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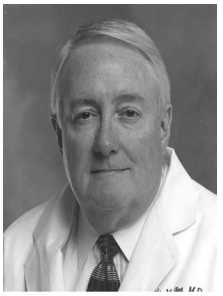

Lewis Flint, MD
President 1991–1992

Dr. Frederick A. Luchette

How was that you came to decide on a career in surgery and what was the motivation to pursue trauma surgery?

Dr. Lewis M. Flint

Well, I actually started a residency in internal medicine in January of 1965. But it didn't take me long to figure out that all of the interesting medical patients were on the surgical service. So I changed to surgery in July of 1965.

And I guess the most important influence in that was Paul Ebert who was a brand-new faculty member. He had just finished his residency at Hopkins and was a brand-new faculty member at Duke. He really enjoyed teaching the residents and he was the single person that I think helped me decide to go into surgery. I decided to become a trauma surgeon when I was in Vietnam and taking care of injured soldiers.

Luchette

And how many years was your tour of duty there?

Flint

I was there for a year. I began my military service in August of 1967 and actually went to Vietnam in January of 1968 and I came back in January of 1969.

Luchette

Was that at the conclusion of your residency or in the middle of it?

Flint

In the middle. I had had two years of residency at the time. But I was really lucky. I got assigned to the 71st Evacuation Hospital. And the hospital commander was Dave Green. He had been the residency program director at Walter Reed. There were two other partially-trained surgeons assigned to the hospital and so he just said, "Okay, you guys are going to be residents and you will work under the supervision of the fully-trained surgeons who are here."

We had 11 general and thoracic surgeons, all except one of whom was within three years of finishing residency. So they had all trained in university hospitals or in military hospitals and they were all still used to teaching and they enjoyed it, so it was great for me.

I came back and finished my residency, and I told Dr. Sabiston that I wanted to be a trauma surgeon and he and I talked very frankly about it because there was not a lot of trauma experience at Duke and none of the faculty had any interest in trauma. So he suggested two or three places to me, and I chose the Medical University of South Carolina because Dr. Artz was a burn and trauma surgeon and he had just recruited Dr. John Moncrief, who had been commander of the burn unit at Fort Sam Houston. He also recruited a guy named Max Rittenbury from David Humes' program at Richmond who also was very interested in trauma.

And so I decided to go down there, and Dr. Artz and Dr. Moncrief and Dr. Rittenbury worked with me, helped me, and sort of guided me along and got me started in the lab. Because of their efforts, I was able to get an NIH special fellowship and I went down to the Department of Surgery at Parkland with Dr. Shires. Jim Carrico was my mentor there. I had the privilege of sharing a lab with Don Trunkey. And we started our friendship at that time in 1971. Don left in 1972, and I stayed until 1973.

Then I went back and finished my chief resident year and became a faculty member at MUSC. I was the first medical director for the Charleston County Emergency Medical Services System.

Luchette

So you've mentioned a few names that I think were potential mentors early in your career, Lew. Is there anybody else you want to be specific about mentioning?

Flint

No, I think they were the most influential. After I had been in Charleston for a year on the faculty, Dr. Polk invited me to come to the University of Louisville. As you probably know, the group that he put together there had Bob Fulton and Dave Richardson, who were the two with me who were the most interested in trauma. The three of us were working together and I think we taught each other a lot. It was a great time.

Luchette

You recall that in the ’60s and ’70s, a lot of specialization was occurring in surgery. How did your mentors and peers feel about your decision to go into trauma rather than cardiac or vascular surgery?

Flint

Well, at that time at Duke, you had to defend yourself if you were going to do anything other than cardiothoracic surgery. It was a combined residency.

At the time, you spent the legendary *Decade with Dave*. You spent five years in general surgery residency and then you spent—usually he wanted you to spend three years in the lab—and then you spent your last two years as a fellow in cardiothoracic. When you finished the Duke program, you were a general and thoracic surgeon. And if you wanted to do anything other than that, you had to defend your choice. I wanted to be a bread-and-butter general surgeon and do trauma surgery. At the time, there was not a lot of interest in trauma at Duke. Interest in trauma care was variable in other places. Inner city hospitals saw a lot of trauma.

Nationally, the level of interest changed with the increase in blunt injuries and the influence of people like Dr. Artz and others who had been in Korea and in Vietnam. They understood that if you were going to have effective trauma care, you had to have effective prehospital care and you had to have the care concentrated in a place where people were focused on taking care of trauma. So the Emergency Medical Services Systems Act was signed into law in 1973 and that provided money for municipalities and states to purchase ambulances and to train prehospital care personnel.

About that time, the Committee on Trauma got interested in setting standards for trauma care and then the Advanced Trauma Life Support [ATLS] came around in 1978 and the Trauma Center Verification Program started in 1982.

So I was fortunate to be the state chairman for the Committee on Trauma in Kentucky when the ATLS course got started. And I was a member of the main Committee on Trauma when the Trauma Center Verification Program got started.

But, I had plenty of help. It was guys like Dr. Polk and Trunkey and others who wanted some folks that they were familiar with to work with them.

Luchette

From your perspective, what are your most proudest scientific contributions? And how do you feel it may have influenced the field of trauma care?

Flint

Well, I think the stuff we did with pelvic fractures was pretty important. It allowed us to stop bleeding in a lot of patients who were bleeding heavily. And then that sort of opened the door to successful external fixation and early open reduction internal fixation. That work helped trauma surgeons focus on pelvic fracture not just as a problem of bleeding but as a problem causing significant disability. With a dependable protocol for stopping the bleeding, the impor-

tance of having a cooperative relationship with orthopedic surgeons who were willing to do the external fixation and then do the early open reduction internal fixation became evident. I think that focus was valuable.

One of the studies I was proudest to be associated with was the paper on vascular injuries where Dave Richardson and Gary Vitale were able to achieve 33% five-year follow-up for a group of patients with vascular injuries. I think that's been a long-term follow-up achievement that has so far not been surpassed. As you know, the National Trauma Data Bank and essentially all of the state trauma registries do 30-day follow-up and that's all.

What we've learned from the experiences in Iraq and Afghanistan is that a lot of the complications of traumatic brain injury, and particularly the psychological complications of TBI and of other major injury patterns, don't emerge until one, two, or three years after the injury event. We now know, based on the work that Mark Malangoni did and then Jerry Jurkovich did, that the risk of death two and three years after a serious injury is twice as high as a matched population of patients who had not been injured. The injury seems to accelerate some of the chronic diseases that people have. I think as the trauma population gets older, knowing that risk and understanding it and working to get the follow-up is going to become critical if we are going to learn how to minimize that mortality risk over the long-term in patients who are injured.

Luchette

What are some of the things you championed over your career and, as you look back now, you say maybe that wasn't the right thing to be out there advocating for as optimal patient care?

Flint

Well, I think we advocated some things that, like Dave and I and the guys at Louisville were among the first to agree with Charlie Lucas that you ought to do that triple-drain business for patients who had pancreas and duodenal injuries. I think, in retrospect, that obviously caused more problems than it solved. But I sort of look at it a little differently. Nobody does anything perfectly. And if foresight was as good as hindsight, then we'd have no need for historians.

When you do get out there and start talking about things that turn out not to work as good as you thought they were going to, getting out there and talking about them always stimulates people to look at it more closely. They hear me or somebody that I work with get up and talk about something in front of an audience and they think "Gee, that doesn't really fit with my experience. I'm going to go take a closer look at this." And those guys who take the closer look are likely to come up with a better answer. So I don't think that it's necessarily a bad thing that people get up and advocate something that turns out not to be as good as they thought, because it stimulates people to look at the data more closely.

Luchette

What are the two to three greatest advances in trauma care and science that you have observed in your career?

Flint

I think probably the thing that has contributed most to improved patient outcomes is from the secondary prevention side, that is making sure that the injury doesn't kill the patient. I think the biggest advance in that area has been the development of trauma systems. The development of trauma systems has required us to keep our data and look at it and find out where we are not doing as well as we ought to be doing and fix it. Getting cooperation between patient-care people and people who study crash characteristics and highway construction and public education and those sorts of things has accelerated advances in trauma care and, at the same time, has accelerated advances in highway design and vehicle design and other things that have resulted in substantial improvements in the outcomes for motor vehicle crash victims.

Trauma systems have also improved outcomes for patients with penetrating trauma. I don't know if you saw the article in the *Wall Street Journal* (Fields G. *WSJ.* 12/8/2012) where they interviewed Tom Scalea, Norm McSwain, and Bill Schwab about the fact that the frequency of gunshot wounds across the country is going up, but the mortality from gunshot wounds is going down, so the number of incidents that are classified as homicides are going down even though the number of gunshot wound events is going up. Part of that is because with good trauma systems, the patients are getting good care sooner after their injury than they used to.

The development of the specialty of surgical critical care was a huge advance for us because it forced us to focus on getting patients well in the ICU. I ran a 28-bed ICU in Vietnam that had one ventilator. The first volume-controlled ventilator would take up almost half of the modern ICU room. We had two of those in the ICU at Duke. So I think critical care helps us understand how to take care of patients. Pulmonary complications has helped us understand pain control. Having patients live long enough to spend time in the ICU has helped us to understand nutrition.

If I had to say what are the two most significant advances in my time I think it has been trauma systems and the development of the specialty of surgical critical care.

I talked about advocating something that worked pretty good but not as good as you thought it was going to. I think because of all of the interest in imaging, people have started to continue to take a look at it and now we understand that we probably get too many images. We could benefit from going back doing a physical examination before we just sort of reflexively order another CT scan. It has been good for patients. But, and rightfully so, there is a new consciousness of controlling radiation exposure. That's an important thing.

I think understanding how imaging has helped us do things like endovascular repair for ruptured aortas, that sort of thing, wouldn't be possible without advanced imaging. So it has done a lot for us.

Luchette

What were the major changes in practice patterns that occurred in addition to the development of the trauma systems during your career?

Flint

Well, I think the idea that a trauma surgeon ought to have a foundation as a general surgeon. Obviously the development of surgical specialties has impacted that. It is now pretty hard for somebody to do trauma and be a bread-and-butter general surgeon. I think the recognition of the effects of specialization on the practice of surgery is what stimulated the development of the acute care surgery initiative, which hasn't really gained the momentum we'd like it to have yet, but hopefully it is going to in the near future.

There are some things that I am concerned about. I don't know that the business of having surgeons employed by hospitals is going to always be all that good for the surgeon or the patients. It sort of sets up a situation where the hospital can tell you what you are going to do. And I'm not sure that is the best thing for patients. I am pretty sure it is not the best thing for surgeons. But we are going to have to see how it works.

Luchette

What brings you the most joy about what you have accomplished in your many roles during your career?

Flint

I had the honor to be the president of the Southern Surgical Association this year. The meeting was last week, and there were probably close to 20 people that I had trained who attended, either as members of the organization or guests at the meeting.

Training residents is what I enjoyed most, right behind taking care of patients. What brought me joy is taking care of patients and teaching residents.

Luchette

What keeps you up at night and worried about the future of either general surgery, trauma surgery, or acute care surgery?

Flint

Well, I don't think that the focus on trauma care is going to go away and I don't think the focus on surgical critical care is going to go away. I don't think nurturing acute care surgery is going to be easy. I am hopeful that, under the health reform laws, a lot of the people that we took care of and continue to take care of who don't have insurance are going to have insurance. Hopefully that will translate into some improved financial reward for surgeons who are working in the middle of the night.

I worry a little bit about the fact that the acute care surgery initiative doesn't seem to be picking up momentum as fast as people want it to. Trying to graft the acute care surgery training programs onto academic departments of surgery is not going to be a walk in the park. I think there are going to be a lot of surgery department chairs who are not trauma surgeons who are going to say: "Why should we do this? We've already got people who take call in the emergency room."

And most of the time they will not have checked to see how faithful those folks are being about coming to see patients. I don't think that developing those training programs is going to be easy. I think it is going to be a continuing challenge and it's just something we're going to have bow up your back and take one for the team.

Luchette

It has been interesting to watch the evolution of acute care surgery. As you know, most academic departments today are made up of specialists. So where does general surgery fit in today?

Flint

Well, I think if we're going to take care of all the patients and give them all an equal shot at having excellent outcomes, then we're going to have to have acute care surgery, especially in academic units. You are not going to be able to get your chief of breast surgery to come take somebody's appendix out in the middle of the night. And you are not going to be able to get your endocrine surgeon who is looking at doing six or seven parathyroids and thyroids the next day to come to the hospital in the middle of the night and spend the night trying to decide whether to operate on somebody with their third bout of intestinal obstruction. So you know we've got to have it, but getting it I don't think is going to be easy.

Luchette

What advice would you give to the young folks interested in pursuing a career in academic trauma/acute care surgeon?

Flint

Well, I'd tell them first of all that there has never been a better time to be a surgeon than right now. The stuff that the young people around today are going to be able to do for patients just blows my mind. You know the personalized care, the genomic care, the development of molecular diagnostics and stuff like that. I think we are in one of the most exciting times for surgery that there has ever been.

There are going to be new treatments that are going to make patients operable who were previously inoperable. And so we are going to have a chance to help people that we just didn't have in the past. So I would tell them that there has never been a better time to be a surgeon. I would also tell them that if you are looking to enjoy your surgical career, then you don't want to burn yourself out. You're going to have to balance your work with some things that are rewarding and line yourself up with a collegial group of people that, when you walk up to one of your colleagues and you say, "I'd really like to take this weekend off and I know you are on call on Saturday, would you be able to cover for me on Friday and Saturday and Sunday," and to have that colleague say, "Sure, not a problem."

You've got to choose your environment carefully so that you are working with a bunch of people who are not going to be engaged in this sort of cutthroat competition and isolation.

You want people to compete, but you want them to compete to see who can be the best patient care doctor and to see who can be the best academic surgeon. You don't want them to be competing to see who can make the most money or, you know, who can slough off the highest number of difficult patients to somebody else. So I'd say that you need to choose your environment where you are going to work very carefully. Other than that, I'd say you're not ever going to have as much fun as you will have being a surgeon.

Luchette

You touched on a few of the challenges for acute care surgery, but can you speak to the opportunities for the future of acute care surgery?

Flint

Well, I think that the challenge is going to be to create the people who are going to be the leaders in the future. And I think that we've got a really terrific group of people in the leadership of the AAST and in the leadership of the American College of Surgeons.

If you look at the people who are leading the American College of Surgeons now, there are more trauma surgeons doing that than there ever have been. And I think that's a good thing. We've got some real problems that will impact us if we aren't careful about how we react to things and formulate them.

I don't know if you have heard this or not, but the Accreditation Council of Graduate Medical Education [ACGME] announced last week that they were going to start accrediting osteopathic surgical residencies using the same approach that they use for allopathic surgical residencies. I think the huge question is that, based on what I know about osteopathic surgical residencies, there are probably relatively few of them that can provide a teaching environment that is equivalent to the average allopathic surgery residency. So I think the choice is going to be pretty difficult. What are you going to do if you find out that you are going to have to close half or more of the osteopathic surgical residencies? How are the osteopathic surgeons going to respond to that?

So, unfortunately, what the compromise might possibly be is to bend the rules. And I don't think we can accept that. I think that we need to seriously consider getting surgical education out of the ACGME and getting it put inside the American College of Surgeons so that we will be in charge of educating surgeons rather than having somebody else who is either not a surgeon or not interested in what is best for surgery dictate to us what is going to happen.

Luchette

Where do you see trauma, surgical critical care, and acute care surgery in 10–20 years?

Flint

Well, it's my hope that in 20 years, acute care surgery will be an accepted pathway for developing a practice focus for a young surgeon. If we fail to do that, we are not going to be in a very good position to help medical students who are interested in practicing surgery. So I

think we have a huge opportunity. We've just got to learn to take advantage of it.

I think we've got a huge opportunity to capitalize on the things that have been learned in the wars in Iraq and Afghanistan. So I think there has got to be a permanent relationship between the civilian trauma system and the military trauma system so that we don't forget the lessons that we've learned in those wars. The civilian trauma system has a huge opportunity to help with the long-term follow-up of people who have been injured during their military service.

I think the geographic distribution of trauma centers is such that we can take up the slack. There are very large geographic areas where there aren't advanced veterans healthcare facilities and there aren't these injured warrior centers. And so I think that's a huge opportunity for us.

I think the trauma systems are not going to go away. So we need to keep on making them better and better. We have a great opportunity there to really solidify trauma care and its offspring, acute care surgery, as an essential component of the practice of Medicine in the United States.

Luchette

And don't you think the trauma systems will just be the backbone for regionalizing care?

Flint

I think that will hopefully happen. Joe Tepas in our trauma research group from Florida presented a paper at the Southern that showed that in Florida, at least, the trauma system is providing excellent access to almost 99% percent of the patients who get injured (*J Am Coll Surg*. 2013; 216(4):687–95). But there is a segment of the patient population that has access to trauma centers but they don't take advantage of it, and those are patients over 70 years of age. We've got to figure out whether regionalization works with that patient group, because if we find out, for example, that there are certain kinds of elderly patients who get injured that we can't help, that we can't improve their outcome, then we probably ought to say that those folks don't need to go to a trauma center. In Oregon, they've tried to tackle that problem by requiring everybody who is admitted to a long-term care facility have an advanced directive so that if they fall and break their hip and they are a prohibitive risk for hip fracture surgery, then they have the advance directive and they don't need to go to a specialized center to get that taken care of. But there is a lot of work to be done there. We have a significant chance to have acute care surgery take its place as the specialty that is going to provide the advice for those vulnerable patient populations.

Luchette

If there was anything you could change in your professional career as you look back over it, what would you change?

Flint

I honestly can't think of anything. I've had the greatest time in the world. It has been the most fun that I could possibly have. There were times when I didn't think it was fun. But looking back on it, I should have thought it was fun. I don't regret any of the professional decisions I made. I got more out of it than I gave most of the time. So, you know, I don't think I would change anything.

Luchette

Is there anything outside the hospital in your personal life you would change?

Flint

I'd like to go fishing more often. I have four wonderful children and two grandchildren. I am married to my best friend. You know how that is.

Luchette

What are your plans for the future regarding your role at the College as well as in your personal life?

Flint

Well, my hope is that if I can get my two youngest out of college, then I will be able to retire. But, as you might already have had experience with, if you encourage them to go to a state college in the state where you live, they will undoubtedly go to college outside of the state where you live or they will go to a private college. My two youngest: one goes to a private college and the other one goes to a state college outside of the state where we live. So I think I would like to be able to retire when I get them out of school.

I have a great time doing what I am doing right now. Being the editor of *Selected Readings in General Surgery* is a lot of fun. We're getting started on a project to create practice guideline modules that surgeons can use at the point of care so they can call them up on their smart phone or on their iPad or computer work station and use it as a way to discuss care strategies with patients or with referring physicians or whatever they need to do. That's exciting.

Luchette

Are there any other comments that you want to share with the readership that we haven't talked about? Any parting comments?

Flint

Well, I would just encourage them to remember that if you want to be a trauma surgeon you have probably chosen one of the most rewarding practices available to surgeons. And you need to have fun. If you aren't having fun, then you need to reevaluate your directions. You can always find something in surgery that is rewarding and fun. So if you haven't found it, you need to keep looking.