

Topical estrogen therapy for UTIs

Urinary tract infections (UTIs) are common among older people in residential aged care. The 2021 *Fourth Australian report on antimicrobial use and resistance in human health* reported 23.1% of residents with a suspected UTI and prescribed antimicrobial treatment. Antimicrobials were consistently and most commonly prescribed for UTI prophylaxis. The report highlighted prolonged prophylaxis not recommended by guidelines.

Antimicrobial resistance (AMR) continues to be one of the most significant challenges that healthcare services face in Australia, and around the world. Use of low

Low-dose vaginal estrogen therapy

Low-dose vaginal estrogen therapy (e.g., 10 mcg estradiol cream) is used nightly at bedtime for 3 weeks, then used twice weekly.

Vaginal pH falls to low levels by the third week of topical estrogen treatment. An increase in lactobacilli in the vaginal

microbiome is associated with a reduction in UTI risk. *
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Benefits

A study published in the New England Journal of Medicine nearly thirty years ago confirmed the benefit of long-term use of vaginal estrogen in preventing recurrent UTIs. Topical estrogen treatment had a dramatic effect on the incidence of recurrent UTIs – 0.5 in users versus 5.9 episodes per year in non-users. Significantly more women were *Lactobacillus* positive in the vaginal oestrogen group compared to placebo.

The considerable reduction in the frequency of symptomatic episodes of UTI in patients treated with estrogen also greatly reduced their use of antibiotics - 6.9 versus 32.0 days per patient over 8 months.

Across many studies, vaginal estrogen has been shown to reduce urinary frequency, urge incontinence, stress