



February 23, 2022

GlaxoSmithKline LLC
Attention: Debra H. Lake, M.S.
Senior Director, Global Regulatory Affairs
Five Moore Drive
PO Box 13398
Durham, North Carolina 27709

RE: Emergency Use Authorization 100

Dear Ms. Lake:

This letter is in response to GlaxoSmithKline LLC's (GSK) request that the Food and Drug Administration (FDA) issue an Emergency Use Authorization (EUA) for the emergency use of sotrovimab for the treatment of mild-to-moderate coronavirus disease 2019 (COVID-19), as described in the Scope of Authorization (Section II) of this letter, pursuant to Section 564 of the Federal Food, Drug, and Cosmetic Act (the Act) (21 U.S.C. §360bbb-3).

On February 4, 2020, pursuant to Section 564(b)(1)(C) of the Act, the Secretary of the Department of Health and Human Services (HHS) determined that there is a public health emergency that has a significant potential to affect national security or the health and security of United States citizens living abroad, and that involves the virus that causes coronavirus disease 2019 (COVID-19).¹ On the basis of such determination, the Secretary of HHS on March 27, 2020, declared that circumstances exist justifying the authorization of emergency use of drugs and biological products during the COVID-19 pandemic, pursuant to Section 564 of the Federal Food, Drug, and Cosmetic Act (the Act) (21 U.S.C. 360bbb-3), subject to terms of any authorization issued under that section.²

On May 26, 2021, the Food and Drug Administration (FDA) issued an Emergency Use Authorization (EUA) for emergency use of sotrovimab for the treatment of mild-to-moderate COVID-19 in adults and pediatric patients (12 years of age and older weighing at least 40 kg) with positive results of direct SARS-CoV-2 viral testing, and who are at high risk for progression to severe COVID-19, including hospitalization or death. Sotrovimab is a recombinant human IgG1 κ monoclonal antibody that binds to a conserved epitope on the spike protein receptor binding domain of SARS-CoV-2. Sotrovimab does not compete with human ACE2 receptor binding. Sotrovimab is an investigational drug and is not currently approved for any indication.

¹ U.S. Department of Health and Human Services, *Determination of a Public Health Emergency and Declaration that Circumstances Exist Justifying Authorizations Pursuant to Section 564(b) of the Federal Food, Drug, and Cosmetic Act*, 21 U.S.C. § 360bbb-3. February 4, 2020.

² U.S. Department of Health and Human Services, *Declaration that Circumstances Exist Justifying Authorizations Pursuant to Section 564(b) of the Federal Food, Drug, and Cosmetic Act*, 21 U.S.C. § 360bbb-3, 85 FR 18250 (April 1, 2020).

FDA subsequently reissued the Letter of Authorization on October 8, 2021³ and on December 16, 2021.⁴

On February 23, 2022, having concluded that revising this EUA is appropriate to protect the public health or safety under section 564(g)(2) of the Act, FDA is reissuing the December 16, 2021 letter in its entirety, to further limit the use of sotrovimab when administered for treatment of COVID-19 to exclude geographic regions where, based on available information including variant susceptibility to these drugs and regional variant frequency, infection is likely due to a variant that is non-susceptible to sotrovimab. Corresponding revisions have also been made to the authorized Fact Sheets. The Fact Sheet for Healthcare Providers has also been revised to include updated intravenous infusion times; safety, efficacy, and pharmacokinetic data from the COMET-TAIL clinical trial, and additional information on the susceptibility of SARS-CoV-2 variants to sotrovimab.

Based on review of the interim analysis of phase 1/2/3 data from the COMET-ICE clinical trial (NCT #04545060), a randomized, double-blind, placebo-controlled clinical trial evaluating the safety and efficacy of sotrovimab 500 mg IV in outpatient (non-hospitalized) adults with SARS-CoV-2 infection, it is reasonable to believe that sotrovimab may be effective for the treatment of mild-to-moderate COVID-19 in adults and pediatric patients (12 years of age and older weighing at least 40 kg) with positive results of direct SARS-CoV-2 viral testing, and who are at high risk for progression to severe COVID-19, including hospitalization or death, and when used under the conditions described in this authorization, the known and potential benefits of sotrovimab outweigh the known and potential risks of such product.

Having concluded that the criteria for issuance of this authorization under Section 564(c) of the Act are met, I am authorizing the emergency use of sotrovimab for treatment of COVID-19, as described in the Scope of Authorization section of this letter (Section II) and subject to the terms of this authorization.

I. Criteria for Issuance of Authorization

I have concluded that the emergency use of sotrovimab for the treatment of COVID-19 when administered as described in the Scope of Authorization (Section II) meets the criteria for issuance of an authorization under Section 564(c) of the Act, because:

1. SARS-CoV-2 can cause a serious or life-threatening disease or condition, including severe respiratory illness, to humans infected by this virus;
2. Based on the totality of scientific evidence available to FDA, it is reasonable to believe that sotrovimab may be effective in treating mild-to-moderate COVID-19 in adults and pediatric patients (12 years of age and older weighing at least 40 kg) with positive results of direct SARS-CoV-2 viral testing, and who are at high risk for progression to

³ In its October 8, 2021 revision, FDA revised this letter of authorization (LOA) to reflect that the distribution of the authorized sotrovimab would be controlled by the United States Government.

⁴ In its December 16, 2021 revision, FDA revised the product description in section II of the LOA to reference the authorized storage and handling information within the authorized Fact Sheet for Healthcare Providers.

severe COVID-19, including hospitalization or death, and that, when used under the conditions described in this authorization, the known and potential benefits of sotrovimab outweigh the known and potential risks of such products; and

3. There is no adequate, approved, and available alternative⁵ to the emergency use of sotrovimab for the treatment of mild-to-moderate COVID-19 in adults and pediatric patients (12 years of age and older weighing at least 40 kg) with positive results of direct SARS-CoV-2 viral testing, and who are at high risk for progression to severe COVID-19, including hospitalization or death.⁶

II. Scope of Authorization

I have concluded, pursuant to Section 564(d)(1) of the Act, that the scope of this authorization is limited as follows:

- Distribution of the authorized sotrovimab will be controlled by the United States (U.S.) Government for use consistent with the terms and conditions of this EUA. GSK will supply sotrovimab to authorized distributor(s)⁷, who will distribute to healthcare facilities or healthcare providers as directed by the U.S. Government, in collaboration with state and local government authorities as needed.
- Sotrovimab will be used only by healthcare providers to treat mild-to-moderate COVID-19 in adults and pediatric patients (12 years of age and older weighing at least 40 kg) with positive results of direct SARS-CoV-2 viral testing, and who are at high risk for progression to severe COVID-19, including hospitalization or death.
- Sotrovimab is not authorized for use in the following patient populations⁸:
 - Adults or pediatric patients who are hospitalized due to COVID-19, or
 - Adults or pediatric patients who require oxygen therapy and/or respiratory support due to COVID-19, or
 - Adults or pediatric patients who require an increase in baseline oxygen flow rate and/or respiratory support due to COVID-19 in those patients on chronic oxygen.
- Sotrovimab is **not** authorized for treatment of mild to moderate COVID-19 in geographic regions where infection is likely to have been caused by a non-susceptible

⁵ Although Veklury (remdesivir) is an approved alternative to treat COVID-19 in adults and pediatric patients within the scope of this authorization, FDA does not consider it to be an adequate alternative for certain patients for whom it may not be feasible or practical (e.g., it requires a 3-day treatment duration).

⁶ No other criteria of issuance have been prescribed by regulation under Section 564(c)(4) of the Act.

⁷ “Authorized Distributor(s)” are identified by GSK as an entity or entities allowed to distribute authorized sotrovimab.

⁸ Benefit of treatment with sotrovimab has not been observed in patients hospitalized due to COVID-19. SARS-CoV-2 monoclonal antibodies may be associated with worse clinical outcomes when administered to hospitalized patients with COVID 19 requiring high flow oxygen or mechanical ventilation.

SARS-CoV-2 variant, based on available information including variant susceptibility to this drug and regional variant frequency.⁹

- Sotrovimab may only be administered in settings in which health care providers have immediate access to medications to treat a severe infusion reaction, such as anaphylaxis, and the ability to activate the emergency medical system (EMS), as necessary.
- The use of sotrovimab covered by this authorization must be in accordance with the authorized Fact Sheets.

Product Description

Sotrovimab is supplied in individual single dose vials. Individual vials and carton container labeling for sotrovimab are clearly marked “For use under Emergency Use Authorization.” Sotrovimab is a recombinant human IgG1κ monoclonal antibody that binds to a conserved epitope on the spike protein receptor binding domain of SARS-CoV-2. Sotrovimab does not compete with human ACE2 receptor binding.

Sotrovimab is available as a 500 mg/8 mL (62.5 mg/mL) sterile, preservative-free, clear, colorless or yellow to brown solution to be diluted prior to infusion.

The authorized storage and handling information is included in the authorized Fact Sheet for Healthcare Providers.

Each carton containing a single treatment course of the authorized sotrovimab will include a single copy each of the following product-specific documents detailing information pertaining to its emergency use (referred to as “authorized labeling”)¹⁰:

- Fact Sheet for Healthcare Providers: Emergency Use Authorization (EUA) of sotrovimab
- Fact Sheet for Patients, Parents and Caregivers: Emergency Use Authorization (EUA) of sotrovimab for the treatment Coronavirus Disease 2019 (COVID-19)

I have concluded, pursuant to Section 564(d)(2) of the Act, that it is reasonable to believe that the known and potential benefits of sotrovimab, when used for the treatment of COVID-19 and used in accordance with this Scope of Authorization (Section II), outweigh the known and potential risks.

⁹ FDA will monitor conditions to determine whether use in a geographic region is consistent with this scope of authorization, referring to available information, including information on variant susceptibility (see, e.g., section 15 of authorized Fact Sheet for Healthcare Providers), and the CDC regional variant frequency data available at: <https://covid.cdc.gov/covid-data-tracker/#variant-proportions>. FDA’s determination and any updates will be available at: <https://www.fda.gov/emergency-preparedness-and-response/mcm-legal-regulatory-and-policy-framework/emergency-use-authorization#coviddrugs>.

¹⁰ The authorized labeling for EUA 100 will also be available on GSK’s website at www.sotrovimab.com

I have concluded, pursuant to Section 564(d)(3) of the Act, based on the totality of scientific evidence available to FDA, that it is reasonable to believe that sotrovimab may be effective for the treatment of COVID-19 when used in accordance with this Scope of Authorization (Section II), pursuant to Section 564(c)(2)(A) of the Act.

Having reviewed the scientific information available to FDA, including the information supporting the conclusions described in Section I above, I have concluded that sotrovimab (as described in this Scope of Authorization (Section II)) meets the criteria set forth in Section 564(c) of the Act concerning safety and potential effectiveness.

The emergency use of your product under an EUA must be consistent with, and may not exceed, the terms of the Authorization, including the Scope of Authorization (Section II) and the Conditions of Authorization (Section III). Subject to the terms of this EUA and under the circumstances set forth in the Secretary of HHS's determination under Section 564(b)(1)(C) described above and the Secretary of HHS's corresponding declaration under Section 564(b)(1), sotrovimab is authorized to treat mild-to-moderate COVID-19 illness in adults and pediatric patients (12 years of age and older weighing at least 40 kg) with positive results of direct SARS-CoV-2 viral testing, who are at high risk for progression to severe COVID-19, including hospitalization or death, as described in the Scope of Authorization (Section II) under this EUA, despite the fact that it does not meet certain requirements otherwise required by applicable federal law.

III. Conditions of Authorization

Pursuant to Section 564 of the Act, I am establishing the following conditions on this authorization:

GSK and Authorized Distributors¹¹

- A. GSK and authorized distributor(s) will ensure that the authorized labeling (i.e., Fact Sheets) will accompany the authorized sotrovimab as described in Section II of this Letter of Authorization.
- B. GSK and authorized distributor(s) will ensure that appropriate storage and cold chain is maintained until the product is delivered to healthcare facilities and/or healthcare providers.
- C. GSK and authorized distributor(s) will ensure that the terms of this EUA are made available to all relevant stakeholders (e.g., U.S. government agencies, state and local government authorities, authorized distributors, healthcare facilities, healthcare providers) involved in distributing or receiving authorized sotrovimab. GSK will provide to all relevant stakeholders a copy of this letter of authorization and communicate any subsequent amendments that might be made to this letter of authorization and its authorized accompanying materials (i.e., Fact Sheets).
- D. GSK may request changes to this authorization, including to the authorized Fact Sheets for sotrovimab. Any request for changes to this EUA must be submitted to the Office of

¹¹ “Authorized Distributor(s)” are identified by GSK as an entity or entities allowed to distribute authorized sotrovimab.

Infectious Diseases/Office of New Drugs/Center for Drug Evaluation and Research. Such changes require appropriate authorization prior to implementation.¹²

- E. GSK may develop and disseminate instructional and educational materials (e.g., materials providing information on product administration and/or patient monitoring) that are consistent with the authorized emergency use of sotrovimab as described in this letter of authorization and authorized labeling, without FDA’s review and concurrence, when necessary to meet public health needs. Any instructional and educational materials that are inconsistent with the authorized labeling for sotrovimab are prohibited. If the Agency notifies GSK that any instructional and educational materials are inconsistent with the authorized labeling, GSK must cease distribution of such instructional and educational materials in accordance with the Agency’s notification. Furthermore, as part of its notification, the Agency may also require GSK to issue corrective communication(s).
- F. GSK will report to FDA all serious adverse events and medication errors potentially related to sotrovimab use that are reported to GSK using either of the following options.

Option 1: Submit reports through the Safety Reporting Portal (SRP) as described on the [FDA SRP](#) web page.

Option 2: Submit reports directly through the Electronic Submissions Gateway (ESG) as described on the [FAERS electronic submissions](#) web page.

Submitted reports under both options should state: “Sotrovimab use for COVID-19 under Emergency Use Authorization (EUA).” For reports submitted under Option 1, include this language at the beginning of the question “Describe Event” for further analysis. For reports submitted under Option 2, include this language at the beginning of the “Case Narrative” field.

- G. All manufacturing, packaging, and testing sites for both drug substance and drug product will comply with current good manufacturing practice requirements of the FD&C Act section 501(a)(2)(B).
- H. GSK will submit information to the Agency within three working days of receipt of any information concerning significant quality problems with distributed drug product of sotrovimab that includes the following:

¹² The following types of revisions may be authorized without reissuing this letter: (1) changes to the authorized labeling; (2) non-substantive editorial corrections to this letter; (3) new types of authorized labeling, including new fact sheets; (4) new carton/container labels; (5) expiration dating extensions; (6) changes to manufacturing processes, including tests or other authorized components of manufacturing; (7) new conditions of authorization to require data collection or study; (8) new strengths of the authorized product, new product sources (e.g., of active pharmaceutical ingredient) or of product components. For changes to the authorization, including the authorized labeling, of the type listed in (3), (6), (7), or (8), review and concurrence is required from the Counter-Terrorism and Emergency Coordination Staff/Office of the Center Director/CDER and the Office of Counterterrorism and Emerging Threats/Office of the Chief Scientist.

- Information concerning any incident that causes the drug product or its labeling to be mistaken for, or applied to, another article; or
- Information concerning any microbiological contamination, or any significant chemical, physical, or other change or deterioration in the distributed drug product, or any failure of one or more distributed batches of the product to meet the established specifications.

If a significant quality problem affects unreleased product and may also impact product(s) previously released and distributed, then information must be submitted for all potentially impacted lots.

GSK will include in its notification to the Agency whether the batch, or batches, in question will be recalled. If FDA requests that these, or any other batches, at any time, be recalled, GSK must recall them.

If not included in its initial notification, GSK must submit information confirming that GSK has identified the root cause of the significant quality problems, taken corrective action, and provide a justification confirming that the corrective action is appropriate and effective. GSK must submit this information as soon as possible but no later than 45 calendar days from the initial notification.

- I. GSK will manufacture sotrovimab to meet all quality standards and per the manufacturing process and control strategy as detailed in GSK's EUA request. GSK will not implement any changes to the description of the product, manufacturing process, facilities and equipment, and elements of the associated control strategy that assure process performance and quality of the authorized product, without notification to and concurrence by the Agency as described under condition D.
- J. GSK will list sotrovimab with a unique NDC under the marketing category of Emergency Use Authorization. Further, the listing will include each establishment where manufacturing is performed for the drug and the type of operation performed at such establishment.
- K. Through a process of inventory control, GSK and authorized distributor(s) will maintain records regarding distribution of the authorized sotrovimab (i.e., lot numbers, quantity, receiving site, receipt date).
- L. GSK and authorized distributor(s) will make available to FDA upon request any records maintained in connection with this EUA.
- M. GSK will establish a process for monitoring genomic database(s) for the emergence of global viral variants of SARS-CoV-2. A summary of GSK's process should be submitted to the Agency as soon as practicable, but no later than 30 calendar days of the issuance of this letter, and within 30 calendar days of any material changes to such process. GSK will provide reports to the Agency on a monthly basis summarizing any findings as a result of its monitoring activities and, as needed, any follow-up assessments planned or conducted.

- N. FDA may require GSK to assess the activity of the authorized sotrovimab against any global SARS-CoV-2 variant(s) of interest (e.g., variants that are prevalent or becoming prevalent that harbor substitutions in the target protein or in protein(s) that interact with the target protein). GSK will perform the required assessment in a manner and timeframe agreed upon by GSK and the Agency. GSK will submit to FDA a preliminary summary report immediately upon completion of its assessment followed by a detailed study report within 30 calendar days of study completion. GSK will submit any relevant proposal(s) to revise the authorized labeling based on the results of its assessment, as may be necessary or appropriate based on the foregoing assessment.
- O. GSK shall provide samples as requested of the authorized sotrovimab to the U.S. Department of Health and Human Services (HHS) for evaluation of activity against emerging global viral variants of SARS-CoV-2, including specific amino acid substitution(s) of interest (e.g., variants that are highly prevalent or that harbor substitutions in the target protein) within 5 business days of any request made by HHS. Analyses performed with the supplied quantity of authorized sotrovimab may include, but are not limited to, cell culture potency assays, protein binding assays, cell culture variant assays (pseudotyped virus-like particles and/or authentic virus), and *in vivo* efficacy assays.
- P. GSK will submit to FDA all sequencing data assessing sotrovimab, including sequencing of any participant samples from the full analysis population from COMET-ICE that have not yet been completed no later than September 30, 2021. GSK will provide the Agency with a frequency table reporting all substitutions detected for all participants at all available timepoints at a frequency >1%.
- Q. GSK will submit to FDA all SARS-CoV-2 viral shedding and viral load data, including quantitation of viral shedding and viral load for any participant samples from the full analysis population from COMET-ICE that have not yet been completed, no later than June 30, 2021.

Healthcare Facilities to Whom the Authorized Sotrovimab Is Distributed and Healthcare Providers Administering the Authorized Sotrovimab

- R. Healthcare facilities and healthcare providers will ensure that they are aware of the letter of authorization, and the terms herein, and that the authorized Fact Sheets are made available to healthcare providers and to patients and caregivers, respectively, through appropriate means, prior to administration of sotrovimab.
- S. Healthcare facilities and healthcare providers receiving sotrovimab will track all serious adverse events and medication errors that are considered to be potentially related to sotrovimab use and must report these to FDA in accordance with the Fact Sheet for Healthcare Providers. Complete and submit a MedWatch form (www.fda.gov/medwatch/report.htm), or Complete and submit FDA Form 3500 (health professional) by fax (1-800-FDA-0178) (these forms can be found via link above). Call [1-800-FDA-1088](tel:1-800-FDA-1088) for questions. Submitted reports should state, “Sotrovimab use for COVID-

19 under Emergency Use Authorization” at the beginning of the question “Describe Event” for further analysis.

- T. Healthcare facilities and healthcare providers will ensure that appropriate storage and cold chain is maintained until the product is administered consistent with the terms of this letter.
- U. Through a process of inventory control, healthcare facilities will maintain records regarding the dispensed authorized sotrovimab (i.e., lot numbers, quantity, receiving site, receipt date), product storage, and maintain patient information (e.g., patient name, age, disease manifestation, number of doses administered per patient, other drugs administered).
- V. Healthcare facilities will ensure that any records associated with this EUA are maintained until notified by GSK and/or FDA. Such records will be made available to GSK, HHS, and FDA for inspection upon request.
- W. Healthcare facilities and healthcare providers will report therapeutics information and utilization data as directed by the U.S. Department of Health and Human Services.

Conditions Related to Printed Matter, Advertising and Promotion

- X. All descriptive printed matter, advertising, and promotional materials relating to the use of the sotrovimab under this authorization shall be consistent with the authorized labeling, as well as the terms set forth in this EUA, and meet the requirements set forth in section 502(a) and (n) of the Act and FDA implementing regulations. In addition, such materials shall:
 - Be tailored to the intended audience.
 - Not take the form of reminder advertisements, as that term is described in 21 CFR 202.1(e)(2)(i), 21 CFR 200.200 and 21 CFR 201.100(f).
 - Present risk information concurrently in the audio and visual parts of the presentation for advertisements disseminated through media such as radio, television, or telephone communications.
 - Be accompanied by the authorized labeling.
 - Be submitted to FDA accompanied by Form FDA-2253 at the time of initial dissemination or first use.

If the Agency notifies GSK that any descriptive printed matter, advertising or promotional materials do not meet the terms set forth in conditions X-Z of this EUA, GSK must cease distribution of such descriptive printed matter, advertising, or promotional materials in accordance with the Agency’s notification. Furthermore, as part of its notification, the Agency may also require GSK to issue corrective communication(s).

- Y. No descriptive printed matter, advertising, or promotional materials relating to the use of sotrovimab under this authorization may represent or suggest that sotrovimab is safe or effective when used for the treatment of mild-to-moderate COVID-19 in adults and pediatric patients (12 years of age and older weighing at least 40 kg) with positive results of

direct SARS-CoV-2 viral testing, and who are at high risk for progression to severe COVID-19, including hospitalization or death.

Z. All descriptive printed matter, advertising, and promotional material, relating to the use of the sotrovimab clearly and conspicuously shall state that:

- Sotrovimab has not been approved, but has been authorized for emergency use by FDA under an EUA, to treat mild-to-moderate COVID-19 in adults and pediatric patients (12 years of age and older weighing at least 40 kg) with positive results of direct SARS-CoV-2 viral testing, and who are at high risk for progression to severe COVID-19, including hospitalization or death; and
- The emergency use of sotrovimab is only authorized for the duration of the declaration that circumstances exist justifying the authorization of the emergency use of drugs and biological products during the COVID-19 pandemic under Section 564(b)(1) of the Act, 21 U.S.C. § 360bbb-3(b)(1), unless the declaration is terminated or authorization revoked sooner.

IV. Duration of Authorization

This EUA will be effective until the declaration that circumstances exist justifying the authorization of the emergency use of drugs and biological products during the COVID-19 pandemic is terminated under Section 564(b)(2) of the Act or the EUA is revoked under Section 564(g) of the Act.

Sincerely,

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Jacqueline A. O'Shaughnessy, Ph.D.
Acting Chief Scientist
Food and Drug Administration