FDA Grants Accelerated Approval to Imdelltra for Extensive Stage Small-Cell Lung Cancer

Tarlatamab, a bispecific T-cell engager, had an overall response rate of 40% in patients who progressed after chemotherapy.

May 20, 2024 By Food and Drug Administration (FDA)

On May 16, 2024, the Food and Drug Administration granted accelerated approval to tarlatamab-dlle (Imdelltra, Amgen, Inc.) for extensive stage small cell lung cancer (ES-SCLC) with disease progression on or after platinum-based chemotherapy.

Full prescribing information for Imdelltra will be posted here.

Efficacy was evaluated in 99 patients with relapsed/refractory ES-SCLC with disease progression following platinum-based chemotherapy enrolled in DeLLphi-301 [NCT05060016], an open-label, multicenter, multi-cohort study. Patients with symptomatic brain metastases, interstitial lung disease or non-infectious pneumonitis, and active immunodeficiency were excluded. Patients received tarlatamab until disease progression or unacceptable toxicity.

The major efficacy outcome measures were overall response rate (ORR) per RECIST 1.1 and duration of response (DOR), as assessed by blinded independent central review. ORR was 40% (95% CI: 31, 51) and median DOR was 9.7 months (range 2.7, 20.7+). Of the 69 patients with available data regarding platinum sensitivity status, the ORR was 52% (95% CI 32, 71) in 27 patients with platinum-resistant SCLC (defined as progression < 90 days after last dose of platinum therapy) and 31% (95% CI 18, 47) in 42 patients with platinum-sensitive SCLC (defined as progression ≥ 90 days after last dose of platinum therapy).

The prescribing information for tarlatamab-dlle includes a Boxed Warning for serious or life-threatening cytokine release syndrome (CRS) and neurologic toxicity, including immune effector cell-associated neurotoxicity syndrome (ICANS). The most common adverse reactions (>20%) were cytokine release syndrome (CRS), fatigue, pyrexia, dysgeusia, decreased appetite, musculoskeletal pain, and constipation, anemia and nausea. The most common Grade 3 or 4 laboratory abnormalities (≥5%) were decreased lymphocytes, decreased sodium, increased uric acid, decreased total neutrophils, decreased hemoglobin, increased activated partial thromboplastin time, and decreased potassium.

The recommended tarlatamab dose is an initial dose of 1 mg administered as an intravenous infusion over 1 hour on Cycle 1 Day 1, followed by 10 mg on Cycle 1 Day 8 and Day 15 then every 2 weeks thereafter until disease progression or unacceptable toxicity.

Expedited Programs

This review was conducted under Project Orbis, an initiative of the FDA Oncology Center of Excellence. Project Orbis provides a framework for concurrent submission and review of oncology drugs among international partners. For this review, FDA collaborated with the Brazilian Health Regulatory Agency (ANVISA), Health Canada (HC), Israel's Ministry of Health (IMoH), and United Kingdom's Medicines and Healthcare products Regulatory Agency (MHRA). The application reviews are ongoing at the other regulatory agencies involved with Project Orbis.

This review used the Real-Time Oncology Review (RTOR) pilot program, which streamlined data submission prior to the filing of the entire clinical application, and the Assessment Aid, a voluntary submission from the applicant to facilitate the FDA's assessment. The FDA approved this application 1 month ahead of the FDA goal date.

This application was granted accelerated approval based on overall response rate and duration of response. Continued approval may be contingent upon verification of clinical benefit.

This application was granted priority review, breakthrough designation, and orphan drug designation. FDA expedited programs are described in the Guidance for Industry: Expedited Programs for Serious Conditions-Drugs and Biologics.

Healthcare professionals should report all serious adverse events suspected to be associated with the use of any medicine and device to FDA's MedWatch Reporting System or by calling 1-800-FDA-1088.

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