

# Non-Hodgkin lymphoma: diagnosis and management

NICE guideline

Published: 20 July 2016

[www.nice.org.uk/guidance/ng52](https://www.nice.org.uk/guidance/ng52)

## Your responsibility

The recommendations in this guideline represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, professionals and practitioners are expected to take this guideline fully into account, alongside the individual needs, preferences and values of their patients or the people using their service. It is not mandatory to apply the recommendations, and the guideline does not override the responsibility to make decisions appropriate to the circumstances of the individual, in consultation with them and their families and carers or guardian.

All problems (adverse events) related to a medicine or medical device used for treatment or in a procedure should be reported to the Medicines and Healthcare products Regulatory Agency using the [Yellow Card Scheme](#).

Local commissioners and providers of healthcare have a responsibility to enable the guideline to be applied when individual professionals and people using services wish to use it. They should do so in the context of local and national priorities for funding and developing services, and in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities. Nothing in this guideline should be interpreted in a way that would be inconsistent with complying with those duties.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should [assess and reduce the environmental impact of implementing NICE recommendations](#) wherever possible.

# Contents

Overview .....	4
Who is it for? .....	4
Recommendations.....	5
1.1 Diagnosis.....	5
1.2 Staging using fluorodeoxyglucose-positron emission tomography-CT (FDG-PET-CT) .....	7
1.3 Treating follicular lymphoma .....	8
1.4 Treating marginal zone lymphoma.....	12
1.5 Treating mantle cell lymphoma .....	15
1.6 Treating diffuse large B-cell lymphoma .....	18
1.7 Treating Burkitt lymphoma.....	22
1.8 Treating relapsed or refractory high-grade B-cell lymphoma .....	23
1.9 Treating relapsed or refractory primary mediastinal large B-cell lymphoma .....	23
1.10 Treating Waldenstrom's macroglobulinaemia .....	24
1.11 Treating peripheral T-cell lymphoma .....	24
1.12 Information and support.....	25
1.13 Follow-up for people with diffuse large B-cell lymphoma .....	25
1.14 Survivorship.....	26
Recommendations for research .....	27
1 Baseline FDG-PET-CT imaging for people with diffuse large B-cell lymphoma stage 2 or above.....	27
2 Factors predicting outcomes for people with high-grade transformation of follicular lymphoma.....	27
3 Radiotherapy in first-line treatment of diffuse large B-cell lymphoma .....	28
Finding more information and committee details.....	30
Update information .....	31

This guideline is the basis of QS150.

## Overview

This guideline covers diagnosing, staging and managing non-Hodgkin lymphoma (NHL) in people aged 16 years and over. It includes radiotherapy, systemic anticancer therapy and stem cell transplantation treatments for follicular, MALT, mantle cell, diffuse large B-cell, Burkitt and peripheral T-cell lymphoma. It also links to relevant NICE technology appraisal guidance on systemic anticancer therapy for marginal zone, relapsed or refractory high-grade B-cell and relapsed or refractory primary mediastinal large B-cell lymphoma, and Waldenstrom's macroglobulinaemia.

This guideline refers to NHS England commissioning policies. In Wales and Northern Ireland, follow Welsh or Northern Irish commissioning positions if applicable.

Some of the treatment options recommended in the NICE technology appraisal guidance may also be available to young people aged 16 and 17 with NHL under the [NHS England commissioning medicines for children in specialised services policy](#).

## Who is it for?

- Healthcare professionals
- Commissioners and providers
- People aged 16 years and over with non-Hodgkin lymphoma and their families and carers

# Recommendations

People have the right to be involved in discussions and make informed decisions about their care, as described in [NICE's information about shared decision making](#).

[Making decisions using NICE guidelines](#) explains how we use words to show the strength (or certainty) of our recommendations, and has information about prescribing medicines (including off-label use), professional guidelines, standards and laws (including on consent and mental capacity), and safeguarding.

Healthcare professionals should also follow our guidance on:

- [Patient experience in adult NHS services](#)
- [Shared decision making](#)
- [Improving outcomes in haematological cancers](#)
- [COVID-19 rapid guideline on haematopoietic stem cell transplantation](#)
- [Recognition and referral for suspected cancer](#)
- [Care of dying adults in the last days of life](#).

## 1.1 Diagnosis

Malignant lymphoma is an HIV indicator condition, as described in [EuroTEST's HIV indicator conditions](#). Also see [recommendations 1.1.5 and 1.1.8 in the NICE guideline on HIV testing](#).

### Type of biopsy

- 1.1.1 Consider an excision biopsy as the first diagnostic procedure for people with suspected non-Hodgkin lymphoma.

- 1.1.2 Consider a needle core biopsy, taking the maximum number of cores of the largest possible calibre, for people with suspected non-Hodgkin lymphoma when the risk of a surgical procedure outweighs the potential benefits.
- 1.1.3 If a diagnosis is not possible after a needle core biopsy for people with suspected non-Hodgkin lymphoma, offer an excision biopsy (if surgically feasible) in preference to a second needle core biopsy.
- 1.1.4 Pathology departments should ensure that tissue from needle core biopsies is conserved so that further analysis can be done if needed.

### **Diagnosing B-cell lymphomas: gene testing strategies**

- 1.1.5 Consider using fluorescence in situ hybridisation (FISH) to identify an MYC rearrangement in all people newly presenting with histologically high-grade B-cell lymphoma.
- 1.1.6 If an MYC rearrangement is found, use FISH to identify the immunoglobulin partner and the presence of BCL2 and BCL6 rearrangements.

### **Stratifying high-grade B-cell lymphomas using laboratory techniques**

- 1.1.7 Do not use immunohistochemistry to assess the prognostic value associated with cell of origin in people with diffuse large B-cell lymphoma.
- 1.1.8 Interpret FISH results (MYC, BCL2 and BCL6 rearrangements) in the context of other prognostic factors, particularly the person's age and International Prognostic Index (IPI).
- 1.1.9 Explain FISH results and their potential prognostic value to people with B-cell lymphoma.

## 1.2 Staging using fluorodeoxyglucose-positron emission tomography-CT (FDG-PET-CT)

### Confirming staging

- 1.2.1 Offer FDG-PET-CT imaging to confirm staging for people with:
- stage 1 diffuse large B-cell lymphoma by clinical and CT criteria
  - stage 1 or localised stage 2 follicular lymphoma if disease is thought to be encompassable within a radiotherapy field
  - stage 1 or 2 Burkitt lymphoma with other low-risk features.
- 1.2.2 For people with subtypes or stages of non-Hodgkin lymphoma not listed in recommendation 1.2.1, consider FDG-PET-CT imaging to confirm staging if the results will change management.

### Assessing response to treatment for diffuse large B-cell lymphoma

- 1.2.3 Do not routinely offer FDG-PET-CT imaging for interim assessment during treatment for diffuse large B-cell lymphoma.

### End-of-treatment assessment

- 1.2.4 Offer FDG-PET-CT imaging to assess response at completion of planned treatment for people with:
- diffuse large B-cell lymphoma
  - Burkitt lymphoma.
- 1.2.5 For people with subtypes of non-Hodgkin lymphoma not listed in recommendation 1.2.4, do not routinely offer FDG-PET-CT imaging to assess

response at completion of planned treatment unless the results will change management.

- 1.2.6 Consider FDG-PET-CT imaging to assess response to treatment before autologous stem cell transplantation for people with high-grade non-Hodgkin lymphoma.

## 1.3 Treating follicular lymphoma

### First-line treatment for stage 2A follicular lymphoma

- 1.3.1 Offer local radiotherapy as first-line treatment to people with localised, stage 2A follicular lymphoma.
- 1.3.2 Consider 'watch and wait' (observation without therapy) as first-line management for people with stage 2A follicular lymphoma:
- who are asymptomatic and
  - when treatment with a single radiotherapy volume is not suitable.
- 1.3.3 Offer the same treatments that might be offered to people with advanced (stages 3 and 4), symptomatic follicular lymphoma (see the [section on treating advanced, symptomatic follicular lymphoma](#)) to people with stage 2A follicular lymphoma:
- who are symptomatic and
  - when treatment with radiotherapy is not suitable.

### Treating advanced, asymptomatic follicular lymphoma

- 1.3.4 Offer rituximab induction therapy to people with advanced (stages 3 and 4) follicular lymphoma who are asymptomatic.

In June 2026, this was an off-label use of rituximab. See [NICE's information on prescribing medicines](#).

## Treating advanced, symptomatic follicular lymphoma

### All adults

- 1.3.5 Rituximab in combination with chemotherapy is recommended as an option for untreated stage 3 or 4 follicular lymphoma. For full details, see [NICE's technology appraisal guidance on rituximab \(TA243, 2012\)](#).
- 1.3.6 Rituximab maintenance therapy is recommended as an option for treating follicular lymphoma that has responded to first-line induction treatment with rituximab in combination with chemotherapy. For full details, see [NICE's technology appraisal guidance on rituximab \(TA226, 2011\)](#).

Other treatment options may also be available. See the [NHS England Cancer Drugs Fund list](#).

### Adults with a Follicular Lymphoma International Prognostic Index score of 2 or more

- 1.3.7 Obinutuzumab is recommended as an option for untreated advanced follicular lymphoma in adults with a Follicular Lymphoma International Prognostic Index score of 2 or more, as induction treatment with chemotherapy, then alone as maintenance therapy. For full details, see [NICE's technology appraisal guidance on obinutuzumab \(TA513, 2018\)](#).

## Treating advanced, relapsed or refractory follicular lymphoma

### Systemic anticancer therapy

- 1.3.8 Obinutuzumab with bendamustine followed by obinutuzumab maintenance is

recommended as an option for treating follicular lymphoma that has not responded or has progressed up to 6 months after treatment with rituximab or a rituximab-containing regimen. For full details, see [NICE's technology appraisal guidance on obinutuzumab with bendamustine \(TA629, 2020\)](#).

1.3.9 Lenalidomide with rituximab is recommended as an option for previously treated follicular lymphoma (grade 1 to 3A) in adults. For full details, see [NICE's technology appraisal guidance on lenalidomide with rituximab \(TA627, 2020\)](#).

1.3.10 Rituximab with chemotherapy followed by rituximab monotherapy for maintenance is recommended as an option for treating relapsed or refractory stage 3 or 4 follicular lymphoma. For full details, see [NICE's technology appraisal guidance on rituximab \(TA137, 2008\)](#).

1.3.11 Rituximab monotherapy is recommended as an option for treating relapsed or refractory stage 3 or 4 follicular lymphoma, if there is resistance to or intolerance of chemotherapy. For full details, see [NICE's technology appraisal guidance on rituximab monotherapy \(TA137, 2008\)](#).

Other treatment options may also be available. See the [NHS England Cancer Drugs Fund list](#).

## After 2 or more systemic anticancer therapies

1.3.12 Epcoritamab is recommended as an option for treating relapsed or refractory follicular lymphoma after 2 or more lines of systemic treatment. For full details, see [NICE's technology appraisal guidance on epcoritamab \(TA1139, 2026\)](#).

1.3.13 For medicines not recommended for treating relapsed or refractory follicular lymphoma after 2 or more systemic treatments, see NICE's technology appraisal guidance on:

- [mosunetuzumab \(TA892, 2023\)](#)
- [idelalisib \(TA604, 2019\)](#).

## Chimeric antigen receptor T-cell (CAR-T) therapy

- 1.3.14 Lisocabtagene maraleucel is recommended as an option for treating large B-cell lymphoma, including follicular lymphoma grade 3B, that is refractory to, or has relapsed within 12 months after first-line chemoimmunotherapy, in adults for whom an autologous stem cell transplant would be considered suitable. For full details, see [NICE's technology appraisal guidance on lisocabtagene maraleucel \(TA1048, 2025\)](#).
- 1.3.15 Axicabtagene ciloleucel is not recommended for treating relapsed or refractory follicular lymphoma. For full details, see [NICE's technology appraisal guidance on axicabtagene ciloleucel \(TA894, 2023\)](#).

## Consolidation with stem cell transplantation

### Autologous stem cell transplantation

- 1.3.16 Offer consolidation with autologous stem cell transplantation for people with follicular lymphoma in second or subsequent remission (complete or partial) who:
- have not already had a transplant and
  - are fit enough for transplantation.

### Allogeneic stem cell transplantation

- 1.3.17 Consider consolidation with allogeneic stem cell transplantation for people with follicular lymphoma in second or subsequent remission (complete or partial):
- who are fit enough for transplantation and
  - for whom a suitable donor can be found and
  - who had an autologous stem cell transplantation that did not result in remission or cannot have an autologous stem cell transplantation (for example, because stem cell harvesting is not possible).

- 1.3.18 Treosulfan with fludarabine is recommended as an option for conditioning treatment before allogeneic haematopoietic stem cell transplant for people with malignant diseases for whom a reduced intensity regimen, such as low-dose busulfan with fludarabine, would be suitable. For full details, see [NICE's technology appraisal guidance on treosulfan with fludarabine \(TA640, 2020\)](#).

## Treating transformed follicular lymphoma

- 1.3.19 Consider consolidation with autologous stem cell transplantation for people:
- with transformation of previously diagnosed follicular lymphoma that has responded to treatment and
  - who are fit enough for transplantation.
- 1.3.20 Consider consolidation with autologous or allogeneic stem cell transplantation for people:
- with transformation of follicular lymphoma who need more than 1 line of treatment for a response and
  - who are fit enough for transplantation.
- 1.3.21 Do not offer consolidation with high-dose therapy and autologous or allogeneic stem cell transplantation to people with concurrent follicular lymphoma and diffuse large B-cell lymphoma that have responded to first-line treatment.

## 1.4 Treating marginal zone lymphoma

### Gastric mucosa-associated lymphoid tissue (MALT) lymphoma

#### Localised disease

- 1.4.1 Offer 1 or more lines of *Helicobacter pylori* (*H. pylori*) eradication therapy, without any concurrent therapy, to people with *H. pylori*-positive gastric MALT lymphoma

(see [NICE's guideline on gastro-oesophageal reflux disease and dyspepsia in adults](#)).

1.4.2 Consider H. pylori eradication therapy for people with H. pylori-negative gastric MALT lymphoma (see [NICE's guideline on gastro-oesophageal reflux disease and dyspepsia in adults](#)).

1.4.3 Consider 'watch and wait' (observation without therapy), unless high-risk features are present, for people:

- with gastric MALT lymphoma that responds clinically and endoscopically to H. pylori eradication therapy and
- who have residual disease shown by surveillance biopsies of the stomach.

1.4.4 For people with residual MALT lymphoma after H. pylori eradication therapy who are at high risk of progression [H. pylori-negative at initial presentation or t(11:18) translocation], consider:

- chemotherapy (for example, chlorambucil or CVP) in combination with rituximab or
- gastric radiotherapy.

In June 2026, this was an off-label use of rituximab. See [NICE's information on prescribing medicines](#).

1.4.5 For people with progressive gastric MALT lymphoma, offer:

- chemotherapy (for example, chlorambucil or CVP) in combination with rituximab or
- gastric radiotherapy.

In June 2026, this was an off-label use of rituximab. See [NICE's information on prescribing medicines](#).

## Disseminated disease

1.4.6 Offer H. pylori eradication therapy to people with disseminated H. pylori-positive gastric MALT lymphoma (see [NICE's guideline on gastro-oesophageal reflux disease and dyspepsia in adults](#)).

1.4.7 Offer chemotherapy (for example, chlorambucil or CVP) in combination with rituximab to people with disseminated gastric MALT lymphoma who need treatment (for example, people who are symptomatic or with threatened vital organ function).

In June 2026, this was an off-label use of rituximab. See [NICE's information on prescribing medicines](#).

1.4.8 Consider 'watch and wait' (observation without therapy) for people with disseminated gastric MALT lymphoma who:

- are asymptomatic and
- do not have threatened vital organ function.

## Non-gastric MALT lymphoma

1.4.9 For people with non-gastric MALT lymphoma, take into account the following before recommending any treatment:

- site of involvement and potential for organ dysfunction
- whether it is localised or disseminated
- the morbidity associated with any treatment proposed
- the person's overall fitness.

1.4.10 Offer chemotherapy (for example, chlorambucil or CVP) in combination with rituximab to people with non-gastric MALT lymphoma:

- when treatment with radiotherapy is not suitable or

- who have disseminated disease and need treatment.

In June 2026, this was an off-label use of rituximab. See [NICE's information on prescribing medicines](#).

1.4.11 Consider radiotherapy for people with localised disease sites of non-gastric MALT lymphoma at any stage.

1.4.12 Consider 'watch and wait' (observation without therapy) for people:

- with clinically non-progressive, localised non-gastric MALT lymphoma that is unlikely to result in vital organ dysfunction and
- who are asymptomatic and
- when treatment with radiotherapy is not suitable.

## All marginal zone lymphoma

1.4.13 Zanubrutinib is recommended as an option for treating marginal zone lymphoma in adults after at least 1 anti-CD20-based treatment. For full details, see [NICE's technology appraisal guidance on zanubrutinib \(TA1001, 2024\)](#).

Other treatment options may also be available. See the [NHS England Cancer Drugs Fund list](#).

# 1.5 Treating mantle cell lymphoma

## First-line treatment

1.5.1 Offer chemotherapy in combination with rituximab as first-line treatment for people with advanced mantle cell lymphoma who are symptomatic, taking the person's fitness into account when deciding the intensity.

In June 2026, this was an off-label use of rituximab. See [NICE's information on](#)

prescribing medicines.

- 1.5.2 Consider cytarabine-containing immunochemotherapy for people with advanced mantle cell lymphoma who are fit enough to tolerate an intensive approach.

In June 2026, this was an off-label use of cytarabine. See NICE's information on prescribing medicines.

- 1.5.3 Consider radiotherapy for people with localised stage 1 or 2 mantle cell lymphoma.

- 1.5.4 Consider 'watch and wait' (observation without therapy) until disease progression for people with clinically non-progressive mantle cell lymphoma:

- who are asymptomatic and
- when treatment with radiotherapy is not suitable.

- 1.5.5 Bortezomib is recommended as an option for previously untreated mantle cell lymphoma in adults for whom haematopoietic stem cell transplantation is unsuitable. For full details, see NICE's technology appraisal guidance on bortezomib (TA370, 2015).

Other treatment options may also be available. See the NHS England Cancer Drugs Fund list.

## Consolidation with stem cell transplantation

- 1.5.6 Consider consolidation with autologous stem cell transplantation for people:

- with chemosensitive mantle cell lymphoma (that is, there has been at least a partial response to induction chemotherapy) and
- who are fit enough for transplantation.

## Maintenance strategies

1.5.7 Consider maintenance rituximab, every 2 months until disease progression, for people with newly diagnosed mantle cell lymphoma:

- who are not fit enough for high-dose chemotherapy and
- whose disease has responded to R-CHOP-based immunochemotherapy.

In June 2026, this was an off-label use of rituximab. See [NICE's information on prescribing medicines](#).

1.5.8 Consider maintenance rituximab, every 2 months for 3 years, for people with newly diagnosed mantle cell lymphoma who are in remission after cytarabine-based induction and high-dose chemotherapy.

In June 2026, this was an off-label use of rituximab. See [NICE's information on prescribing medicines](#).

## Treating relapsed or refractory mantle cell lymphoma

1.5.9 For medicines recommended as options for treating relapsed or refractory mantle cell lymphoma in adults who have had 1 line of treatment only, see NICE's technology appraisal guidance on:

- [zanubrutinib \(TA1081, 2025\)](#)
- [ibrutinib \(TA502, 2018\)](#).

Other treatment options may also be available. See the [NHS England Cancer Drugs Fund list](#).

## CAR-T therapy

1.5.10 Brexucabtagene autoleucel is recommended as an option through the Cancer Drugs Fund for treating relapsed or refractory mantle cell lymphoma in adults who

have previously had a Bruton's tyrosine kinase inhibitor. For full details, see [NICE's technology appraisal guidance on brexucabtagene autoleucel \(TA677, 2021\)](#).

## 1.6 Treating diffuse large B-cell lymphoma

### First-line systemic anticancer therapy

- 1.6.1 Polatuzumab vedotin with rituximab, cyclophosphamide, doxorubicin and prednisolone is recommended as an option for untreated diffuse large B-cell lymphoma in adults with an IPI score of 2 to 5. For full details, see [NICE's technology appraisal guidance on polatuzumab vedotin \(TA874, 2023\)](#).

### Radiotherapy in first-line treatment

- 1.6.2 Consider consolidation radiotherapy delivering 30 Gy to sites involved with bulk disease at diagnosis for people with advanced diffuse large B-cell lymphoma that has responded to first-line immunochemotherapy. Balance the possible late effects of radiotherapy with the possible increased need for salvage therapy if it is omitted when deciding if the therapy is suitable.

### Central nervous system prophylaxis

- 1.6.3 Explain to people with diffuse large B-cell lymphoma that they have an increased risk of central nervous system lymphoma if the testis, breast, adrenal gland or kidney is affected.
- 1.6.4 Explain to people with diffuse large B-cell lymphoma that they may have an increased risk of central nervous system lymphoma if they meet 2 or more of the following criteria, and that their level of risk increases with the number of factors involved:
- elevated lactate dehydrogenase (LDH)

- age over 60 years
  - poor performance status (ECOG score of 2 or more)
  - more than 1 extranodal site involved
  - stage 3 or 4 disease.
- 1.6.5 Offer central nervous system-directed prophylactic therapy to people with diffuse large B-cell lymphoma:
- that involves the testis, breast, adrenal gland or kidney, or
  - who have 4 or 5 of the factors associated with increased risk of central nervous system relapse listed in recommendation 1.6.4.
- 1.6.6 Consider central nervous system-directed prophylactic therapy for people with diffuse large B-cell lymphoma who have 2 or 3 of the factors associated with increased risk of central nervous system relapse listed in recommendation 1.6.4.

## Treating relapsed or refractory diffuse large B-cell lymphoma

### Systemic anticancer therapy

- 1.6.7 Glofitamab plus gemcitabine and oxaliplatin is recommended as an option for treating relapsed or refractory diffuse large B-cell lymphoma in adults if they have had 1 line of treatment only and are not eligible for an autologous stem cell transplant. For full details, see [NICE's technology appraisal guidance on glofitamab \(TA1113, 2025\)](#).
- 1.6.8 Polatuzumab vedotin with rituximab and bendamustine is recommended as an option for treating relapsed or refractory diffuse large B-cell lymphoma in adults who cannot have a haematopoietic stem cell transplant. For full details, see [NICE's technology appraisal guidance on polatuzumab vedotin \(TA649, 2020\)](#).
- 1.6.9 For medicines recommended as options for treating relapsed or refractory diffuse large B-cell lymphoma in adults after 2 or more systemic treatments, only if they have had polatuzumab vedotin, or if polatuzumab vedotin is contraindicated or

not tolerated, see NICE's technology appraisal guidance on:

- [epcoritamab \(TA954, March 2024\)](#)
- [loncastuximab tesirine \(TA947, January 2024\)](#).

- 1.6.10 Glofitamab is recommended as an option for treating relapsed or refractory diffuse large B-cell lymphoma in adults after 2 or more systemic treatments. For full details, see [NICE's technology appraisal guidance on glofitamab \(TA927, 2023\)](#).
- 1.6.11 Tafasitamab with lenalidomide is not recommended for treating relapsed or refractory diffuse large B-cell lymphoma in adults who cannot have an autologous stem cell transplant. For full details, see [NICE's technology appraisal guidance on tafasitamab \(TA883, 2023\)](#).

## CAR-T therapy

- 1.6.12 Lisocabtagene maraleucel is recommended as an option for treating large B-cell lymphoma, including diffuse large B-cell lymphoma, that is refractory to, or has relapsed within 12 months after first-line chemoimmunotherapy, in adults for whom an autologous stem cell transplant would be considered suitable. For full details, see [NICE's technology appraisal guidance on lisocabtagene maraleucel \(TA1048, 2025\)](#).
- 1.6.13 Axicabtagene ciloleucel is recommended as an option through the Cancer Drugs Fund for treating diffuse large B-cell lymphoma in adults for whom an autologous stem cell transplant is suitable if it has relapsed within 12 months after first-line chemoimmunotherapy or is refractory to first-line chemoimmunotherapy. For full details, see [NICE's technology appraisal guidance on axicabtagene ciloleucel \(TA895, 2023\)](#).
- 1.6.14 Axicabtagene ciloleucel is recommended as an option for treating relapsed or refractory diffuse large B-cell lymphoma in adults after 2 or more systemic therapies. For full details, see [NICE's technology appraisal guidance on axicabtagene ciloleucel \(TA872, 2023\)](#).

## Salvage therapy and consolidation with stem cell transplantation

### Salvage therapy

- 1.6.15 Offer salvage therapy with multi-agent immunochemotherapy to people with relapsed or refractory diffuse large B-cell lymphoma who are fit enough to tolerate intensive therapy, and:
- explain that the aim is to enable consolidation with autologous or allogeneic stem cell transplantation, but it is also beneficial even if not followed by transplantation
  - consider R-GDP immunochemotherapy, which is as effective as other commonly used salvage regimens and less toxic.

### Autologous stem cell transplantation

- 1.6.16 Offer consolidation with autologous stem cell transplantation to people:
- with chemosensitive diffuse large B-cell lymphoma (that is, there has been at least a partial response to chemotherapy) and
  - who are fit enough for transplantation.

### Allogeneic stem cell transplantation

- 1.6.17 Consider consolidation with allogeneic stem cell transplantation:
- for people with chemosensitive diffuse large B-cell lymphoma (that is, there has been at least a partial response to chemotherapy) that relapses after autologous stem cell transplantation or
  - when stem cell harvesting is not possible.
- 1.6.18 Treosulfan with fludarabine is recommended as an option for conditioning treatment before allogeneic haematopoietic stem cell transplant for people with malignant diseases for whom a reduced-intensity regimen, such as low-dose

busulfan with fludarabine, would be suitable. For full details, see [NICE's technology appraisal guidance on treosulfan with fludarabine \(TA640, 2020\)](#).

## 1.7 Treating Burkitt lymphoma

### First-line treatment

- 1.7.1 Offer intensive immunochemotherapy to people with Burkitt lymphoma who are fit enough to tolerate it.
- 1.7.2 If intensive immunochemotherapy will be offered to a person with Burkitt lymphoma, consider using one of the following:
- R-BFM
  - R-CODOX-M/R-IVAC
  - R-HyperCVAD (HDMTX)
  - R-LMB.
- 1.7.3 For people with low-risk Burkitt lymphoma, consider using the less intensive DA-EPOCH-R regimen with intravenous methotrexate, intrathecal methotrexate or both.
- 1.7.4 Offer less intensive immunochemotherapy to people with Burkitt lymphoma who are not fit enough to tolerate intensive chemotherapy.
- 1.7.5 If less intensive immunochemotherapy will be offered to a person with Burkitt lymphoma, consider using one of the following, alone or with intravenous methotrexate, intrathecal methotrexate or both:
- R-CHOP
  - R-CHEOP
  - DA-EPOCH-R.

## 1.8 Treating relapsed or refractory high-grade B-cell lymphoma

- 1.8.1 Loncastuximab tesirine is recommended as an option for treating relapsed or refractory high-grade B-cell lymphoma in adults after 2 or more systemic treatments, only if they have had polatuzumab vedotin, or if polatuzumab vedotin is contraindicated or not tolerated. For full details, see [NICE's technology appraisal guidance on loncastuximab tesirine \(TA947, 2024\)](#).

Other treatment options may also be available. See the [NHS England Cancer Drugs Fund list](#).

### CAR-T therapy

- 1.8.2 Lisocabtagene maraleucel is recommended as an option for treating large B-cell lymphoma, including high-grade B-cell lymphoma, that is refractory to or has relapsed within 12 months after first-line chemoimmunotherapy, in adults for whom an autologous stem cell transplant would be considered suitable. For full details, see [NICE's technology appraisal guidance on lisocabtagene maraleucel \(TA1048, 2025\)](#).

## 1.9 Treating relapsed or refractory primary mediastinal large B-cell lymphoma

### CAR-T therapy

- 1.9.1 Lisocabtagene maraleucel is recommended as an option for treating large B-cell lymphoma, including primary mediastinal large B-cell lymphoma, that is refractory to or has relapsed within 12 months after first-line chemoimmunotherapy, in adults for whom an autologous stem cell transplant would be considered suitable. For full details, see [NICE's technology appraisal guidance on lisocabtagene maraleucel \(TA1048, 2025\)](#).

- 1.9.2 Axicabtagene ciloleucel is recommended as an option for treating relapsed or refractory primary mediastinal large B-cell lymphoma in adults after 2 or more systemic therapies. For full details, see [NICE's technology appraisal guidance on axicabtagene ciloleucel \(TA872, 2023\)](#).

Other treatment options may also be available. See the [NHS England Cancer Drugs Fund list](#).

## 1.10 Treating Waldenstrom's macroglobulinaemia

- 1.10.1 Zanubrutinib is recommended as an option for treating Waldenstrom's macroglobulinaemia in adults who have had at least 1 treatment, only if bendamustine plus rituximab is also suitable. For full details, see [NICE's technology appraisal guidance on zanubrutinib \(TA833, 2022\)](#).
- 1.10.2 Ibrutinib is not recommended for treating Waldenstrom's macroglobulinaemia in adults who have had at least 1 previous therapy. For full details, see [NICE's technology appraisal guidance on ibrutinib \(TA795, 2022\)](#).

## 1.11 Treating peripheral T-cell lymphoma

### First-line treatment

- 1.11.1 Consider CHOP chemotherapy as first-line treatment for people with peripheral T-cell lymphoma.

### Consolidation therapy

- 1.11.2 Consider consolidation with autologous stem cell transplantation for people:
- with chemosensitive peripheral T-cell lymphoma (that is, there has been at least a partial response to first-line chemotherapy) and

- who are fit enough for transplantation.

## 1.12 Information and support

- 1.12.1 If 'watch and wait' (observation without therapy) is suggested for a person with non-Hodgkin lymphoma:
- explain to them (and their family members or carers, as appropriate) what this involves and why it is being advised
  - address any increased anxiety that results from this approach.
- 1.12.2 Explain to people with low-grade non-Hodgkin lymphoma (and their family members or carers, as appropriate) the possibility of transformation to high-grade lymphoma.
- 1.12.3 Ensure that people with non-Hodgkin lymphoma have:
- a named key worker at diagnosis and during treatment and
  - contact details for the specialist team after treatment.
- 1.12.4 Discuss exercise and lifestyle with people with non-Hodgkin lymphoma from diagnosis onwards.

## 1.13 Follow-up for people with diffuse large B-cell lymphoma

- 1.13.1 For people in complete remission after first-line treatment with curative intent for diffuse large B-cell lymphoma:
- offer regular clinical assessment
  - consider stopping regular clinical assessment aimed at detecting relapse 3 years after completing treatment for people in ongoing complete remission
  - offer urgent appointments to people who experience a recurrence of

lymphoma symptoms or new symptoms that suggest disease relapse

- do not offer LDH surveillance for detecting relapse
- do not offer routine surveillance imaging (including chest X-ray, CT and PET-CT) for detecting relapse in people who are asymptomatic.

## 1.14 Survivorship

- 1.14.1 Give people with non-Hodgkin lymphoma and their GPs end-of-treatment summaries, and discuss with them their personal and general risk factors, including late effects related to their lymphoma subtype or its treatment.
- 1.14.2 Give people with non-Hodgkin lymphoma when they complete treatment information about how to recognise possible relapse and late effects of treatment.
- 1.14.3 Consider switching surveillance of late effects of treatment to nurse-led or GP-led services 3 years after a person with non-Hodgkin lymphoma completes a course of treatment.

## Recommendations for research

The guideline committee has made the following recommendations for research.

### **1 Baseline FDG-PET-CT imaging for people with diffuse large B-cell lymphoma stage 2 or above**

In people with diffuse large B-cell lymphoma stage 2 or above, does a baseline FDG-PET-CT scan have any advantages over a baseline CT scan in the correct interpretation of the end-of-treatment FDG-PET-CT scan?

#### **Why this is important**

A number of consensus-based guidelines and a body of clinical opinion advocate baseline FDG-PET-CT imaging as being important for interpreting end-of-treatment response using FDG-PET-CT, although there is little published evidence for this. Baseline FDG-PET-CT is also considered to have an important contribution 'over and above' that of contrast-enhanced diagnostic CT in assigning the International Prognostic Index (IPI), in terms of identifying disease stage and number of extranodal sites involved (influencing the decision to offer central nervous system prophylaxis). A prospective trial is needed to determine whether baseline FDG-PET-CT is needed to interpret end-of-treatment FDG-PET-CT and its role in assigning IPI. People with newly histologically diagnosed diffuse large B-cell lymphoma would have baseline contrast-enhanced CT, baseline FDG-PET-CT and end-of-treatment FDG-PET-CT imaging. Readers would need to be trained in both imaging techniques and be experienced members of lymphoma multidisciplinary teams. The reference standard would be histological confirmation of any positive or equivocal end-of-treatment FDG-PET-CT findings, or follow up if there is a negative end-of-treatment scan.

### **2 Factors predicting outcomes for people with high-grade transformation of follicular lymphoma**

In people with high-grade transformation of follicular lymphoma, which biological and clinical factors predict good outcomes with immunochemotherapy alone?

## Why this is important

Before rituximab, it was accepted that high-grade transformation of follicular lymphoma to diffuse large B-cell lymphoma meant a poor prognosis. Recent data suggests that although transformation remains an important clinical event, outcomes have improved. It is unclear which people are likely to do well with conventional treatment (such as R-CHOP) and which people may benefit from intensive treatment with, for example, high-dose therapy and autologous stem cell transplantation. Many factors are likely to influence an outcome, including clinical factors (such as age, stage at transformation and extranodal involvement at transformation), radiological findings (such as early improvement of disease identified using an interim FDG-PET-CT scan) and molecular factors (such as certain driver mutations present at transformation, the presence of MYC translocation and response of circulating tumour DNA to treatment). A better understanding of which factors are associated with high-risk or low-risk disease would enable therapy to be tailored to the person's needs, reducing unnecessary toxicity for people at low risk and reserving intensive therapy for people at high risk. Outcomes of interest include progression-free survival and overall survival in subgroups defined by clinical factors, radiological findings and molecular analyses.

## 3 Radiotherapy in first-line treatment of diffuse large B-cell lymphoma

In people presenting with diffuse large B-cell lymphoma and sites of bulky disease, are outcomes improved by radiotherapy to those sites following a full course of chemotherapy?

### Why this is important

The role of radiotherapy to sites of original bulky disease in treating diffuse large B-cell lymphoma is uncertain. Some clinical teams will consider radiotherapy in this setting while others will not because of concerns about morbidity and late effects of treatment. In a recent randomised trial of chemotherapy in people over 60 years old with diffuse large B-cell lymphoma, people having radiotherapy were identified and compared with a cohort having no radiotherapy. Significant improvements in event-free, progression-free and overall survival were seen in the group having radiotherapy. These results have encouraged some teams to reconsider radiotherapy for bulky diffuse large B-cell lymphoma. A definitive randomised trial is needed to address this question. Outcomes of

interest include overall survival, disease-free survival, progression-free survival, treatment-related mortality, treatment-related morbidity, health-related quality of life, patient satisfaction, patient preference and overall response rate (complete or partial remission).

## Finding more information and committee details

To find NICE guidance on related topics, including guidance in development, see the [NICE topic pages on blood and bone marrow cancers](#) and [complications of cancer](#).

For full details of the evidence and the guideline committee's discussions, see the [full guideline](#). You can also find information about [how the guideline was developed](#), including details of the committee.

NICE has produced [tools and resources to help you put this guideline into practice](#). For general help and advice on putting our guidelines into practice, see [resources to help you put NICE guidance into practice](#).

# Update information

## Minor changes since publication

**June 2026:** We added links to relevant technology appraisal guidance in the [sections on treating follicular lymphoma, marginal zone lymphoma, mantle cell lymphoma, diffuse large B-cell lymphoma, relapsed or refractory high-grade B-cell lymphoma, relapsed or refractory primary mediastinal large B-cell lymphoma and Waldenstrom's macroglobulinaemia](#). We also simplified the guideline by removing recommendations on general principles of care that are covered in other NICE guidelines.

**October 2021:** We added links to [EuroTEST's HIV indicator conditions](#) and NICE's guideline on HIV testing to section 1.1 on diagnosis. See the [surveillance report on HIV indicator conditions](#) for more information.

ISBN: 978-1-4731-1963-5