Examining Patient Choices for Metastatic Breast Cancer Drugs: Using Conjoint Analysis to Examine Attributes of Paclitaxel and Capcitabine

ABSTRACT ID: 6053

Background: Patient with metastatic breast cancer face difficult drug decisions. Our previous research (USC Proc 2011, abstr 6048) focused on general benefit and toxicity showed that conjoint analysis (CA) allows patients to express preferences. Our current research quantifies patient preferences for specific drug profiles (capcitabine and paclitaxel).

Methods: Research Advocacy Network and CBMHD conducted research using CA for BDG Center of Excellence for Individualization of Therapy in Breast Cancer. An online survey was sent by four breast cancer organizations (N=411). Questions elicited views on trade-offs between benefit and type/severity/chronicity of toxicity. CA presents pairs of hypothetical treatments and asks respondents to prefer (or indifferent) each option, allowing exploration of how patients would take the treatment if it were the only option available. Analysis of response patterns allows study of treatment decisions for combinations of benefit and described toxicity.

Results: See table. Preferences show much greater attention to benefit than to toxicity. When CA is used to examine impact of biomarkers, focus on benefit continues. Paclitaxel profile (with median PN) 1 year past treatment with 33% benefit, 6% of respondents change treatment decision if biomarker predicts 27% vs. 60% toxicity; UH, 22% of respondents change treatment decision if biomarker predicts 20% to 30% benefit and 30% to 40% toxicity. Our previous research (ASCO Proc 2011, abstr 6053) is an attempt to mimic the biomarker choices to see what conjoint analysis predicts the impact of biomarkers.

CONCLUSIONS

Future Directions

• Conduct this research with a more representative population (women of color, and women with lower income and/ or educational levels).

• Continue to explore the patterns related to proximity to treatment site and to attitudes toward treatment.

• Examine preferences in the adolescent setting.

• Examine preferences driven by other drug profiles to explore a wider range of side effects and, possibly, different types of benefit.

CREDITS


For the objectives of this analysis, we have used the conjoint model to:

• Examine the trade-offs in the situation in which only one treatment is available (what percent of respondents are predicted to take the conjoint treatment versus both). If only one treatment is available, we see the impact on the situation. That is, if only one treatment is available, we see the impact of having had a side effect. Decide whether to take the treatment, while respondents age 50 and over (when children with 10% or less toxicity who are predicted by the model to take the treatment at the “bad end” of the biomarker (labeled as “switch”)

To further examine the possible influence of biomarkers on drug selection, we can use a combination of models with both drug profiles available: capcitabine and paclitaxel. We sought to predict whether the biomarker would influence drug selection, not just whether or not to take treatment. These results are outlined in Table 2 (3), with the rectangles surrounding the biomarker for capcitabine. We see that:

• Biomarker capcitabine continue to show very significant likelihood of taking capcitabine profile.

• Biomarker capcitabine, while still influential than benefit biomarker, matter more in the selection of treatment than the cancer treatment decision.

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