Summary

Assessing the concordance of treatment decisions of trained urologists to TIPS® – an expert derived decision algorithm to identify patients with overactive bladder syndrome benefiting from sacral neuromodulation

Background: Overactive bladder syndrome (OAB) affects the lives of millions of people worldwide and antimuscarinics are the pharmacological treatment of choice. However, the effectiveness of antimuscarinics is limited and many patients discontinue treatment due to adverse events. Sacral neuromodulation (SNM) has become a well established treatment for refractory OAB and has been incorporated in the most important urological guidelines. Nevertheless, most patients suffering from refractory OAB seem to be inappropriately treated and evidence suggests that urologists are hesitant referring patients qualifying for SNM. One reason for this might be that their personal referral algorithm considers too many or wrong absolute contraindications without being aware of them or able making this personal attitude explicit.

Objectives: In this study we aim at investigating urologists’ referral attitude for SNM and we plan to identify the importance they attribute to clinical parameters to refrain from referral. Moreover, we compare the weights they attribute to absolute contraindications of SNM as defined in a recent expert consensus with those they considered to be contraindications.

Methods: Based on a recently published decision algorithm for SNM selection (Tool for InterStim® Patient Selection, TIPS®, www.tips-snm.org), we identified five independent and relevant clinical indicators to be considered (polyuria, fecal incontinence, diabetes mellitus, current medication with antimuscarinics, and cardiac pacemaker) and four absolute contraindications for SNM (anatomical low bladder compliance, current urinary tract infection, urinary tumors, progressive neurological disease). Using these, we set up a discrete-choice conjoint analysis experiment. We constructed and piloted 16 pairs of clinical case descriptions of patients with OAB with varying clinical characteristics. Each vignette contains six parameters, the five clinical indicators and one out of four absolute contraindications. The companion vignette to build a pair contains the complement information, i.e. if polyuria is present in the first vignette it is absent in its pair. For each pair we will ask the urologists to read all 16 pairs of clinical cases in the order presented and tick, for each pair, the patient whom they think would qualify less for SNM.

Statistical analysis: To analyze the attributed weights of the conjoint analysis, we will perform a logistic regression analysis, where the respondents’ choice will be the dependent variable (Vignette A=0, vignette B=1). The independent variables are the differences in attribute values for each vignette pair. For example if vignette A describes a patient with polyuria and consequently vignette B does not, the value of polyuria in this vignette pair will have the value of A-B or 1-0=1. In the opposite case, the value of polyuria is -1 (Vignette A- Vignette B: 0-1). We will exclude the intercept from the logistic regression model. The coefficients of the regression model correspond to the attributed weights for the specific clinical variable. We will use robust variance estimates that adjust for within-cluster correlation among the 16 vignette pairs of each individual participant.

Outlook: We believe that studies of medical choice and judgment offer many attractive and new insights into medical action. They also offer a unique opportunity to improve quality of care. More specifically, they will allow us increasing our understanding of urologists’ treatment referral for SNM of patients with OAB. Finally, the findings of this study will allow us developing an educational intervention to increase adequate referral.