Experts argue for payors to make better use of genomic testing for cancer patients

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(Medical Xpress)—Harold Varmus, former National Cancer Institute Director and Rebecca Eisenberg a professor at the University of Michigan Law School have published a Policy Forum paper in the journal *Science* arguing for better use of genomic testing for cancer patients. They suggest that government and private payors (insurance companies) make better use of databases and registries to figure out if

genomic testing can be used for personalized treatment of cancer patients. They suggest doing so would lead to improved outcomes.

In their paper, Varmus and Eisenberg note that some research firms and academic institutions offer genetic sequencing for cancer patients, but it is mostly done for research purposes. Insurance companies in the U.S., they claim, will not pay for such work. This, they note has led to a catch-22 of sorts. Much more genetic data is needed for the various types of cancer in order to conduct research that can lead to individualized treatments for patients. More data is also needed by the insurance companies to make coverage decisions. But that data cannot be obtained without the involvement of large numbers of patients, which would require insurance companies to foot much of the bill. Varmus and Eisenberg also note that the U.S. FDA has been approving cancer drugs at an accelerated pace, which has been blurring the lines between research and care, further complicating decisions regarding use of genomic data.

To address the problem, the authors suggest insurance companies and researchers both make better use of a mechanism called "coverage with evidence development" (CED)—a model in which multiple private insurers cover experimental clinical services. They note that the Centers for Medicare and Medicaid Services already uses the mechanism, and at times, even approve payments for new technology as part of it. They note also that it has been tried with Medicare as part of a program aimed at treatments involving lung volume reduction surgery. Making better use of CED, they further contend, would encourage patients to play a bigger role in adding their data to registries.

Varmus and Eisenberg also argue that insurance companies need to take a closer look at the actual costs associated with genomic testing, which they claim would be just 1 percent of cancer care bills—for that proportionally small amount of money, they could conceivably improve

the outcomes for many patients.

More information: Rebecca Eisenberg et al. Insurance for broad genomic tests in oncology, *Science* (2017). DOI: 10.1126/science.aao6708

Summary

Tests based on DNA sequencing methods are redefining diagnostic categories in oncology and providing a rational basis for the development and use of new cancer therapies, especially the many drugs targeted against mutant proteins that drive malignant growth. The medical and economic value of identifying specific genetic abnormalities in cancers has been established by the evidence-based use of targeted drugs and immunotherapies in cancer patients (see the figure for an example). For some cancer therapies, the U.S. Food and Drug Administration (FDA)–approved label calls for the use of a companion diagnostic test for the presence or absence of certain genetic changes before initiating treatment. Most recently, the FDA approved the use of the immunotherapeutic pembrolizumab for treatment of tumors that show a defect in DNA repair called microsatellite instability, irrespective of the tissue of origin; although an FDA-approved test for microsatellite instability is not yet available, many clinical laboratories are using assays for the relevant biomarkers.