

## Non-Hodgkin lymphoma (NHL)

*Non-Hodgkin lymphoma* refers to all types of lymphomas that occur in the lymph nodes, excluding Hodgkin's lymphoma. Typically affecting individuals over the age of 60, around 30 out of every 100,000 people are diagnosed with this disease. NHL comprises about 30 to 40 different diseases, all stemming from abnormal lymphocytes (a type of white blood cell) in the blood. There are two main types of lymphocytes: T cells and B cells, and correspondingly, NHL can be classified into B-NHL and T-NHL.

B lymphomas include Follicular Lymphoma, DLBCL, Mantle Cell Lymphoma, while T-NHL encompasses ALCL, AITL, among others. Individuals with HIV infections are more susceptible to these types of lymphomas. Certain viruses like EBV, HTLV, KSHV, HCV have also been linked to NHL. Common symptoms include enlarged lymph nodes and spleen, along with fever, weight loss, itching, and night sweats.

Diagnosis involves a lymph node biopsy and IHC tests to confirm NHL, followed by a PET-CT SCAN for staging the disease. Additionally, various blood tests, an ECHO test, and CSF test may be required before starting treatment.

Treatment for B-NHL and T-NHL does not differ significantly, with Rituximab being a key drug used in B-NHL treatment. This drug targets CD-20 protein on the

surface of B-NHL cancer cells, leading to their destruction.

Chemotherapy is tailored to the specific type of NHL. Some cases in early stages may not require immediate treatment. PET-CT scans are conducted during chemotherapy to assess its effects. In some cases, chemotherapy drugs are administered via injection into the CSF fluid around the brain to prevent brain involvement. This is called Intrathecal or IT Chemotherapy. Chemotherapy regimens used in treatment of NHL include Bendamustine, CHOP, CVP, DA-EPOCH, DHAP, etc.

Typically, six to eight cycles of chemotherapy are administered, with each cycle lasting 21 to 28 days. The dosage is determined based on the patient's condition and blood test results before each cycle. Some lymphomas may require maintenance therapy or radiotherapy after chemotherapy. In certain cases, Autologous Stem Cell Transplantation is performed after chemotherapy cycles. The treatment plan is decided by a Tumor Board before initiation.

After completing treatments, PET-CT scan is repeated. Then, patients are re-examined every three to six months for five years. Some lymphomas may necessitate 2 to 3 repeat CT scans.

While many lymphomas are completely curable with appropriate treatment, some may not be curable but can

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be managed effectively, enabling patients to lead healthy lives for an extended period.

During treatment, no specific diet is required, but only cooked food should be given due to the high risk of infection in these patients. If any symptoms such as fever, vomiting, stomach pain, diarrhea, sore throat, headache, or pain at the PICC line site occur after chemotherapy, patients should seek immediate medical attention and receive antibiotic injections. Close contact with individuals experiencing fever, cough, or cold should be avoided, and stringent hygiene practices like bathing, teeth brushing, and hand-washing before meals should be followed. Regular intake of Lactulose can help prevent constipation. Delay in chemotherapy treatment should be

avoided. Measures should be taken to prevent pregnancy during treatment due to potential adverse effects on the developing fetus. NHL is not an inherited disease and is not contagious between individuals.

Ongoing research is leading to the discovery of new drugs for NHL treatment, which are tested on patients through Clinical Trials. Patients are encouraged to utilize the opportunity to participate in such clinical trials if available.

For further information about NHL disease beyond what is provided here, patients can seek answers from their treating team of doctors, who will be able to provide appropriate guidance and support.

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