When the expression 'parts' is used in defining the solubility of a substance it is to be understood to mean that one gram of a solid or one milliliter of a liquid is soluble in that number of milliliters of the solvent represented by the stated number of parts.
When the exact solubility of a Pharmacopoeial substance is not known the descriptive term is used to indicate its solubility. The following table indicates the meaning of such terms:

The following table indicates the meaning of such terms:

Descriptive Terms	Relative Quantities of Solvent For 1 Part of Solute
Very soluble	Less than 1 part
Soluble	From 1 to 10parts
Freely soluble	From 10to 30parts
Sparingly soluble	From 30 to 100 parts
Slightly soluble	From 100 to 1000 parts
Very Slightly soluble	From 1000 to 10000 parts
Practically insoluble	More than 10000 parts

Identification
The tests described under the heading are providing only as an aid to identification. They are not in all cases sufficient to establish proof of identity. The qualitative tests, by which the basic and acid radical of ordinary salts and certain other group of substances are recognized, are mentioned in appendix.

Solution
Unless otherwise mentioned in the individual monographs, all solutions are prepared with purified water.

Odorless
The term 'odorless' in the 'Description' would imply that its odor is discernible when a sample of not more than 25g of the substances is examined immediately after opening the package.

Wt. per ml. density, specific gravity
The relation of weight to volumes is expressed in most instances, in absolute units as weight per milliliters. Specific gravity is retained to distinguish the composition of mixture of alcohol and water, since alcoholic content is defined in terms of specific gravity.

Assay
The assay and tests described are the methods upon which the standards of the Pharmacopoeia depend. The analyst is not precluded from employing an alternate method in any instance if he is satisfied that the method which he uses will give the same result as the Pharmacopoeial method.

Quantities to weighed for assay and tests
In all description of assays and tests the quantity to be taken

of the substance to be tested is indicated. The amount stated is approximate only, but the quantity actually used must be accurately weighed and must not deviate by more than ten percent, from that stated.

Constant weight
The term 'constant weight' when it refers to drying or ignition means that two consecutive weighing do not differ by more than 1.0 mg per g of the substance taken for the determination, the second weighing following an additional hour of drying or further ignition.

Crude drug
Vegetable drugs are required to be free from insect, animal excreta, other animal matter and extraneous contaminants and to show no abnormal odor, color, mold or other evidence of deterioration.

Reagents and solution
The reagents required for the test of pharmacopoeia are described in appendices I and II showing their nature and degree of purity together with the strengths of the solution to be made from them for purposes of testing. Listing of these reagents in no way implies that they are also homoeopathic drugs. Solution employed for volumetric determinations are described in detail in terms of a "Normal solution" 1 N or of a 'Molar solution" 1 M. the expression "Test solution" has been employed in Appendix I in a few instances to avoid confusion with other solutions of different strengths which are defined in the text of Pharmacopoeia.

Weight and measure
The metric system of weight and measures is employed.
Weight are given in terms of a gram or a milligram.
Fluid measures are given in terms of milliliters. The term 'ml' is used as a short designation for the term 'milliliter'.
All measure is required to be graduated at 25 ^{O}C and all measurements involved in the analytical operation of the Pharmacopoeia are unless otherwise stated, to be made at that temperature.

Percentage of solution
In defining standards, the expression 'per cent 'is used according to circumstances, with one of four meanings, in order that the meaning, to be attached to the expression of each instance, may be clear, the following notation are used:
Percent w/w (percentage weight in weight) expresses the number of gram of substances in 100 grams of product.
Percentage w/v (percentage weight in volume) expresses the number of gram of substances in 100 milliliters of product.
Percentage v/v (percentage volume in volume) expresses the number of milliliters of substances in 100 milliliters of product.
Percentage v/w (percentage volume in weight) expresses the number of milliliters of substances in 100 grams of product.
Storage:
The container and its closure must not interact physically or chemically with the substances which it holds so as to alter the strength, quality or purity of the substances; if interaction is unavoidable, the alteration must not be so great as to bring the substances below Pharmacopoeial requirements.

A well close container protects the content from the contamination by extraneous solid or moisture, from loss of substances through efflorescence, deliquescence, or evaporation under the or customary conditions of handling, shipment, storage or sale shall be capable of tight enclosure.

Protection from light
The substances must be kept in a opaque container or in a bottle of amber, dark-red or dark-brown glass. In certain specified instances when additional protection against light is necessary the bottle must further be cover with the black paper.

Label
Labeling and packing as prescribed by the rules made under the Drugs and Cosmetic act, 1940. In respect of drug produced by old Hahnemannian method the latter 'H' shall be added after the name of the drug preparation to differentiate them from those manufactured according to new method.

Dose
Statement regarding 'dose', intended for the guidance of the prescriber, has not been given in the monographs. Unlike in other systems of medicine, in Homoeopathy, the average range of quantities considered suitable for administration does not arise. It is the potency indicative qualitative measure of the medicine which has significant role. The medical practitioners will exercise their own judgment and act on their own responsibility in respect of the quantity and potency of any medicine they may prescribe or the frequency of its administration.
Some general instructions also given in HPI related to unit of medicinal strength, homoeopathic medicine, drugs and medicinal substances, method of procuring medicinal substances, preparation of mother tincture and drug, potentization, dispensing medicine, external application and their components.

Monographs
The general plan of Pharmacopoeias is to lay down the direction for the selection and preparation of the drugs that are thoroughly adapted to the purpose of homoeopathic prescribing. These direction and specifications for each drug are called 'monograph'.

- The standard of purity and strength are stated in the MONOGRAPHS of the pharmacopoeia and apply to articles that are intended for medicinal use, but not necessarily to article that may be sold under the same name for other purposes.
- All statements contained in the monographs constitute standards for the official substances.
- The requirements are not framed to provide against all possible impurities [7].

The format of the monographs has also been slightly changed in the second volume as under [8].

1. The heading 'chemical symbol' has been deleted and only chemical formula has been given.
2. The heading' synonym' has been restricted in case where it relates to a true synonym and in other case it replaced by common name. In case of chemical alternates names have however been given without any specific title.
3. Parts used mentioned after description.
4. Under the heading 'History and Authority' the first

prover has been mentioned in the first place and the remaining authorities in alphabetical order.

5. The old Hahnemannian method of preparation has been discarded in favor of new uniform method with specific drug strength which takes into consideration the moisture content of the drug, thus eliminating variation in standards. This method is applicable to most of the drugs and has been accepted by the committee.
6. The title 'Habitat' has been substituted by the term 'Distribution', to convey appropriate meaning. A common format is generally employed to describe a drug. The general pattern of monographs has the following features [9].

The general pattern of monographs has the following features

Plant: 1. Name of the remedy with abbreviation. 2. Botanical name. 3. Family. 4. Common names. 5. Description. 6. Parts used. 7. Macroscopical. 8. Microscopical. 9. Identification test. 10. Distribution. 11. History and authority. 12. Preparation. 13. Storage. 14. Caution.	**Animal:** 1. Name with abbreviation. 2. Zoological name. 3. Family. 4. Common names. 5. Description. 6. Parts used. 7. Microscopical. 8. Distribution. 9. History and authority. 10. Preparation. 11. Storage. 12. Caution.
Chemical: 1. Name with abbreviation. 2. Symbol. 3. Molecular weight. 4. English name. 5. Description. 6. Identification. 7. Reaction. 8. Limit tests. 9. Assay. 10. History and authority. 11. Preparation. 12. Storage. 13. Caution.	**Nosode:** 1. Name with abbreviation. 2. Microbiological name. 3. History and authority. 4. Biological distribution. 5. Source of preparation of homoeopathic drugs. 6. Description/morphology of the organism. 7. Cultural characteristics. 8. Resistance and metabolism. 9. Biochemical reactions. 10. Preparation. 11. Storage. 12. Caution.

All the volume of homoeopathic pharmacopoeia includes year of publication and no. of monographs mentioned below: [10]

Volume	Year of Publication	No of Monographs
Volume-1	1971	180
Volume-2	1974	100
Volume-3	1978	105
Volume-4	1984	107
Volume-5	1987	114
Volume-6	1990	104
Volume-7	1999	105
Volume-8	2000	101
Volume-9	2006	100

In appendices of various volumes of HPI the following are mentioned:

Volumes	Appendices	Described about
HPI-I	Appendix I	Material and solutions employed in tests.
	Appendix II	Solution employed in volumetric determination.
	Appendix III	(A) Indicator employed in volumetric determination and in pH determination. (B) pH ranges and color changes of indicators. (C) Determination of pH value.
	Appendix IV	Determination of melting and boiling ranges.
	Appendix V	Determination of refractive index.
	Appendix VI	Determination of weight per milliliter and specific gravity.
	Appendix VII	Qualitative reactions of some common substances and radicals.
	Appendix VIII	Limit tests for: - (a) Chlorides, iron and sulphates. (b) Arsenic. (c) Lead. (d) Heavy metals tests.

	Appendix IX	Determination of ash. Determination of sulphated ash. Determination of residue on ignition. Determination of water-soluble ash.
	Appendix X	Determination of moisture content for chemical. Determination of moisture content for vegetable product.
	Appendix XI	Determination of alcohol-soluble extractive. Determination of water-soluble extractive. Determination of total solids.
	Appendix XII	Quantitative Determination of alcohol in pharmaceutical preparation
	Appendix XIII	Powder sieves
	Appendix XIV	Standards of vehicles used for external applications.
	Appendix XV	Determination of saponification value. Iodine value and acid value.
	Appendix XVI	Tests for the absence of arachis oil in other oils. Tests for the absence of cotton seed oil in other oils. Tests for the absence of sesame oil in other oil. Tests for the absence of linseed oil in other oil.
	Appendix XVII	Hahnemann's classification of methods preparation of homoeopathic drugs (old method).
	Appendix XVIII	Names, symbols and atomic weights of elements.
	Appendix XIX	Names in Indian languages of indigenous drugs.
HPI-2	Appendix XII	Powder and sieves.
	Appendix XX 'A'	Determination of esters
	Appendix XXI	Determination of palisade ratio, stomatal number, vein-islet number, vein termination number.
	Appendix XXII	Specific gravity of solids.
HPI-3	Appendix VB	Determination of optical rotation and of specific rotation.
	Appendix XXI	Method for Determination of alcohol content in homoeopathic tinctures.
HPI-4	Appendix XXII	Determination of viscosity
	Appendix XXIII	Tests for pyrogens.
	Appendix XXIV	Chromatography.
	Appendix XXV	Oxygen flask method.
	Annexure XXVI	Preparation of Nosodes.
HPI-5	Appendix-XIV	Standards for vehicles used for internal medication.
	Appendix-XXV	Standards for simple ointment, eye ointment, cream-based ointment, paraffin ointment.
	Appendix-XXVI	Standards for syrup.
	Appendix-XXVII	Temperature correction data.
HPI-6	Appendix XXIX	Spray reagents for drug components.
	Appendix XXIV	Standards for syrup (liquid oral).
HPI-7	Appendix I	Standards of biochemic tablets.
	Appendix II	Determination of lamda max by u.v. spectrophotometer.
	Appendix III	Thin layer chromatography.
HPI-8	Appendix	Determination of λmax. By U.V. spectrometer.
		Standards of finished product of 104 drug.
HPI-9	Appendix I	Acetaldehyde.
	Appendix II	Tests for steroid.

The ideal of any Homoeopathic Pharmacopoeia is to give to the manufacturer specific directions with respect to identification, collection, preparation, preservation of the source material and the finished product and ensure the physician the availability of a standard drug material [11].

Conclusion

From these short collections it shown that a standard pharmacopoeia enables the practitioner to rely with confidence upon remedies prepared everywhere in a proper and uniform manner.

References

1. Goel S. Art and science of homoeopathic pharmacy. Ahmedabad: Leo enterprises; 2002, 14.
2. Ibid., 14.
3. India. Ministry of Health. Homoeopathic Pharmacopoeia of India.1st vol. Delhi: The Controller of Publications; 1971, 1.
4. Ibid., 2
5. India. Ministry of Health and family welfare department of ayurveda, yoga and naturapathy, unani, siddha and homoeopathy. Homoeopathic Pharmacopoeia of India. 9th vol. New Delhi: The Controller of Publications; 2006, vii.
6. Homoeopathic Pharmacopoeia of India. op cit. 1, 3-6.
7. Goel S.op cit, 19,
8. India. Ministry of Health and family welfare.2nd nd ed. New Delhi: The Controller of Publications; 1984; 2:ix.
9. Goel S.op cit, 19.
10. Homoeopathic Pharmacopoeia of India. 9th vol. op.cit., xiii.
11. Goel S. op. cit, 24.