Thoughts on Orthopedic Guidelines

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The American Academy of Orthopaedic Surgeons (AAOS) has recently established guidelines for the treatment of several conditions, a logical idea since guidelines may be an appropriate means to make clinical decisions. However, this attractive concept calls for an objective analysis of its alleged benefits before guidelines become the norm.

We must ask ourselves whether the current system of education regarding identification of results obtained from different treatment modalities is insufficient. I agree that it is not perfect, but I fail to believe that establishing guidelines for every subject is the best way to improve it. Quite the contrary, this could result in unanticipated unhappy consequences because guidelines are not the product of a scientific methodology, unequivocally proven to be true reflections of the best treatment for a defined pathological entity. They are simply subjective conclusions reached by a few selected people, who after reviewing segments of the literature (since a thorough and complete review of even a relatively small segment is unrealistic) report on what appears to them to be the treatment best supported by the majority of publications. The reviewers are inevitably influenced by the inescapable biases inherent in human nature. Inadvertently, they dismiss the possibility that other treatment modalities found to have fewer supporting articles in recent literature may be as good as, if not better than, the chosen one.

Even though guidelines are, thus far, not intended to be mandates, it is within our nature to be attracted to systems that provide a sense of security. This is something that guidelines certainly do: they free many from having to struggle to decide what the right answers are, since others have already made that determination for them.

It is possible that, one day, a large number of treatments will have the official endorsement of guidelines to the point of uniformity. If such a scenario became a reality, there may be a parallel stagnation in innovation, simply because the guidelines will gradually evolve from just "advice" to dogmas and dicta not to be questioned.

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We should learn a lesson from the conflict that arose when the American College of Chest Physicians (ACCP) published guidelines regarding the management of thromboembolic disease.[1] The ACCP recommended a certain chemoprophylaxis but seemed to pay insufficient attention to other protocols to which a large number of orthopedists had long successfully adhered. However, a number of hospitals implemented the guidelines for their own surgical staff. Such action implicitly suggested that any deviation from adherence to the ACCP guidelines was an unnecessary risk.

In a recent article published in *AAOS Now,* discussing the guidelines for distal radial fractures, the author states, "The following recommendations have adequate evidence to support a *moderately strong endorsement* [italics added]….We suggest operative fixation as opposed to cast fixation for fractures with postreduction radial shortening greater than 3 mm, dorsal tilt greater than 10 degrees, or intra-articular displacement or step-off greater than 2 mm….We suggest adjuvant treatment of distal radial fractures with vitamin C for the prevention of disproportionate pain."[2]

No matter how we wish to interpret these remarks, it is very likely that, given a situation in which the surgeon has deviated from the guidelines and the patient has ended up with a less-than-ideal radiographic picture, someone would call it a complication and a "legitimate" cause for litigation. The guidelines did not say that anatomical/radiographic deviations or failure to prescribe vitamin C is synonymous with malpractice, but some attorneys would readily interpret this as such. We know there are circumstances dictated by reasons such as patient age and underlying diseases when greater degrees of radiological malalignment or shortening are acceptable. In addition, I venture to say that the orthopedic community is not aware of the "evidence" that the administration of vitamin C reduces pain, and I dare question the scientific support for the recommendation.

The current system of education is appropriate to satisfy the needs of the practicing orthopedist. We are not dealing with young children who need strict behavioral guidelines, but with educated adults. Journals and books allow one to read the experiences of surgeons and researchers from different backgrounds and countries. A massive amount of information is also obtained from local, national, and international meetings, the plethora of continuing education courses and hands-on sessions, and many other sources. Orthopedists are capable of discerning the most appropriate way to treat various conditions based on information obtained from such multiple

media. Recommending specific, non-scientifically proven methods is not the right answer.

If the surgical approach to clavicle fractures, the procedure *du jour,* is supported by a guideline "strongly recommending" this approach, will the orthopedic community dismiss decades of experience and readily embrace the recommendations that surgical treatment is the best option? What if a surgeon treats a clavicular fracture, and the patient, having become aware of the guideline, wishes to litigate because of a mild, asymptomatic, barely visible deformity? Does he or she have a chance of getting a verdict unfavorable to the treating physician?

I suggest we pause before rushing into an attempt to establish guidelines for every conceivable condition. Let us look carefully at the issue at hand and decide whether the current trend is a sound one…if what some consider a "problem" is really a problem at all. Are we just proposing change for the sake of change and doing something that will not be an improvement over what we already have, and will we end up confronting unanticipated circumstances?

The AAOS, subspecialty societies, journals, and educational organizations are not bodies created to dictate medical practices. Rather, they are simply avenues to disseminate knowledge, something that until now they have done in a creditable way. Let us encourage them to continue to improve their efforts.

The reservations I expressed in this article are similar to those I previously discussed regarding the joint replacement registry.[3] Both topics need in-depth study before they become the law of the land.

Author's Disclosure Statement

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Commentary

Gus Sarmiento, MD, once again shares with us his thoughts on an important topic—in this piece, treatment guidelines. As I have previously mentioned,[1] we are obligated to heed his concerns, based on his long and distinguished career in orthopedic surgery as an educator and clinician.

He cautions us against embracing guidelines as "official endorsement" and "dogma." He is right to do so. However, I believe what he fears are treatment mandates, not guidelines.

I believe that treatment guidelines are extremely helpful and will become more and more prevalent in the delivery of patient care in the future, especially with the advent of health care reform in this country. I strongly support the approach in which guidelines, established by clinicians (not federal policy makers, not insurance bureaucrats), relying upon the best available peer-reviewed evidenced-based medicine, will assist physicians in providing the best care for patients, will not dictate care, and will minimize unproven and ineffective treatment.

Guidelines, in my opinion, are organic and will be modified as indicated by the newest and most reliable information based on the best research—a map, if you will, that will help lead the clinician through the maze of treatment options. Furthermore, sound judgment offered by an experienced clinician will always trump written guidelines, provided that the physician can offer evidence to support his or her approach. Guidelines do not dictate medical practice, physicians do.

Finally, I agree with Gus that it will be the responsibility of our orthopedic leaders and educators to ensure that guidelines remain fluid and responsive to new information based on sound research and that they do not deteriorate into rigid mandates that will certainly do more harm than good.

Peter D. McCann, MD
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