National Imaging Associates, Inc.	
Clinical guidelines: **SKIN CANCER**	**Original Date: May 2016**
Radiation Oncology	**Last Revised Date: July 2019**
Guideline Number: NIA_CG_136	**Implementation Date: January 2020**

INDICATIONS FOR RADIATION THERAPY:

Basal & Squamous Cell Skin Cancer (NCCN, 2018a)

2D or 3D-CRT EBRT (electron/ photon) are appropriate techniques for treatment of basal squamous cell skin cancer for any of the following: definitive treatment for non surgical candidates, cancer surgery would be disfiguring, further resection needed post operative or adjuvant therapy for cancers at risk for recurrence. Fractionation and treatment schedules range from single fraction to 33 fractions. Longer fractionation is associated with improved cosmetic results.

Dosage and Schedule Guidelines

- 30-70 Gy to up to 38 fractions (NCCN, 2018a) (NCCN, 2018c)

Melanoma (NCCN, 2018b)

2D or 3D-CRT EBRT (electron/ photon) are appropriate techniques for treatment of Melanoma skin cancer for any of the following: adjuvant treatment after resection of primary site, regional disease following resection of nodes, local recurrent disease or palliative treatment

A wide range of dosage / fractionation schedules is effective up to 38 fractions (NCCN, 2018b)

TREATMENT OPTIONS REQUIRING PHYSICIAN REVIEW:

Brachytherapy

LDR, HDR, surface or interstitial brachytherapy may be considered where excision or EBRT is contraindicated. Electronic brachytherapy is considered experimental and investigational at this time (NCCN, 2018a).

Intensity modulated radiation therapy (IMRT)

IMRT is not indicated as a standard treatment option and should not be used routinely for the delivery of radiation therapy for skin cancer. IMRT is strictly defined by the utilization of inverse planning modulation techniques. IMRT may be appropriate for limited circumstances in which radiation therapy is indicated and 3D conformal radiation therapy (3D-CRT) techniques cannot adequately deliver the radiation prescription without exceeding normal tissue radiation tolerance, the delivery is anticipated to contribute to potential late toxicity or tumor volume dose heterogeneity is such that unacceptable hot or cold spots are created. If IMRT is utilized, techniques to account for respiratory motion should be performed.

Clinical rationale and documentation for performing IMRT rather than 2D or 3D-CRT treatment planning and delivery will need to:

- Demonstrate how 3D-CRT isodose planning cannot produce a satisfactory treatment plan (as stated above) via the use of a patient specific dose volume histograms and isodose plans. 3D-CRT techniques such as step-and-shoot or field-in-field should be considered for the comparison.

- Confirm the IMRT requested will be inversely planned (forward plans or 'field-in-field' plans are not considered IMRT).

- Provide tissue constraints for both the target and affected critical structures.

Proton Beam Radiation Therapy
Proton beam is not an approved treatment option for skin cancer. Proton beam has not been proven superior treatment to conventional radiation therapy.

Stereotactic Body Radiation Therapy (SBRT)
Stereotactic Body Radiation Therapy is not a standard treatment option for the treatment of skin cancer. A peer review is required with a radiation oncologist.

BACKGROUND:
There are three main types of skin cancer:
- Basal cell carcinoma (BCC)
- Squamous cell carcinoma (SCC)
- Melanoma

BCC and SCC are the most common forms of skin cancer and are collectively referred to as nonmelanoma skin cancers. Nonmelanoma skin cancer is the most commonly occurring cancer in the United States. BCC is the more common type of the two nonmelanoma types, accounting for about three-quarters of nonmelanoma skin cancers. The incidence of nonmelanoma skin cancer appears to be increasing in some areas of the United States. Incidence rates in the United States have likely been increasing for a number of years and at least some of this increase may be attributable to increasing skin cancer awareness and resulting increasing investigation and biopsy of skin lesions.

Melanoma is a malignant tumor of melanocytes, which are the cells that make the pigment melanin and are derived from the neural crest. Melanomas may arise from mucosal surfaces or at other sites to which neural crest cells migrate, including the uveal tract, although most melanomas arise in the skin.

Skin cancer is the most common malignancy diagnosed in the United States, with 3.5 million cancers diagnosed in 2 million people annually and the incidence increasing over the past four decades. Melanoma represents less than 5% of skin cancers but results in most deaths. Elderly men are at highest risk; however, melanoma is the most common cancer in young adults aged 25 to 29 years and the second most common cancer in those aged 15 to 29 years.

POLICY HISTORY:
Review Date: February 2019
Review Summary: Added and updated references

REFERENCES:

American College of Radiology (ACR). ACR Appropriateness Criteria®. Nonmelanomatous skin cancer of the head and neck. https://acsearch.acr.org/docs/3091669/Narrative/. Published 2014. Accessed May 15, 2017.

American College of Radiology (ACR). ACR Appropriateness Criteria®. Non-Spine Bone Metastases. http://www.acr.org/~/media/ACR/Documents/AppCriteria/Oncology/NonSpineBoneMetastases.pdf. Reviewed 2014. Accessed April 25, 2016.

Cancer Care Ontario. Program in Evidenced Based Care. The Role of IMRT in Skin Cancers: Guideline Recommendations. https://www.cancercare.on.ca/common/pages/UserFile.aspx?fileId=87011. October 2010. Accessed April 25, 2016.

National Comprehensive Cancer Network (NCCN). Basal Cell Skin Cancer. Version 1.2018a. https://www.nccn.org/professionals/physician_gls/pdf/nmsc.pdf. Accessed May 3, 2018.

National Comprehensive Cancer Network (NCCN). Melanoma. Version 2. 2018b. https://www.nccn.org/professionals/physician_gls/pdf/melanoma.pdf. Accessed May 3, 2018.

National Comprehensive Cancer Network (NCCN). Squamous Cell Skin Cancer. Version 2.2018c. https://www.nccn.org/professionals/physician_gls/pdf/squamous.pdf. Accessed May 3, 2018.

National Institutes of Health; National Cancer Institute; Melanoma Treatment–Health Professional Version. http://www.cancer.gov/types/skin/hp/melanoma-treatment-pdq. Accessed April 25, 2016.

National Institutes of Health; National Cancer Institute; NCI Dictionary of Cancer Terms. http://www.cancer.gov/publications/dictionaries/cancer-terms?cdrid=634128. Accessed April 25, 2016.

National Institutes of Health; National Cancer Institute; Skin Cancer Treatment–Health Professional Version. http://www.cancer.gov/types/skin/hp/skin-treatment-pdq. Accessed April 25, 2016.

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