Medical Policy

Endovascular Stent Grafts for Disorders of the Thoracic Aorta

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Policy Number: 233
BCBSA Reference Number: 7.01.86

Related Policies

- Endovascular Stent Grafts for Abdominal Aortic Aneurysms, #098
- Wireless Pressure Sensors in Endovascular Aneurysm, # 306

Policy

Commercial Members: Managed Care (HMO and POS), PPO, and Indemnity Medicare HMO BlueSM and Medicare PPO BlueSM Members

Endovascular stent grafts for the treatment of descending thoracic aortic aneurysms, thoracic aortic arch aneurysms1, and aortic dissections may be MEDICALLY NECESSARY for the approved specifications listed below:

- GORE TAG® endoprosthesis: approved by the U.S. Food and Drug Administration (FDA) for “>2 cm non-aneurysmal aorta proximal and distal to the aneurysm and an “aortic inner diameter of 23–37 mm,” or
- Talent™ Thoracic Stent Graft System: approved by the FDA for “non-aneurysmal aortic proximal and distal neck lengths >20mm” and “non-aneurysmal aortic diameter in the range of 18–42 mm,” or
- Zenith 2X2® device: Approved by the FDA for non-aneurysmal aortic segments “of at least 25 mm in length” and “diameter measured outer wall to outer wall of no greater than 38 mm and no less than 24 mm.”

Endovascular stent grafts may be MEDICALLY NECESSARY for the treatment of rupture of the descending thoracic aorta.

Prior Authorization Information

Commercial Members: Managed Care (HMO and POS)
Prior authorization is required

Commercial Members: PPO, and Indemnity
Prior authorization is required
Medicare Members: HMO Blue℠
Prior authorization is required

Medicare Members: PPO Blue℠
Prior authorization is required

CPT Codes / HCPCS Codes / ICD-9 Codes
The following codes are included below for informational purposes. Inclusion or exclusion of a code does not constitute or imply member coverage or provider reimbursement. Please refer to the member’s contract benefits in effect at the time of service to determine coverage or non-coverage as it applies to an individual member.

Providers should report all services using the most up-to-date industry-standard procedure, revenue, and diagnosis codes, including modifiers where applicable.

CPT Codes

<table>
<thead>
<tr>
<th>CPT codes</th>
<th>Code Description</th>
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<tbody>
<tr>
<td>33880</td>
<td>Endovascular repair of descending thoracic aorta (e.g., aneurysm, pseudoaneurysm, dissection, penetrating ulcer, intramural hematoma, or traumatic disruption); involving coverage of left subclavian artery origin, initial endoprosthesis plus descending thoracic aortic extension(s), if required, to level of celiac artery origin</td>
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<tr>
<td>33881</td>
<td>Endovascular repair of descending thoracic aorta (e.g., aneurysm, pseudoaneurysm, dissection, penetrating ulcer, intramural hematoma, or traumatic disruption); not involving coverage of left subclavian artery origin, initial endoprosthesis plus descending thoracic aortic extension(s), if required, to level of celiac artery origin</td>
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<tr>
<td>33883</td>
<td>Placement of proximal extension prosthesis for endovascular repair of descending thoracic aorta (e.g., aneurysm, pseudoaneurysm, dissection, penetrating ulcer, intramural hematoma, or traumatic disruption); initial extension</td>
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<tr>
<td>33884</td>
<td>Placement of proximal extension prosthesis for endovascular repair of descending thoracic aorta (e.g., aneurysm, pseudoaneurysm, dissection, penetrating ulcer, intramural hematoma, or traumatic disruption); each additional proximal extension (List separately in addition to code for primary procedure)</td>
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<tr>
<td>33886</td>
<td>Placement of distal extension prosthesis(s) delayed after endovascular repair of descending thoracic aorta</td>
</tr>
<tr>
<td>33889</td>
<td>Open subclavian to carotid artery transposition performed in conjunction with endovascular repair of descending thoracic aorta, by neck incision, unilateral</td>
</tr>
<tr>
<td>33891</td>
<td>Bypass graft, with other than vein, transcervical retropharyngeal carotid-carotid, performed in conjunction with endovascular repair of descending thoracic aorta, by neck incision</td>
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<tr>
<td>75956</td>
<td>Endovascular repair of descending thoracic aorta (e.g., aneurysm, pseudoaneurysm, dissection, penetrating ulcer, intramural hematoma, or traumatic disruption); involving coverage of left subclavian artery origin, initial endoprosthesis plus descending thoracic aortic extension(s), if required, to level of celiac artery origin, radiological supervision and interpretation</td>
</tr>
<tr>
<td>75957</td>
<td>Endovascular repair of descending thoracic aorta (e.g., aneurysm, pseudoaneurysm, dissection, penetrating ulcer, intramural hematoma, or traumatic disruption); not involving coverage of left subclavian artery origin, initial endoprosthesis plus descending thoracic aortic extension(s), if required, to level of celiac artery origin, radiological supervision and interpretation</td>
</tr>
<tr>
<td>75958</td>
<td>Placement of proximal extension prosthesis for endovascular repair of descending thoracic aorta (e.g., aneurysm, pseudoaneurysm, dissection, penetrating ulcer, intramural hematoma, or traumatic disruption), radiological supervision and interpretation</td>
</tr>
<tr>
<td>75959</td>
<td>Placement of distal extension prosthesis(s) (delayed) after endovascular repair of descending thoracic aorta, as needed, to level of celiac origin, radiological supervision</td>
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</tbody>
</table>
Description

Aortic aneurysms are arterial dilations and are associated with age, atherosclerosis, and hypertension, as well as some congenital connective tissue disorders. Left untreated, these aneurysms tend to enlarge over time, increasing the risk of rupture or dissection, with severe consequences including death.

Aortic dissection can be subdivided into type A, which involves the aortic arch, and type B, which is confined to the descending aorta. Type A dissections are usually treated surgically, (and require cardiopulmonary bypass) while type B dissections are usually treated medically, with surgery indicated for serious complications, such as visceral ischemia, impending rupture, intractable pain, or sudden reduction in aortic size. Dissections associated with obstruction and ischemia can also be subdivided into an obstruction caused by an intimal tear at branch vessel orifices, or by compression of the true lumen by the pressurized false lumen.

Thoracic endovascular aneurysm repair (TEVAR) is an alternative to open surgery for the treatment of thoracic aortic aneurysm in patients in need of emergency surgery for rupture or dissection, as well as prophylactic treatment of aneurysm for those with a significant risk of future rupture or dissection. It involves the percutaneous placement of a stent graft in the descending thoracic or thoracoabdominal aorta to reduce mortality from (type B) aneurysm rupture.

Examples of include the GORE TAG® Thoracic Endoprosthesis from W.L. Gore and Associates, Inc., the Zenith TX2® TAA Endovascular Graft from Cook Incorporated and the Talent™ Thoracic Stent Graft System from Medtronic Vascular. All endovascular stent grafts for the treatment of descending thoracic aortic aneurysms, thoracic aortic arch aneurysms, and aortic dissections are considered medically necessary regardless of the commercial name, the manufacturer or FDA approval status.

Summary

Endovascular stenting is an alternative treatment to surgical or medical therapy for thoracic aortic aneurysms, acute and chronic dissections, and traumatic aortic tears. For patients with stable aneurysms, there are no randomized trials of stenting versus open surgery. The non-randomized comparative trials available are consistent in reporting reduced short-term morbidity and mortality, but are prone to selection bias and other methodologic limitations. Multiple studies suggest that for elective repair of descending thoracic aortic aneurysms, stenting is associated with lower short-term mortality and lower complication rates, compared to open surgery. In addition, there was strong clinical vetting support for the use of TEVAR in descending thoracic aortic aneurysms. Thus, use of endovascular stents may be considered medically necessary for aneurysms of the descending thoracic aorta.

The data for complex situations are more limited. Short- and intermediate-term results from a few non-randomized comparative studies and a number of case series suggest a benefit for TEVAR in complicated (organ or limb ischemia or rupture) type B dissection. There was strong clinical support for the use of TEVAR for this indication. Thus, this use of TEVAR is considered medically necessary. For uncomplicated descending (type B) aortic dissections, the evidence available from one randomized trial does not suggest that stent grafts have superior outcomes compared to medical therapy. Thus, the impact on net health outcome is not known, and the use of endovascular stent grafts in uncomplicated thoracic aortic dissections is considered investigational.

For traumatic thoracic aortic injury and aortic rupture, nonrandomized comparative data suggest a benefit for TEVAR in reducing peri-procedural morbidity and mortality. The FDA granted approval for endovascular treatment of thoracic aortic ruptures in 2012, and specialty society recommendations include endovascular stent grafts as a treatment option for acute thoracic aortic rupture. In addition, it is expected that RCTs will be difficult to perform for this indication due to the emergent nature. Therefore, based on the available evidence, FDA approval of stent grafts for rupture, and support in specialty society guidelines, stent grafting for acute rupture of the thoracic descending aorta may be considered medically necessary.
Policy History

<table>
<thead>
<tr>
<th>Date</th>
<th>Action</th>
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<tbody>
<tr>
<td>9/2014</td>
<td>New references added from BCBSA National medical policy.</td>
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<tr>
<td>7/2014</td>
<td>Clarified coding information</td>
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<tr>
<td>12/2013</td>
<td>Removed ICD-9 diagnosis codes 441.01, 441.03, 441.1, 441.2, 441.6, and 441.7 as the policy requires prior authorization.</td>
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<td>5/2011</td>
<td>BCBSA National medical policy review. No changes to policy statements.</td>
</tr>
<tr>
<td>12/2009</td>
<td>BCBSA National medical policy review. No changes to policy statements.</td>
</tr>
<tr>
<td>5/2008</td>
<td>BCBSA National medical policy review. No changes to policy statements.</td>
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Information Pertaining to All Blue Cross Blue Shield Medical Policies
Click on any of the following terms to access the relevant information:
- Medical Policy Terms of Use
- Managed Care Guidelines
- Indemnity/PPO Guidelines
- Clinical Exception Process
- Medical Technology Assessment Guidelines

References


Endnotes
1. Based on local expert opinion.