

## THE TRS CLASSIFICATION SYSTEM OF LOWER URINARY TRACT DYSFUNCTION, PART A.

### Hypothesis / aims of study

Dysfunctional voiding syndromes have been difficult to classify in a way that provides a high degree of specificity and sensitivity. Present terminology is so broad based and non-specific that little incite is provided as to the degree of abnormality that exists, the specific path of therapy, and whether two patients are indeed sharing the same problem, e.g. "Overactive Bladder." An alternative, neurological approach is herein proposed as a way to provide a more accurate, comprehensive assessment of the dysfunctional lower urinary tract.

### Study design, materials and methods

Detrusor (D) and sphincter (SP) behavior can be assessed using traditional neurological criteria of tone (T), reflex excitability (R), and sensation (S). Each of these components is assessed at the level of the bladder and the sphincter. For the bladder, T, R, and S scores of 3 are given for volume less than 100 cc, 2 for 101 to 200 cc, 1 for 201 to 300 cc, and zero for normal storage between 301 and 500 cc, respectively. A score of -1 is assigned for bladder volumes greater than 500 cc. For the sphincter, T and R scores are based on an idealized norm of 60 to 75 cm H<sub>2</sub>O. A score of 1 is given for 76 to 85 cm H<sub>2</sub>O, 2 for 86 to 95 cm H<sub>2</sub>O, and 3 for greater than 95 cm H<sub>2</sub>O. A score of -1 is given for values less than 60 cm H<sub>2</sub>O. S is scored by clinical pain scales, where 1 is for mild pain, 2 for moderate pain, 3 for severe pain, and 0 for no pain. The resulting lower urinary tract dysfunction can then be expressed in the following format D - T<sub>-1-3</sub> R<sub>-1-3</sub> S<sub>-1-3</sub>// SP - T<sub>-1-3</sub> R<sub>-1-3</sub> S<sub>0-3</sub>.

### Results

The overactive bladder can result form a variety of lower urinary tract disturbances – hypersensitivity of the bladder or sphincter, hyperreflexia of the bladder or sphincter, or hypertonicity of the bladder or urethra. Each of these disorders would be identified using the TRS classification system. For example, a patient with a hyperreflexia, hypersensivity and normal tone of the bladder, and normal sphincter function would score a D-T<sub>0</sub>R<sub>2</sub>S<sub>2</sub>, SP-T<sub>0</sub>R<sub>0</sub>S<sub>0</sub>. A patient with normal bladder function, but hypertonic, normoreflexic sphincter and mild pain would score a D-T<sub>0</sub>R<sub>0</sub>S<sub>0</sub>, SP-T<sub>2</sub>R<sub>0</sub>S<sub>1</sub>.

### Concluding message

The TRS system offers a simple, logical approach to classifying lower urinary tract dysfunction. Other benefits would follow, in particular, a more concise and accurate clinical description of a patient's symptoms for conferencing, more accurate and focused pharmacological studies, better assessment of surgical care, and clearer research path.