

Dependence on urinary intermittent catheterisation elicits considerable worry about urinary tract infections

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Background: Urinary tract infections (UTIs) are among the most common complications in relation to bladder dysfunction and often linked to the use of intermittent catheters (IC)^{1,2}. Apart from enduring troublesome experiences with UTIs³, most IC users also undergo practical obstacles to avoid UTIs^{4,5}. The purpose of this study was to explore mental and practical challenges among IC users, to better understand their worries and knowledge about UTIs and preventive strategies.

Method: This was a multinational, cross-sectional study among IC users with bladder dysfunction. A questionnaire consisting of close-ended or rating questions was developed based on qualitative interviews of IC users, nurses, payers, and clinicians, and focused on concerns, perceptions, and preventive strategies regarding UTIs and IC use. The survey was conducted in 2015/2016 and included IC users from 6 different countries (Figure 1).

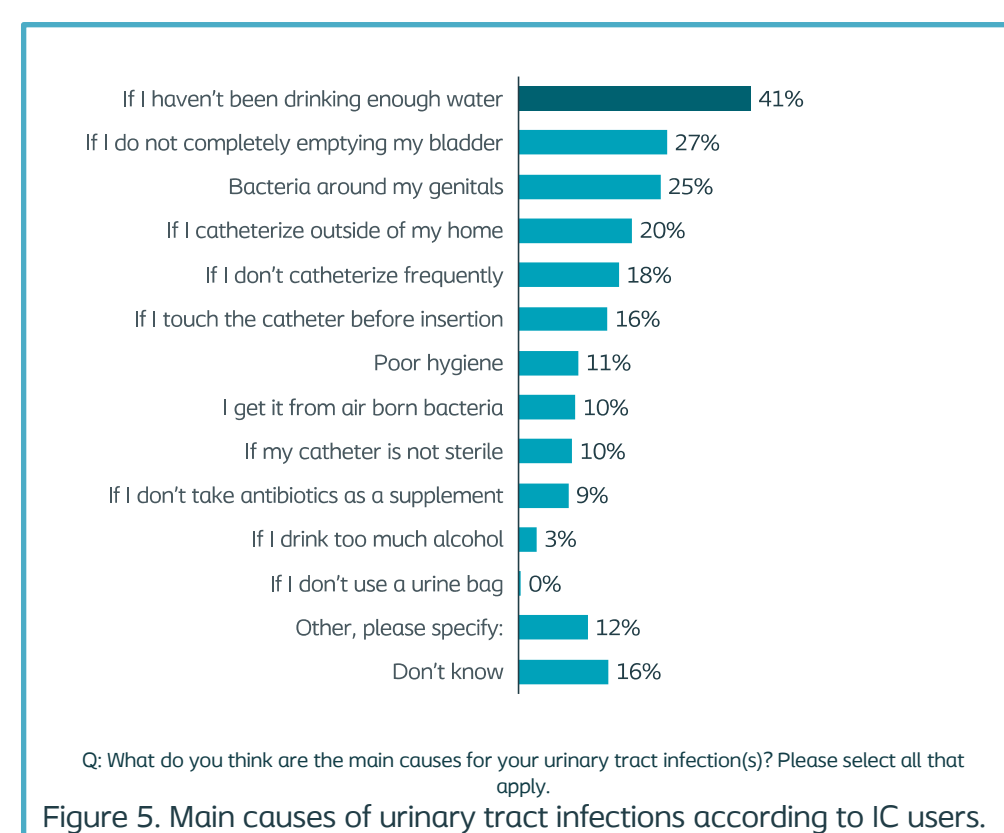
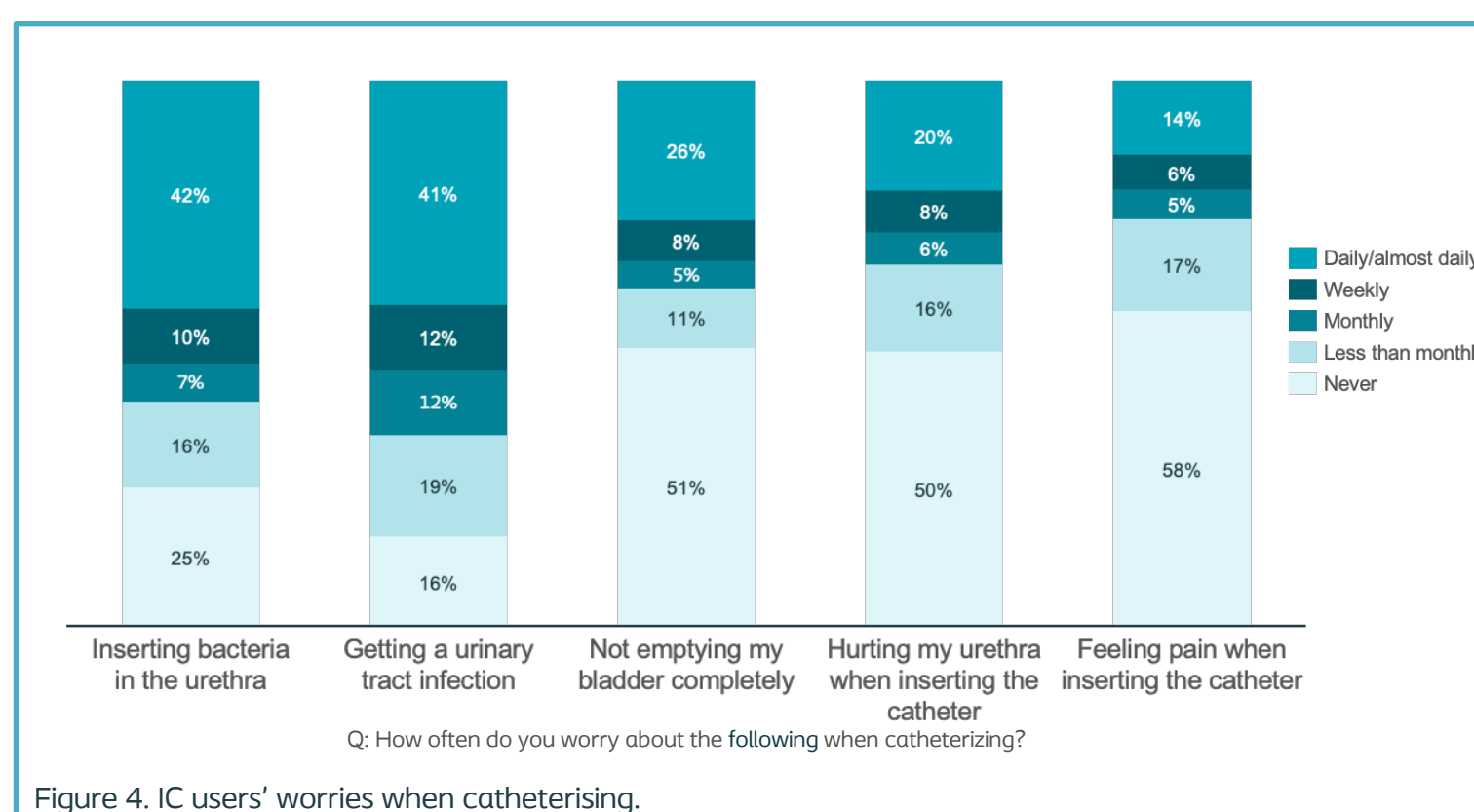
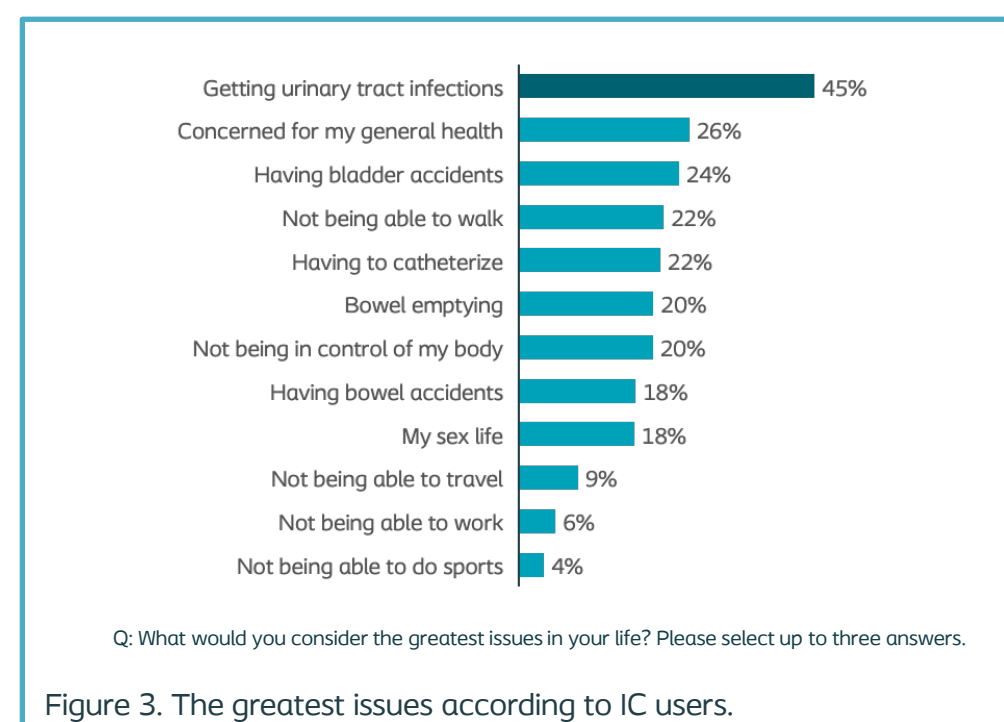
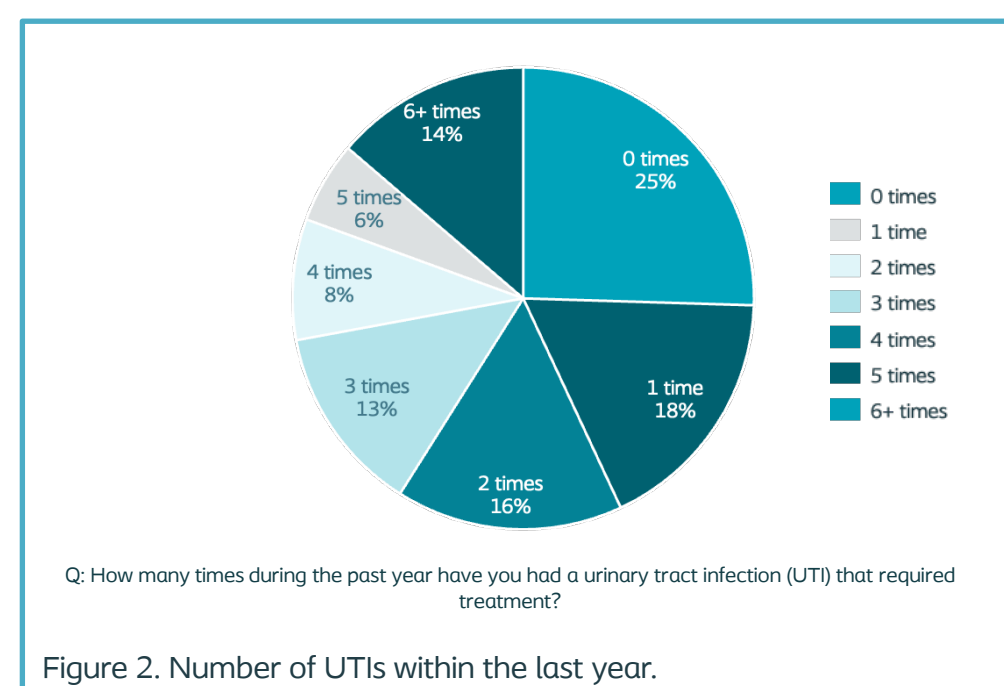
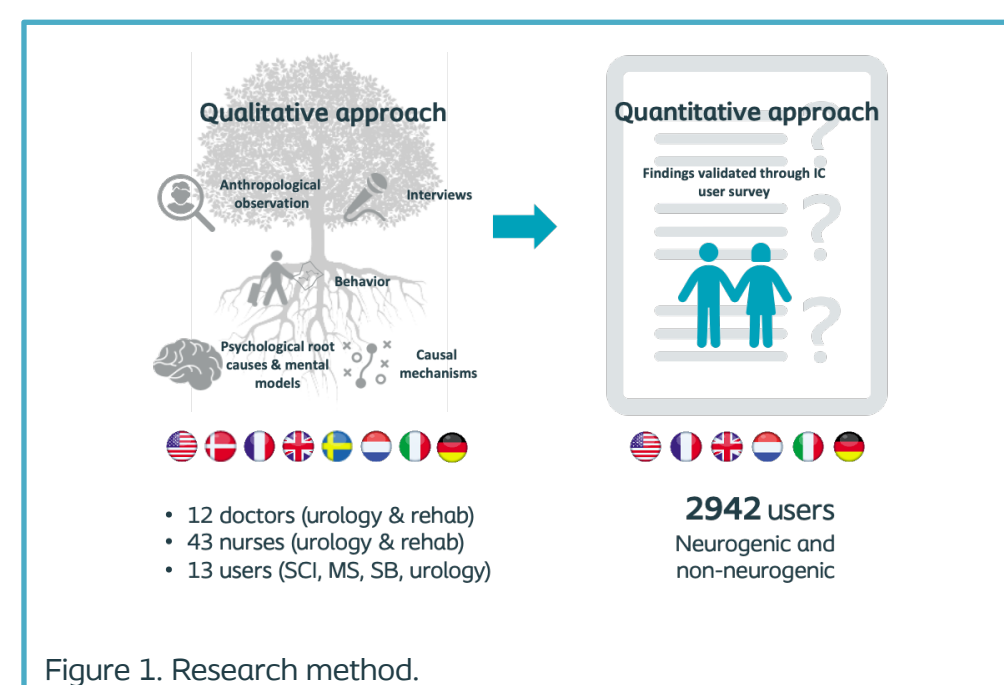
Results: In total, 2,942 participants completed the questionnaire. Almost half of the users were between the age of 50-69 years, almost 60% were male, and 97% had used IC for more than 6 months, 56% used IC due to neurogenic causes, 20% due to non-neurogenic causes, while the rest used it due to other causes than the listed or reasons unknown to the participant.

On average, participants reported 2.7 incidents of UTIs within the last year; 25% had not experienced any UTIs while 14% experienced it 6 times or more (Figure 2). In total, 45% of participants rated UTIs as their greatest concern in life (Figure 3), while 84% worried about UTIs occasionally and 53% daily or weekly (Figure 4).

A good bladder health was perceived as free of UTIs by 81% of participants (data not shown) while 49% worried about not emptying their bladder completely (Figure 4). In addition, 80% found it important to know if the bladder was completely empty after IC use, but only 30% felt that they always knew if it was completely empty (data not shown).

Participants indicated uncertainty about causes of UTIs, primarily attributing it to drinking insufficient amounts of water (41%), incomplete bladder emptying (27%), and bacteria around genitals (25%) (Figure 5).

Conclusion: Getting UTIs are IC users' greatest issues in their life. They spent a significant time worrying about getting UTIs as well as possible reasons and preventive strategies to avoid them, such as drinking enough water, emptying the bladder bladder completely, and avoiding to insert bacteria in the urethra. More psychologic and social support to prevent UTIs is needed for IC users to improve their well-being.



References: 1: Kinnear N et al. The impact of catheter-based bladder drainage method on urinary tract infection risk in spinal cord injury and neurogenic bladder. A systematic review. *Neurourol Urodyn.* 2020; 39: 854-62. 2: Patel DP et al. Study protocol: patient reported outcomes for bladder management strategies in spinal cord injury. *BMC Urol.* 2017; 10: 17-95. 3: Kennelly M et al. Adult neurogenic lower urinary tract dysfunction and intermittent catheterisation in a community setting: Risk factor model for urinary tract infections. *Adv Urol.* 2019:2757862. 4: Goldstine J et al. In their own words: Adults' lived experiences with intermittent catheterization. *J Wound Ostomy Continence Nurs.* 2019; 46: 513-8. 5: Roberson D et al. Results of the patient report of intermittent catheterization experience (PRICE) study. *Neurourol Urodyn.* 2021; 40: 2008-19.