

Frequently Asked Questions on the Emergency Use Authorization of Baricitinib for Treatment of COVID-19

Q. What is new under the July 28, 2021, revision to this EUA?

A. Baricitinib (sold under the brand name Olumiant) alone is now authorized for the treatment of COVID-19 in hospitalized adults and pediatric patients two years of age or older requiring supplemental oxygen, non-invasive or invasive mechanical ventilation, or extracorporeal membrane oxygenation (ECMO).

The EUA for baricitinib no longer requires baricitinib be used in combination with Veklury (remdesivir).

Q: Why did FDA remove Veklury (remdesivir) from this EUA? Are there data to support the use of baricitinib alone for the treatment of COVID-19?

A: This revision to the EUA for baricitinib was supported by [data](#) from the COV-BARRIER clinical trial of hospitalized patients with COVID-19, where baricitinib showed a reduction in the proportion of patients who died through 28 days of follow-up compared to patients treated with the standard of care for COVID-19 alone. This study did not require baricitinib to be used in combination with Veklury and most of the patients did not receive Veklury. This study provided information that was previously unavailable to the agency at the time of the original authorization.

The COV-BARRIER trial supporting this revision to the EUA did not raise questions about the safety or efficacy of baricitinib when used in combination with remdesivir for the treatment of patients hospitalized due to COVID-19 requiring supplemental oxygen, non-invasive or invasive mechanical ventilation, or ECMO. The use of baricitinib in combination with remdesivir is not contraindicated under the terms and conditions of this authorization. A contraindication describes when the use of a product is not appropriate.

Q. Is Veklury alone still effective against COVID-19?

A. Yes. Veklury is FDA-[approved](#) to treat COVID-19 in hospitalized adults and pediatric patients (12 years of age and older and weighing at least 40 kg).

Veklury also remains authorized for emergency use by licensed healthcare providers for the treatment of suspected or laboratory-confirmed COVID-19 in hospitalized pediatric patients weighing 3.5 kg to less than 40 kg or hospitalized pediatric patients less than 12 years of age weighing at least 3.5 kg.

Q. What is the difference between an Emergency Use Authorization (EUA) and an FDA approval?

A. Under section 564 of the Federal Food, Drug & Cosmetic Act (FD&C Act), the FDA may, pursuant to a declaration by the HHS Secretary based on one of four types of determinations, authorize an unapproved product or unapproved uses of an approved product for emergency use. In issuing an EUA, the FDA must determine, among other things, that based on the totality of scientific evidence available, including data from adequate and well-controlled clinical trials, if available, it is reasonable to believe that the product may be effective in diagnosing, treating, or preventing a serious or life-threatening disease or condition caused by a chemical, biological, radiological, or nuclear agent; that the known and potential benefits of the product, when used to diagnose, treat, or prevent such diseases or conditions, outweigh the known and potential risks for the product; and that there are no adequate, approved, and available alternatives. Emergency use authorization is NOT the same as FDA approval or licensure.

Q. What does this EUA authorize?

A. The [EUA](#) authorizes baricitinib manufactured by Eli Lilly and Company (Lilly), for emergency use by healthcare providers, for the treatment of COVID-19 in hospitalized adults and pediatric patients 2 years of age or older requiring supplemental oxygen, non-invasive mechanical ventilation, invasive mechanical ventilation, or extracorporeal membrane oxygenation (ECMO).

Q. Is baricitinib approved by the FDA to treat COVID-19?

A. No. baricitinib is not FDA-approved for the treatment of COVID-19.

The 2 mg daily dose of baricitinib (Olumiant) is currently FDA-approved for the treatment of adult patients with moderately to severely active rheumatoid arthritis who have had an inadequate response to one or more tumor necrosis factor (TNF) antagonist therapies. FDA has determined Olumiant is safe and effective for this use when used in accordance with the [FDA-approved labeling](#).

Q. Can baricitinib be used outside the hospital (i.e., for non-hospitalized patients)?

A. Under the EUA, baricitinib is authorized for emergency use to treat certain hospitalized adults and pediatric patients with COVID-19. The [Letter of Authorization](#) clarifies that individuals determined as being appropriate for acute inpatient hospitalization and who are admitted or transferred to an alternate care site (ACS) that can provide acute care that is comparable to general inpatient hospital care are within the terms and conditions of the EUA. An ACS is intended to provide additional hospital surge capacity and capability for communities overwhelmed by patients with COVID-19.

Q. Are there data showing baricitinib might benefit patients with COVID-19?

A. The data supporting this EUA are based primarily on analysis from two clinical trials.

The Adaptive COVID-19 Treatment Trial 2 (ACTT-2) was a randomized, double-blind, placebo-controlled clinical trial in 1,033 hospitalized patients with mild, moderate and severe COVID-19 who received baricitinib plus Veklury or a placebo plus Veklury. Patients treated with the baricitinib plus Veklury combination received the following regimen:

- Baricitinib 4 mg once daily (orally) for 14 days or until hospital discharge
- Veklury 200 mg on Day 1 and 100 mg once daily (via intravenous infusion) on subsequent days for a total treatment duration of 10 days or until hospital discharge

The primary endpoint was time to recovery within 29 days. Recovery was defined as being discharged from the hospital without limitations on activities, being discharged from the hospital with limitations on activities and/or requiring home oxygen or hospitalized but not requiring supplemental oxygen and no longer requiring medical care. The key secondary endpoint was clinical status on Day 15 assessed on an 8-point ordinal scale.

The study met its primary endpoint. The median time to recovery from COVID-19 was 7 days for baricitinib plus Veklury and 8 days for placebo plus Veklury. The hazard ratio of 1.15 and 95% confidence interval of (1.00, 1.31) indicated a statistically significant effect. The odds of clinical improvement at Day 15 was also higher in the Olumiant plus Veklury group versus the placebo plus Veklury group. The effects were statistically significant.

The odds of patient progression to death or ventilation at Day 29 was lower in the baricitinib plus Veklury group versus the placebo plus Veklury group. The proportion of patients who died or progressed to noninvasive ventilation/high-flow oxygen or invasive mechanical ventilation by Day 29 was lower in the baricitinib plus Veklury group (23%) compared to the placebo plus Veklury group (28%). The effects were statistically significant. The overall 29-day mortality was 4.7% for the baricitinib plus Veklury group vs. 7.1% for placebo plus Veklury group.

The second trial, COV-BARRIER, was a randomized, double-blind, placebo-controlled clinical trial of hospitalized adults with confirmed SARS-CoV-2 infection. In the trial, 764 patients were assigned to receive baricitinib 4mg once daily and 761 patients were assigned to receive a placebo. Patients could remain on background standard of care. At the start of the trial treatment, approximately 80% of patients were on background corticosteroids (mostly dexamethasone) and 19% received Veklury.

The primary outcome evaluated the proportion of patients who died or progressed to non-invasive ventilation/high-flow oxygen or invasive mechanical ventilation within the first 28-days of receiving baricitinib or a placebo. The estimated proportion of patients who died or progressed to non-invasive ventilation/high-flow oxygen or invasive mechanical ventilation was lower in patients treated with baricitinib (27.8%) compared to a placebo (30.5%), but this effect was not statistically significant.

A key secondary endpoint was death through 28 days of follow-up. The proportion of patients who died through 28 days of follow-up was 8.1% for baricitinib compared to 13.3% for placebo.

Based on the totality of the scientific evidence available, FDA determined that it is reasonable to believe that baricitinib may be effective for the treatment of mild to moderate COVID-19 in adults and pediatric patients 2 years of age or older requiring supplemental oxygen, invasive mechanical ventilation, or ECMO.

Q. Are there clinical trials underway evaluating baricitinib for COVID-19?

A. Yes. [Clinical trials](#) remain ongoing to study baricitinib for investigational uses.

Q. Are side effects possible with baricitinib?

A. Yes. Possible side effects of baricitinib are:

- Serious venous thrombosis, including pulmonary embolism, and serious infections have been observed in COVID-19 patients treated with baricitinib and are known adverse drug reactions of baricitinib. Baricitinib is not recommended for patients with known active tuberculosis infections, who are on dialysis, have end-stage renal disease, or have acute kidney injury.
- See Warnings and Precautions in the FDA-approved [full prescribing information](#) for additional information on risks associated with longer-term treatment with Olumiant.

Q. How can baricitinib for use under the EUA be obtained?

A. Lilly and its authorized distributors distribute baricitinib to hospitals and healthcare facilities for its authorized use under the EUA. Licensed healthcare providers interested in administering baricitinib should contact Lilly.

Q. Is there a requirement for providers to report side effects as part of the EUA?

A. Yes. As part of the EUA, FDA is requiring health care providers who prescribe baricitinib to treat COVID-19 to report all medication errors and serious adverse events considered to be potentially

related to baricitinib through FDA's [MedWatch Adverse Event Reporting](#) program. Providers can complete and submit the report [online](#); or download and complete the [form](#), then submit it via fax at 1-800-FDA-0178. This requirement is outlined in the EUA's health care provider [fact sheet](#). FDA MedWatch forms should also be provided to Lilly.

Q. Do patient outcomes need to be reported under the EUA?

A. No, reporting of patient outcomes is not required under the EUA. However, reporting of all medication errors and adverse events considered to be potentially related to the emergency use of baricitinib occurring during treatment is required under the authorization.

Q. Does the EUA authorize baricitinib to be used to prevent COVID-19?

A. No. The EUA for baricitinib does not authorize the emergency use of baricitinib for the prevention of COVID-19.

Q. Can health care providers share the patient/caregiver Fact Sheet electronically?

A. The letter of authorization for baricitinib requires that Fact Sheets be made available to [healthcare providers](#) and to [patients/caregivers](#), "through appropriate means." Electronic delivery of the Fact Sheet is an appropriate means. For example, when the patient requests the Fact Sheet electronically, it can be delivered as a PDF prior to medication administration. Health care providers should confirm receipt of the Fact Sheet with the patient.