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## Has the Use of Preoperative Urodynamics for Stress Urinary Incontinence Surgery Changed Following the VALUE Study?

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## **Abstract**

**Aims:** To assess whether routine urodynamic testing (UDT) in women undergoing slings for uncomplicated stress urinary incontinence (SUI) has decreased following publication of the landmark VALUE study, which recommended against routine UDT in uncomplicated SUI.

**Methods:** We identified women in the Virginia All Payers Claims Database diagnosed with SUI between 2011 and 2016 using International Classification of Disease (ICD) codes (N39.3, 625.6). Appropriate ICD/CPT (current procedural terminology) codes were used to exclude non-index patients (prior anti-incontinence/prolapse surgery, urge incontinence, neurogenic bladder). Beta regression was used to assess for changes in the monthly proportion of urethral slings with preoperative UDT. Interventional ARIMA modeling was used to assess for a relationship between the date of VALUE (The Value of Urodynamic Evaluation) publication and the incidence of slings with preoperative UDT.

**Results:** Analysis identified 6740 women with SUI undergoing sling placement, with 343 non-index patients excluded. Of 6397 remaining women, 4026 (62.9%) underwent preoperative UDT. The annual number of slings with preoperative UDT declined from 748 to 402 between 2011 and 2016. Beta regression analysis demonstrated a decrease in the proportion of slings with preoperative UDT over the study (68%, 2011; 58%, 2016), with a statistically significant decrease in the proportion of slings with UDT after May 2012 ( $\beta$  coefficient, -.0093; P < .001). Interventional ARIMA models showed a trend toward decreasing slings with preoperative UDT after the VALUE trial (P = .057).

**Conclusions:** Our analysis demonstrated a decrease in the proportion of women undergoing preoperative UDT in uncomplicated SUI patients following the VALUE study. Further research is needed to examine factors underlying UDT utilization trends and promote value-driven care.

**Keywords:** mid-urethral slings; perioperative evaluation; stress urinary incontinence; urodynamics.

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