

THE COST OF PREOPERATIVE URODYNAMICS: A SECONDARY ANALYSIS OF THE VALUE TRIAL

Hypothesis / aims of study

Urodynamic investigations before surgery are the generally accepted standard procedure throughout much of the world, but is a procedure for which there is insufficient evidence to support. The aim of this study was to describe the additional expense of urodynamic testing over a basic office evaluation in a randomized trial comparing the two measures.

Study design, materials and methods

This is a secondary analysis from the Value of Urodynamic Evaluation (ValUE) trial, a multicenter non-inferiority randomized trial to determine whether a basic office evaluation (OE) is non-inferior in terms of stress urinary incontinence (SUI) surgery outcomes to office evaluation with addition of urodynamic studies (UDS.) Women planning surgery for uncomplicated SUI were recruited at eleven U.S. sites. Inclusion criteria included predominant SUI as evidenced by all of the following: Self-reported stress-type UI symptoms of duration >3 months, MESA stress symptom score (percent of total possible stress score) greater than MESA urge symptom score (percent of total possible urge score). The basic office evaluation included the MESA questionnaire, provocative stress test, post-void residual (PVR), dipstick urinalysis, assessment of urethral mobility, and a standing, straining prolapse exam. Those patients who randomized to additional UDS underwent non-instrumented uroflowmetry (NIF), catheterized PVR, filling cystometry with valsalva leak point pressures, and a pressure flow study. Costs associated with UDS were calculated using 2011 U.S. Medicare allowable charges (www.CMS.gov), with the primary procedure paid at 100% and additional procedures paid at 50% for the second procedure, and 25% for additional procedures. Direct costs over the first year after surgery are being collected using Medicare resource-based relative value scale charges for physician services. Results of UDS were recorded using ICS recommended nomenclature and diagnoses.

Results

630 women were randomized to OE or OE plus UDS. There was no difference in surgical outcomes between the two groups (1). The cost of the UDS over OE varied from site to site, but at a minimum included complex cystometrogram \$308-\$332 (CPT codes 51725-51729) plus complex uroflowmetry \$43 (CPT code 51741). Private insurance costs, which would cover 50-70% of such patients in the U.S., is 2-3 times the Medicare allowables (i.e. \$600-900 for cystometrogram.) Incremental costs incurred over the first year after surgery are being analyzed for the two groups.

Interpretation of results

For women with uncomplicated SUI undergoing incontinence surgery, preoperative urodynamics adds additional cost without benefit over a basic office evaluation in terms of surgical outcomes. While practices differ within and between countries, the additional testing with costly equipment and clinician time can add considerable burden to the care of incontinent women. These data should be considered as applicable only to uncomplicated predominant SUI, and do not affect recommendations for UDS in the setting of complicated incontinence and voiding dysfunction.

Concluding message

Urodynamic testing added considerable costs over a basic office evaluation of women with uncomplicated stress predominant incontinence, without benefit in terms of surgical outcomes.

References

1. Peer-reviewed Journal, in press, embargoed until May 20, 2012

Disclosures

Funding: National Institute of Diabetes and Diseases of the Kidney **Clinical Trial:** Yes **Public Registry:** Yes **Registration Number:** ClinicalTrials.gov ID Registration Number: NCT00803959 **RCT:** Yes **Subjects:** HUMAN **Ethics Committee:** University of Utah Institutional Review Board #0030993 **Helsinki:** Yes **Informed Consent:** Yes