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For everything there is a season

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I would like to thank the nominating committee and the members of The American Association for Thoracic Surgery for honoring and entrusting me with the presidency of this prestigious academic organization. I have to share this honor with my colleagues from Toronto General Hospital for supporting me and sharing my views on patient care, teaching, and research for so many years.

I am indebted to the late Dr Bill Bigelow, a past president of The American Association for Thoracic Surgery and the person responsible for bringing me to Canada.

I am grateful to Bob Jones, Cindy VerColen, Bill Maloney, and their supporting staff for helping to make my tenure as president interesting, rewarding, and painless.

Finally, I must thank my wife, Jacqueline, who has put up with me for more than 30 years with understanding, grace, and compassion, which I am not sure I always deserved. Jackie has supported my professional growth unconditionally and never imposed any interfering demands. Jackie, I am grateful, admiring, and sometimes astonished. Jackie single-handedly raised three wonderful human beings: all three, fortunately, are much like her, our daughters, Adriane, Carolyn, and Kristen.

This address is about changes in cardiac surgery and my views on excellence in patient care. The title was borrowed from the book of Ecclesiastes, which contains the thoughts of a philosopher who reflected on how short and contradictory life was. I read the Bible as a child, but the meaning of the words "for everything there is a season" made no sense until I was 14 years old. Two painful events occurred within a few months that year: my parents sent me away from home to attend high school, where initially I felt lost and abandoned, and my paternal grandfather died. It was then that I learned that "for everything there is a season, and a time for every purpose under heaven"—that life is a dynamic process, and its only certainty is change. It changes not only when we leave our homes or lose a loved one, but in all aspects.

We who practice medicine know that changes are happening all the time as new drugs, concepts, and techniques emerge. Much more than that, the way we practice medicine is changing. The truth is that medicine is no profession for the status quo.

Cardiac surgery is no exception. In fact, our work is at the epicenter of change in all aspects. Clinical volumes are declining, cardiologists now treat many patients with devices that can be deployed percutaneously, and so on. Furthermore, accountability is at an all-time high. These are the realities we have to live with and adjust to as best we can.

One of the most dramatic changes in cardiothoracic surgery occurred in the late 1960s, when coronary artery bypass grafting (CABG) was introduced into the treatment of coronary artery disease. Cardiothoracic surgeons who operated on lungs, esophagus, and heart valves had to acquire a new set of skills to perform myocardial revascularization. They did it and did it very well. Within a few years, a new breed of thoracic surgeons emerged—the CABG surgeon—and the number of

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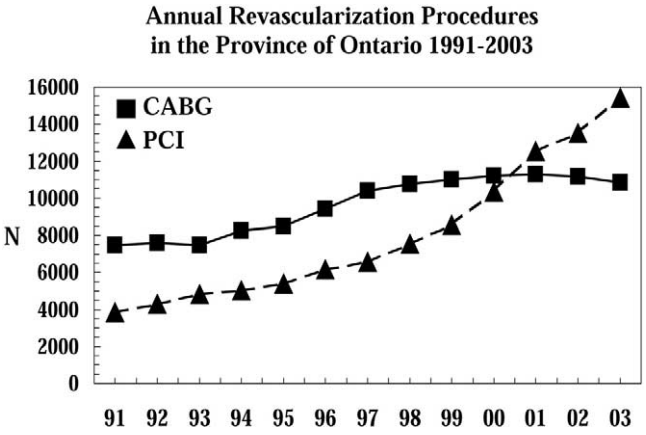

Figure 1. Trends in myocardial revascularization in Ontario, Canada (1991-2003). Source: Cardiac Care Network of Ontario. *CABG,* Coronary artery bypass grafting; *PCI,* percutaneous coronary intervention.

operations increased by tens of thousands each year. They made coronary artery bypass surgery one of the most commonly performed operations in North America.

Percutaneous balloon angioplasty, an alternative method of myocardial revascularization, started some 10 years after CABG, and the number of procedures also increased by tens of thousands each year without affecting the number of coronary artery bypass operations until recently. At present, in the Province of Ontario, Canada, almost twice as many patients undergo angioplasty as CABG for the management of coronary artery disease (Figure 1). These are changes, my friends. Real changes!

Cardiologists have made remarkable strides in perfecting the technical aspects of angioplasty, decreasing the inflammatory reaction associated with the deployment of stents, and, consequently, reducing the number of patients who need CABG. More important, lifestyle changes and improved pharmacologic management of atherosclerosis are reducing the prevalence of coronary artery disease. These developments are discouraging young surgeons from choosing cardiac surgery as their specialty. This is most unfortunate, because CABG will continue to have an important role in the management of this disease for years to come. Moreover, cardiac surgery is much more than CABG and needs young inquiring minds do the work that we have just begun. If only I could be a 30-year-old again!

Percutaneous endovascular interventions are not only changing the field of coronary artery disease. This technology has caused profound changes in the management of congenital heart disease and is now penetrating heart valve disease. We have to define the role of the cardiac surgeon in percutaneous endovascular interventions. I believe that we have to acquire the skills in this type of therapy because—if nothing else—they will likely play a major role in the management of thoracic aortic pathology and will be routinely used both in isolation and in combination with surgical procedures to treat patients with aneurysms. "For everything there is a season," and as the thoracic surgeons of the late 1960s learned CABG, we now have to learn percutaneous approaches to treat cardiovascular diseases.

During the past 20 years, there has been a disproportionate increase in the number of cardiac centers in relation to the number of angioplasties and CABGs in the United States. Close to 1000 hospitals in this country now offer these therapies. This growth has reduced the number of procedures per center and has made it more difficult to develop expertise in surgical or percutaneous cardiovascular interventions. The changes in the management of cardiovascular diseases, in addition to the demands for safety, effectiveness, and efficiency by public and health care regulators, will make it difficult for small units and low-volume cardiac surgeons and interventionists to deliver the expected quality of care. Public disclosure of clinical outcomes may further complicate things. Centralization of specialized cardiovascular services may become necessary, and low-volume cardiac units may have to close. "For everything there is season. . . ."

Another concern that demands attention is that operative procedures to treat cardiothoracic diseases are becoming more complicated and require a higher level of expertise to deliver excellence. These changes will force us to choose to practice one of the three subspecialties in cardiothoracic surgery: general thoracic surgery, surgery for acquired cardiac disease, or surgery for congenital heart disease.

The American Board of Thoracic Surgery has recognized the need for further subspecialization in thoracic surgery and is changing the requirements for training and certification. Thoracic surgery residents will have to choose between cardiothoracic or general thoracic surgery, and the training programs will have to provide greater exposure and experience in these areas. Inevitably, there will be fewer residents and training programs.

One thing we surgeons should never forget is that change is inevitable and is even desirable. Change in our line of work means progress, and for us progress should be improving the outcomes of diseases. Cardiologists and surgeons should work collaboratively to determine the best therapy. This sounds idealistic, but isn't our Hippocratic oath?

In his presidential address to this Association in 1998, Fred Loop[1] said that "we have by now evolved from a mechanical art to more than an intermediate science, and with each advance, the enterprise has been more satisfying for patients and doctors. And the drama is still unfolding." The drama is indeed unfolding.