

Subject: Neck CTA (70498)		Original Effective Date: 12/13/17
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DESCRIPTION OF PROCEDURE/SERVICE/PHARMACEUTICAL

Computed Tomographic Angiography (CTA) is an X-ray imaging scan in which iodine containing contrast material is injected into a vein to obtain detailed images of vascular structures. These images are electronically processed to remove surrounding non-vascular anatomy, so that only the arteries or veins of interest are displayed. The vascular images can be reconstructed and rotated in different planes. CTA can sometimes replace or can be used to supplement conventional invasive catheter angiography.

RECOMMENDATIONS

Duplex ultrasound is the study of choice for initial evaluation of the majority of clinical scenarios involving the vasculature of the neck.

Dissection – does not require U/S Doppler first

- For evaluation of a known or suspected dissection
- For evaluation of head trauma in a patient with closed head injury for suspected carotid or vertebral artery dissection

Aneurysm

- For evaluation of a known or suspected aneurysm

Embolism or other occlusions

- For evaluation of suspected embolism or thrombus of the neck
- For evaluation of known or suspected vasculitis (e.g. Takayasu's arteritis), does not require Doppler U/S first
- For evaluation of new TIA or stroke

Fistula or AVM

- For evaluation of known or suspected arteriovenous malformation or fistula

Stenosis

- For evaluation of known or suspected stenosis as identified on arterial Doppler studies, with greater than 70% occlusion estimated.
- For technically limited Doppler study with tortuous vessels or aberrant direction of flow in the internal carotid or vertebral arteries

Tumors

- Differentiate between vascular and nonvascular tumors
- Carotid body tumors (paragangliomas) known or suspected and prior ultrasound or other imaging has been done.
- Pulsatile neck mass, if warranted after ultrasound

Evaluate hemorrhage or trauma

- To evaluate the source of hemorrhage
- To evaluate the vascular compromise due to trauma

Congenital

- To evaluate congenital disorders of the blood vessels involving the neck. For pediatrics, MRA is the preferred exam.

Pre/Post Procedural

- Pre-operative/pre procedural evaluation when blood vessel detail is needed.
- Post-operative/post-procedural for routine recommended follow up or for potential post-operative complications.
- A repeat study may be needed to help evaluate a patient's progress after treatment procedure intervention or surgery. The reason for the repeat study and that it will affect care must be clear.

Combination - Neck CTA with Brain CT and Brain CTA.

- Evaluation of new stroke symptoms
- Pulsatile tinnitus

ADDITIONAL CRITICAL INFORMATION

The above medical necessity recommendations are used to determine the best diagnostic study based on a patient's specific clinical circumstances. The recommendations were developed using

evidence based studies and current accepted clinical practices. Medical necessity will be determined using a combination of these recommendations as well as the patient’s individual clinical or social circumstances.

- Tests that will not change treatment plans should not be recommended.
- Same or similar tests recently completed need a specific reason for repeat imaging.

REFERENCES USED FOR DETERMINATIONS

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	Description
70498	CTA (Computed Tomography) Angiography Neck