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Drug industry increasingly influences breast cancer research

Breast cancer treatment trials supported by the pharmaceutical industry are more likely to report positive results than non-sponsored studies, according to a study to be published in the April 1, 2007 issue of CANCER, a peer-reviewed journal of the American Cancer Society. In addition, there are significant differences in the design of trials and types of questions addressed by pharmaceutical industry sponsored trials compared to non-sponsored trials. The study is the first to examine the impact of the pharmaceutical industry on breast cancer research.

Research and development (R&D) is critical to developing new therapies. The drug industry is a significant contributor to this effort, now with far greater spending than the United States' National Institutes of Health. As collaboration between the for-profit drug industry and academic medical centers has increased, so too have concerns over the potential impact of for-profit sponsorship on the nature and quality of the research and the potential for conflicts of interest. Several studies in other areas of medicine have suggested that pharmaceutical sponsorship leads to a greater chance that a clinical trial will yield positive results. The importance of this association for patients and researchers and the prevalence of this finding in cancer research are not yet clear.

Currently, half of all pharmaceutical-sponsored drugs in the pipeline target cancer. Breast cancer affects over 1 million women worldwide annually, making treatment R&D in this area important for public health and potentially lucrative if an effective drug is developed. Jeffrey Peppercorn, M.D., M.P.H. of the University of North Carolina School of Medicine in Chapel Hill, North Carolina and his colleagues investigated the relationship between the pharmaceutical industry and published breast cancer therapy research. The authors reviewed 140 studies reporting breast cancer therapy results over the past decade in select journals at 5 year intervals.

They found that of the 140 studies, 67 (48 percent) reported some form of drug company involvement through co-authorship, supply of drug, or financial support. Drug company participation increased from 44 percent in 1993 to 58 percent in 2003.

Most importantly, they identified statistically significant differences between studies supported by pharmaceutical studies and those that did not. Studies with pharmaceutical support or participation were more likely to report positive results, favoring the experimental therapy. These studies also were significantly more likely to use "single arm" designs ‚that is, a study whose patients get the same treatment with no control group to compare efficacy. Drug company sponsored trials also tend to target patients with advanced disease. While these types of studies are important for identifying new effective drugs, they may not answer questions about optimal dosing, duration and identification of patients who may have better or worse outcomes on treatment ‚important clinical factors for treatment guidelines.

"The impact of the growing pharmaceutical industry involvement in breast cancer clinical research appears similar to the impact of industry sponsorship documented in other fields of medical research," conclude the authors. This relationship "may yield better therapies for treatment of breast cancer, but at the same time focus research on some clinical problems while neglecting others," caution the authors.

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