

The Evolution Of Clinical Pharmacy Throughout The Centuries.



What is clinical pharmacy ?

Clinical pharmacy is defined as a stream of pharmacy concerned with the science and practice of rational drug therapy that is safe , appropriate and cost-effective. It's a significant branch of pharmacy that involves the provision of patient care with usage of medications to optimise the health outcomes of the patients .

How did clinical pharmacy start ?

Clinical pharmacy started as a movement at the *University Of Michigan* in the early 1960's as a result of pharmacists' discontent with the old practice norms and the realization of the need for health professionals with extensive and sufficient knowledge of drug therapy. Although the development of clinical pharmacy began in the 1950's, most of the pioneering work was done at the end of the 1960's .

The important milestones in the advancement of clinical pharmacy



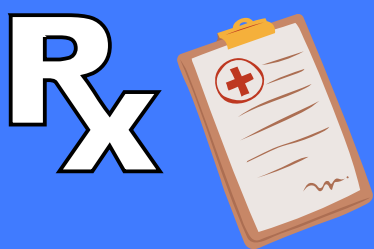
- 1928: Pharmacists at the University Of Iowa hospital began participating in patient rounds.
- 1950: Launch of Pharm.D course by University of Southern California and other universities.
- 1962: University of Kentucky Medical center opened the first drug information center.
- 1960: Establishment of first Office based pharmacy practice and use of patient medication profile .
- 1969: Revision of American pharmaceutical association code of ethics which was forbidding the pharmacist to prescribe or discuss the therapeutic effects or composition of prescriptions.
- 1972: Prescriptive authority to pharmacists and United States who completed pharmacist practitioner training program .
- 1992: The AACP House of Delegates voted to approve the Pharm.D. degree as the only professional degree in pharmacy, doing away with the Bachelor of Science in Pharmacy.
- 2016: The new standards are designed to ensure that graduating pharmacy (Pharm.D.) students are ready to practice in teams and prepared to directly contribute to patient-centered care, work in intra-professional teams, use evidence-based practice, apply quality improvement, and utilize informatics.

A statistical study proving the positive impacts of clinical pharmacy

In the 1980s, research that evaluated whether clinical pharmacy interventions improved health outcomes began to increase substantially. One of the most recent studies, done in 2008 by the Division of Clinical and Administrative Pharmacy at the College of Pharmacy in the University Of Iowa, tested the benefits of physician/pharmacist collaboration in the improvement of blood pressure control. The study concluded that pharmacist intervention could be applied in a large number of variable primary care offices and that it is highly effective. The result of this study was the birth of the collaboration among pharmacists and physicians to improve outcomes now , which aims at evaluating whether the clinical pharmacy can be implemented universally and whether it would have sustained effects.

Variable	Baseline	3 Month	6 Month	Variable	Baseline	3 Month	6 Month
Control (n = 210)				Intervention (n=192)			
Systolic BP	150.6 ±14.1 †	146.1 ±19.6	143.8 ±20.5 †	Systolic BP	153.6 ±12.8 †	134.8 ±14.6	132.9 ±15.5 †
Diastolic BP	83.6 ±12.3	81.5 ±14.0	79.1 ±14.3	Diastolic BP	87.4 ±11.9	79.9 ±11.3	77.7 ±11.2
BP control (%)*	0	25.40%	29.9% §	BP control (%)*	0	49.70%	63.9% §

The future of clinical pharmacy



Primary care: clinical pharmacists can supply or extend primary care services and chronic condition management supporting mental health and minor acute illnesses.

Specialty care: as therapies become more complex, pharmacists' pharmacotherapy expertise will be in even greater demand in specialty areas such as oncology , cell and gene , and rare diseases.

Digital Health: clinical pharmacists could provide access to point and care diagnostics prescribed digital therapeutics , and help customers identify digital health tools for their needs.

Population health analytics: besides clinical activities, pharmacists can move into analytical roles to identify health improvement opportunities, develop algorithms for clinical decision support , population health analytics, and design programs that improve population health.

References