JOURNAL OF CLINICAL ONCOLOGY

CORRESPONDENCE

Cost-Effectiveness of Molecular Profiling for Early Breast Cancer

TO THE EDITOR: In their recent article, Bonastre et al[1] reported a cost-effectiveness analysis of molecular profiling in adjuvant therapy for node-negative early breast cancer. They concluded that optimizing adjuvant chemotherapy decision making on the basis of the 70-gene signature is unlikely to be cost-effective compared with the use of Adjuvant! Online for decision making, or use of chemotherapy in place of adjuvant chemotherapy.

First, it is important to understand that this analysis was conducted in France, which has a socialized health care system. The economic evaluation was conducted from the perspective of the French National Insurance Scheme, taking into account the medical costs, sick leave compensation, and an estimated cost of chemotherapy of €7,486, which was based on current unit costs for hospital stays and drugs in France. In the United States, the average cost of chemotherapy ranges from $27,000 to $33,000, not including the other costs. That equates to €21,197 to €25,908. The cost of MammaPrint was €2,675 in the study by Bonastre et al[1] and is $4,200 in the United States. Cost-effectiveness may be different in different health care systems. There have been several studies indicating that the use of a gene molecular profiling tool in early breast cancer is cost-effective, at least in the health care landscape of the United States.[2-7]

Second, granulocyte colony-stimulating factor was only used in 22% of the patients in the study. In addition, only three injections of pegfilgrastim were given to each patient, whereas in the United States, granulocyte colony-stimulating factor is frequently used after each adjuvant treatment in breast cancer.[1] At present, this can translate into higher costs for chemotherapy use. Therefore, gene molecular profiling could still be a cost-effective approach in US health care.

Last, the authors also mention the fact that chemotherapy cost has decreased as a result of the availability of generic docetaxel, which highlights the point that the same may apply to molecular profiling testing. In time, these tests will improve and become less expensive, similar to what has happened in *BRCA* testing. Ultimately, progress in conquering cancer will depend on coordinated, innovative efforts among all stakeholders—physicians, scientists, pharmaceutical companies, and governments—working with patience and dedication to accomplish the common goal of curing cancer.

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AUTHORS' DISCLOSURES OF POTENTIAL CONFLICTS OF INTEREST

Disclosures provided by the authors are available with this article at www.jco.org.

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DOI: 10.1200/JCO.2014.60.0510; published online ahead of print at www.jco.org on April 6, 2015

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No relationship to disclose

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