

Zu welchem Zeitpunkt soll eine Restaging-Untersuchung erfolgen?

Diese Frage wird am besten durch folgende Tabelle beantwortet:

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Timing and Role of Restaging with PET.		
Cancer Type	Timing of Restaging with PET	Dominant Contributions of PET
Non-small-cell lung cancer	2–6 Mo after completion of chemoradiotherapy; 1–2 mo after surgery When recurrence is suspected on the basis of clinical or biochemical findings or by conventional imaging	Differentiation between persistent or recurrent tumor and fibrosis in patients with residual chest radiographic abnormalities Selection of biopsy sites for confirmation of suspected recurrence Determination of actual extent of recurrence (locoregional and distant)
Breast cancer	When recurrence is suspected on the basis of clinical or biochemical findings or by conventional imaging	Determination of actual extent of recurrence Differentiation between metastatic and benign brachial plexopathy
Colorectal cancer	When recurrence is suspected on the basis of clinical or biochemical findings or by conventional imaging	Detection of recurrence suspected by elevation of carcinoembryonic antigen by distinguishing of viable tumor from fibrosis after therapy Determination of actual extent of recurrent disease (isolated vs. disseminated) and resectability of liver metastases
Esophageal cancer	When recurrence is suspected on the basis of clinical or biochemical findings or by conventional imaging	More accurate diagnosis of regional and distant recurrence than with conventional imaging (less accurate for perianastomotic recurrence)
Head and neck cancer	2–6 Mo after completion of chemoradiotherapy; 1–2 mo after surgery When recurrence is suspected on the basis of clinical or biochemical findings or by conventional imaging	More accurate assessment of response to therapy and earlier detection of persistent or recurrent disease (locoregional and distant) than with conventional imaging Determination of actual extent of recurrence
Lymphoma	3–4 Wk after completion of therapy; 2–3 mo or more after external-beam radiation When recurrence is suspected on the basis of clinical or biochemical findings or by conventional imaging	Differentiation between viable tumor and necrosis or fibrosis in patients with a residual mass and more accurate differentiation between complete and partial responses than with conventional imaging Determination of actual extent of lymphoma recurrence
Melanoma	When recurrence is suspected on the basis of clinical or biochemical findings or by conventional imaging	More accurate diagnosis of locoregional and distant recurrence than with conventional imaging, except for lung metastases (less sensitive than CT)
Follicular thyroid cancer	When serum thyroglobulin is elevated (>10 ng per milliliter) and whole-body I scan is negative	Detection of residual or recurrent disease (locoregional or distant) Identification of patients for potentially curative surgery vs. palliative treatment

Differenzierung „aktiver Tumor versus Tumor-Nekrose oder -Fibrose“

bei noch sichtbarem Rest eines behandelten Tumors. Diese Frage ist besonders relevant bei Lymphomen oder Hodentumoren aber auch bei anderen Tumorarten z. B. beim Bronchial-Ca (Dystelektase versus aktiver Tumorrest)

Rezidivdiagnostik bei asymptomatischen Patienten

Typische Konstellation: Markererhöhung bei sonst asymptomatischem Patient, z.B. CEA-Anstieg beim kolorektalen Karzinom. Bei dieser Fragestellung wird sich die PET-CT zu einer Routineuntersuchung entwickeln.