



## Lilly reports one-year histologic outcomes in Phase 3 study of mirikizumab compared to ustekinumab for Crohn's disease

October 14, 2024

*Data show more patients treated with mirikizumab achieved histologic response at Week 52 compared to ustekinumab*

*New data are first-of-its-kind analysis of microscopic mucosal resolution that go beyond endoscopy, setting a new potential standard for the evaluation of therapeutic response*

INDIANAPOLIS, Oct. 14, 2024 /PRNewswire/ -- Eli Lilly and Company (NYSE: LLY) announced data demonstrating more patients with moderately to severely active Crohn's disease treated with mirikizumab achieved histologic response at Week 52 compared to ustekinumab, regardless of prior biologic experience. VIVID-1 is the first Phase 3 study for any approved or investigational treatment in Crohn's disease to report histologic and combined histologic-endoscopic outcomes that were evaluated using a systematic assessment of five bowel segments (four colonic and one ileal) and strict definitions consistent with the recently published European Crohn's and Colitis (ECCO) position statement on mucosal histopathology. These results are being presented as an oral presentation at United European Gastroenterology (UEG) Week, held in Vienna, Austria from October 12-15.

Mirikizumab is an IL23p19 antagonist that selectively binds to the p19 subunit of IL-23 and inhibits its interaction with the IL-23 receptor. Inflammation due to the overactivation of the IL-23 pathway plays a critical role in pathogenesis of Crohn's disease, a chronic, inflammatory bowel disease associated with progressive bowel damage, disability and decreased health-related quality of life.

Crohn's disease inflammation occurs at the cellular level—defined as histologic inflammation—and persists even after treatment with standard of care therapies in up to one-quarter of patients with Crohn's disease despite evidence of endoscopic mucosal healing.<sup>1</sup>

"Treatment strategies for Crohn's disease must evolve beyond traditional measures of clinical remission and endoscopy, to the evaluation of depth of intestinal healing by measuring histologic and transmural resolution," said Fernando Magro, M.D., Ph.D., head of clinical pharmacology at University Hospital São João. "These histologic data build on the growing body of evidence for mirikizumab, which may provide a greater depth of mucosal healing for those living with this chronic, progressive disease."

In VIVID-1, mirikizumab achieved nominally statistically significant improvements across all histologic and histologic-endoscopic endpoints versus placebo at Weeks 12 and 52, and versus ustekinumab on the following endpoints. A greater number of patients that achieved histologic response were observed with mirikizumab at Week 52 in the overall population (58.2% versus 48.8%; p=0.0075). In patients with active histologic disease at baseline and with at least one prior biologic failure, mirikizumab also showed greater histologic response at Week 52 (56.5% versus 41.3%; p=0.0064) and endoscopic-histologic response at Week 52 (39.6% versus 27.8%; p=0.024).

The overall safety profile of mirikizumab in patients with moderately to severely active Crohn's disease was consistent with the known safety profile in patients with ulcerative colitis (UC). The frequency of serious adverse events was greater in placebo than mirikizumab. The most common adverse events were COVID-19, anemia, arthralgia, headache, upper respiratory tract infection, nasopharyngitis and injection site reactions.

"As the first company to report rigorous histologic and endo-histologic outcomes in Crohn's disease that align with a recent ECCO position statement, Lilly is setting a higher bar for the evaluation of long-term treatment response in inflammatory bowel disease. This includes more ambitious targets of mucosal healing, which we applied to compare mirikizumab's histo-endoscopic effect to ustekinumab," said Mark Genovese, M.D., senior vice president of Lilly Immunology development. "These data also broaden our understanding of the underlying inflammation that drives Crohn's disease and may represent a critical step forward in helping health care providers and their patients make more informed choices about treatment."

Lilly has submitted marketing authorization applications for mirikizumab in Crohn's disease around the globe, including in the U.S., Europe, Japan and China. Additional global regulatory submissions are planned.

Lilly is committed to finding solutions to elevate care and improve treatment outcomes for people living with inflammatory bowel disease, which includes studying the long-term efficacy and safety of mirikizumab in pediatric patients ([NCT05509777](#) and [NCT04844606](#)) and adults ([NCT04232553](#)).

Mirikizumab is approved for the treatment of moderately to severely active UC in adults and is marketed as Omvoh<sup>™</sup>. Mirikizumab has additional ongoing trials in UC, including a study in pediatric patients ([NCT05784246](#)) and a study to evaluate the long-term efficacy and safety of mirikizumab in adults ([NCT03519945](#)). Lilly is continuing to advance the science with an open-label UC trial studying two new endpoints in the assessment of bowel urgency with frequency and deferral time, both of which impact the quality of life for patients ([NCT05767021](#)).

### About the VIVID-1 Clinical Trial Program

VIVID-1 was a Phase 3, randomized, double-blind, treat-through study that evaluated the safety and efficacy of mirikizumab compared with placebo and an active control (ustekinumab) in adults with moderately to severely active Crohn's disease. Patients randomized to mirikizumab were administered 900 mg of mirikizumab intravenously every four weeks from Week 0-12, then 300 mg subcutaneously every four weeks from Weeks 12-52. In this study, 49% of patients taking mirikizumab or placebo had experienced a prior biologic failure.

### **Indications and Usage for Omvoh<sup>™</sup> (mirikizumab-mrkz) (in the United States)**

Omvoh<sup>™</sup> is indicated for the treatment of moderately to severely active ulcerative colitis in adults.

## Important Safety Information for Omvoh (mirikizumab-mrkz)

**CONTRAINDICATIONS** - Omvoh is contraindicated in patients with a history of serious hypersensitivity reaction to mirikizumab-mrkz or any of the excipients.

## WARNINGS AND PRECAUTIONS

### Hypersensitivity Reactions

Serious hypersensitivity reactions, including anaphylaxis during intravenous infusion, have been reported with Omvoh administration. Infusion-related hypersensitivity reactions, including mucocutaneous erythema and pruritus, were reported during induction. If a severe hypersensitivity reaction occurs, discontinue Omvoh immediately and initiate appropriate treatment.

### Infections

Omvoh may increase the risk of infection. Do not initiate treatment with Omvoh in patients with a clinically important active infection until the infection resolves or is adequately treated. In patients with a chronic infection or a history of recurrent infection, consider the risks and benefits prior to prescribing Omvoh. Instruct patients to seek medical advice if signs or symptoms of clinically important acute or chronic infection occur. If a serious infection develops or an infection is not responding to standard therapy, monitor the patient closely and do not administer Omvoh until the infection resolves.

### Tuberculosis

Evaluate patients for tuberculosis (TB) infection prior to initiating treatment with Omvoh. Do not administer Omvoh to patients with active TB infection. Initiate treatment of latent TB prior to administering Omvoh. Consider anti-TB therapy prior to initiation of Omvoh in patients with a history of latent or active TB in whom an adequate course of treatment cannot be confirmed. Monitor patients for signs and symptoms of active TB during and after Omvoh treatment. In clinical trials, subjects were excluded if they had evidence of active TB, a history of active TB, or were diagnosed with latent TB at screening.

### Hepatotoxicity

Drug-induced liver injury in conjunction with pruritus was reported in a clinical trial patient following a longer than recommended induction regimen. Omvoh was discontinued. Liver test abnormalities eventually returned to baseline. Evaluate liver enzymes and bilirubin at baseline and for at least 24 weeks of treatment. Monitor thereafter according to routine patient management. Consider other treatment options in patients with evidence of liver cirrhosis. Prompt investigation of the cause of liver enzyme elevation is recommended to identify potential cases of drug-induced liver injury. Interrupt treatment if drug-induced liver injury is suspected, until this diagnosis is excluded. Instruct patients to seek immediate medical attention if they experience symptoms suggestive of hepatic dysfunction.

### Immunizations

Avoid use of live vaccines in patients treated with Omvoh. Medications that interact with the immune system may increase the risk of infection following administration of live vaccines. Prior to initiating therapy, complete all age-appropriate vaccinations according to current immunization guidelines. No data are available on the response to live or non-live vaccines in patients treated with Omvoh.

## ADVERSE REACTIONS

Most common adverse reactions ( $\geq 2\%$ ) associated with Omvoh treatment are upper respiratory tract infections and arthralgia during induction, and upper respiratory tract infections, injection site reactions, arthralgia, rash, headache, and herpes viral infection during maintenance.

MR HCP ISI UC APP

Please click for [Prescribing Information](#) and [Medication Guide](#) for Omvoh. Please click for [Instructions for Use](#) included with the device.

### About Omvoh™

Omvoh™ (mirikizumab-mrkz) is an interleukin-23p19 antagonist indicated for the treatment of moderately to severely active ulcerative colitis in adults. Omvoh selectively targets the p19 subunit of IL-23 and inhibits the IL-23 pathway. Inflammation due to over-activation of the IL-23 pathway plays a critical role in the pathogenesis of ulcerative colitis. Treatment of ulcerative colitis with Omvoh starts with 300-mg IV infusions, once every four weeks for a total of three infusions, and transitions to two, 100-mg subcutaneous injections every four weeks during maintenance treatment.

Omvoh and its delivery device base are trademarks owned by Eli Lilly and Company.

### About Lilly

Lilly is a medicine company turning science into healing to make life better for people around the world. We've been pioneering life-changing discoveries for nearly 150 years, and today our medicines help tens of millions of people across the globe. Harnessing the power of biotechnology, chemistry and genetic medicine, our scientists are urgently advancing new discoveries to solve some of the world's most significant health challenges: redefining diabetes care; treating obesity and curbing its most devastating long-term effects; advancing the fight against Alzheimer's disease; providing solutions to some of the most debilitating immune system disorders; and transforming the most difficult-to-treat cancers into manageable diseases. With each step toward a healthier world, we're motivated by one thing: making life better for millions more people. That includes delivering innovative clinical trials that reflect the diversity of our world and working to ensure our medicines are accessible and affordable. To learn more, visit [Lilly.com](http://Lilly.com) and [Lilly.com/news](http://Lilly.com/news), or follow us on [Facebook](#), [Instagram](#) and [LinkedIn](#). P-LLY

### Cautionary Statement Regarding Forward-Looking Statements

This press release contains forward-looking statements (as that term is defined in the Private Securities Litigation Reform Act of 1995) about mirikizumab as a potential treatment for people with moderately to severely active Crohn's disease and reflects Lilly's current beliefs and expectations.

However, as with any pharmaceutical product, there are substantial risks and uncertainties in the process of drug research, development, and commercialization. Among other things, there is no guarantee that planned or ongoing studies will be completed as planned, that future study results will be consistent with study results to date, or that mirikizumab will receive FDA and other additional regulatory approvals, or that it will be commercially successful. For further discussion of these and other risks and uncertainties that could cause actual results to differ from Lilly's expectations, see Lilly's Form 10-K and Form 10-Q filings with the United States Securities and Exchange Commission. Except as required by law, Lilly undertakes no duty to update forward-looking statements to reflect events after the date of this release.

<sup>1</sup>Molander P, Sipponen T, Kemppainen H, et al. Achievement of deep remission during scheduled maintenance therapy with TNFa-blocking agents in IBD. *J Crohn's Colitis* 2013;7:730–735.

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The Lilly logo is rendered in a vibrant red, cursive script. The letters are fluid and interconnected, with a classic, elegant feel. The 'L' is particularly large and prominent, leading into the 'i', 'l', 'l', 'e', and 'y' which follow in a similar flowing style. The overall appearance is that of a handwritten signature or a stylized brand mark.

 View original content to download multimedia: <https://www.prnewswire.com/news-releases/lilly-reports-one-year-histologic-outcomes-in-phase-3-study-of-mirikizumab-compared-to-ustekinumab-for-crohns-disease-302274325.html>

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