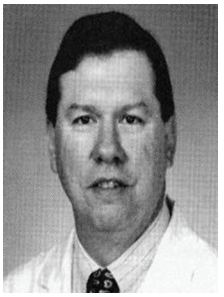
24



Cleon W. Goodwin, MD
President 1994–1995

Dr. Frederick A. Luchette

Let's start with hearing about your decision to pursue a surgical career and then your decision to focus your career on burns?

Dr. Cleon W. Goodwin

I think my beginning epiphany, if you believe in those, started when I was a third-year medical student and first set foot in the surgical ICU. I was mesmerized by the activity going on, the complexity of the problems, as well as the very talented ICU nurses at the time, and decided that I really liked that type of activity. I certainly didn't decide on trauma at this point.

Another influence of my medical school training was in my senior year I took an elective with Billy Fitts who was also a past president of AAST and editor of the *Journal*, for four weeks in the summer. I was impressed by this experience and by Dr. Fitts. Dr. Fitts and I had a great interaction; he took me out to dinner several times. He gave me a membership in the American Trauma Society, of which he was a founding member and president. He was the editor of the *Journal* at that time and he gave me several manuscripts to read through and make suggestions. That was the first time that I understood the intellectual process behind something like trauma surgery and care.

Time went on in my residency, a number of Penn faculty had previously been to the Army Burn Center and, at that time, Dr. Rhoads would send residents to rotate through the Army Burn Center in San Antonio. I went down in '72 or '73 when Basil Pruitt was the rela-

tively new commander and director. That was probably one of the most fantastic experiences in my life.

Burn cares in that earlier time involved other trauma and frequent complications such as Curling's ulcers and acalculous cholecystitis. We treated releasing abdominal compartment syndrome back in those days. I thought what is the type of surgery that I liked. But I was a Berry Planner in general surgery and cardiac surgery.

After rotating with Basil's unit, I decided that since I had to go back into the Army to serve my Berry Plan obligation, I wanted to go back to the Army Burn Center. And I did. When I got out of the Army (stayed in reserve), my first real job was at New York Hospital. My two partners and I ran the burn center at New York Hospital and also the trauma service at Jamaica Hospital in Queens; the three of us for about ten years worked in a very busy Level II trauma center.

I liked the surgery. It let you operate on just about any part of the body without specialty restrictions. This sort of surgery evolved into the concept today of acute care surgery. If I were starting out now, that's what I would identify as my major interest.

Luchette

Who else was important to your career? And if so, how did they influence your career?

Goodwin

Well, when I was a Penn resident, I spent four years in the respiratory physiology department with Robert Forster, who was a classic respiratory physiologist. I certainly learned a lot of general physiology and respiratory physiology as a surgical resident and was able to translate directly to taking care of sick patients. Frannie Moore had just introduced the concept of post-traumatic pulmonary insufficiency, and so I saw a direct road between clinical trauma care and the understanding of the response to trauma.

When I finished my fellowship with Dr. Forster, we maintained close contact over the years. He was a major influence on my choice of career. Although I pretty much had decided by this time what I wanted to do, I hadn't quite figured out how to do it. My return to the Institute of Surgical Research and working with Basil and his group cemented my long-term career path.

Luchette

What did your fellow residents and peers think about your career decision to work in burns and trauma?

Goodwin

Well, during my medical school training and even during my residency, burn surgery was never that visible to my fellow residents, in that we didn't have a burn center at Penn and, as a resident, you immerse yourself in each new experience that is going on at the time. Trauma was definitely the "red-headed child" of the surgical coverage schedule and certainly did not

have the prominence that it has now. Dr. Fitts kept it alive while I was at Penn. He was still pinning hips and taking care of fractures as well as general trauma. Trauma care was not at the forefront at that time. Although Penn had a reputation of excellent pre- and post-op surgical care, trauma really had never assumed the position of a separate competence in general surgery. It has astoundingly changed under Bill Schwab.

So I guess I didn't get too much push toward trauma at that time. I went into burn care; that's a relatively arcane corner of trauma and surgery. Burn surgeons can be somewhat insulted, and can have our own unique view of the world.

Luchette

When you look back now, which of your studies are you most proud of because they influenced the practice of trauma and burn care?

Goodwin

I think the two areas that I am most proud of is the work we did with crystalloids and colloid resuscitation and helping to define the metabolic response to severe surgery.

This happened while I was at the Institute of Surgical Research [ISR] with Basil and Doug Wilmore. The ISR is one of the few places that could have carried out a randomized controlled trial evaluating these two modalities of resuscitation. With today's emphasis on evidence-based research and clinical trials, I am very proud of the fact that early in my career I was actually able to carry out a clinical trial. Our research certainly has not resolved the issue of the best resuscitation solution, but I learned an awful lot about physiology and about clinical investigation and structuring clinical trials.

Luchette

As you reflect on the talks you have delivered throughout your career, is there anything you say today that wasn't the best patient care or was frankly wrong?

Goodwin

There is certainly a lot that I wouldn't have done had I known what I know now. I remember early in my career that the approach toward surgical patients, at least in retrospect, could be very timid. Sick patients didn't get fed early. Hernias required bed rest for two to three weeks. We now know the idea of enforced inactivity and not addressing the overall response to injury is wrong and now employ mobilization, increased feeding, and extended rehabilitation.

Luchette

Cleon, what do you feel are the two or three greatest advances in the care of burn patients and trauma patients that occurred during your career?

Goodwin

Well, in the clinical investigation arena I think the definition by people like Basil Pruitt and

Doug Wilmore of the metabolic and physiologic response to severe injury was and is a real milestone. Non-surgeons these days call the hypermetabolic response to injury SIRS, but I think this is a misleading term. This concept has provided the groundwork for critical care support of severely-injured patients and the understanding, at least in part, of why each patient infected and how to respond to that.

On the clinical side, there is no doubt that from my point of interest in trauma, I think the most important advance is the concept of the trauma center and regionalized trauma care. Part of this concept is the ATLS course. I think that has probably saved more lives from injury than anything else around the world.

Luchette

Tell me what specifically has been the impact of trauma systems on care.

Goodwin

Well, I think several things. It has allowed the allocation of expensive resources so that they could be used most efficiently. It's provided the intellectual and clinical environment to allow people to study the results of trauma care and the effects of treatment. I don't think that would ever have been done if every hospital had its own approach to the care of injured patients.

I fully believe that it has improved survival and outcome, although those type of data are very expensive to accumulate.

Luchette

In a similar way, tell me what you think have been the changes in practice patterns that influenced burn and trauma care? You touched on one, the regionalization that has gone on with trauma systems. Are there any other major changes that have occurred during your career?

Goodwin

That's a difficult question to answer, since we currently are undergoing a nationwide change in workforce patterns. Burn centers are still run under the philosophy of the so-called "old guard," in that the concept of trauma surgeons being the managers and providers of trauma care from start to finish still persists.

My concern is, as I see medicine develop, is the increasing fragmentation of medical care and the shift-work mentality that is entering all of medicine. Emotionally, I think it may not provide the best care, but I certainly have no data to support that concept. I think that's a trend that's going to continue. I think the most important intellectual question in effective research is going to be directed toward how can you make this new system of care as effective or more effective than what used to be done when people were much more willing to provide their time for patients.

Luchette

Tell me what aspect you have found the most rewarding? At the end of the day, what brings

you the greatest satisfaction and joy?

Goodwin

Well, something I haven't mentioned is I spent, I guess, 16 years on active duty in the military, all of it at the Army Burn Center. When Basil retired, I was promoted to his job.

As a commander, the Army requires you to take command training, including leadership training and administration. I think my biggest lack in my residency training was how to manage people. I gradually learned that when I went back into the Army and really realized that a leader's prime role is taking care of his people and choosing good people.

I found that I really liked mentoring people to produce a great product, like a good burn team or a good trauma team. The few instances that I've been in a position to be a mentor, a true mentor, one that only started in early training and lasted years, in one case, for decades, has been the most rewarding experience I've had. I'm awfully proud of these individuals.

Luchette

What causes you to stay up at night worrying about the future of medicine?

Goodwin

The thing that bothers me most is a dream of patients getting really sick and nobody coming to see them. I'm in a hospital now where I have nurse practitioners and physicians assistants, but no residents, and you adapt. You teach your nurses how to be residents, to some extent, and nurse practitioners to take more responsibility.

Even in academic centers with the night float team taking care of patients, there is so much that can go wrong when that continuity of care is interrupted. It only takes one wrong step for a critically ill patient and I worry about that. I have a team that knows how I think, and I know how they think. I know when a particular person calls what that person calls for and how I need to react. But, still, I worry about the gaps in patient care and observation that comes with shift work.

Luchette

What advice can you give to young surgeons that are interested in an academic career in trauma, acute care surgery or burns?

Goodwin

For me, maintaining broad intellectual interests and interests outside of one's daily medical activities is important.

Most of the medical students I see these days have bachelors or masters in engineering and physics and other scientific disciplines, which I think is very helpful for medical study. But, this education keeps you on a narrow path throughout your career. You might not explore other areas which may be interesting and applicable to future avenues to medical care.

If I ever have an encore career, I'll probably stay in medicine but begin looking at health

care delivery, quality assurance, activities of that sort. I think the most important thing is to maintain a broad range of activities so that you can keep yourself entertained throughout your career and life, in general.

Luchette

Tell me what you perceive are the greatest challenges and then what are the opportunities for the future of trauma and acute care surgery?

Goodwin

I think the future approach to provision of medical care for trauma surgeons will not require the surgeon to be available around the clock. I think the acute care surgery direction for general surgeons is the future for maintaining excellent trauma care. I suspect that acute care surgeons are going to become surgical hospitalists. Looking back on everything I've done since I started my career, I have, in effect, been a surgical hospitalist.

Having said that, I'm not quite sure what a surgical hospitalist is. But as I watch the medical hospitalists here, in my institution, they spend their careers in the hospital and that is certainly what I have done.

I think trauma surgery will be the last specialty to fragment. I can certainly see the forces pushing trauma surgeons to fragment and parcel out care to other specialties. The whole center of excellence concept requires hospitals to commit resources on activities that may have negative returns on investment.

I see, particularly in hospitals that are not led by physicians or medically-trained personnel, services with negative returns on investment are not tolerated. I can see pressure by administrators who are reluctant to meet guidelines for COT [committee on trauma] or ABA [American Burn Association] verification in order to save money. I think that's going to be the big line of battle over the next 10 to 20 years. I certainly hope and believe that the AAST and the College will hold that line.

Luchette

Tell me what you envision the practicing burn, surgical critical care, trauma, and acute care surgeon will look like in 10 or 20 years?

Goodwin

Well, I would hope it would look like what I've done. In my career, from the time that I finished my training, we were sort of jack-of-all-trades. I fully believe in that concept. It was a thrilling approach. I cover trauma in my current job on a regular basis—my wife says too regular—as well as burns. I now don't do any acute general surgery except on my own burn and trauma patients.

Our general surgeons here are integral to the trauma program in terms of providing coverage and extra hands in an emergency. I think the acute care surgery paradigm is how I would go preparing for the next 20 years. A good general surgery training, good training in

surgical critical care, and focusing on trauma and, for the odd individual, on burns, provides a good model for general surgery and trauma care.

I think the focus on surgical critical care needs to be more heavily emphasized. I am disappointed that burn training during residency is no longer required. I would certainly like to see that restored if for no other reason than to improve a hospital's capability for meeting mass casualty situations and related activities like that.

Luchette

As you look back, is there anything in your professional career that you would change?

Goodwin

I probably would have somehow tried to learn better leadership skills and management of interpersonal relationships. When I started medicine it was a fairly hierarchical system, which I actually liked quite well. But I would like to have learned more non-technical management skills and to have acquired skills with computers and databases.

Luchette

What about your life outside the hospital is there anything you would change?

Goodwin

For me, I can't think of a thing. I followed my own instincts and interests and I probably did not think as much as I should have about my wife and family. When I was preparing for this interview, I asked my two children and my wife, and they said there was nothing that they would change. But I know, if I were really honest with myself, that it was tough for them.

We moved to New York City with a one-year-old and a three-year-old. My wide was essentially left to do all of the home-front care for our kids for ten years. In retrospect, I realizes how really difficult that was for her. That's what I mean if I had something to do over again, I would like to have more widely considered their needs than I did at the time. But the end result has been great.

I hate to keep saying that I had a great time, but I remember, as a resident, recognizing if I could be a resident the rest of my life, I'd be happy. As my burn team points out, when patients come in with blue numbers, I don't get so excited. But when their computer screen has all red number, it's fantastic. I like taking care of sick patients. It's terrible that patients have such devastating injury, but it's wonderful when they are able to go home.

Luchette

What are your future plans clinically, academically, and personally?

Goodwin

Well, I think at the end of this year I'm going to ask my bosses if I can go part time clinically and spend the other time sort of looking at what we've done since I've been here in the last

eight years, and in particular looking at our outcomes.

Then, hopefully I will focus on hospital or patient care and hospital administration, quality, and getting more involved with evidence-based activities.

Luchette

Do you have any last comments for the readership on the 75th anniversary of the AAST?

Goodwin

Well, for me, being a member of the AAST has been very rewarding. Having been a past president was probably the biggest honor I've ever had. The friendships with members of AAST still carry me through life. I've watched the organization for a long time and it certainly has grown and matured. It seems to be in stride with everything that is happening in our changing medical care environment. I think without the AAST, trauma would not have the stature that it has now. The college and the COT [Committee on Trauma] have provided the umbrella and intellectual guidance for the AAST.

So it has been exciting to be associated with real experts and just listening to them talk. My favorite paper at an AAST meeting was the one that John Border presented years ago when he first proposed that we shouldn't wait long periods of time to fix major fractures but do them as quickly as possible (*J Trauma.* 1994 Aug;37(2)262–264). I haven't mentioned, but for years we talked about sailboats and going sailing. I visited him on his boat. What I really wanted to do as an encore activity. But somehow it's hard to stop what I am doing.