

Heartbeat: Highlights from the issue

Catherine M Otto

The new Joint British Societies' Consensus Recommendations for the Prevention of Cardiovascular Disease (JBS3) were published in a Supplement to *Heart* on March 26, 2014 (*Heart* 100 Suppl 2). In this issue of *Heart*, we present two editorials comparing these new recommendations with the controversial, recently released American College of Cardiology/American Heart Association (ACC/AHA) Guidelines for treatment of blood cholesterol and to the 2012 European Society of Cardiology recommendations. Dr. Greenland (*see page 678*) finds much in common between the British and American guidelines; the fact that two independent expert groups came to similar conclusions after reviewing the evidence base reinforces the strength of both sets of recommendations. Dr. Perk and colleagues (*see page 675*) agree that all the current guidelines are concordant in terms of general principles, although estimating cardiovascular risk, either over the short or long term, can be problematic and there are format differences in the European, British and American documents. The real challenge facing us now is implementing the basic principles outlined in these guidelines and catalyzing meaningful behavioral changes in large numbers of patients to reduce the burden of cardiovascular disease.

The Editor's Choice for this issue of *Heart* is an article by Professor Clark and colleagues from the University of Alberta in Canada (*See page 716*) who performed a systematic review of 49 studies that addressed the parameters of effective self-care for chronic heart failure. They identified 4 key skills needed for successful implementation of a self-care program:

1. Integration of self care part with normal life patterns
2. Timely symptom detection, recognition and action
3. Caregiver support for self-care
4. Fostering patient independence

This study is timely given the rapid technological advances which allow patients and caregivers to easily monitor and record basic physiologic parameters such as weight, heart rate, and blood pressure and

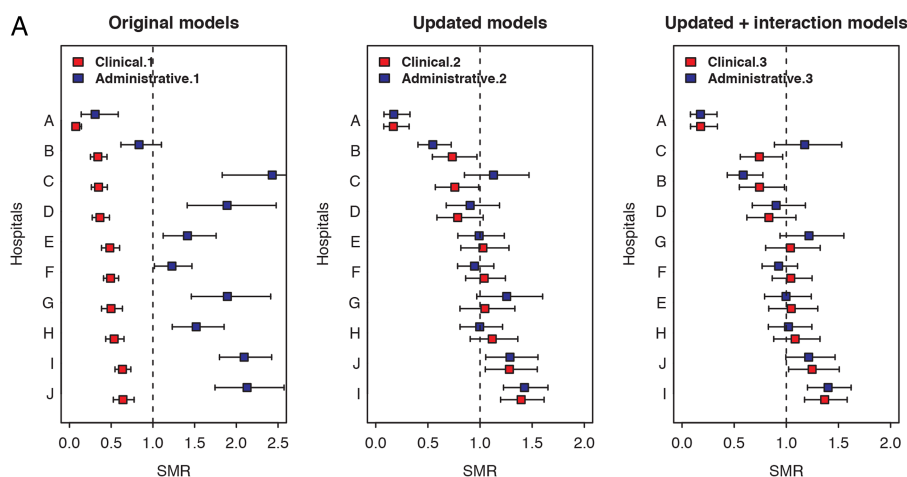


Figure 1 Benchmarking using standardised mortality ratio (SMR) calculated by the clinical models and the administrative models for all cardiac surgery. The SMRs of the clinical models are depicted in red and the SMRs of the administrative models in blue for different hospitals indicated by A to J on the vertical axis.

to correlate this information with other parameters such as diet, fluid intake, exercise, and medications using smartphone apps or other digital resources, which

could be electronically linked to the medical record. In the future, it is likely that patient self-monitoring and active participation in the care plan will become

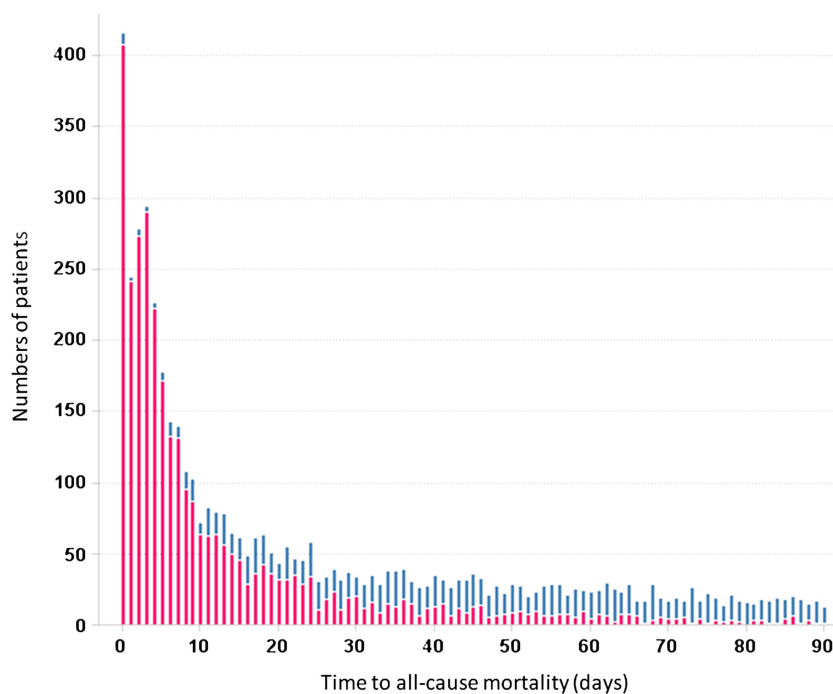


Figure 2 Histogram showing all-cause mortality rates up to 90 days following cardiac surgery performed in English National Health Service hospitals from 31 March 2008 through 1 April 2011. Red bars indicate in-hospital death and blue bars out of hospital death. (Adapted from: Hospital Episode Statistics and the Office for National Statistics (Study Institutional Registration CAB-05663-13)).

Correspondence to Professor Catherine M Otto, Division of Cardiology, University of Washington, Seattle, WA 98195, USA; cotto@u.washington.edu

routine elements in heart failure management. Studies showing the value of these approaches in improving patient outcomes and well-being and in decreasing the costs of heart failure treatment are needed.

In a large epidemiologic study, Dr Siregar and colleagues (*See page 702*) critically evaluated the limitations of using administrative, rather than clinical, data for benchmarking surgical mortality rates across hospitals. Using the administrative database, the intervention code was incorrect in 1.4 to 26.3% of cases, which led to inaccurate estimates of surgical mortality. The authors conclude that risk-adjusted models that include adjustment for procedure-specific clinical risk factors are best suited to identify hospitals with surgical mortality rates higher than the norm (see [figure 1](#)).

In an accompanying editorial, Drs Pagano and Gale (*See page 680*) suggest that health services research could achieve better data quality by combining information from both administrative and clinical data sources in conjunction with data on primary care and patient reported outcomes (see [figure 2](#)).

Dr. Grief and colleagues (*See page 691*) report another advancement in performance of transcatheter aortic valve implantation using only local anesthesia and fluoroscopic guidance in 461 patients with conversion to general anesthesia in less than 1% of patients. Dr. Shavelle (*See page 683*) provides a summary of previous smaller studies using this approach and comments that minimizing the invasiveness of TAVI and decreasing complication

rates represent movement in “the right direction”.

The Education in Heart article (*See page 730*) in this issue discusses the physiology of left ventricular twist dynamics and current imaging approaches for measuring twist and torsion using magnetic resonance imaging or speckle tracking echocardiography.

Try the Image Challenge and increase your knowledge of causes of left ventricular hypertrophy and the current diagnostic approach.



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