

Editorial

Quality of in-hospital care in acute coronary syndromes: it is time to close the gap

In 2001, coronary heart disease was the leading single cause of deaths worldwide (12.7%); it also accounted for ~4% of total disability-adjusted life years lost, which is about one-third of those lost due to injuries from all causes, including road traffic accidents, violence and wars [1].

During the last 25 years, scientific progress in the field of acute and chronic care of coronary heart disease, as well as its primary and secondary prevention, have been equal to this challenge, and numerous clinical trials have been conducted to help selection of the best diagnostic and therapeutic strategies. Scientific associations and professional bodies have done their best to circulate the results of these trials among the medical community and, for a little over 20 years, have commissioned task forces to develop evidence-based clinical practice guidelines, such as the most recent guidelines of the European Society of Cardiology [2]. However, there is a large amount of evidence to suggest that changes in medical practice have lagged [3]: pre- as well as in-hospital delays in the management of patients with acute coronary syndromes are still overlong; reperfusion and revascularization strategies are underused, while the latter in particular is also overused; life-saving medications that can be viewed as basic and part of standard care, such as aspirin, β -blockers, angiotensin-converting enzyme (ACE) inhibitors or lipid-lowering agents, are underprescribed; and finally, in spite of proven benefits in terms of psychological and functional quality of life, as well as in terms of survival, cardiac rehabilitation is still insufficiently encouraged.

As stated in a special article in the *New England Journal of Medicine* by Claude Lenfant (Director of the National Heart, Lung, and Blood Institute in the USA) [4], progress in clinical research has been 'lost in translation', i.e. has not translated into medical practice. More emphatically, a recent report of the Institute of Medicine stated: 'Between the health care we have and the care we could have lies not just a gap, but a chasm' [5].

What have lagged are not only changes in medical practice, but also rigorous research on what strategies are most effective in triggering these changes. With the development of such research, we have learned that passive diffusion of scientific information, even when summarized or transformed into practical recommendations under the format guidelines, is generally ineffective [6]. Barriers to physician adherence to clinical guidelines are numerous, and include lack of awareness of guidelines, lack of appropriate medical knowledge to understand them, poor agreement with them, little expectation about their outcomes, low confidence in self-efficacy, inertia of previous practice, and patient or environmental factors,

just to mention a few [7]. Thus, it is not surprising that multifaceted interventions seem to be the most effective at changing medical practices [6].

Scott and coworkers employed the above approach and have reported their results in this issue of the *International Journal for Quality in Health Care* [8]. In three teaching hospitals in Brisbane, Australia, they developed and implemented locally endorsed, evidence-based clinical practice guidelines for the in-hospital care of acute coronary syndromes. They disseminated these guidelines with the help of several graphic supports and also used various types of reminder. Physicians, nurses, and hospital pharmacists were involved, as well as patients by means of education programs. Clinical indicators were systematically collected, with performance feedback reports provided to multidisciplinary teams that also designed improvement strategies. Their intervention increased the proportions of patients undergoing in-hospital electrocardiogram within 10 minutes of hospital arrival and being prescribed ACE inhibitors and lipid lowering agents, and, albeit less impressively, it increased the proportion of patients who received cardiac counselling or who were referred to cardiac rehabilitation. By contrast, the proportion of patients who underwent thrombolysis within 30 minutes of hospital arrival or who underwent non-invasive risk-stratification was not modified. These results are in keeping with similar interventions carried out in the United States [9]: they strengthen the finding that multifaceted strategies are effective and also suggest that they also might be cost-effective, since the intervention reduced median length of stay by 1 day. The study also confirms that such interventions should be supported by multidisciplinary teams and, in particular, teams that include specialist and generalist physicians. Indeed, there are sufficient data to demonstrate that collaborative care and effective communication between specialist and generalist physicians are mostly beneficial to patients, rather than competition with each other on scorecards [10].

Learning from the partial success of their intervention, Scott *et al.* conclude that behavioural changes and care processes under direct clinician control are easier to change than those involving complex system factors. It is true that few physicians control or master the complexity of our health care delivery systems. However, taking the lead in redesigning defective systems of care is the next major challenge facing physicians: a whole new field of quality improvement and research is opening up. The burden of coronary heart disease is enormous; it is time for us to close the gap between the health care our patients have and the health care they could have.

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