Clinical Utility of PET in Various Tumor Types (Covered by NOPR)

The National Oncologic PET Registry (NOPR) was developed in response to a proposal by the Centers for Medicare and Medicaid Services (CMS) to expand coverage for positron emission tomography (PET) imaging with 2-Deoxy-2-[18F]fluoro-D-Glucose (FDG) to include cancers and indications not presently eligible for Medicare reimbursement. Medicare reimbursement for those cancers can be obtained if the patient's referring physician and the imaging provider submit data to the NOPR clinical registry to assess the impact of PET imaging on cancer patient management.

Indications Not Eligible through the NOPR

Cancers and indications that are reimbursable by Medicare are not eligible for entry in the NOPR. Cancers and indications that are specifically excluded for Medicare reimbursement, listed below, are also not eligible for entry in the NOPR.

- Breast cancer – diagnosis
- Breast cancer – initial staging axillary lymph nodes
- Melanoma – initial staging regional lymph nodes
- Prostate cancer – initial treatment strategy (diagnosis and staging)
- Cervical cancer – diagnosis

Indications Eligible through the NOPR Registry

Bladder Cancer

Subsequent treatment strategy (restaging, monitoring treatment response)

- Restaging of systemic metastases
- Evaluating extent of local recurrent disease and excluding lymph node involvement or distant metastases

Brain Tumor

Subsequent treatment strategy (restaging, monitoring treatment response)

- Monitoring response to treatment (surgery/radiotherapy/chemotherapy)
- Differentiating tumor from radiation necrosis or edema
- Determining how well the treatment affected the tumor
- Excluding metastatic disease of the brain

Hepatocellular Cancer

Subsequent treatment strategy (restaging, monitoring treatment response)

- Evaluating extent of local recurrent disease and exclude lymph node involvement or distant metastases
- Assessing response to treatment
- Differentiating tumor from necrosis, edema, and scarring

Leukemia and all Other Non-solid Tumors

Initial treatment strategy (diagnosis, staging) and subsequent treatment strategy (restaging, monitoring treatment response)

- Determining extent of disease
- Monitoring response to therapy

Lung, Small Cell

Subsequent treatment strategy (restaging, monitoring treatment response)

- Evaluating extent of local recurrent disease and excluding lymph node involvement or distant metastases
- Assessing response to treatment
- Differentiating tumor from necrosis, edema, and scarring

Musculoskeletal Tumors

Subsequent treatment strategy (restaging, monitoring treatment response)

- Evaluating extent of local recurrent disease and excluding lymph node involvement or distant metastases
- Measuring treatment response and excluding recurrent/residual tumor following definitive therapy

Pancreatic Cancer

Subsequent treatment strategy (restaging, monitoring treatment response)

- Differentiating chronic pancreatic masses from recurrent cancer
- Differentiating benign processes such as pancreatitis, mucinous cyst adenoma and pseudocyst from recurrent malignant disease
- Assessing response to chemotherapy

Prostate Cancer

Subsequent treatment strategy (restaging, monitoring treatment response)

- Restaging and assessment of treatment response for hormone refractory advanced prostate cancer
- Detecting recurrent or residual tumor
- Detecting metastatic disease

Renal Cell Cancer
Subsequent treatment strategy (restaging, monitoring treatment response)
- Assessing response of metastases to chemotherapy
- Detecting recurrent/residual tumor prior to surgical exploration or additional chemotherapy
- Detecting and evaluating local recurrent disease spread and metastatic disease

Soft Tissue Sarcoma
Subsequent treatment strategy (restaging, monitoring treatment response)
- Identifying recurrent disease for nodal involvement and local metastases
- Assessing response to treatment
- Assessing bony healing in those patients who have received allograft transplants
- Identifying tumor recurrence

Stomach Cancer
Subsequent treatment strategy (restaging, monitoring treatment response)
- Evaluating efficacy of surgery and radiation treatment
- Characterizing a radiographically indeterminate lesion

Testicular Cancer
Subsequent treatment strategy (restaging, monitoring treatment response)
- Assessing residual mass
- Evaluating raised markers
- Monitoring response to treatment

Thyroid Cancer
Limited applications for subsequent treatment strategy
- Subsequent treatment strategy of other applications that are not covered (e.g. tumor is of other than follicular cell origin, the thyroglobulin level is not elevated, or I-131 whole-body imaging was not performed or is positive)
- Monitoring response to therapy
- Other restaging
- Other cancer types (medullary, anaplastic)
- Further evaluation for medullary thyroid cancer when rising calcitonin level and initial imaging with dimercaptosuccinic acid V, octreoscan, or metaiodobenzylguanidine is negative

Unknown Primary
Subsequent treatment strategy (restaging, monitoring treatment response)
- Identifying primary site in recurrent disease to determine treatment and evaluate for possible resection

Uterine Cancer
Subsequent treatment strategy (restaging, monitoring treatment response)
- Assessing response to treatment
- Evaluating suspected recurrence
- Identifying recurrent disease after surgery and radiation

Subsequent Treatment Strategy for Other Cancers:
- Small intestine
- Anus (if distinct from rectum)
- Gallbladder & extrahepatic bile ducts
- Retroperitoneum and peritoneum
- Pleura
- Thymus, heart, mediastinum
- Non-melanoma of the skin
- Bone or cartilage
- Placenta
- Other unspecified female genitalia
- Penis and other male genitalia
- Eye
- Other and unspecified nervous system
- Other endocrine glands and related structures
- Neuroendocrine tumor
- Connective or other soft tissue