Photoselective Vaporization of the Prostate (PVP)

[For the list of services and procedures that need preauthorization, please refer to www.mcs.com.pr. Go to “Comunicados a Proveedores”, and click “Cartas Circulares”.

Medical Policy: MP-SU-01-08
Original Effective Date: April 28, 2008
Reviewed: 
Revised: September 30, 2013

This policy applies to products subscribed by the following corporations, MCS Life Insurance Company (Commercial), and MCS Advantage, Inc. (Classicare) and Medical Card System, Inc., provider’s contract; unless specific contract limitations, exclusions or exceptions apply. Please refer to the member’s benefit certification language for benefit availability. Managed care guidelines related to referral authorization, and precertification of inpatient hospitalization, home health, home infusion and hospice services apply subject to the aforementioned exceptions.

DESCRIPTION

Benign prostatic hyperplasia (BPH) is the proliferation of prostate cells and the enlargement of the gland beyond the natural confines of the organ. The enlargement of the gland causes urinary symptoms due to compression of the urethra immediately down from the bladder neck. The standard surgical treatment, transurethral resection of the prostate (TURP), is generally effective but is associated with a risk of certain adverse events, such as incontinence, bleeding, and retrograde ejaculation (ECRI, 2012).

Photo selective vaporization of the prostate (PVP), an alternative minimally invasive treatment for BPH, is a non-contact laser vaporization technique for eliminating prostatic tissue constricting the urethra and bladder neck. It employs a high-power Potassium-Titanyl-Phosphate (KTP) laser (60 to 80 watts) alone, compared to earlier KTPs used at low power (30 watts) in a hybrid laser technique with Nd:YAG (neodymium-doped yttrium aluminum garnet; Nd:Y3AI5O12). The KTP laser is a green-colored beam (523 nm) that is absorbed strongly by hemoglobin and therefore penetrates only a few millimeters. This feature of the KTP laser should help to avoid the deep-tissue coagulation side effects seen with other lasers. In addition, this laser is not absorbed appreciably by water and so can be used in a convenient side-firing, noncontact technique with aqueous irrigation. Competing Nd:YAG lasers used for this purpose have side effects caused by deep-tissue coagulation (postsurgical irritation, swelling, and tissue sloughing) (ECRI, 2012).

The GreenLight Laser System (American Medical Systems [formerly manufactured by Laserscope, Inc.]) is a KTP laser used for photoselective vaporization, among many other indications. According to the U.S. Food and Drug Administration (FDA), when used at 532 nm, it is intended to hemostatically vaporize prostate tissue of men with BPH. The FDA also indicates that, the device is not intended to treat prostate cancer (ECRI, 2012).

In studies of BPH treatments, an important factor to consider is whether patients’ symptoms would have improved without treatment. Previous studies of other therapies have shown that BPH is subject to placebo effects and regression to the mean effects (patients with waxing and waning conditions tend to be enrolled in studies when their symptoms are worst, while post-treatment measurements may be taken when symptoms have subsided independently of treatment). Therefore, studies of new BPH treatments without parallel control groups with no treatment or other treatment as a comparison group will potentially overestimate effectiveness.
COVERAGE
Benefits may vary between groups and contracts. Please refer to the appropriate member certificate and subscriber agreement contract for applicable diagnostic imaging, DME, laboratory, machine tests, benefits and coverage.

INDICATIONS
Medical Card System, Inc., (MCS) will consider Photoselective Vaporization of the Prostate (e.g., by means of the 120-W GreenLight laser [potassium-titanyl-phosphate laser], holmium laser, not an all-inclusive list) as medically necessary under the following circumstances:

1. Treatment for patients with BPH who have clinically documented obstructive and voiding symptoms and no clinical signs of prostate cancer.
2. Renal insufficiency secondary to chronic bladder outlet obstruction
   a. Duration of BPH 3 months or longer;
   b. American Urology Association (AUA) symptom score greater than 9 (moderate to severe);
   c. Peak Urinary Flow Rate less than 10 mL/sec, which is more suggestive of an obstructed state (AUA, 2010).

Note: Urodynamics and Post-void Residual Volume examinations should be used as appropriate, e.g., patients with suspected neurologic disease or those who have failed prostate surgery (CMS L31876, 2011).

CONTRAINdications/LIMITATIONS
1. Active urine infection.
2. The use of the device for PVP must be prescribed and administered under the personal supervision of a qualified and trained physician, after appropriate urological evaluation of the patient.
3. The treating physician must be present at all times during the treatment.
CODING INFORMATION
CPT® Codes (List may not be all inclusive)

<table>
<thead>
<tr>
<th>CPT® Codes</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>52648</td>
<td>Laser Vaporization of prostate, including control of postoperative bleeding, complete (vasectomy, meatotomy, cystourethoscopy, urethral calibration and/or dilation, internal urethrotomy and transurethral resection of prostate are included if performed)</td>
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<tr>
<td>53855</td>
<td>Insertion of a temporary prostatic urethral stent, including urethral measurement (For insertion of permanent urethral stent, please use CPT Code 52282)</td>
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ICD-9 CM® Diagnosis Codes (List may not be all inclusive)

<table>
<thead>
<tr>
<th>ICD-9 CM® CODES</th>
<th>DESCRIPTION</th>
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<tr>
<td>222.2</td>
<td>Benign Neoplasm of Prostate</td>
</tr>
<tr>
<td>600.00</td>
<td>Hypertrophy (benign) of prostate without urinary obstruction and other Lower Urinary Tract Symptoms (LUTS)</td>
</tr>
<tr>
<td>600.01</td>
<td>Hypertrophy (benign) of prostate with urinary obstruction and other Lower Urinary Tract Symptoms (LUTS)</td>
</tr>
<tr>
<td>600.10</td>
<td>Nodular prostate without urinary obstruction</td>
</tr>
<tr>
<td>600.11</td>
<td>Nodular prostate with urinary obstruction</td>
</tr>
<tr>
<td>600.20</td>
<td>Benign localized hyperplasia of prostate without urinary obstruction and other Lower Urinary Tract Symptoms (LUTS)</td>
</tr>
<tr>
<td>600.21</td>
<td>Benign localized hyperplasia of prostate with urinary obstruction and other Lower Urinary Tract Symptoms (LUTS)</td>
</tr>
<tr>
<td>600.90</td>
<td>Hyperplasia of prostate, unspecified, without urinary obstruction and other Lower Urinary Tract Symptoms (LUTS)</td>
</tr>
<tr>
<td>600.91</td>
<td>Hyperplasia of prostate, unspecified, with urinary obstruction and other Lower Urinary Tract Symptoms (LUTS)</td>
</tr>
<tr>
<td>788.20</td>
<td>Retention of urine, unspecified</td>
</tr>
<tr>
<td>788.21</td>
<td>Incomplete bladder emptying</td>
</tr>
<tr>
<td>788.29</td>
<td>Other specified retention of urine</td>
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**Note:** Diagnosis codes that range from 600.00 to 600.91 have an instructional symbol which indicates that these conditions are exclusive for the male gender.
REFERENCES


POLICY HISTORY

<table>
<thead>
<tr>
<th>DATE</th>
<th>ACTION</th>
<th>COMMENT</th>
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<tr>
<td>April 28, 2008</td>
<td>Origination of Policy</td>
<td></td>
</tr>
<tr>
<td>August 27, 2009</td>
<td>Review</td>
<td>Yearly review with addition of CPT, HCPCS &amp; ICD9 Codes to policy. The different types of lasers used to perform laser prostatectomy were deleted from the policy.</td>
</tr>
<tr>
<td>August 26, 2010</td>
<td>Yearly Review</td>
<td></td>
</tr>
<tr>
<td>August 18, 2011</td>
<td>Yearly Review</td>
<td></td>
</tr>
<tr>
<td>August 16, 2012</td>
<td>Yearly Review</td>
<td>References updated.</td>
</tr>
<tr>
<td>December 10, 2012</td>
<td>Reviewed</td>
<td>Policy was reviewed and approved by the Medical Card System (MCS) Medical Advisory Committee (MAC) on December 10, 2012.</td>
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<tr>
<td>February 20, 2013</td>
<td>Revised</td>
<td>Coding Information Revision: CPT Code 0084T deleted. CPT Code 53855 added.</td>
</tr>
<tr>
<td>September 30, 2013</td>
<td>Revised</td>
<td>References updated. Added new references, numbers 3-6, 8-13, 16, 18-19, &amp; 22-26.</td>
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To the Description Section:

- Deleted: Benign Prostatic Growth can cause serious difficulty with urination as men age. About 50 percent of men will experience a change in their pattern of urination during their lifetime because of this benign growth. Photo selective vaporization of the prostate (PVP), more often termed Green Light Laser Prostatectomy, is a minimally invasive procedure that results in dramatic improvements in urinary symptoms from benign prostate hypertrophy (BPH). It is usually done as an outpatient procedure in a hospital or surgery center under general or spinal anesthesia. PVP works by using a laser with a green wavelength to vaporize the prostate tissue. The obstructing prostate tissue is effectively removed just as well as it can be by the conventional standard Transurethral Resection of the Prostate (TURP). PVP is less invasive than TURP because the prostate tissue is selective vaporized rather than cut. When the prostate tissue is cut with an electrical loop in a TURP, the prostate will bleed during the procedure. The laser device is introduced endoscopically through the urethra, allowing direct visualization of and access to the prostate gland during PVP of the prostate, the tissue does not bleed.
Benign prostatic hyperplasia (BPH) is the proliferation of prostate cells and the enlargement of the gland beyond the natural confines of the organ. The enlargement of the gland causes urinary symptoms due to compression of the urethra immediately down from the bladder neck. The standard surgical treatment, transurethral resection of the prostate (TURP), is generally effective but is associated with a risk of certain adverse events, such as incontinence, bleeding, and retrograde ejaculation (ECRI, 2012). Photoselective vaporization of the prostate (PVP), an alternative minimally invasive treatment for BPH, is a non-contact laser vaporization technique for eliminating prostatic tissue constricting the urethra and bladder neck. It employs a high-power Potassium-Titanyl-Phosphate (KTP) laser (60 to 80 watts) alone, compared to earlier KTPs used at low power (30 watts) in a hybrid laser technique with Nd:YAG (neodymium-doped yttrium aluminum garnet; Nd:Y3Al5O12). The KTP laser is a green-colored beam (523 nm) that is absorbed strongly by hemoglobin and therefore penetrates only a few millimeters. This feature of the KTP laser should help to avoid the deep-tissue coagulation side effects seen with other lasers. In addition, this laser is not absorbed appreciably by water and so can be used in a convenient side-firing, noncontact technique with aqueous irrigation. Competing Nd:YAG lasers used for this purpose have side effects caused by deep-tissue coagulation (postsurgical irritation, swelling, and tissue sloughing) (ECRI, 2012). The GreenLight Laser System (American Medical Systems [formerly manufactured by Laserscope, Inc.]) is a KTP laser used for photoselective vaporization, among many other indications. According to the U.S. Food and Drug Administration (FDA), when used at 532 nm, it is intended to hemostatically vaporize prostate tissue of men with BPH. The FDA also indicates that, the device is not intended to treat prostate cancer (ECRI, 2012). In studies of BPH treatments, an important factor to consider is whether patients’ symptoms would have improved without treatment. Previous studies of other therapies have shown that BPH is subject to placebo effects and regression to the mean effects (patients with waxing and waning conditions tend to be enrolled in studies when their symptoms are worst, while post-treatment measurements may be taken when symptoms have subsided independently of treatment). Therefore, studies of new BPH treatments without parallel control groups with no treatment or other treatment as a comparison group will potentially overestimate effectiveness.

To the Indications Section:

- Revised Indications.
- To Indication 2b, added: (moderate to severe).
- To Indication 2c, deleted: Free Peak Uroflow Rate (PUR) less than 15cc/sec when voided volume is more than 125cc.
- Restructured Indication 2c: Peak Urinary Flow Rate less than 10 mL/sec, which is more suggestive of an obstructed state (AUA, 2010).
- Added Note1: Urodynamics and Post-void Residual Volume examinations should be used as appropriate, e.g., patients with suspected neurologic disease or those who have failed prostate surgery (CMS L31876, 2011).

To the Contraindications/Limitations Section: Added #2 & #3.

To the Coding Information: Added new ICD-9 Code 222.2.
This document is for informational purposes only. It is not an authorization, certification, explanation of benefits, or contract. Receipt of benefits is subject to satisfaction of all terms and conditions of coverage. Eligibility and benefit coverage are determined in accordance with the terms of the member's plan in effect as of the date services are rendered. Medical Card System, Inc., (MCS) medical policies are developed with the assistance of medical professionals and are based upon a review of published and unpublished information including, but not limited to, current medical literature, guidelines published by public health and health research agencies, and community medical practices in the treatment and diagnosis of disease. Because medical practice, information, and technology are constantly changing, Medical Card System, Inc., (MCS) reserves the right to review and update its medical policies at its discretion. Medical Card System, Inc., (MCS) medical policies are intended to serve as a resource to the plan. They are not intended to limit the plan’s ability to interpret plan language as deemed appropriate. Physicians and other providers are solely responsible for all aspects of medical care and treatment, including the type, quality, and levels of care and treatment they choose to provide.