

## **lumacaftor/ivacaftor (Orkambi™)**

**Policy # 00456**

Original Effective Date: 08/19/2015

Current Effective Date: 12/09/2024

*Applies to all products administered or underwritten by Blue Cross and Blue Shield of Louisiana and its subsidiary, HMO Louisiana, Inc. (collectively referred to as the “Company”), unless otherwise provided in the applicable contract. Medical technology is constantly evolving, and we reserve the right to review and update Medical Policy periodically.*

### **When Services May Be Eligible for Coverage**

*Coverage for eligible medical treatments or procedures, drugs, devices or biological products may be provided only if:*

- *Benefits are available in the member’s contract/certificate, and*
- *Medical necessity criteria and guidelines are met.*

Based on review of available data, the Company may consider lumacaftor/ivacaftor (Orkambi™)‡ for the treatment of cystic fibrosis to be **eligible for coverage.\*\***

#### Patient Selection Criteria

Coverage eligibility for lumacaftor/ivacaftor (Orkambi) will be considered when the following criteria are met:

- Patient has a documented diagnosis of cystic fibrosis; AND
- Patient is 1 years of age or older; AND
- Patient is homozygous for the Phe508del (F508del) mutation in the cystic fibrosis transmembrane conductance regulator (CFTR) as detected by a U.S. Food and Drug Administration (FDA) cleared test. Homozygous refers to the presence of the F508del mutation on both alleles of the CFTR gene.

### **When Services Are Considered Investigational**

*Coverage is not available for investigational medical treatments or procedures, drugs, devices or biological products.*

Based on review of available data, the Company considers the use of lumacaftor/ivacaftor (Orkambi) when patient selection criteria are not met to be **investigational.\***

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## **Background/Overview**

Cystic fibrosis is a serious genetic disorder affecting the lungs and other organs that ultimately leads to an early death. It is caused by mutations (defects) in a gene that encodes for a protein called CFTR (cystic fibrosis transmembrane conductance regulator) that regulates ion (such as chloride) and water transport in the body. The defect in chloride and water transport results in the formation of thick mucus that builds up in the lungs, digestive tract, and other parts of the body leading to severe respiratory and digestive problems, as well as other complications such as infections and diabetes.

Orkambi is a CFTR potentiator, indicated for the treatment of cystic fibrosis in patients aged 1 year and older who are homozygous for the F508del mutation in the CFTR gene. The F508del mutation is the most common mutation in the CFTR gene (present in about 86% of individuals with cystic fibrosis). Among those with the F508del mutation, it is estimated that approximately 46.5% have two copies (homozygous) while 39.9% have one copy (heterozygous). The efficacy and safety of Orkambi have not been established in patients with cystic fibrosis other than those homozygous for the F508del mutation. Orkambi is supplied as tablets containing 200 mg of lumacaftor and 125 mg of ivacaftor as well as 100 mg of lumacaftor and 125 mg of ivacaftor. Orkambi is also available in packets of granules containing 75 mg lumacaftor and 94 mg ivacaftor, 100 mg lumacaftor and 125 mg ivacaftor, and 150 mg lumacaftor and 188 mg ivacaftor. Dosing information is found in the package insert.

## **FDA or Other Governmental Regulatory Approval**

### **U.S. Food and Drug Administration (FDA)**

Orkambi is a CFTR potentiator, indicated for the treatment of cystic fibrosis in patients aged 1 year and older who are homozygous for the F508del mutation in the CFTR gene. The efficacy and safety of Orkambi have not been established in patients with cystic fibrosis other than those homozygous for the F508del mutation. The original indication was for patients 12 years of age and older, however in late 2016, the FDA approved Orkambi's use in those 6 years of age and older and in August 2018 the indication was expanded again to include patients 2 years of age and older. In 2022, the label was once again expanded to include patients 1 year of age and older.

## **Rationale/Source**

This medical policy was developed through consideration of peer-reviewed medical literature generally recognized by the relevant medical community, U.S. Food and Drug Administration approval status, nationally accepted standards of medical practice and accepted standards of medical practice in this community, technology evaluation centers, reference to federal regulations, other plan medical policies, and accredited national guidelines.



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The efficacy of Orkambi in patients at least 12 years of age with cystic fibrosis who were homozygous for the F508del mutation in the CFTR gene was evaluated in two randomized, double-blind, placebo controlled, 24 week clinical trials in 1,108 patients. Patients in both trials were randomized to receive either Orkambi 400/250 mg every 12 hours, lumacaftor 600 mg once daily, or placebo. The primary efficacy endpoint in both trials was the change in lung function as determined by absolute change from baseline in the percent of predicted forced expiratory volume in 1 second (ppFEV<sub>1</sub>) at week 24. The ppFEV<sub>1</sub> was calculated by averaging the mean absolute change at week 16 and the mean absolute change at week 24. In TRAFFIC, the mean absolute change from baseline in ppFEV<sub>1</sub> at 24 weeks in patients treated with Orkambi was 2.6% (p<0.001 vs. placebo). In TRANSPORT, the mean absolute change from baseline in ppFEV<sub>1</sub> at 24 weeks in patients treated with Orkambi was 3.0% (p<0.001 vs. placebo).

The efficacy of Orkambi in children ages 6 through 11 years is extrapolated from efficacy in patients ages 12 years and older homozygous for the F508del mutation in the CFTR gene with support from population kinetic analyses showing similar drug exposure levels in patients ages 12 years and older and in children ages 6 through 11 years. Additional safety data was also obtained via studies. The safety profile of Orkambi in children 6 through 11 years of age was similar to those children that were 12 years of age and older. Spirometry was assessed as a safety endpoint. The within-group LS mean absolute change in ppFEV<sub>1</sub> from week 24 at week 26 was -3.2 percentage points.

Approval of Orkambi in children as young as age 2 was based on a phase 3 open-label study in 60 patients that showed that treatment with the drug for 24 weeks was generally safe and well tolerated, with a safety profile similar to that in patients aged 6 years and older.

Approval of Orkambi in children as young as age 1 was based on a phase 3 open-label study in 46 patients that showed that treatment with the drug for 24 weeks was generally safe and well tolerated, with a safety profile similar to that in patients aged 2 years and older.

## **References**

1. Orkambi. [package insert]. Vertex Pharmaceuticals. Boston, Massachusetts. Updated September 2022.
2. Orkambi prior authorization document. Express Scripts. Updated July 2015.



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## **Policy History**

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08/06/2015 Medical Policy Committee review  
08/19/2015 Medical Policy Implementation Committee approval. New policy.  
09/08/2016 Medical Policy Committee review  
09/21/2016 Medical Policy Implementation Committee approval. New policy.  
11/03/2016 Medical Policy Committee review  
11/16/2016 Medical Policy Implementation Committee approval. Changed age from 12 years to 6 years based on the updated FDA approved indication  
11/02/2017 Medical Policy Committee review  
11/15/2017 Medical Policy Implementation Committee approval. No change to coverage.  
11/08/2018 Medical Policy Committee review  
11/21/2018 Medical Policy Implementation Committee approval. Changed minimum age from 6 years to 2 years based on the updated FDA approved indication.  
11/07/2019 Medical Policy Committee review  
11/13/2019 Medical Policy Implementation Committee approval. No change to coverage.  
11/05/2020 Medical Policy Committee review  
11/11/2020 Medical Policy Implementation Committee approval. No change to coverage.  
11/04/2021 Medical Policy Committee review  
11/10/2021 Medical Policy Implementation Committee approval. No change to coverage.  
11/03/2022 Medical Policy Committee review  
11/09/2022 Medical Policy Implementation Committee approval. Updated the age criteria from 2 years of age and older to 1 year of age and older based on the FDA package insert update.  
11/02/2023 Medical Policy Committee review  
11/08/2023 Medical Policy Implementation Committee approval. Coverage eligibility unchanged.  
11/07/2024 Medical Policy Committee review  
11/13/2024 Medical Policy Implementation Committee approval. Coverage eligibility unchanged.

Next Scheduled Review Date: 11/2025



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\*Investigational – A medical treatment, procedure, drug, device, or biological product is Investigational if the effectiveness has not been clearly tested and it has not been incorporated into standard medical practice. Any determination we make that a medical treatment, procedure, drug, device, or biological product is Investigational will be based on a consideration of the following:

- A. Whether the medical treatment, procedure, drug, device, or biological product can be lawfully marketed without approval of the U.S. Food and Drug Administration (FDA) and whether such approval has been granted at the time the medical treatment, procedure, drug, device, or biological product is sought to be furnished; or
- B. Whether the medical treatment, procedure, drug, device, or biological product requires further studies or clinical trials to determine its maximum tolerated dose, toxicity, safety, effectiveness, or effectiveness as compared with the standard means of treatment or diagnosis, must improve health outcomes, according to the consensus of opinion among experts as shown by reliable evidence, including:
  - 1. Consultation with technology evaluation center(s);
  - 2. Credible scientific evidence published in peer-reviewed medical literature generally recognized by the relevant medical community; or
  - 3. Reference to federal regulations.

\*\*Medically Necessary (or “Medical Necessity”) - Health care services, treatment, procedures, equipment, drugs, devices, items or supplies that a Provider, exercising prudent clinical judgment, would provide to a patient for the purpose of preventing, evaluating, diagnosing or treating an illness, injury, disease or its symptoms, and that are:

- A. In accordance with nationally accepted standards of medical practice;
- B. Clinically appropriate, in terms of type, frequency, extent, level of care, site and duration, and considered effective for the patient's illness, injury or disease; and
- C. Not primarily for the personal comfort or convenience of the patient, physician or other health care provider, and not more costly than an alternative service or sequence of services at least as likely to produce equivalent therapeutic or diagnostic results as to the diagnosis or treatment of that patient's illness, injury or disease.

For these purposes, “nationally accepted standards of medical practice” means standards that are based on credible scientific evidence published in peer-reviewed medical literature generally recognized by the relevant medical community, Physician Specialty Society recommendations and the views of Physicians practicing in relevant clinical areas and any other relevant factors.

‡ Indicated trademarks are the registered trademarks of their respective owners.



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**NOTICE:** If the Patient's health insurance contract contains language that differs from the BCBSLA Medical Policy definition noted above, the definition in the health insurance contract will be relied upon for specific coverage determinations.

**NOTICE:** Medical Policies are scientific based opinions, provided solely for coverage and informational purposes. Medical Policies should not be construed to suggest that the Company recommends, advocates, requires, encourages, or discourages any particular treatment, procedure, or service, or any particular course of treatment, procedure, or service.

**NOTICE:** Federal and State law, as well as contract language, including definitions and specific contract provisions/exclusions, take precedence over Medical Policy and must be considered first in determining eligibility for coverage.

