

02-33000-22

Original Effective Date: 08/15/00

Reviewed: 07/28/22

Revised: 05/23/23

Subject: Endovascular Stent Grafts for Abdominal Aortic Aneurysms

THIS MEDICAL COVERAGE GUIDELINE IS NOT AN AUTHORIZATION, CERTIFICATION, EXPLANATION OF BENEFITS, OR A GUARANTEE OF PAYMENT, NOR DOES IT SUBSTITUTE FOR OR CONSTITUTE MEDICAL ADVICE. ALL MEDICAL DECISIONS ARE SOLELY THE RESPONSIBILITY OF THE PATIENT AND PHYSICIAN. BENEFITS ARE DETERMINED BY THE GROUP CONTRACT, MEMBER BENEFIT BOOKLET, AND/OR INDIVIDUAL SUBSCRIBER CERTIFICATE IN EFFECT AT THE TIME SERVICES WERE RENDERED. THIS MEDICAL COVERAGE GUIDELINE APPLIES TO ALL LINES OF BUSINESS UNLESS OTHERWISE NOTED IN THE PROGRAM EXCEPTIONS SECTION.

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DESCRIPTION:

Conventional management of a clinically significant abdominal aortic aneurysm (AAA) consists of surgical excision with placement of a sutured woven graft. Surgical excision is associated with a perioperative mortality rate of between 1% and 5%. Due to this high mortality rate, endovascular grafts have been developed as a minimally invasive, catheter-based alternative to open surgical excision of abdominal aortic aneurysms. These devices are deployed across the aneurysm such that the aneurysm is effectively excluded from the circulation with subsequent restoration of normal blood flow.

Several types of grafts are currently in use: straight grafts, in which both ends are anchored to the infrarenal aorta, and bifurcated grafts, in which the proximal end is anchored to the infrarenal aorta, and the distal ends are anchored to the iliac arteries. Fenestrated grafts have also been investigated. These grafts are designed with openings in the wall that can be placed across the renal or celiac arteries while still protecting vessel patency through these critical arteries. In addition, extensions can be placed from inside the main endograft body into the visceral arteries to create a hemostatic seal. A large number of endovascular grafts have been approved by the U.S. Food and Drug Administration (FDA) through the premarket approval (PMA) process for treatment of abdominal aortic aneurysms.

POSITION STATEMENT:

The use of FDA approved endovascular stent grafts for the treatment of abdominal aortic aneurysms (AAA) **meets the definition of medical necessity** for **ONE** of the following indications:

- Aneurysmal diameter greater than 5.0 cm;
- Aneurysmal diameter of 4 – 5.0 cm that has increased in size by 0.5 cm in the last 6 months;

- Aneurysmal diameter that measures twice the size of the normal infrarenal aorta **OR**
- A ruptured abdominal aortic aneurysm.

The use of FDA approved endovascular stent grafts for the treatment of abdominal aortic aneurysms is considered **experimental or investigational** for all other indications, including but not limited to:

- Treatment of smaller aneurysms that do not meet the current recommended threshold for surgery
- Treatment of aneurysms that do meet the recommended threshold for surgery in members who are ineligible for open repair due to physical limitations or other factors.

The evidence is insufficient to determine the effects of the technology on health outcomes.

The use of non-FDA approved endovascular stent grafts for the treatment of abdominal aortic aneurysms is considered **experimental or investigational**. There is insufficient clinical evidence to permit conclusions on efficacy and net health outcomes.

BILLING/CODING INFORMATION:

CPT Coding:

34701	Endovascular repair of infrarenal aorta by deployment of an aorto-aortic tube endograft including pre-procedure sizing and device selection, all nonselective catheterization(s), all associated radiological supervision and interpretation, all endograft extension(s) placed in the aorta from the level of the renal arteries to the aortic bifurcation, and all angioplasty/stenting performed from the level of the renal arteries to the aortic bifurcation; for other than rupture (eg, for aneurysm, pseudoaneurysm, dissection, penetrating ulcer)
34702	Endovascular repair of infrarenal aorta by deployment of an aorto-aortic tube endograft including pre-procedure sizing and device selection, all nonselective catheterization(s), all associated radiological supervision and interpretation, all endograft extension(s) placed in the aorta from the level of the renal arteries to the aortic bifurcation, and all angioplasty/stenting performed from the level of the renal arteries to the aortic bifurcation; for rupture including temporary aortic and/or iliac balloon occlusion, when performed (eg, for aneurysm, pseudoaneurysm, dissection, penetrating ulcer, traumatic disruption)
34703	Endovascular repair of infrarenal aorta and/or iliac artery(ies) by deployment of an aorto-uni-iliac endograft including pre-procedure sizing and device selection, all nonselective catheterization(s), all associated radiological supervision and interpretation, all endograft extension(s) placed in the aorta from the level of the renal arteries to the iliac bifurcation, and all angioplasty/stenting performed from the level of the renal arteries to the iliac bifurcation; for other than rupture (eg, for aneurysm, pseudoaneurysm, dissection, penetrating ulcer)

34704	Endovascular repair of infrarenal aorta and/or iliac artery(ies) by deployment of an aorto-uni-iliac endograft including pre-procedure sizing and device selection, all nonselective catheterization(s), all associated radiological supervision and interpretation, all endograft extension(s) placed in the aorta from the level of the renal arteries to the iliac bifurcation, and all angioplasty/stenting performed from the level of the renal arteries to the iliac bifurcation; for rupture including temporary aortic and/or iliac balloon occlusion, when performed (eg, for aneurysm, pseudoaneurysm, dissection, penetrating ulcer, traumatic disruption)
34705	Endovascular repair of infrarenal aorta and/or iliac artery(ies) by deployment of an aorto-bi-iliac endograft including pre-procedure sizing and device selection, all nonselective catheterization(s), all associated radiological supervision and interpretation, all endograft extension(s) placed in the aorta from the level of the renal arteries to the iliac bifurcation, and all angioplasty/stenting performed from the level of the renal arteries to the iliac bifurcation; for other than rupture (eg, for aneurysm, pseudoaneurysm, dissection, penetrating ulcer)
34706	Endovascular repair of infrarenal aorta and/or iliac artery(ies) by deployment of an aorto-bi-iliac endograft including pre-procedure sizing and device selection, all nonselective catheterization(s), all associated radiological supervision and interpretation, all endograft extension(s) placed in the aorta from the level of the renal arteries to the iliac bifurcation, and all angioplasty/stenting performed from the level of the renal arteries to the iliac bifurcation; for rupture including temporary aortic and/or iliac balloon occlusion, when performed (eg, for aneurysm, pseudoaneurysm, dissection, penetrating ulcer, traumatic disruption)
34709	Placement of extension prosthesis(es) distal to the common iliac artery(ies) or proximal to the renal artery(ies) for endovascular repair of infrarenal abdominal aortic or iliac aneurysm, false aneurysm, dissection, penetrating ulcer, including pre-procedure sizing and device selection, all nonselective catheterization(s), all associated radiological supervision and interpretation, and treatment zone angioplasty/stenting, when performed, per vessel treated (List separately in addition to code for primary procedure)
34710	Delayed placement of distal or proximal extension prosthesis for endovascular repair of infrarenal abdominal aortic or iliac aneurysm, false aneurysm, dissection, endoleak, or endograft migration, including pre-procedure sizing and device selection, all nonselective catheterization(s), all associated radiological supervision and interpretation, and treatment zone angioplasty/stenting, when performed; initial vessel treated
34711	Delayed placement of distal or proximal extension prosthesis for endovascular repair of infrarenal abdominal aortic or iliac aneurysm, false aneurysm, dissection, endoleak, or endograft migration, including pre-procedure sizing and device selection, all nonselective catheterization(s), all associated radiological supervision and interpretation, and treatment zone angioplasty/stenting, when performed; each additional vessel treated (List separately in addition to code for primary procedure)
34812	Open femoral artery exposure for delivery of endovascular prosthesis, by groin incision, unilateral (List separately in addition to code for primary procedure)

34820	Open iliac artery exposure for delivery of endovascular prosthesis or iliac occlusion during endovascular therapy, by abdominal or retroperitoneal incision, unilateral (List separately in addition to code for primary procedure)
34839	Physician planning of a patient-specific fenestrated visceral aortic endograft requiring a minimum of 90 minutes of physician time
34841	Endovascular repair of visceral aorta (eg, aneurysm, pseudoaneurysm, dissection, penetrating ulcer, intramural hematoma, or traumatic disruption) by deployment of a fenestrated visceral aortic endograft and all associated radiological supervision and interpretation, including target zone angioplasty, when performed; including one visceral artery endoprosthesis (superior mesenteric, celiac or renal artery)
34842	Endovascular repair of visceral aorta (eg, aneurysm, pseudoaneurysm, dissection, penetrating ulcer, intramural hematoma, or traumatic disruption) by deployment of a fenestrated visceral aortic endograft and all associated radiological supervision and interpretation, including target zone angioplasty, when performed; including two visceral artery endoprostheses (superior mesenteric, celiac and/or renal artery[s])
34843	Endovascular repair of visceral aorta (eg, aneurysm, pseudoaneurysm, dissection, penetrating ulcer, intramural hematoma, or traumatic disruption) by deployment of a fenestrated visceral aortic endograft and all associated radiological supervision and interpretation, including target zone angioplasty, when performed; including three visceral artery endoprostheses (superior mesenteric, celiac and/or renal artery[s])
34844	Endovascular repair of visceral aorta (eg, aneurysm, pseudoaneurysm, dissection, penetrating ulcer, intramural hematoma, or traumatic disruption) by deployment of a fenestrated visceral aortic endograft and all associated radiological supervision and interpretation, including target zone angioplasty, when performed; including four or more visceral artery endoprostheses (superior mesenteric, celiac and/or renal artery[s])
34845	Endovascular repair of visceral aorta and infrarenal abdominal aorta (eg, aneurysm, pseudoaneurysm, dissection, penetrating ulcer, intramural hematoma, or traumatic disruption) with a fenestrated visceral aortic endograft and concomitant unibody or modular infrarenal aortic endograft and all associated radiological supervision and interpretation, including target zone angioplasty, when performed; including one visceral artery endoprosthesis (superior mesenteric, celiac or renal artery)
34846	Endovascular repair of visceral aorta and infrarenal abdominal aorta (eg, aneurysm, pseudoaneurysm, dissection, penetrating ulcer, intramural hematoma, or traumatic disruption) with a fenestrated visceral aortic endograft and concomitant unibody or modular infrarenal aortic endograft and all associated radiological supervision and interpretation, including target zone angioplasty, when performed; including two visceral artery endoprostheses (superior mesenteric, celiac and/or renal artery[s])
34847	Endovascular repair of visceral aorta and infrarenal abdominal aorta (eg, aneurysm, pseudoaneurysm, dissection, penetrating ulcer, intramural hematoma, or traumatic disruption) with a fenestrated visceral aortic endograft and concomitant unibody or modular infrarenal aortic endograft and all associated radiological supervision and interpretation, including target zone angioplasty, when performed; including three visceral artery endoprostheses (superior mesenteric, celiac and/or renal artery[s])

34848	Endovascular repair of visceral aorta and infrarenal abdominal aorta (eg, aneurysm, pseudoaneurysm, dissection, penetrating ulcer, intramural hematoma, or traumatic disruption) with a fenestrated visceral aortic endograft and concomitant unibody or modular infrarenal aortic endograft and all associated radiological supervision and interpretation, including target zone angioplasty, when performed; including four or more visceral artery endoprostheses (superior mesenteric, celiac and/or renal artery[s])
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ICD-10 Diagnosis Codes That Support Medical Necessity:

I71.30-I71.33	Abdominal aortic aneurysm, ruptured
I71.40-I71.43	Abdominal aortic aneurysm, without rupture

LOINC Codes:

The following information may be required documentation to support medical necessity: Physician history and physical, attending physician progress notes, plan of treatment, and laboratory studies.

Documentation Table	LOINC Codes	LOINC Time Frame Modifier Code	LOINC Time Frame Modifier Codes Narrative
Physician history and physical	28626-0	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim
Attending physician progress note	18741-9	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim.
Plan of treatment	18776-5	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim.
Laboratory studies	26436-6	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim

REIMBURSEMENT INFORMATION:

Refer to section entitled [POSITION STATEMENT](#).

PROGRAM EXCEPTIONS:

Federal Employee Program (FEP): Follow FEP guidelines.

State Account Organization (SAO): Follow SAO guidelines.

Medicare Advantage products: No National Coverage Determination (NCD) and/or Local Coverage Determination (LCD) were found at the time of the last guideline reviewed date.

If this Medical Coverage Guideline contains a step therapy requirement, in compliance with Florida law 627.42393, members or providers may request a step therapy protocol exemption to this requirement if based on medical necessity. The process for requesting a protocol exemption can be found at [Coverage Protocol Exemption Request](#)

DEFINITIONS:

None applicable.

RELATED GUIDELINES:

[Endovascular Stent Grafts for Disorders of the Thoracic Aorta, 02-33000-29](#)

OTHER:

None applicable.

REFERENCES:

1. Adriaensen ME, Bosch JL, et al. Elective endovascular versus open surgical repair of abdominal aortic aneurysms: systematic review of short-term results. *Radiology*. 09/02; 224(3): 739-47.
2. Becquemin JP, Pillet JC, et al. A randomized controlled trial of endovascular aneurysm repair versus open surgery for abdominal aortic aneurysms in low- to moderate-risk patients. *J Vasc Surg* 2011 [Epub ahead of print].
3. Blankensteijn JD, de Jong SE, et al. Dutch Randomized Endovascular Aneurysm Management (DREAM) Trial Group. Two-year outcomes after conventional or endovascular repair of abdominal aortic aneurysms. *N Engl J Med*. 07/09/05; 352(23): 2398-405.
4. Blue Cross Blue Shield Association Evidence Positioning System®. 7.01.67 Endovascular Stent Grafts for Abdominal Aortic Aneurysms, 06/22.
5. Blue Cross Blue Shield Association Technology Evaluation Center (TEC) “Endovascular Repair of Abdominal Aortic Aneurysm TEC Assessments, 2001.
6. Bosch JL, Kaufman JA, Beinfeld MT, Adriaensen ME, Brewster DC, Gazelle GS. Abdominal aortic aneurysms: cost-effectiveness of elective endovascular and open surgical repair. *Radiology*. 11/02; 225(2): 337-44.
7. Bulder RMA, Bastiaannet E, et al. Meta-analysis of Long-Term Survival after Elective Endovascular or Open Repair of Abdominal Aortic Aneurysm. *Br J Surg*. Apr 2019; 106(5): 523-533. PMID 30883709.
8. Cao P, De Rango P, et al. Comparison of surveillance versus aortic endografting for small aneurysm repair (CAESAR): results from a randomized trial. *Eur J Vasc Endovasc Surg* 2011; 41(1):13-25.
9. Chaikof EL, Brewster DC, Dalman RL et al. The care of patients with an abdominal aortic aneurysm: The Society for Vascular Surgery practice guidelines. *J Vasc Surg* 2009; 50(4):880-96.
10. Chaikof EL, Dalman RL, et al, The Society for Vascular Surgery practice guidelines on the care of patients with an abdominal aortic aneurysm. *J Vasc Surg*. 2018 Jan;67(1):2-77.e2.

11. Chen ZG, Tan SP, et al. The Long-Term Outcomes of Open and Endovascular Repair for Abdominal Aortic Aneurysm: A Meta-Analysis. *Asian J Surg.* Oct 2019; 42(10): 899-906. PMID 30914154.
12. Creager MA, Goldstone J, et al. American College of Cardiology; American Heart Association; American College of Physicians Task Force on Clinical Competence; Society for Cardiovascular Angiography and Interventions; Society for Vascular Medicine and Biology; Society for Vascular surgery. ACC/ACP/SCAI/SVMB/SVS Clinical Competence Statement on vascular medicine and catheter-based peripheral vascular interventions. A report of the American College of Cardiology/American Heart Association/American College of Physicians Task Force on Clinical Competence (ACC/ACP/SCAI/SVMB/SVS Writing Committee to develop a clinical competence statement on peripheral vascular disease). *J Am Coll Cardiol.* 08/18/04; 44(4): 941-57.
13. De Bruin JL, Baas AF, et al. Long-term outcomes of open or endovascular repair of abdominal aortic aneurysm. *N Engl J Med* 2010; 362(20):1881-9.
14. Dillon M, Cardwell C, Blair PH, Ellis P, Kee F, Harkin DW. Endovascular treatment for ruptured abdominal aortic aneurysm. *Cochrane Database of Systematic Reviews* 2007, Issue 1. Art. No.: CD005261. DOI: 10.1002/14651858.CD005261.pub2.
15. Erbel R, Aboyans V, Boileau C, et al. 2014 ESC Guidelines on the diagnosis and treatment of aortic diseases: Document covering acute and chronic aortic diseases of the thoracic and abdominal aorta of the adult. The Task Force for the Diagnosis and Treatment of Aortic Diseases of the European Society of Cardiology (ESC). *Eur Heart J.* Nov 1 2014;35(41):2873-2926.
16. Hirsch AT, Haskal ZJ, Hertzner NR, et al. ACC/AHA 2005 Practice Guidelines for the management of patients with peripheral arterial disease (lower extremity, renal, mesenteric, and abdominal aortic): a collaborative report from the American Association for Vascular Surgery/Society for Vascular Surgery, Society for Cardiovascular Angiography and Interventions, Society for Vascular Medicine and Biology, Society of Interventional Radiology, and the ACC/AHA Task Force on Practice Guidelines (Writing Committee to Develop Guidelines for the Management of Patients With Peripheral Arterial Disease): endorsed by the American Association of Cardiovascular and Pulmonary Rehabilitation; National Heart, Lung, and Blood Institute; Society for Vascular Nursing; TransAtlantic Inter-Society Consensus; and Vascular Disease Foundation. *Circulation.* 2006 Mar 21;113(11):e463-654.
17. Lederle FA, Kyriakides TC, et al. Open versus Endovascular Repair of Abdominal Aortic Aneurysm. *N Engl J Med.* May 30 2019; 380(22): 2126-2135. PMID 31141634.
18. Li B, Khan S, et al. A Systematic Review and Meta-Analysis of the Long-Term Outcomes of Endovascular Versus Open Repair of Abdominal Aortic Aneurysm. *J Vasc Surg.* Sep 2019; 70(3): 954-969.e30. PMID 31147117.
19. National Institute for Health and Care Excellence (NICE). Abdominal aortic aneurysm: diagnosis and management. NICE guideline [NG156]. March 19, 2020. Accessed at nice.org.uk.
20. Ouriel K, Clair DG, et al. Endovascular repair compared with surveillance for patients with small abdominal aortic aneurysms. *J Vasc Surg* 2010; 51(5):1081-7.
21. Pearce WH, Zarins CK, Bacharach JM, Atherosclerotic Peripheral Vascular Disease Symposium II-Controversies in Abdominal Aortic Aneurysm Repair, *Circulation*, 2008; 118: 2860-2863.
22. Powell JT, Sweeting MJ, Ulug P, et al. Meta-analysis of individual-patient data from EVAR-1, DREAM, OVER and ACE trials comparing outcomes of endovascular or open repair for abdominal aortic aneurysm over 5 years. *Br J Surg.* Feb 2017;104(3):166-178.
23. Prinssen M, Verhoeven EL, et al. Dutch Randomized Endovascular Aneurysm Management (DREAM) Trial Group. A randomized trial comparing conventional and endovascular repair of abdominal aortic aneurysms. *N Engl J Med.* 10/14/04; 351(16): 1607-18.
24. Rooke TW, Hirsch AT, Misra S et al. 2011 ACCF/AHA Focused Update of the Guideline for the Management of Patients With Peripheral Artery Disease (updating the 2005 guideline): a report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines. *J Am Coll Cardiol* 2011; 58(19):2020-45.

25. Ten Bosch JA, Tejjink JA, et al. Endovascular aneurysm repair is superior to open surgery for ruptured abdominal aortic aneurysms in EVAR-suitable patients. J Vasc Surg 2010; 52(1):13-8.
26. U.S. Food and Drug Administration (FDA), accessed at fda.gov.
27. Walker TG, Kalva SP, Yeddula K et al. Clinical practice guidelines for endovascular abdominal aortic aneurysm repair: written by the Standards of Practice Committee for the Society of Interventional Radiology and endorsed by the Cardiovascular and Interventional Radiological Society of Europe and the Canadian Interventional Radiology Association. J Vasc Interv Radiol 2010; 21(11):1632-55.

COMMITTEE APPROVAL:

This Medical Coverage Guideline (MCG) was approved by the Florida Blue Medical Policy and Coverage Committee on 07/28/22.

GUIDELINE UPDATE INFORMATION:

08/15/00	Medical Coverage Guideline Developed.
01/01/01	HCPCS coding changes.
09/15/02	Reviewed.
01/01/03	HCPCS coding update.
07/15/04	Review and revision of guideline; consisting of updated references and maintaining current coverage.
01/01/05	Annual HCPCS update; consisting of the addition of 34803, 0078T, 0079T, 0080T and 0081T.
07/01/05	3 rd quarter HCPCS coding update; consisting of the revision of 0078T.
01/01/06	Annual HCPCS coding update consisting of the revision of 0078T.
03/15/06	Review and revision of guideline consisting of updated references.
08/15/07	Review and revision of guideline consisting of updated references and reformatted guideline.
06/15/09	Biennial review: position statement maintained and references updated.
01/01/10	Annual HCPCS coding update: revised descriptor for codes 34802, and 34803.
10/15/10	Revision; related ICD-10 codes added.
01/01/11	Annual HCPCS coding update. Revised 34900.
05/15/11	Biennial review; position statement, coding section and references updated; formatting changes.
10/01/11	Revision; formatting changes.
01/01/14	Annual HCPCS coding update; added codes 34841-34848; deleted codes 0078T-0081T. Revision; Program Exception section updated.
06/15/14	Review; position statements, description section, coding, & references updated; formatting changes.
01/01/15	Annual HCPCS/CPT update. Added code 34839.
06/15/15	Annual review; position statements maintained and references updated.
11/01/15	Revision: ICD-9 Codes deleted.
10/01/16	Revision; formatting changes.
07/15/17	Review; position statements maintained; title, description, and references updated.

01/01/18	Annual CPT/HCPCS update. Added codes 34701-34716; revised codes 34812 & 34820; deleted codes 34800-34805, 34825, 34826, 75952, 75953.
08/15/18	Revision; position maintained; coding and references updated.
08/15/20	Review; position statements maintained and references updated.
08/15/22	Review: Position statements maintained; references updated.
10/01/22	Annual ICD-10 coding update. Codes I71.30-I71.33 and I71.40-I71.43 added; codes I71.3 and I71.4 deleted.
05/23/23	Update to Program Exceptions section.