

### 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/personalizing-care-for-large-cell-neuroendocrine-carcinoma/36458/>

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## Personalizing Care for Large Cell Neuroendocrine Carcinoma

### Announcer:

This is *Project Oncology* on ReachMD. On this episode, we'll hear from Dr. Junaid Arshad, who's an Assistant Professor of Medicine and the leader of the Neuroendocrine Center at the University of Arizona Cancer Center. He is also a clinical and translational scientist with a research focus on upper gastrointestinal cancers and neuroendocrine tumors. He'll be discussing treatment considerations for patients with large cell neuroendocrine carcinoma. Here's Dr. Arshad now.

### Dr. Arshad:

Since large cell neuroendocrine carcinomas behave aggressively, many oncologists lean towards small cell-based treatment regimens, including platinum and etoposide combinations, of course, for extensive stage disease. Recently, molecular subtyping is being increasingly used to help guide the choice now as we discussed that large cell neuroendocrine carcinomas can be of two types. So the small cell lung cancer type often respond better to the carboplatin and etoposide regimen, whereas the non-small cell-like subtype of large cell neuroendocrine carcinomas may be more sensitive to other combinations, such as platinum or pemetrexed or platinum combined with taxane. Now, in addition to these molecular alterations, I think clinical judgment must also be considered, and factors such as stage of the disease, patient's preference, patient's performance status, and their ability to tolerate chemotherapy. And unfortunately, there are no randomized clinical trials that are available yet to definitively guide our decision. It has to be a case-by-case basis.

Molecular profiling has been increasingly seen now as an essential component of large cell neuroendocrine carcinoma management. It's not only used in making diagnostic decisions, but it can also help predict therapeutic sensitivity. For example, the tumors which have small cell-like mutations like RB1 and TP53 are more sensitive to platinum and etoposide, while there are tumors which have more non-small cell-like alterations, such as KRAS, STK11, or KEAP1, that benefit from other non-small cell-like cancer-like regimens. Eventually, if they have some targetable alterations like RET or NTRK fusions—which have been reported in a small proportion of large cell neuroendocrine carcinomas—they can open the door to targeted agents. More recently there have been studies that show the overexpression of delta-like ligand 3, commonly referred to as DLL3, in large cell neuroendocrine carcinomas as well, which can be targeted by novel agents like T cell bispecific engagers. So as these molecular platforms become more accessible, they play an even bigger role in individualizing treatment plans, which we commonly call personalized medicine.

I think this is where we call oncology an art, and this is where this art of oncology comes into play. We don't have any definite guidelines based on prospective trials to help us make treatment decisions. A personalized approach that includes histology, molecular profile of the tumor, and clinical context is the key, which basically, in simple words, means that we have to use all the available tools: immunohistochemistry, next-generation sequencing, patient preference, and performance status to decide or tailor treatment options. And, of course, the clinicians should also stay abreast with the evolving data and consider the clinical trial enrollment when available, especially for such rare and aggressive cancers. And ultimately, I think to sum it up, a multidisciplinary patient-centered approach that balances the available evidence with a thoughtful clinical judgment will offer the best outcomes.

### Announcer:

That was Dr. Junaid Arshad talking about how we can optimize treatment decisions for patients with large cell neuroendocrine carcinoma. 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!