

## CLEAN INTERMITTENT CATHETERIZATION AS A TREATMENT MODALITY FOR URINARY RETENTION: PERCEPTION OF THE UROLOGIST.

### Hypothesis / aims of study

Clean intermittent catheterization (CIC) has revolutionized the modern management of voiding dysfunction and is now considered the gold standard for the management of urinary retention [1]. In literature, a number of articles on patient's perspectives of CIC and adherence to this technique have been published. No data are available in literature reporting the viewpoint of the professional caretaker (nurse, doctor).

The aim of the study was to explore the opinion of the urologist on self-catheterization and to evaluate the need for dedicated nurses specialized in CIC through a self-administered questionnaire.

### Study design, materials and methods

In our department of Urology, a questionnaire was developed by an expert panel of urologists and nurses to explore the opinion of the professional caretaker on self-catheterization and to evaluate the need for specialized education of nurses in CIC. The questionnaire consists of 31 multiple choice questions that assess 5 dimensions: demographical data (5 questions), decisive factors to propose CIC to patients (12 questions), decisive factors for not proposing CIC to patients (9 questions), CIC as a treatment option for yourself (3 questions) and professional experience with CIC (2 questions). Participants were asked to rate each item from 1 (no influence/strongly disagree) to 6 (major influence/strongly agree). A total score was calculated as the equal average of the ratings (RA, rating average) per question. The questionnaire was sent to 244 unique email addresses of urologists in 2015 and was made available online by using SurveyMonkey (<https://www.surveymonkey.com>).

The analysis was carried out by using SPSS version 19.0. The results are presented in mean + 95% -confidence interval and percentages. The results were interpreted using the one-sample Student's t-test.

### Results

#### *Demographical data*

Questionnaires were sent to the 244 available email addresses of urologists. The overall survey response rate was 42.6%. 38% work in a private hospital setting, 31% in a public hospital, 27% at a university hospital and 14% in a private practice. When asked about their years of experience, 26% are resident urologists, 24% have less than 10 years of experience, 28% have between 11-25 years of experience and 22% of the respondents have more than 25 years of experience. 65.3% of the questioned urologists propose CIC to 1 to 3 new patients each month, and 11.2% never propose CIC to patients. Only 57.4% of the urologists report always having a dedicated nurse in their team. 25.7% of the participants say they have a dedicated nurse to their disposal 'most of the time', and 5% 'never' have a dedicated nurse for CIC available

#### *Decisive factors to propose CIC to patients*

When the patient becomes older, age starts to become an influencing factor (age between 55-75 has a rating average of 2.81 [2.4-3.14] and age >75 years old 3.88 [3.54-4.21]). Hand function (RA 5.24 [5.06-5.42]), tremor (RA 4.59 [4.34-4.83]), visual handicap (RA 4.28 [4.02-4.54]) and decreased mobility of the patient (RA 3.83 [3.55-4.11]) were rated as factors influencing the decision to propose CIC to a patient. 'Obesity' is similarly rated as 'decreased mobility of the patient' (RA 3.74 [3.47-4.01]). Wheelchair dependence and cognitive function were scored with a rating average of 3.23 [2.93-3.53] and 3.86 [3.60-4.11] respectively.

#### *Decisive factors for not proposing CIC to patients*

Only 5.8% of the respondents think that patients do not want self-catheterization (RA 2.23 [1.96-2.51]). The statement that CIC is repulsive and invasive is scored with a rating average of 2.40 [2.14-2.65] and 2.62 [2.38-2.87] respectively. The absence of a specialized nurse is not perceived as a problem for proposing CIC to patients for 51.5% of the respondents (RA 2.36 [2.01-2.70]). 58.3% do not perceive CIC as too expensive for the society (RA 1.66 [1.47-1.87]). 47.6% of the participants disagree with the statement that CIC causes more problems for the patient e.g. infection, injury,... (RA 1.89 [1.67-2.12]).

#### *CIC as a treatment option for yourself*

Only 32.3% of the respondents fully disagree with the fact that CIC is considered 'invasive' (RA 2.68 [2.36-3.00]). 52.0% of the questioned urologists do not find CIC repulsive (RA 1.86 [1.63-2.09]).

When asked what kind of catheterization they would prefer for themselves, 77.4% would choose self-catheterization.

#### *Professional experience with CIC*

When asked if urologists would be more eager to propose CIC to patients if they would have a specialized nurse to their disposal, 44.0% of the study population fully agrees (RA 4.23 [3.84-4.62]), yet 20.0% fully disagrees. 22.8% of the participants think that they would consider teaching self-catheterization to more patients if they would be some form of financial compensation (RA 3.41 [3.01-3.80]).

### Interpretation of results

It is clear that age is taken into account when proposing CIC. The self-catheterization becomes less convenient with age due to co-morbidities (e.g. tremor, vision impairment) or loss of the skills needed to perform CIC. Performing CIC involves a number of key skills: organizational skills (preparation of materials), broad motor skills (when and how to sit and stand), fine motor skills

(hand dexterity), and sensory input (perception and interpretation of sensory input). [1] The survey shows that, in order of importance, diminished hand function, tremor and decreased vision are factors that influence the decision to propose CIC. Factors such as mobility and central obesity may interfere with positioning for introducing the catheter into the urethra. Our results show that obesity and diminished mobility are perceived as less important than fine motor skills. A major part of the urologists thinks that patients perceive CIC as invasive and repulsive but patients report the self-catheterization as easy, mostly painless, not interfering with their daily life activities and a serious improvement of their life quality. [2] Two out of ten urologists think that a financial compensation would give them more incentive to propose CIC to patients. More than half of the participants think they would offer CIC to more patients if they had a specialized nurse to their disposal. It is clear from this survey that not only financial factors play a role, but also the presence of expertise and time for a qualitative CIC care. This indicates the need for training courses and dedicated nurses.

#### Concluding message

In order of importance, diminished hand function, tremor and decreased vision are factors that are of paramount importance in the decision to propose CIC to patients. Other factors are cognitive status of the patient, limited mobility and old age. A surprisingly high number of urologists still think patients perceive this procedure as invasive and repulsive, but this perception is contradicted by literature. A financial compensation for CIC is desirable, but it is clear that not only financial factors play a role, but also the presence of expertise and time for qualitative CIC care. Herein lays a potential role for dedicated nurses.

#### References

1. Seth JH, Haslam C, Panicker JN. Ensuring patient adherence to clean intermittent self-catheterization. *Patient Preference Adherence*. 2014;8:191-8
2. Kessler TM, Ryu G, Burkhard FC. Clean intermittent self-catheterization: A burden for the patient? *Neurourol Urodyn*. 2009;28(1):18-21

#### Disclosures

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