



# Pfizer Seeks Emergency Use Authorization for Novel COVID-19 Oral Antiviral Candidate

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If approved or authorized, PAXLOVID™ (PF-07321332; ritonavir) would be the first oral antiviral of its kind, a 3CL protease inhibitor specifically designed to combat SARS-CoV-2. The EUA submission includes clinical data from an interim analysis of the Phase 2/3 EPIC-HR study, which demonstrated an 89% reduction in risk of COVID-19-related hospitalization or death compared to placebo in non-hospitalized high-risk adults with COVID-19. Rolling submissions have commenced in several countries including in the United Kingdom, Australia, New Zealand and South Korea, with planned submissions to other regulatory agencies around the world.

NEW YORK--(BUSINESS WIRE)-- Pfizer Inc. today announced it is seeking Emergency Use Authorization (EUA) of its investigational oral antiviral candidate, PAXLOVID™ (PF-07321332; ritonavir), for the treatment of mild to moderate COVID-19 in patients at increased risk of hospitalizations or death. This submission to the U.S. Food and Drug Administration (FDA) includes clinical data from the Phase 2/3 EPIC-HR (Evaluation of Protease Inhibition for COVID-19 in High-Risk Patients) interim analysis. Rolling submission of non-clinical data for PAXLOVID was initiated with the U.S. FDA in October 2021.

If authorized or approved, PAXLOVID would be the first oral antiviral of its kind, a 3CL protease inhibitor specifically designed to combat SARS-CoV-2 that could be prescribed as an at-home treatment to high-risk patients at the first sign of infection, potentially helping patients avoid severe illness which can lead to hospitalization and death.

“With more than 5 million deaths and countless lives impacted by this devastating disease globally, there is an urgent need for life-saving treatment options. The

overwhelming efficacy achieved in our recent clinical study of PAXLOVID, and its potential to help save lives and keep people out of the hospital if authorized, underscores the critical role that oral antiviral therapies could play in the battle against COVID-19,” said Albert Bourla, Chairman and Chief Executive Officer, Pfizer. “We are moving as quickly as possible in our effort to get this potential treatment into the hands of patients, and we look forward to working with the U.S. FDA on its review of our application, along with other regulatory agencies around the world.”

Pfizer is seeking EUA for PAXLOVID based on positive results from the EPIC-HR interim analysis, which enrolled non-hospitalized adults aged 18 and older with confirmed COVID-19 who are at increased risk of progressing to severe illness. The data demonstrated an 89% reduction in risk of COVID-19-related hospitalization or death from any cause in patients treated with PAXLOVID compared to placebo within three days of symptom onset, with no deaths in the treatment group. Similar results were seen with within five days of symptom onset. Treatment-emergent adverse events were comparable between PAXLOVID (19%) and placebo (21%), most of which were mild in intensity. At the recommendation of an independent Data Monitoring Committee, and in consultation with the U.S. FDA, Pfizer ceased further enrollment into the study due to the overwhelming efficacy demonstrated. Rolling submissions have commenced in several countries including in the United Kingdom, Australia, New Zealand and South Korea, with planned submissions to other regulatory agencies around the world to follow.

Pfizer has begun and will continue to invest up to approximately \$1 billion of its own funds to support the manufacturing and distribution of this investigational treatment candidate. Additionally, Pfizer has signed a voluntary licensing agreement with the Medicines Patent Pool (MPP) to help expand access, pending regulatory authorization or approval, in 95 low- and middle-income countries that account for approximately 53% of the world’s population.

#### About PAXLOVID (PF-07321332; ritonavir)

PAXLOVID is an investigational SARS-CoV-2 protease inhibitor antiviral therapy. It was specifically designed to be administered orally so that it can be prescribed at the first sign of infection or at first awareness of an exposure – potentially helping patients avoid severe illness (which can lead to hospitalization and death), experience a decreased symptomatic period, or avoid disease development following contact. PF-07321332 is designed to block the activity of the SARS-CoV-2-3CL protease, an enzyme that the coronavirus needs to replicate. Co-administration with a low dose of ritonavir helps slow the metabolism, or breakdown, of PF-07321332 in order for it to remain active in the

body for longer periods of time at higher concentrations to help combat the virus.

PF-07321332 inhibits viral replication at a stage known as proteolysis, which occurs before viral RNA replication. In preclinical studies, PF-07321332 did not demonstrate evidence of mutagenic DNA interactions.

If authorized or approved, PAXLOVID will be administered at a dose of 300mg (two 150mg tablets) of PF-07321332 with one 100mg tablet of ritonavir, given twice-daily for five days.

### Our Commitment to Equitable Access

Pfizer is committed to working toward equitable access to PAXLOVID for all people, aiming to deliver safe and effective antiviral therapeutics as soon as possible and at an affordable price. If authorized or approved, during the pandemic, Pfizer will offer our investigational oral antiviral therapy through a tiered pricing approach based on the income level of each country to promote equity of access across the globe. High and upper-middle income countries will pay more than lower income countries.

Pfizer has also begun and will continue to invest up to approximately \$1 billion of its own funds to support the manufacturing and distribution of this investigational treatment candidate, including exploring potential contract manufacturing options. It has entered into advance purchase agreements with several countries and has initiated bilateral outreach to approximately 100 countries around the world. Additionally, Pfizer has signed a voluntary license agreement with the Medicines Patent Pool (MPP) for PF-07321332; ritonavir to help expand access, pending regulatory authorization or approval, in 95 low- and middle-income countries that account for approximately 53% of the world's population.

### About the Phase 2/3 EPIC-HR Study Interim Analysis

In July 2021, Pfizer initiated the Phase 2/3 EPIC-HR (Evaluation of Protease Inhibition for COVID-19 in High-Risk Patients) randomized, double-blind study of non-hospitalized adult patients with COVID-19, who are at high risk of progressing to severe illness. The primary analysis of the interim data set evaluated data from 1,219 adults who were enrolled by September 29, 2021. At the time of the decision to stop recruiting patients, enrollment was at approximately 70% of the 3,000 planned patients from clinical trial sites across North and South America, Europe, Africa, and Asia, with 45% of patients located in the United States. Enrolled individuals had a laboratory-confirmed diagnosis of SARS-CoV-2 infection within a five-day period and were required to have at least one characteristic or

underlying medical condition associated with an increased risk of developing severe illness from COVID-19. Each patient was randomized (1:1) to receive PAXLOVID or placebo orally every 12 hours for five days.

The scheduled interim analysis showed an 89% reduction in risk of COVID-19-related hospitalization or death from any cause compared to placebo in patients treated within three days of symptom onset (primary endpoint); 0.8% of patients who received PAXLOVID were hospitalized through Day 28 following randomization (3/389 hospitalized with no deaths), compared to 7.0% of patients who received placebo and were hospitalized or died (27/385 hospitalized with 7 subsequent deaths). The statistical significance of these results was high ( $p < 0.0001$ ). Similar reductions in COVID-19-related hospitalization or death were observed in patients treated within five days of symptom onset; 1.0% of patients who received PAXLOVID were hospitalized through Day 28 following randomization (6/607 hospitalized, with no deaths), compared to 6.7% of patients who received a placebo (41/612 hospitalized with 10 subsequent deaths), with high statistical significance ( $p < 0.0001$ ). In the overall study population through Day 28, no deaths were reported in patients who received PAXLOVID as compared to 10 (1.6%) deaths in patients who received placebo.

The review of safety data included a larger cohort of 1,881 patients in EPIC-HR, whose data were available at the time of the analysis. Treatment-emergent adverse events were comparable between PAXLOVID (19%) and placebo (21%), most of which were mild in intensity. Among the patients evaluable for treatment-emergent adverse events, fewer serious adverse events (1.7% vs. 6.6%) and discontinuation of study drug due to adverse events (2.1% vs. 4.1%) were observed in patients dosed with PAXLOVID compared to placebo, respectively.

#### About the EPIC Development Program

The EPIC (Evaluation of Protease Inhibition for COVID-19) Phase 2/3 development program for PF-07321332; ritonavir consists of three clinical trials spanning a broad spectrum of patients, including adults who have been exposed to the virus through household contacts, as well as adults at both standard risk and high risk of progressing to severe illness.

In July 2021, Pfizer initiated the first of these trials, known as EPIC-HR, a randomized, double-blind study of non-hospitalized adult patients with COVID-19, who are at high risk of progressing to severe illness. At the recommendation of an independent Data Monitoring Committee and in consultation with the U.S. FDA, Pfizer ceased further

enrollment into the study in early November 2021 due to the overwhelming efficacy demonstrated in these results.

In August 2021, Pfizer began the Phase 2/3 EPIC-SR (Evaluation of Protease Inhibition for COVID-19 in Standard-Risk Patients), to evaluate efficacy and safety in patients with a confirmed diagnosis of SARS-CoV-2 infection who are at standard risk (i.e., low risk of hospitalization or death). EPIC-SR includes a cohort of vaccinated patients who have an acute breakthrough symptomatic COVID-19 infection and who have risk factors for severe illness. In September, Pfizer initiated the Phase 2/3 EPIC-PEP (Evaluation of Protease Inhibition for COVID-19 in Post-Exposure Prophylaxis) to evaluate efficacy and safety in adults exposed to SARS-CoV-2 by a household member. These trials are ongoing.

For more information on the EPIC Phase 2/3 clinical trials for PAXLOVID, visit [clinicaltrials.gov](https://clinicaltrials.gov).

### About Pfizer: Breakthroughs That Change Patients' Lives

At Pfizer, we apply science and our global resources to bring therapies to people that extend and significantly improve their lives. We strive to set the standard for quality, safety and value in the discovery, development and manufacture of health care products, including innovative medicines and vaccines. Every day, Pfizer colleagues work across developed and emerging markets to advance wellness, prevention, treatments and cures that challenge the most feared diseases of our time. Consistent with our responsibility as one of the world's premier innovative biopharmaceutical companies, we collaborate with health care providers, governments and local communities to support and expand access to reliable, affordable health care around the world. For more than 170 years, we have worked to make a difference for all who rely on us. We routinely post information that may be important to investors on our website at [www.Pfizer.com](http://www.Pfizer.com). In addition, to learn more, please visit us on [www.Pfizer.com](http://www.Pfizer.com) and follow us on Twitter at @Pfizer and @Pfizer News, LinkedIn, YouTube and like us on Facebook at [Facebook.com/Pfizer](https://Facebook.com/Pfizer).

### Disclosure Notice

The information contained in this release is as of November 16, 2021. Pfizer assumes no obligation to update forward-looking statements contained in this release as the result of new information or future events or developments.

This release contains forward-looking information about Pfizer's efforts to combat COVID-19 and Pfizer's investigational oral antiviral candidate PAXLOVID (including qualitative assessments of available data, potential benefits, expectations for clinical trials,

advanced purchase agreements and an agreement with MPP, efforts toward equitable access, a submission to the FDA requesting EUA and submissions in other jurisdictions, the anticipated timing of data readouts, regulatory submissions, regulatory approvals or authorizations, planned investment and anticipated manufacturing, distribution and supply), involving substantial risks and uncertainties that could cause actual results to differ materially from those expressed or implied by such statements. Risks and uncertainties include, among other things, the uncertainties inherent in research and development, including the ability to meet anticipated clinical endpoints, commencement and/or completion dates for clinical trials, regulatory submission dates, regulatory approval dates and/or launch dates, as well as risks associated with preclinical and clinical data, including the possibility of unfavorable new preclinical, clinical or safety data and further analyses of existing preclinical, clinical or safety data; the ability to produce comparable clinical or other results including efficacy, safety and tolerability profile observed to date, in additional studies or in larger, more diverse populations following commercialization; the risk that preclinical and clinical trial data are subject to differing interpretations and assessments, including during the peer review/publication process, in the scientific community generally, and by regulatory authorities; whether regulatory authorities will be satisfied with the design of and results from these and any future preclinical and clinical studies; whether and when any drug applications or submissions to request emergency use or conditional marketing authorization for any potential indications for PAXLOVID may be filed in particular jurisdictions and if obtained, whether or when such emergency use authorization or licenses will expire or terminate; whether and when regulatory authorities in any jurisdictions may approve any such applications or submissions for PAXLOVID (including the submission for EUA pending with the FDA and rolling submissions in other jurisdictions), which will depend on myriad factors, including making a determination as to whether the product's benefits outweigh its known risks and determination of the product's efficacy and, if approved, whether it will be commercially successful; decisions by regulatory authorities impacting labeling or marketing, manufacturing processes, safety and/or other matters that could affect the availability or commercial potential of PAXLOVID, including development of products or therapies by other companies; risks related to the availability of raw materials for PAXLOVID; the risk that we may not be able to create or scale up manufacturing capacity on a timely basis or maintain access to logistics or supply channels commensurate with global demand, which would negatively impact our ability to supply the estimated numbers of courses of PAXLOVID within the projected time periods; whether and when additional purchase agreements will be reached; the risk that demand for any products may be reduced or no longer exist; uncertainties regarding the impact of COVID-19 on

Pfizer's business, operations and financial results; and competitive developments.

A further description of risks and uncertainties can be found in Pfizer's Annual Report on Form 10-K for the fiscal year ended December 31, 2020 and in its subsequent reports on Form 10-Q, including in the sections thereof captioned "Risk Factors" and "Forward-Looking Information and Factors That May Affect Future Results", as well as in its subsequent reports on Form 8-K, all of which are filed with the U.S. Securities and Exchange Commission and available at [www.sec.gov](http://www.sec.gov) and [www.pfizer.com](http://www.pfizer.com).

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