

Efficacy and Safety of Venetoclax-Based Therapy in Waldenström Macroglobulinemia: A Systematic Review and Meta-Analysis.

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Background

- Waldenström macroglobulinemia (WM) is an indolent B-cell lymphoma characterized by bone marrow infiltration and IgM paraproteinemia.
- Despite advances with BTK inhibitors, resistance, intolerance, and indefinite treatment remain important challenges.
- Venetoclax, a selective BCL-2 inhibitor, has demonstrated activity in WM, but evidence is limited to small, predominantly single-arm studies

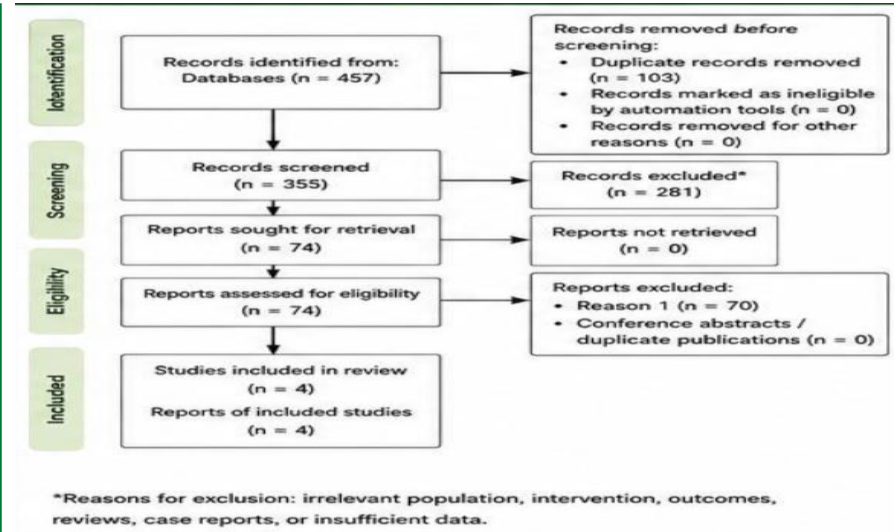
Objective

- To systematically evaluate the efficacy and safety of venetoclax-based therapy in patients with WM.

Methods

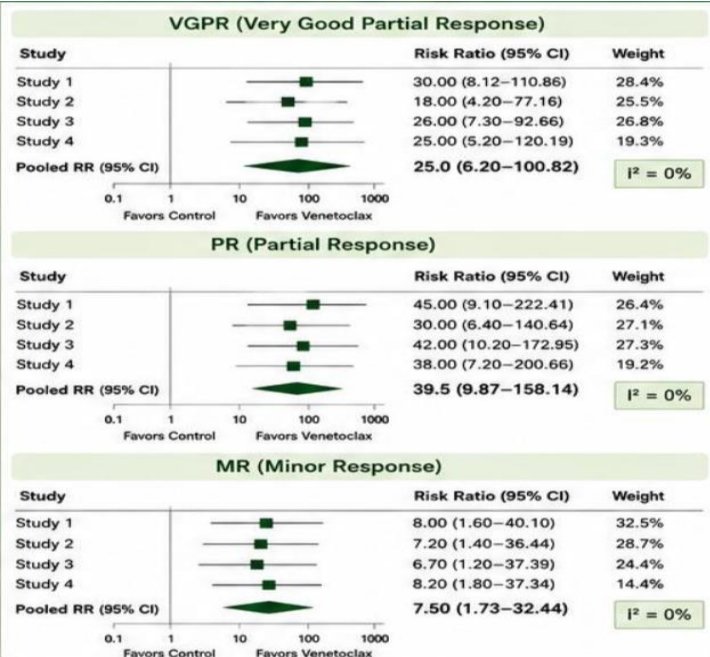
- Included studies evaluating venetoclax-based therapy in WM.
- Outcomes: ORR, VGPR, PR, MR, IgM, hemoglobin, and safety.
- Pooled estimates calculated using fixed- or random-effects models.
- Heterogeneity assessed using I².

PRISMA Flow Diagram



Results

- 4 studies including 169 patients were analyzed.
- ORR exceeded 80% across included studies.
- Pooled responses showed VGPR RR 25.0, PR RR 39.5, and MR RR 7.50, with I² = 0%.
- Venetoclax-based therapy produced marked IgM reduction and hemoglobin improvement.
- Treatment was generally well tolerated; neutropenia was the predominant hematologic toxicity.



Conclusion

- Venetoclax-based therapy demonstrated high response rates and meaningful depth of response in WM.
- Clinical responses were accompanied by improved IgM and hemoglobin levels with a manageable safety profile.
- Further prospective studies are needed to define optimal patient selection, treatment duration, and long-term safety.