WJPMR, 2026, 12(11), 558-562

Review Article

WORLD JOURNAL OF PHARMACEUTICAL AND MEDICAL RESEARCH

www.wjpmr.com

Impact Factor: 7.533

ISSN (O): 2455-3301

ISSN (P): 3051-2557

Coden USA: WJPMBB

PHARMACY WALKS ON ITS TWO LEGS: CHEMISTRY & BIOLOGY TO MAINTAIN PROPER HEALTHCARE SYSTEM

[1]Dr. Pruthviraj K. Chaudhary, [1]Shloka Vijaykumar Chaudhari, [2]Dr. Devanshi Chaudhary, [3]Dr. Manoj P. Gadhvi, [4]*Dr. Dhrubo Jyoti Sen

[1]Shri Sarvajanik Pharmacy College, Gujarat Technological University, Arvind Baug, Mehsana-384001, Gujarat, India.
[2]Smt. NHL Municipal Medical College, Ellisbridge, Ahmedabad-380006, Gujarat, India.
[3]Assistant Commissioner, Food and Drugs Control Administration, District Government Campus, Government Multi-storeyed Building, Block No. 4, Mehsana-384001, Gujarat, India.
[4]School of Pharmacy, Techno India University, Sector-V, Salt Lake City, EM: 4/1, Kolkata-700091, West Bengal, India.

***Corresponding Author: Dr. Dhrubo Jyoti Sen**

Shri Sarvajanik Pharmacy College, Gujarat Technological University, Arvind Baug, Mehsana-384001, Gujarat, India. **DOI:** https://doi.org/10.5281/zenodo.24582012

How to cite this Article: 1Dr. Pruthviraj K. Chaudhary, 1Shloka Vijaykumar Chaudhari, 2Dr. Devanshi Chaudhary, 3Dr. Manoj P. Gadhvi, 4Dr. Dhrubo Jyoti Sen*. (2026). Pharmacy Walks on Its Two Legs: Chemistry & Biology To Maintain Proper Healthcare System. World Journal of Pharmaceutical and Medical Research, 12(11), 558–562.
This work is licensed under Creative Commons Attribution 4.0 International license.

Article Received on 05/10/2026 **Article Revised on 25/10/2026** **Article Published on 01/11/2026**

ABSTRACT

A pharmacist is a licensed healthcare professional trained to prepare, dispense, and advise on the safe and effective use of medications. They explain side effects and drug interactions, and in many places also give vaccines or basic health screenings. In ancient times, "pharmacy" came from the Greek word pharmakon (and related pharmakeia), which meant drug, medicine, remedy, poison, spell, or magic potion. It reflected an early view where healing substances and harmful toxins were closely linked.

Synonyms & Related Terms

• Chemist (common in British and Commonwealth English)
• Druggist
• Apothecary (historical or formal)
• No strict line between healing and harm: A single substance could cure or kill depending on how it was used or dosed.
• Natural, hands-on preparation: Remedies came from plants, animals, and minerals. Early records—such as Sumerian clay tablets, Egypt's Ebers Papyrus (~1500 BC), China's Shennong Bencao Jing, and ancient Indian texts like Charaka and Sushruta Samhita—documented ingredients and recipes. Pharmacy only became a distinct profession separate from medicine later on, notably during the Islamic Golden Age (such as early drugstores in Baghdad) and later medieval regulations. For a broader overview of milestones. Combined with healing and spirituality: Ancient healers, priests, shamans, and physicians often prepared and gave remedies themselves while also addressing spiritual or folk beliefs about illness. A chemist and druggist is a traditional term for a retail pharmacy and the professional who prepares, dispenses, and sells medicines and healthcare products.
• Historical origin: The paired title comes from British and European pharmacy traditions, where chemists prepared medicinal formulations and druggists traded in drugs and remedies.
• Current terminology: Today, these shops and professionals are generally called pharmacies and pharmacists. In India, official rules have moved toward using "pharmacy," though many retail medical stores still use "chemist and druggist" on their signage.

KEYWORDS: Chemist, druggist, pharmacy.

INTRODUCTION

Pharmacy is the health science and profession focused on preparing, dispensing, and managing medications to ensure their safe and effective use. It also refers to a physical or online shop or hospital department where medicines are prepared and dispensed.

The **Oath of a Pharmacist** is a solemn pledge taken by student pharmacists and graduates committing to patient care, ethical conduct, and professional responsibility.



Figure 1: Drugs/Medicines.

Revised Oath of a Pharmacist (Global/APhA & AACP Standard): Endorsed by the American Pharmacists Association and the American Association of Colleges of Pharmacy, the revised oath commits practitioners to patient welfare, health equity, lifelong learning, confidentiality, ethical conduct, and mentoring future generations. The complete text of the pledge is available through the AACP Oath of a Pharmacist Resource Page.[1]

1. I promise to devote myself to a lifetime of service to others through the profession of pharmacy. In fulfilling this vow.
2. I will consider the welfare of humanity and relief of suffering my primary concerns.
3. I will promote inclusion and belonging, respect differences in all individuals, and address health disparities to advance health equity for all people.
4. I will apply my knowledge, experience, and skills to the best of my ability to assure optimal outcomes for all patients.
5. I will respect and protect all personal and health information entrusted to me.
6. I will accept the responsibility to improve my professional knowledge, expertise, and self-awareness.
7. I will hold myself and my colleagues to the highest principles of our profession's moral, ethical and legal conduct.
8. I will embrace and advocate changes that improve patient care.
9. I will utilize my knowledge, skills, experiences, and values to prepare the next generation of pharmacists.
10. I take these vows voluntarily with the full realization of the responsibility with which I am entrusted by the public.



Figure 2: Chemist/Druggist.

Pharmacist Oath in India (Pharmacy Council of India)

In India, the Pharmacy Council of India outlines professional responsibilities requiring pharmacists to:

- Serve as an integral member of the healthcare team while upholding legal and professional standards.
- Continuously expand their knowledge to benefit public health and pharmacy practice.

- Deliver patient-centred care, offer counselling, and safeguard patient confidentiality.
- Work toward developing and providing quality medications to ease human suffering.

Key Meanings
- **Science and profession:** The study and practice of drug formulation, chemistry, pharmacology, and clinical medication management.
- **Place:** A retail drugstore, chemist's shop, online pharmacy, or hospital dispensary where prescriptions are filled and health products are sold.[2]

Synonyms and Related Terms
- **Places:** Drugstore, chemist's (shop), dispensary, apothecary (historical or retail).
- **Disciplines/fields:** Pharmaceutics, pharmaceutical science, clinical pharmacy.

A **pharmacist** is a licensed healthcare professional who specializes in preparing and dispensing medications and advising patients and other providers on their safe and effective use.

Key Responsibilities
- **Dispensing medications:** Filling prescription orders and checking for safe dosages and drug interactions.
- **Patient counselling:** Explaining how to take medicines, what side effects to expect, and how to use over-the-counter drugs or supplements.
- **Clinical and preventive care:** Administering vaccines, performing health screenings, and helping manage ongoing conditions.
- **Provider collaboration:** Working with doctors and nurses to select appropriate therapies and prevent medication errors.

Synonyms and Usage Examples
- **Synonyms:** Chemist (common in the UK and Commonwealth), druggist, or apothecary (historical or informal).

Usage examples
- "The pharmacist checked my prescriptions for potential interactions before handing them over."
- "Ask the pharmacist how to store your insulin and whether you should take it with food."

World Pharmacists Day is celebrated every year on **September 25**. It recognizes the role of pharmacists in improving health and patient care worldwide.

Key Details
- **Organizer:** Led by the International Pharmaceutical Federation (FIP), which established the day in 2009.
- **Origin:** September 25 marks the founding of FIP in 1912.
- **2026 Theme:** "*Empowering pharmacists for healthier futures*". In India, the Pharmacy Council of India (PCI) paired the celebration with National Pharmacy Week under the mission "***Swastha Bharat: Combating Antimicrobial Resistance (AMR)***".[3]



Figure 3: World Pharmacy Day and National Pharmacy Week.

- **2027 Theme:** FIP will announce the theme for World Pharmacists Day 2027 in early 2027.

Role of Pharmacists
- Dispensing medications safely and explaining usage instructions.
- Checking for drug interactions, side effects, and supplement conflicts.
- Supporting public health through vaccinations, screenings, antimicrobial stewardship, and patient counselling.

National Pharmacy Week in India was initiated by the Indian Pharmaceutical Association (IPA), not by a single individual inventor. National Pharmacy Week is celebrated to recognize the vital role pharmacists and pharmacy technicians play in patient care, medication safety, and public health. It also raises public awareness about safe medicine use and supports professional growth in pharmacy. National Pharmacy Week in India is celebrated in the third week of November, and in 2026 it centres on the overarching mission of "स्वस्थ भारत:

Combating Antimicrobial Resistance (AMR)" alongside World Pharmacists Day (September 25, 2026).

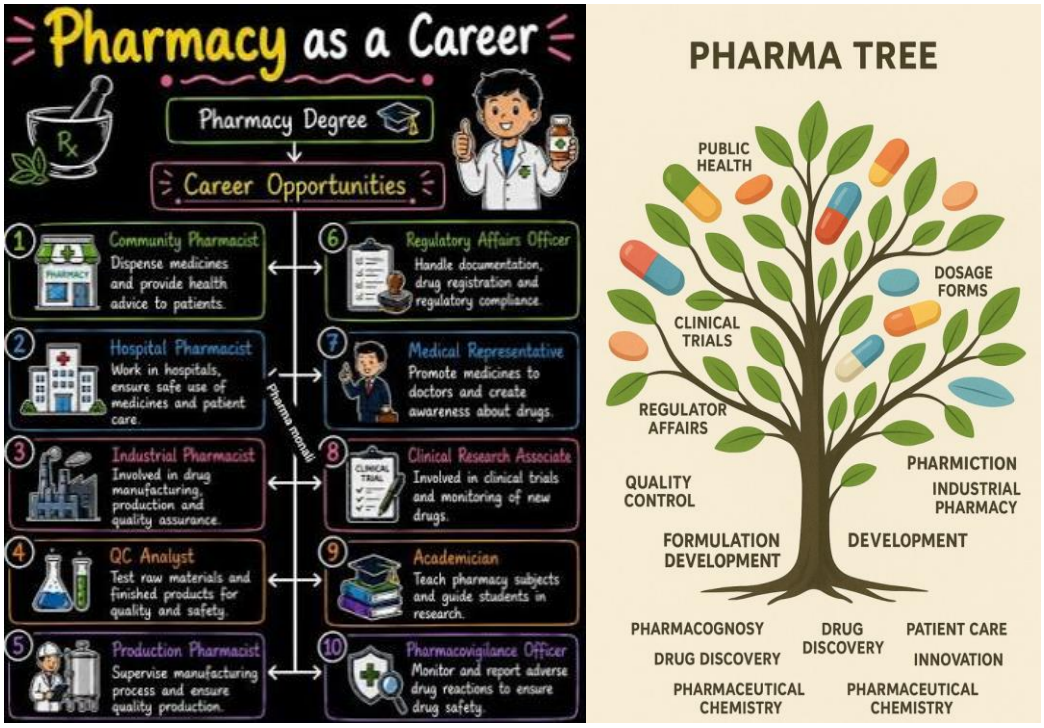


Figure 4: Pharmacy Profession.

Key Highlights for 2026

- **India (Pharmacy Council of India):** Observed during the third week of November 2026, with a strong focus on antimicrobial resistance (AMR), rational medicine use, and public awareness campaigns. More details and notices are available through the Pharmacy Council of India.
- **United States (ASHP):** Observed during the third full week of October (October 18–24, 2026) to recognize pharmacists and pharmacy technicians in hospitals, clinics, and health systems.

World Pharmacy Week is observed globally from September 19 to September 25, culminating on World Pharmacists Day (September 25). Organised by the International Pharmaceutical Federation (FIP), it recognises the wider pharmacy workforce, including pharmaceutical scientists, pharmacy technicians, and collaborative partners.

Key Highlights for 2026

- **Global Theme:** "Empowering pharmacists for healthier futures," focusing on skills, recognition, and health-system support across community, hospital, industrial, and research settings.
- **In India (National Pharmacy Week):** Celebrated during the third week of November (November 15–21, 2026) under the Pharmacy Council of India (PCI).
- **India Focus & Local Event:** PCI's 2026 celebrations centre on *"Swasth Bharat: Combating Antimicrobial Resistance (AMR)"*.

Key Purposes

- **Honour pharmacy professionals:** Recognize pharmacists, pharmacy technicians, and students for ensuring safe medication use and supporting healthcare teams.
- **Educate the public:** Highlight how pharmacists counsel patients, manage drug therapy, and prevent issues like self-medication or antibiotic resistance.
- **Promote safe and rational medicine use:** Encourage proper adherence, vaccination advocacy, and informed choices about medications.
- **Advance the profession:** Support continuing education, research, leadership, and collaboration across healthcare.

When It Is Celebrated

Dates and focus areas vary by country and organization

United States: Celebrated during the third full week of October (such as October 18–24, 2026), organized with resources from groups like ASHP.

India: Celebrated annually (often in November) under initiatives guided by bodies such as the Indian Pharmaceutical Association and the Pharmacy Council of India.

- **First observed:** 1962 (the 59th edition was held in November 2020, and the 63rd in November 2024).
- **When it takes place:** The third week of November each year.
- **Organizers:** Originally started and long led by the Indian Pharmaceutical Association (including branches like the Indian Pharmaceutical Association

(Bengal Branch)), with the Pharmacy Council of India (PCI) also organizing and sponsoring observances.

- **Purpose:** To highlight pharmacists' contributions to healthcare and raise public awareness about safe medicine use and health topics.[4]

Prof. Mahadeva Lal Schroff (1902–1971) is widely called the **father of pharmacy** (and pharmacy education) in India.

CONCLUSION

Pharmacy is the science and practice of dispensing, preparing, reviewing safety and efficacy, monitoring, discovering, producing, and consulting about medications, aiming to ensure the safe, effective, and affordable use of medicines. It is an interdisciplinary science as it links health sciences, pharmaceutical sciences, and natural sciences with the humanities. The professional practice is clinically oriented, with most drugs now being manufactured by pharmaceutical industries and prescribed in the medical setting. Based on the setting, pharmacy practice is either classified as community or institutional pharmacy. Providing direct patient care is considered clinical pharmacy, mainly practiced in institutions like hospitals, long-term care facilities, hospice, ambulatory clinics, or psychiatric hospitals. However, more clinical application are becoming important in the community setting to combat barriers to accessing healthcare (e.g., immunizations, point of care testing, oral contraceptive prescribing, administering injectable therapies, suggesting OTC products, or prescribing under Physician backed protocols).

REFERENCE

1. Prof. Dr. Dhrubo Jyoti Sen, Indian academicians seed, harvest, germinate & cultivate the budding pharmacists to serve for mankind because service to mankind because service to human is the service to god; World Journal of Pharmaceutical and Medical Research, 2020; 6(11): 145-151.
2. Janak Acharya, Motilal Asnani, Amrut Dave, Pratik Gandhi, Anand Gangwal, Paresh Jivrani, Kishan Kadia, Nipul Kapadia, Atul Khatri, Prof. Dr. Dhrubo Jyoti Sen and Prof. Dr. C. N. Patel; Pharmaceutical care is an evolutionary and revolutionary way of practicing pharmacy: World Journal of Pharmaceutical and Life Sciences, 2018; 4(6): 105-115.
3. Sunil Maheshwari, Nilesh Modi, Mukesh Patel, Paresh Patel, Suhash Patel, Vijay Patel, Kalpesh Sathwara, Hiren Shah, Pavan Shah, Prof. Dr. Dhrubo Jyoti Sen and Prof. Dr. Pankaj Prajapati; Pharmacists make bridge between pharmacotherapy and healthcare system: European Journal of Biomedical and Pharmaceutical Sciences, 2018; 5(6): 3414-320.
4. Dr. Kishor Dholwani, Dr. Dhrubo Jyoti Sen and Dr. Dhananjoy Saha; Pharmacy & symbols: World Journal of Advance Healthcare Research, 2022; 6(3): 160–163.