

Helping Patients Decide: Use of a Decision Aid for Breast Cancer Surgery

Whelan T, Levine M, Willan A, et al. *Effect of a decision aid on knowledge and treatment decision making for breast cancer surgery: a randomized trial.* JAMA 2004;292:435–41.

Study Overview

Objective. To evaluate the impact of a decision aid on patient decision making regarding surgical treatment options for breast cancer.

Design. Cluster randomized trial.

Setting and participants. Twenty community practice general surgeons in central-west and eastern Ontario, Canada, were randomly assigned to use the decision aid during surgical consultation. From November 1999 to April 2002, 208 eligible women with newly diagnosed clinical stage I or II breast cancer seen by study surgeons were recruited, and 201 agreed to be evaluated. Patients received the decision aid based on the surgeon seen.

Main outcome measures. Patient knowledge about the surgical treatment of breast cancer and treatment decision following surgical consultation as well as patient satisfaction with decision making and decisional conflict.

Main results. 94 patients were assigned to the decision aid and 107 to usual practice. Patients who used the decision aid had higher knowledge scores about their treatment options (66.9 versus 58.7; $P < 0.001$) and were more likely to choose breast conservation therapy (BCT) (94% versus 76%; $P = 0.03$). Patients in the decision aid group were more satisfied with decision making following the consultation (4.50 versus 4.32; $P = 0.05$) and had less decisional conflict (1.40 versus 1.62; $P = 0.02$).

Conclusion. The decision aid seems useful for improving communication between surgeons and women regarding treatment options for early breast cancer. Use of the decision aid improved patients' knowledge of their choices and satisfaction with their treatment choice.

Commentary

For a breast cancer patient, deciding between the different surgical options is difficult and involves integrating complex information at an emotionally difficult time. Current best

evidence shows equivalent overall survival and disease-free survival in patients with early stage (I and II) breast carcinoma who were treated with modified radical mastectomy compared with those treated with BCT [1]. The literature further suggests that when medical outcomes of several treatment options are equivalent, quality of life measurement provided added information for clinical decision making regarding primary management of breast cancer [2]. In a multicenter randomized study, BCT helped to maintain the patients' body image and resulted in higher satisfaction with treatment [3]. Unfortunately, recent studies suggest that some women in parts of the United States do not receive adequate information or discussion about BCT [4]. Decision aids may bridge this gap and have been shown to improve knowledge in other health treatments.

This study by Whelan et al used a specific decision aid—the decision board [5]. Twenty surgeons were randomized to usual clinical practice or to the decision board to walk patients through the diagnosis, treatment options, adverse effects, and survival of breast cancer. This cluster design avoided contamination that might have occurred if the same surgeon used the decision board for some patients and not others. Each surgeon pair was treated as a separate trial, and the results were combined using a random effects approach similar to that used for meta-analyses.

Results of the study showed that patients who went through the decision board with the surgeon had better knowledge of their diagnosis (score difference of 9.34; $P < 0.001$), and specifically, had better understanding that BCT offered same survival as compared with radical mastectomy (77.7% versus 57.9%; $P = 0.006$). Compared with the control group, decision board group patients were more likely to choose BCT (94% versus 76%; $P = 0.03$) and to strongly prefer their choice (83% versus 72%; $P = 0.05$). While patients in the decision board group were less likely to have decisional conflict immediately after the surgical consultation, this was not present after 6 months.

Applications for Clinical Practice

Decision aids can help patients better understand their disease and available treatment options. Even in a community setting,

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the decision board improved patient knowledge and satisfaction with their treatment choice and did not increase the consultation time. As medical decision making becomes evidence-based and more complex, the medical community needs to invest in decision aids in order to adequately inform and engage patients in disease management. Further research into refining decision aids and promulgating their use, perhaps via computers or the internet, will benefit more patients.

—Review by Mark S. Horng, MD

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