Chapter 1
Invited Commentary

Jesse Roth

Get in league with the future.

Horace Greeley

The Future

By reading this piece, you are identifying yourself as a part of the vanguard in geriatric surgery. Textbooks of surgery and textbooks of geriatrics cover geriatric surgery very sparingly. You have chosen to tackle a textbook on geriatric surgery.

Demographics and Dollars

The elderly are the fastest growing segment of the population, with the so-called old–old in the lead. The elderly are highly overrepresented in the hospital population and in the medical expenses column. The application more widely of basic well-established principles of care for the elderly will almost certainly reduce the number of elderly in the hospital and increase the return on money spent. Most important, we can expect better outcomes for the elderly patients, especially for those who were hospitalized. Hospitalization and surgery are each serious threats for the elderly patient.

Geriatrics Is a Frontier

"Go West, young man," [1] was an exhortation to move from the built up to the new, the frontier, the so-called cutting edge. Geriatrics as a branch of medicine is young and is having a growth spurt. The subspecialties in medicine are increasing their attention to issues related to care for the elderly. In geriatric surgery, the frontiers are open.

History provides us with some models. Harvey Cushing was one of the twentieth century's giants, a pioneer. In the early years of the twentieth century, with great daring and deep thought, he took principles of general surgery and very meticulously applied them to the brain. In addition to his skills in the operating theater, he gave his patients extraordinarily attentive care, before surgery as well as after. Indeed, infection rates on his patients in the pre-antibiotic area, would win a commendation medal today. Today we revere him as the father of neurosurgery [2].

Pediatrics emerged from adult medicine at about the same time [3]. Now pediatrics has a complete array of sub-specialists covering all aspects of care for the young. When I was a medical student 50 years ago, pediatric surgery was just coming into its own. Now it is a well-established subspecialty.

Quest for Excellence

As the age of the patient increases, the gap grows that separates the *good physician* from the *excellent physician*. A similar gap shows itself as the age of the child decreases. The premature baby and the frail elderly share many features. One very big difference – pediatrics, pediatric surgery, pediatric nursing, neonatology, pediatric gastroenterology, pediatric endocrinology, and their cousins are well-developed areas of expertise with highly trained practitioners. Their counterparts in the care of the elderly are fewer and are less deeply trained. It is much more difficult for physicians involved in the care of an elderly patient to get expert help than it is for the doctor caring for a child. Worse yet, the adult physicians (and other medical providers) who are inadequately trained in geriatric care are often unaware of their deficiencies.

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R.A. Rosenthal et al. (eds.), *Principles and Practice of Geriatric Surgery*,
DOI 10.1007/978-1-4419-6999-6_1, © Springer Science+Business Media, LLC 2011

Fifty years ago, all of us were deficient as well as unaware of our deficiencies in care of the elderly. I have clear memories of a man in his eighties cared for by me and by a surgeon. The surgery was successful but the patient had a series of complications and died. Today, I can think of many useful interventions that were unknown and unused by us in those days.

The Challenge

The elderly patient is intrinsically more complex and challenging than the equally ill youngster. The young patient typically has one disease – complications and medications are few. The older patient classically has multiple conditions and a long list of medications, co-conspirators that blur the diagnosis and complicate the therapy. Laboratory values in young patients have established norms developed in young people. Normal ranges for the elderly are much less reliable, often guesses, appropriated with little testing from a much younger age group. Family responsibility for the young patient has a well-defined societal pattern whereas family links to the elderly patient are very variable and may require high level diplomacy. Yet, optimal outcomes for the young patient and for the old often require skillful and energetic family involvement.

Medical decisions with an elderly patient require professional skills at their best. The physician may start with an evidence-based algorithm conceived on experience with younger patients but the plan needs to be custom made for the particular patient at hand. In addition to deciding which tests and which surgery should be done, an important part of the care is deciding which tests and which surgery should not be performed. Even when a patient fulfills all the criteria for surgery, good judgment may modify or veto that decision for an elderly patient.

Medical Care from Here to the Future

Someday, care for the elderly will be totally in the hands of skilled caregivers who are highly trained in geriatrics, as exists now in pediatrics. Today, individual caregivers must gain multiple skills in many aspects of caring for the elderly. There are unique opportunities at your medical center to be among the pioneers who are importing best geriatric practices into surgery. In addition, you need to search for and recruit as advisors the minority of health care deliverers in your community who are skilled in caring for the geriatric patient.

Learning, teaching, and research opportunities will abound.

Scientific Advances in Geriatrics

The opening chapters of this book tackle several important scientific areas related to aging and the elderly patient. I recall meetings in geriatrics 20 years ago when the papers dealing with lab studies on aging fit a single track for 1 day. Now multiple tracks on multiple days are needed. The scientific basis of bone health, muscle wasting, and longevity are each a rich lode of discovery. The coming age of science in geriatrics is best epitomized by studies of cell aging that led to the 2009 Nobel Prize for pioneer work on telomeres.

The Road Ahead for the Physician

Intense focus in a well-circumscribed area can add great value to the physician's effort. These efforts often translate into shorter less expensive stays in the hospital, a language understood by administrators. At a time when burnout is increasingly widespread among physicians, these efforts can also be very rewarding to the professional soul.

Treatment for burnout has a poor prognosis. Prevention is more likely to succeed. Given the large loan balances and uncertain retirement programs that burden young physicians, the journey ahead may be unexpectedly long. Passionate commitment to a segment of one's professional life may be the key to a long happy satisfying medical career at this difficult time. Care for the elderly is energized by a pioneer spirit that makes it especially attractive for a long career.

References

1. Ascribed to Horace Greeley
2. Bliss M (2005) Harvey cushing: a life in surgery. University of Toronto Press, Toronto
3. Markel H (2000) For the welfare of children: the origins of the relationship between us public health workers and pediatricians. Am J Public Health 90:893–899