Transcript Details

This is a transcript of an educational program. Details about the program and additional media formats for the program are accessible by visiting: https://reachmd.com/programs/project-oncology/why-molecular-testing-matters-in-non-small-cell-lung-cancer/49127/

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Why Molecular Testing Matters in Non-Small Cell Lung Cancer

Announcer:
You're listening to *Project Oncology* on ReachMD. On this episode, we'll hear from Dr. Geoffrey Oxnard, who's an Associate Professor of Hematology and Medical Oncology at Boston University Chobanian and Avedisian School of Medicine. He'll be discussing the role of molecular testing in patients with non-small cell lung cancer. Here's Dr. Oxnard now.

Dr. Oxnard:
We, as lung cancer docs, all believe in the power of targeted therapies. We've seen how these medicines can work. I still see two key barriers in adopting molecular testing that creates access to these targeted therapies.

And barrier number one is actually access to testing itself. Now this barrier is lower with the widespread adoption of liquid biopsy, an incredibly accessible technology where, with any patient in the clinic, you could send a blood test out the door and get a result back within a week or two. Right? So I do think the barriers to adopting molecular testing are lower.

But the second barrier that I am a little more worried about is belief: the actual belief that, in this patient in front of me, this molecular test will generate a result that will lead to treatment options. And I'm certainly a believer, because I've been doing targeted therapy development and studying targeted therapies for over a decade. But what I want is that all of us, as lung cancer doctors and as lung cancer patients, to be believers in this targeted therapy and be believers in this testing, because that belief is what will motivate us to persevere and get high-quality testing for each patient.

I will nonetheless acknowledge that while molecular testing can help every lung cancer patient, it helps to different degrees and in different kinds of patients, certainly. And we now know that different molecular features are associated with different clinical phenotypes. Certainly, for a long time, we've known *EGFR* mutations are more common in non-smokers, for example, or are more common individuals from Asia, and yet they are still a huge, meaningful target in patients who aren't from Asia or who did smoke. For example, if non-smoking is associated with *EGFR*, we also know that a smoking history can associate with *KRAS* mutations, which now have FDA-approved and emergent therapy options. If young age associates with *ROS1* alterations, we now know that older age can associate with *MET* mutations, which also have FDA-approved targeted therapy options. Even histology can be variable, and we know that, yes, while a pure adenocarcinoma can associate more with an *EGFR* mutation, we see these *MET* mutations in weirder histologies, including in squamous carcinoma.

And so I take the perspective that, with any histology or clinical presentation with lung cancer, there still could be a diamond in the rough there, where I need to look to see if there is a target that impacts their care. Perhaps the thing I vary sometimes is how urgently I chase down my testing. And so, in a patient with a heavy smoking history and PD-L1 high where my instinct is that immunotherapy is my more likely strategy, I'm going to make sure I get some quick molecular results out and back, and maybe a liquid biopsy. I'm going pursue a first-line immunotherapy strategy, but I'm still going pursue tumor testing as a backup, more reliable option in that patient, which may play out with more time and may inform my second-line therapy.

And so, really, every patient's a candidate for molecular testing, but based on their clinical presentation, do I wait for a full set of results before starting first-line therapy, or do I feel more comfortable jumping forward with first-line therapy and using a more comprehensive molecular results for second line?

And that's how I'm layering it in depending upon a patient's clinical presentation.

Announcer:

That was Dr. Geoffrey Oxnard talking about how we can use molecular testing to improve outcomes for non-small cell lung cancer patients. To access this and other episodes in our series, visit *Project Oncology* on ReachMD.com, where you can Be Part of the Knowledge. Thanks for listening!