Lilly's neutralizing antibody bamlanivimab (LY-CoV555) receives interim authorization from Health Canada as a treatment for COVID-19

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- Bamlanivimab emerged from collaboration between Lilly and Vancouver-based AbCellera

INDIANAPOLIS, Nov. 20, 2020 /PRNewswire/ -- Health Canada today granted authorization under the Interim Order Respecting the Importation, Sale and Advertising of Drugs for Use in Relation to COVID-19 for the use of bamlanivimab (LY-CoV555) as a treatment for adults and pediatric patients 12 years of age or older with mild to moderate COVID-19 who weigh at least 40 kg and are at high risk of progressing to severe COVID-19 illness and/or hospitalization, Eli Lilly and Company (NYSE: LLY) announced. This authorization, the second authorization around the world for bamlanivimab, is based on data from BLAZE-1, a randomized, double-blind placebo-controlled phase 2 study in patients with recently diagnosed, mild to moderate COVID-19.

"This authorization in Canada furthers our goal of making bamlanivimab available to patients who need it around the world and is evidence of the strong collaboration between industry and governments to get COVID-19 medicines to people as quickly as possible," said David A. Ricks, Lilly's chairman and CEO. "We are proud that this treatment, which was developed in partnership with the Canadian biotech company AbCellera, will soon be available to help people in Canada combat this pandemic."

In BLAZE-1, patients treated with bamlanivimab showed reduced viral load and rates of symptoms and hospitalization. In BLAZE-1, frequency and types of adverse events were similar between bamlanivimab and placebo, with the majority being mild to moderate in severity. Infusion reactions and other allergic hypersensitivity events have been reported.

"As a Canadian company, we are proud to contribute to the global fight against COVID-19 and hope our efforts will help people in Canada and around the world in the face of this medical emergency," said Carl Hansen, Ph. D., CEO of AbCellera. "We applaud Lilly for bringing bamlanivimab to patients at record speed and its commitment to ensure treatment access for patients with high unmet needs, no matter where they live."

Global manufacturing, supply and regulatory updates

Lilly has a robust, global supply chain in place and began large-scale manufacturing of bamlanivimab at risk earlier this year. Lilly anticipates manufacturing up to one million doses of bamlanivimab 700 mg by the end of 2020, for use around the world through early next year.

On November 9th, the U.S. Food and Drug Administration (FDA) granted Emergency Use Authorization (EUA) for bamlanivimab 700 mg. In the U.S., bamlanivimab is authorized for the treatment of mild to moderate COVID-19 in adults and pediatric patients 12 years and older who weigh at least 40 kg with a positive COVID-19 test, who are at high risk for progressing to severe COVID-19 and/or hospitalization.

Lilly is in discussions with global regulators to make bamlanivimab available around the world. The company is focused on areas with the highest disease burden and pursuing authorization in countries such as India, Brazil, Russia and across Europe. Global allocation will be made based on Lilly's guiding principles that aim to ensure access for patients with high unmet need, no matter where they live.

Important Information about bamlanivimab

Bamlanivimab has not been approved by the FDA for any use. It is not known if bamlanivimab is safe and effective for the treatment of COVID-19.

Bamlanivimab is authorized under an Emergency Use Authorization only for the duration of the declaration that circumstances exist justifying the authorization of the emergency use of bamlanivimab under Section 564(b)(1) of the Act, 21 U.S.C § 360bbb-3(b)(1), unless the authorization is terminated or revoked sooner.

Healthcare providers should review the Fact Sheet for information on the authorized use of bamlanivimab and mandatory requirements of the EUA. Please see the FDA Letter of Authorization, Fact Sheet for Healthcare Providers, and Fact Sheet for Patients, Parents, and Caregivers (English) (Spanish).

U.S. Authorized Use and Important Safety Information

Bamlanivimab is authorized for use under an EUA for treatment of mild to moderate COVID-19 in adults and pediatric patients with positive results of direct SARS-CoV-2 viral testing who are 12 years and older weighing at least 40 kg, and who are at high risk for progressing to severe COVID-19 and/or hospitalization.

Limitations of Authorized Use

- Bamlanivimab is not authorized for use in patients:
  - who are hospitalized due to COVID-19, OR
  - who require oxygen therapy due to COVID-19, OR
  - who require an increase in baseline oxygen flow rate due to COVID-19 in those on chronic oxygen therapy due to underlying non-COVID-19 related comorbidity.
- Benefit of treatment with bamlanivimab has not been observed in patients hospitalized due to COVID-19. Monoclonal antibodies, such as bamlanivimab, may be associated with worse clinical outcomes when administered to hospitalized patients requiring high flow oxygen or mechanical ventilation with COVID-19.

Important Safety Information
There are limited clinical data available for bamlanivimab. Serious and unexpected adverse events may occur that have not been previously reported with bamlanivimab use.

Hypersensitivity Including Anaphylaxis and Infusion-Related Reactions
There is a potential for serious hypersensitivity reaction, including anaphylaxis, with administration of bamlanivimab. If signs and symptoms of a clinically significant hypersensitivity reaction or anaphylaxis occur, immediately discontinue administration and initiate appropriate medications and/or supportive care.

Infusion-related reactions have been observed with administration of bamlanivimab. Signs and symptoms of infusion-related reactions may include:

- fever, chills, nausea, headache, bronchospasm, hypotension, angioedema, throat irritation, rash including urticaria, pruritus, myalgia, dizziness.

If an infusion-related reaction occurs, consider slowing or stopping the infusion and administer appropriate medications and/or supportive care.

Limitations of Benefit and Potential Risk in Patients with Severe COVID-19
Benefit of treatment with bamlanivimab has not been observed in patients hospitalized due to COVID-19. Monoclonal antibodies, such as bamlanivimab, may be associated with worse clinical outcomes when administered to hospitalized patients requiring high flow oxygen or mechanical ventilation with COVID-19. See Limitations of Authorized Use.

Adverse Events
Adverse events reported in at least 1% of BLAZE-1 clinical trial participants on bamlanivimab 700 mg and placebo were Nausea (3% vs 4%), Diarrhea (1% vs 5%), Dizziness (3% vs 2%), Headache (3% vs 2%), Pruritus (2% vs 1%) and Vomiting (1% vs 3%).

Use in Specific Populations
Pregnancy
There are insufficient data on the use of bamlanivimab during pregnancy. Bamlanivimab should only be used during pregnancy if the potential benefit outweighs the potential risk for the mother and the fetus.

Breastfeeding
There are no available data on the presence of bamlanivimab in human or animal milk, the effects on the breastfed infant, or the effects on milk production. Breastfeeding individuals with COVID-19 should follow practices according to clinical guidelines to avoid exposing the infant to COVID-19.

About bamlanivimab
Bamlanivimab is a recombinant, neutralizing human IgG1 monoclonal antibody (mAb) directed against the spike protein of SARS-CoV-2. It is designed to block viral attachment and entry into human cells, thus neutralizing the virus, potentially treating COVID-19. Bamlanivimab emerged from the collaboration between Lilly and AbCellera to create antibody therapies for the prevention and treatment of COVID-19. Lilly scientists rapidly developed the antibody in less than three months after it was discovered by AbCellera and the scientists at the National Institute of Allergy and Infectious Diseases (NIAID) Vaccine Research Center. It was identified from a blood sample taken from one of the first U.S. patients who recovered from COVID-19.

Lilly has successfully completed a Phase 1 study of bamlanivimab in hospitalized patients with COVID-19 (NCT04411628). A Phase 2 study in people recently diagnosed with COVID-19 in the ambulatory setting (BLAZE-1, NCT04427501) is ongoing. A Phase 3 study of bamlanivimab for the prevention of COVID-19 in residents and staff at long-term care facilities (BLAZE-2, NCT04497987) is also ongoing. In addition, bamlanivimab is being tested in the National Institutes of Health-led ACTIV-2 study in ambulatory COVID-19 patients.

About BLAZE-1
BLAZE-1 (NCT04427501) is a randomized, double-blind, placebo-controlled Phase 2 study designed to assess the efficacy and safety of bamlanivimab alone or in combination with a second antibody for the treatment of symptomatic COVID-19 in the outpatient setting. To be eligible, patients were required to have mild or moderate symptoms of COVID-19 as well as a positive SARS-CoV-2 test based on a sample collected no more than three days prior to drug infusion.

The monotherapy arms of the trial enrolled mild to moderate recently diagnosed COVID-19 patients, studying three doses of bamlanivimab (700 mg, 2800 mg, and 7000 mg) versus placebo.
The primary outcome measure for the completed arms of the BLAZE-1 trial was change from baseline to day 11 in SARS-CoV-2 viral load. Additional endpoints include the percentage of participants who experience COVID-related hospitalization, ER visit or death from baseline through day 29, as well as safety.

The study is ongoing with additional treatment arms. Across all treatment arms, the trial will enroll over 800 participants.

Data from the monotherapy arms of BLAZE-1 were published in the *New England Journal of Medicine*.

About Lilly's COVID-19 Efforts
Lilly is bringing the full force of its scientific and medical expertise to attack the coronavirus pandemic around the world. Existing Lilly medicines are being studied to understand their potential in treating complications of COVID-19, and the company is collaborating with partner companies to discover novel antibody treatments for COVID-19. Lilly is testing both single antibody therapy as well as combinations of antibodies as potential therapeutics for COVID-19. Click here for resources related to Lilly's COVID-19 efforts.

About Eli Lilly and Company
Lilly is a global healthcare 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 www.lilly.com and www.lilly.com/news. P-LLY

Lilly 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 bamlanivimab (LY-CoV555) as a potential treatment for patients with or at risk of infection from COVID-19, as well as its supply, and reflects Lilly's current beliefs. However, as with any such undertaking, there are substantial risks and uncertainties in the process of drug development and commercialization. Among other things, there can be no guarantee that future study results will be consistent with the results to date, that bamlanivimab will prove to be a safe and effective treatment or preventative for COVID-19, that bamlanivimab will receive regulatory approvals or additional authorizations, or that we can provide an adequate supply of bamlanivimab in all circumstances. For a further discussion of these and other risks and uncertainties that could cause actual results to differ from Lilly's expectations, please see Lilly's most recent Forms 10-K and 10-Q filed with the U.S. Securities and Exchange Commission. Lilly undertakes no duty to update forward-looking statements.

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