

Evidence Summary: ONC 31.9 Primary Peritoneal Mesothelioma

Initial Staging

Contrasted CT of chest, abdomen and pelvis is essential to assess the degree of dissemination, verify that peritoneal disease is not metastatic from another primary site, evaluate lymphadenopathy, and to identify metastatic disease. For primary peritoneal mesothelioma, most patients present with advanced locoregional disease (Magge 2014). Spread into pleural space and local lymph nodes are the primary sites of metastatic disease, with more distant/diffuse metastatic disease much less common (Magge 2024, Yan 2009). Sensitivity of CT is superior to MRI for this entity (Anwar 2024). As with other malignancies, if CT shows a liver lesion indeterminate for metastatic disease, MRI may be used for further assessment per eviCore guidelines ONC 31.2. The sensitivity of PET-CT for malignant peritoneal mesothelioma ranges from 58-100%, so it is not a primary imaging tool for staging. However, Pet-CT may detect small peritoneal implants that are missed on CT and alter management (Anwar 2024, Ettinger 2024). eviCore guidelines support PET-CT when no metastatic disease is detected on conventional imaging to ensure patients are not under-staged.

Restaging/Recurrence

Contrasted CT of the abdomen and pelvis are supported for restaging, as sensitivity of CT is superior to MRI for this disease process (Anwar 2024). Given that progression to chest disease is rare (Anwar 2024, Magge 2014), CT chest is supported for restaging only if there is known disease in the chest or if new chest symptoms develop. Given the widely variable sensitivity of PET-CT for peritoneal mesothelioma, it is supported only for inconclusive findings on conventional imaging.

Surveillance

EviCore surveillance guidelines are derived from the NCCN guidelines and outcome data, supporting contrasted CT of the chest/abdomen/pelvis every 3 months for 2 years then annually until year 10 (Ettinger 2024, Magge 2014). EviCore supports frequent imaging only within the first two years as 68 percent of recurrences occur within the first 2 years (Magge 2014), then annual imaging moving forward.

References

1. Ettinger DS, Durm GA, Owen D, et al. Referenced with permission from the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) for Mesothelioma: peritoneal All rights reserved. Accessed [June 20, 2024]. To view the most recent and complete version of the guideline, go online to NCCN.org
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