

PHARMACEUTICS-I- BP103T

UNIT: 1 (Historical background and development of profession of pharmacy,
Dosageforms, Prescription, Posology)

CLASS:2

TOPIC: History of profession of Pharmacy in India in relation to Industry and organization

History of Pharmacy in relation to The Pharmaceutical Industry In India

In 1892, The 'Bengal Chemical and Pharmaceutical Works' was the first Indian industry established. The number of indigenous firms produced about 13% of Indian drug product requirement during and after the World War II. The synthetic bulk drugs were produced in 1930. In 1940 and 1950 new medicines were marketed by multinational companies (MNCs) but indigenous industry not affected. In 1950, the government established the Indian Drugs and Pharmaceuticals Limited (IDPL) and Hindustan Antibiotics Limited (HAL) with both indigenous and foreign technology collaboration. Collaborative efforts between CSIR (Council of Scientific and Industrial Research) and private manufacturing industry was a done to develop, apply and for advancement of skills in the pharmaceutical industry. A strong product patent system under the 'British Patents and Designs Act 1911' increased the influence of MNCs in Indian Pharmaceutical market. This results in decrease in the share of indigenous companies from 62 % (1950) to 32% (1970).

Ayyangar report concluded that foreign patent holders dominated the industry through large number of patent filing and grants and patents law in force failed to work in National interest. So Patents Act 1970 was introduced that restricted only to process in case of pharmaceuticals and agricultural chemicals and the term patents was reduced to 7 years. The Foreign Exchange Regulation Act 1973 and the National Drug Policy 1978 provided essential parameters for the growth of Indian generic industry. In mid of 1980 to 1990, Indian generic industry increased the exports. In 1998 the domestic companies held 68% of the market share which grows up to 77% in 2003 and 85% by the 2020. The Indian Pharma industry has grown up to 1.6 lakh crore in 2020.

The country is ranked 3rd in terms of volume of production and 14th largest by value. The share of export of drugs, pharmaceuticals and fine chemicals is more than rupees 5000 billion. The many Indian companies supplying life saving drugs to Africa, USA and western Europe. They achieved a milestone by manufacturing drugs of AIDS and COVID-19 vaccine. In terms of scale the Indian Pharmaceutical market ranks among the top 10 in the world.

The scope of pharmacy practice includes compounding and dispensing of medicines, modern services related to health care including clinical services, reviewing medications for safety and efficacy and providing drug information. The origin of pharmacy practice in India was started in 19th century. Previously, the pharmacy profession was business oriented. Those who were trained to sell drug were called drug sellers or dispensers. The pharmacy practice during pre - independence era was highly unregulated and there were no restrictions on the practice of pharmacy in India. The initiation of pharmacy practice in India was started by the Chemist and Druggist program in 1870 to train students to gain skill in pharmacy practice. In 1881, a formal training of the compounders was started in Bengal. Indian systems of medicines includes different systems like Ayurveda, Unani, Siddha, Yoga, Naturopathy and Homoeopathy. The profession of Pharmacy practice pass through five stages –

Ancient Era – In 20th century, pharmacist were involved in the formulation, dispensing and study of medicinal properties of the natural products of animals, plants and mineral origins. Also pharmacist were involved in conducting animal experiments, classification of drugs for treatment and extraction of plant for preparation of medications.

Empiric Era – It began after World War II. In this era pharmaceutical industry were started and the pharmacist in the factories made drugs. The pharmacist were involved in scientific study of drugs, mechanism of action of drugs, side effects of drugs and release of drugs from the dosage forms.

Patient Care Era – This era began in second half of the 20th century. In this pharmacist were educated in the area of clinical pharmacy to develop pharmacokinetics of drug which include absorption, distribution, metabolism and excretion of drugs. Also attention was given to pathophysiology to study disease and illnesses affecting the normal function of the body.

Industrialization Era – In 20th century the development of manufacturing of mass production of medicines was began. Preparation of biological products, increased use of parenteral medications

were the part of this period. Pharmacist played an important role in the development of pharmaceutical industry in this era.

Genetic Engineering Era – In this Era the role of pharmacist was expanded which include appropriate use of medication, monitoring the response of drugs, educating patients and dispensing prescriptions. Today pharmacist play an important role in the healthcare sector as they take responsibility for patients medicine with genetically engineered drug. In India only the supply of medicines is the core activity of the pharmacist. Very few pharmacist in country offer patient oriented service (patient counselling).

Symbol of pharmacy

Bowl of Hygeia along with rod of Asclepius is combinely known as Symbol of Pharmacy. The rod symbol indicates Asclepius is known as the God of medicines revered by Greeks. The bowl of the symbol indicates the contribution of Hygeia who was daughter of Asclepius and known as goddess of Health and Wellness. And the snake around the bowl and Rod indicates the cult of Asclepius known as the Serpent of Epidaurus. According to Greek mythology, Hygeia tended her fathers temples with a bowl of medicinal potion from which the serpent of wisdom, healing and immortality drank the medicines.