LOUISIANA DEPARTMENT OF HEALTH

Issued: 03/13/2018
Revised: 08/02/2024

Positron Emission Tomography (PET) for Oncologic Conditions Medical Necessity Criteria

Positron Emission Tomography (PET) is a minimally-invasive diagnostic imaging procedure using an injected radionuclide to evaluate glucose metabolism in normal and diseased tissue.

This policy only addresses the use of radiotracers detected with the use of dedicated PET scanners. Radiotracers such as fluorodeoxyglucose (FDG) may be detected using single photon emission computed tomography (SPECT) cameras, a hybrid PET/SPECT procedure that may be referred to as FDG-SPECT or molecular coincidence and may be used in combination with other imaging such as CT (Computerized Tomography).

The combination of PET and CT imaging into a single system (PET/CT) may be considered for oncologic indications where a PET scan is considered medically necessary and specific anatomical identification is required to guide clinical management.

PET and PET/CT have been useful in suspected or certain oncologic conditions for application with diagnosis, staging, restaging, and surveillance.

Diagnosis: refers to use of PET as part of the testing used in establishing whether or not a patient has cancer.

Staging: refers to use of PET to determine the stage (extent) of the cancer at the time of diagnosis, before any treatment is given. Imaging at this time is generally to determine whether or not the cancer is localized. This may also be referred to as initial staging.

Restaging: refers to imaging following treatment in the evaluation of a patient in whom a disease recurrence is suspected based on signs and/or symptoms and in determining the extent of malignancy following completion of a full course of treatment.

Surveillance: refers to use of imaging in asymptomatic patients (patients without objective signs or symptoms of recurrent disease). This imaging is completed 6 months or more (12 months or more for lymphoma) following completion of treatment.

As with any imaging technique, the medical necessity of PET scanning depends in part on what imaging techniques are used either before or after the PET scanning. Due to its expense, PET scanning is typically considered after other techniques, such as CT, magnetic resonance imaging (MRI), or ultrasonography, provide inconclusive or discordant results. In patients with melanoma or lymphoma, PET scanning may be considered an initial imaging technique. If so, the medical necessity of subsequent imaging during the same diagnostic evaluation is unclear. Thus, PET should be considered for the medically necessary indications only when standard imaging, such as CT or MRI, is inconclusive or not indicated.

For this policy, PET and PET/CT imaging for oncological conditions applies to the following indications for initial and subsequent anti-tumor strategy:

Initial Treatment Management

Diagnosis: PET **meets the definition of medical necessity** only in clinical situations in which the PET results may assist in avoiding an invasive diagnostic procedure, or in which the PET results may assist in determining the optimal anatomic location to perform an invasive diagnostic procedure. In general, for most solid tumors, a tissue diagnosis is made prior to the performance of PET imaging. PET scans following a tissue diagnosis are performed for the purpose of staging, rather than diagnosis.

Staging: PET **meets the definition of medical necessity** for staging in clinical situations in which the stage of the cancer remains in doubt after completion of a standard diagnostic workup, including conventional imaging (CT, MRI, or ultrasound), or the PET could potentially replace one or more conventional imaging studies when it is expected that conventional study information is insufficient for the clinical management of the patient, and clinical management of the patient would differ depending on the stage of the cancer identified.

Subsequent Treatment Management

Restaging: PET **meets the definition of medical necessity** for restaging after completion of treatment for the purpose of detecting residual disease, for detecting suspected recurrence or metastasis, to determine the extent of a known recurrence, or if it could potentially replace one or more conventional imaging studies when it is expected that conventional study information is insufficient for the clinical management of the patient. Restaging apples to testing after a course of treatment is completed.

Monitoring: Refers to the use of PET to monitor tumor response to treatment during the planned course of therapy (e.g., when a change in therapy is anticipated).

Prior Authorization (PA):

PA is required and procedure must be performed within 30 days of receiving prior authorization. The following documentation must be included for prior authorization of PET imaging and PET/CT combinations studies for oncologic conditions:

- Completed PA request form;
- Documentation of medical necessity, includes all of the following:
- The primary diagnosis name and ICD code(s) for the condition requiring PET imaging;
- All secondary diagnosis name(s) and ICD code(s) pertinent to comorbid condition(s);
- The most recent medical evaluation, including a summary of the medical history and the last physical exam (Clinical information must be submitted by the recipient's treating oncologist);

- Laboratory and pathology reports pertinent to a diagnosis of malignant neoplasm or carcinoma;
- Prior imaging reports pertinent to a diagnosis of malignant neoplasm or carcinoma;
- Risk factors or comorbid conditions;

- The patient's treatment plan, including a description of the type and dates of any anti-tumor therapy;
- Any additional clinical information that supports the coverage criteria and that is requested by the Prior Authorization Unit

Coverage Eligibility The following apply to the listed oncologic applications of PET scanning:

PET Scans are eligible for Medicaid Coverage in the following oncological conditions:

Bone Cancer	Staging of Ewing Sarcoma and Osteosarcoma
Brain Cancer	Differentiating scar tissue or tumor necrosis from active disease following radiation or chemotherapy
Breast Cancer	Staging and Restaging of Breast Cancer when detecting locoregional (including nodal) or distant recurrence or metastasis (except axillary lymph nodes)
Cervical Cancer	Staging, Restaging, and in evaluating known or suspected recurrence of cervical cancer
Colorectal Cancer (including colon, rectal, appendiceal, or anal cancer)	Diagnosis • To determine the optimal anatomical location in order to avoid or properly perform an invasive diagnostic procedure. Staging: • To detect and assess resectability of hepatic or extrahepatic metastases • Cancer stage remains in doubt after completion of a standard diagnostic workup • Potentially replace one or more conventional imaging studies, when it is expected that information from such a study is insufficient for clinical management of the patient • Clinical management would differ depending on the cancer stage. Restaging: • To detect and assess resectability of hepatic or extrahepatic metastases of colorectal cancer • Detecting residual disease (after completion of treatment) • Detecting suspected recurrence

	• Determination of the extent of known recurrence.
Esophageal Cancer	Diagnosis • To determine the optimal anatomical location in order to avoid or properly perform an invasive diagnostic procedure. Staging • Initial staging or when stage remains in doubt after completion of a standard diagnostic workup. Restaging

	• After completion of treatment • Detection of residual disease, suspected recurrence, or to determine the extent of a known recurrence
Head and Neck Cancers (excluding CNS and Thyroid)	Diagnosis • Evaluation of suspected head and neck cancer Staging • Evaluation of initial staging of head and neck cancer Restaging • Follow up on residual or recurrent head and neck cancer

Lung Cancer (Solitary Pulmonary Nodule/Non-Small Cell Carcinoma/Small Cell Carcinoma)	Diagnosis • Solitary Pulmonary Nodule – distinguish between benign and malignant disease when prior CT scan and chest x-ray findings are inconclusive or discordant • Lung Cancer – to determine resectability for patients with a presumed solitary metastatic lesion • Lung Cancer – to distinguish between benign and malignant disease when prior CT scan and chest x-ray findings are inconclusive or discordant. Staging • Known non-small cell lung cancer • Limited Stage small cell lung cancer • When stage of cancer remains in doubt after completion of a standard diagnostic workup Restaging • Known non-small cell lung cancer • After completion of treatment • For detecting residual disease • For detecting suspected recurrence • To determine the extent of a known recurrence
Lymphoma, including Hodgkin's Disease	Diagnosis • In clinical situations assisting avoidance of an invasive diagnostic procedure • In determining the optimal anatomical location to perform an invasive diagnostic procedure. Staging • For initial lymphoma staging • For clinical situations in which the stage of the cancer remains in doubt after completion of a standard diagnostic workup Restaging • For Follow-up • For detecting residual disease

	• For detecting suspected recurrence • To determine the extent of a known recurrence • For restaging after the completion of treatment

Melanoma	Diagnosis • To determine the optimal anatomical location in order to avoid or properly perform an invasive diagnostic procedure. Staging • As a technique for assessing extranodal spread of malignant melanoma at initial staging Restaging • For assessing extranodal spread of malignant melanoma at initial staging or at restaging during follow-up treatment • For detecting residual disease • For detecting suspected recurrence • To determine the extent of a known recurrence
Multiple Myeloma	Staging • To assess extent of disease at time of diagnosis Restaging • After completion of treatment • For detecting residual disease • For detecting suspected recurrence • To determine the extent of a known recurrence
Ovarian Cancer	Diagnosis • To determine the optimal anatomical location in order to avoid or properly perform an invasive diagnostic procedure. Staging • For staging ovarian cancer during initial staging • In clinical situations in which the stage of the cancer remains in doubt after completion of a standard diagnostic workup Restaging • For restaging at follow up • For detecting residual disease • For detecting suspected recurrence • To determine the extent of a known recurrence • For restaging after the completion of treatment
Pancreatic Cancer	Diagnosis • When used as a technique in the initial diagnosis of pancreatic cancer when other imaging and biopsy are inconclusive PET scanning Staging

	• When used as a technique for staging of pancreatic cancer when other imaging and biopsy are inconclusive PET scanning may
Prostate Cancer	Indicated for unfavorable intermediate or high-risk disease with equivocal or non-diagnostic conventional imaging, when confirmation may inform decisions about prostatectomy and/or radiation therapy
Soft Tissue Sarcoma	*Not covered. There are no indications other than for investigational*
Testicular Cancer	Restaging • When used as a technique in evaluation of residual mass following chemotherapy of stage IIB and III seminomas *Note: PET scan should be completed not sooner than 6 weeks following chemotherapy*
Thyroid Cancer, Differentiated	Diagnosis • When used as a technique in the diagnosis of patients with differentiated thyroid cancer when thyroglobulin levels are elevated and whole-body I-131 imaging is negative Restaging • When used as a technique for restaging patients with differentiated thyroid cancer when thyroglobulin levels are elevated and whole body I-131 imaging is negative
Unknown Primary	Diagnosis • When used in patients with an unknown primary who meet all of the following criteria ○ Single site of disease outside the cervical lymph nodes ○ Patient is considering local or regional treatment for a single site of metastatic disease ○ Negative workup for an occult primary tumor ○ PET scan will be used to rule out or detect additional sites of disease that would eliminate the rationale for local or regional treatment.

PET Scans not eligible for Medicaid Coverage due to their Experimental/Investigational use in oncological conditions include, but are not limited to the following:

Bone Cancer	Staging of chondrosarcoma
Brain Cancer	Diagnosis, staging, and restaging of brain cancer
Breast Cancer	• Differentiating suspicious lesions or an indeterminate/ low suspicion on mammography; • Staging axillary lymph nodes. • Predicting pathologic response to neoadjuvant therapy for locally advanced disease.
Colorectal Cancer	To assess the presence of scarring versus local bowel recurrence in patients with previously resected colorectal cancer
Esophageal Cancer	To evaluate and detect primary esophageal cancer
Head and Neck Cancers (excluding CNS and Thyroid)	In other evaluations of head and neck cancer
Lung Cancer	Staging of small cell lung cancer
Lymphoma, including Hodgkin's	In blind evaluation of lymphoma
Melanoma	Initial treatment strategy of regional nodes and for applications not discussed in covered services
Pancreatic Cancer	In evaluating other aspects of pancreatic cancer
Soft Tissue Sarcoma	In evaluation of soft tissue sarcoma, including but not limited to: • Distinguishing between benign lesions and malignant soft tissue sarcoma • Distinguishing between low grade and high grade soft tissue sarcoma • Detecting locoregional recurrence • Detecting distant metastasis Evaluating response to imatinib and other treatments for gastrointestinal stromal tumors
Testicular Cancer	In evaluation of testicular cancer, including but not limited to: • Initial staging of testicular cancer • Distinguishing between viable tumor and necrosis/fibrosis after treatment of testicular cancer Detection of recurrent disease after treatment of testicular cancer
Thyroid Cancer, Differentiated	In evaluating known or suspected differentiated thyroid cancer

Unknown Primary	In the evaluation of unknown primary that does not cover those included in covered services. This includes but is not limited to: • As part of the initial workup of an unknown primary • As part of the workup of patients with multiple sites of disease

Codes used to identify services associated with this policy may include (but may not be limited to) the following: (Listed codes are not a guarantee of payment and standard editing processes will apply)

Code Type	Code			
CPT	78608, 78609, 78811, 78812, 78813, 78814, 78815, 78816			
HCPCS	A9515, A9526, A9552, A9580, A9587, A9588, G0219, G0235, G0252			
ICD-10 Diagnosis	C00.0 - C07	C08 - C14.8	C15.3 - C19	C20
	C21 - C21.8	C25.0 - C25.9	C30.0 - C30.01	C31.0 - C33
	C34.00 - C34.02	C34.10 - C34.12	C34.2	C34.30 - C34.32
	C34.80 - C34.82	C34.90 - C34.92	C40.00 - C40.02	C40.10 - C40.12
	C40.20 - C40.22	C40.30 - C40.32	C40.80 - C40.82	C40.90 - C40.92
	C41.0 - C41.9	C43.0	C43.10 - C43.12	C43.20 - C43.22
	C43.30 - C43.4	C43.51 - C43.62	C43.70 - C43.72	C43.8 - C43.9
	C47.0	C47.10 - C47.22	C47.3 - C47.9	C48.0 - C48.8
	C50.011 - C50.029	C50.1	C50.211 - C50.229	C50.311 - C50.329
	C50.411 - C50.429	C50.511 - C50.529	C50.611 - C50.629	C50.811 - C50.829
	C50.911 - C50.929	C52	C53.0 - C53.9	C56.1 - C57.9
	C62.00 - C62.292	C69 - C69.92	C71.0 - C71.9	C73
	C76.0	C78.00 - C78.02	C78.5	C79.31
	C79.51	C79.60 - C79.62	C79.81	C81.00 - C84.99
	C85.10 - C86.6	C88.0 - C88.9	C90.00 - C90.32	D00.00 – D00.2
	D01 – D01.3	D01.7	D02.0 – D02.22	D03.00 - D03.339
	D03.4	D03.51 - D03.72	D03.8 - D03.9	D05.00 - D05.92

References:

1. Jadvar, H et al. Appropriate Use Criteria for FDG PET/CT in Restaging and Treatment Response Assessment of Malignant Disease. J Nucl Med 2017; 00:1–21
2. Practice guideline for performing FDG-PET/CT in oncology. American College of Radiology Web site. Published October 2007 (revised 2012). http://www.acr.org. Accessed September 29, 2017.

3. Medicare national coverage determinations. Centers for Medicare and Medicaid Services Web site. Published Rev. 202,
August 25, 2017. https://www.cms.gov/Regulations-and Guidance/Guidance/Manuals/Downloads/ncd103c1_Part4.pdf. Accessed September 29, 2017.
4. National Comprehensive Cancer Network. Clinical Practice Guidelines in Oncology. Cervical Cancer V2.2015. http://www.nccn.org/professionals/physician_gls/pdf/cervical.pdf. Accessed September 27, 2017
5. Decision memo for positron emission tomography (FDG) for solid tumors (CAG-00181R). Centers for Medicare and Medicaid Services Web site. Published April 3, 2009. http://www.cms.hhs.gov/mcd/search.asp. Accessed September, 29 2017.
6. Medicare revises guidance for national coverage determinations with evidence development. Centers for Medicare and Medicaid Services Web site. Published July 12, 2006. http://www.cms.hhs.gov/mcd/search.asp. Accessed September 29, 2017.
7. Podoloff DA, Ball DW, Ben-Josef E et al. NCCN task force: clinical utility of PET in a variety of tumor types. J Natl Compr Canc Netw 2009; 7(suppl 2):S1-26.
8. http://www.snm.org/docs/PET_COE/ACR%20PRACTICE%20GUIDELINE%20FOR%20PERFORMING%20FDGPETCT%20IN.pdf Accessed September 29, 2017.
9. http://snmmi.files.cms-plus.com/images/NCCN%20Narrative%20Summary%20Feb%202016.pdf. Accessed October 7, 2017.
10. Ospina MB, Horton J, Seida J et al. Positron emission tomography for nine cancers (bladder, brain, cervical, kidney, ovarian, pancreatic, prostate, small cell lung, testicular). Technology Assessment Report Project ID: PETC1207. Agency for Healthcare Research and Quality. December 2008.
11. Gambhir SS. Molecular imaging of cancer with positron emission tomography. Nat Rev Cancer. 2002;2:683–693.
12. Agrawal A, Rangarajan V Appropriateness criteria of FDG PET/CT in oncology Indian J Radiol Imaging. 2015 Apr-Jun;25(2):88-101.
13. AQA Principles for Appropriateness Criteria. London, U.K.: Assessment and Qualifications Alliance; 2009.
14. Esserman L. Integration of imaging in the management of breast cancer. J Clin Oncol. 2005;23:1601–1602.
15. Isasi CR, Moadel RM, Blaufox MD. A meta-analysis of FDG-PET for the evaluation of breast cancer recurrence and metastases. Breast Cancer Res Treat. 2005;90:105–112.
16. Sloka JS, Hollett PD, Matthews M. A quantitative review of the use of FDG-PET in the axillary staging of breast cancer. Med Sci Monit 2007; 13(3):RA37-RA46.
17. Cheng X, Li Y, Liu B, et al. 18F-FDG PET/CT and PET for evaluation of pathological response to neoadjuvant chemotherapy in breast cancer: a meta-analysis. Acta Radiol. 2012 Jul 2012;53(6):615-627. Hong S, Li J, Wang S. 18FDG PET-CT for diagnosis of distant metastases in breast cancer patients. A meta-analysis. Surg Oncol. Jun 2013;22(2):139-143.
18. Rong J, Wang S, Ding Q, et al. Comparison of 18 FDG PET-CT and bone scintigraphy for detection of bone metastases in breast cancer patients. A meta-analysis. Surg Oncol. Jun 2013;22(2):86-91.
19. Patel K, Hadar N, Lee J, Siegel BA, Hillner BE, Lau J. The lack of evidence for PET or PET/CT surveillance of patients with treated lymphoma, colorectal cancer, and head and neck cancer: a systematic review. J Nucl Med. 2013;54: 1518– 1527.
20. Zhang C, Chen Y, Xue H, et al. Diagnostic value of FDG-PET in recurrent colorectal carcinoma: a meta-analysis. Int J Cancer. 2009;124:167–173.
21. Yu T, Meng N, Chi D, Zhao Y, Wang K, Luo Y. Diagnostic value of (18)F-FDG PET/CT in detecting local recurrent colorectal cancer: a pooled analysis of 26 individual studies. Cell Biochem Biophys. 2015;72:443–451.
22. Lu YY, Chen JH, Chien CR, et al. Use of FDG-PET or PET/CT to detect recurrent colorectal cancer in patients with elevated CEA: a systematic review and meta-analysis. Int J Colorectal Dis. 2013;28:1039–1047.
23. Niekel MC, Bipat S, Stoker J. Diagnostic imaging of colorectal liver metastases with CT, MR imaging, FDG PET, and/or FDG PET/CT: a meta-analysis of prospective studies including patients who have not previously undergone treatment. Radiology. 2010;257:674–684.
24. Li C, Lan X, Yuan H, et al. 18F-FDG PET predicts pathological response to preoperative chemoradiotherapy in patients with primary rectal cancer: a meta-analysis. Ann Nucl Med. Jun 2014;28(5):436-446.

25. Memon S, Lynch AC, Akhurst T, et al. Systematic review of FDG-PET prediction of complete pathological response and survival in rectal cancer. Ann Surg Oncol. Oct 2014;21(11):3598-3607.
26. Xia Q, Liu J, Wu C, et al. Prognostic significance of (18)FDG PET/CT in colorectal cancer patients with liver metastases: a meta-analysis. Cancer Imaging. 2015;15:19.
Memon S, Lynch AC, Akhurst T, et al. Systematic review of FDG-PET prediction of complete pathological response and survival in rectal cancer. Ann Surg Oncol. 2014;21:3598–3607.
27. Goldschmidt N, Or O, Klein M, Savitsky B, Paltiel O. The role of routine imaging procedures in the detection of relapse of patients with Hodgkin lymphoma and aggressive non-Hodgkin lymphoma. Ann Hematol. 2011;90:165–171.
28. Adams HJ, Kwee TC, de Keizer B, et al. Systematic review and meta-analysis on the diagnostic performance of FDG-PET/CT in detecting bone marrow involvement in newly diagnosed Hodgkin lymphoma: is bone marrow biopsy still necessary? Ann Oncol. Dec 18 2013.
29. Winkfield KM, Advani RH, Ballas LK, Dabaja BS, Dhakal S, Flowers CR, Ha CS, Hoppe BS, Mansur DB, Mendenhall NP, Metzger ML, Plastaras JP, Roberts KB, Shapiro R, Smith SM, Terezakis SA, Younes A, Constine LS. ACR Appropriateness Criteria® Recurrent Hodgkin Lymphoma. Oncology (Williston Park). 2016 Dec 15;30(12):1099-103, 1106-8.
30. Ambrosini V, Nicolini S, Caroli P, et al. PET/CT imaging in different types of lung cancer: an overview. Eur J Radiol. 2012;81:988–1001.
31. Travis WD, Brambilla E, Noguchi M, et al. International Association for the Study of Lung Cancer/American Thoracic Society/European Respiratory Society International Multidisciplinary Classification of Lung Adenocarcinoma. J Thorac Oncol. 2011;6:244–285.
32. Colt HG, Murgu SD, Korst RJ, Slatore CG, Unger M, Quadrelli S. Follow-up and surveillance of the patient with lung cancer after curative-intent therapy: Diagnosis and management of lung cancer, 3rd ed: American College of Chest Physicians evidence-based clinical practice guidelines. Chest. 2013;143:e437S-454S.
33. Cuaron J, Dunphy M, Rimner A. Role of FDG-PET scans in staging, response assessment, and follow-up care for non-small cell lung cancer. Front Oncol. 2013;2:208.
34. Lu YY, Chen JH, Liang JA, et al. 18F-FDG PET or PET/CT for detecting extensive disease in small-cell lung cancer: a systematic review and meta-analysis. Nucl Med Commun. Jul 2014;35(7):697-703.
35. Li J, Xu W, Kong F, et al. Meta-analysis: accuracy of 18FDG PET-CT for distant metastasis staging in lung cancer patients. Surg Oncol. Sep 2013;22(3):151-155.
36. He YQ, Gong HL, Deng YF, et al. Diagnostic efficacy of PET and PET/CT for recurrent lung cancer: a meta-analysis. Acta Radiol. Sep 30 2013.
37. Silvestri GA, Gonzalez AV, Jantz MA, et al. Methods for staging non-small cell lung cancer: Diagnosis and management of lung cancer, 3rd ed: American College of Chest Physicians evidence-based clinical practice guidelines. Chest. May 2013;143(5 Suppl):e211S-250S.
38. Xu G, Zhao L, He Z. Performance of whole-body PET/CT for the detection of distant malignancies in various cancers: a systematic review and meta-analysis. J Nucl Med. 2012;53:1847–1854.
39. Xing Y, Bronstein Y, Ross MI, et al. Contemporary diagnostic imaging modalities for the staging and surveillance of melanoma patients: a meta-analysis. J Natl Cancer Inst. 2011;103:129–142.
40. Liu F, Zhang Q, Zhu D, et al. Performance of positron emission tomography and positron emission tomography/computed tomography using fluorine-18-fluorodeoxyglucose for the diagnosis, staging, and recurrence assessment of bone sarcoma: a systematic review and meta-analysis [published correction appears in Medicine (Baltimore). 2016;95:e187a]. Medicine (Baltimore). 2015;94:e1462.
41. Pacific Northwest Evidence-Based Practice Center. Systematic Review: Diagnostic Accuracy of PET/CT for Restaging. Portland, Oregon: Oregon Health and Science University; 2016.
42. Sheikhbahaei S, Taghipour M, Ahmad R, et al. Diagnostic accuracy of follow up FDG PET or PET/CT in patients with head and neck cancer after definitive treatment: a systematic review and meta-analysis. AJR Am J Roentgenol. 2015;205:629–639.
43. Cheung PK, Chin RY, Eslick GD. Detecting residual/recurrent head neck squamous cell carcinomas using PET or PET/CT: systematic review and meta-analysis. Otolaryngol Head Neck Surg. 2016;154:421–432.

44. Dunet V, Rossier C, Buck A, et al. Performance of 18F-fluoro-ethyl-tyrosine (18F-FET) PET for the differential diagnosis of primary brain tumor: a systematic review and Meta-analysis. J Nucl Med. 2012 Feb 2012;53(2):207-214.
45. Lu YY, Chen JH, Lin WY, et al. FDG PET or PET/CT for detecting intramedullary and extramedullary lesions in multiple myeloma: a systematic review and meta-analysis. Clin Nucl Med. 2012 Sep 2012;37(9):833-837.
46. van Lammeren-Venema D, Regelink JC, Riphagen II, et al. (1)(8)F-fluorodeoxyglucose positron emission tomography in assessment of myeloma-related bone disease: a systematic review. Cancer. 2012 Apr 15 2012;118(8):1971-1981.
47. Wu LM, Hu JN, Hua J, et al. 18 F-fluorodeoxyglucose positron emission tomography to evaluate recurrent gastric cancer: a systematic review and meta-analysis. J Gastroenterol Hepatol. 2012 Mar 2012;27(3):472-480.
48. Barger RLJ, Nandalur KR. Diagnostic performance of dual-time 18F-FDG PET in the diagnosis of pulmonary nodules: a meta-analysis. Acad Radiol. 2012 Feb 2012;19(2):153-158.
49. Treglia G, Salsano M, Stefanelli A, et al. Diagnostic accuracy of (18)?F-FDG-PET and PET/CT in patients with Ewing sarcoma family tumours: a systematic review and a meta-analysis. Skeletal Radiol. 2012;41(3):249-256.
50. PET for Differentiating Brain Tumors. AJNR Am J Neuroradiol. Sep 12 2013.
51. Chu Y, Zheng A, Wang F, et al. Diagnostic value of 18F-FDG-PET or PET-CT in recurrent cervical cancer: a systematic review and meta-analysis. Nucl Med Commun. Feb 2014;35(2):144-150.
52. Zou H, Zhao Y. 18FDG PET-CT for detecting gastric cancer recurrence after surgical resection: a meta-analysis. Surg Oncol. Sep 2013;22(3):162-166.
53. Rohde M, Dyrvig AK, Johansen J, et al. 18F-fluoro-deoxy-glucose-positron emission tomography/computed tomography in diagnosis of head and neck squamous cell carcinoma: a systematic review and meta-analysis. Eur J Cancer. Sep 2014;50(13):2271-2279.
54. Yi X, Fan M, Liu Y, et al. 18 FDG PET and PET-CT for the detection of bone metastases in patients with head and neck cancer. A meta-analysis. J Med Imaging Radiat Oncol. Dec 2013;57(6):674-679.
55. Gao S, Li S, Yang X, et al. FDG PET-CT for distant metastases in patients with recurrent head and neck cancer after definitive treatment. A meta-analysis. Oral Oncol. Dec 21 2013.
56. Limei Z, Yong C, Yan X, et al. Accuracy of positron emission tomography/computed tomography in the diagnosis and restaging for recurrent ovarian cancer: a meta-analysis. Int J Gynecol Cancer. May 2013;23(4):598-607.
57. Mitchell DG, Javitt MC, Glanc P, et al. ACR appropriateness criteria staging and follow-up of ovarian cancer. J Am Coll Radiol. Nov 2013;10(11):822-827.
58. Mohsen B, Giorgio T, Rasoul ZS, et al. Application of (11) C-acetate positron-emission tomography (PET) imaging in prostate cancer: systematic review and meta-analysis of the literature. BJU Int. Dec 2013;112(8):1062-1072.