

# Efficacy and safety of Mirabegron plus Solifenacin combination therapy in comparison with Solifenacin monotherapy in Overactive bladder: A Systematic review and Meta-analysis

Sandesh Warudkar<sup>1</sup>, Amit Jain<sup>2</sup>, Nilanj Dave<sup>2</sup>, and Alok Chaturvedi<sup>2</sup>

<sup>1</sup>Affiliation not available

<sup>2</sup>Intas Pharmaceuticals Ltd

April 16, 2024

## Abstract

**Abstract:** Introduction & Objectives Antimuscarinic agents represent the cornerstone of pharmacotherapy for Overactive bladder (OAB) but persistence with treatment is often limited by undesirable side effects. The purpose of this review was to evaluate the efficacy and safety of combination therapy of mirabegron 50 mg and solifenacin 5 mg in comparison with 5 mg and 10 mg of solifenacin monotherapy in patients with OAB. Materials & Methods An electronic database search was carried out in Evidence Based Medicine Reviews, Cochrane Library and PubMed using keywords Mirabegron, Solifenacin, Combination, Overactive bladder based on the Preferred Reporting Items for Systematic Reviews and Meta-analysis (PRISMA) guideline to include relevant randomized controlled trials (RCT)s. The meta-analysis was performed by Review Manager 5.4 software. Results Out of 907 studies screened, 4 RCTs involving a total of 5339 patients were eligible for analysis. In comparison to Solifenacin 5 and 10 mg monotherapy, combination therapy resulted in significantly more improvement in mean volume voided (MVV) per micturition, frequency of micturitions/24h, number of incontinence episodes/24h. Compared to Solifenacin 5 mg monotherapy, combination therapy was found to have overall acceptable tolerability profile in terms of treatment-emergent adverse events (TEAEs), dry mouth, constipation. Whereas when compared to Solifenacin 10 mg monotherapy, combination therapy was found to be better tolerated for all studied safety outcomes. Conclusions Combination therapy of mirabegron 50 mg and solifenacin 5 mg leads to significantly greater improvement in OAB symptoms and is better tolerated in comparison with solifenacin 10 monotherapy.

## Hosted file

Combination Meta-analysis V2 110.docx available at <https://authorea.com/users/739172/articles/712954-efficacy-and-safety-of-mirabegron-plus-solifenacin-combination-therapy-in-comparison-with-solifenacin-monotherapy-in-overactive-bladder-a-systematic-review-and-meta-analysis>