

Normative Data for Interpreting the BREAST-Q in Breast Cancer and Reconstruction

Nora Roberts*

Nora Roberts. Normative Data for Interpreting the BREAST-Q in Breast Cancer and Reconstruction. *J Surg Res.* 2021;5(4):3.

SHORT COMMUNICATION

breast reconstruction procedures have improved in tandem with advances in early detection and treatment of breast cancer. There are a variety of reconstructive treatments available, each with its own set of indications, contraindications, benefits, drawbacks, and complications, employing either autologous tissue or implants, each with its own set of indications, contraindications, benefits, drawbacks, and issues. Oncologically, breast reconstruction after mastectomy is safe and is connected to higher levels of satisfaction and better psychosocial results. Although the risk of major complications is increased after immediate reconstruction (mastectomy followed by reconstruction), there have been no reports of clinically significant delays in getting adjuvant therapy after rapid reconstruction. Despite the psychological benefits of breast reconstruction, only a small fraction of mastectomy patients choose it.

For patients with locally advanced breast cancer, Immediate Breast Reconstruction (IBR) is deemed contraindicated (LABC). Our goal was to see if IBR led to postoperative treatment being delayed, increased postoperative morbidity, or a higher risk of recurrence [1].

Invasive breast cancer affects 230,000 women in the United States each year. Mastectomy is performed on 36 percent of women with early stage invasive breast cancer and 58 percent of women with advanced stage invasive breast cancer. The overall rate of breast reconstruction following mastectomy has been reported to be 42%, with 25% of patients beginning reconstruction at the time of mastectomy and 17% undergoing delayed reconstruction after cancer treatment is completed. While breast reconstruction for women with breast cancer is not desirable or available to all women, it is well established and has been shown to enhance patient outcomes when compared to mastectomy alone [2].

After a mastectomy, how often is a breast reconstruction done?

Breast reconstruction has always been uncommon in Canada. Rates and trends were assessed in two population-based studies. Baxter and colleagues used population-based statistics to find that the reconstruction rate in Ontario was 7.9% in 1994/95, the same as in 1984/85. Between 1991 and 2001, researchers looked at breast reconstruction care patterns in Nova Scotia and discovered a rate of 3.8 percent. In Canada, there hasn't been an assessment in a while. From 1985 to 2007, we found nine population-based and five hospital-based studies reporting patient care in the United States. Breast reconstruction rates in a network of tertiary cancer centres increased from 3.4% in 1985-1990 to 42 percent in 1997-2002.

Six research from other countries were identified, four of which were published in English. Breast reconstruction rates in Australia, Denmark, and England were 9.9%, 14 percent, and 16.5 percent, respectively, from 1982 to 2000. The rate of reconstruction increased from 1.3% in 1990 to 5.1 percent in 2005, according to a study conducted by a single university in Shanghai, China. The rate of breast reconstruction in China was reported by these authors as a percentage of all breast cancer patients in China, but the rate was reported by the other papers in this analysis as a percentage of patients who had undergone mastectomy.

BREAST-Q

The BREAST-Q is a breast surgery-specific PRO tool that has been

administered to over 22,000 women, making it one of the most commonly used. The BREAST-Q was published in 2009 and comprises modules specifically created for the evaluation of outcomes in women undergoing mastectomies, BCT, and breast reconstruction. It was developed according to internationally established principles for PRO development. A literature study, patient interviews (n=48), cognitive patient interviews (n=46), and expert input from healthcare professionals, including plastic surgeons, were all used to build the conceptual framework and set of scores. The BREAST-Q was given to 2715 individuals, comprising 908 pre-surgery patients and 1807 post-surgery patients, before the definitive instrument was published. Cronbach's alpha scores ranged from 0.88 to 0.96 for the Reconstruction module, with item total correlations ranging from 0.56 to 0.86 and test-retest reliability of 0.93 to 0.96.

The BREAST-Q is a breast surgery-specific PRO instrument that has been administered to over 22,000 women, making it one of the most commonly utilised breast surgery-specific PRO instruments on the market. The BREAST-Q was published in 2009 and comprises modules built specifically for the evaluation of outcomes in women after breast cancer treatment, using internationally established principles for PRO development. Pre-operative scales in the BREAST-Q breast cancer modules include Satisfaction with Breasts (n=4 items), Psychosocial Well-being (n=10 items), Sexual Well-being (n=6 items), and Physical Well-being Chest (n=16 items), with a Physical Well-being Abdomen (n=5 items) in the Reconstructive pre-operative module. The responses on each scale are added together and then modified using the Q-Score method.

Breast cancer is the most common cancer in the United States, with a low fatality rate. In a population with lower mortality, problems of satisfaction and Quality of Life (QOL) become more important when assessing results. PRO surveys, such as the BREAST-Q, that capture the impact of breast cancer surgery and reconstruction on breast-related satisfaction and QOL, play an important role in understanding the disease burden and directing therapeutic treatment. The BREAST-Q has been utilised to show numerous critical discoveries in this patient population since its launch in 2009.

The BREAST-Q study found that breast reconstruction has a positive influence on PROs and that reconstruction after mastectomy is beneficial. In one of the first studies employing the BREAST-Q to evaluate the differences in PROs between women following mastectomy alone versus reconstruction, women after mastectomy alone had lower BREAST-Q scores for Satisfaction with Breasts, Psychosocial Well-being, and Sexual Well-being. These findings have been verified in a number of follow-up studies [3,4].

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Editorial Office, Journal of Surgical Research, United Kingdom

*Correspondence: Nora Roberts, Editorial Office, Journal of Surgical Research, United Kingdom, Email clinpharma@pulsusjournal.org

Received: September 2, 2021; Accepted: September 12, 2021; Published: November 13, 2021



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