

# UTI Assessment Tool for Intermittent Catheter Users: A Systematic and Collaborative Tool to Assess Risk Factors of Urinary Tract Infection

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## Introduction & Objective

Urinary tract infections (UTIs) are a significant burden for users of intermittent catheterisation (IC). The variety of risk factors associated with UTIs complicates the detection and management of the causes for the individual user.<sup>1</sup>

Our project aimed at developing a UTI assessment tool that supports healthcare professionals (HCPs) in evaluating risk factors in a systematic and collaborative way in the clinical practice, while taking the user's perspective into account.

## Materials & Methods

The Design Thinking process was used to develop the UTI assessment tool: Empathise, Define, Ideate, Prototype and Test<sup>2</sup> (Figure 1).

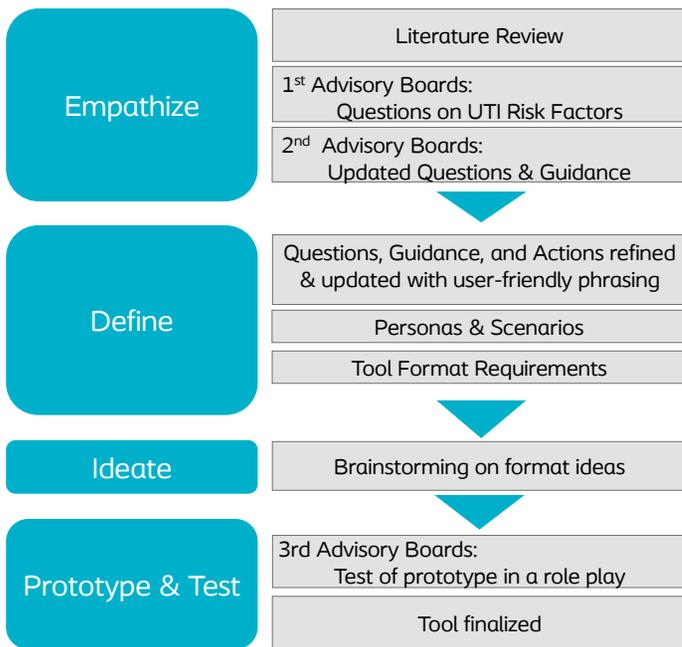


Figure 1: Process of developing the UTI assessment tool for intermittent catheter users, according to the Design Thinking Process

## Results

- Literature review: 22 published articles were included
- Approximately 90 nurses in 8 countries participated in the Advisory Boards
- A UTI assessment tool for intermittent catheter users was developed (Figure 2.)
  - 6 sections: UTI confirmation, Health, Adherence, Technique, Catheter, and Support

22 published articles

Approximately 90 nurses in 8 countries



Figure 2: The elements of the UTI assessment tool for intermittent catheter users: A Guide for healthcare professionals, a Dialogue board, and a Personal form notepad

## Discussion

The literature review revealed:

- Intermittent catheter users are uncertain of the causes and symptoms of UTIs
- Fitting and adhering an IC routine into daily life is a challenge
- Catheterization technique may be unclear
- Education and individual catheter selection are important

Based on the Advisory Boards' input, the UTI assessment tool for intermittent catheter users was created including:

- A guide for healthcare professionals, featuring questions to identify UTI risk factors as well as some guidance and recommended actions
- A dialogue board to be shared with the users, with additional illustrations and text to facilitate the users' understanding and support the dialogue between the HCP and the user
- A notepad with copies of the dialogue board, so that each sheet be used as a personal form to take notes from the assessment and share it with the users to take home

## Conclusions

The *UTI assessment tool for intermittent catheter users* has been developed to allow a systematic assessment of the UTI risk factors for IC users, while considering the user's perspective.<sup>3</sup> It supports the education of new nurses and the clinical practice for HCPs by providing a structured dialogue approach to identify and handle UTI risk factors for the individual user. Therefore, it may help prevent future UTIs and unnecessary antibiotic treatment.

<sup>1</sup>Kennelly, M., et al., *Adult Neurogenic Lower Urinary Tract Dysfunction and Intermittent Catheterisation in a Community Setting: Risk Factors Model for Urinary Tract Infections*. *Adv Urol*. 2019; 2019:2757862An Introduction to

<sup>2</sup>Design Thinking: Process Guide. Hasso Plattner Institute of Design at Stanford: stanford.edu.

<sup>3</sup>Vahr Lauridsen S, Averbek M, Krassioukova A, Vaabengaard R, Athanasiadou S. *UTI assessment tool for Intermittent Catheter users: INCLUDING user perspectives to improve the standard of care*. 2022.