

Editorial

Guidelines in real life. Why are they not always enforced?

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In a paper published in this issue of the journal by Detaint et al. [1], resulting from the Euro Heart Survey on Valvular Disease, the authors analyse the outcomes of 877 patients who had isolated mitral regurgitation; 546 of whom had severe regurgitation. Of these, 101 with non-ischemic mitral regurgitation were asymptomatic. The aim of the current study was to match the decision to operate or not operate on these patients with the 1998 ACC/AHA guidelines on management of patients with heart valve disease, the only ones available at the time of the survey [2]. One third of the patients were referred to surgery. The therapeutic options were in accordance with guidelines in only 62% of the cases. Intervention had been overused in 9 patients and underused in 29, of whom 24 had a clear class I or IIa indication for surgery. The authors also found that cardiac catheterization and coronary angiography were underused. The conclusion was that guidelines are often not followed in general practice across European countries, which may have a significant impact in the late outcome of the patients.

Quality of care has been shown to correlate well with adherence to pre-established norms, of which the guidelines are one of the most significant examples, as it has also been shown in groups that participate in trials that create the evidence on which guidelines are based [3]. Hence, the importance of these rules which the most important scientific bodies that control both specialties, cardiology and cardiothoracic surgery, and experienced groups of professionals, create and regularly update. Since the time of the survey, ACC/AHA guidelines were revised and the European Society of Cardiology (ESC) has created its own guidelines [4,5]. Their successful implementation should improve quality of care by decreasing inappropriate variation and expediting the application of effective advances to everyday practice [6].

The conclusions reached by Detaint et al. hardly come as a surprise. Many studies published in the last decade have reported different grades of compliance, mostly poor, to guidelines in all specialties [7]. In fact, I suspect that most of us don't always follow the guidelines. On interpreting the specific results and conclusions of the current paper of Detaint et al., however, one should be critical. In my opinion, the Euro Heart Survey may not accurately reflect contemporary European practice, not only because it was conducted more than seven years ago, but also because centers involved in the study were geographically not uniformly distributed.

Some European countries did not contribute, and neither did some of the most important centers in contributing countries. This limitation illustrates, for example, the lack of referral to surgery of other groups of patients, such as the elderly with calcific aortic stenosis, an argument well seized to justify wider use of percutaneous transcatheter or transapical aortic valve implantation [8,9].

Besides the lack of knowledge of some, perhaps many, practitioners, there are at least two main reasons for this insufficient adherence to guidelines. Firstly, guidelines are precisely what the name implies, not commandments. They must be used consciously of the particular conditions of the individual patient. Secondly, there are still some discrepancies between the guidelines produced by the scientific societies of either side of the Atlantic, the AHA/ACC and the ESC, as the authors also point out.

Specific to the results derived from the Euro Heart Survey, a third reason is, in my opinion, more troublesome and may be related to an increasing divorce between cardiologists and surgeons in many centers. Joint discussion of clinical cases, once a very healthy habit, has become less interesting for professionals who are increasingly involved in their other activities, leaving little or no space for regular interdisciplinary meetings where all cases are discussed, whether or not there is a surgical indication. From this point of view only, surgeons may be less to blame as in most occasions the cardiologist is the gate-keeper and most cases never come to the surgeons' attention. Interestingly, in this study, the prevention of endocarditis was not satisfactory in patients who should have been referred to surgery and were treated medically.

But one factor that is very seldom considered is the difficulty that cardiologists may have, and often have, to find a surgeon or surgical group that guarantee a good probability of an adequate mitral valve repair; a condition that both the American and the European guidelines consider essential for referring to surgery patients with asymptomatic mitral valve regurgitation. This is clearly demonstrated by the fact that only 11 of the 18 patients (61%) in the survey who were operated on had their mitral valves repaired, which is clearly too little for asymptomatic patients who mostly had non-rheumatic valves. The authors mentioned this problem but were unable to reach a conclusion due to lack of suitable data on this particular aspect. In this case, it is the responsibility

of the surgeons to meet their cardiologists' natural expectations.

Unfortunately, the Euro Heart Survey does not permit identification of the general reasons for non-adherence in each case. However, distribution of European region, site of inclusion and age did not differ between the 63 patients with a concordant decision and the 38 patients with a discordant decision. But it would have been extremely useful to know if there was any association between the disagreement and the specific type of practice, public or private hospitals, academic centers and tertiary hospitals, age of referring cardiologist and associated surgeon, surgeons' habits and preferences or medical care policy that might influence a decision on performing early or late surgery, among other factors. A recent study of practices for referral of asymptomatic mitral regurgitation patients with mild LV dysfunction among Canadian cardiologists found compliance to be inversely related to number of years in practice. Interestingly, in this study, referral practices were similar among physicians in different subspecialties, with no differences in geographic region or academic affiliation [10].

The fact remains that, despite wide promulgation and free availability, clinical practice guidelines have had limited effect on changing physician behaviour [11] and little is known about the process and factors involved in changing practices in response to guidelines. Several specific surveys questioning the attitude towards guidelines have been conducted and found non-compliance to be related to several factors. In one study, lack of awareness, lack of familiarity, lack of agreement, lack of self-efficacy, lack of outcome expectancy and inertia from previous practice were found to be the most commonly physician-related invoked factors [3]. In addition, external barriers, either guideline-related (not easy to use, not convenient, cumbersome and confusing), patient-related, or environmental factors are known to impact attitudes. However, studies on improving physician guideline adherence may not be generalized, since barriers in one setting may not be present in another [4].

It is evident that much needs to be done and should be done to improve this unsatisfactory situation. As was also suggested by Detaint et al., future guideline intervention efforts should identify and reduce these barriers to guideline compliance prior to implementation [12]. The above mentioned guidelines were produced by cardiological societies and published in cardiological journals, which are not easily accessed by surgeons, despite free online availability. Surgical societies and journals, including the European Society for Cardio-Thoracic Surgery and the European Journal of Cardio-thoracic Surgery have, in my view, an important role to play in this matter.

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