

TRENDS IN UTILIZATION OF URODYNAMICS IN U.S. MEDICARE BENEFICIARIES, 2000-2010

Hypothesis / aims of study

We sought to describe national trends in the use of urodynamics (UDS) procedures in women enrolled in the U.S. Medicare program between 2000 and 2010.

Study design, materials and methods

Using 5% Medicare administrative files obtained from the U.S. Centers of Medicare and Medicaid Services for the years 2000-2010, we identified female beneficiaries having undergone UDS during this time frame by the presence of claims in the carrier file designated with Common Procedure Codes (CPT) for cystometrogram (51725, 51726, 51727, 51728, 51729). We abstracted demographic and clinical data from the claims and denominator files, using CPT codes and ICD-9 diagnosis codes. Age was categorized as <65, and >84, then by 5 year increments. Race/ethnicity categorized as white, black, or other. U.S. regions were designated by U.S. census definitions. We designated provider types performing UDS as urologist, gynaecologist or other. We calculated rates (per 100,000 female Medicare beneficiaries) and percentages and analyzed these across time periods between 2000 and 2010. Unweighted procedure counts were multiplied by 20 to estimate the total among all female Medicare beneficiaries.

Table

| Diagnoses at time of UDS | % of UDS |
|-------------------------------|----------|
| Any UI | 74% |
| Stress UI | 50% |
| Voiding dysfunction | 12% |
| Other LUTS | 23% |
| Neurogenic bladder | 8% |
| Pelvic organ prolapse | 15% |
| Fistula/diverticula/stricture | 2% |
| Interstitial cystitis/pain | 4% |
| Other diagnoses | 9% |

Figure 1

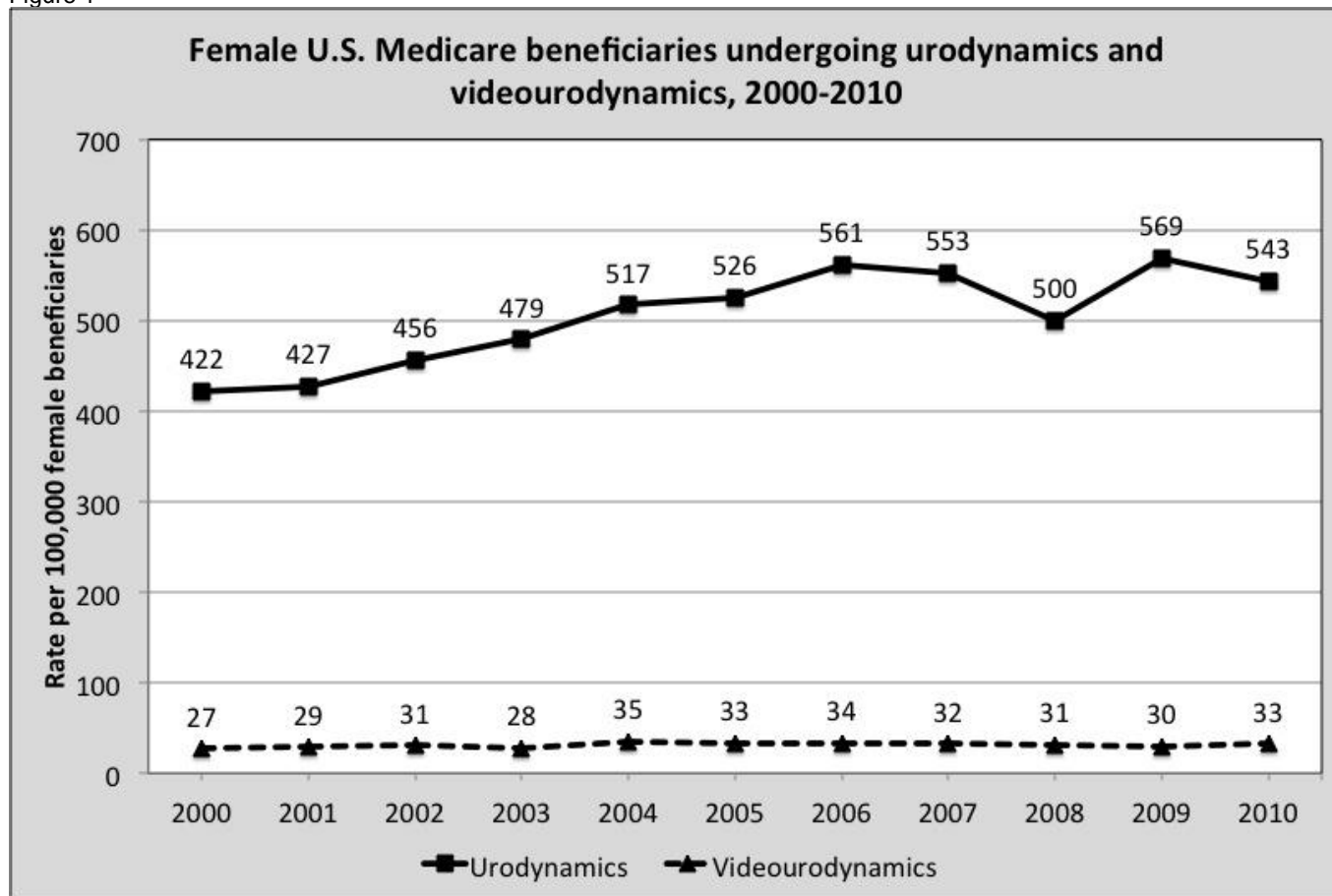
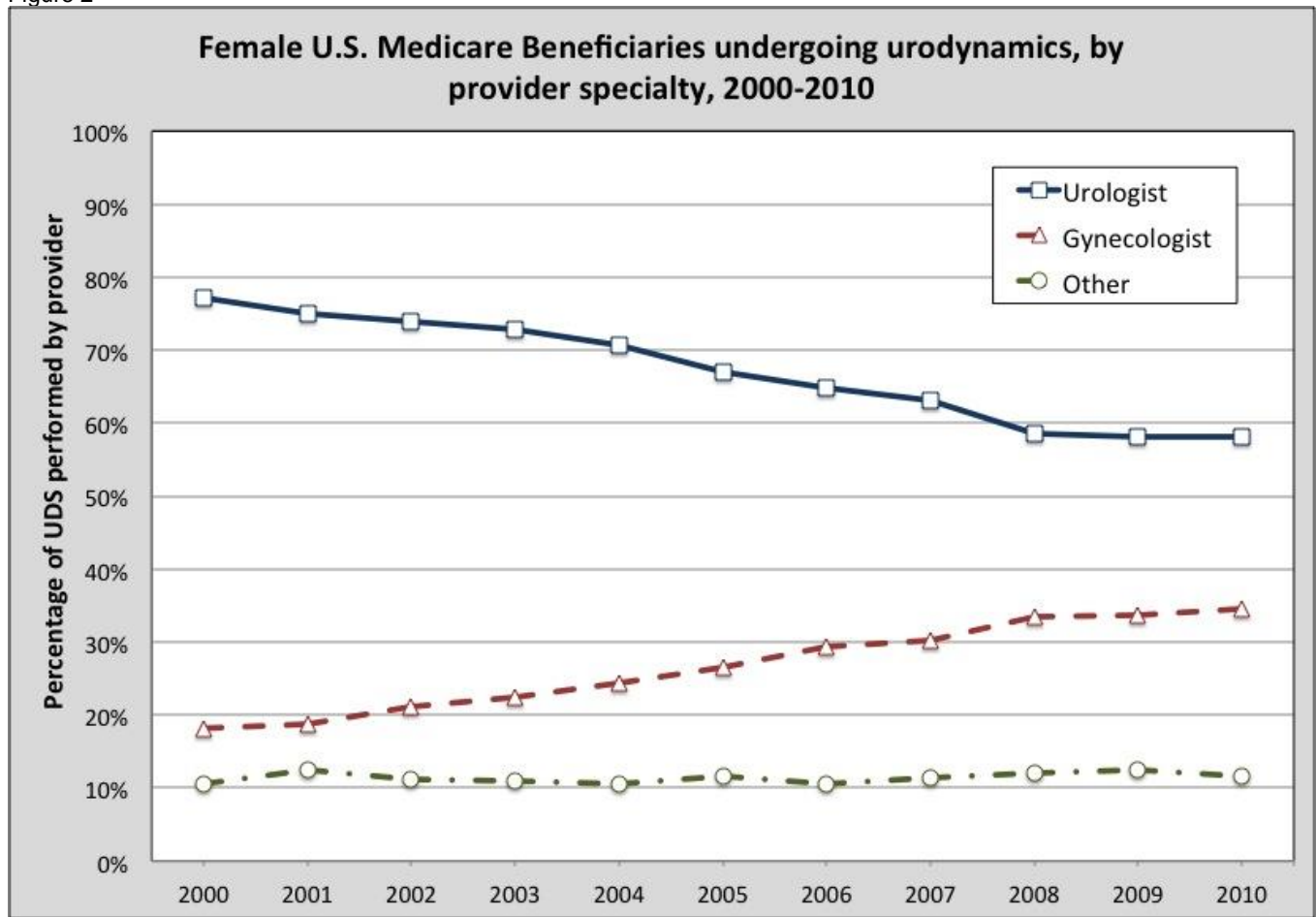


Figure 2



Results

During the study period, we identified a total of 70,207 unique women who underwent UDS, which extrapolates to 1.4 million Medicare beneficiaries. 6% of UDS represented videourodynamics. The rate of women undergoing UDS per 100,000 female beneficiaries increased by 29% from 422 in 2000 to 543 in 2010 (figure 1). UDS were consistently performed at higher rates for women aged 70-74 and 75-79 than other age groups. White women underwent higher rates of UDS than other races/ethnicities; black women underwent UDS at the lowest rates. Most UDS were performed in women living the South; the fewest in the West. The percentages of UDS performed by urologists steadily decreased from 77% to 58% and those by gynaecologists increased from 18% to 35% from 2000 to 2010 (figure 2). The most common diagnoses were any urinary incontinence (UI) in 75% of UDS, including stress UI in 50% (table). Diagnoses did not change over the time period.

Interpretation of results

The rates of women who underwent UDS increased overall, but there were differences in usage across patient age groups, race categories and U.S. census regions. An increasing percentage of UDS were performed by gynaecologists vs. urologists. UI and specifically stress UI were the most common diagnoses coded at the time of UDS.

Concluding message

We identified differences in UDS usage across many variables, which suggest that there may be gaps in consistency and perhaps appropriateness of UDS in this population. Additional study is warranted to better explain these inconsistencies.

Disclosures

Funding: None **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** Vanderbilt University Institutional Review Board **Helsinki:** Yes **Informed Consent:** No