

Social contagion in the exam room—peer influence and cancer surgeons' use of breast MRI

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A new study by researchers at Yale School of Medicine and Johns Hopkins School of Medicine has found that surgeons' use of a new imaging test is influenced by the practice style of their peers.

Published in the current issue of the *Journal of the National Cancer Institute*, the study suggests that [social contagion](#)—which has largely been studied in the field of sociology as a means by which ideas, attitudes, and behaviors spread—is also a relevant factor in medicine.

Lead author Cary P. Gross, M.D., professor of medicine (general [medicine](#)), and director of Yale's Cancer Outcomes Public Policy and Effectiveness Research (COPPER) Center, said it has been common knowledge that medical practice is influenced by many things, including patient attitudes and beliefs, reimbursement issues, and medical evidence. "Our study adds a new wrinkle to the literature," he said. "We found that physicians, like any other group of interconnected individuals, are also susceptible to the social influence of their physician peers."

Gross and the research team used Medicare data to identify surgeon peer groups—clusters of [surgeons](#) who frequently share patients with one another—and then determined which surgeons were using breast magnetic resonance imaging (MRI) in the care of their patients with breast cancer. Gross said the team studied MRI use because it is controversial, with some professional societies recommending against its routine use as part of planning for [breast cancer surgery](#).

They followed these surgeons over time in order to determine whether surgeons who did not initially use MRI, but whose peers did, were more likely to subsequently use MRI. The authors found that these physician peer groups did, in fact, have an impact. Women whose surgeons were in [peer groups](#) that had the highest baseline MRI use were more likely to receive MRIs compared with women whose surgeons' peers did not use MRI (24.9% vs. 10.1%).

"Peer influence can be a conduit that helps to increase the use of medical approaches that are not based on sound evidence—or alternatively, this social contagion might also be used to promote best practices among

physicians," said Gross, who is a member of Yale Cancer Center. "That's the exciting part—this concept of social contagion could be a potentially effective way of changing [physician](#) behavior and improving the quality of care."

More information: Craig E. Pollack et al. The Impact of Social Contagion on Physician Adoption of Advanced Imaging Tests in Breast Cancer, *JNCI: Journal of the National Cancer Institute* (2017). [DOI: 10.1093/jnci/djw330](#)

Provided by Yale University

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