BCSC Newsletter for March 2014

News & Announcements

BCSC Contributes to 5th Edition of the ACR BI-RADS Manual

Evidence generated from the Breast Cancer Surveillance Consortium (BCSC) played a major role in the revision of the latest edition of the ACR BI-RADS® manual. The new edition is designed to improve patient care by serving as a comprehensive guide providing standardized breast imaging terminology, report organization, and assessment structure. It also serves as a classification system for mammography, ultrasound, and magnetic resonance imaging (MRI) of the breast.

BCSC Study Wins Herbert M. Stauffer Award for Best Clinical Paper in Academic Radiology in 2013

A BCSC study, led by BCSC researcher, Tracy Onega, PhD at the Dartmouth Institute, won the Herbert M. Stauffer Award for Best Clinical Paper in Academic Radiology in 2013. The award is given by the Association of University Radiologists (AUR) to an “outstanding manuscript published in Academic Radiology in the year 2013.” Dr. Onega's study examined creating a gold standard for radiologist test sets and concluded, “Variability in expert interpretive is notable. A minimum of three independent experts combined with a consensus should be used for establishing any gold standard interpretation for test sets, especially for non-cancer cases.”

BCSC Influences Metric Development of National Guidelines and Benchmarks

The Advisory Board Company, a global research, technology, and consulting firm that tracks and reports best practices in health care, compiled several metrics and target benchmarks for breast cancer screening compliance, recall, and detection rates. They used the following BCSC data and publications to come up with their metrics:

- BCSC Recall rates and cancer diagnoses.
- Performance Benchmarks for Screening Mammography.
- Evidence-based Target Recall Rates for Screening Mammography.
- Performance Benchmarks for Diagnostic Mammography.

BCSC in the News

New York Times Editorial Cites Evidence from the BCSC

An editorial about breast cancer screening by H. Gilbert Welch, MD garnered widespread media attention and cited cumulative false-positive evidence from the Breast Cancer Surveillance Consortium (BCSC). The editorial was published in the December 29, 2013 edition of the New York Times, where Dr. Welch argued that clinical trials were needed to determine what level of screening minimizes false alarms and over diagnosis, while saving the most lives.

Two BCSC-related Papers Selected as Top 16 ASPO Abstracts

Each year, the American Society of Preventive Oncology (ASPO) votes on the 16 highest ranked abstracts, which are published in the March issue of Cancer Epidemiology Biomarkers and Prevention (CEBP). Two BCSC-related papers were selected as the top abstracts:

- Improving the diagnostic accuracy of a stratified screening strategy by identifying the optimal risk cutoff.

BCSC Highlighted in the NIH Applied Research Program Newsletter

**A Mammogram Every 2 Years May be as Good as a Mammogram Every Year for Older Women**

The *Agency for Healthcare Research and Quality (AHRQ) Research Activities* (October 2013 edition), highlighted a BCSC study led by Dejana Braithwaite, PhD. The study found that a mammogram every 2 years is as good as a mammogram every year, whether or not the older women have comorbidities. *Research Activities* is an AHRQ regular publication that includes announcements of Agency products and projects and summarizes research findings from studies supported by the Agency.

**BCSC Study Finds Use of Breast MRI in Women is Increasing**

A BCSC study published by *JAMA Internal Medicine* was featured in the November 18, 2013 edition of Science Daily. The study, led by BCSC researcher Karen Wernli, PhD, found that the overall use of breast magnetic resonance imaging has increased and is most commonly used for diagnostic evaluations and screenings. However, MRIs can lead to high false-positive rates and are more expensive than mammography. The authors conclude that, "There is a need for improvement in the use of diagnostic and screening breast MRI for women most likely to benefit from this imaging tool."

**Costs of US Mammography Screening Compared with Costs of Policy Recommendations**

The BCSC contributed data towards estimates used in a high profile study published in the *Annals of Internal Medicine*, and led by Cristina O'Donoghue, MD, MPH. The study estimated costs of current patterns of mammography screening in the United States and compared them with projected costs if use were based on USPSTF policy recommendations. The authors estimated the cost of mammography screening in 2010 was $7.8 billion. They also concluded that $4.4 billion dollars could be saved and 15% more women screened if USPSTF recommendations were followed. The study was highlighted in *AuntMinnie.com*, which provides a "comprehensive community Internet site for radiologists and related professionals in the medical imaging industry."

**BCSC Shares Data with Researchers for Manuscript Evaluating Screening Strategies**

The BCSC shared data with external scientific investigators for a publication on the Cost-effectiveness and harm-benefit analyses of risk-based screening strategies for breast cancer. The study used the BCSC's publicly available risk estimation dataset to determine if risk-based screening would be cost-effective. Led by Ester Vilaprinyo, PhD, the authors concluded that, "Risk-based strategies can reduce harm and costs. It is necessary to develop accurate measures of individual risk and to work on how to implement risk-based screening strategies."

**Dr. Karla Kerlikowske Featured on KQED - Discusses BCSC and the Need for Risk-Based Screening**

BCSC researcher, Karla Kerlikowske, MD, was interviewed by Michael Krasny on KQED public radio in Northern California on February 14, 2013 about a study published on the 25-year follow-up from the Canadian National Breast Screening Study, a randomized trial of screening mammography, and risk-based screening.

**BCSC Researcher Featured in a Radiology Podcast**

BCSC researcher, Brian Sprague, PhD, participated in a February 2014 Radiology Podcast to discuss screening trends in the state of Vermont and his manuscript: "Registry-based study of trends in breast cancer screening mammography before and after the 2009 U.S. Preventive Services Task Force recommendations."

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Garth H Rauscher, PhD, Associate Professor of Epidemiology, in the School of Public Health at the University of Chicago, Illinois (UIC) is the Breast Cancer Surveillance Consortium Program Project (BCSC P01) Registry Lead at UIC. Dr. Rauscher's breast imaging registry joined the BCSC in 2011. His research interests are centered around social and biological determinants of racial/ethnic and socioeconomic disparities in cancer with a focus on breast and colon cancer progression and prognosis, as well as applications of causal methods to disparities research.

Quarterly Spotlight

The Breast Cancer Surveillance Consortium (BCSC) Program Project, "Risk-Based Breast Cancer Screening in Community Settings," (BCSC P01) is an NCI-funded Program Project comprising three research projects and three supporting Cores. The programmatic theme is to identify the most effective risk-based breast cancer screening strategies that also minimize harms. The map below illustrates all the institutions involved in this large endeavor.

Stat-Bite

The Breast Cancer Surveillance Consortium (BCSC) developed the BCSC Data Explorer, a publicly available data portal, which allows researchers to explore tables and graphs of the nation's largest collection of mammography data collected from 1994-2009. With the BCSC Data Explorer, researchers can select and view frequencies and cross-tabulations of a subset of the variables collected by the BCSC. For example, the figure below shows breast cancer rates per 1000 screening mammograms for women 18 and older by BI-RADS breast density from 1994-2009 and is based on 4,272,012 screening mammograms, estimated from the BCSC Data Explorer. Density categories are listed as a, b, c, and d, in accordance with the fifth edition of the American College of Radiology (ACR) Breast Imaging Reporting and Data System (BI-RADS®).

Breast Cancer Rate by BI-RADS Breast Density, 1994-2009
Recent BCSC Publications

A mammogram every 2 years may be as good as a mammogram every year for older women, according to a new registry-based study. *AHRQ Research Activities Newsletter*. October, 2013 Edition. [View Abstract]


Recent BCSC Grant & Contract Awards

The American Cancer Society has awarded a grant to the Breast Cancer Surveillance Consortium (BCSC) so investigators can rapidly conduct a retrospective study to compare mammography plus screening ultrasound to screening mammography alone, by level of breast cancer risk and level of breast density. This research has the potential for immediate translation on a key clinical and policy-related health issue and is relevant to a large number of women in the United States.

Upcoming Abstract Deadlines

**NAPCRG Annual Meeting**
New York City, NY
November 21-25, 2014
Abstract submission deadline: March 28, 2014

**Radiological Society of North America Scientific Assembly and Annual Meeting**
Chicago, IL
November 30-December 5th, 2014
Abstract submission deadline: April 9, 2014

Upcoming Conferences

**AACR Annual Meeting**
San Diego, CA
April 5-9, 2014
Society of Behavioral Medicine (SBM) Annual Meeting & Scientific Sessions
Philadelphia, PA
April 23-26, 2014

American Society of Clinical Oncology (ASCO) Annual Meeting
Chicago, IL
May 30-June 3, 2014

Breast Cancer Symposium
San Francisco, CA
September 4-6, 2014

Breast MRI Case-Based Review & Advanced Breast Imaging
Las Vegas, NV
September 20-21, 2014

Society for Medical Decision Making (SMDM) Annual Meeting
Miami, FL
October 18-22, 2014

San Antonio Breast Cancer Symposium (SABCS)
San Antonio, TX
December 9-13, 2014