

<b>National Imaging Associates, Inc.*</b>	
<b>Clinical guidelines: NON-CANCEROUS CONDITIONS</b>	<b>Original Date: March 2015</b>
<b>Radiation Oncology</b>	<b>Last Revised Date: February 2021</b>
<b>Guideline Number: NIA_CG_135</b>	<b>Implementation Date: January 2022</b>

## INDICATIONS FOR RADIATION THERAPY

2D or 3D Conformal (3D CRT) is considered medically necessary for several non-malignant conditions, including but not limited to (McKeown, 2015):

- Prevention of keloid scars as an adjunctive therapy following excisional surgery
- Heterotopic ossification
- Pterygium in cases that cannot be medically managed
- Villonodular synovitis

Stereotactic Radiation Therapy (SRS, SBRT) is considered medically necessary when used in the treatment of non-malignant cranial lesions including the following (ASTRO, 2014):

- Arteriovenous malformation (AVM) of the brain or spine
- Trigeminal neuralgia that has not responded to other, more conservative, treatments
- Non-cancerous brain tumors such as acoustic neuroma, benign schwannomas, meningioma, hemangioma, pituitary adenoma, craniopharyngioma, neoplasm of the pineal gland, and chordomas

Also refer to NIA Stereotactic Radiation Therapy Guideline.

## TREATMENT OPTIONS REQUIRING PHYSICIAN REVIEW

Treatment for other non-malignant conditions utilizing proton beam, stereotactic radiation therapy (SBRT), or intensity modulated radiation therapy (IMRT) modalities should be referred to physician review.

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## BACKGROUND

Radiation therapy may have appropriate use in several non-malignant conditions. The treatment goal in patients with non-malignant conditions is to achieve relief of the indicated condition with radiation therapy with minimal risk of radiation exposure to sensitive structures.

## POLICY HISTORY

Date	Summary
February 2021	No Changes
February 2020	References updated
February 2019	Added and updated references

## REFERENCES

- American Society for Radiation Oncology (ASTRO). Model policies. Stereotactic Radiosurgery (SRS). 2014.
- Aqqarwal A, Fersht N, Brada M. Radiotherapy for craniopharyngioma. *Pituitary*. March 2013; 16(1):26-33. doi: 10.1007/s11102-012-0429-1.
- Bentzen SM, Constine LS, Deasy JO, et al. Quantitative analyses of normal tissue effects in the clinic QUANTEC: An introduction to the scientific issues. Introductory paper. *Int J Radiat Oncol Biol Phys*. 2010; 76(3):S3-S9.
- Casentini L, Fornezza U, Perini Z, et al. Multisession stereotactic radiosurgery for large vestibular schwannomas. *J Neurosurg*. 2015; 16:1-7.
- Combs SE, Engelhand C, Kopp C, et al. Long-term outcome after highly advanced single-dose or fractionated radiotherapy in patients with vestibular schwannomas. *Radiother Oncol*. March 2015; 114(3):378-383. doi: 10.1016/j.radonc.2015.01.011.
- Ding D, Yen CP, Starke RM, et al. Unyielding progress: Recent advances in the treatment of central nervous system neoplasms with radiosurgery and radiation therapy. *J Neurooncol*. 2014; 119(3):513-529. doi: 10.1007/s11060-014-1501-7.
- Flickinger JC. A radiobiological analysis of multicenter data for postoperative keloid radiotherapy. *Int J Radiat Oncol Biol Phys*. March 15, 2011; 79(4):1164-1170. doi: 10.1016/j.ijrobp.2009.12.019.
- Gross CE, Frank RM, Hsu AR, et al. External Beam Radiation Therapy for Orthopaedic Pathology. *J Am Acad Orthop Surg*. April 2015; 23(4):243-252.
- Hasan S, Young M, Albert T, et al. The role of adjuvant radiotherapy after gross total resection of atypical meningiomas. [Published online ahead of print December 19, 2014]. *World Neurosurg*. May 2015; 83(5):808-815. doi: 10.1016/j.wneu.2014.12.037.
- Jackson A, Marks LB, Bentzen SM, et al. The lessons of QUANTEC: Recommendations for reporting and gathering data on dose-volume dependencies of treatment outcome. *Int J Radiat Oncol Biol Phys*. 2010; 76(3):S155-S160.
- Kondziolka D, Perez B, Flickinger JC, et al. Gamma knife radiosurgery for trigeminal neuralgia: Results and expectations. *Arch Neurol*. 1998; 55(12):1524-1529.
- Luis AM. Radiotherapy for non-malignant diseases. *Reports of Practical Oncology and Radiotherapy*. June 2013.  
[https://www.researchgate.net/profile/Angel\\_Montero/publication/257606206\\_Radiotherapy\\_for\\_non](https://www.researchgate.net/profile/Angel_Montero/publication/257606206_Radiotherapy_for_non)

-malignant\_diseases/links/59f8b3eb458515547c26a20f/Radiotherapy-for-non-malignant-diseases.pdf?origin=publication\_detail. Accessed May 2, 2018.

Maesawa S, Salame C, Flickinger JC, et al. Clinical outcomes after stereotactic radiosurgery for idiopathic trigeminal neuralgia. *J Neurosurg*. 2001; 94(1):14-20.

Maniakas A, Saliba I. Microsurgery versus stereotactic radiation for small vestibular schwannomas: A meta-analysis of patients with more than 5 years' follow-up. *Otol Neurotol*. 2012; 33(9):1611-1620.

McKeown SR, Hatfield P, Prestwich RJ, et al. Radiotherapy for benign disease: Assessing the risk of radiation-induced cancer following exposure to intermediate dose radiation. *Br J Radiol*. 2015; 88(1056):20150405. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4984935/>. Accessed May 2, 2018.

Pashtan I, Oh KS, Loeffler JS. Radiation therapy in the management of pituitary adenomas. *Handb Clin Neurol*. 2014; 124:317-24. doi: 10.1016/B978-0-444-59602-4.00021-6.

Popovic M, Aqarwal A, Zhang L, et al. Radiotherapy for the prophylaxis of heterotopic ossification: A systematic review and meta-analysis of published data. *Radiother Oncol*. October 2014; 113(1):10-17. doi: 10.1016/j.radonc.2014.08.025.

Portnow LH, Scott M, Morris CG, et al. Fractionated radiotherapy in the management of benign vascular tumors. *Am J Clin Oncol*. December 2012; 35(6):557-561. doi: 10.1097/COC.0b013e31821f847f.

Seregard S, Pelayes DE, Singh AD. Radiation therapy: Uveal tumors. *Dev Ophthalmol*. 2013; 52:36-57. doi: 10.1159/000351055.

Seegenschmiedt MH, Micke O, Muecke R, et al. Radiotherapy for non-malignant disorders: State of the art and update of the evidence-based practice guidelines. *Br J Radiol*. 2015; 88(1051):20150080. <http://doi.org/10.1259/bjr.20150080>. Accessed May 15, 2017.

Sonier M, Gete E, Herbert C, et al. Intensity-modulated stereotactic radiosurgery for arteriovenous malformations: Guidance for treatment planning. *Radiat Oncol*. March 10, 2014; 9:73. doi: 10.1186/1748-717X-9-73.

**Reviewed / Approved by NIA Clinical Guideline Committee**

## GENERAL INFORMATION

It is an expectation that all patients receive care/services from a licensed clinician. All appropriate supporting documentation, including recent pertinent office visit notes, laboratory data, and results of any special testing must be provided. If applicable: All prior relevant imaging results and the reason that alternative imaging cannot be performed must be included in the documentation submitted.

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