

## **Clustering of UPOINT Domains and Subdomains in Men with Chronic Prostatitis/Chronic Pelvic Pain Syndrome and Contribution to Symptom Severity**

**Introduction and Objectives:** The UPOINT system characterizes men with chronic prostatitis/chronic pelvic pain syndrome (CP/CPPS) according to 6 domains. Some domains have multiple possible criteria, but grouping of these criteria has never been validated. Domain clustering may give clues to etiology or treatment of individual phenotypes. We examined domain clustering patterns and the contribution of individual domains and subdomains to symptom severity.

**Materials and Methods:** Records were reviewed from 220 CP/CPPS patients, including 120 characterized by UPOINT alone and 100 by subdomains: Urinary (Voiding, Storage), Psychosocial (Catastrophizing, Depression), Organ-Specific (Bladder, Prostate), Infection (Prostatic, Urethral), Neurologic/Systemic. The Chronic Prostatitis Symptom Index (CPSI) was used to measure symptom severity.

**Results:** For Urinary, Psychosocial, Infection and Neurologic/Systemic, subdomains had similar incidences; however, Organ-Specific-Prostate was more common than Organ-Specific-Bladder (51% vs 33%). By cluster analysis with multidimensional scaling, Urinary, Organ-Specific and Tenderness clustered together, as did Neurologic, Infection and Psychosocial. Of subdomains, Organ-Specific Prostate and Bladder diverged but the others clustered together. Domains that significantly contributed to the total CPSI were Urinary, Psychosocial and Tenderness but only Psychosocial contributed independently to the QOL subscore.

**Conclusions:** UPOINT domain criteria capture a homogeneous group for each domain except Organ-Specific in which Bladder and Prostate diverge. The Organ Specific Bladder subdomain may identify a subset of these men with interstitial cystitis/painful bladder syndrome. Clustering of domains specific to the pelvis (Urinary, Organ-Specific, Tenderness) versus systemic (Neurologic, Infection, Psychosocial) suggests 2 patient populations who may differ in pathophysiology and treatment response. The primary drivers of pain in CPPS are pelvic floor tenderness, depression and catastrophizing.