Cancer comorbidities reduce clinical trial participation, study shows

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Joseph Unger, PhD, is a health services researcher and biostatistician for SWOG Cancer Research Network, and his based at SWOG's statistics and data management center at Fred Hutch Cancer Research Center. Credit: SWOG Cancer Research Network + The Hope Foundation for Cancer Research

Cancer patients with other illnesses or conditions, such as hypertension,

asthma, or a prior cancer, are less likely to talk with their health care provider about a cancer clinical trial, are less likely to be offered to join a clinical trial, and ultimately less likely to enroll in a trial, according to the results of a new SWOG Cancer Research Network study.

Investigators from SWOG, an international cancer clinical trials network funded by the National Cancer Institute (NCI), part of the National Institutes of Health, also reported a timely secondary finding. New recommendations to expand clinical trial eligibility criteria to allow patients with additional illnesses, called comorbidities, as promoted by the American Society of Clinical Oncologists (ASCO), Friends of Cancer Research (Friends), and the U.S. Food and Drug Administration (FDA), would provide opportunities for up to 6,317 cancer patients each year to be allowed to join a trial—and receive an investigational treatment option that could extend or improve their lives.

The SWOG study is the first to examine the relationship between patient comorbidities and trial participation using real-world, patient-level data. Results appear today in *JAMA Oncology*, with an accompanying editorial and podcast.

"Cancer clinical trials provide high-quality, guideline-based care for cancer patients," said Joseph Unger, Ph.D., a health services researcher and biostatistician for SWOG at the Fred Hutchinson Cancer Research Center. "But many patients who might benefit from choosing trial participation for their care have historically been ineligible—something ASCO, Friends, and the FDA are moving to change. Our analysis found that their efforts are on target. Comorbidities have a clear, negative impact on both trial decision-making and participation. Allowing people with manageable comorbidities to join trials would increase treatment opportunities for several thousand patients."

The study results are released in the midst of a national policy debate on

where to set the bar for cancer trial participation. How can trial eligibility guidelines be set so that they best balance patient access and patient safety? In spring 2017, FDA officials wrote in the *New England Journal of Medicine* that current cancer trial criteria may be overly restrictive. In fall 2017, ASCO, Friends, and the FDA published a series of special papers on the same topic, with the goal of arriving at new rules that better serve patients by giving them broader access to trials, and that better serve researchers by helping them recruit patient pools that are more representative of the people who ultimately get the treatments being tested.

In the papers, published in the *Journal of Clinical Oncology*, the authors recommended modifying trial participation guidelines to allow five distinct groups to join trials, including patients with brain metastases, patients as young as 12 years old, patients with HIV/AIDS, patients with a prior cancer diagnosis, and patients with kidney, liver, or other organ dysfunction. This fall, the NCI rolled out new trial templates based on the ASCO/Friends/FDA recommendations to its National Clinical Trials Network—of which SWOG is a part. The NCTN allows for as many as 17,000 cancer patients to enroll each year on its publicly-funded treatment trials offered at hundreds of cancer centers and community hospitals across the country. The FDA is considering a similar change to eligibility criteria to cover cancer trials run by pharmaceutical companies , biotech firms, and other privately-funded organizations.

Unger conducted his SWOG study to better understand the potential impact of these changes. And he had the database to do it. Unger and a SWOG team had previously worked with a technology company to create a survey study which they embedded within the company's online patient decision-making tool to gauge the impact that demographic and socioeconomic variables, such as age and income, have on cancer trial participation. The tool was available to the public on several cancer-related websites, such as the American Cancer Society site.

In total, 5,499 patients participated in the survey, providing rich, detailed information about their disease, comorbidities, and their treatment decisions, including whether they joined a trial. Unger found that most patients—66 percent—reported one or more secondary illnesses. Among the 18 comorbidities that were examined, the most commonly reported were hypertension, vision loss, arthritis, asthma, hearing loss, and a previous cancer. Based on the team's statistical analysis, the presence of a comorbidity resulted in a decrease in trial discussions with care providers (15 percent fewer), a decrease in trial offers by a care provider (23 percent fewer) and a decrease in trial participation (24 percent fewer) when compared to those with no comorbidities, even after accounting for differences in age, race, sex, and household income. From their results, the team was able to estimate that if the broader ASCO/Friends/FDA trial eligibility guidelines were in place, up to 6,317 additional patients would be allowed to join trials each year. If every comorbidity restriction were removed, up to 11,992 cancer patients could join a trial.

"If you look at the numbers, they tell you that the ASCO/Friends/FDA guidelines were well focused, as they alone would account for more than half of the potential gains from updating eligibility criteria in trials," Unger said. "This would have the short-term impact of helping patients by giving them access to new treatments and have a long-term impact on the discovery of new treatments, speeding the time it takes to run trials and get new treatments to the public."

Provided by SWOG