Re: Trends in the Treatment of Ductal Carcinoma In Situ of the Breast

We applaud the study of Baxter et al. (1), in which the authors examined trends in treatments for ductal carcinoma in situ (DCIS) and the association between treatment and diagnosis year, race, tumor size, comedo histology, and geographic area by use of data from the Surveillance, Epidemiology, and End Results (SEER) registries. They argue that some of the change in treatment patterns over time is related to modifiable practice patterns, particularly, because nonclinical factors are associated with treatment choice.

We published a study using the linked SEER–Medicare DCIS data from 1991 through 1996 that examined not only treatment trends but also geographic variation in treatment to understand diffusion of new scientific information. Our results support the treatment trends reported by Baxter et al., including increased use of breast-conserving surgery (BCS) alone and BCS with radiotherapy (2). In women aged 65 years and older, the use of BCS alone increased from 38% in 1991 to 50% in 1996, BCS with radiotherapy increased in use from 13% to 22%, and mastectomy use declined from 49% to 29% during the same period. Our identification of radiother-
apy included women who had two or more Medicare claims for radiotherapy or a SEER designation of having radiation, because these sources are considered complementary in terms of their information (3).

In addition to geographic region (represented by SEER registry), year of diagnosis, age, and race being associated with treatment choice, we also found that socioeconomic and health system variables, including marital status, living in a rural area, and educational attainment, helped explain treatment variation. These variables are not related to modifiable practice patterns identified at the region level, calling into question the efficacy of national treatment guidelines. On the other hand, we found a small but statistically significant relationship between the density of radiation oncologists and treatment patterns, indicating that a high population density of radiation oncologists may also influence care. If a referring surgeon knows that multiple radiation oncologists are available in the area, the surgeon may be more likely to refer patients for these services. Alternatively, perhaps, more radiation oncologists are in the area because the practice of local surgeons is to refer patients for radiation treatment.

Our work broadens the focus of Baxter et al. by examining geographic variation and trends in treatment by using novel methods to assess the diffusion of scientific information, such as clinical trial evidence showing that BCS alone is associated with worse long-term outcomes in terms of recurrence rates (4). We demonstrate that treatment trends in the 1990s are in an increasingly variable stage, meaning that there appears to be growing uncertainty, rather than consensus, over which treatment to choose. This observation may be a compelling reason to consider national treatment guidelines.

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REFERENCES


NOTES

1Editor’s note: SEER is a set of geographically defined, population-based, central cancer registries in the United States, operated by local nonprofit organizations under contract to the National Cancer Institute (NCI). Registry data are submitted electronically without personal identifiers to the NCI on a biannual basis, and the NCI makes the data available to the public for scientific research.

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