Cohere Medical Policy - Venous Stenting

Clinical Policy for Medical Necessity Review

Version: 3
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Important Notices

Notices & Disclaimers:

GUIDELINES ARE SOLELY FOR COHERE'S USE IN PERFORMING MEDICAL NECESSITY REVIEWS AND ARE NOT INTENDED TO INFORM OR ALTER CLINICAL DECISION-MAKING OF END USERS.

Cohere Health, Inc. ("**Cohere**") has published these clinical guidelines to determine the medical necessity of services (the "**Guidelines**") for informational purposes only, and solely for use by Cohere's authorized "**End Users**". These Guidelines (and any attachments or linked third-party content) are not intended to be a substitute for medical advice, diagnosis, or treatment directed by an appropriately licensed healthcare professional. These Guidelines are not in any way intended to support clinical decision-making of any kind; their sole purpose and intended use is to summarize certain criteria Cohere may use when reviewing the medical necessity of any service requests submitted to Cohere by End Users. Always seek the advice of a qualified healthcare professional regarding any medical questions, treatment decisions, or other clinical guidance. The Guidelines, including any attachments or linked content, are subject to change at any time without notice.

Other Notices:

Fee schedules, relative value units, conversion factors and/or related components are not assigned by the AMA, are not part of CPT, and the AMA is not recommending their use. The AMA does not directly or indirectly practice medicine or dispense medical services. The AMA assumes no liability for data contained or not contained herein.

Policy Information:

Specialty Area: Cardiovascular Disease
Policy Name: Cohere Medical Policy - Venous Stenting
Type: [**X**] Adult (18+ yo) | [**X**] Pediatric (0-17 yo)

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Medical Necessity Criteria

Service: Venous Stenting

Cohere Health takes an evidence-based approach to reviewing imaging and procedure requests, meaning that sufficient clinical information must be provided at the time of submission to determine medical necessity. Documentation must include a recent and detailed history, physical examination related to the onset or change in symptoms, relevant lab results, prior imaging, and details of previous treatments. Advanced imaging or procedures should be requested after a recent clinical evaluation by the treating provider, which may include referral to a specialist.

- When a specific clinical indication is not explicitly addressed in the Cohere Health medical policy, medical necessity will be determined based on established clinical best practices, as supported by evidence-based literature, peer-reviewed sources, professional society guidelines, and state or national recommendations, unless otherwise directed by the health plan.
- Requests submitted without clinical documentation, or those that do not align with the provided clinical information—such as mismatched procedure, laterality, body part, or CPT code—may be denied for lack of medical necessity due to insufficient or inconsistent clinical information.
- When there are multiple diagnostic or therapeutic procedures requested simultaneously or within the past three months, each will be reviewed independently. Clinical documentation must clearly justify all of the following:
    - The medical necessity of each individual request
    - Why prior imaging or procedures were inconclusive or why additional/follow-up studies are needed
    - How the results will impact patient management or treatment decisions
- Requests involving adjacent or contiguous body parts may be considered not medically necessary if the documentation demonstrates that the patient's primary symptoms can be adequately assessed with a single study or procedure.

Description

Venous stent placement is generally indicated to treat symptomatic venous occlusive disease (e.g., symptomatic venous stenosis, compression, or post-procedure venous complications). Venous stents can be placed via a percutaneous route or with a combination of open and percutaneous techniques. Covered stents may also be used to treat venous conditions, including venous aneurysms, arteriovenous fistulae, and venous perforations.[1]

Medical Necessity Criteria

Indications

Venous stenting is considered appropriate if **ANY** of the following is **TRUE**[1-27]:

- The patient has abdominopelvic venous disease as indicated by **ANY** of the following:
  - Symptomatic compression or obstruction of the hepatic veins (e.g., Budd-Chiari syndrome)[2-4]; **OR**
  - Symptomatic portal venous hypertension[5-10]; **OR**
  - Symptomatic iliac vein compression (e.g., May-Thurner syndrome, Cockett's syndrome) with **ALL** of the following[11,12]:
    - Either 50% diameter reduction or 75% cross-sectional area; **AND**
    - Skin or subcutaneous changes (healed or active ulcers [CEAP {clinical, etiology, anatomy, and pathophysiology} classes 4-6]); **AND**
    - The patient does not have superficial venous reflux (or has previously treated superficial venous reflux); **OR**
  - Symptomatic iliocaval or iliofemoral venous obstruction confirmed by Doppler ultrasound, computed tomography (CT), or magnetic resonance venography (MRV)[13-15]; **OR**
  - Symptomatic iliocaval or iliofemoral venous stenosis, as indicated by **ANY** of the following:
    - Greater than 50% diameter reduction of the affected vein; **OR**
    - 75% cross-sectional area stenosis; **OR**
    - Residual stenosis of greater than 30% following angioplasty; **OR**
  - Symptomatic renal vein compression (e.g., nutcracker syndrome) with **ANY** of the following[16,17]:
    - Nonsurgical management has been attempted for at least 6 months; **OR**

        - Prior left renal vein (LRV) transposition has failed, with recurrent/unimproved symptoms and evidence of persistent stenosis on imaging; **OR**
- The patient has symptomatic thoracic venous disease, including **ANY** of the following:
    - Pulmonary vein stenosis with **ALL** of the following:
        - A confirmation by diagnostic imaging (e.g., echocardiography, computed tomography angiography [CTA]); **AND**
        - The pulmonary vein stenosis is the result of **ANY** of the following:
            - Congenital malformation; **OR**
            - Extrinsic compression; **OR**
            - Sequelae of radiofrequency ablation (RFA); **OR**
            - Lung transplantation; **OR**
            - Repair of total anomalous pulmonary vein return (TAPVR); **OR**
    - Superior or inferior vena cava obstruction, including superior vena cava syndrome, confirmed by diagnostic imaging (e.g., CT, Doppler ultrasound, magnetic resonance imaging [MRI])[18]; **OR**
- The patient has symptomatic venous complications relating to a procedure or treatment, including **ANY** of the following:
    - Complications of arteriovenous dialysis access (e.g., stenosis, occlusion, pseudoaneurysm)[19]; **OR**
    - Postprocedure venous complications (e.g., occlusion, stenosis, perforation, pseudoaneurysm)[20-22]; **OR**
    - Post-radiation venous stenosis confirmed by diagnostic imaging (e.g., CT, Doppler ultrasound, MRI)[23]; **OR**
    - Postoperative venous stenosis after repair of congenital cardiac disease, as confirmed by diagnostic imaging (e.g., echocardiography, CT, Doppler, MRI); **OR**
- The patient has an arteriovenous malformation (AVM) confirmed by diagnostic imaging (CT or MRI)[1]; **OR**
- Suboptimal or failed angioplasty and **ANY** of the following:
    - Residual stenosis of greater than 30%; **OR**
    - Greater than 50% diameter reduction or greater than 75% cross-sectional area stenosis; **OR**
    - Abrupt occlusion at the angioplasty site; **OR**
    - Elastic recoil or refractory spasm; **OR**
    - Perforation; **OR**
    - Intractable symptoms[1]; **OR**

- The patient has idiopathic intracranial hypertension (IIH) with **ALL** of the following[24,25]:
  - Documented vision loss and papilledema; **AND**
  - Failed medical treatment (e.g., persistent visual symptoms and headache despite acetazolamide treatment, medication intolerance)[26]; **AND**
  - **ANY** of the following:
    - Bilateral venous sinus stenosis; **OR**
    - Unilateral stenosis and contralateral hypoplasia; **AND**
  - Refractory or unremitting IIH; **OR**
- Repeat or secondary stenting of any of the preceding indications is appropriate for **ANY** of the following circumstances:
  - Suboptimal or failed stenting; **OR**
  - Symptomatic restenosis; **OR**
  - Stent fracture (in association with restenosis or occlusion); **OR**
  - Stent recoil; **OR**
  - Prevention of variceal rebleeding if more than 72 hours beyond the index bleed.[8]

Non-Indications

Venous stenting is not considered appropriate if **ANY** of the following is **TRUE**:

- Prophylactic stenting for asymptomatic venous stenosis or compression.[27]

Level of Care Criteria

Inpatient or Outpatient

Procedure Codes (CPT/HCPCS)

CPT/HCPCS Code	Code Description
37182	Insertion of a TIPS (Transjugular Intrahepatic Portosystemic Shunt), which includes venous access, catheterization of the hepatic and portal veins, portography, intrahepatic tract formation, stent placement, and imaging guidance
37183	Revision of a TIPS (Transjugular Intrahepatic Portosystemic Shunt), which includes venous access, catheterization of the hepatic and portal veins, portography, intrahepatic tract recanalization, stent placement, and imaging guidance
37238	Transcatheter placement of an intravascular stent(s), open or percutaneous, including radiological supervision and interpretation and including angioplasty within the same vessel, when performed; initial vein
37239	Transcatheter placement of an intravascular stent(s), open or percutaneous, including radiological supervision and interpretation and including angioplasty within the same vessel, when performed; each additional vein (List separately in addition to code for primary procedure)
37248	Transluminal balloon angioplasty (except dialysis circuit), open or percutaneous, including all imaging and radiological supervision and interpretation necessary to perform the angioplasty within the same vein; initial vein
37249	Transluminal balloon angioplasty (except dialysis circuit), open or percutaneous, including all imaging and radiological supervision and interpretation necessary to perform the angioplasty within the same vein; each additional vein (List separately in addition to code for primary procedure)

Medical Evidence

Morris et al. (2023) performed a systematic review of the benefits of inferior vena cava (IVC) stenting. The review included 33 studies with 1575 patients. The indications for stenting included IVC syndrome, thrombotic disease, Budd–Chiari syndrome, and IVC stenosis following liver transplant. IVC stenting was concluded to be safe with clinical outcomes that improved symptoms and quality of life, although the authors encouraged future randomized controlled trials to refine the evidence supporting these recommendations.[12]

Hoshino et al. (2022) reported on the mid-term outcomes for venous stenting in patients with post-thrombotic syndrome (PTS). The authors performed venous stenting in 30 patients with moderate and severe PTS and monitored outcomes for 40 months. Overall, the patients showed a decrease in Villalta score from a preoperative median of 16 to a postoperative median of 7. Similarly, the primary and secondary patency at 40 months were 93% and 96%, respectively. The authors conclude by suggesting that the results demonstrate the promise of venous stenting as a treatment for severe PTS, with the need for additional study.[13]

Wei et al. (2020) conducted a retrospective cohort study looking at patients with sinistral portal hypertension who received either splenic arterial embolization (SAE) or splenic vein stenting. Thirty-seven total patients were included in the review, of which 11 underwent SAE alone, 12 underwent SAE following splenic vein stenting failure, and 14 underwent splenic vein stenting alone. The outcome of interest was the rate of rebleeding after intervention. Overall, splenic vein stenting was found to be safe and effective, with lower rates of rebleeding compared to SAE.[10]

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Policy Revision History/Information

Original Date: October 4, 2023		
Review History		
Version 2	12/12/2024	Annual policy review and restructure. Updated recommended clinical approach to the current format. Consolidated redundant criteria. Simplified AV fistula indication. Clarified wording of post-procedure complications indication; consolidated redundant criteria. Simplified criteria of pulmonary vein stenosis. Added indication for intracranial hypertension. Added repeat stenting indication Corrected prophylactic non-indication. Added TIPS CPT codes + indication. Edited medical evidence section. Updated references.
Version 3	12/18/2025	Annual review. Minor copyedits for clarity and concision. Updated medical evidence summaries.

		Updated reference section.