



National Imaging Associates, Inc.	
Clinical Guideline: NON-HODGKIN'S LYMPHOMA	Original Date: June 2013
Radiation Oncology	Last Revised Date: April 2019
Guideline Number: NIA_CG_133	Implementation Date: January 2020

INDICATIONS FOR RADIATION THERAPY AND TREATMENT OPTIONS:

Three-dimensional conformal radiation therapy (3D-CRT) or two-dimensional (2D) radiation therapy (2D) is the appropriate technique for treatment of Non-Hodgkin's Lymphomas. The following include radiation dose guidelines for the following lymphomas:

- Follicular lymphoma (24-30 Gy, or 36 Gy if bulky) up to 24 fractions (NCCN, 2018a)
- Mantle cell lymphoma (24-36 Gy) up to 24 fractions (NCCN, 2018a)
- MALT lymphoma – Marginal Zone (24-30 Gy) up to 20 fractions (NCCN, 2018a)
- Diffuse large B cell lymphoma (30-55 Gy) up to 37 fractions (NCCN, 2018a)
- Primary cutaneous anaplastic large cell lymphoma: 24-36 Gy up to 24 fractions (NCCN, 2018d)
- NK/T Lymphoma
 - primary treatment: 50-55 Gy up to 31 fractions
 - combined modality: 45-50.4 Gy up to 28 fractions
 - Localized chronic lymphocytic leukemia (CLL) and Small Lymphocytic Lymphoma (SLL): 24-30 Gy up to 17 fractions
- Palliative dose (up to 10 fractions) for symptom control

Unless otherwise indicated, standard radiation fractionation consists of 1.5 Gy to 2.0 Gy per day. (NCCN, 2018a)

TREATMENT OPTIONS REQUIRING PHYSICIAN REVIEW:

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 non-Hodgkin's lymphoma. 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.

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 patient specific dose volume histograms and isodose plans.
- Provide tissue constraints for both the target and affected critical structures.

Stereotactic Body Radiation Therapy

Stereotactic Body Radiation Therapy (SBRT) is not currently an approved treatment option for the treatment of Non Hodgkin's Lymphoma. Recent studies comparing SBRT conventional radiation therapy are limited.

Proton Beam Radiation Therapy

Proton beam is not an approved treatment option for non Hodgkin's Lymphoma. Proton beam has not been proven superior treatment to conventional radiation therapy.

THE FOLLOWING APPLIES TO CMS (MEDICARE) MEMBERS ONLY:

For Proton Beam and Stereotactic Radiotherapy refer to Local Coverage Determination (LCD), if applicable.

BACKGROUND:

The incidence of non-Hodgkin's lymphomas has increased substantially over the past few decades due to age-related disease. The majority of non-Hodgkin's lymphoma originates in B-lymphocytes (80-85%) with T-lymphocytes comprising 15-20%. Natural killer cell lymphomas are very rare. The classification of non-Hodgkin's lymphoma is based on the cell of origin (large B, large T, or large NK), precursor or mature lymphocytes, as well as genetic, immunophenotype, and clinical features. Radiation therapy is typically delivered to the involved field either alone or in consolidation following chemotherapy. CT-based simulation and 3-dimensional planning is typically advised.

The use of intensity modulated radiation therapy, as well as stereotactic body radiotherapy would be unusual. If requested, this would require peer to peer review to determine medical necessity. For nodal sites, radiation therapy alone or consolidation following chemotherapy should treat the involved field in most cases. Regional/ extended fields are typically not recommended.

POLICY HISTORY:

Review Date: February 2019

Review Summary: Added and updated references

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