

## Harvard Pilgrim Health Care – Pharmacy Prior Authorization Guideline

<b>Guideline Name</b>	<b>Pulmonary Arterial Hypertension:</b> Revatio (tablets, oral suspension), generic sildenafil (generic equivalent of Revatio tablets, oral suspension), Adcirca, generic tadalafil (generic equivalent of Adcirca), Alyq, Letairis, generic ambrisentan, Tracleer, generic bosentan, Opsumit, Adempas Uptravi, Orenitram, Tyvaso, Ventavis
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### 1 . Criteria

Product Name: Revatio (tablets, oral suspension), generic sildenafil (generic equivalent of Revatio tablets, oral suspension), Adcirca, generic tadalafil (generic equivalent of Adcirca), Alyq	
Approval Length	Approve indefinitely (12/31/2039)*
Guideline Type	Prior Authorization, Non-Formulary
<p><b>Approval Criteria</b></p> <p>1 - Diagnosis of Raynaud's Syndrome or scleroderma</p> <p style="text-align: center;"><b>OR</b></p> <p>2 - ALL of the following:</p> <p style="padding-left: 20px;">2.1 Diagnosis of Pulmonary Arterial Hypertension (PAH) - World Health Organization (WHO) Group 1</p> <p style="text-align: center;"><b>AND</b></p> <p style="padding-left: 20px;">2.2 Prescribed by, or in consultation with, a cardiologist or pulmonologist</p> <p style="text-align: center;"><b>AND</b></p> <p style="padding-left: 20px;">2.3 Diagnosis confirmed by right heart catheterization with ONE of the following parameters:</p> <ul style="list-style-type: none"> <li>• Mean pulmonary artery pressure (PAP) of greater than or equal to 25 mmHg at rest or greater than 30 mmHg with exertion</li> <li>• Pulmonary capillary wedge pressure (PCWP) less than or equal to 15 mmHg</li> <li>• Pulmonary vascular resistance (PVR) greater than 3 wood units</li> </ul> <p style="text-align: center;"><b>AND</b></p> <p>3 - For brand name requests only, trial and failure with OR clinical rationale to avoid use with the therapeutically equivalent generic (if available)</p>	
Notes	*Generic approvals should be entered for "MSC=Y" only.

Product Name: Letairis, generic ambrisentan, Tracleer, generic bosentan, Opsumit, Adempas	
Diagnosis	Pulmonary Arterial Hypertension
Approval Length	12 Month(s)*
Therapy Stage	Initial Authorization
Guideline Type	Prior Authorization, Non-Formulary
<p><b>Approval Criteria</b></p> <p>1 - Diagnosis of Pulmonary Arterial Hypertension (PAH) - World Health Organization (WHO) Group 1</p> <p style="text-align: center;"><b>AND</b></p> <p>2 - Prescribed by, or in consultation with, a cardiologist or pulmonologist</p> <p style="text-align: center;"><b>AND</b></p> <p>3 - Diagnosis confirmed by right heart catheterization with ONE of the following parameters:</p> <ul style="list-style-type: none"> <li>• Mean pulmonary artery pressure (PAP) of greater than or equal to 25 mmHg at rest or greater than 30 mmHg with exertion</li> <li>• Pulmonary capillary wedge pressure (PCWP) less than or equal to 15 mmHg</li> <li>• Pulmonary vascular resistance (PVR) greater than 3 Wood units</li> </ul> <p style="text-align: center;"><b>AND</b></p> <p>4 - For brand name requests only, trial and failure with OR clinical rationale to avoid use with the therapeutically equivalent generic (if available)</p>	
Notes	*Generic approvals should be entered for "MSC=Y" only.

Product Name: Adempas	
Diagnosis	Chronic Thromboembolic Pulmonary Hypertension (CTEPH)
Approval Length	12 Month(s)
Therapy Stage	Initial Authorization
Guideline Type	Prior Authorization
<p><b>Approval Criteria</b></p> <p>1 - Diagnosis of Chronic Thromboembolic Pulmonary Hypertension (CTEPH) - World Health Organization (WHO) Group 4</p> <p style="text-align: center;"><b>AND</b></p>	

2 - Prescribed by, or in consultation with, a cardiologist or pulmonologist

**AND**

3 - Persistent or recurrent condition following surgery or an inoperable condition

**AND**

4 - Diagnosis is confirmed by right heart catheterization or pulmonary angiography

Product Name: Uptravi*, Orenitram*, Tyvaso^, Ventavis	
Diagnosis	Pulmonary Arterial Hypertension
Approval Length	6 Month(s)
Therapy Stage	Initial Authorization
Guideline Type	Prior Authorization, Non-Formulary
<p><b>Approval Criteria</b></p> <p>1 - Diagnosis of Pulmonary Arterial Hypertension (PAH) - World Health Organization (WHO) Group 1</p> <p style="text-align: center;"><b>AND</b></p> <p>2 - Prescribed by, or in consultation with, a cardiologist or pulmonologist</p> <p style="text-align: center;"><b>AND</b></p> <p>3 - Diagnosis confirmed by right heart catheterization with ONE of the following parameters:</p> <ul style="list-style-type: none"> <li>• Mean pulmonary artery pressure (PAP) of greater than or equal to 25 mmHg at rest or greater than 30 mmHg with exertion</li> <li>• Pulmonary capillary wedge pressure (PCWP) less than or equal to 15 mmHg</li> <li>• Pulmonary vascular resistance (PVR) greater than 3 Wood units</li> </ul> <p style="text-align: center;"><b>AND</b></p> <p>4 - Patient is currently taking, tried and failed therapy with, or has a contraindication to a phosphodiesterase-5 inhibitor (PDE5I) [i.e., sildenafil (Revatio) or tadalafil (Adcirca)] or an endothelin receptor antagonist (ERA) [i.e., bosentan (Tracleer), ambrisentan (Letairis), or macitentan (Opsumit)]</p>	
Notes	*For Uptravi and Orenitram ONLY: All strengths are hard-coded with a MDD of 2/day. If the patient is new to therapy, the request is for the lowest dose, or the request notes a titrating dosage regimen, please enter one additional prior authorization at GPI-14 for the requested medication with the QL as follows:

	<ul style="list-style-type: none"> <li>• Orenitram: 0.125 mg ER tablets with an MDD of 3 tablets/day</li> <li>• Upravi: 200 mcg tablets with an MDD of 8 tablets/day</li> </ul> <p>^Please approve Tyvaso at GPI-14.</p>
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Product Name: Letairis, generic ambrisentan, Tracleer, generic bosentan, Opsumit, Adempas, Upravi*, Orenitram*, Tyvaso^, Ventavis	
Diagnosis	Pulmonary Arterial Hypertension
Approval Length	12 Month(s)+
Therapy Stage	Reauthorization
Guideline Type	Prior Authorization, Non-Formulary
<p><b>Approval Criteria</b></p> <p>1 - Prescribed by, or in consultation with, a cardiologist or pulmonologist</p> <p style="text-align: center;"><b>AND</b></p> <p>2 - Patient has experienced an improvement while on therapy, i.e., stabilization or improvement in functional class symptoms or stabilization or improvement in 6MWD (6-minute walk distance)</p>	
Notes	<p>*For Upravi and Orenitram ONLY: All strengths are hard-coded with a MDD of 2/day. If the patient is new to therapy, the request is for the lowest dose, or the request notes a titrating dosage regimen, please enter one additional prior authorization at GPI-14 for the requested medication with the QL as follows:</p> <ul style="list-style-type: none"> <li>• Orenitram: 0.125 mg ER tablets with an MDD of 3 tablets/day</li> <li>• Upravi: 200 mcg tablets with an MDD of 8 tablets/day</li> </ul> <p>^Please approve Tyvaso at GPI-14. *Generic approvals should be entered for “MSC=Y” only.</p>

## 2 . Background

<b>Benefit/Coverage/Program Information</b>
<p><b>RATIONALE</b></p> <p>Ensure appropriate utilization of medications indicated for pulmonary arterial hypertension (PAH) based on FDA approved indications and appropriate clinical criteria.</p> <p><b>FDA APPROVED INDICATIONS</b></p>

**ADEMPAS** is indicated for the treatment of adults with:

- Persistent/recurrent Chronic Thromboembolic Pulmonary Hypertension (CTEPH) (WHO Group 4) after surgical treatment or inoperable CTEPH to improve exercise capacity and WHO functional class.
- PAH (WHO Group 1) to improve exercise capacity, improve WHO functional class and to delay clinical worsening.

**Ambrisentan (LETAIRIS)** is indicated for the treatment of PAH (WHO Group 1):

- To improve exercise ability and delay clinical worsening.
- In combination with tadalafil to reduce the risks of disease progression and hospitalization for worsening PAH, and to improve exercise ability.
- Studies establishing effectiveness included trials predominantly in patients with WHO Functional Class II–III symptoms and etiologies of idiopathic or heritable PAH (60%) or PAH associated with connective tissue diseases (34%).

**OPSUMIT** is indicated for the treatment of PAH (WHO Group I) to reduce the risks of disease progression and hospitalization for PAH.

**ORENITRAM** is indicated for the treatment of PAH (WHO Group 1): to delay disease progression and to improve exercise capacity. The studies that established effectiveness included predominately patients with WHO functional class II-III symptoms and etiologies of idiopathic or heritable PAH (66%) or PAH associated with connective tissue disease (26%).

**Sildenafil (REVATIO)** is indicated for the treatment of pulmonary arterial hypertension (PAH) (WHO Group I) in adults to improve exercise ability and delay clinical worsening. Studies establishing effectiveness were short-term (12 to 16 weeks), and included predominately patients with NYHA Functional Class II–III symptoms. Etiologies were idiopathic (71%) or associated with connective tissue disease (25%).

- Limitation of Use: Adding sildenafil to bosentan therapy does not result in any beneficial effect on exercise capacity.

**Tadalafil (ADCIRCA)** is indicated for the treatment of pulmonary arterial hypertension (PAH) (WHO Group 1) to improve exercise ability. Studies establishing effectiveness included predominately patients with NYHA Functional Class II – III symptoms and etiologies of idiopathic or heritable PAH (61%) or PAH associated with connective tissue diseases (23%).

**Bosentan (TRACLEER)** is indicated for the treatment of PAH (WHO Group 1):

- In adults to improve exercise ability and to decrease clinical worsening. Studies establishing effectiveness included predominantly patients with who functional class ii-iv symptoms and etiologies of idiopathic or heritable pah (60%), pah associated with connective tissue diseases (21%), and pah associated with congenital heart disease with left-to-right shunts (18%).
- In pediatric patients aged 3 years and older with idiopathic or congenital PAH to improve pulmonary vascular resistance (PVR), which is expected to result in an improvement in exercise ability.

**TYVASO** is indicated for the treatment of PAH (World Health Organization Group I) to improve exercise ability. Studies establishing effectiveness included predominately patients with NYHA Functional Class III symptoms and etiologies of idiopathic or heritable PAH (56%) or PAH associated with connective tissue diseases (33%).

**UPTRAVI** is indicated for the treatment of PAH (World Health Organization Group I) to delay disease progression and reduce the risk of hospitalization for PAH.

**VENTAVIS** is indicated for the treatment of PAH (World Health Organization Group I) to improve a composite endpoint consisting of exercise tolerance, symptoms (NYHA Class), and lack of deterioration. Studies establishing effectiveness included predominately patients with NYHA Functional Class III-IV symptoms and etiologies of idiopathic or heritable PAH (65%) or PAH associated with connective tissue diseases (23%).

## DOSING

**ADEMPAS:** Initiate treatment at 1 mg taken three times a day.

- For patients who may not tolerate the hypotensive effect of Adempas, consider a starting dose of 0.5 mg, three times a day.
- Increase dosage by 0.5 mg at intervals of no sooner than 2-weeks as tolerated to a maximum of 2.5 mg three times a day.

**Ambrisentan (LETAIRIS):** Initiate treatment at 5 mg once daily.

- At 4-week intervals, either the dose of Letairis or tadalafil can be increased, as needed and tolerated, to Letairis 10 mg or tadalafil 40 mg.

**OPSUMIT:** 10 mg once daily. Doses higher than 10 mg once daily have not been studied in patients with PAH and are not recommended.

**ORENITRAM:** Starting dose: 0.125 mg TID or 0.25 mg BID.

- Titrate by 0.125 mg TID or by 0.25 mg or 0.5 mg BID, not more than every 3 to 4 days as tolerated. Maximum dose is determined by tolerability.

**Sildenafil (REVATIO)** tablets and oral suspension: 5 mg or 20 mg three times a day, 4–6 hours apart.

**Tadalafil (ADCIRCA):** 40 mg once daily, with or without food.

**Bosentan (TRACLEER):** Patients older than 12 years of age: initiate at 62.5 mg orally twice daily; for patients weighing greater than 40 kg, increase to 125 mg orally twice daily after 4 weeks.

- Patients 12 years of age and younger: initial and maintenance dosing is weight-based:
  - ≥ 4-8 kg: 16 mg twice daily
  - > 8-16 kg: 32 mg twice daily
  - > 16-24 kg: 48 mg twice daily
  - > 24-40 kg: 64 mg twice daily

**TYVASO:** Dosed in 4 separate, equally spaced treatment sessions per day, during waking hours.

- Initial dosage: 3 breaths (18 mcg) per treatment session. If 3 breaths are not tolerated, reduce to 1 or 2 breaths.
- Dosage should be increased by an additional 3 breaths per session at approximately 1-2 week intervals, if tolerated.
- Titrate to target maintenance dosage of 9 breaths or 54 mcg per treatment session as

tolerated.

**UPTRAVI:** 200 mcg twice daily; Increase by 200 mcg twice daily usually at weekly intervals to the highest tolerated dose up to 1600 mcg twice daily. If a dose is not tolerated, reduce dose to previously tolerated dose.

**VENTAVIS:** Patients should receive 6 to 9 doses (inhalations) per day (minimum of 2 hours between doses during waking hours) as follows:

- Starting dose: 2.5 mcg
- Uptitrate to 5 mcg if 2.5 mcg is well tolerated
- Maintenance dose: 5 mcg

	Delivered dose from ampule of:	
Nebulizer	10 mcg/mL	20 mcg/mL
I-neb <sup>®</sup> AAD <sup>®</sup>	2.5 or 5 mcg from one ampule	5 mcg from one ampule

- The 20 mcg/mL concentration is for patients who repeatedly experience extended treatment times.

## REFERENCES

- Adcirca (tadalafil) [prescribing information]. Indianapolis, IN: Eli Lilly and Company; December 2019.
- Adempas (riociguat) [prescribing information]. Whippany, NJ: Bayer HealthCare Pharmaceuticals Inc; January 2018.
- Letairis (ambrisentan) [prescribing information]. Foster City, CA: Gilead Sciences, Inc; August 2019.
- Opsumit (macitentan) [prescribing information]. South San Francisco, CA: Actelion Pharmaceuticals US, Inc; February 2020.
- Upravi (selexipag) [prescribing information]. South San Francisco, CA: Actelion Pharmaceuticals US, Inc.; September 2019.
- Orenitram (treprostinil extended-release tablets) [prescribing information]. Research Triangle Park, NC: United Therapeutics Corp; October 2019.
- Revatio (sildenafil) [prescribing information]. New York, NY: Pfizer Labs; February 2020.
- Tracleer (bosentan) [prescribing information]. South San Francisco, CA: Actelion Pharmaceuticals US, Inc; May 2019.
- Hopkins W, Rubin LJ. Treatment of pulmonary arterial hypertension (group 1) in adults: Pulmonary hypertension-specific therapy. In: Finlay G, ed. UpToDate [database online], 2020. www.uptodate.com. Accessed July 15, 2020.
- Galiè N et al. 2015 ESC/ERS Guidelines for the diagnosis and treatment of pulmonary hypertension: The Joint Task Force for the Diagnosis and Treatment of Pulmonary Hypertension of the European Society of Cardiology (ESC) and the European Respiratory Society (ERS) endorsed by: Association for European Pediatric and Congenital Cardiology (AEPC), International Society for Heart and Lung Transplantation (ISHLT). Eur Heart J 2015 Aug 29.
- Galiè N, Corris PA, Frost A, et al. Updated treatment algorithm of pulmonary arterial hypertension. J Am Coll Cardiol 2013; 62: D60.
- Fedullo PF. Clinical manifestations and diagnosis of chronic thromboembolic pulmonary hypertension. In: Finlay G, ed. UpToDate [database online], 2020. www.uptodate.com. Accessed July 15, 2020.
- Fedullo PF. Chronic thromboembolic pulmonary hypertension: Medical treatment. In: Finlay G, ed. UpToDate [database online], 2020. www.uptodate.com. Accessed July 15, 2020.

- Tyvaso (treprostinil) [prescribing information]. Research Triangle Park, NC: United Therapeutics Corp. October 2017.
- Ventavis (iloprost) [prescribing information]. South San Francisco, CA: Actelion Pharmaceuticals US, Inc. December 2019.

Created: 11/18

Revised:

- Annual review (effective: 1/1/20)
- Annual review: background changes; criteria update to require brand requests to step through generic; clarified Orenitram and Uptravi approval directives (some quantity limits hard-coded)

P&T Approval: 12/7/20

Effective: 9/1/20