



## Novel clinical pharmacy practice: extended role and improved competencies

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In health care delivery system, if you are not part of the solution, then you must be part of the problem. Over the last few decades, clinical pharmacy encourages pharmacist and pharmacy support staff to move their focus from product-oriented role towards new direct engagement with patient, to make the most of the benefits that patients obtain from the medicine they take, or the problems they encounter with, their medicines use. In USA, pharmacists' participation in physician ward rounds was shown to reduce adverse drug events by 78.0% and 66.0% in general medical and intensive care settings [1, 2]. A study covering 1 029 US hospitals indicated that centrally based and patient-specific clinical pharmacy services are associated with reduced mortality rates [3]. The services involved were medicines information, clinical research performed by pharmacist, active pharmacist participation in resuscitation teams and pharmacist undertaking admission medication histories. New pharmacists' roles in healthcare system around the globe have moved and developed significantly over the past few years, particularly with expansion of scope of practice which allows pharmacist to focus on the clinical aspects of direct patient care [4, 5]. Pharmacist is drug therapy experts of health care team. Therefore, pharmacist, today, is the arbiters of effective and safe use of medicines. Medication therapy management is one of the major areas in which physician more and more rely on pharmacist to benefit their patients.

The movement of clinical pharmacy practice has predominantly evolved since the middle's 60s and has given new direction to the contemporary practice of pharmacy in all settings. The recent clinical pharmacy practice goes further than providing pharmaceutical services and/or clinical pharmacy. The skills, activities and services used in the provision of new pharmaceutical care include, but are not limited to, patient assessment, patient education and counselling, patient-specific pharmacist care plans, medicine treatment protocols, dosage adjustment, selection of therapeutic alternatives, prescriptive authority, preventive services and managerial skills. New clinical pharmacy practitioners are health care providers offering 'product plus services' combinations involving assessment roles, as well as treatment and wider health care. The pharmacist's role moved from fee-for-service to value-based payments. Pharmacist provides health care advice and manage chronic medical conditions, as diabetes mellitus, hypertension, hyperlipidemia and anticoagulation as well as nicotine dependence [6, 7]. Pharmacist uses consultation room in their pharmacy to conduct clinics of smoking cessation or provide diabetes education and order diagnostic laboratory tests and interpret tests findings. Pharmacist has a prescriptive authority for specified conditions; minor ailments or conditions; or in emergency circumstances. Pharmacist promotes rational medicine use. They can renew or adapt prescriptions for continuing care. They may make therapeutic substitutions. Pharmacist administers medicines to patients and has an injection authority of vaccines, including

influenza vaccine and travel vaccines or for all vaccines and in some countries of all parenteral drug products. Pharmacist performs home medication reviews as well. Furthermore, bigger involvement of the community pharmacist in primary health care has been emphasized. The pharmacist, being a healthcare resource, deliver public health, health education, health promotion and health coaching services, including health protection and disease prevention programs. Examples include, but not limited to, immunization campaigns, child and maternal healthcare services, fighting against tobacco and drug misuse, abuse and addiction, HIV/AIDS control, cancer screening and more recently COVID-19 prevention, immunization and treatment.

In several countries around the world, physicians are supporting pharmacists in their original roles and in assuming new responsibilities. They are warming to the idea of working alongside pharmacists in their practice settings. Further, many are already trying to integrate pharmacist and medication management to achieve good outcomes. The authors believe that once the Libyan physicians observe the clinical value of the pharmacists' involvement, they won't practice any other way [8]. On the other hand, new clinical pharmacy practice involves a blend of thorough competencies. These include scientific knowledge, clinical skills and social abilities. An appropriate selection, education, training and workforce planning represent a prerequisite for current pharmacy role [9, 10]. Accordingly, specialized education programs are being implemented. Detailed clinical training has been provided. That is an evidence-based clinical practice, with problem-solving approaches. The academic study of pharmacy practice already includes topics as primary health care, health education and promotion, social pharmacy, communication and counseling skills, behavior change, legal and ethical aspects, professional judgments, pharmaco-epidemiology and pharmaco-genomics. Currently, practicing pharmacist has to adapt the necessary knowledge and required skills, so, he/she is able to develop his own practice and role to meet changing needs (continuous professional development). Examples of the new practicing pharmacist certifications include diabetes mellitus management certification, smoking cessation certification and pharmacist travel health certification. Change in a profession is an indication of growth, for thus if a profession fails, to grow, it soon loses its vitality and value to society. A number of forces, both from within and outside the profession of pharmacy have been the agents that produced the recent clinical emphasis in pharmacy practice. Pharmacist is life-long learners; undertake evidence-based practice; train future and fellow member of the profession and pharmacy technician; acting as role models and mentors. Being pharmaceutical experts, pharmacists educate other health professionals, including physician, dentist and nurse on medicines issues. The expanding role of pharmacy technician should liberate the pharmacist to assume more clinical role and responsibility.

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