

Small benefit for low-dose antibiotics to prevent repeat symptomatic urinary tract infection in children

Clinical Question	Compared to placebo/no treatment, how effective are long-term prophylactic antibiotics for preventing recurrence of urinary tract infection (UTI) in children?
Bottom Line	Long-term antibiotics reduced the risk of repeat symptomatic UTI in children who had one or more previous UTIs but the benefit was small. A single study reported event time periods and showed that the greatest risk of repeat symptomatic infection occurred in the three to six months following initial UTI. Nitrofurantoin appeared the most effective treatment but led to considerable adverse events.
Caveat	The data showed few adverse effects from the antibiotic treatment but demonstrated an increased risk of bacterial resistance to the treatment drug in subsequent infections.
Context	UTI is common in children. Due to acute illness caused by UTI and the risk of pyelonephritis-induced permanent kidney damage, many children are given long-term (several months to 2 years) antibiotics aimed at preventing recurrence.
Cochrane Systematic Review	Williams G et al. Long-term antibiotics for preventing urinary tract infections in children. Cochrane Reviews, 2019, Issue 4. Art. No.: CD001534.DOI: 10.1002/14651858.CD001534.pub4. This review contains 16 studies involving 2,036 participants.

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Systematic review link:

<https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD001534.pub4/full>