



# VALUE IN HEALTH CARE: What's Behind Variation in Physicians' Use of Non-Recommended Services in Oncology Care?

## Why This Study Is Important

Efforts to improve value in health care focus on reducing the utilization of services that are of low benefit, or even harmful, to patients relative to the cost of the service. This study analyzed five oncology services that the Choosing Wisely Campaign has identified as being non-recommended in order to determine (1) the extent of the unexplained variation in use of these services between physicians and (2) the persistence of overuse across patients treated by a given

physician. This non-recommended care included services such as imaging to stage or monitor low-risk breast or prostate cancers and long courses of palliative radiation for bone metastases. Additional analyses considered whether overuse is influenced by physician ownership of imaging equipment or by the radiation treatment setting. Better understanding of physicians' overuse of low-value services can help to inform value-oriented initiatives.

## What This Study Found

- There is extensive variation between physicians in the use of non-recommended oncology services.
- A cancer patient was more likely to receive a specific non-recommended service if the prior patient treated by his/her physician for the same condition had received the non-recommended service.
- Physician ownership of imaging equipment was associated with a higher likelihood of using this equipment to provide some of the non-recommended services.

## What These Findings Mean

- Overuse of these low-value cancer services may be physician specific, and many care decisions appear to be driven more by physician habits and preferences than tailored to individual patient circumstances.
- Efforts to address overuse should consider that overuse is concentrated among physicians who practice in repetitive ways, relatively uninfluenced by patient characteristics. Physician-focused interventions targeting consistent high users will be an important complement to Choosing Wisely strategies aiming to educate patients to question their physicians about the need for identified low-value care.

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## More About This Study

This study used SEER cancer registry data linked with Medicare enrollment and claims files from 2004 through 2012. Relevant cohorts of patients over age 65 were identified for each study service, and each patient was assigned to the physician most likely to be his or her primary decision maker for the service in question. Physicians' patients in a give cohort were ordered chronologically by date of service or diagnosis.

The existence of unexplained physician-level variation in service use was determined using a logit model rating the patient's probability of service use to demographic and clinical characteristics and a random effect for the patient's assigned physician. Logistic regressions controlling for patient characteristics and a variable capturing the treatment given to the physicians prior patient in the cohort provided the estimates of persistence of service use across patients. Some analyses were repeated to add controls for the physician ownership of imaging equipment and radiation therapy setting.

Lipitz-Snyderman A, Sima, CS, Atoria CL, et al. "Physician-Driven Variation in Non-Recommended Services Among Older Adults With Cancer. *JAMA Internal Medicine*, 176(10):1541-8, October 2016.