

Symptomatic therapy of uncomplicated lower urinary tract infections in the ambulatory setting. A randomized, double blind trial (NCT01039545)

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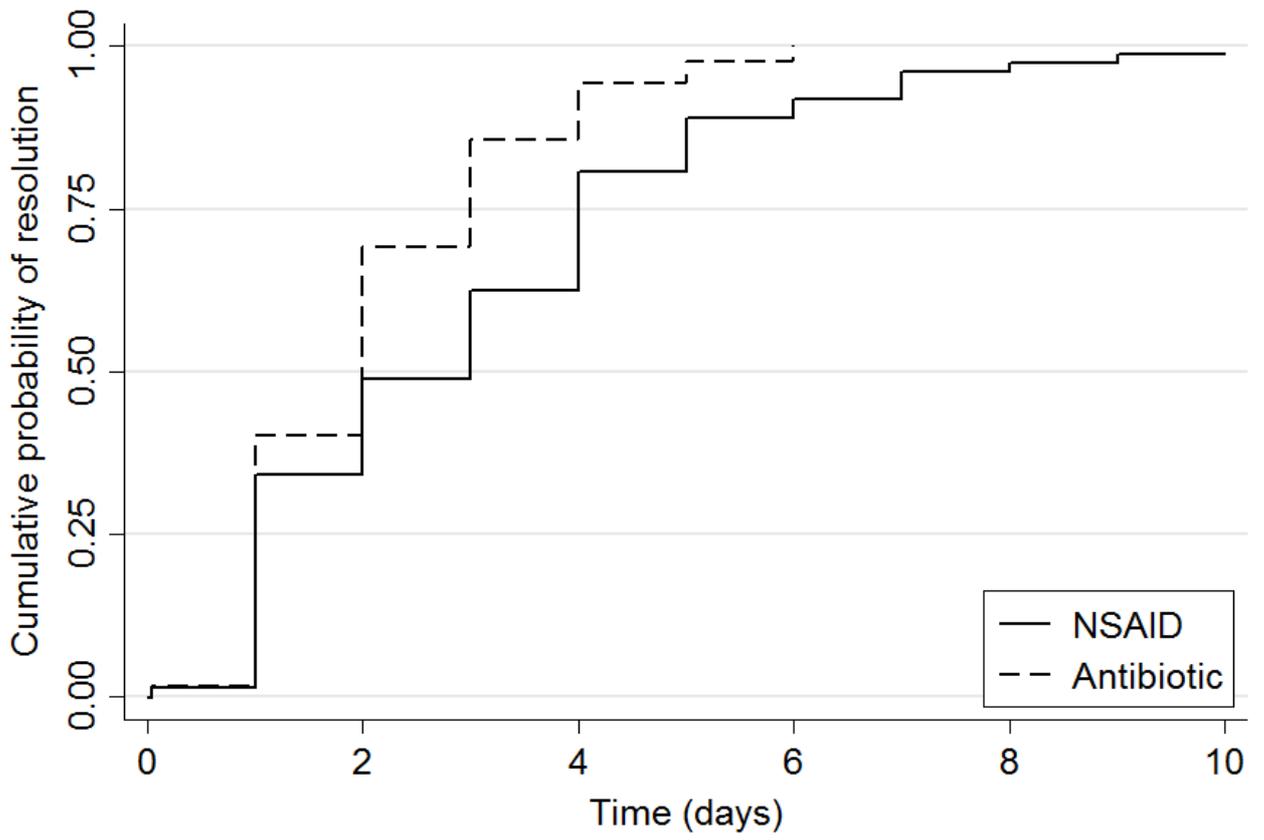
Objective: To determine whether treating uncomplicated lower urinary tract infections (UTI) in adult women with the non-steroidal anti-inflammatory drug diclofenac for three days is non-inferior to treatment with norfloxacin for three days.

Methods: Randomized, double-blind trial in 17 general practices in Switzerland. Women between 18 and 70 years of age, presenting to a study practice with at least one typical symptom of acute lower UTI (dysuria, frequency, macrohaematuria, cloudy or smelly urine or self-diagnosed cystitis) were eligible if urine dipstick was positive for nitrite and/or leucocytes. Exclusion criteria were pregnancy, signs of invasive infection (fever, lumbar pain), functional or anatomical abnormalities of the urinary tract and intolerance to any of the medications.

Patients were randomly assigned to diclofenac duo release 2x75mg for 3 days or the control antibiotic norfloxacin 400mg 2x400mg for 3 days. Primary outcome was the resolution of symptoms on day 3 defined as scoring ≤ 2 on all of the 5 following components assessed on a Likert scale from 0 ("no symptoms") to 6 ("as bad as it could be"): dysuria, frequency, urgency, abdominal pain when passing urine, and pain or tenderness in the lower back or loin. Patients received one dose of fosfomycin 3g as rescue therapy for day 3 if relevant symptoms persisted.

Results: 253 patients were randomized and included in the intention-to-treat analysis. Non-inferiority was missed. Resolution of symptoms at day three was lower with diclofenac as compared with norfloxacin (50 vs. 77%, risk difference 27%, 95% CI 15-38%). The same was true for day 7 (81 vs. 93%, risk difference 12%, 95% CI 4-21%). 61% of patients in the diclofenac group ever consumed antibiotics. Re-consultations because of urinary tract infections were higher in the diclofenac group (19 vs. 9%, risk difference 10%, 95% CI 1-19%). Adverse events did not differ significantly. One patient allocated to diclofenac experienced a serious adverse event with a hospitalization for intravenous antibiotic therapy because of pyelonephritis. Mean time until resolution was 3.1 days in the diclofenac vs. 2.3 days for the antibiotic group (difference 0.8 days, $p=0.002$, Fig 1).

Conclusion: Symptomatic therapy of uncomplicated lower urinary tract infections in adult women with diclofenac instead of norfloxacin was inferior in term of resolution of symptoms at 3 and 7 days and time to resolution.



	# at risk					
NSAID	133	80	41	11	3	1
Antibiotic	120	64	15	2	0	0