NCCN Guidelines Panel: Palliative Care

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NCCN Guideline: Palliative Care Panel Requests

The Society of Interventional Oncology (SIO) is a non-profit association that supports and promotes the field of interventional oncology (IO) through professional development, access advocacy and research, and physician community building. SIO's mission is to advance interventional oncology by developing evidence supporting IO treatments, educating IO practitioners, and improving patient access to IO procedures. SIO provides support for the worldwide community of IO practitioners with a mission to advance minimally invasive oncologic therapies that harmonize with medical oncology, surgical oncology, radiation oncology, and palliative medicine.

On behalf of SIO, we respectfully request that the NCCN Palliative Care panel consider including an interventional radiologist (IR) on the panel. IR procedures are included in the current guidelines, such as palliative gastrostomy and other "invasive procedures". However, there are a plethora of other interventions offered uniquely by IRs to palliate cancer-related pain and complications, including ablation, vertebral augmentation and cementoplasty, fluid drainage, and pain control procedures, among many others. A large and increasing proportion of a typical IR's clinical work is focused on palliation of chronic diseases.

We encourage the NCCN guideline panel to consider the following six changes in the current guideline as outlined beginning on pg. 2 below.

1. PAL-6
Algorithm page number: PAL-6

Specific change requested: Additional subpoint under Consider additional referrals: “Interventional oncology/pain management.”

FDA clearance: N/A

Rationale for change:
Interventional oncology is increasingly becoming a core part of the multidisciplinary palliative care team. Procedures such as thermal ablation, cementoplasty, and trans-arterial embolization have been shown to be safe and efficacious for the management of painful bone and soft tissue metastases as well as specific cancer-related pain syndromes.

This change is complimentary to the separate petition for PAL-7.

Supporting references:
Li, D., Hussaini, S., Kang, J., & Madoff, D. C. (2016). The role of interventional oncology in the palliative care of cancer patients. *Expert Review of Quality of Life in Cancer Care*, *1*(1), 73–87.
Tomasian, A., Filippiadis, D., Tutton,S., et. al. Comprehensive Palliative Musculoskeletal Interventional Radiology Care for Patients with Cancer. RadioGraphics 2022 42:6, 1654-1669
Patel, J., Pirasteh, A., Passalacqua, M., et. al. Palliative Procedures for the Interventional Oncologist. Am J Roent. 201(4). 726-753. https://doi.org/10.2214/AJR.12.9732

2. PAL-7
Algorithm page number: PAL-7

Specific change requested: Additional subpoint under High risk of poor pain management: “Specific cancer-related pain syndromes.”

FDA clearance: N/A

Rationale for change:
This change is complimentary to the request under PAL-6. Specific cancer pain syndromes such as painful bone metastases, pathologic fractures, and nerve impingement due to tumor are recognized to place the patient at high risk for poor pain management. Interventional radiology therapies can directly address these pain generators with safety and efficacy, reducing the requirements for opiate analgesia and enhancing quality of life.

Supporting 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.
Dupuy DE, Liu D, Hartfeil D, et al. Percutaneous radiofrequency ablation of painful osseous metastases: a multicenter American College of Radiology Imaging Network trial. Cancer 2010; 116:989-997.
Rastogi R, Patel T, Swarm RA. Vertebral augmentation for compression fractures caused by malignant disease. J Natl Compr Canc Netw 2010; 8:1095-1102.

3. PAL-9
Algorithm page number: PAL-9

Specific change requested: Under months-weeks, please separate RT and interventional therapies. RT bullet should read “Assess for appropriateness of palliative RT therapies (eg, single fraction)”. Additional bullet: “Consider palliative interventional therapies for specific pain syndromes (e.g., ablation, cementoplasty)”

FDA clearance: All devices used for these procedures have FDA clearance.

Rationale for change:
Palliative interventional oncology procedures have been shown to be complimentary to RT therapies (e.g. spine radiofrequency ablation). There are also a large and growing number of stand-alone IO therapies which have proven to be safe and effective for the palliative treatment of cancer pain. Percutaneous ablations (RFA, cryoablation, microwave) with or without cementoplasty/kyphoplasty should all be considered in palliative cancer care under the consultation with interventional radiology.

Supporting 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.
Greenwood TJ, Wallace A, Friedman MV, et al. Combined Ablation and Radiation Therapy of Spinal Metastases: A Novel Multimodality Treatment Approach. Pain Physician 2015; 18:573-581.
Di Staso M, Zugaro L, Gravina GL, et al. A feasibility study of percutaneous Radiofrequency Ablation followed by Radiotherapy in the management of painful osteolytic bone metastases. Eur Radiol 2011; 21:2004-2010.
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.

4. PAL-10
Algorithm page number: PAL-10

Specific change requested: Additional bullet point under Weeks-days (dying patient): “Consider image-guided nerve ablation for focal refractory pain.”

FDA clearance: All devices used for these procedures have FDA clearance.

Rationale for change:
Even in the setting of the dying patient, percutaneous chemo and thermal neurolysis is shown to be effective in alleviation of severe pain and improving end stage quality and dignity of life.

Supporting references:
Raslan AM, Ben-Haim S, Falowski SM, et al. Congress of Neurological Surgeons Systematic Review and Evidence-Based Guideline on Neuroablative Procedures for Patients with Cancer Pain. Neurosurgery 2021; 88:437-442.
Filippiadis DK, Tselikas L, Tsitskari M, Kelekis A, de Baere T, Ryan AG. Percutaneous Neurolysis for Pain Management in Oncological Patients. Cardiovasc Intervent Radiol 2019;42(6):791–799.
Bittman RW, Peters GL, Newsome JM, et al. Percutaneous Image-Guided Cryoneurolysis. AJR Am J Roentgenol 2018;210(2):454–465.

5. MS-15
Algorithm page number: MS-15

Specific change requested: Add to the end of the second paragraph under Pain: “Interventional radiology/oncology therapies may also be used in the palliative treatment of specific cancer pain syndromes such as painful bone metastases (in conjunction with RT[1,2] or alone[3,4]), pathologic fractures[5], and nerve impingement/involvement by tumor[6,7].”

FDA clearance: N/A

Rationale for change:
As shown in the accompanying submissions, Interventional Radiology and its rapidly expanding subspecialty, Interventional Oncology, are increasingly part of the multidisciplinary palliative care team. Oncologists and

palliative care specialists treating patients with specific cancer related pain syndromes as those mentioned should consult with IO specialists early on with the goal of improving pain, decreasing opiate usage, and improving quality of life.

Supporting references:
[1]Greenwood TJ, Wallace A, Friedman MV, et al. Combined Ablation and Radiation Therapy of Spinal Metastases: A Novel Multimodality Treatment Approach. Pain Physician 2015; 18:573-581.
[2]Di Staso M, Zugaro L, Gravina GL, et al. A feasibility study of percutaneous Radiofrequency Ablation followed by Radiotherapy in the management of painful osteolytic bone metastases. Eur Radiol 2011; 21:2004-2010.
[3]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.
[4]Dupuy DE, Liu D, Hartfeil D, et al. Percutaneous radiofrequency ablation of painful osseous metastases: a multicenter American College of Radiology Imaging Network trial. Cancer 2010; 116:989-997.
[5]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.
[6]Filippiadis DK, Tselikas L, Tsitskari M, Kelekis A, de Baere T, Ryan AG. Percutaneous Neurolysis for Pain Management in Oncological Patients. Cardiovasc Intervent Radiol 2019;42(6):791–799.
[7]Bittman RW, Peters GL, Newsome JM, et al. Percutaneous Image-Guided Cryoneurolysis. AJR Am J Roentgenol 2018;210(2):454–465.

6. IR representation
Algorithm page number: N/A

Specific change requested: Please include interventional radiology/oncology representation on the NCCN panel.

FDA clearance: N/A

Rationale for change:
As shown with our current and previous year's petitions, interventional radiology/oncology is now an integral part of the multidisciplinary palliative care team. Over half of interventional oncology care is focused on palliation. The NCCN panel would greatly benefit from the inclusion of a specialist as they evaluate the multiple current and ever-expanding number and types of palliative interventional procedures.

Supporting references:
Buss MK. The Intersection of Palliative Care and Interventional Radiology: Enhancing Understanding and Collaboration. Semin Intervent Radiol. 2017 Jun;34(2):140-144. doi: 10.1055/s-0037-1602756. Epub 2017 Jun 1. PMID: 28579682; PMCID: PMC5453779