



MEDICAL POLICY

Date Reviewed: 07/27/10, 01/14/11

Subject: Cerebral Perfusion Study

Description: Cerebral perfusion studies use computed tomography (CT) with contrast to evaluate cerebral blood volume and blood flow in individuals with a suspected cerebrovascular accident (stroke) when treatment is being considered.

Indications of Coverage:

Cerebral perfusion studies are considered medically necessary for an emergent evaluation when an acute stroke is suspected and thrombolytic therapy is being considered.

Limitations of Coverage:

Review contract and endorsements for exclusions and prior authorization or benefit requirements.

If used for a condition/diagnosis other than is listed in the Indications of Coverage, deny as experimental or investigative.

If used for a condition/diagnosis that is listed in the Indications of Coverage, but the criteria are not met, deny as not medically necessary.

Cerebral perfusion studies are not medically necessary when performed more than eight hours after the onset of symptoms, since thrombolytic therapy must be administered within eight hours of the onset of symptoms.

Documentation Required:

Imaging report

Rationale: Cerebral perfusion studies are typically used when planning treatment for an individual with symptoms consistent with a stroke. Studies regarding this imaging technique are limited but suggest that cerebral perfusion studies may assist in identifying those individuals who are candidates for thrombolytic therapy and those individuals who are more likely to respond to thrombolytic therapy. Several national professional organizations, including the American Heart Association, the American College of Radiology (ACR) and the American Society of Neuroradiology, support the use of this imaging technique for the evaluation of acute stroke.

References: Adams HP Jr, del Zoppo G, Alberts MJ, Bhatt DL, Brass L, Furlan A, Grubb RL, Higashida RT, Jauch EC, Kidwell C, Lyden PD, Morgenstern LB, Qureshi AI, Rosenwasser RH, Scott PA, Wijndicks EFM. Guidelines for the early management of adults with ischemic stroke: a guideline from the American Heart Association/American Stroke Association Stroke Council, Clinical Cardiology Council, Cardiovascular Radiology and Intervention Council, and the Atherosclerotic Peripheral Vascular Disease and Quality of Care Outcomes in Research Interdisciplinary Working Groups: the American Academy of Neurology affirms the value of this guideline as an educational tool for neurologists. Stroke. 2007 May;38(5):1655-711.

American College of Radiology (ACR). ACR Appropriateness Criteria - Cerebrovascular Disease. Last Review Date: 2010. Available at: www.acr.org. Accessed: 5 Jan 11.

Del Zoppo GJ, Saver JL, Jauch EC, Adams HP Jr; American Heart Association Stroke Council. Expansion of the time window for treatment of acute ischemic stroke with intravenous tissue plasminogen activator: a science advisory from the American Heart Association/American Stroke Association. *Stroke*. 2009 Aug;40(8):2945-8.

Latchaw RE, Alberts MJ, Lev MH, Heart Association Council on Cardiovascular Radiology and Intervention, Stroke Council, Interdisciplinary Council on Peripheral Vascular Disease, et al. Recommendations for imaging of acute ischemic stroke: a scientific statement from the American Heart Association. *Stroke*. 2009 Nov;40(11):3646-78.

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Approved by the Medical Director