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NCCN Guidelines Panel on Neuroendocrine Tumors
Via Electronic Submission

Dear Distinguished Panel Members:

On behalf of the Medical Imaging & Technology Alliance (MITA), I respectfully request that the NCCN Panel on Neuroendocrine tumors (NET) review the enclosed data for recommendation of Positron Emission Tomography with Computed Tomography (PET/CT) using ⁶⁸Ga-labeled DOTATATE in the evaluation of somatostatin receptor positive NETs at diagnosis, staging and follow up.

There is sufficient evidence to demonstrate that ⁶⁸Ga-DOTATATE PET/CT is a useful imaging test to selectively visualize somatostatin receptors (mainly subtype2) in NETs primarily in the gastroenteropancreatic (GEPNET), and lung NETs. A multitude of studies have shown that the performance of ⁶⁸Ga-labeled PET radiotracers including DOTATATE is superior to that of somatostatin receptor scintigraphy (SRS) using In-111 labeled Octreotide because of the higher sensitivity and specificity provided by PET imaging and higher affinity of these molecules for the relevant receptors (1, 2). The short half-life of ⁶⁸Ga allows for imaging only one hour after injection which makes the operations convenient for patients and clinicians alike. Moreover, because of their short half-lives, ⁶⁸Ga has a favorable dosimetry for the patient compared with the γ-emitting tracers, such as ¹¹¹In-DOTATOC which results in approximately twice the radiation dose to the patients.

In a meta-analysis, in 567 cases of thoracic and GEPNETs, Treglia *et al.* showed no significant difference between various DOTA molecules including DOTATATE (3). The pooled sensitivity and specificity values of ⁶⁸Ga-labeled somatostatin receptor PET tracers irrespective of tracer type were 93% (91–95%) and 91% (82–97%), respectively for detecting GEP or thoracic NETs. For ⁶⁸Ga-DOTATATE the sensitivity was 72–96%, and the specificity was only reported in a few studies to 100%.

⁶⁸Ga-labeled somatostatin analogs, including DOTATATE, have significantly contributed to improved patient management in 20–60% of cases owing to a higher spatial resolution than afforded by SRS (1, 4–6). The otherwise undetected disease sites included unknown primary sites, metastatic small lymph nodes, or bone metastases that could not be detected by any other available imaging technique (7). In a study by Hofman *et al.*, compared with conventional and ¹¹¹In-DTPA-octreotide imaging, additional information was provided by ⁶⁸Ga-DOTATATE in 83% of patients (6).

Briefly, on the basis of published data I believe the patient care will be improved with the incorporation of Ga-68 labeled DOTATATE into the management algorithm of NETs at staging and follow up. Please note that The PET imaging agent Ga68 labeled DOTATATE is FDA approved and available as of July 2016 in the US (NETSPOT).

Relevant references are submitted in support of this proposed change. We would like to acknowledge the contributions of NCCN panel members who also may be co-authors or co-contributors to some of these publications.

Respectfully,

A handwritten signature in black ink, appearing to read 'Lale Kostakoglu', with a stylized flourish at the end.

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