FDA Approves New Treatment for Advanced Kidney Cancer

Welireg improved progression-free survival for previously treated people with inoperable renal cell carcinoma.

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The Food and Drug Administration last week approved Welireg (belzutifan) for patients with advanced kidney cancer who previously used other types of treatment. The December 14 decision marks the first approval of a new class of therapy for advanced renal cell carcinoma (RCC), the most common type of kidney cancer, in nearly a decade.

Welirig is a hypoxia-inducible factor 2 alpha (HIF-2α) inhibitor, a type of targeted therapy. It interferes with a transcription factor that regulates genes that promote adaptation to hypoxia, or low oxygen. Overproduction of HIF-2α can promote tumor growth. Welireg was initially approved in August 2021 for adults with von Hippel-Lindau disease who require treatment for RCC, central nervous system hemangioblastomas or pancreatic neuroendocrine tumors.

Approval for the new indication was based on results from the LITESPARK-005 trial (NCT04195750), which enrolled 746 patients with inoperable locally advanced or metastatic clear cell RCC that had progressed after trying both a PD-1 or PD-L1 checkpoint inhibitor and a VEGF tyrosine kinase inhibitor. The participants were randomly assigned to receive Welireg or Afinitor (everolimus), both administered as once-daily pills.

People who received Welireg saw a statistically significant improvement in progression-free survival (PFS)—reflecting a 25% lower risk of disease progression or death—though the median PFS time was the same in both groups (5.6 months). The overall response rate was 22% in the Welireg group versus 4% in the Afinitor group. Among those with a confirmed response, the median duration of response exceeded one year. Overall survival results are not yet mature.

Patient-reported outcomes suggested that Welireg may be better tolerated than Afinitor, but side effects were common in both groups. The most frequently reported adverse reactions among people taking Welireg are anemia, fatigue, musculoskeletal pain, low white blood cell counts and various laboratory abnormalities. About 6% stopped treatment due to adverse effects. Welireg can cause severe hypoxia, so oxygen saturation levels should be monitored.

“Despite recent progress in the treatment of advanced RCC, there is yet to be an option

specifically approved for patients whose disease progresses following a PD-1 or PD-L1 inhibitor and a TKI therapy," trial investigator Toni Choueiri, MD, of Dana-Farber Cancer Institute, said in a Merck news release. "This approval of belzutifan introduces a meaningful new treatment option for certain patients, as belzutifan reduced the risk of disease progression or death compared to everolimus."

Click here for full prescribing information for Welireg.

Click here for more news about kidney cancer.
