

Re: CYP2D6 Genotyping and the Use of Tamoxifen in Breast Cancer

Donald Berry in his recent editorial (1) regarding the role of CYP2D6 and tamoxifen highlights several controversies that exist in the clinical and biomarker field for women with breast cancer. The International Tamoxifen Pharmacogenomics Consortium (ITPC) was formed with the intent to aggregate, curate, and analyze the data available in published breast cancer studies with the hope of answering the question, “Should CYP2D6 genotyping guide the use of tamoxifen in breast cancer?” The ITPC analyzed nearly 5000 patients regarding the association between CYP2D6 and clinical outcomes (2). These data demonstrated that CYP2D6 genotype was associated with the risk of recurrence or death in those patients who received tamoxifen monotherapy for 5 years but not in patients who received

different doses or duration of tamoxifen or those who received chemotherapy along with tamoxifen. We are in agreement with Berry that further research is required to understand these complex relationships, and our intent has always been that others will be able to use the ITPC dataset to understand the data as fully as possible in conjunction with their own research efforts. The complete dataset of genotypes and clinical variables, the analysis code, and the full analyses are transparently available at PharmGKB (<http://www.pharmgkb.org>). Although we disagree with Berry about his conclusion in answering the all-important question of whether CYP2D6-guided genotype therapy is appropriate, we invite other researchers and practitioners to examine the data from their own perspectives and engage in ongoing efforts to use these data to the benefit of patients with breast cancer.

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ON BEHALF OF THE INTERNATIONAL
TAMOXIFEN PHARMACOGENOMICS
CONSORTIUM

References

1. Berry D. CYP2D6 genotyping and the use of tamoxifen in breast cancer. *J Natl Cancer Inst.* 2013;105(17):1267–1269.
2. Province MA, Goetz GM, Brauch H, et al. CYP2D6 genotype and adjuvant tamoxifen: meta-analysis of heterogeneous study populations [published online ahead of print September 23, 2013]. *Clin Pharmacol Ther.* doi:10.1038/clpt.2013.186.

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