Health Care Reform

Impact of the 2008 US Preventive Services Task Force Recommendation to Discontinue PSA-based Prostate Cancer Screening Among Male Medicare Beneficiaries

For clinical evidence to have an impact on the health of populations, guideline recommendations must be rapidly and widely disseminated and physicians and other health care professionals must act responsively. Recommendations to discontinue care may be even more challenging. Recently, the US Preventive Services Task Force (USPSTF) recommended that no man receives prostate-specific antigen (PSA)-based screening for prostate cancer.\(^1\) While the impact of this recommendation will not be immediately understood in practice, the impact of the USPSTF’s August 2008 recommendation to discontinue PSA-based prostate cancer screening for men 75 years and older may inform expectations.\(^2\)

Methods. We used 2007–2009 data from the linked Surveillance, Epidemiology, and End Results (SEER)–Medicare database,\(^3\) cancer incidence, and survival from patients in geographic areas representing 28% of the US population, cross-matched with the Medicare enrollment master file, along with a 5% sample of noncancer patients in geographic areas representing 28% of the US Medicare beneficiaries residing in SEER program areas.

Using a quasiexperimental design, we compared longitudinal changes in PSA-based prostate cancer screening among men 75 years and older with concurrent screening trends among men aged 66 to 74 years as a control group, a difference-in-differences approach. By using a multiple time series with a comparison group, the approach reduces bias from unmeasured variables and from secular trends. Our prerecommendation and postrecommendation periods were 15 months from April 2007 through June 2008 and October 2008 through December 2009, respectively, which allowed a brief “washout” period for dissemination of the August 2008 USPSTF recommendation. Consistent with prior research,\(^4\) PSA-based prostate cancer screening was determined using Healthcare Common Procedure Coding System codes. Men screened multiple times during a period were only counted once.

Because wide regional variation in prostate cancer screening and treatment has been demonstrated,\(^5\) we subsequently examined whether there was a differential impact of the 2008 USPSTF recommendation among hospital referral regions (HRRs) that varied in prerecommendation PSA-based screening rates among men 75 years or older and urologist density.\(^6\) For analytical purposes, HRRs were categorized as having low (first quartile), medium (second and third quartiles combined), and high (fourth quartile) prerecommendation screening rates and urologist density.

We used a generalized linear model that included observation period (prerecommendation vs postrecommendation), age (66–74 years vs \(\geq 75\) years), and an interaction between these 2 variables, along with race and Elixhauser comorbidity score, to estimate the differential impact of the 2008 USPSTF recommendation. These analyses were then repeated to examine whether the differential impact of the recommendation varied across HRRs stratified by both prerecommendation PSA-based prostate cancer screening rates and urologist density. All analyses were conducted using SAS version 9.2 (SAS Institute Inc).

Results. Before and after the 2008 USPSTF recommendation, men aged 66 to 74 years received PSA-based prostate cancer screening at significantly higher rates compared with men 75 years or older (prerecommendation, 33.9% vs 29.4%; postrecommendation, 34.4% vs 27.8% [\(P < .001\)].

After accounting for race and clinical comorbidities, PSA-based prostate cancer screening differentially declined among older men by 2.0 percentage points (95% CI, –3.1 to –1.0 [\(P < .001\); Table\]) after the 2008 USPSTF recommendation, from 29.4% (prerecommendation) to 27.8% (postrecommendation) among men 75 years or older, 33.9% to 34.4% among men aged 66 to 74 years. However, the recommendation did not have a differential impact across HRRs stratified by either prerecommendation PSA-based prostate cancer screening rates or urologist density.

Comment. Using a quasiexperimental design, we found that the 2008 USPSTF recommendation to discontinue PSA-based prostate cancer screening for men 75 years and older had a small but significant impact on prostate cancer screening among older male Medicare beneficiaries and was consistent across geographic areas with both high and low prerecommendation prostate cancer screening rates and densities of urologists.

A previous study of Pacific Northwest Veterans Health Administration hospitals similarly identified an impact of the 2008 USPSTF recommendation on older men,\(^7\) although our study was focused on Medicare beneficiaries, few of whom receive care in hospitals with strong clinical reminder systems to promote guideline recommended care. In contrast, our findings differ slightly with 2 recent studies that found no impact of the 2008 USPSTF recommendation on older men.\(^8,9\) However, neither of these studies used contemporaneous controls to account for secular trends in PSA screening and both used self-reported population survey data, which have been...
associated with significant overestimation of prostate cancer screening rates. Instead, we used a conservative claims-based algorithm based on prior research to identify PSA testing for prostate cancer screening.

In this case, a recommendation to discontinue care had a significant impact, since we found differently lower PSA-based prostate cancer screening among older men. However, for a screening test where the harms have been shown to outweigh the benefits, rates of PSA-based prostate cancer screening still neared 30%, suggesting that greater efforts are needed to change practice.

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Results. A total of 843 of the 1235 medical students in Minnesota responded to the survey (68%). Medical students in the sample predominantly identified themselves as liberal (55%), and more than half (52%) anticipated a primary care specialty.

Fewer than half of the respondents (48%) agreed with the statement, “I understand the basic components of the Patient Protection and Affordable Care Act.” A large minority (41%) of students had no opinion regarding support for the ACA, and only 13% of students did not support the legislation. Most respondents agreed that physicians are professionally obligated to play a role in implementing the ACA (66%). Most students also indicated that monetary considerations influenced their choice of specialty (53%) (Table 1).

In unadjusted analyses, there was a significant association between understanding of and support for the ACA (P < .001). 72% of those who understood the ACA indicated support for the ACA, while 20% who did not understand the ACA indicated support. Most students who did not understand the ACA indicated no opinion (72%) regarding support, while only 11% of students who understood the ACA had no opinion about support.

In multiple logistic regression models, self-identified liberal students, compared with conservative students, were significantly more likely to have a positive response regarding their support for, understanding of, and sense of obligation to implement the ACA (odds ratio [OR], 15.1 [95% CI, 8.6-26.8]; OR, 2.2 [95% CI, 1.4-3.3]; and OR, 3.3 [95% CI, 2.1-5.1], respectively). Students who indicated that their choice of specialty was or would be influenced by medical school debt or future earnings were significantly less likely to agree that they supported, understood, or felt a sense of obligation to implement the ACA (OR, 0.5 [95% CI, 0.4-0.7]; OR, 0.7 [95% CI, 0.5-0.9]; OR, 0.6 [95% CI, 0.4-0.8]). Compared with students who anticipate a primary care specialty, students who indicated their future specialty as surgical or undecided were significantly less likely to indicate support for the legislation (OR, 0.6 [95% CI, 0.3-0.9]; OR, 0.6 [95% CI, 0.4-0.9]).

See Invited Commentary at end of letter

We sought to characterize medical students’ knowledge of and attitudes toward the ACA and to examine the relationship between these attitudes and respondents’ political affiliation, medical school year, specialty choice, and financial considerations.

Methods. In January 2011, we e-mailed an online survey to all 1235 Minnesota medical students at the 3 medical campuses in Minnesota. Three subsequent reminders were sent to nonresponders. The institutional review boards at the University of Minnesota and Mayo Clinic approved the study.

Students were asked to indicate their level of agreement to 3 questions regarding the ACA using a 5-point Likert scale: “I understand the basic components of the Patient Protection and Affordable Care Act” (the national health care reform bill passed in March 2010)”; “I support the Patient Protection and Affordable Care Act””; and “Physicians are not professionally obligated to play a role in implementing the new healthcare reform bill.” Independent variables considered were demographic characteristics (including medical school year); anticipated specialty type, categorized as primary care, surgery (including surgical subspecialties), procedural specialty, nonprocedural specialty, and nonclinical specialty; political self-characterization (liberal, moderate, conservative); and response to the statement “Medical school debt and potential earnings have or will influence my choice of specialty.”

Health Care Reform

Medical Students and the Affordable Care Act: Uninformed and Undecided

Although President Barack Obama signed the Patient Protection and Affordable Care Act (ACA) on March 23, 2010, it remains widely debated and is a defining issue in the upcoming 2012 presidential and general elections.1 The success or failure of the ACA will lie in its acceptance, as well as the effectiveness of its implementation.2,3 While the next generation of physicians will play an increasingly significant role in the implementation, modification, and advocacy for or against reform measures, it is unclear whether they possess the knowledge or will to participate in such efforts.4,5

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