



# Value Added

The quarterly newsletter of the CVCR

## Making better breast cancer screening decisions

June 2017

Up until 2009, the U.S. Preventive Services Task Force recommended women start getting screening mammograms at the age of 40 years. In their updated recommendation statement however, they no longer recommend screening initiation before the age of 50. This change resulted in considerable push-back by various stakeholders as well as some confusion among patients and physicians.

**Dr. Kathryn Martinez** has been studying how patients and providers make mammography decisions in the context of evolving recommendations. In this issue, she provides context for the ongoing mammography screening debate, and describes recent findings from a study assessing provider knowledge of mammography benefits and harms.



### Why did you choose to study mammography?

*Ever since the U.S. Preventive Services Task Force updated their screening recommendation against routine screening in women under 50, mammography has been a topic of considerable public debate. Numerous stakeholders, including healthcare providers, women's health advocates, and cancer organizations weighed in on the updated screening guidelines, largely in favor of continued widespread screening. But this backlash to the updated recommendations potentially belied a lack of understanding of the evidence guiding the U.S. Preventive Services Task Force recommendation, particularly regarding the potential harms of screening in younger women.*

### What are the harms and benefits of screening?

*All screening tests, including mammography, involve tradeoffs of potential benefits and harms. In the case of mammography, the primary benefit is detecting breast cancer. However, there is a high rate of false positive findings among younger women, due to their denser breast tissue. As a result, women under 50 are at higher risk for some of the harms of mammography, which include being called back for additional imaging and unnecessary biopsies, both of which can result in substantial anxiety as well as costs. Another very serious potential harm is that of overtreatment, which happens when a woman gets treated for a breast cancer that otherwise would have had no negative health impact. Breast cancer treatment generally involves surgery and radiation, and for many, chemotherapy and hormone therapy, as well. These treatments are often painful and burdensome and present their own risks to the patient, including cardiac risks and the risk of secondary cancers.*

### How should patients weigh the tradeoffs associated with mammography?

*The U.S. Preventive Services Task Force recommends providers engage younger patients in shared decision making for mammography. This process ensures patients are educated about the potential benefits and harms of screening, and encouraged to make an informed decision about whether or not to get a mammogram based on their individual values and preferences.*

### What was your research about?

*We were interested in finding out whether providers were prepared to engage younger women in shared decision making for mammography. Specifically, we wanted to know if providers were knowledgeable about the harms and benefits of screening in this age group. We conducted a survey of primary care providers in Greater Cleveland and asked them about their breast cancer knowledge and their self-assessed competence in engaging younger women in shared decision making for mammography.*

### What did you find?

*Providers had very low knowledge about common harms of screening. In fact, almost all providers we surveyed underestimated the risk of additional imaging following a mammogram in this age group. Overall, we found that providers were generally unprepared to engage younger women in shared decision making for mammography. Despite 83% believing in shared decision making for mammography, only 10% were adequately prepared to engage women in this decision.*

### How will findings from your research impact clinical care at the Cleveland Clinic?

*While most providers want to help women make informed decisions about mammography, they appear to lack the tools to do so. As a result, we will soon be piloting a decision aid in a select number of outpatient clinics to support shared decision making for mammography. This decision aid will help patients and providers understand the projected individual risks and benefits of mammography for specific patients. Importantly, this tool will also support providers in guiding discussions with patients about their values and preferences regarding these tradeoffs. Our goal is to improve informed decision making and enhance patient-centered care for our younger female patients.*

### Featured Publication

## Journal of HOSPITAL MEDICINE

### [Impact of a Connected Care Model on 30-Day Readmission Rates from Skilled Nursing Facilities](#)

Luke D. Kim, MD; Lei Kou, MA; Bo Hu, PhD, Eiran Z. Gorodeski; Michael B. Rothberg, MD, MPH

### Spotlight: SGIM 2017



The Society for General Internal Medicine conference held in Washington, D.C. April 19-22, was well represented by the Cleveland Clinic and the CVCR.

We had 16 GIM Staff; 7 IMRP residents; 2 chiefs; 2 future chiefs; 2 CCLCM students; 1 CIM Staff; 1 FM Staff; 1 OPR; 2 OPE Staff and 1 HM Staff totaling **34 Cleveland Clinic attendees**.

Cleveland Clinic attendees presented 11 oral abstracts, 8 workshops, and 24 posters.

[Click here to visit the CVCR website](#)

### Featured study-in-progress:

## Understanding the Relationship between Surgical Volume and Complications

**Principal Investigator:** Michael Rothberg, MD, MPH

**Co-Investigators:** Kurt Spindler, MD, Carlos Higuera-Rueda, MD, Matt Pappas, MD, MPH, Bo Hu, PhD, Greg Strnad, Gareth Morris-Stiff, MD, Jihad Kaouk, MD, and Thomas Mroz, MD.

How do you choose the surgeon with the lowest complication rate? What if everyone went to surgeons with low complication rates? ProPublica, an independent news organization, recently tried to rate all surgeons in the US based on their complications rates from common, elective procedures. They obtained data from Medicare, developed their own methodology for determining complications and then made their results available to the public using an interactive website. Just enter the surgeon you are considering and see how he or she compares with others in your area or nationally. Alternatively, you could search Cleveland area hospitals and see how all the surgeons compare. The problem is that the volumes are generally low, and complications are rare, so no surgeon is statistically different from the mean. Nevertheless, surgeons with high adjusted complication rates (and their hospitals) are highlighted. Needless to say, this website has received a lot of criticism.

### Our Questions:

We purchased the data from ProPublica to ask a different question. How much better on average are high volume surgeons than low volume ones? Is there a threshold above which complications do not decline? If we were to shift surgeries from low volume to high volume surgeons, how many complications could we avoid each year?

### The Analysis:

ProPublica supplied us with Medicare data from millions of patients who underwent surgery between 2009 and 2013. We will be concentrating on 8 common elective surgeries, including total hip replacement, total knee replacement, laparoscopic cholecystectomy, radical prostatectomy, transurethral prostatectomy, cervical fusion, lumbar fusion of the anterior column and lumbar fusion of the posterior column.

To perform our analysis, we identified all surgical complications occurring within 30 days of the procedure. Because there is no standard definition of surgical complications, we reviewed the literature and came up with our own list. Using ICD-9 codes, we identified all complications occurring in the perioperative period until 30 days post-op.

Next we plan to calculate rates of complication by surgeon, adjusted for individual patient factors, and the hospital in which the operation was performed. We will then model the relationship between surgical volume and complication rate using piecewise spline functions. Finally, we will calculate the number of complications and deaths which could be prevented annually if all the patients who saw low volume surgeons instead had complications rates comparable to patients who saw high volume ones.

### Potential Implications:

As Cleveland Clinic and the rest of the country shifts its focus from volume to value, we may discover that in some spheres, volume promotes value. Although some surgeons may prefer to perform a wide variety of operations, or combine surgery with other pursuits, this approach may not be best for patients. If we find that specializing in one operation improves outcomes, there may be pressure to achieve a certain threshold number of procedures to ensure best results.



## Recent Publications

[Preventing herpes zoster through vaccination: New developments.](#) Phuc Le, Camille Sabella, Michael B. Rothberg

[Working Despite Having Influenza-Like Illness: Results of An Anonymous Survey of Healthcare Providers Who Care for Transplant Recipients.](#) Sherif B. Mossad, Abhishek Deshpande, Sarah Schramm, Xiaobo Liu and Michael B. Rothberg

[Modeling Individual Patient Preferences for Colorectal Cancer Screening Based on Their Tolerance for Complications Risk.](#) Glen B. Taksler, PhD, Adam T. Perzynski, PhD, Michael W. Kattan, PhD

[Patient-Entered Wellness Data and Tailored Electronic Recommendations Increase Preventive Care.](#) Julie Foucher-Urcuyo, David Longworth, Michael Roizen, Bo Hu, and Michael B. Rothberg

[Associations Between Physician Empathy, Physician Characteristics, and Standardized Measures of Patient Experience.](#) Chaitoff A, Sun B, Windover A, Bokar D, Featherall J, Rothberg MB, Misra-Hebert AD.