Clinical Guideline



Oscar Clinical Guideline: Myrbetrig (mirabegron) (PG181, Ver. 3)

Myrbetriq (mirabegron)

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

Myrbetriq (mirabegron) is a beta-3 adrenergic receptor (beta-3 AR) agonist indicated for the treatment of adults with overactive bladder (OAB) with symptoms of urge urinary incontinence, including urinary urgency and frequency. Mybetriq (mirabegron) can be prescribed either as monotherapy or as combination therapy with solifenacin, a bladder-specific antimuscarinic agent. It is also indicated for neurogenic detrusor overactivity (NDO) in pediatric individuals 3 years and older. By relaxing the detrusor muscle via beta-3 AR activation, bladder capacity is increased during the urine storage phase.

Beta-3 ARs are usually well-tolerated by most and offer an alternative for those experiencing intolerance to selective bladder anticholinergic antimuscarinics. Per guidelines for non-neurogenic OAB, either bladder-specific antimuscarinics or beta-3 ARs may be used as a second-line to behavioral interventions. Clinicians may consider combination therapy with an anticholinergic antimuscarinic agent and beta-3 AR for those refractory to monotherapy with either an anticholinergic antimuscarinic or beta-3 AR alone.

Mirabegron therapy has the potential for increasing blood pressure and use is not recommended for those patients with severe uncontrolled hypertension (Adults, systolic blood pressure (SBP) \geq 180 mmHg or diastolic blood pressure (DBP) \geq 110 mmHg; Pediatrics, SBP and/or DBP above the 99th percentile plus 5 mmHg for age, sex, and stature).

Definitions

"Neurogenic Detrusor Overactivity (NDO)" is detrusor overactivity due to a neurologic condition, such as spinal cord injury or multiple sclerosis, resulting in urinary urgency, frequency, and incontinence.

"Overactive Bladder (OAB)" is a symptom complex characterized by urinary urgency, usually accompanied by increased urinary frequency and nocturia, with or without urge urinary incontinence.

"Urinary antispasmodics" are FDA-approved medications used to treat overactive bladder, urinary urgency, and urge incontinence.

"Urinary retention" is the incomplete emptying of the bladder.

Clinical Indications

The Plan considers <u>Myrbetriq (mirabegron)</u> medically necessary when ALL the following criteria are met for the applicable indication listed below:

Medical Necessity Criteria for Initial Authorization

Adult Overactive Bladder (OAB)

- 1. The member is 18 years of age or older; AND
- 2. The member has a diagnosis of overactive bladder (OAB) with symptoms of urge urinary incontinence, urgency, and urinary frequency; *AND*
- 3. The member has documented trial and failure of behavioral therapies (e.g., bladder training, pelvic floor muscle training, fluid management); *AND*
- 4. The member is unable to use, or has tried and failed TWO (2) of the following for at least a 30 day duration each:
 - a. Darifenacin: and/or
 - b. Fesoterodine: and/or
 - c. Oxybutynin; and/or
 - d. Solifenacin; and/or
 - e. Tolterodine; and/or
 - f. Trospium; AND
- 5. The member does NOT have ANY of the following:
 - a. End stage renal disease (defined as an estimated glomerular filtration rate [eGFR] <15 mL/min/1.73m²); or
 - b. Uncontrolled hypertension defined as systolic blood pressure ≥ 180mm Hg and/or diastolic blood pressure ≥ 110mm Hg; AND

6. Myrbetriq (mirabegron) is prescribed at FDA-approved dosing for overactive bladder of 25-50 mg once daily.

Pediatric Neurogenic Detrusor Overactivity (NDO)

- 1. The member is 3 years of age or older; AND
- 2. The member has a diagnosis of neurogenic detrusor overactivity; AND
- 3. The member has documented trial and failure of non-pharmacologic therapies (e.g. voiding behavior modification); *AND*
- 4. IF the member is 6 years of age or older, the member is unable to use, or has tried and failed BOTH of the following for at least a 30 day duration each:
 - a. fesoterodine; and/or
 - b. oxybutynin; AND
- 5. The member does NOT have ANY of the following:
 - Severe uncontrolled hypertension, defined as a systolic and/or diastolic blood pressure above the 99th percentile plus 5 mm Hg for age, sex, and stature using appropriate reference values; or
 - b. End stage renal disease (eGFR <15 mL/min/1.73m²); AND
- 6. Myrbetriq (mirabegron) is prescribed at FDA-approved weight-based dosing for pediatric NDO:
 - a. 11 kg to <22 kg: Oral granules 24-48 mg once daily; or
 - b. 22 kg to <35 kg: Oral granules 32-64 mg once daily; or
 - c. IF the member is \geq 35 kg, ONE (1) of the following:
 - i. Oral tablets 25-50 mg once daily; or
 - ii. IF the member is unable to swallow, oral granules 48-80 mg once daily.

If the above prior authorization criteria are met, the requested product will be authorized for up to 12-months.

Medical Necessity Criteria for Reauthorization

Adult Overactive Bladder (OAB)

Reauthorization for overactive bladder in adults will be granted for up to 12 months if the member has experienced clinically significant improvement in urgency, frequency and incontinence episodes documented in chart notes.

Pediatric Neurogenic Detrusor Overactivity (NDO)

Reauthorization for pediatric neurogenic detrusor overactivity will be granted for up to 12 months if the member has a documented positive clinical response such as reduced incontinence episodes or improved bladder capacity.

Experimental or Investigational / Not Medically Necessary

Myrbetriq (mirabegron) for any other indication or use is considered not medically necessary by the Plan, as it is deemed to be experimental, investigational, or unproven. Non-covered indications include, but are not limited to, the following:

- Kidney Stones.
- Interstitial Cystitis.
- Multiple Sclerosis.
- Nocturnal Enuresis.
- Parkinson's Disease (PD).

References

- 1. 2019 surveillance of urinary incontinence in neurological disease: assessment and management (NICE guideline CG148) [Internet]. London: National Institute for Health and Care Excellence (NICE); 2019 Jan 31.
- 2. ACOG Practice Bulletin No. 155: Urinary Incontinence in Women. Obstet Gynecol. 2015 Nov;126(5):e66-e81. doi: 10.1097/AOG.00000000001148. PMID: 26488524.
- 3. Baboudjian M, Hashim H, Bhatt N, et al. Summary Paper on Underactive Bladder from the European Association of Urology Guidelines on Non-neurogenic Male Lower Urinary Tract Symptoms. Eur Urol. 2024 Sep;86(3):213-220. doi: 10.1016/j.eururo.2024.04.004. Epub 2024 Apr 21.
- Cameron AP, Chung DE, Dielubanza EJ, Enemchukwu E, Ginsberg DA, Helfand BT, et al. The AUA/SUFU Guideline on the Diagnosis and Treatment of Idiopathic Overactive Bladder. Journal of Urology [Internet]. 2024 Jul 1 [cited 2024 Nov 19];212(1):11–20. Available from: https://doi.org/10.1097/JU.0000000000003985
- 5. Chapple CR, Kaplan SA, Mitcheson D, et al. Randomized double-blind, active-controlled phase 3 study to assess 12-month safety and efficacy of mirabegron, a $\beta(3)$ -adrenoceptor agonist, in overactive bladder. Eur Urol. 2013 Feb;63(2):296-305. doi: 10.1016/j.eururo.2012.10.048. Epub 2012 Nov 6.
- 6. Chen HL, Chen TC, Chang HM, et al. Mirabegron is alternative to antimuscarinic agents for overactive bladder without higher risk in hypertension: a systematic review and meta-analysis. World J Urol. 2018;36(8):1285-1297. doi:10.1007/s00345-018-2268-9
- 7. Clinical Consensus Statement: Association of Anticholinergic Medication Use and Cognition in Women With Overactive Bladder. Female Pelvic Med Reconstr Surg. 2021 Feb 1;27(2):69-71. doi: 10.1097/SPV.0000000000001008.
- 8. Ginsberg DA, Boone TB, Cameron AP et al: The AUA/SUFU Guideline on Adult Neurogenic Lower Urinary Tract Dysfunction: Treatment and Follow-up. J Urol 2021; 206: 1106.
- 9. Johnson EK, Bauer SB: Neurogenic voiding dysfunction and functional voiding disorders: Evaluation and nonsurgical management. In The Kelalis-King-Belman Textbook of Clinical Pediatric Urology, ed. 6, edited by Docimo S, Canning D, Khoury A, Salle JLP. Boca Raton, CRC Press, 2019, pp. 820–852.
- Khullar V, Amarenco G, Angulo JC, et al. Efficacy and tolerability of mirabegron, a β(3)-adrenoceptor agonist, in patients with overactive bladder: results from a randomised European-Australian phase 3 trial. Eur Urol. 2013 Feb;63(2):283-95. doi: 10.1016/j.eururo.2012.10.016. Epub 2012 Nov 6.
- 11. Kobashi KC, Albo ME, Dmochowski RR, et al: Surgical treatment of female stress urinary incontinence: AUA/SUFU guideline. J Urol 198(4):875-883, 2017. doi: 10.1016/j.juro.2017.06.061
- 12. Krhut J, Borovička V, Bílková K, et al. Efficacy and safety of mirabegron for the treatment of neurogenic detrusor overactivity-Prospective, randomized, double-blind, placebo-controlled

- study. Neurourol Urodyn. 2018 Sep;37(7):2226-2233. doi: 10.1002/nau.23566. Epub 2018 Mar 31. Erratum in: Neurourol Urodyn. 2024 Jan;43(1):301. doi: 10.1002/nau.25272.
- 13. Lerner LB, McVary KT, Barry MJ, Bixler BR, Dahm P, Das AK, Gandhi MC, Kaplan SA, Kohler TS, Martin L, Parsons JK, Roehrborn CG, Stoffel JT, Welliver C, Wilt TJ. Management of Lower Urinary Tract Symptoms Attributed to Benign Prostatic Hyperplasia: AUA GUIDELINE PART I-Initial Work-up and Medical Management. J Urol. 2021 Oct;206(4):806-817. doi: 10.1097/JU.00000000002183. Epub 2021 Aug 13. Erratum in: J Urol. 2021 Nov;206(5):1339. doi: 10.1097/JU.000000000002231. PMID: 34384237.
- 15. Madhuvrata P, Cody JD, Ellis G, et al. Which anticholinergic drug for overactive bladder symptoms in adults. Cochrane Database Syst Rev. 2012;1:CD005429.
- 16. McVary KT, Roehrborn CG, Avins AL, et al. Update on AUA guideline on the management of benign prostatic hyperplasia. J Urol. 2011;185(5):1793.
- 17. Myrbetriq (mirabegron) [prescribing information]. Northbrook, IL: Astellas Pharma US Inc; April 2021.
- 18. Nambiar AK, Arlandis S, Bø K, et al. European Association of Urology Guidelines on the Diagnosis and Management of Female Non-neurogenic Lower Urinary Tract Symptoms. Part 1: Diagnostics, Overactive Bladder, Stress Urinary Incontinence, and Mixed Urinary Incontinence. Eur Urol. 2022 Jul;82(1):49-59. doi: 10.1016/j.eururo.2022.01.045. Epub 2022 Feb 23.
- 19. Nitti VW, Auerbach S, Martin N, Calhoun A, Lee M, Herschorn S. Results of a randomized phase III trial of mirabegron in patients with overactive bladder. J Urol. 2013 Apr;189(4):1388-95. doi: 10.1016/j.juro.2012.10.017. Epub 2012 Oct 16.
- O'Mahony D, Cherubini A, Guiteras AR, Denkinger M, Beuscart JB, Onder G, Gudmundsson A, Cruz-Jentoft AJ, Knol W, Bahat G, van der Velde N, Petrovic M, Curtin D. STOPP/START criteria for potentially inappropriate prescribing in older people: version 3. Eur Geriatr Med. 2023 Aug;14(4):625-632. doi: 10.1007/s41999-023-00777-y. Epub 2023 May 31. Erratum in: Eur Geriatr Med. 2023 Aug;14(4):633. doi: 10.1007/s41999-023-00812-y. PMID: 37256475; PMCID: PMC10447584.
- 21. Qaseem A, Dallas P, Forciea MA, et al. Nonsurgical management of urinary incontinence in women: a clinical practice guideline from the American College of Physicians. Ann Intern Med. 2014;161(6):429.
- 22. Russo E, Caretto M, Giannini A, et al. Management of urinary incontinence in postmenopausal women: An EMAS clinical guide. Maturitas. 2021 Jan;143:223-230. doi: 10.1016/j.maturitas.2020.09.005. Epub 2020 Sep 30.
- 24. U.S. Food & Drug Administration. FDA News Release: FDA Approves New Indication for Drug to Treat Neurogenic Detrusor Overactivity in Pediatric Patients. March 25, 2021. Available at: https://www.prnewswire.com/news-releases/fda-approves-new-indication-for-drug-to-treat-neurogenic-detrusor-overactivity-in-pediatric-patients-301256411.html. Accessed Sept 2025.
- 25. Welk B, Hickling D, McKibbon M, Radomski S, Ethans K. A pilot randomized-controlled trial of the urodynamic efficacy of mirabegron for patients with neurogenic lower urinary tract dysfunction. Neurourol Urodyn. 2018 Nov;37(8):2810-2817. doi: 10.1002/nau.23774. Epub 2018 Aug 31.

Clinical Guideline Revision / History Information

Original Date: 11/29/2023

Reviewed/Revised: 12/02/2024, 03/02/2026