

Pharmaceutics

*Historical Background and Development of
profession of Pharmacy*

Syllabus

History of Profession of Pharmacy in India in relation to pharmacy education, industry and Organization, Pharmacy as a career, Pharmacopeias : Introduction to IP,BP,USP, and Extra Pharmacopoeia.

Pharmacy

The word 'Pharmacy' is comes from greek word "**Pharmacon**" which means "**Drug**" or "**Medicine**".

So, It is the **art and science** of Preparing and dispensing drugs.

OR

Pharmacy is a healthcare profession which deals with study of drugs, their main purpose of Pharmaceutical drugs.

Symbol of Pharmacy

- ❑ The Bowl of Hygeia is a symbol of pharmacy.
- ❑ It Consist of a snake wrapped around a bowl.
- ❑ In this, the snake represents Aesculapius (The God of Medicine) and The bowl represents Hygeia (his daughter + helper)



History of profession of pharmacy in India

- ❖ The concept of Hospital was well-developed and practiced in India (in BC 226) during the Period of **Great Ashoka**.
- ❑ That time leaves, cold water, animal extracts etc.. Are used in the treatment.
- ❑ The pattern of **Charaka** for treating diseases was followed by all the medical works in **1000 AD**.

- ❖ India has one of the world's oldest medical system i.e. Ayurveda
- ❑ Charaka is called 'father of Ayurveda'- In his book 'Charaka Samhita' he had mentioned about 340 plant types and about 200 animal types.
- ❑ In 1500 century, Indian drugs and herbs influenced Europe.
- ❑ In 1664, The first general Hospital was established in Chennai.

In relation to Pharmacy education

- ❑ The allopathic/western System of medicine come in India along with British traders, then it get popular in 19th century.
- ❑ Firtsly London Pharmacopoeia available in india in 1824 in the form of Hindustani Version.
- ❑ **1840-** Goa Medical college at Panjim,Gao.
- ❑ **1843-** London Pharmacopoeia made available in Hindi + Bengal.
- ❑ **1864-** Bengal Pharmacopoeia Released.

- ❑ **1874-** Regular two years course for “Chemists and Druggists Diploma” Started in MMC.
- ❑ **1930-** Govt. of India appointed a committee under the chairmanship of **Dr. R.N. Chopara** for pharmacy problems.
- ❑ **1935-** the first pharmaceutical society with an education platform was developed UPPA (United Provinces Pharmaceutical Association).
- ❑ **UPPA in 1936-** Replaced name with Indian Pharmaceutical Association (IPA).

- ❑ **1937-38-** Prof. M.L. Shroff (father of Indian Pharmacy) started regular degree course of B.Pharm at BHU (Banaras Hindu University).
- ❑ **1940-** Shubhadra Kumar Patni (First pharmacy Graduate)
- ❑ **1940-** Prof. M.L. Shroff started M.Pharm in BHU.
- ❑ **1943-** Gorakh Prasad Srivastav (first Post Graduate).
- ❑ **1944-** The degree course in pharmacy was started in the University of Punjab Lahore, currently **Punjab University Chandigarh** – By Dr. Khem Singh Crewal.

- ❑ **1948-** Pharmacy Act established.
- ❑ **1949-** Pharmacy Council of India (PCI) was established.
- ❑ **1953-** First Education Regulations (ER) was framed and started D.Pharm.
- ❑ **1953-** Sheovihari Lal (first PhD holder in Pharmacy).
- ❑ **1955-** The first edition of Indian Pharmacopoeia.
- ❑ **1991-** NIPER in Mohali with Dr. C.L. Kaul as first Director.

Pharmacy Courses

- ☐ Diploma in Pharmacy (D.Pharm) – 2yr
- ☐ Bachelor of Pharmacy (B.Pharm) – 4yr
- ☐ Master of Pharmacy (M.Pharm)- 2yr
- ☐ Master of science in Pharmacy [MS(Pharmacy)]
- ☐ Master of Technology in Pharmacy {Mtech(Pharma)}
- ☐ Doctor of Pharmacy (Pharm D)
- ☐ Doctor of Philosophy in Pharmacy (PhD)

ERA'S



Ancient Era

- ❑ **Beginning to 1600 AD**
(Ayurvedic time)



Empiric Era

- ❑ **1600 – 1940**
Pharmacopoeia as a tool allopathic System entry...



Industrialization Era

- ❑ **1940 - 1970**
development of Industries due to civil & world war



Patient Era

- ❑ **1970 – present**
Development of new medicine & Pharmacy education
Spread



Genetic Eng. Era

- ❑ **New horizon..**
for Future development.....

Pharmacy as Career

- ❑ A career in Pharmacy is one of the best career across the world. Pharmacy is a part of Healthcare service which completely deals with the drugs.
- ❑ So, currently Pharmacy is in emerging phase and it has great scope.

There are some Following options

- 1) Academics
- 2) Institute / College
- 3) Regulatory department
- 4) Chemist Shop
- 5) Pharmaceutical Industries

1. Academic

- ☐ A person who has done his/her studies in the field of pharmacy can work as a Ass. Professor, Private teacher

2. Institute / College

- ☐ A qualified person can also open education institute to serve the students.
- ☐ They have also option to open pvt. Coaching institute.

3. Regulatory Department

- ❑ A qualified person can also try his luck in the govt. sector and get jobs...

There are no. of jobs :-

- ✓ Drug Inspector
- ✓ Govt. Hospital
- ✓ Administration
- ✓ Railway Pharmacist
- ✓ Govt. Industries etc....

4. Chemist Shop

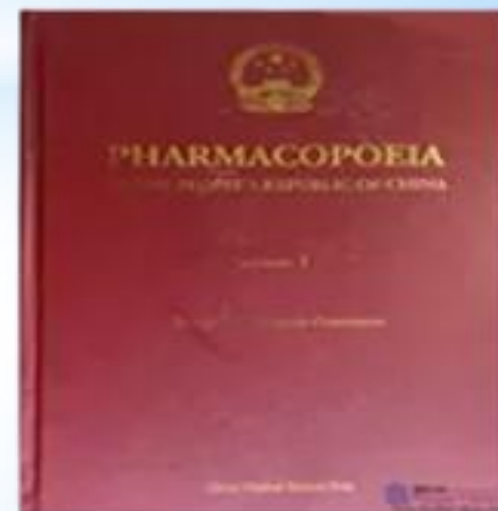
- ☐ A qualified person can open his own chemist shop (Medical store) by taking license.

5. Pharmaceutical Industries

A qualified person can also open his company but with lots of permission, documentation but this provides the max. no. jobs.

- ☐ Research & Development
- ☐ Production
- ☐ Analysis
- ☐ Marketing
- ☐ Pharmacovigilance

Pharmacopoeia



Pharmacopoeia

It can be defined as “a book of standards applicable to drugs and their common dosage forms and pharmaceutical aids published in a country under the authority of its own Government.

Ex. I.P., B.P., U.S.P. etc.....

OR

The term Pharmacopoeia comes from the Greek word “**Pharmacon**” mean ‘**Drugs**’ and “**Poeia**” means ‘**to make**’

So, It can be defined as It is a standard official book which contain a formula (Monograph) to make a drug authorized by Govt.

Types of Pharmacopoeia

1. Indian Pharmacopoeia (IP)
2. British Pharmacopoeia (BP)
3. United states Pharmacopoeia (USP)
4. European Pharmacopoeia (EP)
5. Extra Pharmacopoeia

Indian Pharmacopoeia

- ❑ It is an official text responsible for the quality control and assurance of Pharmaceuticals in India.
- ❑ It define the identity, purity and strength of drugs.
- ❑ This book got approval under the second schedule of the drug & cosmetic Act,1940 and Rules 1945.
- ❑ It is published by IPC (Indian Pharmacopeia Commission)

Editions of Indian Pharmacopoeia

Edition	Year	Addendum	Monograph	Volumes
1 st	1955	1960	986	2
2 nd	1966	1975	890	3
3 rd	1985	1989 1991	261	2
4 th	1996	2000 2002 2005	1149	3
5 th	2007	2008	271	3
6 th	2010	2012	52	3
7 th	2014	2015 2016	577	4
8 th	2018	2019	220	4
9 th	2022		

- ❑ It is the National Pharmacopoeia of the United Kingdom (U.K.)

Edition	Year
1 st	1864
2 nd	1867
3 rd	1885
4 th	1898
5 th	1914
6 th	1932
7 th	1948
8 th	1953
9 th	1958
10 th	1963
11 th	1968
12 th	1973
13 th	1980
14 th	1988

United State Pharmacopoeia

- ❑ The united states Pharmacopoeia is the national Pharmacopoeia for United states Published annually by united states.
- ❑ In 1820, 1st edition of USP was published.

Extra Pharmacopoeia

- An Extra Pharmacopoeia (EP) is a supplementary reference source or compilation of drug standards, formulas, and information that complements the official pharmacopoeias, such as the United States Pharmacopeia (USP), British Pharmacopoeia (BP), or other national and international pharmacopoeias. Here is a detailed overview of the concept and role of an Extra Pharmacopoeia:



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