

5.45.014

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<b>Section:</b>	Prescription Drugs	<b>Effective Date:</b>	January 1, 2024
<b>Subsection:</b>	Respiratory Agents	<b>Original Policy Date:</b>	February 26, 2021
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**Last Review Date:** December 8, 2023

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## Bronchitol

### Description

Bronchitol (mannitol) for oral inhalation

### Background

Bronchitol (mannitol) is a sugar alcohol. Its mechanism of action in improving pulmonary function in cystic fibrosis patients is unknown (1).

### Regulatory Status

FDA-approved indication: Bronchitol is a sugar alcohol indicated as add-on maintenance therapy to improve pulmonary function in adult patients 18 years of age and older with cystic fibrosis. Use Bronchitol only in adults who have passed the Bronchitol Tolerance Test (1).

Prior to prescribing Bronchitol for the treatment of cystic fibrosis, the Bronchitol Tolerance Test (BTT) must be administered and performed under the supervision of a healthcare practitioner who is able to manage acute bronchospasm, to identify patients who are suitable candidates for Bronchitol maintenance therapy (1).

A short-acting bronchodilator should be administered by oral inhalation, 5-15 minutes before every dose of Bronchitol (1).

Clinical trials of Bronchitol did not include patients with hepatic or renal impairment. No specific dose recommendations for these patient populations are available. However, an increase in systemic exposure to mannitol can be expected in patients with renal impairment based on kidney being the primary route of elimination (1).

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Hemoptysis may occur with Bronchitol use. Bronchitol has not been studied in patients with a history of episodes of significant hemoptysis (volume greater than 60 mL) in the previous 3 months. Bronchitol should be discontinued in the event of hemoptysis (1).

Safety and effectiveness of Bronchitol in pediatric patients less than 18 years of age have not been established (1).

### Related policies

#### Policy

*This policy statement applies to clinical review performed for pre-service (Prior Approval, Precertification, Advanced Benefit Determination, etc.) and/or post-service claims.*

Bronchitol may be considered **medically necessary** if the conditions indicated below are met.

Bronchitol may be considered **investigational** for all other indications.

## Prior-Approval Requirements

**Age** 18 years of age or older

### Diagnosis

Patient must have the following:

Cystic fibrosis (CF)

**AND ALL** of the following:

1. Used as add-on maintenance therapy to improve pulmonary function (standard CF therapies include: bronchodilators, inhaled antibiotics, dornase alfa)
2. Patient has passed the Bronchitol Tolerance Test (BTT)
3. A short-acting bronchodilator (albuterol or equivalent) will be administered 5-15 minutes before every dose of Bronchitol
4. No episode of hemoptysis (volume >60 mL) in the previous 3 months
5. Prescriber agrees to monitor for increased systemic exposure of Bronchitol in patients with renal impairment

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## Prior – Approval *Renewal* Requirements

**Age** 18 years of age or older

### Diagnosis

Patient must have the following:

Cystic fibrosis (CF)

**AND ALL** of the following:

1. Patient has had an improvement in lung function (e.g. improvement in FEV<sub>1</sub>)
2. Used as add-on maintenance therapy to improve pulmonary function (standard CF therapies include: bronchodilators, inhaled antibiotics, dornase alfa)
3. A short-acting bronchodilator (albuterol or equivalent) will be administered 5-15 minutes before every dose of Bronchitol
4. No episode of hemoptysis (volume >60 mL)
5. Prescriber agrees to monitor for increased systemic exposure of Bronchitol in patients with renal impairment

## Policy Guidelines

### Pre - PA Allowance

None

### Prior - Approval Limits

**Quantity** 1680 capsules per 84 days

**Duration** 12 months

### Prior – Approval *Renewal* Limits

Same as above

## Rationale

### Summary

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Bronchitol (mannitol) is a sugar alcohol. Its mechanism of action in improving pulmonary function in cystic fibrosis patients is unknown. Safety and effectiveness of Bronchitol in pediatric patients less than 18 years of age have not been established (1).

Prior approval is required to ensure the safe, clinically appropriate, and cost-effective use of Bronchitol while maintaining optimal therapeutic outcomes.

#### References

1. Bronchitol [package Insert]. Cary, NC: Chiesi USA, Inc.; October 2020.

#### Policy History

Date	Action
March 2021	Addition to PA
April 2021	Addition of "Prescriber agrees to monitor for increased systemic exposure of Bronchitol in patients with renal impairment" per SME
June 2021	Annual review
March 2022	Annual review
March 2023	Annual review. Changed policy number to 5.45.014
December 2023	Annual review

#### Keywords

**This policy was approved by the FEP® Pharmacy and Medical Policy Committee on December 8, 2023 and is effective on January 1, 2024.**