ELECTROCORTICOGRAPHY (ECOG)  
SUR712.020  

COVERAGE:  

Extraoperative cortical mapping by stimulation with electrodes implanted on the brain surface or depth electrodes **may be eligible for coverage** with documentation of the following conditions. Prior to implantation of brain surface or depth electrodes, the patient should:  

- have undergone neuro-psychological testing (where age appropriate); and  
- have debilitating seizures that are refractory to anticonvulsant medicine; and  
- have undergone standard testing which does not clearly localize a seizure focus but does strongly suggest the presence of a focus; and  
- have a suspected seizure focus in an area of the brain that is surgically accessible.  

NOTE:  

**Extraoperative ECOG** records electrical activity from within the brain and is unlike Topographic Brain Mapping which is an extension of conventional electroencephalography. Refer to medical policy on Topographic Brain Mapping for coverage.  

**Intraoperative ECOG** is utilized at the time of surgery to identify normal brain tissue that subserves vital functions such as speech, movement, vision, sensation and the like which, if resected, would produce a significant neurological deficit. ECOG is also used to identify abnormal tissue located in vital brain regions and to identify areas that can safely be excised at the time of actual surgical resection. If performed by the operating physician or anesthesiologist, intraoperative ECOG is not eligible for additional benefit if billed as a separate procedure. If ordered by the operating neurosurgeon and performed by a neurologist who has special expertise in neurophysiology and who is physically present during the procedure and communicates with the neurosurgeon performing the procedure, ECOG may be allowed separately.  

DESCRIPTION:  

**Electrocorticography (ECOG)** is a recording of electrical activity from within the brain. ECOG differs from electroencephalography (EEG), a technique by which electrical activity of the brain is recorded from outside the brain using electrodes on the scalp. ECOG is an invasive procedure that uses epidural or subdural electrode arrays implanted on the brain surface, into the brain, or a combination of both. A craniotomy is required for implantation of the electrodes.  

The purpose of ECOG is:  

- to localize a suspected seizure focus in the brain in patients who are candidates for surgery (extraoperative ECOG), or
• to electrically stimulate brain regions to identify normal brain tissue that should not be sacrificed during surgical excision of a seizure focus or other mass lesion such as tumors (intraoperative ECoG).

RATIONALE:

None

DISCLAIMER:

State and federal law, as well as contract language, including definitions and specific inclusions/exclusions, takes precedence over Medical Policy and must be considered first in determining coverage. The member’s contract benefits in effect on the date that services are rendered must be used. Any benefits are subject to the payment of premiums for the date on which services are rendered. Medical technology is constantly evolving, and we reserve the right to review and update Medical Policy periodically. HMO Blue Texas physicians who are contracted/affiliated with a capitated IPA/medical group must contact the IPA/medical group for information regarding HMO claims/reimbursement information and other general polices and procedures.

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