

Oscar Clinical Guideline: tadalafil (Adcirca, Alyq, Chewtadzy, Cialis, Tadliq) (PG052, Ver. 7)

tadalafil (Adcirca, Alyq, Chewtadzy, Cialis, Tadliq)

- Oral Suspension - Tadliq 20 mg/5 mL
- Oral Tablet:
 - Cialis: 2.5 mg, 5 mg, 10 mg, 20 mg
 - Generic: Tadalafil Oral 2.5 mg, 5 mg, 10 mg, 20 mg
- Oral Tablet [Pulmonary Hypertension]
 - Adcirca: 20 mg
 - Alyq: 20 mg
 - Generic: Tadalafil 20mg
- Chewable Tablets:
 - Chewtadzy: 5 mg, 10 mg, 20 mg

Disclaimer

Clinical guidelines are developed and adopted to establish evidence-based clinical criteria for utilization management decisions. Clinical guidelines are applicable according to policy and plan type. The Plan may delegate utilization management decisions of certain services to third parties who may develop and adopt their own clinical criteria.

Coverage of services is subject to the terms, conditions, and limitations of a member's policy, as well as applicable state and federal law. Clinical guidelines are also subject to in-force criteria such as the Centers for Medicare & Medicaid Services (CMS) national coverage determination (NCD) or local coverage determination (LCD) for Medicare Advantage plans. Please refer to the member's policy documents (e.g., Certificate/Evidence of Coverage, Schedule of Benefits, Plan Formulary) or contact the Plan to confirm coverage.

Summary

Tadalafil is a medication that belongs to a class of drugs called PDE5 inhibitors. It is primarily used to treat several conditions, including pulmonary arterial hypertension (PAH), erectile dysfunction (ED), benign prostatic hyperplasia (BPH), and concurrent ED/BPH. There is also evidence supporting the off-label use of tadalafil for Raynaud phenomenon and for the prevention and treatment of high-altitude pulmonary edema.

Tadalafil is available in different forms and strengths.

- It comes in several oral formulations:
 - Standard tablets in strengths of 2.5 mg, 5 mg, 10 mg, and 20 mg.
 - Chewable tablets (Chewtadzy) in strengths of 5 mg, 10 mg, and 20 mg.
 - Oral suspension (Tadliq) with a strength of 20 mg/5mL.
- The 20 mg tablets, chewable tablets, and oral suspension labeled for pulmonary arterial hypertension (PAH) are specifically indicated for the treatment of PAH and are labeled accordingly.
- The 2.5 mg and 5 mg tablets are FDA-approved for the treatment of BPH.
- All tablet strengths and formulations can be used to treat ED, although coverage for ED treatment may vary based on the member's specific plan's benefits and coverage.

NOTE: *Erectile dysfunction is an excluded benefit for certain Plans. Coverage for medications to treat sexual dysfunction, including erectile dysfunction, varies depending on a member's benefit policy. Please review the member's coverage benefits to determine if erectile dysfunction is a covered benefit.*

Definitions

"Benign prostatic hyperplasia (BPH)" is a histologic diagnosis that refers to the proliferation of glandular epithelial tissue, smooth muscle, and connective tissue within the prostate transition zone.

"Erectile Dysfunction" is the consistent or recurrent inability to acquire or sustain an erection of sufficient rigidity and duration for sexual intercourse.

"High-altitude pulmonary edema (HAPE)" is a life-threatening condition that can occur in some people who rapidly ascend to high altitudes, usually higher than 2500 m [8202 ft] above sea level.

“Pulmonary arterial hypertension (PAH)” is a subset of pulmonary hypertension (PH). Pulmonary hypertension is classified into five groups based upon etiology. Patients in the first group are considered to have PAH, whereas patients in the remaining four groups are considered to have PH.

“Raynaud phenomenon (RP)”, (also referred to as **idiopathic Raynaud phenomenon, primary Raynaud syndrome, or Raynaud disease**) is a condition which causes the blood vessels that carry blood to the fingers and toes (sometimes even the ears, lips, nipples, and tip of the nose) to narrow for a time, leading to color changes in the skin, numbness, tingling, and other potential complications.

Clinical Indications

For the treatment of Erectile Dysfunction (if a covered benefit for the member):

Medical Necessity Criteria for Initial Authorization

The Plan considers **tadalafil tablets (all strengths and formulations)** medically necessary when **ALL** the following criteria are met:

1. The member is 18 years of age and older; **AND**
2. The member is a male with erectile dysfunction (ED, impotence); **AND**
3. Clinical chart document is provided showing **ALL** of the following:
 - a. a thorough medical history and physical examination has been undertaken to:
 - i. support the diagnosis of erectile dysfunction; **and**
 - ii. determine potential underlying causes; **and**
 - iii. exclude potentially reversible or treatable causes (e.g., hypogonadism with inadequate testosterone replacement, hyperprolactinemia, drug-induced dysfunction, dyslipidemias, alcoholism, other substance abuse, hypertension, thyroid disease, cardiovascular or cerebrovascular disease, neurologic disease, adrenal dysfunction, psychologic dysfunction, marital discord, smoking); **and**
 - b. a review of the member’s current drug regimens have been conducted to detect possible drug-induced ED (e.g., antidepressant, antipsychotic, certain blood pressure medications); **AND**
4. The member will not be taking sildenafil concomitantly with **ANY** of the following:
 - a. Guanylate Cyclase Stimulators (such as Adempas (riociguat)); **or**
 - b. Nitrates and nitrites (e.g., nitroglycerin, isosorbide dinitrate); **AND**
5. For chewable tablet formulation (Chewtadzy) requests, **ONE** of the following:
 - a. Documentation of difficulty swallowing solid oral dosage forms; **or**
 - b. Clinical rationale for requiring a chewable formulation; **or**

- c. Treatment failure with or intolerance to standard tablet formulation.

If the above prior authorization criteria are met, tadalafil will be approved for 12 months.

Medical Necessity Criteria for Reauthorization

Reauthorization for 12 months will be granted if **BOTH** of the following are met:

1. The member still meets the applicable initial criteria; **AND**
2. Chart documentation shows the member has experienced a clinical improvement in symptoms since starting the requested medication.

For the treatment of Benign Prostatic Hyperplasia (BPH):

Medical Necessity Criteria for Initial Authorization

The Plan considers **tadalafil 2.5 mg and 5 mg tablets and chewable tablets** medically necessary when ALL the following criteria are met:

1. The member is 18 years of age and older; **AND**
2. The member has a confirmed diagnosis of BPH; **AND**
3. The member has tried and failed, or is unable to use an alpha blocker (i.e. alfuzosin, doxazosin, tamsulosin, terazosin); **AND**
4. The member has is unable to use, or has tried and failed a 5-alpha reductase inhibitor (i.e. dutasteride, finasteride); **AND**
5. For chewable tablet formulation (Chewtadzy) requests, **ONE** of the following:
 - a. Documentation of difficulty swallowing solid oral dosage forms; **or**
 - b. Clinical rationale for requiring a chewable formulation; **or**
 - c. Treatment failure with or intolerance to standard tablet formulation; **AND**
6. Chart documentation and supporting lab work are provided for review to substantiate the above listed requirements.

If the above prior authorization criteria are met, tadalafil will be approved for 12 months.

Medical Necessity Criteria for Reauthorization

Reauthorization for 12 months will be granted if **BOTH** of the following are met:

1. The member still meets the applicable initial criteria; **AND**
2. Chart documentation shows the member has experienced a clinical improvement in symptoms since starting the requested medication.

For the treatment of Pulmonary Arterial Hypertension (PAH):

Medical Necessity Criteria for Initial Authorization

The Plan considers **tadalafil 20 mg tablets (PAH), chewable tablets, and (tadalafil 20 mg/5 mL) oral suspension** medically necessary when ALL of the following criteria are met:

1. The member has a diagnosis of WHO Group 1 pulmonary arterial hypertension (PAH); **AND**
2. The diagnosis of PAH has been confirmed by **ONE** of the following methods:
 - a. Pre-treatment right heart catheterization with **ALL** of the following:
 - i. mean pulmonary artery pressure (mPAP) \geq 20 mmHg; **and**
 - ii. pulmonary capillary wedge pressure (PCWP) \leq 15 mmHg; **and**
 - iii. pulmonary vascular resistance (PVR) \geq 3 Wood units; **or**
 - b. Doppler echocardiogram if right heart catheterization cannot be performed (e.g., for infants less than one year of age with post cardiac surgery, chronic heart disease, chronic lung disease associated with prematurity, or congenital diaphragmatic hernia); **AND**
3. For chewable tablet formulation (Chewtadzy) requests, **ONE** of the following:
 - a. Documentation of difficulty swallowing solid oral dosage forms; **or**
 - b. Clinical rationale for requiring a chewable formulation; **or**
 - c. Treatment failure with or intolerance to standard tablet formulation; **AND**
4. Chart documentation and supporting lab work are provided for review to substantiate the above-listed requirements.

If the above prior authorization criteria are met, tadalafil will be approved for 12 months.

Medical Necessity Criteria for Reauthorization

Reauthorization for 12 months will be granted if **BOTH** of the following are met:

1. The member still meets the applicable initial criteria; **AND**
2. Recent chart documentation shows the member experiencing therapeutic response to the requested medication as evidenced by **ONE** of the following:
 - a. clinical improvement in symptoms since starting the requested medication; **or**
 - b. disease stability since starting the requested medication.

For the treatment of Raynaud phenomenon:

Medical Necessity Criteria for Initial Authorization

The Plan considers **tadalafil 20 mg tablets and chewable tablets** medically necessary when **ALL** of the following criteria are met:

1. The medication is being requested for the treatment of Raynaud phenomenon (also called idiopathic Raynaud phenomenon, primary Raynaud syndrome, or Raynaud disease); **AND**
2. The member has documented history of **ONE** of the following:
 - a. signs of critical ischemia at the affected areas (e.g., fingers, toes, ears, lips, nipples, or the tip the nose); **or**
 - b. the quality of life of the member is affected to the degree that activities of normal living are no longer possible; **AND**
3. The member is unable to use, or has tried and failed **BOTH** of the following:
 - a. non-pharmacologic therapies (e.g., relaxation techniques, avoiding stressful situations, avoiding cold exposure, avoiding drugs that may precipitate RP); **and**
 - b. calcium channel blocker (e.g., amlodipine, nifedipine); **AND**
4. For chewable tablet formulation (Chewtadzy) requests, **ONE** of the following:
 - a. Documentation of difficulty swallowing solid oral dosage forms; **or**
 - b. Clinical rationale for requiring a chewable formulation; **or**
 - c. Treatment failure with or intolerance to standard tablet formulation; **AND**
5. Chart documentation is provided for review to substantiate the above listed requirements.

If the above prior authorization criteria are met, tadalafil will be approved for 12 months.

Medical Necessity Criteria for Reauthorization

Reauthorization for 12 months will be granted if **BOTH** of the following are met:

1. The member still meets the applicable initial criteria; **AND**
2. Chart documentation shows the member has experienced a clinical improvement in symptoms, quality of life, or experienced disease stability since starting the requested medication.

For the prevention and treatment of high-altitude pulmonary edema

Medical Necessity Criteria for Authorization

The Plan considers **tadalafil 10 mg tablets and chewable tablets** medically necessary when **ALL** of the following criteria are met:

1. Tadalafil is being requested for prevention or treatment of high-altitude pulmonary edema **AND BOTH** of the following:

- a. The member will be or has been exposed to high altitudes, defined as higher than 2500 m [8202 ft] above sea level; **and**
 - b. The member has a history of high-altitude pulmonary edema **OR** known risk factors that increase susceptibility (e.g. intracardiac shunts, pulmonary hypertension); **AND**
2. The member has tried and failed or has contraindications to first-line therapies such as gradual descent, oxygen therapy/supplementation, and/or portable hyperbaric therapy; **AND**
3. The member is unable to use, or has tried and failed nifedipine; **AND**
4. For chewable tablet formulation (Chewtadzy) requests, **ONE** of the following:
 - a. Documentation of difficulty swallowing solid oral dosage forms; **or**
 - b. Clinical rationale for requiring a chewable formulation; **or**
 - c. Treatment failure with or intolerance to standard tablet formulation; **AND**
5. The requested dose and duration follows standard dosing guidelines:
 - a. For prevention: 10 mg every 12 hours starting 1 day before ascent and continuing for 5-7 days after reaching target altitude; **or**
 - b. For treatment: 10 mg every 12 hours until descent is complete, signs/symptoms resolve, and oxygen saturation normalizes for altitude; **AND**
6. Chart documentation is provided for review to substantiate the above listed requirements.

If the above prior authorization criteria are met, tadalafil will be approved for the member's duration of high altitude exposure or persistence of signs/symptoms.

Experimental or Investigational / Not Medically Necessary

Tadalafil for any other indication is considered not medically necessary by the Plan, as it is deemed to be experimental, investigational, or unproven.

References

1. Adcirca (tadalafil) [prescribing information]. Indianapolis, IN: Eli Lilly and Company; December 2019.
2. Alyq (tadalafil) [prescribing information]. Parsippany, NJ: Teva Pharmaceuticals; April 2024.
3. Black L, Naslund MJ, Gilbert TD Jr, et al. An examination of treatment patterns and costs of care among patients with benign prostatic hyperplasia. *Am J Manag Care* 2006; 12:S99.
4. Burnett AL, Nehra A, Breau RH, et al. Erectile Dysfunction: AUA Guideline. *J Urol*. 2018; 200(3):633. 2018 May 7.
5. Chewtadzy (tadalafil) [prescribing information]. Baudette, MN: ANI Pharmaceuticals, Inc.; June 2024.
6. Cialis (tadalafil) [prescribing information]. Indianapolis, IN: Lilly USA LLC; April 2023.

7. Cialis (tadalafil) [prescribing information]. Indianapolis, IN: Eli Lilly and Company; February 2018.
8. Hopkins WM, Rubin, LJ. Treatment of pulmonary arterial hypertension (group 1) in adults: Pulmonary hypertension-specific therapy. UpToDate.com. Last updated: Apr 12, 2021.
9. Kamata Y, Minota S. Effects of phosphodiesterase type 5 inhibitors on Raynaud's phenomenon. *Rheumatol Int.* 2014;34(11):1623-1626.
10. Kowal-Bielecka O, Fransen J, Avouac J, et al; EUSTAR Coauthors. Update of EULAR recommendations for the treatment of systemic sclerosis. *Ann Rheum Dis.* 2017;76(8):1327-1339. doi:10.1136/annrheumdis-2016-209909
11. Luks AM, Auerbach PS, Freer L, et al. Wilderness Medical Society clinical practice guidelines for the prevention and treatment of acute altitude illness: 2019 update. *Wilderness Environ Med.* 2019;30(4S):S3-S18. doi:10.1016/j.wem.2019.04.006[PubMed 31248818]
12. Maggiorini, Marco, et al. "Both tadalafil and dexamethasone may reduce the incidence of high-altitude pulmonary edema: a randomized trial." *Annals of internal medicine* 145.7 (2006): 497-506.
13. Mandras SA, Mehta HS, Vaidya A. Pulmonary Hypertension: A Brief Guide for Clinicians. *Mayo Clinic Proceedings - Concise Review for Clinicians.* Sept 2020; 95(9): P1978-1988. <https://doi.org/10.1016/j.mayocp.2020.04.039>
14. Nickel JC, Gilling P, Tammela TL, et al. Comparison of dutasteride and finasteride for treating benign prostatic hyperplasia: the Enlarged Prostate International Comparator Study (EPICS). *BJU Int* 2011; 108:388.
15. Porst H, Giuliano F, Glina S, et al. Evaluation of the efficacy and safety of once-a-day dosing of tadalafil 5mg and 10mg in the treatment of erectile dysfunction: results of a multicenter, randomized, double-blind, placebo-controlled trial. *Eur Urol.* 2006;50(2):351.
16. Roehrborn CG, Nuckolls JG, Wei JT, et al. The benign prostatic hyperplasia registry and patient survey: study design, methods and patient baseline characteristics. *BJU Int* 2007; 100:813.
17. Roustit M, Blaise S, Allanore Y, Carpentier PH, Caglayan E, Cracowski JL. Phosphodiesterase-5 inhibitors for the treatment of secondary Raynaud's phenomenon: systematic review and meta-analysis of randomized trials. *Ann Rheum Dis.* 2013;72(10):1696-1699.
18. Ruopp NF, Farber HQ. The New World Symposium on Pulmonary Hypertension Guidelines: Should Twenty-One Be the New Twenty-Five? *Circulation AHA Journal.* Oct 2019;140(14): 1134–1136. <https://doi.org/10.1161/CIRCULATIONAHA.119.040292>
19. Schiopu E, Hsu VM, Impens AJ, et al. Randomized placebo-controlled crossover trial of tadalafil in Raynaud's phenomenon secondary to systemic sclerosis. *J Rheumatol.* 2009;36(10):2264-2268.
20. Shenoy PD, Kumar S, Jha LK, et al. Efficacy of tadalafil in secondary Raynaud's phenomenon resistant to vasodilator therapy: a double-blind randomized cross-over trial. *Rheumatology (Oxford).* 2010;49(12):2420-2428.
21. Tadliq (tadalafil) [prescribing information]. Farmville, NC: CMP Pharma Inc; October 2023.
22. Tadliq (tadalafil) [prescribing information]. Farmville, NC: CMP Pharma Inc; June 2022.
23. Wei JT, Calhoun E, Jacobsen SJ. Urologic diseases in America project: benign prostatic hyperplasia. *J Urol* 2005; 173:1256.
24. Wigley FM. Clinical practice. Raynaud's phenomenon. *N Engl J Med.* 2002;347(13):1001-1008.

Clinical Guideline Revision / History Information

Original Date: 08/06/2020

Reviewed/Revised: 06/24/2021, 12/01/2021, 06/23/2022, 12/08/2022, 12/14/2023, 12/19/2024