

Supplemental Table 1: PICOS Table for the 68Ga-DOTATATE PET/CT in GEP or Pulmonary NETs

Patients	Intervention	Comparison	Outcome	Study type
Patients with GEP NET	⁶⁸ Ga-DOTATATE PET/CT	¹¹¹ In-pentretotide imaging	<ol style="list-style-type: none"> 1) No change in treatment plan 2) Minor change in treatment plan (e.g. change in surgical approach or extent). 3) Major change in treatment plan (e.g. patient changed from no treatment to surgery, or from surgical treatment to chemotherapy and/or PRRT). 	<p>Primary trials, at least 10 subjects.</p> <p>Prefer: Studies with both benign and malignant diagnosis.</p> <p>If all cancer, desire some confirmation, e.g. biopsy, follow-up, response to treatment or other imaging, e.g. MRI, CT</p>
Patients with Pulmonary NET	⁶⁸ Ga-DOTATATE PET/CT	¹¹¹ In-pentretotide imaging	<ol style="list-style-type: none"> 1) No change in treatment plan 2) Minor change in treatment plan (e.g. change in surgical approach or extent). 3) Major change in treatment plan (e.g. patient changed from no treatment to surgery or from surgical treatment to chemotherapy and/or PRRT). 	<p>Primary trials, at least 10 subjects.</p> <p>Prefer: Studies with both benign and malignant diagnosis.</p> <p>If all cancer, desire some confirmation, e.g. biopsy, follow-up, response to Tx or other imaging, e.g. MRI, CT</p>
Patients with GEP or pulmonary NETs	⁶⁸ Ga-DOTATATE PET/CT		<p>Toxicity reporting in accordance with NCI toxicity grading</p> <p>http://evs.nci.nih.gov/ftp1/CTCAE/CTCAE_4.03_2010-06-14_QuickReference_5x7.pdf</p>	<p>If available in the above papers.</p>

Supplemental Table 2: PubMed Final Search Strategy

Executed 10-9-2014

Update Executed 9/29/2015

Search Statement #	Search Statement	Retrieval
#1 Imaging concept	<p>"68Ga"[Text Word] OR "68Ga dota"[Text Word] OR "Gallium Radioisotopes"[Mesh] OR "68ga dota 3 iodo tyr3 thr8 octreotide"[Text Word] OR "68ga dota octapeptides"[Text Word] OR "68ga dota octreotate"[Text Word] OR "68ga dota octreotide"[Text Word] OR "68ga dota peptides"[Text Word] OR "68ga dota tyr3 octreotate"[Text Word] OR "68ga dota tyr3 octreotide"[Text Word] OR "68ga dota, tyr3 octreotide"[Text Word] OR "68ga dota, tyr3, thre8 octreotide"[Text Word] OR "68ga dota0 phe1 tyr3 octreotide"[Text Word] OR "68ga dota0 phe1 tyr3 octrotide"[Text Word] OR "68ga dota0, tyr3 octreotide"[Text Word] OR "68ga dotatate"[Text Word] OR octreotide[Text Word] OR "Octreotide/analogs and derivatives"[mesh] OR "Neuroendocrine Tumors/radionuclide imaging"[mesh] OR "Receptors, Somatostatin"[Mesh] OR "68Ga-DOTATATE"[tw] OR "68 ga dota peptide"[tw] OR "68 ga dota peptides"[tw] OR "Ga(III)-DOTATOC"[tw] OR "68Ga-DOTANOC"[tw] OR "gallium-diethylenetriaminepentaacetic acid-mannosyl-dextran"[Supplementary Concept] OR "gallium-68 1,4,7-triazacyclononane-1,4,7-triacetic acid-cyclic Arg-Gly-Asp-Tyr-Lys"[Supplementary Concept] OR "gallium(68)-ethylenediamine-N, N'-bis(2-hydroxyphenylacetic acid)"[Supplementary Concept] OR "indium-111-octreotide"[Supplementary Concept] OR "pentetreotide"[Supplementary Concept] OR "DTPA pentetreotide"[Supplementary Concept] OR "in111"[Title/Abstract] OR "indium 111"[Title/Abstract] OR "dtpa octreotide"[Title/Abstract] OR "indium octreotide"[Title/Abstract] OR "indium penetetreotide"[Title/Abstract] OR "indium pentetreotide"[Title/Abstract] OR "indium pentreotide"[Title/Abstract] OR "indium-111-octreotide"[Supplementary Concept] OR "pentetreotide"[Supplementary Concept] OR "DTPA pentetreotide"[Supplementary Concept] OR "in111"[Title/Abstract] OR "indium 111"[Title/Abstract] OR "dtpa octreotide"[Title/Abstract] OR "indium octreotide"[Title/Abstract] OR "indium penetetreotide"[Title/Abstract] OR "indium pentetreotide"[Title/Abstract] OR "indium pentreotide"[Title/Abstract] OR "indium-111-1,4,7,10-tetraazacyclododecane-1,4,7,10-tetraacetic acid"[Supplementary</p>	21148

	Concept] OR "(111)indium-alpha-MSH (3-10), DOTA-beta-Ala(3)-Nle(4)-Asp(5)-Phe(7)-Lys(10)-"[Supplementary Concept] OR "111In-DTPA-N-TIMP-2"[Supplementary Concept] OR "(111)indium-DTPA-PEG-annexin V"[Supplementary Concept] OR "indium benzyldiethylenetriaminepentaacetic acid"[Supplementary Concept] OR "indium111"[Text Word] OR "indium111 dtpa"[Text Word] OR "indium111 labeled"[Text Word] OR "indium111 octreotide"[Text Word] OR "indium111 tagged"[Text Word] OR "indiumgallium"[Text Word] OR "indium 111 diethylenetriaminepentaacetic"[Text Word] OR "ga 68 dota noc"[Text Word] OR "ga 68 dotanoc"[Text Word] OR "ga 68 dotatoc"[Text Word] OR "68ga-dotatate"[tiab] OR "68Ga-DOTA"[tiab]	
2 Imaging concept con't	(somatostatin[tiab] OR "-octreotide"[tiab] OR "octreotide"[tiab]) AND (scintigraphy[tiab] OR "gallium 68"[tw] OR "68ga"[Text Word])	1806
3	#1 OR #2	21437
4 Histologic tumor type	"neuroendocrine tumors"[mesh] OR "Carcinoma, Neuroendocrine"[Mesh] OR "carcinoid tumor"[mesh] OR "merkel cell carcinoma"[tiab] OR "medullary carcinoma"[tiab] OR "medullary carcinomas"[tiab] OR "pancreatic islet cell tumor"[tiab] OR "pancreatic islet cell tumors"[tiab] OR vipoma[tiab] OR vipomas[tiab] OR gastrinoma OR gastrinomas OR pheochromocytoma[tiab] OR pheochromocytomas[tiab] OR paraganglioma[tw] OR "neuroendocrine tumor*"[tiab] OR "neuroendocrine tumour*"[tiab] OR "neuroendocrine neoplasms"[tiab] OR "neuroendocrine neoplasm"[tiab] OR carcinoid[tiab] OR carcinoids[tiab] OR "neuroendocrine "[tiab] OR "neuro endocrine" [tiab] OR "neuro endocrine carcinomas"[tiab]	181067
5 Organ terms	"Lung"[Mesh] OR "Lung Neoplasms"[Mesh] OR "Gastrointestinal Neoplasms"[Mesh] OR "liver neoplasms"[mesh] OR liver[tiab] OR spleen[tiab] OR "hepatic neuroendocrine carcinoma"[Text Word] OR "hepatic neuroendocrine carcinomas"[Text Word] OR "hepatic neuroendocrine neoplasms"[Text Word] OR "hepatic neuroendocrine tumor"[Text Word] OR "hepatic neuroendocrine tumors"[Text Word] OR "hepatic neuroendocrine tumours"[Text Word] OR "Gastro-enteropancreatic neuroendocrine tumor"[Supplementary Concept] OR "stomach neoplasms"[mesh] OR "jejunal diseases"[Text Word] or jejunal[tiab] OR "jejunal junction"[Text Word] OR "jejunum"[Text Word] OR "jejunum and ileum"[Text Word] OR "jejunum neoplasms"[Text Word] OR "enteropancreatic"[Text Word] OR "enteropancreatic tumor"[Text Word] OR "enteropancreatic tumors"[Text Word] OR "enteropancreatic tumours" OR "gastroenteropancreatic"[Text Word] OR "gastroenteropancreatic neuroendocrine"[Text Word] OR "gastroenteropancreatic neuroendocrine tumor"[Text Word] OR "gastroenteropancreatic neuroendocrine tumors"[Text Word] OR "gastroenteropancreatic neuroendocrine tumours"[Text Word]	3884891

	OR "fore gut"[tiab] OR foregut[tiab] OR "mid gut"[tiab] OR midgut[tiab] OR pancreas[tw] OR lung[tiab] OR lungs[tiab] OR pancreatic[tw] OR pulmonary[tw] OR bronchial[tw] OR bronchus[tw] OR bronchopulmonary[tw] OR "broncho pulmonary"[tw] OR gastric[tw] OR stomach[tw] OR colorectal[tw] OR rectum[tw] OR rectal[tw] OR lung[tiab] OR ileum[tw] OR jejunum[tw] OR duodenum[tw] OR duodenal[tw] OR colon[tw] OR cecum[tw] OR appendix[tw] OR "appendical"[tiab] OR "appendiceal"[tiab] OR "appendiceal neoplasms"[mesh] OR "gastropancreatic"[Text Word] OR "gastropancreatoduodenal"[Text Word] OR "gastrobiliary"[Text Word] OR "Gastrointestinal Tract"[Mesh] OR "gastroenteropancreatic"[tw]	
#6	#3 AND #4 AND #5	2877
#7 Limit by date range	#6 AND ("1990/01/01"[PDAT] : "2014/09/30"[PDAT]) ("2014/10/01"[PDAT] : "2015/08/30"[PDAT]) no overlap - 134 on 9/29	2635
#8 Limit to English language or English abstract	#7 AND ("1990/01/01"[PDAT] : "2014/09/30"[PDAT]) AND(English[language] OR English Abstract[pt])	2579
#9 Limit by publication type to retrieve primary studies	#8 NOT (case reports[pt] OR comment[pt] OR letter[pt] OR news[pt] OR editorial[pt] OR guideline[pt] OR meta-analysis[pt] OR practice guideline[pt] OR review[pt] OR systematic[sb])	2479

Study and Year	QSCORE	Prospective Study enrollment	Reviewer blinding	Spectrum of patients representative (N>=10)	Patients recruited consecutive	Time period between pathology and index test short	Whole sample or a random selection received reference standard of diagnosis	Patients received same reference standard regardless of the index test result	Verification bias NOT likely
Alonso, 2014	7	Red	Red	Green	Yellow	Yellow	Green	Green	Red
Brogstter, 2014	6	Red	Yellow	Red	Yellow	Green	Green	Green	Green
Etchebehere, 2014	8	Green	Yellow	Green	Green	Green	Green	Green	Green
Has Simsek, 2015	6	Green	Red	Green	Green	Yellow	Grey	Green	Red
Haug, 2012	7	Red	Green	Green	Red	Grey	Green	Green	Green
Haug, 2014	9	Red	Red	Green	Green	Green	Green	Green	Green
Haug, 2009	7	Yellow	Red	Green	Yellow	Green	Green	Green	Red
Hofman, 2012	8	Red	Green	Green	Red	Yellow	Green	Green	Red
Ilhan, 2014	3	Red	Red	Yellow	Yellow	Grey	Grey	Grey	Green
Kayani, 2008	8	Red	Yellow	Green	Green	Green	Green	Green	Green
Kunikowska, 2014	7	Green	Red	Green	Grey	Grey	Green	Green	Red
Lapinska, 2011	4	Red	Yellow	Yellow	Yellow	Grey	Green	Green	Green
Lastoria, 2015	5	Green	Red	Green	Yellow	Grey	Yellow	Yellow	Red
Poepfel, 2013	6	Green	Yellow	Yellow	Yellow	Green	Green	Green	Green
Srirajaskanthan, 2010	7	Red	Red	Green	Green	Yellow	Green	Green	Red
Deppen, in press	11	Green	Green	Green	Green	Red	Green	Green	Green
Wild, 2013	11	Green	Green	Green	Green	Green	Green	Green	Green

Supplemental Table 3: Quality Assessment of Studies of Diagnostic Accuracy (QUADAS) results

A. Is the spectrum of patients representative of the typical population with pulmonary or GEP NETs (at least 5 benign/5 cancer, with 10 or more patients, any age)? **Note:** For articles in which all subjects had a proven diagnosis of a somatostatin receptor expressing malignancy, no benign diagnoses will be required.

B. Were the patients recruited consecutively?

- C. Were the readers blinded to outcome at time of reading?
- D. Is the study conducted prospectively?
- E. Is the time period between pathology and index test short, e.g. less than 2 months, with no intervening treatment?
- F. Whole sample or a random selection received reference standard of diagnosis?
- G. Patients received same reference standard regardless of the index test result?
- H. Index test described in sufficient detail to permit replication?
- I. Reference standard interpreted w/o knowledge of test results? (refers to whether the 68Ga-DOTATATE PET/CT scan was interpreted with the readers blinded to the results of the octreotide scan)
- J. Reported who performed the clinical evaluation and image analysis?
- K. Are the pre- and post-test data available similar to when the test is used in practice?
- L. Are uninterpretable/intermediate test results reported and explained?
- M. Were withdrawals from the study explained?
- N. Does the study include a description of how gold standard/scan results were assessed (all pathology, follow-up period, etc.)?

Supplemental Table 4: Summary of Safety Data by Study

Citation, Year, Country	Number of patients	Peptide Mass (μg)	MBq (mCi) Injected	Adverse events	Octreotide therapy status
Deppen, in press USA	97	≤ 50	196 (5.3)	Safety and toxicity were assessed with pre-injection and post-imaging vital signs, pulse oximetry on room air, 12 lead ECGs, and blood laboratory tests. 1 mild event reported. 4 asymptomatic elevated blood results associated with underlying disease.	Patients receiving LAR octreotide did not withhold this medication for the ^{68}Ga -DOTATATE scan.
Lastoria 2015 Italy	18	≤ 40	120 – 220 (3.2 – 5.9)	None reported; glucose testing in patients with insulinomas demonstrated no change from ^{68}Ga -DOTATATE injection	Not described
Alonso 2014 Uruguay	29	21 - 29	104.2 ± 18.8 (2.82 \pm 0.51)	General observation; no quantitative data recorded. No adverse events observed	No patients were receiving LAR octreotide at the time of ^{68}Ga -DOTATATE scan
Brogstetter 2014 Germany	23	10 - 15	156 ± 22 (4.2 \pm 0.6)	General observation for 2 hours after injection; no quantitative data recorded. No adverse events observed.	2 of 23 patients received LAR octreotide with no withholding for the ^{68}Ga -DOTATATE scan

Etchebehere 2014 Brazil	19	20 - 40	185 (5)	General observation with no quantitative data recorded; 3 mild events reported	Patients receiving LAR octreotide withheld this medication for a minimum of 4 weeks prior to the ⁶⁸ Ga-DOTATATE scan
Has Simsek 2014 Turkey	27	≤ 40	370 (10)	Not described	Not described
Haug 2014 Germany	63	≤ 50	200 (5.4)	General observation; no quantitative data recorded. No adverse events observed	LAR octreotide was not withdrawn for the ⁶⁸ Ga-DOTATATE scan for patients receiving this medication
Ilhan 2014 Germany, Austria	44	≤ 50	200 (5.4)	General observation; no quantitative data recorded. No adverse events observed	LAR octreotide was not withdrawn for the ⁶⁸ Ga-DOTATATE scan for those patients receiving this medication
Kunikowska 2014 Poland	245	≤ 125	120 – 220, average 156.4 (3.2 – 5.4)	2 patients with prior gastritis history had abdominal pain responding to anti-spasmodic treatment	LAR-octreotide withheld ≥ 5 w, lanreotide withheld ≥ 7 w, prior to scan

Wild 2013 United Kingdom, Switzerland	18	17 - 43	155 ± 17 (4.2 ± 0.5)	General observation; no quantitative data recorded. No adverse events observed	Octreotide medication was withheld a minimum of 3 days for short-acting, and 4 weeks for LAR formulations, prior to the ⁶⁸ Ga-DOTATATE scan
Haug 2012 Germany	104	≤ 50	200 (5.4)	General observation; no quantitative data recorded. No adverse events observed	Patients receiving LAR octreotide did not withhold this medication for the ⁶⁸ Ga-DOTATATE scan
Hofman 2012 Australia	59	≤ 40	165 – 243 (4.6 – 6.6)	General observation; no quantitative data recorded. No adverse events observed	Patients receiving LAR octreotide withheld this medication for a minimum of 4 weeks prior to the ⁶⁸ Ga-DOTATATE scan
Lapinska 2011 Poland	97	25 - 50	111 – 185 (3.0 – 5.0)	General observation; no quantitative data recorded. No adverse events observed	Patients receiving LAR octreotide withheld this medication for a minimum of 4 weeks prior to the ⁶⁸ Ga-DOTATATE scan

Poeppel 2011 Germany	40	2 - 13	60 – 124 (1.6 – 3.6)	General observation; no quantitative data recorded. No adverse events observed	Patients receiving LAR octreotide withheld this medication for a minimum of 4 weeks prior to the ⁶⁸ Ga-DOTATATE scan
Srirajaskanthan 2010 United Kingdom	51	≤ 50	120 – 200 (3.2 - 5.4)	General observation; no quantitative data recorded. No adverse events observed	LAR octreotide was not withheld for the ⁶⁸ Ga-DOTATATE scan for the patients receiving this medication
Haug 2009 Germany	25	≤ 50	200 (5.4)	General observation; no quantitative data recorded. No adverse events observed	Patients receiving LAR octreotide withheld this medication for a minimum of 3 weeks prior to the ⁶⁸ Ga-DOTATATE scan
Kayani 2008 United Kingdom	38	≤ 50	120 – 200 (3.2 - 5.4)	General observation; no quantitative data recorded. No adverse events observed	Patients receiving LAR octreotide did not withhold this medication for the ⁶⁸ Ga-DOTATATE scan

LAR = long acting release octreotide medication

⁶⁸Ga-DOTATATE PET/CT compared to Conventional Imaging

Alonso, et al,(1) retrospectively evaluated 29 patients with proven neuroendocrine tumor (**NET**) metastases with unknown primary in whom prior conventional imaging (not defined in the report) was negative. ⁶⁸Ga-DOTATATE identified the primary in 17/29 (59%) of patients, and found additional sites of unsuspected metastases in 15/29 (52%).

Etchebehere, et al,(2) compared NET lesion detectability in 19 consecutive patients with NETs with imaging by whole-body diffusion weighted imaging with MRI (WB DWI), ^{99m}Tc-HYNIC-octreotide SPECT/CT (SSRS SPECT/CT) and ⁶⁸Ga-DOTATATE PET/CT. There were 10 men and 9 women. Three of the patients had metastatic disease from unknown primaries. Primary lesions in the other 16 patients were the lungs (4), pancreas (6) and bowel (6). Patient ages ranged from 47 – 77 (mean 54.3). Imaging with either ^{99m}Tc-HYNIC-Octreotide or ⁶⁸Ga-DOTATATE radiopharmaceuticals was performed after withdrawal of somatostatin analogs (24 h for short-acting, 4 w for long acting). Two of the 3 unknown primary tumors were seen, but only by ⁶⁸Ga-DOTATATE PET/CT. ⁶⁸Ga-DOTATATE PET/CT, SSRS SPECT/CT and WB DWI had overall sensitivities of 96%, 60% and 72%; specificities of 97%, 99% and 100%; and accuracies of 97%, 86% and 91%, respectively. ⁶⁸Ga-DOTATATE PET/CT was particularly superior for detection of skeletal metastases and for detection of unknown primary tumors in their series.

Haug and colleagues(3) have published three reports confirmed without overlapping patients. They demonstrated that reduction in tumor to spleen uptake ratio in ⁶⁸Ga-DOTATATE images after initial PRRT treatment correlated with longer time to progression, as assessed by RECIST criteria (p=0.002), whereas reduction in maximum standard uptake value, normalized to body weight, did not (p=0.10).

Haug (2012), et al, (4) reported on 104 retrospectively collected consecutive patients scanned with ⁶⁸Ga-DOTATATE with suspected NETs based on clinical symptoms, elevated tumor markers and/or conventional imaging. Overall, ⁶⁸Ga-DOTATATE had sensitivity of 81%, specificity of 90%, PPV of 81%, NPV of 90%, and accuracy of 87%.

Haug (2014), et al,(5) retrospectively reported on 63 patients scanned with ⁶⁸Ga-DOTATATE for suspected recurrence after surgery with curative intent, with 46% having recurrence, similar to rates previously reported.(6, 7) scans were interpreted with two sets of two readers, one blinded and one not blinded. Blinded review resulted in a lower sensitivity (78% vs 94% for unblinded) with comparable specificity (89% for both) for recurrence.

Kayani, et al, (8) retrospectively compared ⁶⁸Ga-DOTATATE and ¹⁸F-FDG PET/CT in 18 consecutive patients with pulmonary NETs. All 11 typical carcinoids were true positives with 4/11 having no or minimal ¹⁸F-FDG uptake (FN), p=0.002. Of 5 high-grade tumors, all were true positives with ¹⁸F-FDG, with 2/5 (40%) true positives with ⁶⁸Ga-DOTATATE (60% false negatives), p=0.005. Both ⁶⁸Ga-DOTATATE and ¹⁸F-FDG were missed disease in two patients with diffuse idiopathic pulmonary neuroendocrine cell hyperplasia. There were no false positive scans with ⁶⁸Ga-DOTATATE, with 3 false positive scans with ¹⁸F-FDG.

Poeppel, et al,(9) compared ^{68}Ga -DOTATATE and ^{68}Ga -DOTATOC for staging of 40 patients with metastatic NETs. Confirmation was via the CT portion of the PET/CT. The investigation demonstrated equivalency between these radiopharmaceuticals in determining eligibility for PRRT.

Wild, et al,(10) compared ^{68}Ga -DOTATATE and ^{68}Ga -DOTANOC in 18 patients with GEP NETs in a randomized cross-over design. Confirmation of findings was via 3 phase CT (all subjects) and/or MRI, ^{18}F -FDG PET/CT or tissue biopsy. The two radiopharmaceuticals were equivalent on a per-patient basis.

Lapinska, et al,(11) reported 97 patients with confirmed (88) or suspected (9) NETs imaged with ^{68}Ga -DOTATATE, with 53% having prior CT, MRI, ultrasound and non-PET somatostatin receptor imaging (not specified). ^{68}Ga -DOTATATE was positive in 50 (52%). The primary was found in 35.7% with CUP. Of 51 patients with prior conventional imaging, 32 (63%) had findings concordant (no additional lesions) with ^{68}Ga -DOTATATE, allowing PRRT referral, 14 (27%) had new lesions (confirmation uncertain) while 4 (10%) had lesions on conventional imaging not seen with ^{68}Ga -DOTATATE (confirmation uncertain).

Lastoria, et al,(12) evaluated ^{68}Ga -DOTATATE PET/CT in 18 patients with MEN1 compared to conventional imaging (CI) of MRI, CT, ultrasound and endoscopic ultrasound for diagnosis of NETs, and, via measurement of intensity of ^{68}Ga -DOTATATE uptake, determined if the intensity of uptake was prognostic. GEP NETs (pancreatic) were seen in 11 of the 18 patients. Confirmation of MEN1 syndrome was by genetic testing. Patients were evaluated by ^{68}Ga -DOTATATE PET/CT, CI and serum hormone and biomarker measurements. The four sites investigated were pancreas, pituitary, parathyroid glands and adrenals. There was uptake of DOTATATE in 11/11 tumors of the pancreas, 9/12 pituitary adenomas, 5/15 enlarged parathyroid glands, and 5/7 adrenal lesions. ^{68}Ga -DOTATATE PET/CT offered equivalent sensitivity (100%) in detection of tumors in the pancreas compared to CI (CT). ^{68}Ga -DOTATATE SUVmax was significantly and inversely related to prognosis, with progression correlating with SUVmax < 12.3 ($p < 0.05$). ^{68}Ga -DOTATATE PET/CT and CI had no significant differences in sensitivities for detection of tumors in the pancreas, pituitary glands or adrenals, but CI was superior in significance for detection of NET in the parathyroid glands ($p = 0.002$).

REFERENCES

1. Alonso O, Rodriguez-Taroco M, Savio E, Bentancourt C, Gambini JP, Engler H. (^{68}Ga)-DOTATATE PET/CT in the evaluation of patients with neuroendocrine metastatic carcinoma of unknown origin. *Ann Nucl Med*. 2014;28:638-645.
2. Etchebere EC, de Oliveira Santos A, Gumz B, et al. ^{68}Ga -DOTATATE PET/CT, $^{99\text{mTc}}$ -HYNIC-Octreotide SPECT/CT, and Whole-Body MR Imaging in Detection of Neuroendocrine Tumors: A Prospective Trial. *J Nucl Med*. 2014;55:1598-1604.

3. Haug AR, Auernhammer CJ, Wangler B, et al. 68Ga-DOTATATE PET/CT for the early prediction of response to somatostatin receptor-mediated radionuclide therapy in patients with well-differentiated neuroendocrine tumors. *J Nucl Med.* 2010;51:1349-1356.
4. Haug AR, Cindea-Drimus R, Auernhammer CJ, et al. The Role of 68Ga-DOTATATE PET/CT in Suspected Neuroendocrine Tumors. *J Nucl Med.* 2012;53:1686-1692.
5. Haug AR, Cindea-Drimus R, Auernhammer CJ, et al. Neuroendocrine tumor recurrence: diagnosis with 68Ga-DOTATATE PET/CT. *Radiology.* 2014;270:517-525.
6. Welin S, Stridsberg M, Cunningham J, et al. Elevated plasma chromogranin A is the first indication of recurrence in radically operated midgut carcinoid tumors. *Neuroendocrinology.* 2009;89:302-307.
7. Boninsegna L, Panzuto F, Partelli S, et al. Malignant pancreatic neuroendocrine tumour: lymph node ratio and Ki67 are predictors of recurrence after curative resections. *Eur J Cancer.* 2012;48:1608-1615.
8. Kayani I, Conry BG, Groves AM, et al. A Comparison of 68Ga-DOTATATE and 18F-FDG PET/CT in Pulmonary Neuroendocrine Tumors. *J Nucl Med.* 2009;50:1927-1932.
9. Poeppel TD, Binse I, Petersenn S, et al. 68Ga-DOTATOC versus 68Ga-DOTATATE PET/CT in functional imaging of neuroendocrine tumors. *J Nucl Med.* 2011;52:1864-1870.
10. Wild D, Bomanji JB, Benkert P, et al. Comparison of 68Ga-DOTANOC and 68Ga-DOTATATE PET/CT Within Patients with Gastroenteropancreatic Neuroendocrine Tumors. *J Nucl Med.* 2013;54:364-372.

11. Lapinska G, Bryszewska M, Fijolek-Warszewska A, Kozlowicz-Gudzinska I, Ochman P, Sackiewicz-Slaby A. The diagnostic role of ⁶⁸Ga-DOTATATE PET/CT in the detection of neuroendocrine tumours. *Nucl Med Rev Cent East Eur.* 2011;14:16-20.

12. Lastoria S, Marciello F, Faggiano A, et al. Role of Ga-DOTATATE PET/CT in patients with multiple endocrine neoplasia type 1 (MEN1). *Endocrine.* 2015.