

Evidence Discussion (ONC 12.5)

Suspected/Diagnosis

CT abdomen and Pelvis are recommended by NCCN (Von Mehran, 2024) for suspected GIST. While CT chest is supported to rule out metastatic disease in biopsy proven GIST, advanced imaging prior to confirmation of diagnosis may expose patient to unnecessary radiation and increased irrelevant incidental findings.

Initial staging

CT is preferred for initial staging of GIST over MRI as it is easier to access, faster, and less costly while MRI is not viewed as superior (Von Mehren 2024). MRI should be used to clarify inconclusive liver findings. The NCCN notes that PET/CT is not a substitute for diagnostic CT, which has superior sensitivity for this tumor site, but PET/CT is supported for inconclusive CT findings, aligning with NCCN recommendations (Von Mehren 2024).

Restaging

Abdominal/pelvic imaging every 8-12 weeks to assess response to TKI is appropriate given the typical response timeframe for this treatment (Kelly, 2021). More frequent imaging may lead to premature or incorrect treatment decisions. Chest imaging in the absence of prior chest findings or signs and symptoms of chest involvement is low-yield and not recommended by the NCCN (von Mehren ,2024), it poses potential for risk of increased incidental findings and increased radiation exposure.

Surveillance

Surveillance guidelines align with level 2A NCCN recommendations with regard to modality, body site and timeframe. FDG PET/CT is supported only to clarify ambiguous findings on other advanced imaging (von Mehren 2024, ASCO 2021).

References

1. Von Mehren M, Kane, JM, Armstrong SA, et al. National Comprehensive Cancer Network (NCCN) Guidelines Version 1.2024 – March 8, 2024. Gastrointestinal Stromal Tumors [gist.pdf \(nccn.org\)](#). Referenced with permission from the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines™) for Gastrointestinal Stromal Tumors V1.2024 –March 8, 2024. ©2024 National Comprehensive Cancer Network, Inc. All rights reserved. The NCCN Guidelines™ and illustrations herein may not be reproduced in any form for any purpose without the express written permission of the NCCN. To view the most recent and complete version of the NCCN Guidelines™, go online to NCCN.org.
2. Kelly CM, Gutierrez Sainz L, Chi P. The management of metastatic GIST: current standard and investigational therapeutics. J Hematol Oncol. 2021 Jan 5;14(1):2. doi: 10.1186/s13045-020-01026-6. PMID: 33402214; PMCID: PMC7786896.
3. ASCO. (2021). Choosing Wisely. Retrieved from <https://old-prod.asco.org/news-initiatives/current-initiatives/cancer-care-initiatives/value-cancer-care/choosing-wisely>