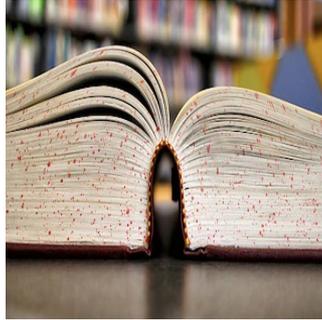


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## Updated Guidelines Influence Quality Improvement in Cardiology Practices



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A study in the May 28 issue of JAMA analyses variations in over 600 recommendations for practice guidelines by the American College of Cardiology/American Heart Association (ACC/AHA) published or revised since 1998. All of the recommendations were class I, referring to procedures and treatments which should be performed or administered. Those recommendations, which were supported by multiple randomised studies, were more likely to be retained in the next guideline revision, while others were downgraded, reversed or omitted.

### The Changing Role of Guideline Revisions

The need for guideline revisions in cardiology has historically been based on incorporating the most recent research and adjusting recommendations for changing health risks at the population level. However, variability across guidelines that is unwarranted can complicate efforts to encourage consistent application of evidence-based practices. Furthermore, physician trust in guidelines can be compromised when recommendations remain, which endorse outdated, inefficient or harmful practices.

Nowadays, guideline revisions do more than add to existing advice for clinical practitioners. Performance is increasingly measured according to adherence to recommended guidelines for clinical practice. As such, they are crucial in the consideration of policy efforts pertaining to quality improvement and cost-effectiveness.

### A Gap in the Guideline Research

Since little is known about how individual recommendations for clinical practice guidelines persist or change with the passage of time, researchers at the University of Pennsylvania's Perelman School of Medicine in Philadelphia analysed variations in a set of 11 ACC/AHA guidelines that were initially published between 1998 and 2007. Mark D. Neuman, MD, MSc and colleagues examined all class I recommendations within the guidelines, which had been revised between 2006 and 2013.

The recorded recommendations were classified as belonging to one of four categories: retained, downgraded, reversed or omitted. These determinations were based on a comparison of the first of the two most recent versions of each guideline, with corresponding recommendations identified in the subsequent version. Those replaced by less determinate or contrary recommendations fell into the second and third categories. Omitted recommendations were those for which no corresponding item could be found.

### Recommendation Retention

The researchers reviewed a total of 619 index recommendations, of which 80 percent remained in the subsequent guideline version, while 10.8 percent were omitted, 8.9 percent were downgraded and 0.3 percent were reversed. From one guideline to the next, the percentage of retained recommendations varied from 15.4 percent to 94.1 percent.

Recommendations, which were accompanied by specific levels of evidence, were further analysed. 90.5 percent of recommendations supported by multiple randomised studies were retained. By contrast, 81 percent of recommendations supported by a single randomised trial, or only observational data, were carried over to the next guideline. Recommendations supported solely by opinion showed a 73.7 percent retention rate.

### Keeping Current Guidelines

The results of the analysis suggest that clinical practice can be more effective when guidelines are kept current, with outdated or unsupported recommendations regularly removed to reduce unwarranted variability. Guideline-producing organisations should clearly communicate the reasons for any omissions, downgrades or reversals. The expected outcome of pruning away poorly supported recommendations is quality improvement in the clinical setting.

An accompanying editorial by Paul G. Shekelle, MD, PhD of the RAND Corporation in Santa Monica and the VA West Los Angeles Medical Center addressed the importance of up-to-date guideline recommendations for clinical practice. Guideline development organisations will have to devote available resources to monitoring, maintaining and updating guidelines, he advised. According to Dr. Shekelle, the organisations must be ever mindful of the way that accurate, updated guidelines are important not only to physicians, but for their ultimate goal of high quality patient care.

[Source: JAMA](#)

