Clinical Policy: Urodynamic Testing

Description
Urodynamic testing is an important part of the comprehensive evaluation of voiding dysfunction. The clinician must exercise clinical judgment in the appropriate selection of urodynamic tests following an appropriate evaluation and symptom characterization. The purpose of this policy is to define medical necessity criteria for commonly used urodynamic studies.

Policy/Criteria
I. It is the policy of Louisiana Healthcare Connections that urodynamic testing is medically necessary to assist in the diagnosis of urologic dysfunction with any of the following indications:
   A. Uncertain diagnosis and inability to develop an appropriate initial treatment plan based on the clinical diagnostic evaluation;
   B. Failure to respond to an adequate therapeutic trial;
   C. Consideration of urologic surgical intervention, particularly if previous surgery failed or if the patient is a high surgical risk;
   D. Presence of other comorbid conditions such as any of the following:
      1. Incontinence associated with recurrent symptomatic urinary tract infection;
      2. Persistent symptoms of difficult bladder emptying;
      3. History of previous anti-incontinence surgery or radical pelvic surgery;
      4. Symptomatic pelvic prolapse;
      5. Abnormal post-void-residual urinalysis;
      6. Diabetes mellitus with secondary urinary incontinence;
      7. Neurological conditions affecting voiding function (neurogenic bladder) such as multiple sclerosis, Parkinson’s disease, and spinal cord lesions or injury;
      8. Complex anorectal malformation.

II. It is the policy of Louisiana Healthcare Connections that urodynamic testing in the following cases is considered not medically necessary:
   A. More than one cystometrogram (CPT codes 51725 or 51726) or uroflowmetry study (CPT codes 51736 or 51741) per visit.
   B. The use of any urodynamic testing for screening in asymptomatic patients, except for evaluation of neurogenic bladder or urological abnormalities associated with complex anorectal malformation.

Background
Lower urinary tract symptoms, which include urinary incontinence, are a common and significant source of impaired quality of life and comorbidity in a large number of adults and children. Commonly, patients presenting with lower urinary tract symptoms have overlapping symptoms and conditions, making an isolated or homogeneous source of symptoms rare. Clinicians evaluating these disorders collectively utilize history, physical examination, questionnaires and testing data in the evaluation of symptoms. Cystometrogram, uroflowmetry, urethral pressure profile, and voiding pressure studies, among others, are used to identify...
abnormal voiding patterns in symptomatic patients with disorders of urinary flow. Each of the urodynamic studies has benefits and limitations that must be understood for each specific clinical application.

In clinical practice, the role of invasive urodynamic testing is not clearly defined. Urologists generally accept that conservative or empiric, non-invasive treatments may be instituted without urodynamic testing. Conservative treatments for urinary incontinence include pelvic muscle exercises (Kegel exercise), behavioral therapies such as bladder training and/or biofeedback, and pharmacotherapies (e.g., anticholinergic agents, musculotropic relaxants, calcium channel blockers, tricyclic antidepressants, or a combination of anticholinergic, antispasmodic medications and tricyclic antidepressants). Specifically, urge incontinence is more effectively managed with peripherally acting receptor agonists or antagonists, while stress incontinence is better controlled by pelvic muscle exercises, behavioral therapies, or corrective surgery.4

Urodynamic studies are indicated only after an initial evaluation is performed that, at minimum, includes an appropriate history, physical exam, and urinalysis with microscopy. Infection, if present, should be treated and effectiveness of treatment observed before further diagnostic (urodynamic) testing or other therapeutic interventions are undertaken.

Many types of urodynamic testing require urethral catheterization and include cystometry, pressure flow studies (PFS), and urethral function testing. Such testing subjects patients to risks of urethral instrumentation including infection, urethral trauma, and pain. Thus, the clinician must weigh whether urodynamic tests offer additional diagnostic benefit beyond symptom assessment, physical examination, and other diagnostic testing. A cystometrogram is used to distinguish bladder outlet obstruction from other voiding dysfunctions.

- In a simple cystometrogram (CPT code 51725), the physician inserts a pressure catheter into the bladder and using a manometer, records the pressure and flow in the lower urinary tract.
- A complex cystometrogram (CPT code 51726) uses a transurethral catheter to fill the bladder with water or gas while simultaneously obtaining rectal pressure and a transducer measures intravesical pressure.
- CPT code 51727 reports a complex cystometrogram performed in conjunction with a measurement of urethral pressure studies.
- CPT code 51728 reports a complex cystometrogram performed in conjunction with a measurement of voiding pressure studies.
- CPT code 51729 reports a complex cystometrogram performed in conjunction with a measurement of voiding pressure studies and urethral pressure studies.
- Voiding pressure studies (CPT code 51797) measure the effort the patient makes while voiding. This measurement includes the pressure required and the subsequent urine flow.

Uroflowmetry and ultrasound post-void residual (PVR) studies may be appropriate noninvasive tests given the clinical scenario and the options for treatment.3

- In simple uroflowmetry (CPT code 51736), a stopwatch is used to record the volume of the flow of urine over time.
- Complex uroflowmetry (CPT code 51741) uses electronic equipment to measure and record the volume of urine flow over time.
Measurement of residual urine and/or bladder emptying capacity (CPT code 51798) is accomplished using ultrasound after voiding.

**Coding Implications**

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<table>
<thead>
<tr>
<th>CPT® Codes</th>
<th>Description</th>
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<tbody>
<tr>
<td>51725</td>
<td>Simple cystometrogram (CMG)(eg, spinal manometer)</td>
</tr>
<tr>
<td>51726</td>
<td>Complex cystometrogram (ie, calibrated electronic equipment)</td>
</tr>
<tr>
<td>51727</td>
<td>Complex cystometrogram (ie, calibrated electronic equipment; with urethral pressure profile studies (i.e., urethral closure pressure profile), any technique</td>
</tr>
<tr>
<td>51728</td>
<td>Complex cystometrogram (ie, calibrated electronic equipment; with voiding pressure studies (ie, bladder voiding pressure), any technique</td>
</tr>
<tr>
<td>51729</td>
<td>Complex cystometrogram (ie, calibrated electronic equipment; with voiding pressure studies (ie, bladder voiding pressure) and urethral pressure profile studies (ie, urethral closure pressure profile), any technique</td>
</tr>
<tr>
<td>51736</td>
<td>Simple uroflowmetry (UFR)(eg, stop-watch flow rate, mechanical uroflowmeter)</td>
</tr>
<tr>
<td>51741</td>
<td>Complex uroflowmetry (eg, calibrated electronic equipment)</td>
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<tr>
<td>+51797</td>
<td>Voiding pressure studies, intra-abdominal (ie, rectal, gastric, intraperitoneal (List separately in addition to code for primary procedure)</td>
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<tr>
<td>51798</td>
<td>Measurement of post-voiding residual urine and/or bladder capacity by ultrasound, non-imaging</td>
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<tr>
<th>ICD-10-CM Code</th>
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<tr>
<td>A18.13</td>
<td>Tuberculosis of other urinary organs</td>
</tr>
<tr>
<td>C70.1</td>
<td>Malignant neoplasm of spinal meninges</td>
</tr>
<tr>
<td>C72.0</td>
<td>Malignant neoplasm of spinal cord</td>
</tr>
<tr>
<td>C72.1</td>
<td>Malignant neoplasm of cauda equina</td>
</tr>
<tr>
<td>D33.4</td>
<td>Benign neoplasm of spinal cord</td>
</tr>
<tr>
<td>E10.69</td>
<td>Type 1 diabetes mellitus with other specified complications</td>
</tr>
<tr>
<td>E11.69</td>
<td>Type 2 diabetes mellitus with other specified complication</td>
</tr>
<tr>
<td>G20</td>
<td>Parkinson’s disease</td>
</tr>
<tr>
<td>G35</td>
<td>Multiple sclerosis</td>
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</table>
**ICD-10-CM Code** | **Description**
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G37.3 | Acute transverse myelitis in demyelinating disease of central nervous system
G82.21 | Paraplegia, complete
G82.22 | Paraplegia, incomplete
G83.4 | Cauda equina syndrome
N30.10-N30.11 | Interstitial cystitis, chronic
N30.20-N30.21 | Other chronic cystitis
N31.0-N31.9 | Neuromuscular dysfunction of bladder, not elsewhere classified
N32.0-N32.89 | Other disorders of bladder
N39.0-N39.8 | Other disorders of urinary system
N40.1 | Benign prostatic hyperplasia with lower urinary tract symptoms
N81.0-N81.9 | Female genital prolapse
Q05.0-Q05.9 | Spina bifida
Q06.0-Q06.9 | Other congenital malformations of spinal cord
Q07.00-Q07.9 | Other congenital malformations of nervous system
Q42.0-Q42.3 | Congenital absence, atresia and stenosis of large intestine
R33.8 | Other retention of urine
R33.9 | Retention of urine, unspecified
R39.11 | Hesitancy of micturition
R39.14 | Feeling of incomplete bladder emptying
R39.81 | Functional urinary incontinence
R35.1 | Nocturia
S14.0XXA-S14.9XXS | Injury of nerves and spinal cord at neck level
S24.0XXA-S24.9XXS | Injury of nerves and spinal cord at thorax level
S34.01XA-S34.9XXS | Injury of lumbar and sacral spinal cord and nerves at abdomen, lower back and pelvis level

In addition to the above ICD-10 codes, the following additional diagnosis codes support medical necessity for CPT code 51798.

| ICD-10-CM Code | Description |
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N13.8 | Other obstructive and reflux uropathy
N40.3 | Nodular prostate with lower urinary tract symptoms
R33.0-R33.9 | Retention of urine
R35.0 | Frequency of micturition

**Reviews, Revisions, and Approvals**

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Converted corporate to local policy. |  | 2/21
Clinical Policy
Urodynamic Testing

Reviews, Revisions, and Approvals

<table>
<thead>
<tr>
<th>Revision Date</th>
<th>Approval Date</th>
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<tbody>
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<td>2/22</td>
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Annual review completed. Codes checked. References updated and reformatted for AMA style. Changed “Review Date” in the header to “Date of Last Revision” and “Date” in the revision log header to “Revision Date.” Added “and may not support medical necessity” to coding implications. Specialty review completed.

References


2. Shamliyan T, Wyman J, Kane RL. *Nonsurgical Treatments for Urinary Incontinence in Adult Women: Diagnosis and Comparative Effectiveness.* Rockville (MD): Agency for Healthcare Research and Quality (US); April 2012


Important Reminder
This clinical policy has been developed by appropriately experienced and licensed health care professionals based on a review and consideration of currently available generally accepted standards of medical practice; peer-reviewed medical literature; government agency/program approval status; evidence-based guidelines and positions of leading national health professional organizations; views of physicians practicing in relevant clinical areas affected by this clinical policy; and other available clinical information. LHCC makes no representations and accepts no liability with respect to the content of any external information used or relied upon in developing this clinical policy. This clinical policy is consistent with standards of medical practice current at the time that this clinical policy was approved.

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