costs were judged to be at least partially defensive, but only 2.9% of costs were completely defensive. Most costs were due to potentially unnecessary hospitalization. Defensive medicine practices varied substantially, but physicians who wrote the most defensive orders spent less than those who wrote fewer such orders, highlighting the disconnect between physician beliefs about defensive medicine and their contribution to costs.

In 2008, Massachusetts internists reported that 27% of computed tomographic scans, 16% of laboratory tests, and 14% of hospital admissions were ordered owing to concerns about liability. We allowed our physicians to offer a graded response, which revealed that defensiveness is not absolute. Compared with the previous study, our respondents reported higher percentages of defensive medicine but lower percentages of completely defensive medicine (2% of radiology, 6% of laboratory testing, and 2% of hospital days).

Limitations of our study include its subjective nature, lack of anonymity, small sample size, and the inclusion of only hospital medicine services at 3 hospitals in 1 health system.

In conclusion, although a large portion of hospital orders had some defensive component, our study found that few orders were completely defensive and that physicians’ attitudes about defensive medicine did not correlate with cost. Our findings suggest that only a small portion of medical costs might be reduced by tort reform.

Michael B. Rothberg, MD, MPH
Joshua Class, BS
Tara F. Bishop, MD, MPH
Jennifer Friderici, MS
Reva Kleppel, MPH, MSW
Peter K. Lindenauer, MD, MSc

Author Affiliations: Center for Value-Based Care Research, Medicine Institute, Cleveland Clinic, Cleveland, Ohio (Rothberg); Howard University College of Medicine, Washington, DC (Class); Division of Outcomes and Effectiveness, Department of Public Health, Weill Cornell Medical College, New York, New York (Bishop); Division of General Internal Medicine, Department of Medicine, Weill Cornell Medical College, New York, New York (Bishop); Division of Academic Affairs, Baystate Medical Center, Springfield, Massachusetts (Friderici); Department of Medicine, Baystate Medical Center, Springfield, Massachusetts (Kleppel); Center for Quality of Care Research, Baystate Medical Center, Springfield, Massachusetts (Lindenauer).

Corresponding Author: Michael B. Rothberg, MD, MPH, Center for Value-Based Care Research, Medicine Institute, Cleveland Clinic, 9500 Euclid Ave, Mail Code G10, Cleveland, OH 44195 (rothben@ccf.org).


Author Contributions: Dr Rothberg and Ms Friderici had full access to all of the data in the study and take responsibility for the integrity of the data and the accuracy of the data analysis. Study concept and design: Rothberg, Class, Friderici, Lindenauer. Acquisition, analysis, or interpretation of data: Rothberg, Bishop, Friderici, Kleppel. Drafting of the manuscript: Rothberg, Class, Friderici. Critical revision of the manuscript for important intellectual content: Bishop, Friderici, Kleppel, Lindenauer. Statistical analysis: Friderici, Lindenauer. Administrative, technical, or material support: Class, Kleppel.

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Underrepresentation of Women, Elderly Patients, and Racial Minorities in the Randomized Trials Used for Cardiovascular Guidelines

The American College of Cardiology/American Heart Association (ACC/AHA) guidelines are frequently used to guide cardiovascular care. Randomized controlled trials (RCTs) are considered to be the highest level of evidence and are cited in these guidelines whenever available. However, RCTs can have limited external validity. To examine their generalizability, we examined the percentage of enrollment and reporting of sexes, races, geographic distribution, and age groups in the RCTs cited in the ACC/AHA guidelines for atrial fibrillation (AF), heart failure (HF), and unstable angina/non–ST-segment elevation myocardial infarction (acute coronary syndromes [ACS]).

Methods | All guidelines’ references were screened for RCTs. Meta-analyses, review articles, guidelines, articles in a language other than English, abstracts, studies reporting follow-up results, or subgroup analyses of already included RCTs and other non-RCT references were excluded.

Data extracted from the RCTs included sample size, mean age, percentage of male and female patients, racial category when reported, trials’ publication year, whether it was a single or multicenter trial, and continents from which subjects were recruited. Elderly patients were defined as those 75 years or older because this is the cutoff used in ACC/AHA guidelines.

Results | Randomized controlled trials constituted the highest proportion of HF references (28% [230 of 814]) compared with AF (25% [229 of 910]) and ACS (20% [195 of 970]). The majority (72%) of the 653 RCTs from all 3 guidelines were multicenter trials. Mean sample size across all studies was 2047 patients. There was a continuous trend toward increase in study sample size over time.

Female representation was highest in AF RCTs (33%) followed by ACS (29%) and HF (29%) (Table), which is lower than that of US registries of AF (55%), ACS (42%), and HF (47%). Reporting of study patients’ sex has increased over time (Figure, A). After excluding trials with sex-specific intervention (therefore necessitating single-sex inclusion), female representation across all trials was 30%. This increased from 24% in the 1980s, to 28% in the 1990s, and to 31% for the years 2000 through 2009. Inclusion of women in HF and ACS clinical trials improved, while that in AF RCTs decreased steadily over time (Figure, B).
Less than a quarter (153 of 653 [23.4%]) of all RCTs reported patient race (36% of HF studies, 27% of ACS studies, and only 7% of AF studies). Reporting of race improved over time, particularly in the last decade, when approximately twice as many studies reported race as those in the prior decade (Figure, A).

When race was reported, the majority of patients were white. Over 86% of patients enrolled in AF and ACS trials were white compared with 73% in HF trials. Consequently, other races had a relatively low representation. Black patients constituted 19% of those studied in HF RCTs and 6% in AF and ACS RCTs (Figure, C). These percentages are close to their ratios in US registries of the same diseases (6%, 4, 21%, 5 and 11%, 6 respectively). Multicenter trials had better reporting of racial groups (29%) compared with single center trials (9%). Mean patients’ age was 75 years or older in only 2% (10 of 653) of all RCTs. Most trials (94%) enrolled patients from North America or Europe. Approximately 9% of RCTs included patients from Asia, South America, and Australia. Patient recruitment from Africa was limited to 4%, all from South Africa.

Discussion | Our results suggest that women, elderly patients, and those of nonwhite racial backgrounds are underrepresented in the RCTs of the ACC/AHA guidelines for AF, HF, and ACS. These findings raise concerns about clinical trial enrollment and the applicability of the guidelines in these underrepresented populations. Investigators should enroll and report more women, elderly patients, and minorities in future...
trials to improve the evidence base for patient care as well as the professional society guidelines.

Muhammad Rizwan Sardar, MD
Marwan Badri, MBChB, MRCP
Catherine T. Prince, DO, PhD, MPH
Jonathan Seltzer, MD, MBA, MA
Peter R. Kowey, MD

Author Affiliations: Lankenau Medical Center and Lankenau Institute for Medical Research, Main Line Health System, Wynnewood, Pennsylvania (Sardar, Badri, Prince, Seltzer, Kowey); Cooper University Hospital, Camden, New Jersey (Sardar); Applied Clinical Intelligence, Bala Cynwyd, Pennsylvania (Seltzer); Jefferson Medical College, Philadelphia, Pennsylvania (Kowey).

Corresponding Author: Marwan Badri, MBChB, MRCP, Lankenau Medical Center, 100 Lancaster Ave, Ste 55B, Wynnewood, PA 19096 (marwanbadri@gmail.com).


Author Contributions: Dr Badri had full access to all of the data in the study and takes responsibility for the integrity of the data and the accuracy of the data analysis. Study concept and design: Sardar, Badri, Seltzer, Kowey. Acquisition, analysis, or interpretation of data: Sardar, Badri, Prince. Drafting of the manuscript: Sardar, Badri. Critical revision of the manuscript for important intellectual content: Sardar, Prince, Seltzer, Kowey. Statistical analysis: Sardar, Prince. Administrative, technical, or material support: Badri, Seltzer.

Study supervision: Sardar, Badri, Kowey.

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Readmissions in the Era of Patient Engagement

The patient perspective on readmissions is lacking in the literature despite evidence that improved patient satisfaction is associated with decreased 30-day readmission rates1 and that patient-centered communication may improve health outcomes and reduce expenditures.2,3 In the emerging era of patient engagement in which patients increasingly desire to participate in their medical care,4 patient perspectives on readmissions warrant further investigation. We aimed to illuminate the patient voice on readmissions, focusing on factors that patients associate with preventable readmissions and the extent to which patients and physicians agree on readmission preventability.

Methods | The UCLA Institutional Review Boards approved the study. During 5 weeks (December 4, 2012, through December 23, 2012, and January 7, 2013, through January 20, 2013), all patients readmitted within 30 days to general medicine and cardiology services at Ronald Reagan UCLA Medical Center and UCLA Medical Center, Santa Monica were identified. Patients who provided oral consent were interviewed within 72 hours of readmission. The interview script addressed the reason for readmission, preventability, discharge processes, health status, and follow-up care. Independent physicians concurrently reviewed interviewed patients’ medical records for readmission preventability using research electronic data capture for medical record abstraction.

Our analysis classified each readmission as preventable or not preventable as determined by the patient. We identified factors associated with patient assessments of preventability using Pearson χ² test and Fisher exact test for categorical variables and using t test and 1-way analysis of variance for continuous variables. We analyzed the concordance between patient and physician opinions of readmission preventability using a 95% CI for Cohen k.

Results | Among 143 eligible patients, 98 (69%) participated and 45 (31%) refused or were unavailable; no significant demographic differences were observed between participants and nonparticipants. The mean (SD) age of participants was 59 (18) years. Fifty-two percent were male; 57% of participants were of white race/ethnicity, and 28% were African American. The mean (SD) length of the index admission was 5.6 (4.9) days, and the mean (SD) time between discharge and readmission was 14.4 (8.4) days.

Sixty-eight patients reported that their readmission was not preventable, 26 reported that it was preventable, and 4 were undecided. Compared with patients reporting nonpreventable readmissions, patients who reported preventable readmissions or who were undecided were more likely to report being discharged before being ready (69% vs 13%, P < .001), not having all concerns addressed before discharge (67% vs 15%, P < .001), being less satisfied with the discharge team on a scale of 1 to 10 (mean, 6.3 vs 8.0; P = .01), and not having a follow-up appointment with the primary care physician or a specialist scheduled at discharge (31% vs 12%, P = .03) (Table).