

## Oral D-mannose in recurrent urinary tract infections in women: a pilot study

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### Abstract

**Background:** In recurrent urinary tract infections (UTIs) usual prophylactic antibiotic regimes do not change the long-term risk of recurrence. Our aim was to evaluate the efficacy of D-mannose in the treatment and prophylaxis of recurrent UTIs.

**Methods:** In this randomized cross-over trial female patients were eligible for the study if they had an acute symptomatic UTI and three or more recurrent UTIs during the preceding 12 months. Suitable patients were randomly assigned to antibiotic treatment with trimethoprim/sulfamethoxazole or to a regimen of oral D-mannose 1 g 3 times a day, every 8 hours for 2 weeks, and subsequently 1 g twice a day for 22 weeks. They received the other intervention in the second phase of the study, with no further antibiotic prophylaxis. The primary endpoint was evaluation of the elapsed time to recurrence; secondary endpoints were evaluation of bladder pain (VASp) and urinary urgency (VASu).

**Results:** The results for quantitative variables were expressed as mean values and SD as they were all normally distributed (Shapiro-Wilk test). In total, 60 patients aged between 22 and 54 years (mean 42 years) were included. Mean time to UTI recurrence was 52.7 days with antibiotic treatment, and 200 days with oral D-mannose ( $p < 0.0001$ ).

**Conclusions:** Mean VASp, VASu score, and average numbers of 24-hour voidings decreased significantly. D-mannose appeared to be a safe and effective treatment for recurrent UTIs in adult women. A significant difference was observed in the proportion of women remaining infection free versus antibiotic treatment.

[Antibiotic treatment](#)

[cystitis](#)

[D-mannose](#)

[recurrent urinary tract infections](#)

[prophylaxis](#)