2006 marked the 40th year of publication for *The Annals*. Throughout its history, *The Annals* has provided important contributions to the development of clinical pharmacy. In 2007, we are continuing to publish articles reflecting on the history of clinical pharmacy through the eyes of practitioners, including those pioneering clinical pharmacy, as well as those who have more recently entered the profession and a well-established specialty. In addition, we are also presenting articles and editorials from the early history of *The Annals* that have given direction and shape to the practice of clinical pharmacy (see page 121).

Clinical Pharmacy Practice 30 Years Later

CS Ted Tse

After the promising beginnings of clinical pharmacy in the 1970s, I have not seen any significant improvements over the past 15–20 years. In fact, we seem to be no further along now than we were as described in the article published in 1983 on "two steps forward, one step back."[1] Unfortunately, today's pharmacy leaders don't seem to have a clear sense of direction and vision of where the profession should go. After they abandoned the term "clinical pharmacy practice" (which I feel is the most appropriate description of what the clinical pharmacist does), several names have replaced it, including pharmacotherapy, pharmaceutical care, medication therapy management, and pharmacy administration practice.

Today, other countries have made advances in clinical pharmacy practice that have brought them closer to our level of practice, while we have stagnated. A large gap has developed between retail pharmacy and hospital pharmacy, and we seem unable to merge the standards to achieve the highest quality of clinical pharmacy practice throughout the profession. Retail pharmacists are still able to use only a fraction of what they have learned in pharmacy schools and colleges. Much needed patient counseling practices addressing topics such as diabetes, asthma, and the administration of immunizations are offered in only a small fraction of retail pharmacy settings.[2]

It was disappointing that the 6 year PharmD program was designed to build clinical practice but was not put to good use in the retail setting, due to the busy prescription filling activities of the pharmacists. Depending on the location of the store at which they are working, pharmacists may have to fill 200–300 prescriptions a day, leaving little time to perform drug monitoring and other clinical activities.

In addition to the lack of clinical practice in the retail setting, cost cutting in hospitals has eliminated many clinical pharmacy positions, and true clinical practice positions are available almost exclusively in teaching medical centers, with a prerequisite of residency and/or fellowship completion.

Looking for different directions in which to advance my clinical practice in the 1990s, I joined the American Society of Consultant Pharmacists, obtained board certification in Geriatrics Pharmacy (Certified Geriatric Pharmacist), and engaged in the consulting pharmacist business part-time as a hospice pharmacy consultant at one of the largest hospice care companies in the US. Due to staffing reduction crises in the 1990s, a hospital in which I worked eliminated the positions of several managers and many other staff, including my clinical practice position. This was done after I had performed 12 years of excellent service and published 20 articles, including a primer on the intravenous to oral antibiotics switch program that I imple-

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mented, which saved the institution $2.5 million over a 2 year period.[3] Some hospital administrators are willing to eliminate clinical pharmacist positions because most clinical work performed is considered nonproductive (ie, not related to dispensing of medications).

The cost savings generated by clinical activities is evident only on paper: no real revenue is collected from patients or insurance companies. The current clinical pharmacist positions in the US are usually 50% dispensing and 50% traditional clinical practice. These functions include renal dosage adjustments, pharmacokinetics consultations, new drug monographs, newsletters, nursing education, and Pharmacy and Therapeutics Committee functions; these functions are not much different from those of pharmacists practicing 30 years ago. Pharmacists who are offering clinical services such as pharmacokinetics consultations, patient counseling, and disease state management are still struggling to obtain decent compensation from the government or insurance companies.

The public may perceive that more pharmacists are needed because they wait too long in drugstores for their prescriptions to be filled. They also appreciate having clinical services available; however, at this time, the great majority of pharmacists in the retail setting are unable to provide them. Having recognized patients' needs for more intervention in this setting, nurse practitioners are now residing in many drugstore's "health corners," consulting with patients and providing them with prescriptions. Pharmacists are missing the boat on being reimbursed for performing additional clinical functions because they are too busy filling prescriptions. However, at this time, this is the primary function reimbursed by insurance companies.

The chief medical officer of the institution at which I am currently employed announced recently that our corporate health centers will collaborate with nurse practitioners and set up health corner clinics at selected retail drugstores in the Greater Chicago area. These nurses will "diagnose and treat minor ailments and write commonly used prescriptions for illnesses in each clinic, including strep throat; ear, sinus, upper respiratory, and bladder infections; pink eye; poison ivy; seasonal allergies; and other ailments…." The average fee for services will range from $59 to $74 per visit. I just learned that a similar arrangement was quickly duplicated by another group of chain drugstores, and the average fee for services costs only $40 per visit.

Thirty years ago (around 1975–1976), when I first became a clinical pharmacist, I was engaged in similar practices at a Medical Center Allergy Clinic.[4] The attending physician would provide me with a stack of his signed prescription blanks and have me assess and monitor patients with asthma. I would test the patient's peak expiratory flow, obtain the patient's drug histories, and assess whether to continue the same dose of asthma medications or to give the patient refills for treatments such as inhalers. I then completed the preauthorized prescription blanks and gave them directly to the patients.

The profession of pharmacy could become engaged in similar levels of clinical practice in the community and pursue reimbursements from the insurance companies, especially in areas of drug efficacy monitoring and dosage adjustments. Pharmacists are experts in adjusting doses of cardiovascular, asthma, and diabetic medications; monitoring the concentrations of drugs such as digoxin and warfarin; and detecting drug interactions and adverse reactions, whereas nurse practitioners are lacking in these skills.

At present, it is only other healthcare professionals who have achieved "physician-like" status—not the 6 year PharmD professional. PharmD status does not carry the same prestige as the clinical status of podiatrists, optometrists, or clinical psychologists, who also hold the title of "doctor." Unless we can be reimbursed for our clinical practice, we will not be recognized as "doctors." If our major source of income is from filling prescriptions, the public will still be calling us "druggists" or "pharmacists," even if we lengthen the pharmacy school curriculum to more than 6 years and raise our standards according to the American Council for Pharmacy Education (ACPE) 2007 guidelines.[5]

Before setting higher standards, as stated in the accreditation standard of PharmD graduates for 2007,[5] the deans of all colleges of pharmacy should conduct confidential, comprehensive reviews of fifth and sixth year pharmacy students, asking them about their plans following graduation (eg, clinical practice, dispensing, research, graduate school, pharmaceutical industry, consulting, fellowships, residencies, medical school). Then they should set the curriculum for the next 5–10 years, according to their findings. The pharmacy schools will otherwise be spending a lot of money and time pushing higher and higher standards to no avail should they blindly follow the proposed ACPE guidelines. The general public has little knowledge of pharmacists' clinical skills, believing that their main service is filling prescriptions.

As of today, although most pharmacy schools are producing only 6 year PharmDs, at least half of the pharmacists continue to be opposed to that program.[6] Are we moving in the wrong direction? The pharmacy profession needs to have a shared vision and set up a clear sense of direction as to where the profession should go in the next 20–30 years. Not all PharmD graduates want to be clinicians; most fifth and sixth year pharmacy students whom I taught (as adjunct associate and assistant clinical professor at Midwestern University and the University of Illinois College of Pharmacy) wanted to be dispensing pharmacists when I asked about their goals after graduation during their first week of the advanced hospital rotation. They would do this to pay off their college debts, at least in the

first few years after their graduation. After that was accomplished, then they would consider what they believed to be an easier, less stressful position in a hospital.

Pharmacy leaders 30 years ago struggled against opposition from both within the profession as well as from other healthcare professions to establish clinical pharmacy practice. The vision of being paid for monitoring patients' drug therapy developed during that time, but has not been pursued persistently. If we had established the value and need for our services in the clinically focused retail setting, our 6 year PharmD graduates would be sitting side-by-side with nurse practitioners in these pharmacies, monitoring patients' therapy rather than having to fill 200–300 prescriptions a day.

The pharmacy profession must work harder to promote its clinical expertise to the public. This can be achieved by advertising our skills to the public and to the government, using a myriad of media communications. The profession needs to stress to the public that pharmacists are experts in drug therapy and, thus, are an essential part of the preventive healthcare system. If we can create the perception that pharmacists should be paid for performing tasks that they are already trained to do clinically (ie, adjusting doses to lessen the incidence and severity of adverse effects, minimizing duplication of drugs used for the same purpose, saving the patients money, reducing patients' chances of readmission), we could add our slot in the health corners, beside the nurse practitioners.

The colleges of pharmacy, various pharmacy associations and organizations, and pharmaceutical industries must support and fund the advertising campaign for promoting the clinical skills of pharmacists. Hopefully, through this effort, the public, the insurance industry, and the government will see more need for the clinical services of pharmacists and will be willing to pay for these services.

We must reflect on our missed opportunities to advance our profession. I believe that there have been no significant changes in the 15 years since my letter raising the above concerns appeared in *The Annals*.[7] In the next few years, perhaps another Don Francke or Harvey Whitney will rise from the ashes, reaffirm the vision of these pioneers, and set directions to achieve our long-standing goal of moving our profession from dispensing drugs to providing full clinical pharmacy services.

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