The James

THE OHIO STATE UNIVERSITY
COMPREHENSIVE CANCER CENTER

House Bill 24
Proponent Testimony
Ohio House Insurance Committee
March 29, 2023

Regan M. Memmott, MD, PhD
Assistant Professor
Department of Internal Medicine, Division of Medical Oncology
OSUCCC-James

Good morning, Chairman Lampton and members of the House Insurance Committee. I am an assistant professor and a thoracic medical oncologist at The Ohio State University Comprehensive Cancer Center, Arthur G. James Cancer Hospital, and Richard J. Solove Research Institute (OSUCCC-James).

The only freestanding cancer hospital in central Ohio and the first in the Midwest, The Ohio State University Comprehensive Cancer Center – Arthur G. James Cancer Hospital and Richard J. Solove Research Institute (OSUCCC – James) is an international leader in cancer prevention, detection, and treatment. Understanding that no cancer is routine because every case is biologically different, OSUCCC – James physicians and scientists focus on basic, clinical and translational research to determine the molecular origin of each person's cancer and how best to treat it, leading to better outcomes, fewer side effects and more hope.

The OSUCCC – James is a 356-bed cancer hospital, one of only 51 comprehensive cancer centers designated by the National Cancer Institute (NCI) and one of only a few institutions funded by the NCI to conduct both phase I and phase II clinical trials on novel anticancer agents sponsored by the NCI. With total annual research funding of $82 million, including just over $78 million from the NCI, OSUCCC – James researchers are advancing the understanding of cancer and translating that knowledge into new treatments, moving us closer to achieving our vision of a cancer-free world.

Thank you for the opportunity to share with you how critically important biomarker testing is for our patients.

It can be scary for a person and their loved ones to hear that they have been diagnosed with cancer. However, if a person has been diagnosed with cancer, there is great reason for them to be hopeful. Just in the past decade or so, there have been important advancements made in the treatment of cancer. Oncologists no longer just have chemotherapy in our arsenal. We now have two new types of drugs that we refer to as "targeted therapy" and "immunotherapy." And whether chemotherapy, targeted, or immunotherapies will be most helpful in treating a person's cancer is dependent on the biomarkers that their cancer has.

Cancer is essentially a disease caused by mutations that occur in a cancer cell's DNA, its genes. In many cases, these mutations only occur in a person's cancer cells, not their normal, healthy cells, and cannot be passed onto a son or daughter. One of the reasons that we say that "there is no routine cancer" at The OSUCCC-James is that the mutated genes that cause a cancer to grow and spread in one person can be very different than the mutated genes in another person's cancer. These are known as driver mutations.

Although these mutated genes are responsible for the cancer growing and spreading, they are also the cancer's Achilles heel. And that is where genetic, or biomarker, testing comes into play. As I mentioned, I am a thoracic oncologist. The National Comprehensive Cancer Network (NCCN) guidelines, which are essentially the official reference for oncologists on how to manage cancer, strongly recommend testing for mutations in nine different genes in our lung cancer patients' tumors. There are similar recommendations for other cancer types. The NCCN recommends testing for mutations in these genes because we have drugs that target these mutations. Multiple studies have shown that these targeted therapies kill cancer cells if they are being driven to grow and spread because of these mutations. These drugs can sometimes be given as a pill, which is nice for our patients because they don't have to come in for chemotherapy that is given through an IV or a port. These targeted therapies tend to have fewer side effects than chemotherapy. Most importantly, numerous studies have shown that these targeted therapies are helping patients with lung cancer that have these driver mutations, even those patients with advanced cancer, live years longer than they would have before these treatments were available.

The other advancement that has occurred in the past decade or so is the development of immunotherapy. Immunotherapy, specifically, drugs known as immune checkpoint inhibitors, help to reprogram a person's own natural immune system to better identify, attack, and kill their cancer cells. But like targeted therapy, the ability of immunotherapy to work to reprogram a person's immune system is dependent on biomarkers, specifically, if their cancer cells have a molecule on their surface, known as PD-L1. If there are high levels of PD-L1, then it is much more likely that immunotherapy can reprogram a person's immune system to fight their lung cancer. In fact, if the PD-L1 level is quite high, they might not even need chemo. The NCCN also strongly recommends that PD-L1 levels be checked in a patient's tumor biopsy for a variety of cancers.

Another reason to test for these biomarkers is that multiple studies have shown that patients with certain driver mutations in their cancer, their cancers do not respond well to immunotherapy.

Biomarker testing is of critical importance in getting patients on the right treatment for **their** cancer. However, studies have shown that less than 50% of patients with cancer are actually tested for biomarkers strongly recommended by the NCCN guidelines. Some of the barriers to these patients receiving appropriate biomarker testing are deficits in physician knowledge, inadequate tumor material from the biopsy to do genetic testing, and variability in insurance coverage and reimbursement for testing. It is unfortunate if a patient with lung cancer encounters one of these barriers to biomarker testing, because as I mentioned before, it can help identify a treatment that will help someone live years longer, even with advanced cancer, than if they had not received that treatment.

I'd like to thank Representative White, as well as the American Cancer Society Cancer Action Network, for the opportunity to speak on behalf of this important legislation. Thank you all for your time this morning.