TREPROSTINIL

Generic	Brand	HICL	GCN	Exception/Other
TREPROSTINIL SODIUM	REMODULIN	23650		
TREPROSTINIL	TYVASO	36537 36539 36541		
TREPROSTINIL	ORENITRAM	40827		

****Please use the criteria for the specific drug requested****

GUIDELINES FOR USE

INITIAL CRITERIA (NOTE: FOR RENEWAL CRITERIA SEE BELOW)

REMODULIN

1. Does the patient have a diagnosis of pulmonary arterial hypertension (PAH) (WHO Group 1) and meet **ALL** of the following criteria?
   - The patient has New York Heart Association-World Health Organization (NYHA-WHO) Functional Class III to IV symptoms
   - The requested medication is prescribed by or given in consultation with a cardiologist or pulmonologist
   - The patient had a previous trial of or contraindication to a phosphodiesterase-5 inhibitor (e.g., Adcirca or Revatio) **OR** an endothelin receptor antagonist (e.g., Tracleer, Letairis, Opsumit)
   - Documented confirmatory PAH diagnosis based on right heart catheterization with the following parameters:
     - Mean pulmonary artery pressure (PAP) of ≥ 25 mmHg
     - Pulmonary capillary wedge pressure (PCWP) ≤ 15 mmHg
     - Pulmonary vascular resistance (PVR) > 3 Wood units

   If yes, **approve for 12 months by HICL.**
   If no, do not approve.
   INITIAL DENIAL TEXT: The guideline named **TREPROSTINIL (Remodulin)** requires a diagnosis of pulmonary arterial hypertension. In addition, the following criteria must also be met:
   - The requested medication is prescribed by or given in consultation with a cardiologist or pulmonologist
   - Documented confirmatory PAH diagnosis based on right heart catheterization with the following parameters:
     - Mean pulmonary artery pressure (PAP) of ≥ 25 mmHg
     - Pulmonary capillary wedge pressure (PCWP) ≤ 15 mmHg
     - Pulmonary vascular resistance (PVR) > 3 Wood unit

   (Remodulin initial denial text continued on next page)

CONTINUED ON NEXT PAGE

INITIAL CRITERIA - REMODULIN (CONTINUED)

- The patient has NYHA-WHO Functional Class III to IV symptoms
- The patient had a previous trial of or contraindication to a phosphodiesterase-5 inhibitor (e.g., Adcirca or Revatio) or an endothelin receptor antagonist (e.g., Tracleer, Letairis, Opsumit)

TYVASO

1. Does the patient have a diagnosis of pulmonary arterial hypertension (PAH) (WHO Group 1) and meet **ALL** of the following criteria?
   - The requested medication is prescribed by or given in consultation with a cardiologist or pulmonologist
   - Documented confirmatory PAH diagnosis based on right heart catheterization with the following parameters:
     - Mean pulmonary artery pressure (PAP) of ≥ 25 mmHg
     - Pulmonary capillary wedge pressure (PCWP) ≤ 15 mmHg
     - Pulmonary vascular resistance (PVR) > 3 Wood units
   - The patient has New York Heart Association-World Health Organization (NYHA-WHO) Functional Class III to IV symptoms

   If yes, **approve for 12 months by HICL. (NOTE: Enter approval for all of the available HICLs)**
   If no, do not approve.
   INITIAL DENIAL TEXT: The guideline named **TREPROSTINIL (Tyvaso)** requires a diagnosis of pulmonary arterial hypertension. In addition, the following criteria must also be met:
   - The requested medication is prescribed by or given in consultation with a cardiologist or pulmonologist
   - Documented confirmatory PAH diagnosis based on right heart catheterization with the following parameters:
     - Mean pulmonary artery pressure (PAP) of ≥ 25 mmHg
     - Pulmonary capillary wedge pressure (PCWP) ≤ 15 mmHg
     - Pulmonary vascular resistance (PVR) > 3 Wood units
   - The patient has NYHA-WHO Functional Class III to IV symptoms

CONTINUED ON NEXT PAGE

TREPROSTINIL

INITIAL CRITERIA (CONTINUED)

ORENITRAM

1. Does the patient have a diagnosis of pulmonary arterial hypertension (PAH) (WHO Group 1) and meet **ALL** of the following criteria?
   - The requested medication is prescribed by or given in consultation with a cardiologist or pulmonologist
   - Documented confirmatory PAH diagnosis based on right heart catheterization with the following parameters:
     - Mean pulmonary artery pressure (PAP) of ≥ 25 mmHg
     - Pulmonary capillary wedge pressure (PCWP) ≤ 15 mmHg
     - Pulmonary vascular resistance (PVR) > 3 Wood units
   - The patient has New York Heart Association-World Health Organization (NYHA-WHO) Functional Class II to IV symptoms
   - The patient does not have severe hepatic impairment
   - The patient has tried a preferred formulary phosphodiesterase-5 inhibitor (e.g., sildenafil [generic for Revatio] or Adcirca [tadalafil]) **OR** an endothelin receptor antagonist (e.g., Tracleer [bosentan], Letairis [ambrisentan], or Opsumit [macitentan])

   If yes, **approve for 12 months by HICL.**
   If no, do not approve.
   INITIAL DENIAL TEXT: The guideline named **TREPROSTINIL (Orenitram**) requires a diagnosis of pulmonary arterial hypertension. In addition, the following criteria must also be met:
   - The requested medication is prescribed by or given in consultation with a cardiologist or pulmonologist
   - Documented confirmatory PAH diagnosis based on right heart catheterization with the following parameters:
     - Mean pulmonary artery pressure (PAP) of ≥ 25 mmHg
     - Pulmonary capillary wedge pressure (PCWP) ≤ 15 mmHg
     - Pulmonary vascular resistance (PVR) > 3 Wood units
   - The patient has NYHA-WHO Functional Class II to IV symptoms
   - The patient does not have severe hepatic impairment
   - The patient has tried a preferred formulary phosphodiesterase-5 inhibitor (e.g., sildenafil [generic for Revatio] or Adcirca [tadalafil]) **OR** an endothelin receptor antagonist (e.g., Tracleer [bosentan], Letairis [ambrisentan], or Opsumit [macitentan])

CONTINUED ON NEXT PAGE

TREPROSTINIL

GUIDELINES FOR USE (CONTINUED)

RENEWAL CRITERIA

1. Does the patient have a diagnosis of pulmonary arterial hypertension (PAH) (WHO Group 1) and meet **ALL** of the following criteria?
   - The patient has shown improvement or has remained stable from baseline in the 6-minute walk distance test
   - The patient's World Health Organization (WHO) functional class has improved or remained stable

   If yes, continue to #2.
   If no, do not approve.
   DENIAL TEXT: See the renewal denial text at the end of the guideline.

2. Is the request for Tyvaso or Orenitram?

   If yes, **approve for 12 months by HICL.**
   If no, continue to #3.

3. Is the request for Remodulin and the patient has New York Heart Association-World Health Organization (NYHA-WHO) Functional Class II-IV symptoms?

   If yes, **approve for 12 months by HICL.**
   If no, do not approve.
   RENEWAL DENIAL TEXT: The guideline named **TREPROSTINIL (Remodulin, Tyvaso, Orenitram)** requires for renewal a diagnosis of pulmonary arterial hypertension. In addition, the following criteria must also be met:
   - The patient has shown improvement or has remained stable from baseline in the 6-minute walk distance test
   - The patient's World Health Organization (WHO) functional class has improved or remained stable

   Requests for treprostinil (Remodulin) also require that the patient has New York Heart Association-World Health Organization (NYHA-WHO) Functional Class II-IV symptoms

---

RATIONALE

Ensure appropriate use of Remodulin, Tyvaso and Orenitram.

CONTINUED ON NEXT PAGE

TREPROSTINIL

FDA APPROVED INDICATION

Remodulin

Remodulin is indicated as a continuous subcutaneous infusion or intravenous infusion for the treatment of pulmonary arterial hypertension in patients with NYHA Class II-IV symptoms to diminish symptoms associated with exercise. Although injectable treprostinil is FDA-approved for use in functional class II patients, it would rarely be recommended for these patients due to its complex administration, cost, safety concerns and adverse effects. Thus, a trial of an oral Phosphodiesterase-5 inhibitor or an Endothelin receptor antagonist is required prior to approval for functional class II PAH.

Tyvaso

Tyvaso is indicated to increase walk distance in patients with WHO Group I pulmonary arterial hypertension and NYHA Class III symptoms.

Orenitram

Orenitram is indicated for the treatment of pulmonary arterial hypertension (PAH) (WHO Group 1) to improve exercise capacity. The study that established effectiveness included predominately patients with WHO functional class II-III symptoms and etiologies of idiopathic or heritable PAH (75%) or PAH associated with connective tissue disease (19%).

When used as the sole vasodilator, the effect of Orenitram on exercise is about 10% of the deficit, and the effect, if any, on a background of another vasodilator is probably less than this. Orenitram is probably most useful to replace subcutaneous, intravenous, or inhaled treprostinil, but this use has not been studied.

Diagnosis of PAH involves a logical sequence of steps utilizing different diagnostic tests to assist in confirmation of PAH (chest x-ray, echocardiogram, electrocardiogram, CT angiogram, pulmonary function tests, VQ scan); however, right heart catheterization (RHC) remains the gold standard and is an essential component in the definitive diagnosis, prognosis, and evaluation of PAH. RHC is critical in distinguishing PH due to other etiologies, for example PH due to left heart disease (e.g. diastolic dysfunction) or severe lung disease, which may appear similar to PAH on an echocardiogram. In addition, RHC can be used to monitor the therapeutic and adverse effects of medical interventions, to assess the severity of hemodynamic impairment, and to test the vasoreactivity of the pulmonary circulation.

CONTINUED ON NEXT PAGE

TREPROSTINIL

REFERENCES

- United Therapeutics. Remodulin package insert. Research Triangle Park, NC. January 2010.
- Badesch D, Abman S, Simonneau G, Rubin L, and McLaughlin V. American College of Chest Physicians Evidence Based Clinical Practice Guidelines: Medical Therapy for Pulmonary Arterial Hypertension. Chest 2007; 131: 1917-1928. Available at: http://chestjournal.chestpubs.org/content/131/6/1917.full.pdf+html [Accessed December 23, 2010].
- Barst R, Gibbs, S, Ghofrani H, Hoeper M, et al. Updated Evidence Based Treatment Algorithm in Pulmonary Arterial Hypertension. Journal of American College of Cardiology 2009; 54; S78-S84. Available at: http://content.onlinejacc.org/cgi/reprint/54/1_Suppl_S/S78.pdf [Accessed January 17, 2011].
- United Therapeutics. Tyvaso package insert. Research Triangle Park, NC. Available at: http://tyvaso.com/pdf/tyvasopi.pdf [Accessed December 2010].
- United Therapeutics. Orenitram Package Insert. Research Triangle Park, NC. December 2013.

Library	Commercial	NSA
Yes	Yes	No

Part D Effective: N/A
Commercial Effective: 01/01/18

Created: 09/05
Client Approval: 12/17

P&T Approval: 10/17