Clinical Appropriateness Guidelines: Arterial Ultrasound

Appropriate Use Criteria

Effective Date: January 27, 2019

Proprietary

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Description and Application of the Guidelines

AIM's Clinical Appropriateness Guidelines (hereinafter "AIM's Clinical Appropriateness Guidelines" or the "Guidelines") are designed to assist providers in making the most appropriate treatment decision for a specific clinical condition for an individual. As used by AIM, the Guidelines establish objective and evidence-based, where possible, criteria for medical necessity determinations. In the process, multiple functions are accomplished:

- To establish criteria for when services are medically necessary
- To assist the practitioner as an educational tool
- To encourage standardization of medical practice patterns
- To curtail the performance of inappropriate and/or duplicate services
- To advocate for patient safety concerns
- To enhance the quality of healthcare
- To promote the most efficient and cost-effective use of services

AIM's guideline development process complies with applicable accreditation standards, including the requirement that the Guidelines be developed with involvement from appropriate providers with current clinical expertise relevant to the Guidelines under review and be based on the most up to date clinical principles and best practices. Relevant citations are included in the "References" section attached to each Guideline. AIM reviews all of its Guidelines at least annually.

AIM makes its Guidelines publicly available on its website twenty-four hours a day, seven days a week. Copies of AIM's Clinical Appropriateness Guidelines are also available upon oral or written request. Although the Guidelines are publicly-available, AIM considers the Guidelines to be important, proprietary information of AIM, which cannot be sold, assigned, leased, licensed, reproduced or distributed without the written consent of AIM.

AIM applies objective and evidence-based criteria and takes individual circumstances and the local delivery system into account when determining the medical appropriateness of health care services. The AIM Guidelines are just guidelines for the provision of specialty health services. These criteria are designed to guide both providers and reviewers to the most appropriate services based on a patient's unique circumstances. In all cases, clinical judgment consistent with the standards of good medical practice should be used when applying the Guidelines. Guideline determinations are made based on the information provided at the time of the request. It is expected that medical necessity decisions may change as new information is provided or based on unique aspects of the patient's condition. The treating clinician has final authority and responsibility for treatment decisions regarding the care of the patient and for justifying and demonstrating the existence of medical necessity for the requested service. The Guidelines are not a substitute for the experience and judgment of a physician or other health care professionals. Any clinician seeking to apply or consult the Guidelines is expected to use independent medical judgment in the context of individual clinical circumstances to determine any patient's care or treatment.

The Guidelines do not address coverage, benefit or other plan specific issues. If requested by a health plan, AIM will review requests based on health plan medical policy/guidelines in lieu of AIM's Guidelines.

The Guidelines may also be used by the health plan or by AIM for purposes of provider education, or to review the medical necessity of services by any provider who has been notified of the need for medical necessity review, due to billing practices or claims that are not consistent with other providers in terms of frequency or some other manner.

Duplex Ultrasound Imaging of the Extracranial Arteries

CPT Codes

93880..... Duplex scan of extracranial arteries; complete bilateral study

93882..... Duplex scan of extracranial arteries; unilateral or limited study

Standard Anatomic Coverage

- Arteries of both the anterior (carotid) and posterior (vertebrobasilar) extracranial systems.

Imaging Considerations

- This guideline does not supersede the enrollee's health plan medical policy specific to Duplex Imaging of the arteries of the upper and lower extremities
- Selection of the optimal diagnostic imaging for evaluation of extracranial arterial disease should be made within the context of other available modalities (which include Computed Tomography angiography [CTA], Magnetic Resonance angiography [MRA] and contrast angiography) so that the resulting information facilitates patient management decisions and does not merely add a new layer of testing
- Duplicative testing or repeat imaging of the same anatomic area with same or similar technology may be subject to high-level review and may not be medically necessary unless there is a persistent diagnostic problem or there has been a change in clinical status (e.g. deterioration) or there is a medical intervention which warrants interval reassessment
- In some clinical situations, it may be appropriate to perform transcranial Doppler studies in addition to Duplex imaging. Transcranial Doppler studies are not subject to preauthorization and are therefore not addressed in this document
- For the purposes of this guideline symptoms are defined as follows:
  - Anterior symptoms (carotid vascular territory) include unilateral motor or sensory deficit, speech impairment, or amaurosis fugax
  - Posterior symptoms (vertebrobasilar territory) include vertigo, ataxia, diplopia, dysphagia, dysarthria
  - The terms cerebrovascular attack (CVA) and transient ischemic attack (TIA) do not apply specifically to either anterior or posterior circulation
- For the purposes of this guideline, severity of vascular stenosis is defined as follows:
  - Mild disease: <50% stenosis
  - Moderate disease: 50%-69% stenosis
  - Severe disease: 70%-99% stenosis
  - Total occlusion: 100% stenosis
- For the purposes of this guideline, the term "revascularization" should be taken to mean carotid endarterectomy, or stent implantation

Duplex Imaging for Extracranial Arterial Disease

The following diagnostic indications for Duplex imaging for Extracranial Arterial Disease are accompanied by pre-test considerations as well as supporting clinical data and prerequisite information:

Patients with suspected extracranial arterial disease

(any <u>one</u> of the following)

- New or worsening anterior or posterior neurological symptoms
  - This does not apply to patients with syncope or near-syncope
- Hollenhorst plaque seen on retinal examination
- Evaluation for subclavian or vertebral steal syndrome in patients who develop lightheadedness or impaired vision in the setting of upper extremity exertion
- Evaluation for spontaneous carotid artery dissection in patients with a pulsatile neck mass
  - Iatrogenic or traumatic dissection is better evaluated with CTA or MRA
- Evaluation for TAVR (TAVI)

Patients with established extracranial arterial disease who have not undergone revascularization

(any <u>one</u> of the following)

- New or worsening anterior or posterior neurological symptoms
  - This guideline does not apply to patients with syncope or near-syncope
- Evaluation of syncope when cardiovascular causes (e.g. Rhythm disturbance, valvular disease) have been excluded
- Evaluation for TAVR (TAVI)
- Surveillance studies every 6 months are appropriate for patients with severe (70-99%) carotid stenosis provided that the patient is a candidate for revascularization
- Annual surveillance studies (after the first year) are appropriate for patients with moderate (50-69%) stenosis provided that the patient is a candidate for revascularization

Patients with established extracranial arterial disease who have undergone revascularization

(any <u>one</u> of the following)

- A baseline study (usually within 1 month following revascularization) is appropriate
- New or worsening neurological symptoms
- Two imaging studies (usually at about 6 and 12 months) are appropriate within the first year following revascularization
- Annual surveillance studies (after the first year) are appropriate
- Following an abnormal surveillance study revealing severe stenosis additional studies at six month intervals are appropriate provided that the patient is a candidate for repeat revascularization
- Evaluation for TAVR (TAVI)

Reference / Literature Review

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the American Stroke Association, American Association of Neuroscience Nurses, American Association of Neurological Surgeons, American College of Radiology, American Society of Neuroradiology, Congress of Neurological Surgeons, Society of Atherosclerosis Imaging and Prevention, Society for Cardiovascular Angiography and Interventions, Society of Interventional Radiology, Society of NeuroInterventional Surgery, Society for Vascular Medicine, and Society for Vascular Surgery. *J Am Coll Cardiol.* 2011;57(8):e16-e94.

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