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**Abstract Reproduction Form B-1**

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Title (type in CAPITAL LETTERS): **INCIDENCE OF URINARY TRACT INFECTIONS IN WOMEN WITH UROGYNECOLOGICAL SYMPTOMS AND EFFICACY OF ROUTINE ANTIBIOTIC TREATMENT FOR THE PROPHYLAXIS OF URINARY TRACT INFECTIONS AFTER URODYNAMIC EVALUATION****Aim of study:**

Urodynamic testing is associated with one or more catheterizations. It is known, that any catheterization can cause urinary tract infections. Therefore some urodynamic units routinely administer prophylactic antibiotics before or after urodynamics even though the usefulness of this procedure is not established. This study was performed to test how many patients presenting with urogynecologic symptoms have a urinary tract infection. Furthermore the efficacy of antibiotic prophylaxis after urodynamic was evaluated.

**Methods:**

Women who presented to the urogynecological outpatient clinic were asked to participate in a prospective randomized single blind study. Included were all women who gave informed consent and whose urine stix test of a midstream urine specimen before urodynamics did not demonstrate nitrite and more than one plus leukocytes. Exclusion criteria were scheduled surgery, a history of recurrent urinary tract infections and of allergic reaction to cotrimoxazole.

All women underwent multichannel urodynamics. The examination included to catheterizations: one with a 14 Fr catheter for the determination of residual urine and to fill the bladder for a standardized pad test, the second with an 8 Fr microtip catheter for cystometry and for the measurement of the urethra pressure profile at rest and during stress.

Participants were randomized into a treatment group who received a single dose of two tablets of Cotrimoxazole (360 mg Trimethoprim and 1600 mg Sulfamethoxazole) and a placebo group who received two placebo tablets.

Midstream urine specimens were examined microbiological before and 5-8 days after urodynamics. Growth of > 10<sup>5</sup> bacteria was defined as evidence of urinary tract infection. If more than two bacterial species were found this was interpreted as contamination and the specimen was excluded.

**Results:**

Ninety-four women agreed to participate in the study. 6/94 midstream urine specimen before urodynamics were contaminated and had to be excluded. This left 88 specimens before testing.

11/88 (12.5 %) women had a urinary tract infection (growth of > 10<sup>5</sup> bacteria) before urodynamics.

Eighteen women failed to return for testing 5-8 days after urodynamics or provided a contaminated specimen. Therefore 70 women (37 in the treatment and 33 in the placebo group) remained for evaluation.

## Abstract Reproduction Form B-2

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Table 1 shows the number of urinary tract infections (UTIs) before and after urodynamics.

	before urodynamics	after urodynamics all infections	after urodynamics newly acquired infections
treatment (n=37)	5 (13.5 %)	1 (2.7 %)	1 (2.7 %)
placebo (n=33)	3 (9.1 %)	4 (12.1 %)	2 (6.1 %)

In the treatment group all women with UTIs before urodynamics were effectively treated with the single course antibiotics given after the examination. One woman acquired a new infection despite prophylaxis.

In the placebo group two women acquired a new UTI.

There were two incidences of side effects of cotrimoxazole treatment: one patient presented with a rash, no further treatment was necessary. Another patient had to be treated with cortisone injection because of a anaphylactic reaction with breathing difficulties and a whole body rash.

### Conclusions:

Urinary tract infections are frequent in a patient population presenting with urogynecological symptoms. Routine administration of antibiotics after urodynamics does not significantly reduce the number of newly acquired infections but does effectively treat those who come in with a UTI. The high number of side effects of cotrimoxazole (5.4 % in this study) further reduces its usefulness as a routine prophylaxis. Microbiological testing before urodynamics and specific treatment of those women with infections seems to be warranted.

### References:

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Br J Urol 1988;61:302-3.

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