Continuing Medical Education Article

Reporting Guidance for Oncologic $^{18}$F-FDG PET/CT Imaging

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Disclosure

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Target Audience

This article contains information of value to physicians in nuclear medicine, oncologists, and nuclear medicine technologists.

Objectives

On successful completion of this activity, participants should be able to discuss…
1. The elements of a concise and complete oncologic $^{18}$F-FDG PET/CT report.
2. The importance of obtaining and including in the report a focused history of the patient malignancy and treatments.
3. The importance of interpreting both the $^{18}$F-FDG PET and the CT findings of PET/CT and of integrating both the metabolic and the anatomic components in the report.

1. Why is a comprehensive and concise $^{18}$F-FDG PET/CT report most important?
   A. To improve the referring physician’s confidence in appropriately using $^{18}$F-FDG PET/CT.
   B. To increase indiscriminate use of $^{18}$F-FDG PET/CT.
   C. To increase reimbursement for the professional component of the procedure.
   D. To decrease radiation exposure to the patient.

2. According to the NOPR study, essential elements were missing from what percentage of reports?
   A. 10%.
   B. 20%.
   C. 30%.
   D. 40%.

3. To meet reimbursement requirements, what element needs to be included in the report?
   A. Time from radiopharmaceutical injection to imaging.
   B. Comparison to previous imaging procedures.
   C. Activity administered.
   D. Indication for the procedure.

4. Which of the following terms is most vague in terms of conveying likelihood of malignancy or benignity?
   A. No (e.g., “no FDG-avid liver lesions”).
   B. Definite (e.g., “FDG-avid lung mass with definite evidence of nodal and hepatic metastatic disease”).
C. Most likely (e.g., “the 3.5-cm intensely FDG-avid lung mass is most likely malignant; biopsy recommended”).
D. Indeterminate (e.g., “the 3.5-cm lung mass with SUVmax of 2.5 is indeterminate with respect to malignancy”).

5. Why should the term nondiagnostic CT be avoided in oncologic PET/CT reports?
A. The CT component of PET/CT is usually performed with an optimized CT protocol.
B. Low-mAs non–contrast-enhanced CT has valuable diagnostic information that should be reported.
C. The phrase CT for attenuation correction and anatomic localization is preferred.
D. The CT component from PET/CT does not need to be reported.

6. Oncologic PET/CT reports should include comparison to which studies?
A. There is no need to compare with prior studies, since PET and CT are already compared in the current study.
B. Comparison with prior PET/CT studies.
C. Comparison with prior CT studies if there is no prior PET/CT.
D. Comparison with prior PET/CT studies and all other relevant studies, regardless of modality.

7. Which of the following statements regarding the “Findings” section of an oncologic 18F-FDG PET/CT imaging report is correct?
A. It must include a comprehensive list of each individual lesion identified.
B. Every organ must be mentioned, whether normal or abnormal.
C. Mention of incidental PET and CT findings should be avoided.
D. Use of standardized descriptive terms is encouraged whenever possible.

8. Which of the following diagnoses should be communicated immediately (usually by telephone) to the referring physician upon discovery?
A. Gallstones.
B. Impending pathologic fracture.
C. Small incidental lung nodule.
D. Nonobstructive kidney stone.

9. Which of the following is correct regarding the oncologic $^{18}$F-FDG PET/CT report?
A. It often serves as the basis for medical treatment decisions.
B. It is rarely available to patients.
C. It cannot be used as a legal document of services provided.
D. It is not used for billing purposes.

10. Which of the following is a key feature of an oncologic $^{18}$F-FDG PET/CT report impression?
A. A complete list of all pertinent findings.
B. A complete list of the differential diagnoses of all pertinent findings.
C. A complete list of all possibilities for follow-up.
D. A succinct interpretation of findings that answers the clinical question.