



The Society for Cardiac Angiography & Interventions



President's Page

Guidelines: Minimum Standards, Gold Standards, or Ideals for Practice?

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I have a spectrum of reactions to guidelines. Most impress me with the sheer volume of material that has been reviewed. Some show great thoughtfulness & practicality, such as the “Guidelines for Management of Valvular Heart Disease” [1]. Others contain recommendations without basis in trial data, such as the recent PCI guideline suggestion that post-PCI CK-MB elevations might require additional hospitalization [2]. These latter statements just frustrate me.

There is little doubt that guidelines have enhanced practice and patient outcomes in many instances. There is also little doubt that some guidelines have not had their intended effects and that many guidelines are not adhered to completely [3].

The ACC/AHA guidelines for percutaneous coronary intervention explicitly state as their purpose, “These practice guidelines are intended to assist physicians and other health care providers in clinical decision making by describing a range of generally acceptable approaches for the diagnosis, management, or prevention of specific diseases or conditions. These guidelines attempt to define practices that meet the needs of most patients in most circumstances. The ultimate judgment regarding the care of a particular

patient must be made by the physician and patient in light of circumstances specific to that patient” [2].

While the impact of guidelines on practice has generally been positive, complying with the detailed recommendations of guidelines has become increasingly difficult as the number, volume, and number of sources for guidelines have increased (Table). The total number of pages that are comprised by the various cardiology guidelines alone is substantial, and the number of references used to compile them reflects an overwhelming body of information.

One editorial suggested that guidelines can be deviated from only with a specific note in the chart explaining the reason for deviation [4]. Is this a guideline for following the guidelines? It is not realistic to document an order or note as “consistent with guidelines,” and in view of the number of specific guideline

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TITLE	YEAR	# of Pgs	# of Refs
Ambulatory ECG	1999	36	304
CABG	1999	81	137
Clinical intracardiac electrophysiological & catheter ablation procedures	1995	18	182
Clinical use of radionuclide imaging	1995	26	274
Coronary angiography	1999	68	549
Echocardiography	1997	58	514
Electrocardiography	1992	8	34
Eval and mgmt of chronic heart failure in the adult	2001	12	573
Exercise testing	1997	55	343
Implantation of cardiac pacemakers & antiarrhythmia devices	1998	34	333
Management of pts with acute MI	1999	100	849
Management of pts with atrial fibrillation	2001	70	580
Management of pts with chronic stable angina	1999	105	891
Management of pts with unstable angina & non-ST-segment elevation MI	2000	92	515
Management of pts with valvular heart disease	1998	102	737
Percutaneous coronary intervention (revision of 1993 guideline)	2001	66	629
Perioperative cardiovascular eval for noncardiac surgery	2002	58	390
Preventing heart attack and death in pts with atherosclerotic CVD	2001	3	33
TOTAL		992	7867

bullet points, less so to try to document each deviation from published guidelines.

However positive the impact of guidelines may be on practice and outcomes, implementation remains challenging and incomplete. Where are the barriers to implementation? Lack of awareness of the content of guideline publications is certainly a large contributor to lack of guideline penetration. Despite the availability of guidelines on web sites, in publications, and in some cases in formats for handheld computers, many busy practitioners still do not find all of them. In addition, some guidelines may not be recognized as central to one individual's practice. For example, the interventional physician may not read or carefully read echocardiographic guidelines. In the event of managing a patient with prior bypass surgery and pericardial tamponade, the interventional physician might not be aware of the echocardiographic guidelines recommendation for transesophageal echocardiogram to locate loculated effusions that might otherwise not be noted using transthoracic echocardiography alone.

Even in the most obvious cases where guidelines have established widely agreed upon standards for therapy, we must examine our actual level of performance. One of the least controversial therapies in cardiology is the use of thrombolytic therapy for the treatment of patients with acute myocardial infarction. Despite the widespread familiarity with this guideline, recent studies suggest that compliance is still only in the range of 70% [5]. If we cannot give lytics to all patients with acute myocardial infarction, does the guideline mean that they should be used only 70% of the time? Should similar norms be applied to other guidelines based on real practice?

This creates an impossible paradox. If community standards of practice were to define the degree to which guidelines should be implemented, improvements in practice could not be guideline driven. Similarly, if guidelines are taken to be absolute ideals for practice, it will remain impossible to meet guideline standards in 100% of cases.

How do we address this paradox? Guidelines in many respects are like population-based studies. While a large study will tell you what is true for a population, it does not always apply as clearly to individual cases. The use of guidelines to develop standard orders and clinical pathways both for inpatients and outpatients may be one of their most important uses. Guidelines as a framework for routine orders and clinical pathways are invaluable. This does not require that every item be adhered to in a rote fashion, but at least provides a clear reminder to the practitioner what are generally recommended (we are all accustomed to crossing out routine line item orders as needed) therapies.

I welcome your comments on this column. Please e-mail them to me at president@scai.org.

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