

Market Applicability													
Market	DC	FL & FHK	FL MMA	FL LTC	GA	KY	MD	NJ	NV	NY	TN	TX	WA
Applicable	X	X	NA	NA	X	X	X	X	X	X	NA	NA	NA

*FHK- Florida Healthy Kids

Tracleer (bosentan)

Override(s)	Approval Duration
Prior Authorization Quantity Limit	1 year

Medications	Quantity Limit
Tracleer (bosentan)	May be subject to quantity limit

APPROVAL CRITERIA

Requests for Tracleer (bosentan) may be approved if the following criteria are met:

- I. Individual has pulmonary arterial hypertension (PAH) [World Health Organization (WHO) Group 1]²; **AND**
- II. Individual has the diagnosis of PAH confirmed by a right-heart catheterization showing all of the following (Hoeper, 2013; Ivy, 2013; Abman, 2015):
 - A. Mean pulmonary artery pressure (mPAP) greater than or equal to 25 mm Hg at rest;
 - B. Pulmonary capillary wedge pressure (PCWP), mean pulmonary artery wedge pressure (PAWP), left atrial pressure, or left ventricular end-diastolic pressure (LVEDP) less than or equal to 15 mm Hg;
 - C. Pulmonary vascular resistance (PVR) greater than 3 Wood units; **AND**
- III. Individual has WHO functional class II-IV³ symptoms;

OR

- IV. Individual has a diagnosis of Eisenmenger's syndrome associated with PAH (WHO Group 1)² (DrugPoints B IIa); **AND**
- V. Individual has the diagnosis of PAH confirmed by a right-heart catheterization showing all of the following (Hoeper, 2013; Ivy, 2013; Abman, 2015):
 - A. Mean pulmonary artery pressure (mPAP) greater than or equal to 25 mm Hg at rest;
 - B. Pulmonary capillary wedge pressure (PCWP), mean pulmonary artery wedge pressure (PAWP), left atrial pressure, or left ventricular end-diastolic pressure (LVEDP) less than or equal to 15 mm Hg;
 - C. Pulmonary vascular resistance (PVR) greater than 3 Wood units; **AND**
- VI. Individual has WHO functional class II-IV³ symptoms.

Tracleer (bosentan) may **not** be approved for the following:

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Applicable	X	X	NA	NA	X	X	X	X	X	X	NA	NA	NA

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- I. Individual has a diagnosis of moderate (Child-Pugh Class B) or severe (Child-Pugh Class C) hepatic impairment; **OR**
- II. Individual is initiating therapy and has elevated [greater than 3 times the upper limit of normal (ULN)] baseline aminotransferase levels; **OR**
- III. In combination with other endothelin receptor antagonist (ERA) agents, such as but not limited to Letairis (ambrisentan) or Opsumit (macitentan); **OR**
- IV. In the treatment of congestive heart failure with left ventricular dysfunction; **OR**
- V. Individual is concomitantly taking cyclosporine A or glyburide.

Notes:

1. Tracleer (bosentan) has black box warnings for risks of hepatotoxicity and embryo-fetal toxicity. Tracleer is available only through a restricted program called the Tracleer REMS Program. The Tracleer REMS program is a component of the Tracleer Risk Evaluation and Mitigation Strategy (REMS). Under the Tracleer REMS, prescribers, individuals, and pharmacies must enroll in the program. Serum aminotransferase levels must be measured prior to initiation of treatment and then monthly. Tracleer should generally be avoided in individuals with elevated aminotransferases (> 3 x ULN) at baseline because monitoring for hepatotoxicity may be more difficult. If liver aminotransferase elevations are accompanied by clinical symptoms of hepatotoxicity (such as nausea, vomiting, fever, abdominal pain, jaundice, or unusual lethargy or fatigue) or increases in bilirubin $\geq 2 \times$ ULN, treatment should be stopped. Tracleer is likely to cause major birth defects based on animal data. Pregnancy must be excluded before the start of treatment with Tracleer. Throughout treatment and for one month after stopping Tracleer, females of reproductive potential must use two reliable methods of contraception unless the individual has a tubal sterilization or intrauterine device (IUD), in which case no other contraception is needed. Hormonal contraceptives, including oral, injectable, transdermal, and implantable forms should not be used as the sole means of contraception because these may not be effective. Monthly pregnancy tests should be obtained.
2. WHO Pulmonary Hypertension (PH) Group Classification (ACCF/AHA 2009):
 - A. Group 1: Pulmonary arterial hypertension (PAH)
 - B. Group 2: PH due to left heart disease
 - C. Group 3: PH due to lung diseases and/or hypoxia
 - D. Group 4: Chronic thromboembolic PH (CTEPH)
 - E. Group 5: Miscellaneous/PH with unclear multifactorial mechanisms
3. WHO functional classification of PH (CHEST 2014):

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- A. Class I: No limitation of physical activity. Ordinary physical activity does not cause undue dyspnea or fatigue, chest pain, or near syncope.
- B. Class II: Slight limitation of physical activity. Comfortable at rest but ordinary physical activity causes undue dyspnea or fatigue, chest pain, or near syncope.
- C. Class III: Marked limitation of physical activity. Comfortable at rest but less than ordinary activity causes undue dyspnea or fatigue, chest pain, or near syncope.
- D. Class IV: Inability to carry out any physical activity without symptoms. Dyspnea and/or fatigue may be present at rest and discomfort is increased by any physical activity.

State Specific Mandates		
State name	Date effective	Mandate details (including specific bill if applicable)
N/A	N/A	N/A

Key References:

1. Abman SH, Hansmann G, Archer SL, et al. Pediatric pulmonary hypertension: guidelines from the American Heart Association and American Thoracic Society. *Circulation*. 2015; 132(21):2037-2099.
2. Badesch BD, Abman SH, Simonneau G, et al. Medical therapy for pulmonary arterial hypertension: updated ACCP evidence-based clinical practice guidelines. *Chest*. 2007; 131(6):1917-1928.
3. Clinical Pharmacology [database online]. Tampa, FL: Gold Standard, Inc.: 2019. URL: <http://www.clinicalpharmacology.com>. Updated periodically.
4. DailyMed. Package inserts. U.S. National Library of Medicine, National Institutes of Health website. <http://dailymed.nlm.nih.gov/dailymed/about.cfm>. Accessed: January 11, 2019.
5. DrugPoints® System [electronic version]. Truven Health Analytics, Greenwood Village, CO. Updated periodically.
6. Hooper MM, Bogaard HJ, Condliffe R, et al. Definitions and Diagnosis of Pulmonary Hypertension. *J Am Coll Cardiol*. 2013; 62(suppl 25):D42- D50. Available at: http://www.onlinejacc.org/content/62/25_Supplement/D42. Accessed: January 11, 2019.
7. Ivy DD, Abman SH, Barst RJ, et al. Pediatric Pulmonary Hypertension. *J Am Coll Cardiol*. 2013; 62(suppl 25):D117- D126. Available from: http://www.onlinejacc.org/content/62/25_Supplement/D117. Accessed: January 11, 2019.
8. Lexi-Comp ONLINE™ with AHFS™, Hudson, Ohio: Lexi-Comp, Inc.; 2019; Updated periodically.
9. McLaughlin VV, Archer SL, Badesch DB, et al. ACCF/AHA 2009 expert consensus document on pulmonary hypertension. A report of the American College of Cardiology Foundation Task Force on Expert Consensus Documents and the American Heart Association. *J Am Coll Cardiol*. 2009; 53:1573-1619. Available at: <http://circ.ahajournals.org/content/119/16/2250.full.pdf+html>. Accessed: January 13, 2019.
10. Taichman DB, Ornelas J, Chung L, et al. Pharmacologic Therapy for Pulmonary Arterial Hypertension in Adults: CHEST Guideline and Expert Panel Report. *CHEST*. 2014; 146(2): 449-475. Available from: http://journal.publications.chestnet.org/data/Journals/CHEST/930614/chest_146_2_449.pdf. Accessed on: January 14, 2019.