



Organization:

Society of Interventional Oncology
2025 M St NW #800, Washington, DC 20036
Phone: (202) 367-1164

Tuesday, 22 July 2025

NCCN Guidelines Panel:

On behalf of the Society of Interventional Oncology, we respectfully request the NCCN Adult Cancer Pain Panel review the enclosed data for inclusion in the guidelines:

Change Request 1: For MS-32/33, requesting changes in wording under “Interventional Strategies,” paragraphs 4 to improve wording, separating of vertebral augmentation from image guided thermal ablation for clarity:

- Sentence #x revised: Percutaneous vertebral augmentation and/or cementoplasty might be useful for the treatment of lytic osteoclastic spinal metastases or in cases of vertebral compression fractures or spinal instability for which surgery is not feasible or indicated. Vertebral augmentation helps ~~restore mechanical stability while reducing pain and neurologic symptoms.~~^{406–411} **reduce pain and neurologic symptoms with the additional benefit of restoring mechanical stability, which may prevent or even halt pathologic fracture.**^{406–411}

References:

- Rastogi R, Patel T, Swarm RA. Vertebral augmentation for compression fractures caused by malignant disease. J Natl Compr Canc Netw 2010;8:1095-1102.
- Tancioni F, Lorenzetti MA, Navarria P, et al. Percutaneous vertebral augmentation in metastatic disease: state of the art. J Support Oncol 2011;9:4-10.
- Gofeld M, Bhatia A, Burton AW. Vertebroplasty in the management of painful bony metastases. Curr Pain Headache Rep 2009;13:288-294.
- Berenson J, Pflugmacher R, Jarzem P, et al. Balloon kyphoplasty versus non-surgical fracture management for treatment of painful vertebral body compression fractures in patients with cancer: a multicentre, randomised controlled trial. Lancet Oncol 2011;12:225-235.

Change Request 2: For MS-32/33, requesting changes in wording under “Interventional Strategies,” paragraph 4 & 5 for improved wording. Separation of vertebral augmentation from image guided thermal ablation for clarity. Recommend moving and revising a sentence under the neurodestructive paragraph to the newly formed ablation paragraph, also including new references demonstrating pain reduction, decreasing morphine equivalent daily dose, and decreasing rate of skeletal related events:

- Sentence #x moved and revised: Neurodestructive procedures may be used for well-localized pain syndromes (e.g., back pain due to facet or sacroiliac joint arthropathy;

visceral pain due to abdominal or pelvic malignancy). ~~Ablation therapy (eg, image-guided ablation, US ablation) for bone lesions can also be helpful in reducing pain.~~^{329–335} See Management Strategies for Specific Cancer Pain Syndromes, Bone Pain Without Oncologic Emergency in the algorithm for more information. Neurostimulation procedures have been suggested to be useful for painful chemotherapy-induced peripheral neuropathies, neuralgias, and complex regional pain syndrome.⁴²⁵

- New Paragraph, Sentence #x revised: Ablation techniques may also be helpful for pain management in patients who receive inadequate relief from pharmacologic therapy. Prospective trials of percutaneous ablative techniques, many using thermal energy, have shown decreased patient pain from bone metastases in patients who did or did not receive prior radiation therapy.^{412–421} Non-ionizing thermal ablative techniques may serve as an alternative and/or adjunct to radiation therapy or be offered in patients who refuse or cannot receive radiation therapy. Data suggest a synergistic effect with radiation therapy and these different treatment modalities may prove to be complementary.^{422–423} ~~Similarly, vertebral augmentation/cementoplasty provides pain relief with the additional benefit of improved stabilization, which may prevent or halt pathologic fracture.~~⁴²⁴ **Ablation therapy (eg, image-guided thermal ablation, US ablation) for bone lesions can also be helpful in reducing pain, decreasing morphine equivalent daily dose, and decreasing the rate of skeletal related events.**^{329–335}

References:

- Jennings JW, Prologo JD, Garnon J, et al. Cryoablation for Palliation of Painful Bone Metastases: The MOTION Multicenter Study. Radiol Imaging Cancer. 2021 Feb 12;3(2):e200101. doi: 10.1148/rycan.2021200101. PMID: 33817650; PMCID: PMC8011449
- Levy J, Hopkins T, Morris J, et al. Radiofrequency Ablation for the Palliative Treatment of Bone Metastases: Outcomes from the Multicenter OsteoCool Tumor Ablation Post-Market Study (OPuS One Study) in 100 Patients. J Vasc Interv Radiol. 2020 Nov;31(11):1745-1752. doi: 10.1016/j.jvir.2020.07.014. PMID: 33129427
- Levy J, David E, Hopkins T, et al. Radiofrequency Ablation Provides Rapid and Durable Pain Relief for the Palliative Treatment of Lytic Bone Metastases Independent of Radiation Therapy: Final Results from the OsteoCool Tumor Ablation Post-Market Study. Cardiovasc Intervent Radiol. 2023 May;46(5):600-609. doi: 10.1007/s00270-023-03417-x. Epub 2023 Apr 3. PMID: 37012392; PMCID: PMC10156864

Change Request 3: For PAIN-M, requesting changes in Bullet 2, sub-bullet 2, modified:

Percutaneous vertebral augmentation, radiofrequency or ablative procedure, and/or cementoplasty for vertebral body or other bone lesions, for clarification that radiofrequency or other ablative procedures can be used for the spine as well as other bone lesions.

References:

- Jennings JW, Prologo JD, Garnon J, et al. Cryoablation for Palliation of Painful Bone Metastases: The MOTION Multicenter Study. Radiol Imaging Cancer. 2021 Feb 12;3(2):e200101. doi: 10.1148/rycan.2021200101. PMID: 33817650; PMCID: PMC8011449
- Levy J, Hopkins T, Morris J, et al. Radiofrequency Ablation for the Palliative Treatment of Bone Metastases: Outcomes from the Multicenter OsteoCool Tumor Ablation Post-Market



Study (OPuS One Study) in 100 Patients. J Vasc Interv Radiol. 2020 Nov;31(11):1745-1752. doi: 10.1016/j.jvir.2020.07.014. PMID: 33129427

- Levy J, David E, Hopkins T, et al. Radiofrequency Ablation Provides Rapid and Durable Pain Relief for the Palliative Treatment of Lytic Bone Metastases Independent of Radiation Therapy: Final Results from the OsteoCool Tumor Ablation Post-Market Study. Cardiovasc Intervent Radiol. 2023 May;46(5):600-609. doi: 10.1007/s00270-023-03417-x. Epub 2023 Apr 3. PMID: 37012392; PMCID: PMC10156864

Change Request 4: For PAIN-M, requesting changes in Bullet 2, sub-bullet 3, addition: Other focal or well-localized pain syndromes: image guided targeted thermal neurolysis. An extra line should be made for potential sites of image guided neurolysis that are not included in the previously listed examples. Examples include pudendal nerve, ilioinguinal/iliohypogastric nerves, sciatic nerves, etc.

References:

- Sag AA, Bittman R, Prologo F, Percutaneous Image-guided Cryoneurolysis: Applications and Techniques. Radiographics. 2022 Oct;42(6):1776-1794. doi: 10.1148/rg.220082. PMID: 36190851

Thank you for your consideration of these recommendations.

Sincerely,

Resten Imaoka, MD, Assistant Professor of Radiology, Washington University
Gina Landinez, MD, Assistant Professor, Miami Vascular Specialists
Ahmad Parvinian, MD, Assistant Professor of Radiology, Mayo Clinic