

Cite as: Hickling D. MV140 sublingual vaccine proves promising in fighting recurrent urinary tract infections in women. *Can Urol Assoc J* 2024;18(2):32. <http://dx.doi.org/10.5489/cuaj.8716>

See related article on page 25

# MV140 sublingual vaccine proves promising in fighting recurrent urinary tract infections in women

Urinary tract infection (UTI) is a prevalent health issue that affects a significant number of women worldwide. The burden of recurrent UTIs not only impacts the quality of life for affected individuals but also poses a considerable economic burden on healthcare systems.

Antimicrobials have been the mainstay treatment and prophylactic for rUTI; however, long-term side effects, alarming antimicrobial resistance rates, and a prolonged antimicrobial discovery void threaten this approach. The promising results from this first North American clinical experience study on the MV140 sublingual vaccine, published in this month's *CUAJ*,<sup>1</sup> bring further hope for a potential breakthrough in preventing recurrent UTIs in women.

In this prospective case series study, the MV140 sublingual vaccine showed significant efficacy in reducing recurrent UTIs in Canadian women. Approximately 40% of women were UTI-free and UTI recurrences were reduced by 75% over the study period. While these efficacy outcomes appear to be less robust than those of the MV140 pivotal trial,<sup>2</sup> I believe they are more likely representative of and applicable to our real-world practice.

Patients in the present study had an average of 6.8 UTIs/year prior to treatment, which is more than double that of patients in the pivotal MV140 trial. It is my experience that patients presenting with frequent rUTIs are distressed and, as such, more open to "treatment" compared to those with fewer UTIs per year who tend to prefer a more conservative approach (e.g., lifestyle modifications and/or supplement). I suspect that the larger average number of UTIs per year in the study group may also explain

why quality of life measures did not improve over the study period. I have found that patients with a history of frequent rUTI harbor significant worry, sometimes for years after rUTI resolution. It is possible that improvements in quality of life for this study population may simply take longer to realize.

This study provides further evidence that the MV140 sublingual vaccine is well-tolerated. There were no major adverse events reported and those adverse events deemed vaccine-related were mild and transient in nature. This emphasizes the favorable safety profile of the MV140 vaccine, making it a viable option for preventing recurrent UTIs without posing significant risks.

As we await further studies in vulnerable patient populations and regulatory approvals, the MV140 sublingual vaccine presents itself as a promising therapeutic option, heralding new possibilities in combating recurrent UTIs. Its potential to alleviate the physical and economic burden associated with recurrent UTIs offers renewed hope to affected individuals, their families, and healthcare providers alike.

COMPETING INTERESTS: The author does not report any competing personal or financial interests related to this work.

## REFERENCES

1. Nickel JC, Kelly K-L, Griffin A, et al. MV140 sublingual vaccine reduces recurrent urinary tract infection in women: Results from the first North American clinical experience study. *Can Urol Assoc J* 2024;18:25-31. <http://dx.doi.org/10.5489/cuaj.8455>
2. Lorenzo-Gómez M-F, Foley S, Nickel JC, et al. Sublingual MV140 for prevention of recurrent urinary tract infections. *NEJM Evidence* 2022;1. <https://doi.org/10.1056/EVIDoa2100018>

CORRESPONDENCE: Dr. Duane Hickling, Department of Urology, The Ottawa Hospital, Ottawa, ON, Canada; [duanehickling@gmail.com](mailto:duanehickling@gmail.com)