Defining Outcomes in Older Patients with Cardiovascular Disease

Chris L. Pashos

Abt Associates Inc., Cambridge, and Harvard Medical School, Department of Health Care Policy, Boston, Massachusetts, USA

Summary

It is now possible to track a comprehensive range of outcomes in elderly cardiac patients. Beside vital clinical end-points, these include health-related quality of life, satisfaction with care, and economic outcomes. This range of outcomes, each set complementing the others, can support patient care that is more effective from both the physician’s and the patient’s perspective. In this summary article, quality of life, satisfaction and economic outcomes are explored relative to the treatment of elderly cardiac patients. This is not meant to diminish the importance of the clinical measures that can and must be readily appreciated by physicians managing their cardiac patients. Instead, the measures discussed here augment the armamentarium that physicians can use to implement their patient care responsibilities.

1. Defining Outcomes

The effectiveness of care for elderly cardiac patients has usually been measured in terms of various key clinical end-points. These include outcomes such as: level of ventricular dysfunction; evidence of deterioration in ST segment and systolic wall motion; incidence of recurrent myocardial ischaemia, acute myocardial infarction, heart failure, arrhythmias or stroke; and, in the worst case scenario, cardiovascular or all-cause mortality.

However, the outcomes and effectiveness of medical care are now being evaluated more comprehensively than ever before, and there are several major reasons for this. First, biomedical technological advances have tended to increase the quality of life as well as, or rather than, the length of life. Secondly, patients are requesting that their levels of quality of life and satisfaction with care be assessed and considered when making either global policy or patient-specific treatment decisions. Thirdly, the pace of formal networking by physicians and other healthcare providers into delivery systems and managed care organisations is intensifying. This integration of acute and chronic management across the continuum of care is broadening the outlook of practitioners and payers to a perspective that is more likely to be longer term rather than short term.

Fourth, payers and purchasers of care are insisting that economic evaluations such as cost analyses or cost-effectiveness assessments be done and offered for review. Fifth, the increase in hospital and physician monitoring, for the purposes of quality improvement, network affiliation and purchasing of services, has inspired greater attention to provider-specific outcome measures. Finally, the availability of data collection technologies, which are still in their relative infancy, assures dramatic future increases in the feasibility of collecting and analysing a wider array of patient-specific and population-based outcomes data.

These global factors are important when the man-
management of cardiovascular disease in older patients is considered. Where once physicians focused on a relatively narrow and well defined set of clinically important, short term measures, the 6 factors just noted are leading to 2 significant changes in the tracking of cardiovascular patient outcomes.

First, attention is now also being focused on outcomes that are relevant to: (i) health-related quality of life; (ii) satisfaction with care; and (iii) resource utilisation and economics. These new types of measures are discussed in this summary article. This is not meant to diminish the importance of the clinical measures that can readily be understood and appreciated by physicians managing their cardiac patients. Instead, the measures discussed here can augment the armamentarium that physicians use to implement their patient care responsibilities. Thus, the focus of this article is on the relatively newer types of outcomes that can now be, and are being, measured, specifically with respect to elderly patients with cardiovascular disease.

Secondly, the advent of population-based outcomes is now making it possible for physicians to systematically compare the outcomes of their patients with those of similar patients either on a regional or national basis. Efforts by national and regional governmental agencies, private healthcare systems and coalitions of purchasers and providers are making these benchmarks possible. Thus, physicians are gaining the opportunity to use these patient-specific and population-based data to identify the norm in patient care strategies, and to identify areas where their management strategies may differ from the norm and could possibly be improved. The advent of real-time tracking of outcomes is foreseeable given recent and current investments in advanced technology, and this in turn will make physician management of elderly cardiac patients more effective.

2. Health-Related Quality-of-Life Outcomes

Health-related quality-of-life (QOL) measures encompass a patient’s objective evaluations and subjective perceptions of physical, emotional and social functioning. For example, attributes of physical function include symptoms and physical capacity; emotional function is comprised of behavioural or psychological well-being; and social function may involve ability to fulfil activities of daily living, social interaction and employment.

Physicians can use these measurements of a patient’s quality of life to assess the patient’s baseline functioning and subsequent improvement or deterioration. QOL outcomes have been measured among elderly cardiac patients to assess the benefit of invasive interventions such as coronary artery bypass graft surgery and percutaneous transluminal coronary angioplasty.[1-4] The use of these outcomes may be even more valuable in the management of patients who require long term treatment. For example, results from the Medical Outcomes Study, which involved more than 20 000 patients, indicated that the impact of different chronic conditions on quality of life is substantial and variable.[5]

The physician can use the measures both to assist in developing a patient’s specific management strategy and to maintain or modify it over time. For example, Nease and colleagues[6] found that angina patients with similarly severe physical function limitations varied significantly in their tolerance of their symptoms. One implication of this finding is that individual patients may comply differentially with particular therapeutic regimens to address those symptoms or limitations. This variation in compliance will, in turn, have a further effect on the course of the disease.

Ultimately, to maximise effectiveness of care in cases where a variety of treatments are possible, physicians may explore possible alternative outcomes and their probabilities with patients. This should lead to a more complete understanding by the physician of the patient’s utilities for and preferences among them, and consequently to a more effective therapeutic regimen. Regardless, by understanding the potential effects of therapies on quality of life, the physician can foresee and act to maximise compliance with a recommended therapeutic regimen of pharmacological treatment, diet or lifestyle change, or a combination of them.