Researchers state that patient knowledge is essential to informed decision-making about breast cancer treatment.

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Expert Perspective:

"Increasingly, patients are going online to research and find more information about their own cancer diagnoses, as well as those of family members and friends," said Timothy D. Gilligan, MD, MS, and ASCO expert. "With websites playing a critical role for many patients, an analysis of the quality of information on major cancer-related websites is timely and important."

ALEXANDRIA, Va. – As an increasing number of patients look to the internet for cancer information, researchers from the University of Alabama found that the websites of many National Cancer Institute (NCI)-designated cancer centers lack sufficient information to help patients with breast cancer understand all their treatment options and make well-informed decisions. It also found they are not fully accessible to Spanish-speaking patients and those using mobile devices. In contrast, websites of the NCI and the Susan G. Komen® had high-quality patient information. Researchers will present their findings at the American Society of Clinical Oncology's (ASCO) upcoming Quality Care Symposium, taking place March 3-4, in Orlando, Florida.

“In the past five years, we've seen an explosion of cancer-related information on the internet,”
said lead author Caleb Dulaney, MD, a radiation oncology resident at the University of Alabama at Birmingham. “As a result, patients have more choices than ever before when it comes to where they get their breast cancer information. Our study found that it is challenging to find information at cancer center websites that will truly help patients stay informed about treatments. There is good information out there, and as physicians we can direct our patients to comprehensive resources that will help inform a patient’s care goals.”

Researchers evaluated breast cancer information on 65 different cancer websites: the National Cancer Institute (NCI), Susan G. Komen, and 63 NCI-designated cancer centers. While they found it easy to locate the webpage that included information about breast cancer (median of two clicks to access the page), the majority of websites did not contain adequate information about treatment and care decisions.

The authors measured content quality using 33 questions from three validated Breast Cancer Decision Quality Instruments (DQI). Such instruments are designed to assess quality of information and the extent to which patients are informed about all treatment options. For example, researchers evaluated the quality of information regarding mastectomy versus radiation and lumpectomy, as well as information about side effects of chemotherapy.

On average, major cancer center websites addressed only 21% (seven out of the 33) of the questions. Approximately 10 websites did not address any of the DQI questions, and no site addressed all of the questions. On the other hand, researchers found that the websites of the NCI and the Susan G. Komen Foundation covered higher proportions of questions than cancer center sites—85% and 88%, respectively.

In addition to information quality, Dr. Dulaney and colleagues also examined information accessibility. Only 59% of websites were mobile friendly, and just one-quarter offered a Spanish translation capability. Authors encourage cancer centers to make Spanish information available, as breast cancer is the leading cause of cancer death in Hispanic/Latina women.

“Our findings demonstrate an opportunity for physicians to be involved with website content planning at their cancer centers so that patients with breast cancer have access to information that describes the full scope of treatment and care, along with outcomes.
“information,” Dr. Dulaney said.

2017 Quality Care Symposium News Planning Team

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View the disclosures for the News Planning Team.

ATTRIBUTION TO THE 2017 QUALITY CARE SYMPOSIUM IS REQUESTED IN ALL NEWS COVERAGE.

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2017 Quality Care Symposium: Presentation Information

| Poster Session A: Cost, Value, and Policy in Quality; Practice of Quality | Caleb Dulaney, MD  
Department of Radiation Oncology  
University of Alabama at Birmingham  
Birmingham, Alabama |
| --- | --- |
| Friday, March 3, 2017: 11:30 AM – 1:00 PM EST  
Friday, March 3, 2017: 4:15 – 5:15 PM EST  
Hyatt Regency Grand Cypress, Regency Hall, Ground Level |  
Caleb Dulaney, MD  
Department of Radiation Oncology  
University of Alabama at Birmingham  
Birmingham, Alabama |

Abstract 135: Quality of information addressing treatment options for women with breast cancer on NCI cancer center websites

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Background: The internet is increasingly utilized by cancer patients for information that may influence treatment decisions. National Cancer Institute (NCI)-designated cancer center websites and nationally recognized cancer research agencies are trusted sources of information, however little data exists regarding the quality of information on these sites. We evaluated the quality and accessibility of breast cancer treatment information on cancer center websites addressing therapeutic options. Methods: Websites of all NCI cancer centers,
the NCI, and Susan G. Komen were reviewed. Quality was measured using 33 questions from three validated Breast Cancer Decision Quality Instruments (DQI). Two blinded reviewers determined if websites provided information to answer each question. Number of clicks to reach the breast-specific webpage, evaluation time, and Spanish and mobile accessibility were recorded. Kappa coefficient was used to measure inter-observer variability. Correlation between evaluation time and questions answered was measured using Pearson coefficient.

**Results:** Of the 63 cancer center websites evaluated, 94% had breast cancer webpages reached in a median of 2 clicks. Average evaluation time was 11 minutes. 24% were Spanish accessible. 59% were mobile friendly. No site provided information that addressed all questions. The most informative cancer center site addressed 76% of questions. On average, 21% of questions were addressed per site. 16% of sites did not have sufficient information to answer any question. In comparison, the NCI and Komen sites covered higher proportions of questions than cancer center sites (85 and 88%). Inter-observer variability was fair to moderate (avg. Kappa 0.37). Evaluation time strongly correlated with number of questions answered ($r = 0.75$).

**Conclusions:** NCI cancer center websites provided informative feedback for breast cancer patients across an average 21% of key knowledge points in a validated DQI. This information is less accessible to Spanish speaking patients and patients using mobile devices. Website improvements represent an opportunity to enhance knowledge that may improve shared decision making for women with breast cancer.

**Disclosures:** Gabrielle Betty Rocque, MD: Travel, Accommodations, Expenses from Medscape; Honoraria from Medscape; Research Funding from Pack Health, Medscape, and Carevive Systems

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**About ASCO:**

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