



At Week 104, 75% of Patients with Ulcerative Colitis Taking Mirikizumab Maintained Symptomatic Remission in Phase 2 Study

October 1, 2021

- **This is the first readout of two-year Phase 2 data of an anti-IL-23p19 antibody for the treatment of moderately to severely active ulcerative colitis -**
- **92% of participants stayed on mirikizumab throughout one-year maintenance period; 83% continued mirikizumab through two years -**

INDIANAPOLIS, Oct. 1, 2021 /PRNewswire/ -- Patients taking mirikizumab for their moderately to severely active ulcerative colitis (UC), were in symptomatic remission for up to two years as demonstrated in new results from Eli Lilly and Company's (NYSE: LLY) Phase 2 study. Symptomatic remission is defined as no more than two bowel movements more than an individual's normal bowel frequency, and no blood in their stool.

"Millions of people around the world are living with ulcerative colitis, a chronic inflammatory bowel disease that affects the lining of the colon and causes abdominal pain, bowel urgency and frequency, and bloody stools. These symptoms can be unpredictable and severely disrupt a person's daily life, even making it hard for them to leave their home, go to work or see family and friends. We need therapies that provide long-term symptom control in order to give patients their lives back," said Remo Panaccione, M.D., University of Calgary, Inflammatory Bowel Disease Center, and lead author of this analysis. "These exciting Phase 2 results reinforce the potential for mirikizumab to provide that long-term, symptomatic remission from some of the most common and distressing symptoms of ulcerative colitis, specifically stool frequency and rectal bleeding."

In a separate, post-hoc analysis of patients treated with mirikizumab in this Phase 2 study, an absence of bowel urgency (the sudden or immediate need for a bowel movement) in patients with moderately to severely active UC at 12 weeks was strongly associated with reduced levels of inflammatory biomarkers, an indicator of disease activity. Both analyses will be presented virtually at United European Gastroenterology Week (UEG Week), taking place October 3-5, 2021.

Three Out of Four Patients Continuing Treatment with Mirikizumab Maintained Symptomatic Remission At Two Years

Long-term use of mirikizumab was assessed in a post-hoc analysis. In the one-year maintenance period, 92.5% of patients (n=86) stayed on treatment, and 83.9% of patients (n=78) continued treatment through two years.

Among patients who were on mirikizumab for two years, 85.9% achieved rectal bleeding remission (as measured by a rectal bleeding subscore of 0), 84.6% achieved stool frequency remission (as measured by a stool frequency subscore of 0 or 1), and 75.6% of patients were in symptomatic remission. Similar results were seen in this patient population between 52 weeks and 104 weeks.

Among patients treated with mirikizumab, results in symptomatic remission, rectal bleeding remission and stool frequency remission were comparable between biologic-naïve patients and those who had prior experience with biologics. The safety profile of mirikizumab was consistent with previously published data, and no new safety signals were observed.

For methodology, see the "About the Analyses" section below.

Post-Hoc Analysis Showed Relationship Between Patient-Reported Bowel Urgency and Inflammatory Biomarkers in UC

Patients who responded to mirikizumab at week 12 and reported no bowel urgency had significantly greater reductions from baseline measures in two inflammatory biomarkers, C-reactive protein (CRP) found in the blood and fecal calprotectin (fCLP) found in the stool, compared to patients who reported bowel urgency. Absence of bowel urgency was defined as no bowel urgency reported for three consecutive days prior to each scheduled visit, regardless of bowel urgency status at baseline. Levels of CRP and fCLP continued to decrease from 12 weeks to one year for both patient groups.

For methodology and additional results, see the "About the Analyses" section below.

"Results from this analysis suggest that among patients with ulcerative colitis treated with mirikizumab, the absence of bowel urgency may be associated with reduced levels of inflammatory biomarkers, which are important indicators of disease severity," said Lotus Mallbris, M.D., Ph.D., vice president of immunology development and U.S. and global medical affairs at Lilly. "Taken together, we are excited to share at UEG Week a range of data that showed mirikizumab, if approved, may potentially be the first anti-IL-23p19 therapy that reduces disease activity and offers remission from the debilitating symptoms of stool frequency and rectal bleeding for patients with moderately to severely active ulcerative colitis."

Mirikizumab is currently being studied in Phase 3 trials for UC and Crohn's disease.

About The Analyses

- **Efficacy and Safety of Mirikizumab in Patients with Ulcerative Colitis: 104-Week Results from a Phase 2 Randomized Controlled Trial**
 - 186 patients with moderately to severely active UC received treatment with mirikizumab.
 - Patients who responded to mirikizumab after the 12-week induction period (n=93), were re-randomized 1:1 into a double-blind maintenance period to receive mirikizumab 200 mg via IV every 4 weeks (n=47) or every 12 weeks

(n=46). Clinical response was defined as: a decrease in 9-point Mayo subscore [rectal bleeding, stool frequency and endoscopy] inclusive of ≥ 2 points and $\geq 35\%$ from baseline with either a decrease of rectal bleeding subscore of ≥ 1 or a rectal bleeding subscore of 0 or 1.

- o Patient-reported efficacy outcomes including symptomatic remission (stool frequency subscore=0 or 1 and rectal bleeding subscore=0), stool frequency remission (stool frequency=0 or 1) and rectal bleeding remission (rectal bleeding=0) were evaluated through 104 weeks.
- o Patients who completed 52 weeks of treatment without loss of response either continued participation in the maintenance period to 104 weeks or rolled over to a long-term extension study and received mirikizumab open-label 200 mg every four weeks.
- o 92.5% (86/93) continued taking mirikizumab throughout the one-year maintenance period, and 83.9% of patients (78/93) continued treatment through two years.
- o At one year, 82.1% (64/78) of patients treated with mirikizumab achieved rectal bleeding remission (as measured by a rectal bleeding subscore of 0 or 1) and 89.7% (70/78) achieved stool frequency remission. At two years, 85.9% (67/78) of patients achieved rectal bleeding remission and 84.6% (66/78) of patients achieved stool frequency remission. At two years, 75.6% (59/78) of patients treated with mirikizumab were in symptomatic remission.

- **Biomarkers and Bowel Urgency in Response to Mirikizumab for Ulcerative Colitis**

- o In this analysis, 249 patients who had achieved a clinical response on 3 different doses of mirikizumab from 0-12 weeks, were re-randomized 1:1 to double-blind maintenance treatment with mirikizumab 200 mg every 4 or 12 weeks and treated through 52 weeks to assess the relationship between patient-reported bowel urgency and inflammatory biomarkers.
- o C-reactive protein (CRP), which is found in the blood, was reduced by a median of 7 milligram per liter of blood [mg/L] from baseline in patients without bowel urgency compared to a 3 mg/L reduction from baseline in patients with bowel urgency (p=0.025).
- o Fecal calprotectin (fCLP), which is found in the stool, was reduced by a median of 1,614 mg/kg from baseline in patients without bowel urgency compared to a 109 mg/kg reduction from baseline in patients with bowel urgency (p=0.003).
- o The association between bowel urgency and inflammatory biomarkers at 12 weeks and 52 weeks was analyzed by pooling treatment arms in the induction and maintenance periods, respectively.
- o The analysis found biomarkers may correlate with bowel urgency. More analyses and larger studies are needed to fully understand the connection between biomarkers and bowel urgency.

About Mirikizumab

Mirikizumab is a humanized IgG4 monoclonal antibody that binds to the p19 subunit of interleukin 23. Mirikizumab is being studied for the treatment of immune diseases, including ulcerative colitis and Crohn's disease.

About Ulcerative Colitis

Ulcerative colitis is a chronic inflammatory bowel disease that affects the colon. UC occurs when the immune system sends white blood cells into the lining of the intestines, where they produce chronic inflammation and ulcerations. There is an unmet need for additional treatment options for UC that provide meaningful symptom relief, including bowel urgency, and deliver sustained clinical remission.

About Eli Lilly and Company

Lilly is a global health care leader that unites caring with discovery to create medicines that make life better for people around the world. We were founded more than a century ago by a man committed to creating high-quality medicines that meet real needs, and today we remain true to that mission in all our work. Across the globe, Lilly employees work to discover and bring life-changing medicines to those who need them, improve the understanding and management of disease, and give back to communities through philanthropy and volunteerism. To learn more about Lilly, please visit us at lilly.com and lilly.com/newsroom.

P-LLY

Lilly Forward-Looking Statement

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 patients with ulcerative colitis and/or 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 can be no guarantee that planned or ongoing studies will be completed as planned, that future study results will be consistent with study results to date, that mirikizumab will prove to be a safe and effective treatment or that mirikizumab will receive regulatory approvals or be commercially successful. For further discussion of these and other risks and uncertainties, see Lilly's most recent 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.

Refer to: Marlo Scott; scott_marlo@lilly.com; 317-407-8879 (media)
Kevin Hern; hern_kevin_r@lilly.com; 317-277-1838 (investors)

Lilly

View original content to download multimedia: <https://www.prnewswire.com/news-releases/at-week-104-75-of-patients-with-ulcerative-colitis-taking-mirikizumab-maintained-symptomatic-remission-in-phase-2-study-301389447.html>

SOURCE Eli Lilly and Company