Positron Emission Tomography (PET) Scan Indications

Adjudication Guideline

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Daman	Medical Standards & Research	N/A

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1. Abstract

1.1 For Members

PET stands for positron emission tomography. A PET scan produces three-dimensional, colour images of your body using radionuclides. PET scans show where cells are particularly active.

PET can be used to diagnose some medical conditions, or to find out more about how a condition is developing. It can also be used to measure how well treatment for a condition is working. It is most used for management of cancer.

Daman covers PET scan if medically justified as per the best international medical practice and as per the policy terms and conditions of each Health Insurance Plan administered by Daman.

1.2 For Medical Professionals

Positron Emission Tomography (PET) is a minimally invasive diagnostic imaging procedure used to evaluate metabolism in normal tissue as well as in diseased tissues in conditions such as cancer, ischemic heart disease, some neurologic disorders.

Daman covers Positron Emission Tomography (PET) and PET/CT scans when medically necessary, in accordance with international best practices and diagnostic protocols. These imaging modalities are approved for use in:

- Initial diagnosis
- Staging of disease
- Assessment of treatment response
- Restaging following treatment
- Evaluation of metabolic activity in ischemic heart disease
- Assessment of certain neurological disorders

Coverage applies when prior imaging studies (e.g., SPECT, CT, or MRI) are inconclusive and further metabolic or functional imaging is required to guide clinical management. For oncological cases, providers must ensure adherence to established standards for malignancy diagnosis, staging/restaging, and monitoring. For non-oncological indications, PET imaging must be justified based on clinical necessity and aligned with recognized diagnostic protocols.

2. Scope

This guideline elaborates on the indications of various types of PET scan and coverage for all the health insurance plans administered by Daman, as per the policy terms and conditions of each plan.

3. Adjudication Policy

3.1 Eligibility / Coverage Criteria

PET scans will be covered by all health insurance plans administered by Daman, except for the Visitor's Plan, according to the indications given below.

Neurological Indications:

Condition	Coverage
Refractory Epilepsy	Pre-surgical assessment only.
Cognitive Impairment	NEW: Coverage expanded to include evaluation of cognitive impairment for differential diagnosis of dementia types when clinically indicated. NEW: Beta-amyloid PET imaging for Alzheimer's disease evaluation (CPT 78814)

Cardiac Indications:

Condition	Coverage
Coronary Artery Disease/Coronary Microvascular Disease	PET scans using rubidium-82 (Rb-82) or N-13 ammonia done at rest or with rest and stress are covered when it meets the following criteria: • The PET scan is used following an inconclusive SPECT, in place of SPECT, but not in addition to SPECT. • In persons with conditions that may cause attenuation problems with SPECT (obesity (BMI greater than 40), large breasts, breast implants, mastectomy, chest wall deformity, pleural or pericardial effusion). • PET myocardial perfusion imaging provided incremental cardiac risk regardless of BMI.
Assessment of Myocardial Viability	• (FDG)-PET scans are considered prior to re-vascularization, either as a primary or initial diagnostic study • PET scan can be done following an inconclusive SPECT and not vice-versa.
Quantitative Myocardial Blood Flow	• NEW: Cardiac PET with Rb-82 or N-13 ammonia for quantitative assessment of myocardial blood flow in patients with ischemic cardiomyopathy being considered for revascularization

	• NEW: Enhanced coverage for myocardial viability assessment as per NCCN cardiac imaging guidelines
Inflammation and infection	• F-18 FDG Highlights areas of increased metabolic activity due to inflammation or infection. Recommended when Cardiac MRI is inconclusive.
Cardiac Amyloidosis	• F-18 labelled amyloid tracers (e.g., F-18 florbetapir): Still under investigation but showing promise in research settings.

Multiple Endocrine Neoplasia (MEN) Syndromes:

NEW SECTION: Multiple Endocrine Neoplasia Coverage

Condition	Coverage
MEN Type 1	• NEW: Ga-68 DOTATATE or Ga-68 DOTANOC PET-CT for staging and surveillance • Primary ICD-10:neoplasm of uncertain behaviour of other endocrine glands • Associated codes: pancreatic neuroendocrine tumors, primary hyperparathyroidism, prolactinoma • Requires genetic testing confirmation or clinical criteria demonstrating at least two major endocrine tumors
MEN Type 2A	• NEW: F-18 DOPA PET-CT for medullary thyroid carcinoma evaluation • NEW: Ga-68 DOTATATE PET-CT for pheochromocytoma assessment • RET gene mutation testing required for coverage
MEN Type 2B	• NEW: F-18 DOPA PET-CT for medullary thyroid carcinoma staging • NEW: Ga-68 DOTATATE PET-CT for pheochromocytoma and paraganglioma evaluation • Comprehensive coverage for somatostatin receptor-positive lesions

Oncological Indications:

Condition	Coverage
Non-Small Cell Lung Cancer	• NEW: FDG-PET-CT covering skull base to knees recommended for all stages of NSCLC (I-IV) as per NCCN guidelines • Staging with no obvious extensive disease • Assessment of response to chemotherapy and radiation therapy planning when CECT is C/I • For routine surveillance/recurrence
Breast Cancer	• Staging I with HER-2 positive or TNBC, II, IIIA, IIIB, IVA, after lumpectomy or mastectomy and surgical axillary staging with >4 positive axillary nodes • NEW: FES PET imaging coverage for systemic staging in patients with invasive lobular breast cancer (ER+) • Inflammatory or non-inflammatory locally advanced breast cancers (LABC) • Restaging and assessment of multi-focal disease
Pancreatic Cancer	• NEW: FDG-PET-CT for all stages of pancreatic adenocarcinoma (expanded from high-risk only) • To detect extra-pancreatic metastases • For radiation therapy treatment planning • NEW: Ga-68 DOTATATE PET-CT first-line coverage for pancreatic neuroendocrine tumors
Brain Cancer	• Diagnosis and staging when metastatic lesions in brain are identified but no primary is found • For identifying low grade gliomas undergoing malignant conversion • NEW: Beta-amyloid PET imaging for differential diagnosis of brain lesions
Hepatobiliary Cancer	• NEW: Hepatocellular carcinoma FDG-PET-CT for staging in well-differentiated tumors • NEW: Combined hepatocellular-cholangiocarcinoma coverage for dual-phase PET imaging • NEW: Cholangiocarcinoma and gallbladder carcinoma comprehensive coverage for staging and metastasis detection
Lymphoma	• Staging and restaging for early/interim, also after completion of chemotherapy and radiation therapy • NEW: ctDNA-MRD testing as alternative to biopsy for PET-positive results in DLBCL at end of first-line therapy • Assist in directing nodal biopsy if Richter's transformation is suspected in CLL/SLL
Renal Cell Carcinoma	• NEW: PSMA PET-CT for metastatic disease staging and restaging, particularly for clear cell histology

	• NEW: FDG-PET-CT for high-grade tumors and treatment response assessment (not for primary staging)
Gastric Adenocarcinoma	• NEW: FDG-PET-CT for staging and restaging per NCCN guidelines • NEW: Gastroesophageal junction tumors comprehensive coverage • If unknown M1 disease, restaging, radiation treatment planning
Anal Cancer	Staging radiation treatment planning, and re-staging
Melanoma	Staging 0 to II, III and IV. Restaging IA-IIA, IIB and IV. Follow up every 3-12 months
Cervical Cancer	For staging before chemo-radiation or curative therapy is considered, restaging if nodes are positive
Prostate Cancer	FDG PET/CT not to be used routinely. 11C choline PET following prostatectomy or radiation therapy
Thyroid Cancer	Staging only anaplastic thyroid carcinoma. Restaging if thyroglobulin level is >2-5ng/ml
Head & Neck Cancers	Staging for III-IV disease, restaging, post-treatment evaluation
Bladder Cancer	Staging when conventional imaging is inconclusive or radical therapy is considered.
Colorectal Cancer	Pre-operative evaluation of patients with colorectal cancer. Re-staging when new abnormality on other modalities post definitive treatment. Re-staging when tumor markers increase despite treatment.
Germ Cell Cancer	Staging of patient where curative therapy is considered.
Esophagus Cancer	Staging prior to treatment and Re-staging

Paediatric Oncology

Condition	Coverage
Hodgkin's lymphoma and non-Hodgkin's lymphoma	• Baseline staging. • Interim response assessment after two cycles of Chemotherapy. • End of treatment assessment. • Clinical suspicion of relapse.
Leukaemia	• Assessment of extramedullary disease in Acute Myeloid Leukaemia (AML)
Osteosarcoma	• Baseline staging for metastatic disease • Evaluation of treatment response • Detection of relapse
Ewing's sarcoma	• Baseline staging for metastatic disease • Evaluation of treatment response • Detection of relapse
Soft tissue sarcoma	• Baseline staging for metastatic disease • Evaluation of treatment response • Detection of relapse
Brain tumors	• Assess histological grade • Differentiate between tumor recurrence and radiation necrosis
Neuroblastoma	• Especially useful in MIBG-negative tumors • Evaluation of residual or recurrent disease • May require biopsy confirmation due to FDG PET's lower specificity compared to MIBG
Wilms' tumor	• Evaluation of treatment response • Detection of relapse
Langerhans cell histiocytosis (LCH)	• Evaluation of disease extent and response to therapy
Germ cell tumor	• Staging and response assessment • Detection of relapse
Hepatoblastoma	• Staging and relapse assessment
Thyroid Cancer	• Detecting metastatic or recurrent disease, in non-iodine avid tumors. • Surgical planning when anatomical imaging is inconclusive.
Head and Neck tumor	• Staging and restaging of nasopharyngeal carcinoma and other head and neck malignancies. • Assessment of treatment response post-chemoradiotherapy. • Detection of residual or recurrent disease.

	• Evaluation of occult primary tumors when metastases are present.

Other Medical Indications:

NEW SECTION: Other Medical indications Coverage

Condition	Coverage
Inflammation and infections	• F-18 FDG Recommended for detecting infection when conventional imaging is inconclusive for the following indications: • Vascular graft endograft infections. • Prosthetic joint Infections • Fever of unknown origin* • Chronic Osteomyelitis • Vascular graft endograft infections.
Autoimmune and Systemic Inflammatory Diseases	• F-18 FDG PET-CT recommended Large Vessel Vasculitis (Giant cell Arteritis, Takayasu Arteritis) for diagnosis and monitoring of disease activity. • F-18 FDG PET-CT recommended IgG4-Realted Disease to identify multi organ involvement and monitor treatment response.
Pulmonary Infections and Inflammatory Conditions	• FDG PET-CT is recommended in complex or atypical infections when conventional imaging is inconclusive with emphasis on immunocompromised patients or detecting occult infections. • FDG PET-CT is recommended in pulmonary Sarcoidosis to assess disease extent and activity.

* Investigation of sustained fever despite antibiotics for ›3 weeks where all other investigations have been exhausted and inconclusive.

Radiopharmaceuticals and Nuclear Imaging:

NEW SECTION: Enhanced Coverage for Specialized Radiopharmaceuticals

Radiopharmaceutical (HCPCS)	Coverage Details
FDG F-18 (A9552)	• Primary use in oncology for tumor detection, staging, and monitoring • Neurological applications for epilepsy and dementia evaluation • Covered dose up to 45 millicuries per study • Primary cancer indications

Rubidium-82 (A9555)	• Cardiac perfusion imaging applications • Myocardial viability assessment • Covered dose up to 60 millicuries per study • Primary indications: ischemic heart disease, cardiomyopathy
N-13 Ammonia (A9526)	• Cardiac perfusion imaging • Myocardial blood flow quantification • Covered dose up to 40 millicuries per study • Primary indications: ischemic heart disease
Ga-68 DOTATATE (A9587)	• NEW: Neuroendocrine tumor imaging and MEN syndrome staging • Covered dose up to 10 millicuries per study • Primary indications: MEN syndromes, endocrine neoplasms
F-18 DOPA (A9590)	• NEW: MEN-2-related neuroendocrine tumor detection • Medullary thyroid carcinoma evaluation • Covered dose up to 10 millicuries per study
FES F-18 (A9591)	• NEW: Estrogen receptor-positive breast cancer imaging • Invasive lobular breast cancer systemic staging • Covered dose up to 6 millicuries per study
MIBG (A9582)	• Neuroblastoma Imaging. • Covered dose up to 10 millicuries per study

Stage	Coverage Criteria
Diagnosis:	PET is covered only in clinical situations in which PET results may assist: - In avoiding an invasive diagnostic procedure. - In determining the anatomical site to perform an invasive diagnostic procedure. - For most solid tumors a tissue diagnosis is done prior to PET scan. PET scans following a tissue diagnosis are generally performed for staging rather than diagnosis.
Staging	PET is covered for staging in clinical situations in which - When the stage of cancer remains in doubt after completion of standard diagnostic workup (including conventional imaging like CT, MRI, or ultrasound. -When conventional study information is insufficient for planning the management of the patient (Management plan is dependent on the stage of cancer).

Restaging	• When conventional study information is insufficient for planning the management of the patient. • PET can potentially replace one or more conventional imaging studies. • To detect the residual disease, suspected recurrence and extend of a known recurrence or metastasis after completion of treatment (e.g., Chemotherapy or radiation therapy).
Monitoring	To monitor tumor response to treatment during the planned course of therapy.

3.2 Requirements for Coverage

**Please note that the list above is used as a reference and guidance and not exhaustive, please note that evidence from (NCCN) level 1 indications are acceptable for the request of PET scans.

ICD and CPT codes must be coded to the highest level of specificity.

NEW Requirements Added:
• Prior authorization required for all specialized PET tracers (non-FDG)
• Multidisciplinary tumor board documentation for complex cases
• Clinical documentation must include performance status and management impact
• Post-treatment imaging timing requirements: minimum 4 weeks post-chemotherapy, 8 weeks post-radiotherapy

3.3 Non-Coverage

- Daman does not cover PET scan for the Visitor's Plan.
- Daman does not cover all the diagnosis and services considered to experimental or investigational for doing PET scans.
- Daman does not cover PET scan in neurological conditions (e.g., Parkinson's disease) except for those specifically listed in coverage criteria.
- PET scans are not recommended for routine screening purposes.
- NEW: Coverage exclusions include asymptomatic screening without genetic predisposition, surveillance beyond evidence-based guidelines, and experimental indications lacking Level 1 evidence support.

3.4 Payment and Coding Rules

Please apply **Regulator** payment rules and regulations and relevant coding manuals for ICD, CPT, etc.

4. Denial Codes

Code	Code Description
MNEC-003	Service is not clinically indicated based on good clinical practice.
MNEC-004	Service is not clinically indicated based on good clinical practice, without additional supporting diagnosis/activities.
AUTH-001	Prior approval is required and was not obtained
AUTH-005	Claim information is inconsistent with pre-certified/authorized services
NCOV-003	Service(s) is (are) not covered.

5. Appendices

5.1 References

https://www.nccn.org/guidelines/nccn-guidelines
https://careweb.careguidelines.com/ed21/index.html
https://www.rcr.ac.uk/system/files/publication/field_publication_files/bfcr163_pet-ct.pdf
NCCN Clinical Practice Guidelines in Oncology: Version 3.2025
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5.2 Revision History

Date	Change(s)
01/07/2013	V 1.1: • New template, Post chemo coverage, Added: ICD-10 and CPT 2012
15/07/2014	V 2.0: • Disclaimer updated, Ovarian cancer coverage rephrased, Authorization requirements added
27/11/2017	V 3.0: • Oncological and non-oncological indications revised with grading as per NCCN
01/09/2023	V 4.0 • Updated Oncological Indications, Non-oncological indications, Paediatric Indications
30/06/2025	V 5.0 • Template Update • Updated Oncological indications, Non-oncological indications, Paediatrics Indications. • Reference Update

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