Medical Coverage Policies

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Thermal Perfusion Probe for Monitoring Regional Cerebral Blood Flow

EFFECTIVE DATE	03/03/2009	LAST UPDATED	03/03/2009

Description:

Assessment of cerebral perfusion is considered an important component of the management of patients with head trauma, post-neurological surgery, or strokes of a variety of etiologies, including subarachnoid hemorrhage. Bedside transcranial Doppler (TCD) is the technique most commonly used to assess cerebral perfusion, but this technique is technically difficult, can take over an hour, visualizes a small proportion of vessels, and, not infrequently, cannot be done at all if temporal bone windows are dense. A variety of other techniques have been investigated to measure cerebral perfusion, including numerous protocols for computed tomography (CT) scans, positron emission tomography (PET) scans, or other radionuclide studies. A major limitation of these techniques is the fact that they cannot be performed at the bedside.

Recently, a cerebral thermal perfusion probe has been investigated, which has the additional advantage of being able to provide continuous bedside monitoring. In contrast to other techniques like TCD, which can assess the entire brain, the thermal perfusion probe will assess regional cerebral blood flow. The QFlow^{TM} 500 Perfusion Monitoring System is a cerebral thermal perfusion probe that received clearance by the U.S. Food and Drug Administration (FDA) through the 510(k) process in 2002. However, there are minimal published data regarding the diagnostic performance of the cerebral perfusion probe which are not sufficient enough to permit scientific conclusions concerning the effect of the technology on health outcomes, and whether or not the use of a cerebral thermal perfusion probe results in an improvement in the net health outcome

The labeled indication for the device is not limited to its intracerebral use. However, this policy is only focused on the intracerebral use of the device to assess cerebral perfusion.

Medical Criteria:

Monitoring of regional cerebral perfusion using an implanted cerebral thermal perfusion probe is considered **not medically necessary** because there is insufficient evidence in the published medical literature to demonstrate its efficacy.

Policy:

Monitoring of regional cerebral perfusion using an implanted cerebral thermal perfusion probe is considered **not medically necessary** because there is insufficient evidence in the published medical literature to demonstrate its efficacy.

Coverage:

Benefits may vary between groups/contracts. Please refer to the appropriate benefit booklet, subscriber agreement, or RIte Care contract for the applicable "Services Not Medically Necessary."

Coding:

The following category III CPT code describing the use of a cerebral thermal perfusion probe is considered not medically necessary:

0077T

Also known as:

Cerebral Thermal Perfusion Probe

QFlow Probe

Published:

Provider Update, May 2009

References:

BlueCross BlueShield Association Medical Policy Reference Manual. Policy Number 2.01.67 Monitoring of Regional Cerebral Blood Flow Using an Implanted Cerebral Thermal Perfusion Probe. Retrieved 1/23/09: http://blueweb.bcbs.com/global_assets/special_content/medical_policy/policymanual/policy.html?pnum=20167

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