

THE ANNALS: 40-YEAR EVOLUTION

2006 marks the 40th year of publication for *The Annals*. Over that time, *The Annals* has been an important contributor to the development of clinical pharmacy, with the journal's founder and first editor, Dr. Don E Francke, exerting a profound influence on the evolution of the profession of pharmacy. Throughout 2006, we will publish articles authored by practitioners, including those pioneering clinical pharmacy, as well as those who have more recently entered the profession and a well-established specialty. Donald C McLeod, the first chairman of the Editorial Board for *The Annals*, presents the initial article of the series in this issue. Edward Hartshorn, one of the first to recognize the significant impact of drug interactions on pharmacotherapy, also offers his memories of the early days of the journal and how clinical pharmacy has grown (see page 112).

In addition, we are also presenting editorials from the early history of *The Annals* that have given direction and shape to the practice of clinical pharmacy (see pages 114-22).

Milap Nahata and Harvey Whitney

Contribution of *The Annals of Pharmacotherapy* to the Development of Clinical Pharmacy

Donald C McLeod

The year 1967 was momentous in the formation of my professional ethic and ambition. In January, I was halfway through a hospital pharmacy residency precepted by Harvey AK Whitney Jr at the University of Texas Medical Branch in Galveston. Graduating from the University of North Carolina (UNC) at Chapel Hill in 1966, I had no coursework in biopharmaceutics, pharmacokinetics, or pathophysiology, nor had I ever heard of clinical pharmacy. The residency was making me well aware of recent developments in drug distribution control and clinical pharmacy, and Whitney was intimately familiar with key events in the evolution of hospital pharmacy in the preceding 25 years.

HAK Whitney Sr is considered the key founder of the American Society of Hospital Pharmacists, which was established in 1942; the Whitney Award Lecture is presented annually in his honor. In 1927, Whitney Sr established the first formal hospital pharmacy internship 10 years ahead of a second one being conceived in Cleveland. Donald E Francke was trained as a hospital pharmacy intern in Whitney's program, now called a residency, at the University of Michigan Hospitals. Francke was later pharmacy director at the University of Michigan and trained Harvey AK Whitney Jr.

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Francke was a renaissance man in pharmacy. He served as president of both the American Pharmaceutical Association (APhA) and the American Society of Health-System Pharmacists (ASHP) and was instrumental in developing the PharmD programs at the University of Michigan and the University of Cincinnati. Francke became editor of the *American Journal of Hospital Pharmacy* (AJHP), which was started by Whitney Sr as the *Bulletin of the ASHP*, and evolved the AJHP into a highly respected journal. Whitney Sr had published, in 1938, the *Formulary of the University Hospital* for the University of Michigan. Five years later, when Francke became pharmacy director at the University of Michigan Hospitals, he vastly improved the *UMH Formulary* over several years and donated it to become the basis of the ASHP's highly respected *American Hospital Formulary Service*. Francke conceived the *International Pharmaceutical Abstracts* and was a founder of the Drug Information Association and first editor of its journal, among other seminal achievements. While on the ASHP staff and editor of the AJHP, Francke felt constrained by the ASHP board and opted for a career change.

That January 1967 in Galveston, I opened the hospital pharmacy mail and there was the first issue of a new journal, *Drug Intelligence*, founded and edited by Francke. Through Harvey AK Whitney Jr, I learned the background leading up to this event, and later that spring at the APhA

annual meeting in Las Vegas, I met the man. He was distinguished and calm in demeanor and had the appearance of a statesman and diplomat. In the first *Drug Intelligence* issue, one of several stated objectives was to encourage the development of specialization within hospital pharmacy in such areas as drug information service and clinical pharmacy practice. No pharmacy organization was even close to such progressive thinking; a decade later, the APhA tried to define clinical pharmacy and failed. Not all failures are regrettable! Clinical pharmacy was revolutionary in the late 1960s and 1970s, and the unfettered actions of free-thinkers and innovative practitioners and educators would determine the outcome, not rear-guard committees and status quo organizations who would co-opt the movement and dilute it in a larger amalgamation. *Drug Intelligence*, later as *Drug Intelligence and Clinical Pharmacy (DICP; 1969)*, *DICP—The Annals of Pharmacotherapy (1990)*, and, finally, as *The Annals of Pharmacotherapy (1992)*, was the forum for debate, introspection, speculation, and controversy that fueled the clinical pharmacy fire.

One has only to review the content of pharmacy journals at the launching of *Drug Intelligence* in 1967 to understand the change. There was virtually no pharmacotherapeutic content and clinical pharmacy had no advocate. Two early *Drug Intelligence* initiatives were John Wagner's long-running series on biopharmaceutics and pharmacokinetics and Edward Hartshorn's inexhaustible analysis of the basis of drug-drug interactions and their consequences. Norman Ho and various colleagues began what became numerous articles on intravenous drug therapy and incompatibility. All of these were early journal developments and today still constitute much of the basis of clinical pharmacy practice. Francke foresaw the utility of this journal content and solicited it. A good editor does more than edit; innovative content and causes are sought and talent is identified and encouraged. These areas of pharmacokinetics, drug interactions, and intravenous therapy are foundational content for the practice of clinical pharmacy. Soon after the journal was founded, pharmacotherapy content began coming in from the field, and numerous role model descriptions and innovations were featured in what was then named *DICP*.

Two early pharmacotherapy series, which have run through today under various names and editors, are the Drug Information Analysis Service (DIAS) Rounds, initiated in 1970 by Joseph Hirschman and Robert Mauldin of the University of California—San Francisco (UCSF) College of Pharmacy, and the Drug Evaluation Data column started by myself at the UNC—Chapel Hill School of Pharmacy in 1971. The DIAS Rounds set an important high standard in the provision of drug information analysis. The Drug Evaluation Data column (now Formulary Forum) was the first sustained effort to critically evaluate new

drugs at the time of marketing. A very useful series of clinical case studies introducing basic pathophysiology, clinical symptoms, and laboratory findings was created by Margaret McCarron MD of the University of Southern California School of Medicine. Keep in mind that, in the early 1970s, the great majority of hospital pharmacists were not trained in clinical aspects of pharmacy and that this case study series was new material for all except recent PharmD and residency graduates. As PharmD education and postdoctoral residency and fellowship training became more developed throughout the 1970s, the pharmacotherapeutic content of the journal steadily increased and accurately reflected the growing capability and relevance of the clinical pharmacy movement.

Several individuals deserve mention for helping the journal achieve prominence and a large hospital, academic, and international following. John Oliver, who was trained by Francke, and his successor, William E Smith, both directors of pharmacy at Long Beach Memorial Hospital, published several articles describing the development, functioning, and results of the decentralized clinical pharmacy program there. Donald Brodie of the UCSF College of Pharmacy wrote a highly influential article in 1967 titled "Drug Use Control—the Keystone to Pharmaceutical Service." Brodie defined drug use control as that system of knowledge, understanding, judgments, skills, controls, and ethics that ensures optimal safety in the distribution and use of medications. He further said that the concept relates professional function to patient welfare in the form of drug safety; it is patient oriented. This was a good philosophic underpinning to attach to clinical pharmacy at its dawning. Numerous early clinical pharmacists used the pages of *DICP* to describe exemplary practices in many therapeutic specialty areas of medicine. An early article that cut through many of the later practice area testimonies was a straightforward article on the role of the pharmacist in drug surveillance by Joe E Smith and Andrew Canada of the Jefferson Medical College. These articles seem simple today, but they were the needed inspiration and tactic for clinical pharmacy to gain significant pharmacotherapy importance. *DICP* was the forum.

The last half of the 1970s and the 1980s was a time of great debate in pharmaceutical education, largely involving whether the PharmD degree should be the only entry-level degree into the profession and to what extent pharmacists should be trained at an advanced clinical level. The faculty and graduates of the post-BS in pharmacy PharmD programs (5 y BS + 2–3 y PharmD and residency) believed they had a superior product to the 6-year all-PharmD program. The pages of *DICP* carried much lively debate and commentary. Deans such as Michael Schwartz of the State University of New York—Buffalo and scientists such as Gerhard Levy of the same institution laid out the case for

caution and rigor in the PharmD program implementation. An unforgettable series of satire, underlying the angst of both clinical practice and education reform, was authored by “Dr. Clinical,” formerly known as David Angaran of the University of Wisconsin. He is the only guy I know who received pharmacy school tenure writing slapstick and jokes about pharmacy culture! It was delirious and built great camaraderie in clinical pharmacy circles. Who of that period can answer a beeper without thinking of Dr. Clinical?

In 1975, Francke decided to unabashedly identify *DICP* with the rebellion and appointed, in addition to the contributing editors, a 24-member editorial advisory board comprised of prominent clinical pharmacists. For the first time, the Huns were not only at the gates of Rome, they were in the Forum. These were exhilarating days! Citizenship demands responsibility, and Francke was not disappointed with the contributions of these and other clinical pharmacy leaders.

On November 6, 1978, at the age of 68 years, Francke died suddenly, and all responsibilities of *DICP* were passed to Francke’s former resident, HAK Whitney Jr. Harvey had worked closely with Francke for several years as assistant editor and enjoyed his complete confidence. Speculation abounded in regards to the future of the journal, but Harvey, in his steadfast and analytical way, held the course and found the North Star. He made adjustments to the editorial board and appointed me as the first chairman of the board. Francke had been a benevolent father figure in clinical pharmacy, but Whitney came through strong and in stride. Francke is hardly known by clinical pharmacists trained since his death, but all current practitioners are indebted to him for his intellect, fearlessness, professionalism, statesmanship, and general bucking of the establishment. Francke should have had a desk plaque stating “The buck starts here.”

The year 1979 was a transition year, as Whitney shored up support for *DICP* and continued Francke’s traditions. In October, the new editor made a courageous decision: he participated in the founding meeting of the American College of Clinical Pharmacy (ACCP) and agreed to publish their news, including abstracts for the annual meetings, in the journal. *DICP* gave the ACCP wide publicity and put the College in front of thousands of clinical and hospital pharmacists, college of pharmacy faculty, and leaders within the profession. The College would have had a difficult time without Whitney’s great aid and advice. Within 13 years of the founding of the journal, an organization composed of well-known clinical pharmacy practitioners, scientists, and educators, the majority of whom had played key roles in the journal, fulfilled Francke’s wish to see specialization within hospital pharmacy. In another 12 years, clinical pharmacists would achieve specialty status as

pharmacotherapeutic specialists. This achievement occurred after the Board of Pharmaceutical Specialties denied the petition of the ACCP for specialty status of clinical pharmacy. It is just possible that the College and the specialty of pharmacotherapy would not exist without all that Francke created and Whitney continued with *DICP*.

The last 25 years have seen a steady progression in the capability of clinical pharmacists as advanced practitioners and researchers, and this has been reflected in the content and quality of articles published in the journal. Individual clinical pharmacists have become pharmacotherapeutic experts in specialty–subspecialty areas such as cardiology, oncology, infectious diseases, parenteral nutrition, pediatrics, geriatrics, psychiatry, anticoagulation, and many other often narrow areas. *The Annals of Pharmacotherapy* responded by creating specialty therapeutic panels and giving prominence to the rapidly evolving practitioners of clinical pharmacy. Periodic columns of great interest, such as Critical Care Therapeutics, edited by Joseph Dasta; Pharmacoepidemiology, edited by Abraham Hartzema, Hugh Tilson, and Miguel Porta; and Pharmacoeconomics, edited by William McGhan, Lyle Bootman, and Raymond Townsend, have added a strong therapeutic and research methodology content to *The Annals*.

An important contribution of *The Annals* has been the dissemination of clinical pharmacy concepts outside the US. Dr. Francke had many international ties, and the early journal had many European and other international contributors. Numerous authors from Europe, Japan, Australia, the Middle East, and other areas have published in *The Annals*. For many key persons in international pharmacy, *The Annals* has long been the sole face of clinical pharmacy as it evolved in the US and Canada. This strong worldwide showing has been aided by the French and Spanish abstracts long published in *The Annals*.

The great controversies surrounding PharmD education, advanced clinical pharmacy practice, and specialty status, so prominent in the 1970s and 1980s, have subsided, and there has been relative calm the last decade. The feel-good, nanny concept of pharmaceutical care, so popular in the 1990s, has not goaded the great mass of pharmacists into fundamental practice changes. There were several “Dr. Feelgoods,” but one Dr. Clinical was sufficient. Clinical pharmacy and the pharmacotherapy specialty have made lasting changes to a portion of the profession of pharmacy. *The Annals of Pharmacotherapy* has been instrumental in this transformation.

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