Clinical Policy: Urodynamic Testing
Reference Number: CP.MP.98
Date of Last Revision: 03/22

See Important Reminder at the end of this policy for important regulatory and legal information.

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 health plans affiliated with Centene Corporation® 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. Urinary incontinence;
      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 health plans affiliated with Centene Corporation 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 (LUTS), 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. LUTS is also a general term used to describe symptoms related to overactive bladder such as frequency, urgency and nocturia. 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.3 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. The urodynamic evaluation measures the relationship between movement and compression of bladder and abdominal pressures during the filling/storage and elimination phase of micturition.22 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.
Urodynamic Testing

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

This clinical policy references Current Procedural Terminology (CPT®). CPT® is a registered trademark of the American Medical Association. All CPT codes and descriptions are copyrighted 2020, American Medical Association. All rights reserved. CPT codes and CPT descriptions are from the current manuals and those included herein are not intended to be all-inclusive and are included for informational purposes only. The following is a list of procedures codes for which coverage may be provided when billed with a diagnosis code(s) that supports medical necessity criteria (see list of ICD-10-CM codes supporting medical necessity further below). They are current at time of review of this policy. Inclusion or exclusion of any codes does not guarantee coverage. Providers should reference the most up-to-date sources of professional coding guidance prior to the submission of claims for reimbursement of covered services.

<table>
<thead>
<tr>
<th>CPT® Codes</th>
<th>Description</th>
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<tbody>
<tr>
<td>51725</td>
<td>Simple cystometrogram (CMG) (e.g., spinal manometer)</td>
</tr>
<tr>
<td>51726</td>
<td>Complex cystometrogram (i.e., calibrated electronic equipment)</td>
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<tr>
<td>51727</td>
<td>Complex cystometrogram (i.e., calibrated electronic equipment); with urethral pressure profile studies (i.e., urethral closure pressure profile), any technique</td>
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<tr>
<td>51728</td>
<td>Complex cystometrogram (i.e., calibrated electronic equipment); with voiding pressure studies (i.e., bladder voiding pressure), any technique</td>
</tr>
<tr>
<td>51729</td>
<td>Complex cystometrogram (i.e., calibrated electronic equipment); with voiding pressure studies (i.e., bladder voiding pressure) and urethral pressure profile studies (i.e., urethral closure pressure profile), any technique</td>
</tr>
<tr>
<td>51736</td>
<td>Simple uroflowmetry (UFR) (e.g., stop-watch flow rate, mechanical uroflowmeter)</td>
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<tr>
<td>51741</td>
<td>Complex uroflowmetry (e.g., calibrated electronic equipment)</td>
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<tr>
<td>+51797</td>
<td>Voiding pressure studies, intra-abdominal (i.e., 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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ICD-10-CM Diagnosis Codes that Support Medical Necessity

<table>
<thead>
<tr>
<th>ICD-10-CM Code</th>
<th>Description</th>
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<tbody>
<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>
</tbody>
</table>
### ICD-10-CM Code | Description
--- | ---
D33.4 | Benign neoplasm of spinal cord
E10.69 | Type 1 diabetes mellitus with other specified complications
E11.69 | Type 2 diabetes mellitus with other specified complication
G20 | Parkinson’s disease
G35 | Multiple sclerosis
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
R35.1 | Nocturia
R39.11 | Hesitancy of micturition
R39.14 | Feeling of incomplete bladder emptying
R39.81 | Functional urinary incontinence
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
--- | ---
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

<table>
<thead>
<tr>
<th>Description</th>
<th>Revision Date</th>
<th>Approval Date</th>
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<tbody>
<tr>
<td>Policy developed</td>
<td>09/15</td>
<td>10/15</td>
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<tr>
<td>Removed ICD-10 codes R34, R39.0 – R39.16 due to no support in literature</td>
<td>02/16</td>
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<tr>
<td>References reviewed and updated</td>
<td>10/16</td>
<td>10/16</td>
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<tr>
<td>Updated ICD-10 code list</td>
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<tr>
<td>References reviewed and updated. Added ICD-10-CM E10.69, E11.69, and S34.0 – S34.9XXS</td>
<td>09/17</td>
<td>10/17</td>
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<tr>
<td>References reviewed and updated. Coding reviewed.</td>
<td>09/18</td>
<td>09/18</td>
</tr>
<tr>
<td>References reviewed and updated. Added indication of complex anorectal malformation, along with accompanying diagnosis codes of Q42.0-Q42.3. Noted in investigational statement regarding asymptomatic patients, that evaluation of suspected urological abnormalities is appropriate in the presence of complex anorectal malformation.</td>
<td>09/19</td>
<td>09/19</td>
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<tr>
<td>Added ICD-10-CM code R39.14 to support medical necessity of all procedure codes. Added ICD-10-CM code R35.1 to support medical necessity for CPT 51798.</td>
<td>10/19</td>
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<tr>
<td>References reviewed and updated. Added ICD-10 codes: C70.1, C72.0, C72.1, D33.4. Replaced “members” with “members/enrollees” in all instances.</td>
<td>09/20</td>
<td>09/20</td>
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<tr>
<td>Code update: ICD-10 N40.1 and R35.1, no longer specific to 51798 and moved to list of codes that support medical necessity. Added ICD-10 codes that support medical necessity: A18.13, G82.21, G82.22, R39.11, S14.0XXA-S14.9XXS, and S24.0XXA-S24.9XXS.</td>
<td>10/20</td>
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<tr>
<td>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.” Specialty review completed.</td>
<td>07/21</td>
<td>07/21</td>
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<tr>
<td>References reviewed and updated. In 1.D.1, changed “incontinence associated with recurrent UTI” to “Urinary incontinence.” Codes checked. Updated background with no impact to policy statement.</td>
<td>03/22</td>
<td>03/22</td>
</tr>
</tbody>
</table>

## 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. The Health Plan 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. “Health Plan” means a health plan that has adopted this clinical policy and that is operated or administered, in whole or in part, by Centene Management Company, LLC, or any of such health plan’s affiliates, as applicable.

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to recommend treatment for members/enrollees. Members/enrollees should consult with their treating physician in connection with diagnosis and treatment decisions.

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Note: For Medicaid members/enrollees, when state Medicaid coverage provisions conflict with the coverage provisions in this clinical policy, state Medicaid coverage provisions take precedence. Please refer to the state Medicaid manual for any coverage provisions pertaining to this clinical policy.

Note: For Medicare members/enrollees, to ensure consistency with the Medicare National Coverage Determinations (NCD) and Local Coverage Determinations (LCD), all applicable NCDs, LCDs, and Medicare Coverage Articles should be reviewed prior to applying the criteria set forth in this clinical policy. Refer to the CMS website at http://www.cms.gov for additional information.

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