A New Paradigm for Pharmacy Practice and Education

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Pharmacy practice is currently undergoing a paradigm shift from a product-centered distribution activity to a patient-centered system by which pharmacists are assuming new responsibilities, helping patients achieve healthy outcomes, and providing value previously unrecognized by the health care system. In order to accomplish this paradigm shift, the pharmacy profession must establish new relationships with both patients and their health care providers to assure better outcomes. To accomplish this goal, the health care system needs to be refined to assure appropriate selection, use, and monitoring of pharmaceutical drug products.

Our present health care system of drug prescribing, dispensing, administration, and consumption frequently results in drug therapy outcomes that are less effective, appropriate, safe, and economical than is desired. There are impressive and undeniable amounts of evidence that support the premise that drug-related adverse events are all too pervasive and costly in our current system. The weaknesses of our current system are the result of a lack of collaboration, communication, and coordination of pharmaceutical care delivery. The development of a more coordinated, collaborative and interdisciplinary team approach toward patient care would enable our health care system to attain improved outcomes and more cost-effective drug therapy.

Prescribing medication is now a complex process of selection from a vast and rapidly expanding number of pharmacologic agents which have both significant and subtle differences in action, side effects, and interactions with other medications. This is further complicated by differences in the efficacy, cost, and cost-effectiveness of various pharmacologic agents. Despite these complexities, the process of prescribing and the health professionals involved have changed very little over the past fifty years.¹

There are many factors impacting health care in the United States, the aging of the baby boomer generation being one of the most significant. The aging of baby boomers is predicted to result in an increasing number of elderly adults, many of whom suffer from chronic

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conditions and thus require a growing number of health care practitioners to meet their medical needs. Consequently, the number of medications prescribed in this country will increase, resulting in a demand for additional pharmacists and the medication distribution and patient care services that they provide.

The profession of pharmacy is uniquely positioned to provide the clinical expertise and administrative leadership necessary to assure the quality of drug therapy management (MTM) through the delivery of pharmaceutical care. The practice of pharmaceutical care is by definition patient-centered practice and evidence-based and is most effectively delivered in a well-functioning inter-professional team.\(^2\) The profession of pharmacy is the logical solution to meeting the challenge of controlling the effectiveness, minimizing the complexity, and managing the expense of pharmacotherapy in a new emerging health care system.

Health care leaders and administrators recognize that specific attention must be focused on the design and process of medication use systems that can assure patient safety. There is increasing data to suggest that pharmacists must play two distinct roles in the activities surrounding medication use. Firstly, they must build and oversee safe, efficient, and sophisticated medication distribution systems. Secondly, they must organize and deliver patient-centered pharmaceutical care. Unfortunately, cost control of drug spending remains the predominant financial objective of many of our decision makers.

The future mission of pharmacy practice and how pharmaceutical education needs to evolve to keep pace with changes in our health care system were questions examined in 1989 by a commission appointed by American Association of Colleges of Pharmacy (AACP) President William Miller. This was a time when the concept of pharmaceutical care was coined by the work of academic leaders Charles Helfer and Linda Strand. Pharmaceutical care has been evolving during the past ten to fifteen years and is now starting to be considered an essential component of the delivery of quality patient care.

The Janus Commission was appointed by 1995-1996 AACP President Mary Ann Koda-Kimball to review the health care environment and identify, analyze, and predict changing forces that might be considered to profoundly influence pharmacy practice, education, and research. In 1997, this commission reported that a revised model for pharmacy education would be needed to meet the challenges presented by a changing health care system. The Commission predicted health care delivery would become increasingly managed in integrated health systems, in which practitioners would be more accountable for the delivery of efficient, patient services with defined quality outcomes.\(^3\)

The 2003-2004 AACP Argus Commission was organized by and comprised of the past five presidents of the AACP. This commission was specifically charged to define the unique roles and responsibilities of the AACP and academic pharmacy in enabling the profession to achieve its goal of delivering pharmaceutical care as the standard for pharmacy practice in all settings. The Argus Commission reviewed the Janus Commission report and concluded that while change in the health care system did not occur as quickly as predicted, many of the findings and recommendations remained relevant to pharmacy education for the early 21st century.\(^4\)

While the 2003-2004 Argus Commission conducted its discussions, Congress debated and subsequently passed legislation designed to introduce the most sweeping changes in
Medicare since the program’s conception. The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 reformed and established a new benefit that provides coverage for drugs as well as pharmacist services. All plan sponsors are required to make “medication therapy management services” available to certain high-risk patient populations. Pharmacists can and should become the primary providers of these services because of their technical expertise and knowledge of MTM.

Through adoption of new accreditation standards and accompanying curricular reforms, colleges and schools of pharmacy have accomplished significant changes, in addition to changing from a BS to an all Doctor of Pharmacy degree program. The pharmacy educational process has been changed to a more problem-based, active learning model that prepares students to be more patient-centered medication specialists.

The future of pharmacy practice is one which includes having pharmacists with the authority and autonomy to manage medication therapy and to be accountable for their patients’ therapeutic outcomes. They will accomplish this goal by collaborating and communicating with other health care providers, patients and their caregivers. By practicing in a health care system that has an established interdisciplinary process, patients’ drug therapy management can be coordinated in a team approach to achieve optimal therapeutic outcomes. Leadership is needed, however, to achieve this process of a true partnership with other health care professionals and to make these changes in our current health care system.

When the city of Asheville, the North Carolina Association of Pharmacists, and North Carolina Center for Pharmaceutical Care (NC-CPC) partnered on a program that was named the Asheville Project in 1997, they focused on the disease state of diabetes. Pharmaceutical care services (PCS) were provided for two employer groups of patients in 12 community pharmacies in Asheville, North Carolina. This study was unique in that it is the first such project to assess, for periods as long as 5 years, the clinical and economic outcomes of community pharmacy-based PCS in diabetic patients.

The initial phase of the study was to assess short-term outcomes after the first 7 to 9 months of PCS and to evaluate the effect of PCS interventions on short-term outcomes. Then the project was extended to assess the long-term outcomes for up to 5 years.

Patients were partnered with community pharmacists who provided PCS by reviewing their medications and making sure that patients were taking them correctly. The Asheville Project allowed community pharmacists to provide PCS in their community pharmacies to employees, retirees, and their dependents with diabetes. Pharmacists were reimbursed for the cognitive services that they provided to all of their patients throughout the study. The pharmacists were able to demonstrate improved glycosylated hemoglobin (A1C) concentration levels, lower total health care costs, fewer sick days, and increased satisfaction with the PCS. The community pharmacists were able to demonstrate these results without incurring an increase in direct health care costs.

The Asheville Project, in addition to utilizing and reimbursing pharmacists for cognitive services, used a model where the payer realigns the incentives for patients and providers. Patients and providers were given incentives to maintain their health, rather than waiting until they were sick and needed acute care medical services. This project has changed the way innovative payers are looking at the health care
system and rethinking their payment strategies.

Studies like the Asheville Project provide us with a lesson regarding future strategies for reversing and controlling medical care. We must not look at medical care costs as separate silos for medical care and pharmacy claims. This project has given government programs, like the Medicare Part D, a new paradigm to make an investment in MTM to decrease overall medical costs. Pharmacists are in the perfect position to provide MTM both now and in the future.

References