



Medical Policy Manual

Approved Revision: Do Not Implement Until 8/31/21

Positron Emission Tomography (PET) for Miscellaneous Applications

DESCRIPTION

Positron emission tomography (PET) images biochemical reactions and physiological functions by measuring concentrations of radioactive chemicals that are partially metabolized in the body region of interest. Radiopharmaceuticals or tracers used for PET are introduced into the body by intravenous injection or by respiration. The scanners used for PET imaging are very similar to those used for radiograph computed tomography, but PET requires more complicated technology and computerized mathematical models of physiologic functions and tracer kinetics for the generation of images. This policy only addresses non-oncologic and non-cardiac indications.

POLICY

- Positron emission tomography (PET) is considered **medically necessary** if the medical appropriateness criteria are met. (**See Medical Appropriateness below.**)
- Positron emission tomography (PET) for the diagnosis or evaluation of all other non-oncologic and/or non-cardiac conditions/diseases is considered **investigational**.

MEDICAL APPROPRIATENESS

- Positron emission tomography (PET) is considered medically appropriate if **ANY ONE** of the following criteria are met:
 - Preoperative planning for adult or pediatric epilepsy surgery
 - Encephalitis suspected when diagnosis remains unclear after evaluation of **ALL** the following:
 - MRI Brain
 - CSF Analysis
 - Lab test

IMPORTANT REMINDERS

- Any specific products referenced in this policy are just examples and are intended for illustrative purposes only. It is not intended to be a recommendation of one product over another and is not intended to represent a complete listing of all products available. These examples are contained in the parenthetical e.g. statement.
- We develop Medical Policies to provide guidance to Members and Providers. This Medical Policy relates only to the services or supplies described in it. The existence of a Medical Policy is not an authorization, certification, explanation of benefits, or a contract for the service (or supply) that is referenced in the Medical Policy. For a determination of the benefits that a Member is entitled to receive under his or her health plan, the Member's health plan must be reviewed. If there is a conflict between the Medical Policy and a health plan, the express terms of the health plan will govern.



SOURCES

American College of Radiology (ACR). (2014). *ACR appropriateness criteria*® seizures and epilepsy. Retrieved July 20, 2018 from <https://acsearch.acr.org>.

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Harden, C., Huff, J., Schwartz, T., Dubinsky, R., Zimmerman, R., Weinstein, S., et al. (2007). Reassessment: neuroimaging in the emergency patient presenting with seizure (an evidence-based review). *Neurology*, 69, 1772-1780. (Level 1 evidence)

Ramey, W., Martirosyan, N., Lieu, C., Hasham, H., Lemole, G., & Winand, M. (2013). Current management and surgical outcomes of medically intractable epilepsy. *Clinical Neurology and Neurosurgery*, 115 (12), 2411-2418. Abstract retrieved October 26, 2017 from PubMed database.

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EFFECTIVE DATE 8/31/2021

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