International Journal of Innovative Technologies in Social Science

e-ISSN: 2544-9435

Operating Publisher
SciFormat Publishing Inc.
ISNI: 0000 0005 1449 8214

2734 17 Avenue SW,
Calgary, Alberta, T3E0A7,
Canada
+15878858911
editorial-office@sciformat.ca

ARTICLE TITLE	IMAGING FOR PRRT SELECTION AND RESPONSE ASSESSMENT IN NEUROENDOCRINE NEOPLASMS: IS SSTR PET/CT SUFFICIENT?
DOI	https://doi.org/10.31435/ijitss.2(50).2026.5570
RECEIVED	12 February 2026
ACCEPTED	04 June 2026
PUBLISHED	10 June 2026
LICENSE	The article is licensed under a **Creative Commons Attribution 4.0 International License.**

IMAGING FOR PRRT SELECTION AND RESPONSE ASSESSMENT IN NEUROENDOCRINE NEOPLASMS: IS SSTR PET/CT SUFFICIENT?

Aleksandra Kujach *(Corresponding Author, Email: olakujach@wp.pl)*
M.D., University Clinical Centre, Gdańsk, Poland
ORCID ID: 0009-0004-8338-136X

Julia Góralska
University Clinical Centre, Gdańsk, Poland
ORCID ID: 0009-0004-7594-0387

ABSTRACT

Peptide receptor radionuclide therapy (PRRT) has emerged as an established treatment option for selected patients with advanced somatostatin receptor (SSTR) – positive neuroendocrine neoplasms, particularly well – differentiated gastroenteropancreatic neuroendocrine tumors (GEP – NETs). In this setting, imaging is central not only to treatment selection, but also to biological risk stratification and post-treatment response evaluation. This structured narrative review examines the role of SSTR PET/CT, 18F – FDG PET/CT, and conventional cross – sectional imaging in PRRT candidate selection and response assessment. The literature search was performed in PubMed and focused on studies published from 2015 onward, with additional targeted identification of landmark clinical trials, consensus statements, and practice recommendations. Available evidence indicates that baseline SSTR PET/CT is essential for PRRT eligibility assessment, however, receptor positivity alone may be insufficient in biologically heterogeneous disease. In selected patients, particularly those with intermediate- or high-grade tumors, rapid progression, or discordance between clinical behavior and receptor imaging findings, 18F-FDG PET/CT provides complementary information on tumor aggressiveness and lesion-level heterogeneity. After PRRT, response assessment continues to rely predominantly on CT or MRI and RECIST 1.1, although this framework remains suboptimal in indolent, multifocal, bone-predominant, or mixed-response disease. Overall, current evidence supports a multimodal imaging strategy in which SSTR PET/CT remains the central theranostic tool, but is interpreted in conjunction with clinical context, cross-sectional imaging, and selective use of 18F-FDG PET/CT.

KEYWORDS

Neuroendocrine Neoplasms, Neuroendocrine Tumors, PRRT, SSTR PET/CT, 18F-FDG PET/CT, Response Assessment

CITATION

Aleksandra Kujach, Julia Góralska. (2026) Imaging for PRRT Selection and Response Assessment in Neuroendocrine Neoplasms: Is SSTR PET/CT Sufficient? *International Journal of Innovative Technologies in Social Science*. 2(50). doi: 10.31435/ijitss.2(50).2026.5570

1. Introduction

Neuroendocrine neoplasms (NENs) are a heterogeneous group of epithelial malignancies arising across multiple anatomical sites and characterized by substantial variability in differentiation, proliferative activity, biological behavior, prognosis, and treatment sensitivity. According to the current WHO framework, NENs are broadly divided into well – differentiated neuroendocrine tumors (NETs) and poorly differentiated neuroendocrine carcinomas (NECs), a distinction of major clinical relevance because these entities differ not only morphologically, but also in their therapeutic management. (Sultana et al., 2023) (Rindi et al., 2022)

Although NENs may originate in a variety of organs, the available evidence on imaging – guided treatment selection is dominated by gastroenteropancreatic disease, particularly well-differentiated GEP – NETs. The strongest evidence supporting this imaging framework concerns well – differentiated gastroenteropancreatic neuroendocrine tumors, whereas extrapolation to other NEN subtypes should be made more cautiously. (Singh et al., 2024) (Strosberg et al., 2017)

The theranostic approach in NENs is fundamentally based on somatostatin receptor (SSTR) expression (Hope et al., 2020). In patients with advanced or metastatic SSTR – positive disease, SSTR PET/CT plays a central role in staging and in selecting candidates for PRRT. This approach is best established in well – differentiated NETs, where receptor overexpression provides both a diagnostic target and a therapeutic opportunity. Consensus recommendations therefore consider SSTR – based imaging essential for determining eligibility for ^{177}Lu – DOTATATE treatment. (Hope et al., 2020)(Hope et al., 2018)

The role of PRRT in modern NET management was established by the phase III NETTER – 1 trial and further expanded by NETTER – 2, which together strengthened the position of ^{177}Lu – DOTATATE within the treatment algorithm for selected patients with SSTR – positive, well – differentiated gastroenteropancreatic NETs. (Strosberg et al., 2017)(Singh et al., 2024)

At the same time, emerging clinical experience suggests that the key imaging question is no longer whether SSTR PET/CT is necessary before PRRT, because this is already well established, but whether it is sufficient when interpreted in isolation (Hope et al., 2020). NENs are not defined solely by receptor expression; they also differ in metabolic phenotype, tempo of progression, lesion – to – lesion concordance, and overall biological aggressiveness. (Metser et al., 2024)

As a result, some patients may formally meet imaging criteria for PRRT while still harboring disease features associated with less consistent treatment benefit.

Imaging in the PRRT pathway therefore extends beyond confirming receptor positivity and may also help identify clinically relevant heterogeneity, refine biological risk stratification, and support post – treatment assessment. These issues are particularly important in intermediate – and higher – grade disease, in rapidly progressive tumors, and in cases with discordance between clinical behavior and receptor – based imaging. (Ambrosini et al., 2024)(Kong et al., 2024)

Against this background, this review examines the role of SSTR PET/CT in PRRT selection and response assessment across NENs, with particular emphasis on GEP – NENs, and evaluates the added contribution of FDG PET/CT and conventional cross – sectional imaging.

2. Methodology

This article was designed as a structured narrative review examining the role of imaging in the selection of patients for peptide receptor radionuclide therapy (PRRT) and in post-treatment response assessment in neuroendocrine neoplasms (NENs). The literature search was performed in PubMed and focused on studies published in English, from January 1, 2015 onward in order to capture contemporary evidence reflecting current classification systems, theranostic practice, and modern PET-based imaging strategies. Search terms combined keywords related to NEN classification, PRRT, somatostatin receptor imaging, FDG PET, and treatment response evaluation, including “neuroendocrine neoplasms,” “NET,” “NEC,” “PRRT,” “177Lu-DOTATATE,” “SSTR PET,” “68Ga-DOTATATE,” “18F-FDG PET,” “response assessment,” “RECIST,” and “treatment monitoring.” Additional focused searches were conducted to identify pivotal trials, consensus statements, procedure standards, and major reviews, particularly those relevant to NETTER – 1, NETTER – 2, and contemporary recommendations on dual-tracer imaging and post – PRRT assessment. Reference lists of key articles and consensus documents were also screened to identify additional relevant publications.

A structured narrative review design was selected because the available literature on PRRT – related imaging is heterogeneous with respect to study design, patient populations, tumor subtypes, imaging indications, and clinical endpoints. A structured narrative approach was therefore considered more appropriate than a quantitative synthesis for integrating data from randomized trials, observational studies, consensus

documents, and practice recommendations. The decision to focus on publications from 2015 onward was intended to reflect contemporary classification systems, current theranostic practice, and the increasing role of hybrid molecular imaging in PRRT – related decision – making.

Eligible studies included randomized clinical trials, prospective and retrospective cohort studies, consensus documents, procedure standards, and high-quality narrative or systematic reviews that addressed at least one of the following domains: classification of NENs in relation to imaging phenotype, imaging-based qualification for PRRT, the complementary role of FDG PET/CT, conventional cross-sectional imaging in treatment monitoring, or response assessment after PRRT. Priority was given to randomized trials, prospective cohort studies, recent consensus documents, and practice recommendations with direct relevance to PRRT – related imaging decision – making. Study selection was based on title and abstract screening followed by full – text assessment of publications considered most relevant to the scope of the review. Conference abstracts without sufficient methodological detail, publications lacking direct relevance to PRRT – related decision – making, and older literature superseded by more recent classification or practice recommendations were excluded. Because the strongest clinical evidence concerns well – differentiated gastroenteropancreatic neuroendocrine tumors (GEP – NETs), the review is centered primarily on this population. Evidence regarding NECs and non – GEP primary sites is discussed more selectively, mainly to clarify the boundaries of PRRT applicability and the limitations of extending conclusions across the broader NEN spectrum. The synthesis was thematic rather than quantitative, and no formal meta – analysis was undertaken. The main limitations of this review include its narrative design, reliance on a single database, and the heterogeneity of the available evidence across different NEN subtypes.

3. Discussion

3.1. Classification and biological heterogeneity of NENs

The 2022 WHO classification provides the essential framework for interpreting NENs in the context of imaging and treatment selection. The central distinction is between well – differentiated NETs, which may be graded as G1, G2, or G3, and poorly differentiated NECs, which are by definition high – grade malignant neoplasms. This distinction is clinically important because differentiation status, rather than proliferative index alone, strongly influences both tumor biology and therapeutic options. (Rindi et al., 2022)

This distinction is particularly relevant in high – grade disease. The recognition of NET G3 as a separate entity has clarified that a high Ki – 67 index does not necessarily indicate poorly differentiated carcinoma. In contrast to NEC, NET G3 may retain somatostatin receptor expression and remain potentially relevant for SSTR – based imaging and, in selected cases, PRRT. By comparison, poorly differentiated NEC is more commonly associated with aggressive clinical behavior, higher glycolytic activity, and treatment pathways centered on platinum – based chemotherapy. (Rindi et al., 2022)

Classification alone does not fully capture the biological heterogeneity of NENs. Tumors with similar histological grade may differ substantially in receptor phenotype, metabolic activity, growth kinetics, and lesion – to – lesion concordance. This has direct imaging implications. While SSTR PET/CT is central in identifying receptor – expressing disease, ^{18}F-FDG PET/CT may reveal biologically aggressive or partially dedifferentiated components that are not adequately characterized by morphology or Ki – 67 alone. The divergence between histopathology and imaging phenotype is most clinically relevant in intermediate – and high – grade tumors, rapidly progressive disease, and cases with suspected interlesional heterogeneity. (Metser et al., 2024)(Ebner et al., 2024)

For this reason, the practical value of classification in NENs extends beyond taxonomy. Distinguishing NET from NEC, and recognizing the biological diversity within NET G2 and G3 disease, directly affects the interpretation of SSTR PET/CT, the potential role of dual – tracer imaging, and the appropriateness of PRRT within the overall treatment strategy. (Metser et al., 2024)(Ebner et al., 2024)

3.2. Baseline SSTR PET/CT for PRRT candidate selection

Against this background, baseline SSTR PET/CT is the key imaging modality for selecting candidates for peptide receptor radionuclide therapy (PRRT). Its purpose is not merely to document the presence of disease, but to confirm that the tumor burden is sufficiently SSTR – expressing, sufficiently widespread, and biologically appropriate for an SSTR – targeted therapeutic strategy. Current consensus statements and appropriate use criteria consistently identify SSTR PET/CT as an essential component of PRRT eligibility assessment, particularly in advanced well – differentiated NETs. (Hope et al., 2018)(Hope et al., 2020)

A major strength of baseline SSTR PET/CT is whole – body evaluation of receptor expression. This is clinically relevant because metastatic NENs may display marked interlesional heterogeneity, and tissue sampling from a single lesion may not adequately represent the global theranostic profile of the disease. In this setting, SSTR PET/CT provides information that histopathology alone cannot fully capture, especially in multifocal or metastatic tumors considered for systemic radionuclide treatment. (Hope et al., 2018)(Ebner et al., 2024)

Another important aspect of baseline SSTR PET/CT is its ability to provide whole – body mapping of disease distribution in a way that directly informs treatment planning. This is particularly relevant in patients with multifocal metastatic disease, where lesion burden, organ involvement, and interlesional heterogeneity may influence not only overall PRRT eligibility, but also expectations regarding treatment uniformity and response durability. In this context, the value of SSTR PET/CT extends beyond receptor confirmation and includes a broader theranostic characterization of disease phenotype. (Hope et al., 2018)(Ebner et al., 2024)

In clinical practice, PRRT selection is not based on receptor positivity alone. SSTR PET/CT findings should be interpreted together with tumor differentiation, grade, burden and distribution of disease, tempo of progression, symptom burden, and the presence or absence of discordant lesions. A receptor – positive scan does not necessarily imply homogeneous radiosensitivity or predictable treatment benefit across all lesions. (Hope et al., 2020) This limitation is particularly important in intermediate – and high – grade tumors, in rapidly progressive disease, and in patients with suspected biological heterogeneity.

Baseline SSTR PET/CT should therefore be regarded as the central imaging biomarker for PRRT candidacy, but not as a self-sufficient decision rule. Its greatest value lies in whole-body phenotyping of disease, while its main limitation is that receptor expression alone does not fully resolve biological risk. (Hope et al., 2018)(Ebner et al., 2024)

3.3. Incremental value of ^{18}F-FDG PET/CT

The limitations of SSTR PET/CT in biologically heterogeneous disease provide the rationale for complementary metabolic imaging. In neuroendocrine neoplasms, ^{18}F-FDG PET/CT does not replace SSTR – based imaging, but adds clinically relevant information on tumor aggressiveness, dedifferentiation, and lesion discordance that may not be captured by receptor imaging alone. Contemporary expert consensus therefore supports the selective use of FDG PET/CT, particularly in intermediate – and high – grade tumors, rapidly progressive disease, and cases in which clinical behavior appears more aggressive than would be expected from histology or SSTR imaging alone. (Metser et al., 2024)(Ambrosini et al., 2024)

Its main value lies in refining biological risk stratification. Whereas SSTR PET/CT identifies receptor – expressing disease and potential theranostic eligibility, FDG PET/CT reflects glucose metabolism and is more closely associated with aggressive tumor behavior. This distinction is especially relevant in NET G2 and G3, where morphology and Ki – 67 do not always fully predict imaging phenotype or treatment sensitivity. Prospective dual – tracer data in well – differentiated G2/G3 gastroenteropancreatic NETs show that combined SSTR and FDG imaging captures clinically meaningful heterogeneity and can influence management beyond grading alone. (Metser et al., 2024)

The relevance of FDG PET/CT is particularly evident in tumors occupying the biological grey zone between clearly indolent receptor-positive disease and overtly aggressive poorly differentiated neoplasia. In such cases, discordance between SSTR expression and glucose metabolism may provide clinically meaningful information that is not fully captured by histological grading alone. This is especially relevant in NET G2 and selected NET G3, where biological behavior may be more heterogeneous than expected from morphology or Ki – 67 index in isolation. As a result, FDG PET/CT may contribute to a more nuanced understanding of treatment suitability, expected response heterogeneity, and follow – up intensity. (Metser et al., 2024)(Ambrosini et al., 2024)

Importantly, the significance of FDG PET/CT should be described carefully. FDG avidity is clearly associated with less favorable prognosis, but its exact predictive role for PRRT benefit is more complex and should not be overstated. At present, the prognostic value of FDG PET/CT appears better established than its predictive value for PRRT – specific benefit. Accordingly, FDG PET/CT should currently be viewed primarily as a biomarker of biological aggressiveness and risk stratification rather than as a standalone predictor of PRRT response. In many cases, FDG PET/CT does not simply determine whether PRRT should or should not be given; rather, it may help contextualize PRRT within the broader treatment sequence, guide the intensity of follow – up, and indicate whether dual-tracer discordance suggests that uniform treatment benefit is less likely. (Metser et al., 2024)(Ambrosini et al., 2024)

The incremental role of FDG PET/CT is selective rather than universal. It is not required in every patient with SSTR – positive disease, especially in clearly indolent, low – grade tumors with stable clinical behavior. Its value increases when conventional clinicopathological features and receptor imaging no longer appear sufficient to explain the observed disease course. FDG PET/CT should therefore be viewed as a complementary imaging biomarker that refines biological risk stratification and supports individualized treatment selection in patients for whom SSTR PET/CT alone may underestimate disease aggressiveness.(Ambrosini et al., 2024) (Ebner et al., 2024)

3.4. Role of CT/MRI and response assessment after PRRT Although molecular imaging is central to theranostic stratification in neuroendocrine neoplasms, anatomical imaging remains fundamental to post – PRRT assessment. Contrast – enhanced CT and MRI continue to serve as the backbone of routine follow – up, allowing evaluation of disease extent, structural response, and interval progression over time. Their contribution is particularly important in patients with liver involvement, in whom MRI may provide superior lesion detection and characterization. In routine practice, response assessment still relies predominantly on standardized morphological criteria such as RECIST 1.1, although alternative approaches, including modified RECIST (mRECIST) and tumor growth rate (TGR), are being explored to better capture treatment benefit in slowly growing and biologically heterogeneous disease. Neither approach, however, has yet been established as a standard tool for post – PRRT evaluation. (Kong et al., 2024)

These limitations underscore the fact that response assessment after PRRT cannot be reduced to tumor size alone. In NENs, the value of RECIST-based assessment is constrained by disease biology, as structural tumor shrinkage may be delayed, modest, or absent despite clinically meaningful treatment benefit. This is particularly relevant in slowly proliferating tumors, multifocal liver – dominant disease, and osseous metastases, where lesion measurability is limited and overall disease burden may not be adequately captured by size – based criteria. (Kong et al., 2024)(Prasad et al., 2025)

A further challenge is that post – treatment imaging changes may reflect necrosis, cystic transformation, or other therapy – related effects rather than unequivocal progression or response. In addition, responses after PRRT may differ substantially between organs and between lesions within the same patient, thereby limiting the usefulness of global response categories. For these reasons, CT or MRI should remain the anatomical backbone of follow – up, but imaging findings should be interpreted together with clinical course, biochemical evolution, prior imaging tempo, and, when appropriate, molecular imaging findings. In this context, SSTR PET/CT may provide complementary information, particularly in non – measurable disease, osseous metastases, and lesion populations that are not adequately represented by RECIST. (Kong et al., 2024)(Prasad et al., 2025)

In selected patients, particularly those with higher – grade disease, dual – tracer discordance, or equivocal findings on conventional imaging, FDG PET/CT may add prognostic information, improve biological risk stratification, and help clarify ambiguous anatomical findings. SSTR PET/CT may also provide useful complementary information in non – measurable disease and in lesion populations that are not adequately represented by RECIST. (Ambrosini et al., 2024)

3.5. Unresolved challenges and future directions in post – PRRT assessment

Post – PRRT response assessment remains limited by the lack of a standardized framework that integrates anatomical imaging, molecular imaging, and disease biology. In routine practice, RECIST 1.1 remains the reference standard, but it does not adequately capture treatment effect in slowly growing tumors, mixed responses, or bone – predominant disease, where clinical benefit may occur without substantial tumor shrinkage. (Prasad et al., 2025)(Kong et al., 2024)

The role of molecular imaging in routine response assessment after PRRT is also not fully defined. SSTR PET/CT may provide useful complementary information in non – measurable disease and in lesion populations that are poorly represented by RECIST; however, longitudinal changes in tracer uptake have not yet been sufficiently standardized or prospectively validated to serve as universal response markers. However, the role of serial SSTR PET/CT in routine response assessment remains insufficiently standardized to support universal implementation in clinical practice. At the same time, lesion – level heterogeneity remains a major unresolved problem, because responses may differ between organs and between lesions within the same patient, limiting the usefulness of global response categories. (Mamulashvili Bessac et al., 2025) Alternative approaches, including mRECIST, tumor growth rate, and PET – based models such as RECIN, are being explored to better reflect indolent growth kinetics and heterogeneous treatment effects. However, these

methods remain investigational and have not yet replaced RECIST 1.1 in routine post – PRRT practice. (Aggarwal et al., 2025)(Kong et al., 2024)(Modica et al., 2025)

Future progress will depend on prospective validation of integrated response models combining CT/MRI, SSTR PET/CT, and selective use of ^{18}F-FDG PET/CT. The main priorities are harmonized follow – up schedules, standardized molecular response criteria, and better tools for lesion – level and biologically informed assessment. (Ambrosini et al., 2024) (Kong et al., 2024)

4. Conclusions

SSTR PET/CT is the central imaging biomarker for PRRT selection in neuroendocrine neoplasms, but it should not be interpreted as a standalone decision – making tool. Its principal value lies in confirming whole – body receptor expression and identifying candidates for an SSTR – targeted theranostic strategy, particularly in well – differentiated GEP – NETs. However, receptor positivity alone does not fully reflect tumor aggressiveness, lesion – level heterogeneity, or the likelihood of uniform treatment benefit.(Hope et al., 2020)(Singh et al., 2024)

In this context, ^{18}F-FDG PET/CT provides important complementary information in selected patients, especially in intermediate – and high – grade disease, rapid progression, or discordance between clinical behavior and SSTR imaging. After PRRT, CT and MRI remain the backbone of follow – up, but anatomical response alone is often insufficient to capture biologically meaningful treatment effects in slowly growing and heterogeneous tumors. (Ambrosini et al., 2024)(Metser et al., 2024)

Taken together, the available evidence supports a multimodal approach to both PRRT selection and post – treatment assessment. Most currently available evidence supporting this integrated imaging approach derives from well – differentiated GEP – NETs, whereas its broader applicability across the full NEN spectrum remains less well defined. The main unmet need is a standardized, clinically meaningful response framework that integrates structural imaging, molecular imaging, and disease biology. Future progress will depend on prospective validation of integrated imaging – based response models and on better standardization of post – PRRT assessment.(Prasad et al., 2025)(Kong et al., 2024)(Hope et al., 2020)

REFERENCES

1. Aggarwal, P., Satapathy, S., Chandekar, K. R., & Sood, A. (2025). Response evaluation criteria in grade 1/2 neuroendocrine tumors (RECIN). *Seminars in Nuclear Medicine, 56*(1). https://doi.org/10.1053/j.semnuclmed.2025.11.009
2. Ambrosini, V., Caplin, M., Castaño, J. P., Christ, E., Denecke, T., Deroose, C. M., Dromain, C., Falconi, M., Grozinsky-Glasberg, S., Hicks, R. J., Hofland, J., Kjaer, A., Knigge, U. P., Kos-Kudla, B., Koumarianou, A., Krishna, B., Lamarca, A., Pavel, M., Reed, N. S., ... Prasad, V. (2024). Use and perceived utility of [18F]FDG PET/CT in neuroendocrine neoplasms: A consensus report from the European Neuroendocrine Tumor Society (ENETS) Advisory Board Meeting 2022. *Journal of Neuroendocrinology, 36*(1), e13359. https://doi.org/10.1111/jne.13359
3. Ebner, R., Sheikh, G. T., Brendel, M., Ricke, J., & Cyran, C. C. (2024). ESR essentials: Role of PET/CT in neuroendocrine tumors—Practice recommendations by the European Society for Hybrid, Molecular and Translational Imaging. *European Radiology, 35*(4), 1903. https://doi.org/10.1007/s00330-024-11095-7
4. Hope, T. A., Bergsland, E. K., Bozkurt, M. F., Graham, M., Heaney, A. P., Herrmann, K., Howe, J. R., Kulke, M. H., Kunz, P. L., Mailman, J., May, L., Metz, D. C., Millo, C., O'Dorisio, S., Reidy-Lagunes, D. L., Soulen, M. C., & Strosberg, J. R. (2018). Appropriate use criteria for somatostatin receptor PET imaging in neuroendocrine tumors. *Journal of Nuclear Medicine, 59*(1), 66–74. https://doi.org/10.2967/jnumed.117.202275
5. Hope, T. A., Bodei, L., Chan, J. A., El-Haddad, G., Fidelman, N., Kunz, P. L., Mailman, J., Menda, Y., Metz, D. C., Mittra, E. S., Pryma, D. A., Reidy-Lagunes, D. L., Singh, S., & Strosberg, J. R. (2020). NANETS/SNMMI consensus statement on patient selection and appropriate use of 177Lu-DOTATATE peptide receptor radionuclide therapy. *Journal of Nuclear Medicine, 61*(2), 222. https://doi.org/10.2967/jnumed.119.240911
6. Kong, G., Noe, G., Chiang, C., Herrmann, K., Hope, T. A., & Michael, M. (2024). Assessment of response to PRRT including anatomical and molecular imaging as well as novel biomarkers. *Journal of Neuroendocrinology, 37*(3), e13461. https://doi.org/10.1111/jne.13461
7. Mamulashvili Bessac, D., Baltzinger, P., Poterszman, N., Pham Van, F., Collen, C., Malouf, G. G., Ouvrard, E., Kaseb, A., Porot, C., Ben Abdelghani, M., Addeo, P., Mertz, L., Goichot, B., & Imperiale, A. (2025). Organ-specific response to [177Lu]DOTATATE peptide receptor radionuclide therapy (PRRT) assessed by sequential [68Ga]DOTATOC PET/CT in patients with metastatic small intestine neuroendocrine tumors. *Endocrine, 87*(3), 1333–1341. https://doi.org/10.1007/s12020-024-04138-y

8. Metser, U., Nunez, J. E., Chan, D., Kulanthaivelu, R., Murad, V., Santiago, A. T., & Singh, S. (2024). Dual somatostatin receptor/18F-FDG PET/CT imaging in patients with well-differentiated, grade 2 and 3 gastroenteropancreatic neuroendocrine tumors. *Journal of Nuclear Medicine, 65*(10), 1591–1596. https://doi.org/10.2967/jnumed.124.267982
9. Modica, R., Liccardi, A., Benevento, E., Minotta, R., Di Iasi, G., Di Nola, M., Coletta, M., & Colao, A. (2025). Tumor growth rate in neuroendocrine neoplasms: An additional tool for treatment strategies? *Medicina, 61*(10), 1852. https://doi.org/10.3390/medicina61101852
10. Prasad, V., Koumarianou, A., Denecke, T., Sundin, A., Deroose, C. M., Pavel, M., Christ, E., Lamarca, A., Caplin, M., Castaño, J. P., Dromain, C., Falconi, M., Grozinsky-Glasberg, S., Hofland, J., Knigge, U. P., Kos-Kudla, B., Krishna, B. A., Reed, N. S., Scarpa, A., ... Ambrosini, V. (2025). Challenges in developing response evaluation criteria for peptide receptor radionuclide therapy: A consensus report from the European Neuroendocrine Tumor Society Advisory Board Meeting 2022 and the ENETS Theranostics Task Force. *Journal of Neuroendocrinology, 37*(2). https://doi.org/10.1111/jne.13479
11. Rindi, G., Mete, O., Uccella, S., Basturk, O., La Rosa, S., Brosens, L. A. A., Ezzat, S., de Herder, W. W., Klimstra, D. S., Papotti, M., & Asa, S. L. (2022). Overview of the 2022 WHO classification of neuroendocrine neoplasms. *Endocrine Pathology, 33*(1), 115–154. https://doi.org/10.1007/s12022-022-09708-2
12. Singh, S., Halperin, D., Myrehaug, S., Herrmann, K., Pavel, M., Kunz, P. L., Chasen, B., Tafuto, S., Lastoria, S., Capdevila, J., García-Burillo, A., Oh, D. Y., Yoo, C., Halfdanarson, T. R., Falk, S., Folitar, I., Zhang, Y., Aimone, P., de Herder, W. W., & Ferone, D. (2024). [177Lu]Lu-DOTA-TATE plus long-acting octreotide versus high dose long-acting octreotide for the treatment of newly diagnosed, advanced grade 2–3, well-differentiated, gastroenteropancreatic neuroendocrine tumours (NETTER-2): An open-label, randomised, phase 3 study. *The Lancet, 403*(10446), 2807–2817. https://doi.org/10.1016/s0140-6736(24)00701-3
13. Strosberg, J., El-Haddad, G., Wolin, E., Hendifar, A., Yao, J., Chasen, B., Mittra, E., Kunz, P. L., Kulke, M. H., Jacene, H., Bushnell, D., O'Dorisio, T. M., Baum, R. P., Kulkarni, H. R., Caplin, M., Lebtahi, R., Hobday, T., Delpassand, E., Van Cutsem, E., ... Krenning, E. (2017). Phase 3 trial of 177Lu-Dotatate for midgut neuroendocrine tumors. *The New England Journal of Medicine, 376*(2), 125. https://doi.org/10.1056/nejmoa1607427
14. Sultana, Q., Kar, J., Verma, A., Sanghvi, S., Kaka, N., Patel, N., Sethi, Y., Chopra, H., Kamal, M. A., & Greig, N. H. (2023). A comprehensive review on neuroendocrine neoplasms: Presentation, pathophysiology and management. *Journal of Clinical Medicine, 12*(15). https://doi.org/10.3390/jcm12155138