LIVING THE PARKER VISION

Cynthia L. Raehl, Pharm.D., FASHP, FCCP
Professor and Chair, Clinical Sciences and Research Development
Department of Pharmacy Practice
Texas Tech University Health Sciences School of Pharmacy

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The Parker Philosophy and Vision

Have you thought about how you answer the question: Where are you from? My answer immeasurably reflects Paul F. Parker.

I earned my BS in pharmacy from Wisconsin,

I earned my Pharm.D. at Kentucky, and

I ***AM*** a Kentucky resident.

That last five word statement, I **AM** a Kentucky resident, unites us today. Whether we are known as R 2, R 92 (yours truly), or R 292, we never cease **BEING** a Kentucky resident. We *live* Paul F. Parker's vision. We *are* Parker protégés.

Paul's impact on post graduate pharmacy residency education is not limited to us, his Kentucky residents and students. Paul's impact is reflected in every Pharm.D. and residency program in the United States. The Parker vision is now being adopted by clinical pharmacy education programs in European and Pacific Rim countries. What is it about the Parker vision that transcends time and borders? Please reflect with me.

First, Paul's philosophy and vision were not just words. They were action plans. *Paul approached life with a "Can Do Spirit".* He demanded outcomes before it was fashionable to speak of deliverables or return on investment.

Second, *patient centered clinical pharmacy services came first* in Paul's priorities. As a Wisconsinite, I was educated in the land of pharmacy services– unit dose, IV additives, and decentralized pharmacists. As a decentralized pharmacy medication technician, I spent most weekends administering meds to University of Wisconsin Hospital patients (including intravenous and intramuscular injections

and suppositories). However, it is the Kentucky patient first philosophy that guides me.

Paul believed that clinical pharmacy education must occur within the framework of meaningful pharmaceutical services; therefore university hospitals should lead the development and justification of clinical pharmacy services. (Cloyd JC. Paul F. Parker's impact on pharmacy education. *Am J Hosp Pharmacy* 1985:42:2018-2022). Clinical pharmacy services were not optional at UK, they were priority. Clinical pharmacy programs were more important than drug distribution systems. Yet, Paul understood their interdependence. It was Dr. Parker who *first* implemented a hospital - wide unit dose program in the United States. Interestingly, he hired Wisconsin masters of hospital pharmacy graduates to mold his drug distribution system. Paul did not wait for drug distribution systems or technology to catch up with his patient care programs. Rather, patient care drove the drug distribution system and the overall pharmacy staffing plan.

Commitment to patient care first meant that, as residents, we rounded every day and were the sole pharmacists in house Friday 5 PM through Monday 8 AM. I remember being the house officer of the day and sleeping on a cardboard box in the pharmacy, in between codes and reviewing orders. I recall a fellow resident, who upon being paged to a code, fell off the top bunk in the on call room and though injured still ran to the code, pushing that 300 pound cart with the hospital's only defibrillator. I remember my consult for an ICU patient with apparent hyperosmotic, nonketotic coma. The attending physician said: my resident should have diagnosed this, why don't you go to medical school? I thought a short time and responded – I'm training to be a good clinical pharmacist.

As residents, we learned about meaningful pharmacy services by providing them. Remember the on-call program and Dilantin© loading? As a first year resident, I was fortunate that Dr. Rapp allowed me to round with the Red Surgery Team and coordinate the investigational Intralipid© study. By providing patient care pharmacy services seven days a week, we learned and gained confidence in

our abilities. But how did Paul know what were meaningful clinical pharmacy services?

Evidenced-based Core Clinical Pharmacy Services

It wasn't until I approached clinical pharmacy services with a researcher's mindset, that I began to understand what a superb visionary was Paul F. Parker. Some of you may be familiar with the work of CAB Bond and me in which we study the impact of hospital based pharmacists on patient care outcomes. This 17 year longitudinal study unequivocally demonstrates the wisdom of the Parker vision. As researchers, we know that clinical pharmacy services are associated with five key health care outcomes:

- Decreased hospital mortality rates,
- Decreased lengths of stay,
- Decreased total hospital costs,
- Decreased medication errors, and
- Decreased drug costs,

These favorable patient care outcomes are not the result of random or unfocused clinical pharmacist activities. Instead, these positive patient care outcomes are attributable to very specific clinical

pharmacy services. Many of these services were first envisioned by Paul, and started by Paul. These services define the skill sets which we must demand of graduates from our contemporary Pharm.D. programs. These five services are *evidenced-based* core clinical pharmacy services which should be offered in every hospital in the country:

1. Drug Information Services. Did you know that the first hospital drug information center in the United States was started by Paul Parker in 1962? Drug information was the basis for establishing pharmacists as drug use experts. It was the foundation for starting the clinical education program in 1964. Our research paper, published 42 years later, showed that among hospitals with a formal drug information service (not necessarily a center), there were: lower mortality rates, lower drug costs, lower total hospitalization charges, and fewer medication errors than among those hospitals that did not offer a drug information service.

2. Pharmacists On Rounds. Paul's paper in the *Journal of the American Pharmaceutical Association* "On Accompanying Physicians on Their Rounds" challenged the profession to consider rounding a

core service. We and other investigators recently documented the positive measurable impact of pharmacists on rounds. When did Paul author his paper – 1957?

3. Based on the evidence, adverse drug reaction management should be a core clinical pharmacy service in every U.S. hospital. Kentucky residents' involvement in the pharmacokinetics and nutrition support program combined with our staffing and rounding duties, taught us the importance of reviewing ADRs while the patient was still hospitalized. We worked with physicians to prevent reoccurrences of such reactions. I didn't realize at the time, that Paul was teaching us to approach ADRs with two synergistic perspectives: the individual patient care perspective and a systems analysis.

4. Drug Protocol Management. Our research demonstrated that drug protocol management was favorably associated with all five outcomes. My first intensive experience with drug protocol management was creation of the "theophylline kinetics program" in Erie, Pennsylvania at Hamot Medical Center while on my 9 month extramural rotation as a Kentucky resident.

5. Admission Drug Histories. The fifth core clinical pharmacy service, currently provided in only about 4% of US hospitals, is

pharmacist conducted written admission drug histories. It was also favorably associated with all five outcomes. I don't recall this being a routine activity at UK; it certainly should be today. (Bond CA, Raehl CL, Patry R. Evidence-based core clinical pharmacy services in United States Hospitals in 2020: Services and Staffing. *Pharmacotherapy* 2004;24(4)4265:-440.)

Our work also showed that decentralization of pharmacists was favorably associated with all five patient outcomes as was the number of clinical pharmacists (again five outcomes favorably associated). Additionally, we showed that the number of hospital pharmacy administrators was negatively associated with two of these important outcomes. Maybe Paul instinctively knew this as he always had a lean pharmacy administrative staff and shifted resources to scores of clinical pharmacists, his residents.

Paul's philosophy of meaningful pharmacy practice, which he transformed to action, created many firsts, the first drug information center (University of Kentucky), the first nuclear pharmacy (University of Chicago Hospital) which was the foundation for all clinical

pharmacy specialties, the first hospital-wide unit dose system, the unique 3-year combined Pharm.D. residency program, and certainly the most respected and largest hospital-funded post Pharm.D. residency program in the U.S.

Organizational Leadership

Another Parker first is equally important to me. In 1956, Paul F. Parker served as CEO of the organization that preceded ASHP. The Parker philosophy guided me as the 1994 -1995 ASHP President. At that time, creation of a formal home for students in ASHP was a politically charged initiative within pharmacy circles. But forming the ASHP Student Forum was the right thing to do. It was the Parker action to do. Second, and most challenging to me and the Board of Directors, was to transition ASHP leadership from Dr. Joseph Oddis to the organization's second executive vice president in three and a half decades. This transition was not just about selecting a new CEO. We were creating a new era for ASHP and its 31,000 members and 168 staff. Decisions were difficult. The Board and I fully appreciated the impact of our decision; not just for ASHP but for the profession overall. In one exercise, each of us placed the names

of three individuals, whom we believed could successfully succeed Joe (not an easy task!) in an envelope. The "Can Do" Parker philosophy guided me. My envelope was sealed and opened months later. Joe' successor, Dr. Henri Manasse, was top on my list and continues promoting the Parker legacy today. Would Paul be pleased with ASHP leadership in adopting a systems approach to prevent medication errors? Yes, but I think Paul would quickly challenge us: What took so long?

Academic Leadership

Paul F. Parker was a director of pharmacy, preceptor, mentor and a consummate teacher. He was a member of the academy. He was my professor. I wonder if Paul ever prayed: "God, give me good students". Unlikely, I believe that Paul did not pray for good students. Instead, he prayed for his own ability to mold young minds. Because Paul and Addie Catherine knelt before God and learned, they could stand before us and teach. How I wish I had discussed the importance of faith-based professional service with Paul and Addie Catherine.

Now that I have been an academic for 24 years, I can better appreciate Paul's greatest challenge issued to us, his residents. Paul often stated that he expected at least twelve Kentucky residents would assume a deanship before he retired. Paul knew that deans can create broad change by leading faculty and students in new directions. Paul understood that academic leaders are called to harness the energies of many to create fundamental changes in pharmaceutical educational and thus demonstrate the value of pharmacists to society. Paul would be proud that we are now in that era; the era of Kentucky residents assuming academic leadership positions such as fellow resident Dean Robert Blouin, fellow resident Dean Donald Letendre, fellow resident Department Head and ACCP President Elect Dr. Joseph Dipiro, Endowed Chair Dr. Jim Cloyd, Department Head Dr. Robert Talbert, Director, Center for Excellence in Critical Care, Dr. Henry Mann (my classmate), Associate Dean Dr. Sherry Luedtke and others.

The Call to Teach

Teaching is a Kentucky tradition. Teaching is a privilege, a calling. To be a Kentucky resident is to teach. One of my most rewarding

teaching experiences was to serve as sole instructor for a 3 credit nurse anesthesiology pharmacology course while on extramural rotation in Erie, Pennsylvania. An equal teaching challenge was delivering the required formal Pharm.D. seminars, attended by all UK faculty and the 36 residents. One of my topics, informed consent for human clinical research studies, remains hotly debated today.

A lot of Paul's teaching with residents was done either one on one or during the Friday afternoon resident's seminar. Paul could incite an hour debate with a few short insightful questions. The rather intense debate "Do we need another organization in pharmacy dedicated to clinical pharmacists?" lasted months. Isn't it telling that ACCP (American College of Clinical Pharmacy) awards the Paul F. Parker medal as its highest honor?

Public Education

Paul accepted the call to teach pharmacy within public university systems. I don't know how or even if, he was tempted to leave Kentucky. Yet, we know that Paul's career was indelibly linked with public universities. Public universities (like Kentucky, Wisconsin, and

my new home Texas Tech University Health Sciences Center) provide immeasurable rewards for pharmacist faculty. Within the increasingly transparent walls of academia, we live the Parker vision and practice the Parker philosophy of pharmacy. The Universities of Wisconsin and Kentucky, along with their academic health sciences centers, ingrained the values I hold dear today. Just as I cherish my alma maters, and of course their football and basketball teams, I cherish Professor's Parker teaching.

Commitment to Scholarship

Professor Parker wrote and wrote well. In his address at this luncheon last year, Dean Robert Blouin recounted many of Paul's sentinel articles. Paul Parker's scholarly pursuits, despite overwhelming hospital, college, and professional commitments, should inspire each of us to contribute more to the literature. *We, the Kentucky protégés, should live the Parker vision by establishing a publication record that far exceeds the quantity and quality of any other residency program.* Several of my resident projects resulted in scholarly publications: establishment of a community hospital's first IRB, the informed consent process for clinical trials, the first disulfiram

like reaction associated with cefaperazone, and liver toxicity associated with rosaramicin. Thus, I challenge each current UK resident. To live the Parker vision is to publish. To be a Kentucky resident is to publish. It's that simple. You should not leave the Kentucky residency until you have submitted at least one first authored paper to a peer reviewed journal. It is your privilege, your responsibility, and your heritage.

We have reflected on Paul F. Parker, his philosophy of meaningful pharmacy practice and his ability to create a living vision. A vision that still drives pharmacy education and post graduate training today. His commitment to public education lives on through us, his residents.

Paul's personnel teaching with me was usually more pushing and prodding then gentle mentoring. I recall completing a resident rotation evaluation and handing it to Dr. Parker. In no uncertain terms, he told me to rewrite it (legibly) and be more specific in suggestions for improvement. He accepted my third revision. I recall being mortified that one of my colleagues had jokingly told Paul I was

spending a lot of time in social engagements. Well, we all know that residents had little time to date, much less have a social life like that of a movie star. When Paul threatened to phone my Mom and Dad, I knew the prank must stop and stop soon. Another day, Paul counseled me that it was in my best interest to leave UK for nine months and move to Erie, Pennsylvania to work with Drs. Bill Kelly and Doug Miller at Hamot Medical Center. He said I would learn to work in a community hospital and receive individual attention. He was right! The Hamot experience was incredible, both professionally and personally.

How fortunate I was that Paul assigned Dr. Tom Foster to be my major professor. Under Tom's guidance, I learned about clinical research by conducting Phase I and Phase II studies. Tom taught me how to practice in the ICUs. Tom listened to lectures and seminars and critiqued my teaching. He reviewed draft manuscripts and research protocols. Tom's passion for academics fueled my own passion and lifelong commitment to the academy and the three legged stool upon which many pharmacy practice faculty approach their careers. The legs of that stool are of course teaching, practice,

and research. The triple threat of academic pharmacy practice is doable and immensely rewarding. These three legs anchor many of us whose entire career is devoted to academic pharmacy. At each of the past 24 graduation ceremonies I have attended, I am reminded of Tom's guidance when I don the blue and white Kentucky Doctor of Pharmacy hood; given to me by Tom upon my own graduation in 1980.

Life Partners

There was another side of Paul Parker for those of us who knew him personally. My reflections may differ from many of you, as I was one of a handful of female residents. To this day, remembrances of Paul are not just Paul, but Paul and Addie Catherine. If you visit the UK Web site for this program, you will see the photo of Paul and Addie Catherine – together, as always. When Paul and Addie Catherine moved to Kentucky, the medical center was just opening. Paul, in charge of central supply as well as pharmacy, would tell the story that in those first weeks, Addie Catherine would wash hospital sheets at home and he would return with them the next morning! I recall fondly the warm day Addie Catherine and Paul, with the help of residents

and faculty, moved into their new home. On another warm sunny Kentucky morning, our class filed out in our graduation regalia, and for the first time, my Mom and Dad called me Dr. Raehl. This procession ended in the rose garden of the Parker home. After Paul “retired”, he and Addie Catherine traveled the country accrediting residency programs; visiting with former residents. I miss those evenings at the Past Presidents dinner held during the ASHP Midyear Clinical Meeting, when CAB and I would visit with Addie K. and Paul. We chatted as two pharmacy couples sharing private moments. When preparing for this event, the true life partnership of Addie Catherine and Paul once again came to life for me. It is a model for those of us fortunate enough to share our professional pursuits with our life partners.

Closing

Our time for reflection is over. The time to live the Paul F. Parker vision is now. I close with a simple question for each of us. Are we living the Parker Vision to its fullest extent? What we do next week provides a living testament to Paul F. Parker.

Acknowledgements

Please allow me a moment to acknowledge several people.

First, my family (Mom, Dad, sisters, brother, brother-in laws, Aunts and Alice Garton) – all of whom were at the Parker home that day in June 1980 to witness my first walk as Dr. Raehl. They are with me in spirit and love.

The Parker Vision protégés who today live their passion for academic pharmacy: Dr. Tom Foster, Dr. Doug Miller and Dr. Bill Kelly – all three mentors extraordinaire.

Four Kentucky graduates who work with me on a daily basis:

Dr. David Allen (the first Texas Tech faculty member and now an associate dean),

Dr. Sherry Luedtke (a founding Texas Tech faculty member and also an associate dean),

Dr. Sara Brouse (a founding Texas Tech faculty member for our DFW campus), and

Dr. Allyson Gaylor (a founding Texas Tech faculty member at our Lubbock campus).

And, my current dean,

Dr. Arthur A. Nelson, Jr. (founding dean at Texas Tech),

And,

Colleague and special friend, Dr. Roland Patry (also a founding Texas Tech faculty member who is instrumental in creating the Parker vision of comprehensive pharmacy services as a base for clinical pharmacy education in a number of Texas Tech affiliated settings, and my partner in leading our Department into a new era of tripartite excellence in teaching, practice and clinical/translational research),

And lastly,

Another founding faculty member at Texas Tech, the individual who first developed the expansive clerkship program for Texas Tech, established the first Continuing Education Office for Pharmacy, and started the multi-campus Texas Tech residency program, and managed to publish a “few, good” papers along the way, my life partner (and Bucky’s Dad), Dr. CAB Bond. Thank you.