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## Editorial

# The Future of Surgery and Surgeons<sup>☆,☆☆</sup>



## El futuro de la cirugía y de los cirujanos

I would like to express my deepest and most humble thanks for the honor which the Spanish Society of surgeons has awarded me today. I accept this honor in the name of all those who accompany me in my surgical work at the University of Washington in Seattle, as well as in the name of my mentors and teachers, who guided me on the path I have taken.

I have been asked to speak about the future of surgery and surgeons themselves. By no means do I pretend to have a crystal ball, but I do believe that the lessons that I have learned as a surgeon and as President of the American College of Surgeons have provided me with a perspective that I hope is useful to some of you.

There are three topics regarding your future that I would like to discuss. First of all, I would like to describe the main forces that will affect surgical practice in the coming decades. Second, I want to convince you that you can forge your own future, mold it, and define it. And third, I want to state that the Spanish Society of Surgeons as well as the American College of Surgeons provide the best and most extensive platforms to create that future, while at the same time providing a series of values and moral guidelines.

### Winds of Change: The Future of Surgery and Surgeons

Certain determining forces are changing the way in which we practice surgery, and I believe they will have a significant impact in the next decade. For today, I have chosen 3 examples that will affect all of you equally, whatever your

country of origin or type of workplace. In general, these external influences respond to advances made in medicine. It is not my intention to criticize them, but instead to describe them. Surgeons need to know and understand them in order to better position themselves and our profession. Although this presents a challenge, I am optimistic because, to paraphrase Winston Churchill, each challenge is a great opportunity.

*A. Innovation and the Phenomenon of Turbulent Waters:* The introduction and implementation of new ideas, techniques and devices have led to important advances in medicine and surgery. For many years, however, the cadence of these advances provided intervals with sufficient time in order to test and validate each new idea, and, when they were proven useful, training methods were designed for their application.

In certain respects, it could be compared with a river rafting trip, with sections of white-water rapids interspersed with calmer water to recover. But, this cadence of change has substantially increased in recent years, and I dare predict that this rhythm will only accelerate in the future. We will find ourselves constantly traversing turbulent waters. It is not the change itself but the nature of this change and its cadence that will present the greatest challenge for surgeons in the future. Many innovations will end up failing and will not surpass the test of time. Meanwhile, other opportunities that are not taken advantage of can have catastrophic effects on surgical performance. Therefore, decisions should be made quickly and correctly.

Dr. Gerald Fried, one of the Regents of our College, suggests that when we are faced with the dilemma of whether or not to

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adopt a new technique, surgeons should ask 4 basic questions<sup>1</sup>: (a) is this innovation a medical necessity?; (b) does it add value to existing options?; (c) is it financially viable?; (d) can it be applied by the average surgeon with relative ease? Through the Programs Committee and the Education Division under the leadership of Dr. Ajit Sachdeva, the American College of Surgeons permanently scans the horizon for new ideas and adequate programs to train their fellows. The Spanish Society of Surgeons has the same mission, and the congress that you are attending this week, with its varied program, is an example. The network of Accredited Education Institutes that the College has created, which now extends outside of the United States and Canada to include Europe, Asia and the Middle East, is another example of the vast platform that surgeons can take advantage of for future advancement. Adapting to change and its speed while learning to choose the correct path are all imperative for growth, survival and finding the right current in turbulent waters.

*B. Breaking Boundaries:* Medical specialties were developed in the 20th century within well-established limits. For instance, when I began my career as a surgeon, we all knew the specific limits between the surgeon's job (mainly open surgery) and the job of other clinical specialties (mainly diagnostics and non-invasive therapies). Nonetheless, in the latter part of the century, innovation led to the development of new ideas, methods and devices and, consequently, the barriers between specialties have begun to disappear. The treatment of common bile duct stones, which was formerly an integral part of general surgery, is now being done by gastroenterologists. Likewise, the treatment of intraabdominal abscesses or the placement of central venous catheters, which before were surgical matters, are now in the hands of interventional radiologists.

These instances are partially the result of our inability to take advantage of new opportunities. Many surgeons thought that going back to the operating room and continuing to use tools from the past was better than being re-trained to keep up with progress. The barriers continue to fade, and I predict that this process will accelerate in the future. We see this when we take a look at who is caring for our complex patients in intensive care or who is using new endoscopic techniques to treat incipient mucosal cancers of the gastrointestinal tract.

I think that surgeons should consider themselves perfectly qualified to perform surgeries, even with endoscopes, through natural orifices or using percutaneous approaches. Essentially, surgeons should be what Dr. Tom Russell, executive director of our College, has called "interventional biologists". And, I am happy to say that we have made progress in this terrain: general surgeons continue to develop mini-invasive techniques. Recently, vascular surgery has transformed the traditional open approach toward imaging-guided endovascular procedures. These changes have made a major impact on the survival of patients with vascular diseases. We should continue with this strategy. In my opinion, the intelligent surgeon of the future will be able to completely manage a disease in its entirety, not only the technical part. This means learning and dominating the

diagnostic and therapeutic aspects of their specialty, beyond traditional limits.

*C. Quality, Costs and Accountability in Surgery:* The third relevant force that will impact future practice is the growing preoccupation of society for better quality medical care. Meanwhile, the costs for medical care are closely controlled.

As surgical practice implies greater risks than other specialties, preserving and improving safety and being able to measure quality in a reliable way will continue to be a fundamental part of our job. Furthermore, as we utilize substantial resources to meet the needs of our patients, public institutions and society will put pressure on us to justify such expenses.

Michael Porter<sup>2</sup> defined "value" as the relationship between costs and results. In his book, *Redefining Health Care*, he urges us to focus on the results and he recommends that we measure them "systematically and comprehensively". I believe that we must go beyond standard result measurements based on objective values interpreted by professionals; instead, we need to measure them based on patients. For example, when performing spinal column surgery for lumbar pain, what is important is not the fusion of the vertebrae shown by X-ray, but instead it is the pain relief and the ability to go back to work. In the case of anti-reflux surgery, the goal is not just the normalization of esophageal pH, but instead the disappearance of heartburn perceived by the patient.

These are the new responsibilities of our job as surgeons: quality, safety, costs and results. This objective cannot be achieved with individuals acting on their own; it requires the formation of high performance teams. These teams need leadership. Not the old-fashioned, authoritarian type of leadership, but in its place the type of leadership that promotes exceptional communication, mutual respect and support, and the development of direct means to reach the objective of our mission: to improve our patients' health. This is an area that requires our direct commitment. Intelligent surgeons of the future will dedicate much of their time to the study of leadership, the development of emotional intelligence and the perfection of non-technical abilities. Your Society is deeply dedicated to these areas and has created the platform to support them. I encourage you to make the commitment, not only because it will help our future, but because it is the right thing to do for our patients and our society.

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## Molding Your Future

I am of the idea that, to a large degree, each of us has the opportunity to mold our own future. It is true that there are external forces that we cannot control, but our direct commitment can help modulate and change the results that they would otherwise produce. There will always be pessimists who will say that the sky is falling, who generally talk about how much the world has changed, how things worked better before, and how little they earn for so much sacrifice and hours of work. They will also suggest that there

is nothing we can do to change things, and they make surgeons out to be victims. That is why I ask you, in the words of Colin Powell,<sup>3</sup> to “reject the easy path of victimhood”. It is not attractive for the rest of society, and by following that path we will never reach effective solutions. It just goes nowhere.

Instead, tonight I want to tell you that the path you have chosen is the same that I chose. It is full of rewards, and, if I could do it all over again, I would. Because of this, I feel extremely privileged for having had the opportunity to influence so many lives, for having had so many patients who trusted me with their most valuable asset, which is their health.

There is not enough money in the world to equal such satisfaction: the satisfaction of helping someone who needs it. I am also here to tell you that the future is not set in stone. It can be molded, and each one of you can make this happen. Jane Goodall once said, “What you do makes a difference, and you have to decide what kind of difference you want to make.” Perhaps you may not achieve everything you want, but you need to set high objectives and strive for those goals for as long and as far as you can. This is the only way to make a difference, step by step, slowly and continuously.

So, the next time you see something that needs to be changed, get involved instead of blaming “the system”. Follow the advice of the famous Indian philosopher Rabindranath Tagore, who said, “It is better to light a candle than curse the darkness.” And after lighting it, use your leadership to recruit others to light more candles. Before you know it, you will have lit the way to a better future.

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### **The American College of Surgeons Platform and Moral Guidelines**

I hope that throughout my speech I have shown you some of the many areas in which the American College of Surgeons as well as the Spanish Society of Surgeons can provide you with the infrastructure that will help you face the forces of change. In the case of our College, the Education Division fills the gap between the practice and current state of our knowledge; the Division of Research and Optimal Patient Care provides experience in the assessment of quality, safety and costs; our Division of Advocacy and Health Policy helps implement health care strategies; and the Division of Member Services focuses their effort on College fellows, members and their projects. The Spanish Society of Surgeons offers you a platform that is a bit different, although the focus is the same. I encourage you to get involved and to do it today, in this stage of your life, in order to create the optimal future for yourselves and your patients.

As we go down this path, moral guidelines are needed to help us discern between good and bad. I will now present the five values that our College has adopted, which I think are as important in the US as there are in Spain:

*A. Professionalism:* The value of professionalism exemplifies the highest levels of honesty, responsibility and respect. The importance of professionalism for us as surgeons was emphasized by LaMar McGinnis in his presidential speech<sup>4</sup> when he stated that it is “what sustains us, embodies us, invigorates us, and carries us onward”. For me, personally, it is synonymous with compassion and caring. As Peabody eloquently said: “Patients do not care how much you know until they know how much you care.”

*B. Excellence:* Our staff believes excellence represents an aspirational goal—the goal to always exceed internal and external standards and the expectations of others. I can think of very few values that are as closely associated with what surgeons do every day than excellence. The relentless pursuit of perfection in everything we do should be the hallmark of a surgeon.

*C. Innovation:* Innovation is defined as the pursuit of creative and forward-thinking changes that allow us to do our job better. As mentioned previously, innovation will be a key influence in your future.

*D. Introspection:* Through personal reflection, introspection allows human beings to explore their own minds, and thus define the aspects that will motivate professional growth, with self-criticism and self-evaluation.

*E. Inclusion:* This refers to the active participation of all individuals and entities involved to optimize collective intelligence. The value of inclusion in today’s world cannot be overemphasized. Merely respecting our differences with others as a matter of moral values or social politeness is not enough. We must recognize these differences and celebrate them, as they are the vehicle to collective intelligence and creativity. I encourage you to do so, but at the same time I ask you not to forget who you are and where you come from. Inclusiveness is not a matter of melting into a pot. You must also preserve and celebrate what is different about you: your accent, your beliefs, your manners, your personal values, your own ideas. Respecting and accepting others can best be done when you respect yourself and your own values. It is time for us, as an organization, to embrace other organizations with like-minded values. As physicians, let’s learn how to work together with all other health care professionals in high-performance teams. Only when we join our minds and energy will we be able to triumph as a profession and as a society.

Ladies and gentlemen, I have tried to succinctly define the surgeons of the future: surgeons who embrace innovation and science with moral values, and I humbly offer you the values I have described to be used as your moral compass.

There are many challenges ahead, but I hope I have convinced you that we can face them and succeed. We are all in this together. You should trust what is inside of you, as I trust you. Christopher Robin said to Winnie the Pooh, “You must always remember: you are braver than you believe, stronger than you seem, and smarter than you think.” You, my dear friends, have the power to change the world.

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