

## Recommendations on the Use of $^{18}\text{F}$ -FDG PET in Oncology

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The rationale was to develop recommendations on the use of  $^{18}\text{F}$ -FDG PET in breast, colorectal, esophageal, head and neck, lung, pancreatic, and thyroid cancer; lymphoma, melanoma, and sarcoma; and unknown primary tumor. Outcomes of interest included the use of  $^{18}\text{F}$ -FDG PET for diagnosing, staging, and detecting the recurrence or progression of cancer.

### *Methods*

A search was performed to identify all published randomized controlled trials and systematic reviews in the literature. An additional search was performed to identify relevant unpublished systematic reviews. These publications comprised both retrospective and prospective studies of varied methodologic quality. The anticipated consequences of false-positive and false-negative tests when evaluating clinical usefulness, and the impact of  $^{18}\text{F}$ -FDG PET on the management of cancer patients, were also reviewed.

### *Results and Conclusion*

$^{18}\text{F}$ -FDG PET should be used as an imaging tool additional to conventional radiologic methods such as CT or MRI; any positive finding that could lead to a clinically significant change in patient management should be confirmed by subsequent histopathologic examination because of the risk of false-positive results.  $^{18}\text{F}$ -FDG PET should be used in the appropriate clinical setting for the diagnosis of head and neck, lung, or pancreatic cancer and for unknown primary tumor. PET is also indicated for staging of breast, colon, esophageal, head and neck, and lung cancer and of lymphoma and melanoma. In addition,  $^{18}\text{F}$ -FDG PET should be used to detect recurrence of breast, colorectal, head and neck, or thyroid cancer and of lymphoma.