The Next Forty Years

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Over the 44 years since I completed my residency in orthopaedics in 1969, I've witnessed astounding changes in our specialty specifically and in medicine in general. In orthopaedics in the 1960s, we still had links to our bone-setter predecessors; fracture management was the most popular topic in the literature and our conferences. Treatment was in transition from an emphasis on closed reduction and non-operative measures to open reduction and internal fixation. Surgery was becoming more acceptable because we had begun to reduce operative infection rates and we had, for the first time, adequate intra-operative imaging.

Let me describe how we managed some common problems in the late 1960s—you'll readily understand how far we've travelled in just over four decades.

When I arrived on the orthopedic ward on White 5 at MGH in 1967, about half the patients with intertrochanteric hip fractures were treated with skeletal traction (an average of 12 weeks in a hospital bed for sufficient healing to support weight-bearing) and half were treated with surgery. Our fixation device was a Smith-Petersen nail coupled with a Thornton side-plate. (It had no telescoping capabilities.) During my last rotation on White 5 (1969), we treated all intertrochanteric fractures surgically (and usually inserted an early version of a telescoping device).

Tratment of ankle fractures was similarly evolving. In 1967, the standard of treatment for most was closed reduction and a plaster cast. The fracture clinic, unfortunately, saw too many patients with ankle fractures treated non-operatively who developed post-traumatic arthritis. By the early 1970s, the standard of care had changed. Most complex ankle fractures were treated surgically and outcomes improved considerably.

Care of severe arthritis of the hip was in flux in the late 1960s. The standard treatment was cup arthroplasty. There was a brief period of enthusiasm for trochanteric osteotomy, some patients had their hips fused, and total hip arthroplasty arrived from England as the decade was closing. By the early 1970s it became obvious total hip arthroplasty worked much better than its forerunner procedures.

Development of effective treatment for advanced arthritis of the knee lagged behind development of good treatment of the arthritic hip. In the 1960s we sometimes used the MGH distal femoral prosthesis but results were generally poor.

The principles of total knee arthroplasty were worked out in the 1970s and soon this procedure did as well as total hip arthroplasty.

Most traumatic knee injuries were a challenge. We usually made the diagnosis of a torn meniscus clinically because arthrography was not dependable (and MRI was to come years later). Surgery required arthrotomy, one to three days in the hospital, splint immobilization of the knee, two crutches for several days and then often physical therapy to mobilize the stiff joint. The advent of arthroscopy a few years later significantly improved treatment of meniscal tears in every important respect.

We saw many patients with anterior cruciate ligament tears and could offer no effective treatment. The treatment standard then, strengthening of the thigh muscles, usually yielded inadequate results. The 1970s brought surgery for this injury, treat-

ment for which gradually became very effective.

Unfortunately, we have not made commensurate improvements with all our orthopaedic problems. In the late 1960s, I had the opportunity as a resident to attend an AAOS Annual Meeting in Chicago. I recall a seminar there on the lumbar spine in which a speaker said, "Low back pain is the weed in your orthopaedic garden and you must get rid of it." This weed remains in our garden today.

While in the late 1960s we were doing more surgery for fractures and obtaining better results, treatment for low back pain with or without sciatica was moving in the opposite direction. After Mixter and Barr announced in 1933 that the herniated lumbar disc was a cause of low back pain and/or sciatica, orthopaedic and neurosurgeons operated upon many discs in patients who subsequently did poorly. Consequently, by the 1960s, most orthopaedic staff members at the MGH had a decided bias against surgery for this diagnosis. Today we're aware there was then an incomplete understanding of what caused low back pain and sciatica (we know more about this today, but not enough). A personal recollection of what we didn't know in the late 1960s – the notebook I compiled during residency doesn't mention the diagnosis of spinal stenosis. Hiding in plain sight, this common entity awaited the 1970s to become known to most of the orthopaedic community. (Remember, myelography was the best we had for imaging the spinal canal in the 1960s. It was less sensitive than CT and MRI which came later.)

To the reader, these recollections must be as exciting as looking at an orthopaedic textbook from the 1960s. But there's a point here, and it relates to today's important national dialogue about health care costs. If one compares what we did 40-plus years ago to what we do today for most musculoskeletal problems, it's evident we do things better and our results are much improved. And these improvements haven't occurred just in orthopaedic surgery. Consider the important innovations developed in all of medicine between the 1960s and today that provide better treatment for heart disease, cancers, renal failure, eye and infectious diseases – the list is lengthy. Yet, society has chosen to reward all who directly provide health care to patients with decreasing compensation over the past 30-plus years in return for these superior services.

In a conversation during my residency years, a wise surgeon told me never to be concerned about the income I'd make from medicine. Practice good medicine, he said, and society will compensate you adequately. This unwritten compact prevailed until the 1980s when society began to change it. Today, it no longer exists and, accordingly, the viability of our traditional triple mission of patient care, teaching and research is now sorely threatened. (Orthopaedists' incomes have held up so far – this isn't a brief to improve them – but many of our medical colleagues are beleaguered.) Some factors that bear upon these changes warrant mention.

Health care costs in the United States increased from approximately 7% of gross domestic product in 1970 to 17.9% in 2011. Most newspaper articles and virtually all television discussions do not break down the responsibilities of different participants in the health care business for this rise in costs. These participants can be divided into two groups, one that delivers care directly to patients and one that doesn't.

Considering the group that doesn't treat patients, it's generally overlooked that an estimated 31% – much more than 40 years ago – of American health care dollars go to administrative costs, much of which are created by insurance companies and other intermediaries. Suffice to say, today much more money than in 1970 is spent on "health care costs" that have little to do with providing care directly to patients. And decision-makers on the Hills, Capitol and Beacon, who attempt to contain the rise in health care costs, continue to focus on further reductions of payments to direct caregivers while they leave unchallenged the profitability of many who have impaired efficiency of the healthcare

system and increased its costs. It's beyond the scope of this article – and my competence – to try to explain the reasons, certainly complex, for these actions. Perhaps economists from another part of the university understand why this is occurring.

It is within the scope of this article to express concern that if society's elected representatives continue in their current course, the provider sector in medicine may be so weakened that it will no longer be able to function as productively as it has for generations. Mitch Rabkin, the astute former president of the Beth Israel Hospital, said in discussing hospital business, "No money, no mission." This applies as well to doctors and other direct care providers inside and outside of hospitals. If we don't convey this essential point to the public more effectively, there is a real risk the next 40-plus years will not bring advances in patient care as meaningful as what the last 40-plus years has provided.