SCOPE:
PET scanning assesses soft tissue structure and metabolic function. On occasion CT scanning is merged with PET scanning to assess hard structure (bone) as well for a more complete picture. PET scanning utilizes nuclear radiopharmaceutical agents as part of the study. Principal disease states assessed are oncologic, cardiac & a small number of miscellaneous conditions. Most neurologic conditions, with rare exception, are NOT candidates for PET scanning.

DEFINITIONS AND ACRONYMS:
- Agency for Healthcare Research & Quality – Govt Dept of Health & Human Services (AHRQ)
- American College of Cardiology/American Heart Association (ACC/AHA)
- Axial – Skull, Rib Cage/Thorax & Vertebrae – Excludes Arms/Legs
- Computed Tomography (CT)
- Left Ventricular (LV)
- Magnetic Resonance Imaging (MRI)
- Positron Emission Tomography (PET)
- Single Photon Emission Computed Tomography (SPECT)

POLICY:
A. Medical necessity for ONCOLOGIC purposes:
   1. Diagnostic staging for most primary malignancies (excluding prostate/breast) to understand the extent of disease to guide future therapy.
   2. Post therapeutic restaging to understand responses to therapy.
   3. Interim scanning for non Hodgkins Lymphomas.
   4. Surveillance scanning for Ewings Sarcoma only.
B. Medical necessity for CARDIAC purposes:
   1. Myocardial perfusion if SPECT testing or stress cardiac echocardiography is unavailable.
   2. Myocardial viability with severe LV dysfunction preliminary to transplantation.
   3. Sarcoidosis in MRI contraindicated situations.
C. Medical Necessity for MISCELLANEOUS:
   1. Neurosurgical interventions for temporal lobe epilepsy refractory to drug therapy.
   2. Osteomyelitis of axial skeleton.

D. Not Medically Necessary for NEUROLOGIC purposes:
   1. Dementias
   2. Cerebrovascular Disease
   3. Parkinsons
   4. Autism Spectrum

E. Not Medically Necessary for MISCELLANEOUS Purposes:
   1. Bony metastases from malignancies.
   2. Surveillance scanning in asymptomatic patients without malignancies.

REFERENCES:

- ACC/AHA – 2003 – PET Cardiac Guidelines
- AHRQ/University of Alberta – 2008 – PET Oncology Guidelines

RELATED DOCUMENTS:

None
**HEALTH PLAN POLICY**

**Policy Title:** PET Scan With or Without CT Fusion  
**Policy Number:** MUM37  
**Revision:** B

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Nancy Horstmann  
Chief Executive Officer Health Plans

David Engleking, M.D.  
Medical Director

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**REVISION HISTORY:**

<table>
<thead>
<tr>
<th>Revision</th>
<th>Date</th>
<th>Description of Change</th>
<th>Committee</th>
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<tbody>
<tr>
<td>New</td>
<td>02/22/2018</td>
<td>Initial release.</td>
<td>Executive Leadership</td>
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<tr>
<td>A</td>
<td>04/24/2019</td>
<td>Annual review. Removed Medicaid and CHIP from lines of business.</td>
<td>Executive Leadership</td>
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<tr>
<td>B</td>
<td>05/15/2020</td>
<td>Annual review. No change to policy content.</td>
<td>Executive Leadership</td>
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