Chapter 10
Invited Commentary

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Introduction

In this new section of our textbook, topics which have been in the background of surgery in elderly patients are now spotlighted. In the 10 years since publication of our first edition, it has been very gratifying for me to watch as more interest in the ramifications of surgery in the older patients – not just technical prowess – has developed; it brings us to the basics of medicine – "*Primum Non Nocere*."

The increased interest has two mutually-non-exclusive sources. First, there has been more academic attention to the older surgical patient. For example, in 1976, the nine surgical journals I typically read published a total of 358 articles in which patients aged greater than 65 or 85 years were operated, in 1989 there were 368, in 1999 the number was 513, and in 2009 there were 893 articles. My impression is that the quality of the papers has drastically improved. Early articles proved – using simple and then more complex analyses – that we could do surgery safely, and discussed how to deal with the older patients, sometimes via editorial comments. The message was that chronologic age was not equal to physiologic age – especially if we controlled comorbid illnesses and emergency surgery. In fact, these concepts were the main message of our first edition.

Now papers are more scientific, and highly complex statistical analyses of large databases have allowed researchers to focus on outcomes and quality measures. We are only now on the cusp of defining that consequence of chronologic age and the aging process on surgical outcomes, and there is a real effect. The impact of frailty and disability, two non-reversible aging processes, on surgical outcomes is significant. Because of them and not comorbidity, the ultimate outcomes of major interventions may not be as good as we hope. While not reversible, these two processes are to some extent preventable; lifestyle changes can delay their onset.

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Second, the sheer increase in number of patients in the older group has affected the population of patients we care for; the baby boomers have come of age. The predictions of the past – that the percentage of patients older than 65 and 85 in our population will grow – are coming true. While some papers wrongly predicted that Medicare would be financially insolvent by now, it is getting there. The shape of the age distribution in the USA has changed from a classic pyramid – where the small number of older population rest on top with increasing numbers of persons at the bottom – to a more rectangular (or trapezoidal) shape, where similar proportions of younger and older persons exist at multiple age levels. As our population pyramid changes, the demands on health care are changing too.

The societal burden for the expansion of the elderly patient population is intuitive, impressive, and expensive. An Institute of Medicine report in 2008 from the National Academy of Sciences entitled "Retooling for an Aging America: Building the Health Care Workforce" showed that the bulk of acute and chronic disease – diabetes, cardiac, hypertension, and cancer – rests in patients over 75 years of age. The older patient population uses more services. For example, 12% of our population uses up to one-third of total hospitalizations, and a similar percentage uses emergency medical responses and prescriptions for medication. The expanding use of nursing homes, short term rehabilitation facilities, and home care also has a cost.

The report suggested three goals to enhance the care of elderly patients: use education to improve the competence of health care providers, increase the number of geriatric specialists, and establish new models of care.

Achieving these goals will not be cheap. The IOM report noted that not only are chronic disease management, multidisciplinary care, and transitional care important for the elderly population, but also that to date, they have been underfunded. Bluntly, reimbursements for geriatricians, home care nurses, and even surgical care in this population is not very high, and the combination of low funding in all three areas is also problematic.

While surgical training programs have been asked to focus on education in geriatrics, to date it is mostly theoretical, and

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very few hospitals or institutions have active geriatric services which work closely with surgeons. The foundation of surgical training is to care for patients, not to just perform procedures. But there is very little in the surgical training for the topics described below.

The American Geriatrics Society has been an advocate in retooling the education practice of surgeons. Through their Jahnigan Scholars program, over 20 surgical specialists, in all disciplines, have been selected to do research, publish scholarly work, and teach geriatrics. Some basic curricula have been developed, and there is even one geriatric surgery fellowship available in the USA.

The real future of geriatric surgery is embedded in the chapters of this section; the foundation of education is evolving to a level of complexity higher than that described in the first edition of this textbook, and the need for multidisciplinary management is clear. To provide the elderly patient with quality care, we must be well versed in recognizing and addressing frailty and disability, not just controlling the established comorbidities of cardiac, pulmonary, kidney, and endocrine systems. Palliative care, do-not-resuscitate orders, and use of rehabilitation facilities and hospice need to be integrated early in a patient's care. As you will read, the American College of Surgeons, through the National Surgical Quality Improvement Project and the Task Force on Geriatric Surgery, is establishing quality indicators for the elderly patient, which will likely lead the change. In the future, these indicators will be just as important as the "core measures" we now follow.

Last, what about the elderly surgeon? While society has not yet mandated removal of driving licenses from older drivers, the elderly surgeon still has the same mandate as the younger "above all, do no harm."