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Organization:

Society of Interventional Oncology

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NCCN Guidelines Panel: Adult Cancer Pain

On behalf of the Society of Interventional Oncology, we respectfully request the NCCN Adult Cancer Pain Guideline panel review the enclosed data for inclusion in the management of adult cancer pain.

Specific Change: Pain-D 21/99

Regarding local bone pain. Please add below references.

- Callstrom MR, Dupuy DE, Solomon SB, et al. Percutaneous image-guided cryoablation of painful metastases involving bone: multicenter trial. Cancer 2013;119:1033–1041 22.
- Wallace AN ,<u>McWilliams SR</u>, Connolly SE, et al. Percutaneous Image-Guided Cryoablation of Musculoskeletal Metastases: Pain Palliation and Local Tumor Control. J Vasc Interv Radiol.2016;27(12):1788-1796.
- Anchala PR, Irving WD, Hillen TJ, et al. Treatment of Metastatic Spinal Lesions with a Navigational Bipolar Radiofrequency Ablation Device: A Multicenter Retrospective Study. Pain Physician. 2014;17:317–27
- Bagla S, Sayed D, Smirniotopoulos J, et al. Multicenter Prospective Clinical Series Evaluating Radiofrequency Ablation in the Treatment of Painful Spine Metastases. Cardiovasc Intervent Radiol. 2016;39(9):1289-97.
- Deib G, Deldar B, Hui F, Barr JS, Khan MA. Percutaneous Microwave Ablation and Cementoplasty: Clinical Utility in the Treatment of Painful Extraspinal Osseous Metastatic Disease and Myeloma. AJR Am J Roentgenol. 2019 Mar 27:1-8. doi: 10.2214/AJR.18.20386. [Epub ahead of print]
- Huisman M, ter Haar G, Napoli A, et al. International consensus on use of focused ultrasound for painful bone metastases: Current status and future directions. Int J Hyperthermia. 2015 May;31(3):251-9.
- Hurwitz MD, Ghanouni P, Kanaev SV, et al. Magnetic resonance-guided focused ultrasound for patients with painful bone metastases: phase III trial results. J Natl Cancer Inst. 2014 Apr 23;106(5).
- Kurup AN, Morris JM, Callstrom MR. Ablation of musculoskeletal metastases. AJR Am J Roentgenol. 2017 Oct;209(4):713-721.
- Scipione R, Anzidei M, Bazzocchi A, Gagliardo C, Catalano C, Napoli A. HIFU for Bone Metastases and other Musculoskeletal Applications. Semin Intervent Radiol. 2018 Oct;35(4):261-267. doi: 10.1055/s-0038-1673363. Epub 2018 Nov 5. Review
- Tomasian A, Gangi A, Wallace AN, Jennings JW. <u>Percutaneous Thermal Ablation of Spinal Metastases: Recent Advances and Review.</u> AJR Am J Roentgenol. 2018 Jan;210(1):142-152.

Specific Change: Pain-M 47/99

**Interventional Strategies:** May want to consider making a section of "non-opioid interventions", especially given the recent emphasis on such therapies in the opioid crises which have crossed over to the oncology space.

## William Rilling, MD President Medical College of Wisconsin Matthew Callstrom, MD, PhD President-Elect Mayo Clinic Stephen Solomon, MD **Immediate Past** President Memorial Sloan-Kettering Cancer Center Muneed Ahmed, MD Treasurer Beth Israel Deaconess Medical Center/Harvard Jack Jenning, MD, PhD Washington University School of Medicine Alexis Kelekis, MD Attikon University Hospital Athens Kevin Kim, MD Yale Cancer Center Martijn Meijerink, MD, PhD Amsterdam UMC Uei Pua, MBBS Tan Tock Seng Hospital Constantinos T.

Constantinos T. Sofocleous, MD, PhD Memorial Sloan-Kettering Cancer Center

Ex-Officio Michael C. Soulen, MD Hospital of the University of Pennsylvania

Executive Director Jena Eberly Stack

#### Footnote #2:

Add "poor physical performance status"

Specific Change: MS-3 51/99

**Assessment:** Add "and quality of life" to the following sentence: "All patients must be screened for pain at each contact."

Specific Change: MS-4 52/99

Consider adding Fact-BP after paragraphs on BPI and PROMIS:

**Rationale:** "A validated clinical assessment tool for bone related pain and its effect on quality of life is the Functional Assessment of Cancer Therapy – Bone Pain (FACT-BP) Quality of Life Measurement in Patients with Bone Pain. It was developed to specifically assess cancer-related bone pain and its effects on patient QoL. The FACT-BP is a 16-item scale reflected clinical change as evidenced by differences in performance status."

#### **References:**

• Broom R. J Pain Symptom Manage. 2009 Aug;38(2):244-57)"

### Specific Change: MS-26 (74/99) and MS-28 (76/99)

After sentence "Ablation techniques may also be helpful...", add the following: "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. 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. Early data suggest a synergistic effect with radiation therapy, and these different treatment modalities may prove to be complementary. Similarly, vertebral augmentation/cementoplasty provides pain relief with the additional benefit of improved stabilization which may prevent or halt pathologic fracture."

#### **References:**

- Di Staso M, Zugaro L, Gravina GL, Bonfili P, Marampon F, Di Nicola L, Conchiglia A, Ventura L, Franzese P, Gallucci M, Masciocchi C, Tombolini V. A feasibility study of percutaneous Radiofrequency Ablation followed by Radiotherapy in the management of painful osteolytic bone metastases. Eur Radiol. 2011 Sep;21(9):2004-10.
- Greenwood TJ, Wallace A, Friedman MV, Hillen TJ, Robinson CG, Jennings JW.
  Combined Ablation and Radiation Therapy of Spinal Metastases: A Novel Multimodality Treatment Approach. Pain Physician 2015; 18:573-581

# **Specific Change : Vertebral augmentation References:**

• Sorensen ST, Kirkegaard AO, Carreon L, Rousing R, Andersen MO. Vertebroplasty or kyphoplasty as palliative treatment for cancer-related vertebral compression fractures: a systematic review. The Spine Journal 000 (2019) 1–9.

#### Specific Change: MS-25 73/99

Please consider rephrasing the paragraph starting with "Ablative strategies ..." to "Ablative strategies such as image guided ablation may also be performed to reduce pain and prevent SREs. Image guided ablation of bone lesions has proved successful in pain management, especially for those failing to achieve adequate analgesia without intolerable effects."

#### Specific Change: MS-27 75/99

Interventional Strategies: Please consider changing "RF ablation" to" image guided ablation"

We would like to thank the NCCN panel members for their time and effort in reviewing this submission.

Sincerely, Jack Jennings, MD, PhD Anil N. Kurup, MD Majid Maybody, MD