Significant 'knowledge gap' exists in use of genetic testing to decide cancer treatment

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A questionnaire aimed at assessing how well community oncologists understand "molecular profiling" results from tumor specimens found that 69 percent of participants either said they don't know the answers, or they responded incorrectly. In six different clinical scenarios, the oncologists were asked to match a genetic alteration to the targeted therapy designed to attack those cancer-causing aberrations—information that is key to effective personalized treatment.

The results of the survey, taken at several case-based research events by 292 community oncologists who were either based in hospitals or private clinics, are being presented Sat, June 1 at the 2019 ASCO Annual Meeting in Chicago. Investigators at Georgetown Lombardi Comprehensive Cancer Center conducted the study.

Researchers also found that community-based oncologists use molecular profiling far less frequently than do academic-based oncologists (59 of whom were polled on use of these tests). For example, community oncologists say they use this service in 33 percent of lung cancer cases they treat whereas academic oncologists use these tests in 74 percent of their lung cancer patients. The results from molecular testing help determine what treatment should be used and if patients may be candidates for clinical trial enrollment.

"Molecular profiling to direct targeted therapy has moved very quickly from the laboratory to the clinic, and this study shows that oncologists urgently need to be educated about this potential therapeutic strategy,"

says Bhavana Singh, MD, MSc, a fellow at Georgetown Lombardi's clinical partner, MedStar Georgetown University Hospital.

"This is a significant knowledge and practice gap, not an issue of negligent treatment," she says, adding that while genetic testing has been available for a number of years, the two comprehensive molecular profiling tests now on the market were only approved by the U.S. Food and Drug Administration in late 2017. Both test for up to 500 genetic mutations, deletions, copy number variations and rearrangements for which targeted and immune therapies are approved, or are under testing and expected to be approved.

The study is part of a larger body of research conducted by Singh and John L Marshall, MD, the study's senior investigator, which aims to look at trends in the use of molecular profiling globally.

"Use of these tests in many malignancies, is standard of care and our goal is to help oncologists think about how molecular profiling links to the targeted therapy that can help their patients," Singh says.

"The rapid expansion of knowledge is outpacing our ability to incorporate it into our daily clinical practice, even for experts in a field. We must ensure that we bridge this gap so all patients may reap the benefits of our progress," says Marshall, chief of the oncology division at MedStar Georgetown and director of the Otto J. Ruesch Center for the Cure of Gastrointestinal Cancer at Georgetown Lombardi.

More information: "Molecular profiling (MP) for malignancies: Knowledge gaps and variable practice patterns among United States oncologists" Abstract 10510 - Sat. June 1, 1:15 - 4:15 pm; Hall A, Poster #89

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