Instructions for LYM Pre-Infusion (2018)

This section of the CIBMTR Forms Instruction Manual is intended to be a resource for completing the LYM Pre-Infusion.

LYM Pre-Infusion

Complete this form for recipients whose primary disease, reported on the Disease Classification (2402) Form, is Hodgkin Lymphoma (HL) or non-Hodgkin Lymphoma (NHL). One exception is Waldenstrom's macroglobulinemia / lymphoplasmacytic lymphoma, for which, a Waldenstrom's Macroglobulinemia (2019) Form will be completed instead.

Acute Lymphoblastic Leukemia / Lymphoma
Due to the aggressive nature of precursor B- and precursor T-cell lymphoblastic lymphoma (or lymphoma/leukemia), the primary disease to report for recipients with these malignancies should be acute lymphoblastic leukemia (B- lymphoblastic leukemia/lymphoma or early T-cell precursor lymphoblastic leukemia). If the recipient's primary disease is acute lymphoblastic lymphoma, complete an ALL Pre-Infusion Data Form (Form 2011). Do not complete a LYM Pre-Infusion Data Form (Form 2018).

Links to sections of form:

Manual Updates:

Sections of the Forms Instruction Manual are frequently updated. The most recent updates for the current manual version can be found below. For additional information, select the manual section and review the updated text.

To review the historical Manual Change History for this manual, reference the retired manual section on the Retired Forms Manuals webpage.

Date	Manual Section	Add/Remove/Modify	Description
12/12/2025	LYM Pre-Infusion (2018)	Modify	Version 6 of the 2018: LYM Pre-Infusion section of the Forms Instructions Manual released. Version 6 corresponds to revision 7 of the Form 2018.

Key Field

Is this the report of a second or subsequent transplant or cellular therapy for the same disease?

Indicate if the reporting of this infusion is of a subsequent infusion for the same disease subtype.

Report **No** in any of the following scenarios:

- This is the first infusion reported to the CIBMTR;
- This is the first infusion given to treat the recipient's current disease; or
- This is a second or subsequent infusion for the same disease and this baseline disease insert was not completed for the previous transplant (e.g., recipient was on TED track for the prior infusion, prior infusion was autologous with no consent, etc.).

If this is a report of a subsequent infusion for the same disease and this baseline lymphoma disease insert was completed previously, report **Yes** and continue with *Disease Assessment at Transformation.*

Section Updates

Question Number	Date of Change	Add/Remove/Modify	Description	Reasoning (if applicable)

Q1 – 55: Disease Assessment at Diagnosis

Follicular Lymphoma Grade Progression
Follicular lymphoma may progress to a more severe grade prior to infusion (i.e., follicular lymphoma grade I to follicular lymphoma grade II); however, progression of the grade of follicular lymphoma should not be reported as a transformation. In cases where the follicular grade progresses, report the *initial* follicular lymphoma grade as the disease histology at diagnosis and report **No**, there was not a transformation – the follicular grade after progression will not be captured on the Lymphoma Pre-Infusion (2018) Form.

Composite Lymphoma
If a recipient is diagnosed with a composite lymphoma (i.e., a combination of Hodgkin lymphoma and non-Hodgkin lymphoma), it is important to determine the primary disease for infusion with the physician. If the primary disease for infusion is **Hodgkin lymphoma**, report that as the lymphoma histology at diagnosis and the non-Hodgkin lymphoma as a prior malignancy on the Pre-TED (2400) Form. If the primary disease for infusion is **non-Hodgkin lymphoma**, report that as the lymphoma histology at diagnosis and the Hodgkin lymphoma as a prior malignancy on the Pre-TED (2400) Form. Do not report there was a disease transformation.

Question 1-2: Specify the lymphoma histology *(at diagnosis)*

Report the lymphoma histology identified at diagnosis. If the recipient has multiple types of lymphoma at diagnosis, seek physician clarification to determine the primary disease at diagnosis.

If the histology at diagnosis is **Other B-cell lymphoma** or **Other T-cell / NK-cell lymphoma**, specify the histology.

Transformations
If the recipient had CLL which transformed into DLBCL (Richter's transformation) or Hodgkin lymphoma (HL), report the DLBCL or HL histology as the histology at diagnosis and the transformation from CLL in *Disease Assessment at Transformation*. If a transformation from CLL occurred, complete the CLL Pre-Infusion (2013) Form.

If there was a transformation, report the least aggressive lymphoma histology at diagnosis and the most aggressive lymphoma as a transformation below.

Question 3: Assignment of DLBCL (germinal center B-cell type vs. Activated B-cell type) subtype was based on

If the histology at diagnosis is **Diffuse, large B-cell lymphoma - Germinal center B-cell subtype** or **Diffuse, large B-cell lymphoma - Activated B-cell subtype** (non-GCB), report the method(s) used to confirm the histology at diagnosis.. If the method of diagnosis is not clear from the available documentation, report **Unknown method**.

Question 4: Was documentation submitted to the CIBMTR? *(e.g., path report from diagnosis*

Indicate whether documents were attached to support the reported histology at diagnosis. Attaching pathology reports at diagnosis in FormsNet3^{SM} may prevent future data queries. For further instructions on how to attach documents in FormsNet3^{SM}, refer to the Training Guide.

Question 5: Were immunohistochemical stains obtained? *(at diagnosis, prior to any transformation)*

Immunohistochemical staining (IHC) is a process where tissue samples are treated with antibodies and dye. The antibodies bind to specific antigens on the surfaces of the cells, allowing for the identification of those cell surface markers under microscopy. Testing is often documented in the pathology report from the tissue sample, on which IHC was used.

Indicate if IHC was completed at diagnosis.

Questions 6 – 24: Immunohistochemical stain results

Testing may be performed on multiple sample types at diagnosis. Report testing performed on samples taken from the node / mass, if available. If IHC was not done on the node / mass or the results are not known, report testing performed on the bone marrow instead. If IHC results are unclear as this information may be documented differently across hospitals / laboratories, consult a physician.

For each marker, specify if the results were **Positive**, **Negative**, or **Unknown** based on the IHC results at diagnosis. If the report documents “dim” for a specific marker, report this as **Positive**.

Report **Unknown** for markers which were not tested or were tested, but the results are not known.

If **Positive** is reported for any of the markers listed below, indicate whether the percent of cells positive for this marker (as determined by IHC) is known. If **Known**, report the percent of cells positive for the specified marker.

- BCL-2
- BCL-6
- C-MYC

- Ki-67

If the percentage is documented as a range, report the average. If the percent is documented as less than a specified percent, report the percent specified minus one (e.g., report < 10% as 9%). If the percentage is documented as more than a specified percent, report the percent specified plus one. (e.g., report > 90% as 91%).

Question 25: Were cytogenetics tested (karyotyping or FISH)?

Cytogenetics is the study of chromosomes. This assessment involves testing blood or bone marrow for known chromosomal abnormalities that reflect the recipient's disease. For more information about cytogenetic testing and terminology, see Appendix C: Cytogenetics.

Indicate whether cytogenetic studies were performed at diagnosis. Do not report any testing performed after treatment was started for the disease histology reported above.

Questions 26 – 27: Were cytogenetics tested via FISH?

Specify if FISH studies were performed at diagnosis and specify if abnormalities were detected.

If FISH studies were not performed at diagnosis, unknown if completed, or if FISH samples were inadequate or the results 'failed', report **No**.

Report chromosomal microarrays / chromosomal genomic arrays as FISH assessments.

See Appendix C: Cytogenetics, for assistance interpreting FISH results.

Questions 28 – 49: Specify FISH abnormalities

For each abnormality specify if it was detected via FISH at diagnosis.

- Report **Yes** if the abnormality was detected at diagnosis
- Report **No** if the abnormality was assessed and not detected at diagnosis
- Report **Not done** if the abnormality was not assessed or could not successfully be performed at diagnosis

If a clonal abnormality is detected, but not listed as an option, select **Yes** for *Other abnormality* and specify the abnormality. If multiple other abnormalities were detected, report "see attachment" and attach the final report(s) for any other abnormalities detected.

For further instructions on how to attach documents in FormsNet3SM, refer to the Training Guide.

Question 50: Was documentation submitted to the CIBMTR? *(e.g., FISH report)*

Indicate if the FISH report is attached to support the findings reported above.

For further instructions on how to attach documents in FormsNet3SM, refer to the Training Guide.

Questions 51 – 52: Were cytogenetics tested via karyotyping?

Specify if karyotyping was performed at diagnosis and specify if abnormalities were detected. If karyotyping failed or the sample was inadequate, select **Yes** and specify the results as **No evaluable metaphases**.

If karyotyping was not performed at diagnosis or unknown if completed, report **No**.

See Appendix C: Cytogenetics, for assistance interpreting karyotype results.

Questions 53 – 54: Specify karyotype abnormalities *(check all that apply)*

Select all abnormalities detected by karyotyping at diagnosis. If a clonal abnormality is detected, but not listed as option, select **Other abnormality** and specify the abnormality. If multiple other abnormalities were detected, report "see attachment" and attach the final report(s) for any other abnormalities detected.

For further instructions on how to attach documents in FormsNet3SM, refer to the Training Guide.

Question 55: Was documentation submitted to the CIBMTR? *(e.g., karyotyping report)*

Indicate if the karyotyping report is attached to support the findings reported above.

For further instructions on how to attach documents in FormsNet3SM, refer to the Training Guide.

Section Updates

Question Number	Date of Change	Add/Remove/Modify	Description	Reasoning (if applicable)

Q56 – 68: Laboratory Studies at Diagnosis

Laboratory Studies at Diagnosis
The laboratory studies at diagnosis questions will be enabled / disabled in FormsNet3^{SM} based on the histology identified at diagnosis, as reported above.

Questions 56 – 68: Laboratory studies at diagnosis

For each laboratory study, indicate if the test result was known at the time of diagnosis. If **Known**, report the result and the unit of measure, if applicable.

All report lab values from diagnosis must reflect testing performed prior to any treatment for the histology at diagnosis as specified above. If testing was not performed near the time of diagnosis (within approximately 30 days) and prior to the initiation of treatment, report **Unknown**.

- **WBC** *(mantel cell and all Hodgkin histologies)*: The white blood cell count is a value that represents all of the white blood cells in the blood. If the count is too high or too low, the ability to fight infection may be impaired.
- **Hemoglobin** *(follicular and all Hodgkin histologies)*: Hemoglobin is a molecule in red blood cells that delivers oxygen to tissues throughout the body. A low hemoglobin count is considered “anemia” and blood transfusions or growth factors may be required to increase the hemoglobin level.
- **Absolute lymphocyte count** *(all Hodgkin histologies)*: The total number of lymphocytes, a subtype of white blood cells.
- **Lymphocytes** *(percentage) (all Hodgkin histologies)*: Lymphocytes are another subtype of white blood cell that fights infection. The value on the laboratory report may be a percentage of an absolute value. If an absolute value is reported, divide it by the white blood cell count for a percentage.
- **Serum albumin** *(all Hodgkin histologies)*: Serum albumin is a protein found in the blood. Levels are most often reported on a chemistry panel but may occasionally be found in a separate liver function test report.
- **LDH** *(all histologies)*: Lactate dehydrogenase is an enzyme found in the cytoplasm of almost all tissues, which converts L-lactate into pyruvate, or pyruvate into L-lactate depending on the oxygen level. If **Known**, also specify the upper limit of normal.

Section Updates

Question Number	Date of Change	Add/Remove/Modify	Description	Reasoning (if applicable)

Q69 – 81: Assessment of Nodal and Organ Involvement at Diagnosis

Diagnostic Assessments
All values reported must reflect testing / evaluations performed prior to any treatment for the histology at diagnosis as specified above. If testing / evaluation was not done near the time of diagnosis (within approximately 30 days) and prior to the initiation of treatment, report **Unknown**.

Questions 69 – 70: Was a PET (or PET/CT) scan performed?

Positron Emission Tomography (PET) is a type of nuclear medicine imaging in which a patient receives a small amount of radioactively labeled sugar. Because cancer cells absorb sugar more avidly than other cells of the body, the radioactively labeled sugar accumulates in these areas and reveals tumors as bright spots. A PET/CT combines the results of the PET scan along with the results of a CT (computed tomography) scan.

Specify if a PET (or PET/CT) scan was performed at diagnosis. If **Yes**, indicate whether the scan was positive for lymphoma. Consult a physician if the report is unclear.

If a PET or (PET/CT) scan was not performed at diagnosis or is unknown, report **No**.

Question 71: Did the recipient have known nodal involvement?

Nodal involvement may be assessed by a physician palpating lymph nodes, pathology from a lymph node biopsy, or radiological assessment (e.g., PET or CT imaging).

Indicate if nodal involvement was detected at diagnosis. If nodal involvement was not detected, or it is unknown if detected, report **No**.

Question 72: Specify total number of nodal regions involved *(excluding follicular)*

Lymph node regions or groups occur above and below the diaphragm. Nodal regions include cervical (neck), axillary (underarm), mediastinal (thoracic), mesenteric (abdominal), para-aortic (pelvic), inguinal (groin), epitrochlear (inside of arm just above elbow), and popliteal (back of knee). Indicate the total number of nodal regions with evidence of lymphoma involvement. Refer to Graphic 1. Nodal Areas below for identification of nodal areas and specific nodes within each area.

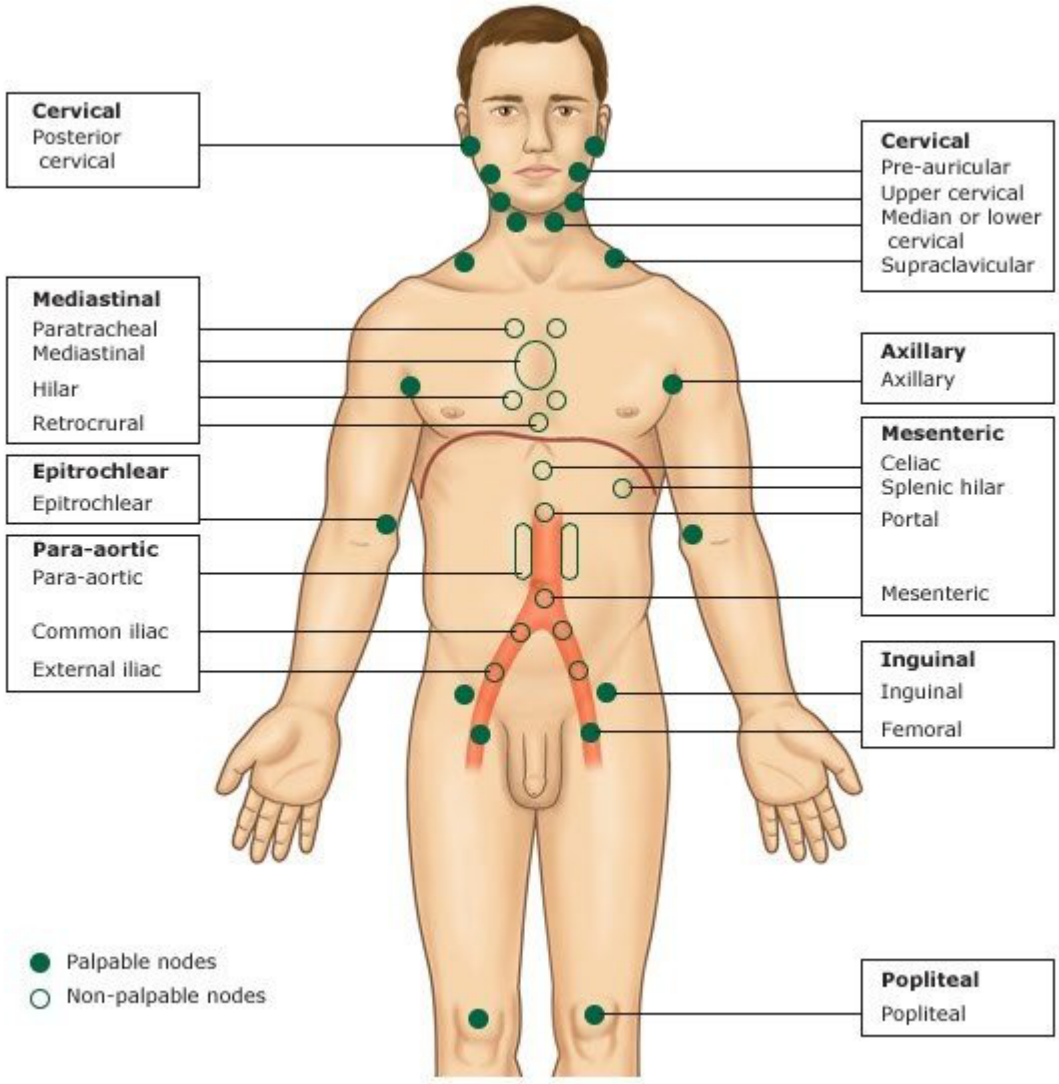
Specify the total number of nodal regions involved at diagnosis.

Question 73: Specify total number of nodal regions involved *(follicular only)*

Lymph node regions or groups occur above and below the diaphragm. Nodal regions include cervical (neck), axillary (underarm), mediastinal (thoracic), mesenteric (abdominal), para-aortic (pelvic), inguinal (groin), epitrochlear (inside of arm just above elbow), and popliteal (back of knee). Indicate the total number of nodal regions with evidence of lymphoma involvement. Refer to Graphic 1. Nodal Areas below for identification of nodal areas and specific nodes within each area.

Specify the total number of nodal regions involved at diagnosis.

Graphic 1. Nodal Areas[1]



[1] "Lymphadenopathy." Web log post. Horses and Zebras. Morning Report at Toronto General Hospital, 20 July 2010. Accessed on 9/22/2013 at http://morningreporttgh.blogspot.com/2010/07/lymphadenopathy.html

Question 74: Specify the size of the largest nodal mass

Report the size of the largest known nodal mass at diagnosis (as measured in centimeters). If the mass is given in three dimensions (example, 3 cm x 5 cm x 4 cm), report the longest two dimensions.

Question 75: Was there any known extranodal or splenic involvement? *(at diagnosis, prior to any transformation)*

Extranodal refers to the presentation of lymphoma outside of the lymph nodes. Common areas of extranodal involvement may include bone, gastrointestinal tract, and skin.

Splenic involvement in lymphoma is also common. It is usually evidenced by enlargement of the spleen (splenomegaly). Splenic or other extranodal involvement is most often detected by imaging techniques or pathological findings.

Specify if extranodal or splenic involvement was identified at diagnosis.

Questions 76 – 77: Specify site(s) of involvement *(check all that apply)*

Specify all sites with known lymphomatous involvement at diagnosis. Clarifications on some of the available option values are found below:

- **Adrenal**: The adrenals gland are small glands that sit on the top of each kidney and product hormones including sex hormones and cortisol. Select this option if there was lymphomatous involvement of or derived from the adrenal glands or their secretions.
- **Cerebrospinal fluid (CSF)**: A clear, colorless body fluid found in the brain and spinal cord that is produced by specialized ependymal cells.
- **Epidural space**: The epidural space is an anatomic space that is the outermost part of the spinal canal. The epidural space contains lymphatics, spinal nerve roots, loose fatty tissue, small arteries, and a network of internal vertebral venous plexuses.
- **Gastrointestinal (GI) tract**: Any of the organs that food and liquids travel through when they are swallowed, digested, absorbed, and leave the body as feces. These organs include the mouth, pharynx, esophagus, stomach, small intestine, large intestine, rectum, and anus.
- **Pericardium**: Of or pertaining to the membrane enclosing the heart that consists of an outer fibrous later and an inner double layer of serous membrane.
- **Pleura**: The delicate serous membrane that lines each half of the thorax of mammals and is folded back over the surface of the lung of the same side. The

function of the pleura is to allow optimal expansion and contraction of the lungs during breathing.
- **Skin**: Of or pertaining to the outer or surrounding layer of the skin (epidermis).
- **Spleen**: Of or pertaining to the abdominal organ involved in the product and removal of blood cells.

If an involved site was documented but is not listed as an option, check **Other site** and report all other sites of lymphomatous involvement at diagnosis.

Question 78: Stage of organ involvement

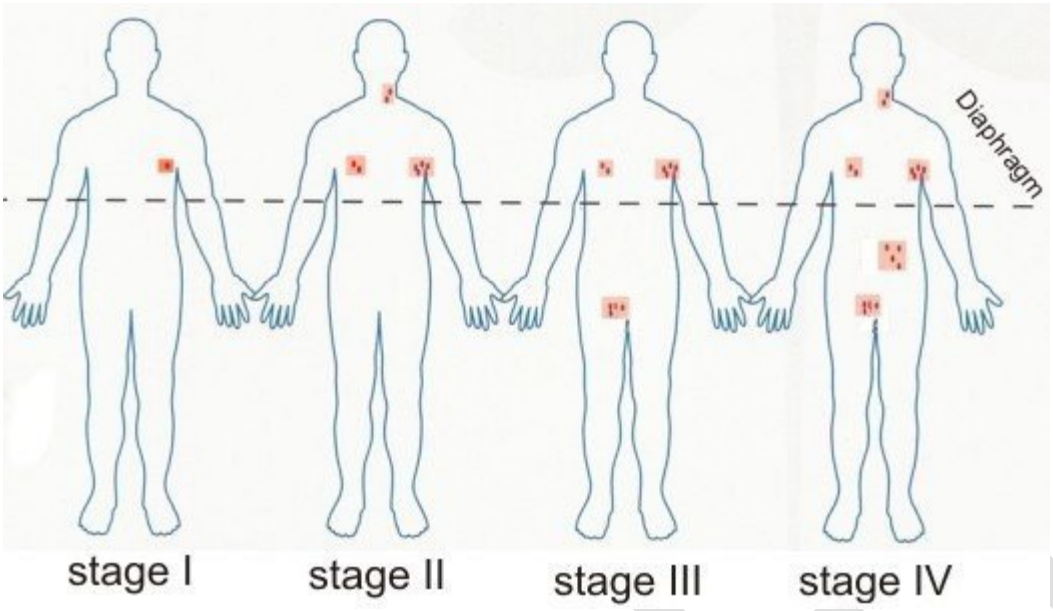
Using Table 1. Lymphoma Staging below, report the organ involvement at diagnosis.

If staging at diagnosis is not available or not known, select **Unknown**.

Table 1. Lymphoma Staging

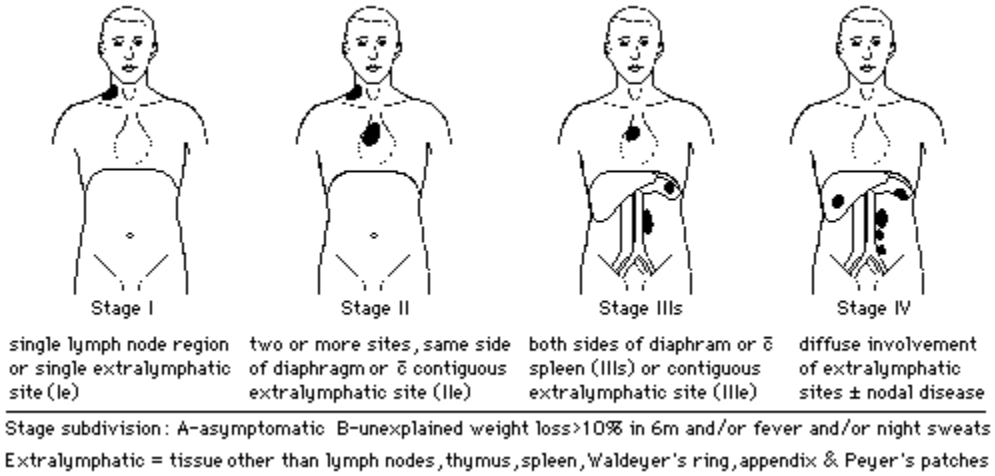
Stage	Description
Stage I	Involvement of a single lymph node region or of a single extralymphatic organ or site
Stage II	Involvement of two or more lymph node regions on same side of diaphragm, or localized involvement of an extralymphatic organ or site, and one or more lymph node regions on same side of diaphragm
Stage III	Involvement of lymph node regions on both sides of diaphragm, which may also be accompanied by localized involvement of extralymphatic organ or site, the spleen, or both
Stage IV	Diffuse or disseminated involvement of one or more extralymphatic organs in tissues with or without associated lymph node enlargement/involvement

Graphic 2. Lymphoma Staging[2]



[2] "Staging Lymphomas." Patients Against Lymphoma. 05 May 2013. Accessed on 9/22/2013 at http://www.lymphomation.org/stage.htm.

Graphic 3. Staging Classification[3]



[3] "Ann Arbor" Staging Classification," "Lymphoma: Clinical- Hodgkin's Lymphoma." Pathology Tool. University of Virginia Medical School. 02 May 2012. Accessed 9/22/2013 at http://www.med-ed.virginia.edu/courses/path/innes/wcd/hodgclinic.cfm.

Question 79: Were systemic symptoms (B symptoms) present? *(unexplained fever < 38° C; or night sweats; unexplained weight loss > 10% body weight in six months before diagnosis)*

Systemic symptoms, also known as "B" symptoms, are defined as follows:

- unexplained fever > 38° C (100.4°F)
- night sweats
- unexplained weight loss of > 10% of body weight over 6 months

Evidence of systemic symptoms is significant because it may indicate the presence of disease in parts of the body not identified using standard testing methods. The presence or absence of systemic symptoms may be indicated in the staging (e.g., II-B or II-A).

Indicate if there was evidence of systemic symptoms at diagnosis.

If documentation is not clear or is not available to determine if systemic symptoms were present at diagnosis or prior to first therapy, select **Unknown**.

Questions 80 – 81 : ECOG score *(at diagnosis)*

Recipient performance status is a critical data field that has been determined to be essential for all outcome-based studies. If a performance score is not documented in the source documentation (e.g., inpatient progress note, physician's clinic notes), data management professionals should not assign a performance score based on analysis of available documents. Rather, a physician should provide documentation of the performance score. Documentation from an RN who has been trained and authorized to determine performance scores may also be used.

If the performance score has been documented using Karnofsky or Lansky scales, refer to Appendix L: Karnofsky / Lansky Performance Status for assistance converting the score to the ECOG scale.

Report whether the recipient's ECOG score at diagnosis is known and report the score, if applicable.

Section Updates

Question Number	Date of Change	Add/Remove/Modify	Description	Reasoning (if applicable)

Q82 – 139: Disease Assessment at Transformation

Disease Assessments at Transformation
If this a report of a subsequent infusion and:
1. The prior infusion was an autologous transplant that was not reported, *and* a

transformation occurred at any time between diagnosis and the current infusion, complete the *Disease Assessments at Transformation* section; or
2. A prior Lymphoma Pre-Infusion (2018) form was not completed, *and* a transformation occurred at any time between diagnosis and the current infusion, complete the *Disease Assessments at Transformation section*; or
3. A prior Lymphoma Pre-Infusion (2018) form was completed, *and* the transformation was previously reported, skip the *Disease Assessments at Transformation* section

Question 82: Is the lymphoma histology reported at diagnosis a transformation from CLL?

CLL may evolve to a more aggressive diffuse large B-cell lymphoma (DLBCL). This is commonly referred to as Richter's syndrome or Richter's transformation. Note, CLL may also transform into Hodgkin lymphoma.

Indicate if recipient's lymphoma histology at diagnosis, as reported above, is a transformation from CLL. If **Yes**, complete a CLL Pre-Infusion (2013) Form.

Follicular Lymphoma Grade Progression
Follicular lymphoma may progress to a more severe grade prior to infusion (i.e., follicular lymphoma grade I to follicular lymphoma grade II); however, progression of the grade of follicular lymphoma should not be reported as a transformation. In cases where the follicular grade progresses, report the *initial* follicular lymphoma grade as the disease histology at diagnosis and report **No**, there was not a transformation – the follicular grade after progression will not be captured on the Lymphoma Pre-Infusion (2018) Form.

Composite Lymphoma
If a recipient is diagnosed with a composite lymphoma (i.e., a combination of Hodgkin lymphoma and non-Hodgkin lymphoma), it is important to determine the primary disease for infusion with the physician. If the primary disease for infusion is **Hodgkin lymphoma**, report that as the lymphoma histology at diagnosis and the non-Hodgkin lymphoma as a prior malignancy on the Pre-TED (2400) Form. If the primary disease for infusion is **non-Hodgkin lymphoma**, report that as the lymphoma histology at diagnosis and the Hodgkin lymphoma as a prior malignancy on the Pre-TED (2400) Form. Do not report there was a disease transformation.

Questions 83 – 85: Did the recipient transform to a different lymphoma histology between diagnosis and the start of the preparative regimen / infusion? *(not CLL)*

Transformation may occur when a slow-growing lymphoma with an indolent clinical history changes to a more aggressive lymphoma. An example of a common transformation would include follicular lymphoma evolving to a diffuse large B-cell lymphoma (DLBCL).

Specify if a transformation occurred concurrently with the diagnosis of the initial lymphoma histology, as reported above, or between the diagnosis of the initial lymphoma histology and the start of the preparative regimen / lymphodepleting therapy (or infusion if preparative regimen / lymphodepleting therapy wasn't administered).

If **Yes**, specify the lymphoma histology at transformation. If the histology at transformation is **Other B-cell lymphoma** or **Other T-cell / NK-cell lymphoma**, specify the histology.

If there were multiple transformations, the least aggressive lymphoma histology should be reported as the histology at diagnosis (reported above) and the most aggressive lymphoma histology captured in this question. The lymphoma histologies identified between the diagnosis of the initial lymphoma (least aggressive histology) and the transformation to the most aggressive histology are not captured.

Question 86: Was documentation submitted to the CIBMTR? *(e.g., path report)*

Indicate whether documents were attached to support the reported histology at transformation. Attaching pathology reports at diagnosis in FormsNet3^{SM} may prevent future data queries. For further instructions on how to attach documents in FormsNet3^{SM}, refer to the Training Guide.

Question 87: Was the date of transformation the same as the date of diagnosis?

If a concurrent diagnosis (the initial lymphoma, least aggressive, and transformed lymphoma identified at the same time) has occurred, it is not necessary to repeat the diagnosis information in the transformation section of the report.

Indicate if the date of the transformation was identified is the same as the original diagnosis date.

Question 88: Date of transformation

Report the date the transformation was diagnosed. Enter the date the sample was collected for examination. If the date of transformation was determined at an outside center, and no documentation of a pathological or laboratory assessment is available, a dictated date within a physician note may be reported.

If the exact date is not known, use the process described for reporting partial or unknown dates in General Instructions, General Guidelines for Completing Forms.

Question 89: Were immunohistochemical stains obtained? *(at transformation)*

Immunohistochemical staining (IHC) is a process where tissue samples are treated with antibodies and dye. The antibodies bind to specific antigens on the surfaces of the cells, allowing for the identification of those cell surface markers under microscopy. Testing is

often documented in the pathology report from the tissue sample, on which IHC was used.

Indicate if IHC was completed at transformation.

Questions 90 – 108: Immunohistochemical stain results

Testing may be performed on multiple sample types at transformation. Report testing performed on samples taken from the node / mass, if available. If IHC was not done on the node / mass or the results are not known, report testing performed on the bone marrow instead. If IHC results are unclear as this information may be documented differently across hospitals / laboratories, consult a physician.

For each marker, specify if the results were **Positive**, **Negative**, or **Unknown** based on the IHC results at transformation. If the report documents "dim" for a specific marker, report this as **Positive**.

Report **Unknown** for markers which were not tested or were tested, but the results are not known.

If **Positive** is reported for any of the markers listed below, indicate whether the percent of cells positive for this marker (as determined by IHC) is known. If **Known**, report the percent of cells positive for the specified marker.

- BCL-2
- BCL-6
- C-MYC
- Ki-67

If the percentage is documented as a range, report the average. If the percent is documented as less than a specified percent, report the percent specified minus one (e.g., report < 10% as 9%). If the percentage is documented as more than a specified percent, report the percentage specified plus one. (e.g., report > 90% as 91%).

Question 109: Were cytogenetics tested (karyotyping or FISH)?

Cytogenetics is the study of chromosomes. This assessment involves testing blood or bone marrow for known chromosomal abnormalities that reflect the recipient's disease. For more information about cytogenetic testing and terminology, see Appendix C, Cytogenetic Assessments. Indicate whether cytogenetic studies were performed at transformation.

Indicate whether cytogenetic studies were obtained at transformation.

Questions 110 – 111: Were cytogenetics tested via FISH?

Specify if FISH studies were performed at transformation and specify if abnormalities were detected.

If FISH studies were not performed at transformation, unknown if completed, or if FISH samples were inadequate or the results 'failed', report **No**.

Report chromosomal microarrays / chromosomal genomic arrays as FISH assessments.

See Appendix C: Cytogenetics, for assistance interpreting FISH results.

Questions 112 – 133: Specify FISH abnormalities

For each abnormality specify if it was detected via FISH at transformation.

- Report **Yes** if the abnormality was detected at transformation
- Report **No** if the abnormality was assessed and not detected at transformation
- Report **Not done** if the abnormality was not assessed or could not successfully be performed at transformation

If a clonal abnormality is detected, but not listed as an option, select **Yes** for *Other abnormality* and specify the abnormality. If multiple other abnormalities were detected, report "see attachment" and attach the final report(s) for any other abnormalities detected.

For further instructions on how to attach documents in FormsNet3^{SM}, refer to the Training Guide.

Question 134: Was documentation submitted to the CIBMTR? *(e.g., FISH report)*

Indicate if a FISH testing report is attached to support the findings reported above.

For further instructions on how to attach documents in FormsNet3^{SM}, refer to the Training Guide.

Questions 135 – 136: Were cytogenetics tested via karyotyping?

Specify if karyotyping was performed at transformation and specify if abnormalities were detected. If karyotyping failed or the sample was inadequate, select **Yes** and specify the results as **No evaluable metaphases**.

If karyotyping was not performed at transformation or unknown if completed, report **No**.

See Appendix C: Cytogenetics, for assistance interpreting karyotype results.

Questions 137 – 138: Specify karyotyping abnormalities *(check all that apply)*

Select all abnormalities detected by karyotyping at transformation. If a clonal abnormality is detected, but not listed as option, select **Other abnormality** and specify the abnormality. If multiple other abnormalities were detected, report "see attachment" and attach the final report(s) for any other abnormalities detected.

For further instructions on how to attach documents in FormsNet3^{SM}, refer to the Training Guide.

Question 139: Was documentation submitted to the CIBMTR? *(e.g., karyotyping report)*

Indicate if a karyotyping report is attached to support the findings reported above.

For further instructions on how to attach documents in FormsNet3^{SM}, refer to the Training Guide.

Section Updates

Question Number	Date of Change	Add/Remove/Modify	Description	Reasoning (if applicable)

Q140 – 152: Laboratory Studies at Transformation

Laboratory Studies at Transformation
The laboratory studies at transformation will be enabled / disabled in FormsNet3^{SM} based on the histology identified at transformation, as reported above.

Questions 140 – 152: Laboratory studies at transformation

For each laboratory study, indicate if the test result was known at the time of transformation. If **Known**, report the result and the unit of measure, if applicable.

All values reported from transformation must reflect testing performed prior to any treatment for the histology at transformation. If testing was not performed near the time of transformation (within approximately 30 days) and prior to the initiation of treatment, report **Unknown**.

- **WBC** *(mantel cell and all Hodgkin histologies)*: The white blood cell count is a value that represents all of the white blood cells in the blood. If the count is too high or too low, the ability to fight infection may be impaired.
- **Hemoglobin** *(follicular and all Hodgkin histologies)*: Hemoglobin is a molecule in red blood cells that delivers oxygen to tissues throughout the body. A low hemoglobin count is considered "anemia" and blood transfusions or growth factors may be required to increase the hemoglobin level.
- **Absolute lymphocyte count** *(all Hodgkin histologies)*: The total number of lymphocytes, a subtype of white blood cells.
- **Lymphocytes** *(percentage) (all Hodgkin histologies)*: Lymphocytes are another subtype of white blood cell that fights infection. The value on the laboratory report may be a percentage of an absolute value. If an absolute value is reported, divide it by the white blood cell count for a percentage.
- **Serum albumin** *(all Hodgkin histologies)*: Serum albumin is a protein found in the blood. Levels are most often reported on a chemistry panel but may occasionally be found in a separate liver function test report.
- **LDH** *(all histologies)*: Lactate dehydrogenase is an enzyme found in the cytoplasm of almost all tissues, which converts L-lactate into pyruvate, or pyruvate into L-lactate depending on the oxygen level. If **Known**, also specify the upper limit of normal.

Section Updates

Question Number	Date of Change	Add/Remove/Modify	Description	Reasoning (if applicable)

Q153 – 165: Assessment of Nodal and Organ Involvement at Transformation

Transformation Assessments
All values reported must reflect testing / evaluations performed prior to any treatment for the histology specified in question 84. If testing / evaluation was not done near the time of transformation (within approximately 30 days) and prior to the initiation of treatment, **Unknown**.

Questions 153 – 154: Was a PET (or PET/CT) scan performed?

Positron Emission Tomography (PET) is a type of nuclear medicine imaging in which a patient receives a small amount of radioactively labeled sugar. Because cancer cells absorb sugar more avidly than other cells of the body, the radioactively labeled sugar

accumulates in these areas and reveals tumors as bright spots. A PET/CT combines the results of the PET scan along with the results of a CT (computed tomography) scan.

Specify if a PET (or PET/CT) scan was performed at transformation. If **Yes**, indicate whether the scan was positive for lymphoma. Consult a physician if the report is unclear.

If a PET or (PET/CT) scan was not performed at transformation or is unknown, report **No**.

Question 155: Did the recipient have known nodal involvement?

Nodal involvement may be assessed by a physician palpating lymph nodes, pathology from a lymph node biopsy, or radiological assessment (e.g., PET or CT imaging).

Indicate if nodal involvement was detected at transformation. If nodal involvement was not detected, or it is unknown if detected, report **No**.

Question 156: Specify total number of nodal regions involved *(excluding follicular)*

Lymph node regions or groups occur above and below the diaphragm. Nodal regions include cervical (neck), axillary (underarm), mediastinal (thoracic), mesenteric (abdominal), para-aortic (pelvic), inguinal (groin), epitrochlear (inside of arm just above elbow), and popliteal (back of knee). Indicate the total number of nodal regions with evidence of lymphoma involvement. Refer to Graphic 1. Nodal Areas below for identification of nodal areas and specific nodes within each area.

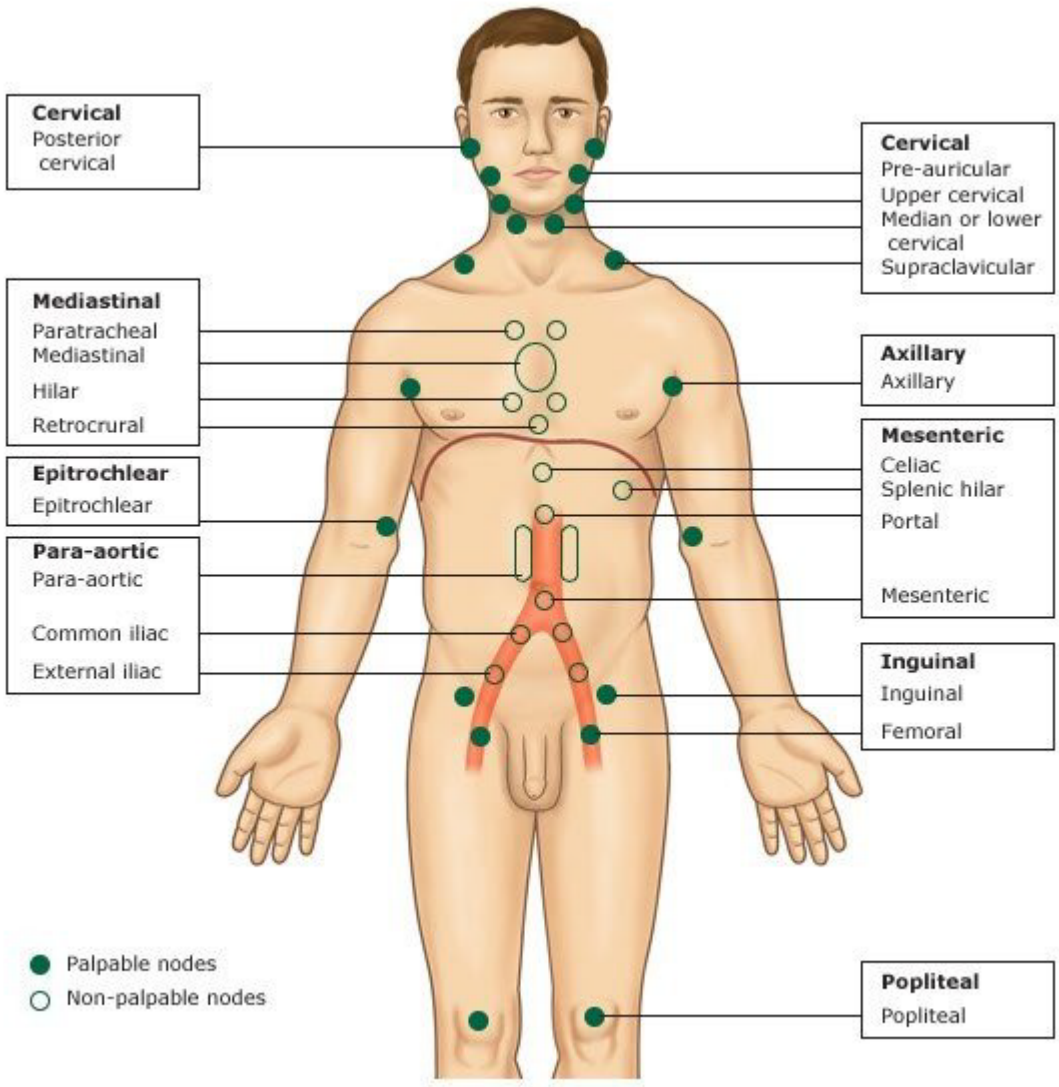
Specify the total number of nodal regions involved at transformation.

Question 157: Specify total number of nodal regions involved *(follicular only)*

Lymph node regions or groups occur above and below the diaphragm. Nodal regions include cervical (neck), axillary (underarm), mediastinal (thoracic), mesenteric (abdominal), para-aortic (pelvic), inguinal (groin), epitrochlear (inside of arm just above elbow), and popliteal (back of knee). Indicate the total number of nodal regions with evidence of lymphoma involvement. Refer to Graphic 1. Nodal Areas below for identification of nodal areas and specific nodes within each area.

Specify the total number of nodal regions involved at transformation.

Graphic 1. Nodal Areas[1]



[1] "Lymphadenopathy." Web log post. Horses and Zebras. Morning Report at Toronto General Hospital, 20 July 2010. Accessed on 9/22/2013 at http://morningreporttgh.blogspot.com/2010/07/lymphadenopathy.html

Question 158: Specify the size of the largest nodal mass

Report the size of the largest known nodal mass at transformation (as measured in centimeters). If the mass is given in three dimensions (for example: 3 cm x 5 cm x 4 cm), report the longest two dimensions.

Question 159: Was there any known extranodal or splenic involvement? *(at transformation)*

Extranodal refers to the presentation of lymphoma outside of the lymph nodes. Common areas of extranodal involvement may include bone, gastrointestinal tract, and skin.

Splenic involvement in lymphoma is also common. It is usually evidenced by enlargement of the spleen (splenomegaly). Splenic or other extranodal involvement is most often detected by imaging techniques or pathological findings.

Specify if extranodal or splenic involvement was identified at transformation.

Questions 160 – 161: Specify site(s) of involvement

Specify all sites with known lymphomatous involvement at diagnosis. Clarifications on some of the available option values is found below:

- **Adrenal**: The adrenals gland are small glands that sit on the top of each kidney and product hormones including sex hormones and cortisol. Select this option if there was lymphomatous involvement of or derived from the adrenal glands or their secretions.
- **Cerebrospinal fluid (CSF)**: A clear, colorless body fluid found in the brain and spinal cord that is produced by specialized ependymal cells.
- **Epidural space**: The epidural space is an anatomic space that is the outermost part of the spinal canal. The epidural space contains lymphatics, spinal nerve roots, loose fatty tissue, small arteries, and a network of internal vertebral venous plexuses.
- **Gastrointestinal (GI) tract**: Any of the organs that food and liquids travel through when they are swallowed, digested, absorbed, and leave the body as feces. These organs include the mouth, pharynx, esophagus, stomach, small intestine, large intestine, rectum, and anus.
- **Pericardium**: Of or pertaining to the membrane enclosing the heart that consists of an outer fibrous later and an inner double layer of serous membrane.
- **Pleura**: The delicate serous membrane that lines each half of the thorax of mammals and is folded back over the surface of the lung of the same side. The function of the pleura is to allow optimal expansion and contraction of the lungs during breathing.
- **Skin**: Of or pertaining to the outer or surrounding layer of the skin (epidermis).
- **Spleen**: Of or pertaining to the abdominal organ involved in the product and removal of blood cells.

If an involved site was documented but is not listed as an option, check **Other site** and report all other sites of lymphomatous involvement at diagnosis.

Question 162: Stage of organ involvement *(at transformation)*

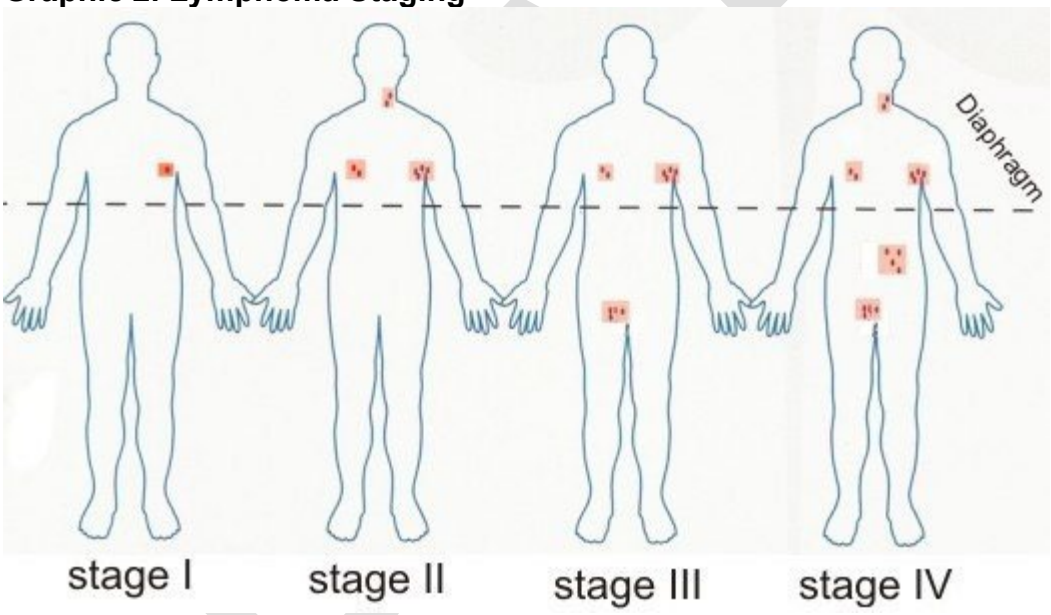
Using Table 1. Lymphoma Staging below, report the organ involvement at transformation.

If staging at transformation is not available or not known, select **Unknown**.

Table 1. Lymphoma Staging

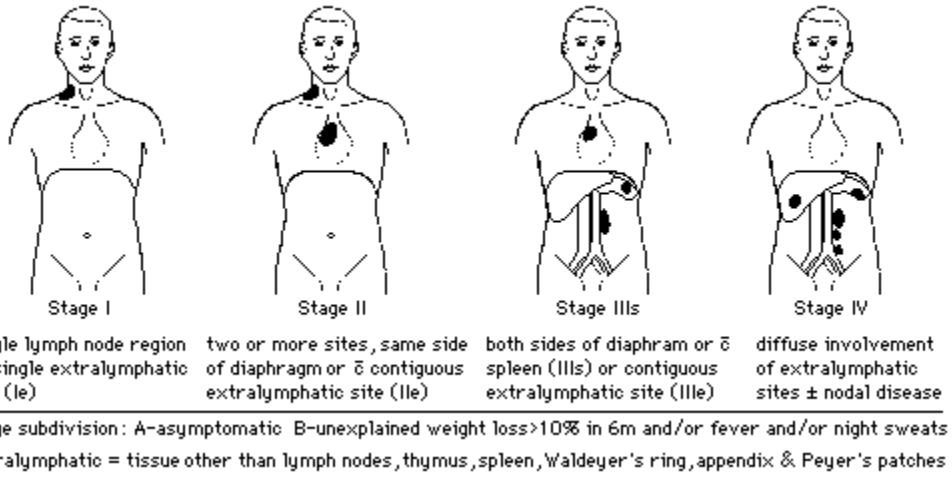
Stage	Description
Stage I	Involvement of a single lymph node region or of a single extralymphatic organ or site
Stage II	Involvement of two or more lymph node regions on same side of diaphragm, or localized involvement of an extralymphatic organ or site, and one or more lymph node regions on same side of diaphragm
Stage III	Involvement of lymph node regions on both sides of diaphragm, which may also be accompanied by localized involvement of extralymphatic organ or site, the spleen, or both
Stage IV	Diffuse or disseminated involvement of one or more extralymphatic organs in tissues with or without associated lymph node enlargement/involvement

Graphic 2. Lymphoma Staging[2]



[2] "Staging Lymphomas." Patients Against Lymphoma. 05 May 2013. Accessed on 9/22/2013 at http://www.lymphomation.org/stage.htm.

Graphic 3. Staging Classification[3]



[3] "Ann Arbor" Staging Classification," "Lymphoma: Clinical- Hodgkin's Lymphoma." Pathology Tool. University of Virginia Medical School. 02 May 2012. Accessed 9/22/2013 at http://www.med-ed.virginia.edu/courses/path/innes/wcd/hodgclinic.cfm.

Question 163: Were systemic symptoms (B symptoms) present? *(unexplained fever < 38° C; or night sweats; unexplained weight loss > 10% body weight in six months before transformation)*

Systemic symptoms, also known as "B" symptoms, are defined as follows:

- unexplained fever > 38° C (100.4°F)
- night sweats
- unexplained weight loss of > 10% of body weight over 6 months

Evidence of systemic symptoms is significant because it may indicate the presence of disease in parts of the body not identified using standard testing methods. The presence or absence of systemic symptoms may be indicated in the staging (e.g., II-B or II-A).

Indicate if there was evidence of systemic symptoms at transformation.

If documentation is not clear or is not available to determine if systemic symptoms were present at transformation, select **Unknown**.

Questions 164 – 165: ECOG score *(at transformation)*

Recipient performance status is a critical data field that has been determined to be essential for all outcome-based studies. If a performance score is not documented in the source documentation (e.g., inpatient progress note, physician's clinic notes), data management professionals should not assign a performance score based on analysis of available documents. Rather, a physician should provide documentation of the

performance score. Documentation from an RN who has been trained and authorized to determine performance scores may also be used.

If the performance score has been documented using Karnofsky or Lansky scales, refer to Appendix L: Karnofsky / Lansky Performance Status for assistance converting the score to the ECOG scale.

Report whether the recipient's ECOG score at transformation is known and report the score, if applicable.

Section Updates

Question Number	Date of Change	Add/Remove/Modify	Description	Reasoning (if applicable)

Q166 – 223: Pre-HCT or Pre-Infusion Therapy

Lines of Therapy and Subsequent Infusions
If this is a subsequent infusion and the Lymphoma Pre-Infusion (2018) form was completed for the previous infusion, lines of therapy do not need to be reported in duplication on the subsequent Lymphoma Pre-Infusion (2018) form . Report from post previous infusion to time of preparative regimen / lymphodepleting therapy (or infusion) for the current HCT or cellular therapy. If no Lymphoma Pre-Infusion (2018) form was completed previously, all lines of therapy from original diagnosis to current preparative regimen / lymphodepleting therapy (or infusion) will have to be completed.

Lymphoma Transformation
If the recipient's lymphoma histology transformed between diagnosis and the start of the preparative regimen, all therapy administered from diagnosis (of the original lymphoma) until the start of the preparative regimen / lymphodepleting therapy should be reported.

Richter's Transformation
If completing the form for a recipient whose disease has undergone Richter's transformation prior to infusion, only report therapy administered since the transformation to lymphoma on the Lymphoma Pre-Infusion (2018) Form. Any therapy given prior to transformation will be reported on the CLL Pre-Infusion (2013).

A single line of therapy refers to any agents administered during the same time period with the same intent (induction, consolidation, etc.). If a recipient's disease status changes resulting in a change to treatment, a new line of therapy should be reported.

Additionally, if therapy is changed because a favorable disease response was not achieved, a new line of therapy should be reported. Refer to Lines of Therapy reporting instruction overview for more information.

Question 166: Was therapy given?

Indicate if the recipient received treatment for their primary disease between diagnosis and the start of the preparative regimen / lymphodepleting therapy (or infusion if no preparative regimen / lymphodepleting therapy was given). This includes systemic chemotherapy, immunotherapy, intrathecal therapy, radiation therapy, surgery, and cellular therapies. Do not report a prior infusions, including HCT and CT.

Specify if therapy was given to treat lymphoma at any time prior to the start of the preparative regimen / lymphodepleting therapy (or infusion if no preparative regimen / lymphodepleting therapy was given). If therapy was not given or it is unknown, report **No**.

Reporting Multiple Lines of Therapy
Complete questions *Systemic therapy* through *Date of relapse / progression* for each line of therapy administered by adding an additional instance in FormsNet3^{SM}.

Question 167: Systemic therapy

Systemic therapy is delivered via the blood stream and distributed throughout the body. Therapy may be injected into a vein / central line or given orally. Do not report intrathecal therapy as systemic therapy.

Indicate if systemic therapy was administered as part of the line of therapy being reported.

Questions 168 – 169: Date therapy started

Indicate whether the therapy start date is known. If the therapy start date is **Known**, report the date the recipient began this line of therapy.

If the start date is partially known (e.g., the recipient started in mid-July 2010), use the process for reporting partial or unknown dates as described in the General Instructions, General Guidelines for Completing Forms.

Zynlonta (loncastuximab) End Date
When only a single cycle of the drug Zynlonta (loncastuximab) is given, report the therapy end date as the date 21 days post the therapy start date. If Zynlonta is given in multiple cycles, use the standard reporting instructions for reporting the therapy end date of multiple cycles.

Questions 170 – 171: Date therapy stopped

Indicate if therapy stop date is known. If Known, report the end date of the therapy being reported.

If the therapy is being given in cycles, report the date the recipient *started the last cycle* for this line of therapy. Otherwise, report the final administration date for the therapy being reported.

If the stop date is partially known, use the process for reporting partial or unknown dates as described in the General Instructions, General Guidelines for Completing Forms.

Questions 172 – 173: Number of cycles

Systemic therapy is usually administered in cycles with rest periods in-between. This enables cancer cells to be attacked at vulnerable times and provides healthy cells with adequate time to recover from the damage sustained during therapy. A cycle can last one or more days and can repeat weekly, bi-weekly, or monthly. A single systemic therapy course may consist of multiple cycles.

Indicate whether the number of cycles is known. If **Known**, enter the number of cycles the recipient received.

If therapy is not being administered in cycles (e.g., daily chemotherapy), report **Unknown**.

BEACOPP
The **BEACOPP** regimen may be reported as **standard** or **dose escalated**. Select the option most consistently with the recipient's treatment guidelines. If it is not clear which option to report, consult the physician.

Questions 174 – 175: Was a standard drug regimen given?

Systemic chemotherapy / immunotherapy may involve administration of multiple drugs / agents during the line of therapy. Rather than reporting each drug separately, standard combination regimens should be reported using the options listed on the form, if available. Specify if the therapy administered was a standard drug regimen. If the recipient's line of therapy included one of the regimens listed, report **Yes** and indicate the regimen that was given.

Only one regimen may be reported. Generally, each regimen should be reported as a separate line of therapy. However, if the recipient received a regimen specified as well as additional systemic therapy drugs as part of the line of therapy being reported (i.e., Polatuzumab + Bendamustine and Rituximab (BR)), report the standard regimen and specify the additional drugs in *Were systemic drugs given* below.

Questions 176 – 178: Were systemic drugs given?

This question is intended to capture systemic therapy drugs / agents not already reported as part of the standard drug regimen, as reported above. If part or all the recipient's regimen can be reported as a standard drug regimen, report them in the questions above and do not report them again in this question.

Specify if systemic drugs were given as part of this line of therapy, using the following guidelines:

Report **Yes** in the following scenarios:

- The recipient received systemic chemotherapy drugs not already reported as a standard drug regimen (i.e., only Pembrolizumab administered)
- The recipient received additional systemic chemotherapy drugs in addition to the standard drug regimen reported above (i.e., Polatuzumab + Bendamustine and Rituximab (BR) – Polatuzumab would be reported as *systemic drugs* and Bendamustine and Rituximab (BR) would be reported as a standard drug regimen)

Report **No** in the following scenarios:

- All systemic therapy drugs given as part of the line of therapy being reported were included in the standard regimen as reported above indicated
- Systemic drugs were not given as part of the line of therapy being reported (i.e., only radiation administered)

If the administered systemic chemotherapy drug (or drugs) is not listed as an option, select **Other systemic therapy** and specify. Only report systemic chemotherapy drugs.

Question 179: Was this line of therapy given for stem cell mobilization (priming)?

Indicate if the line of therapy reported was given for stem cell priming.

For example, R-ICE (rituximab, ifosfamide, carboplatin, and etoposide) may be used in a recipient with lymphoma to collect their peripheral blood stem cells (PBSCs) as they recover their white blood count.

Multiple intrathecal Therapies
If a recipient receives multiple intrathecal therapies (i.e., IT methotrexate and IT cytarabine) as part of a single line of therapy, report each intrathecal therapy as a separate line.

Question 180: Intrathecal therapy

Intrathecal therapy refers to chemotherapy administered via lumbar puncture to treat or prevent leukemic blasts in the central nervous system. Indicate if intrathecal therapy was given as part of the line of therapy being reported.

Question 181: Reason for intrathecal therapy

Intrathecal therapy may be given to prevent disease in the central nervous system. It may also be given as treatment once disease has been detected. Indicate the reason intrathecal therapy was given. Report **Unknown** if the reason cannot be determined.

Questions 182 – 183: Date therapy started

Indicate whether the therapy start date is known. If the therapy start date is **Known**, report the date the recipient began this line of therapy.

If the start date is partially known (e.g., the recipient started in mid-July 2010), use the process for reporting partial or unknown dates as described in the General Instructions, General Guidelines for Completing Forms.

Question 184-185: Date therapy stopped

Indicate if therapy stop date is known. If **Known**, report the final administration date.

If the stop date is partially known, use the process for reporting partial or unknown dates as described in the General Instructions, General Guidelines for Completing Forms.

Questions 186 – 187: Specify intrathecal therapy

Specify the drug given as intrathecal therapy during the line of therapy being reported. If the drug is not listed as an option, select **Other intrathecal therapy** and specify the drug.

Multiple intraocular Therapies
If a recipient receives multiple intraocular therapies as part of a single line of therapy, report each intraocular therapy as a separate line.

Question 188: Intraocular therapy

Intraocular therapy refers to chemotherapy administered via injection to the eye. Specify if intraocular therapy was given as part of the line of therapy being reported.

Question 189: Reason for intraocular therapy

Intraocular therapy may be given to prevent disease in the eye. It may also be given as treatment once disease has been detected. Indicate the reason intraocular therapy was given. Report **Unknown** if the reason cannot be determined.

Questions 190 – 191: Date therapy started

Indicate whether the therapy start date is known. If the therapy start date is **Known**, report the date the recipient began this line of therapy.

If the start date is partially known (e.g., the recipient started in mid-July 2010), use the process for reporting partial or unknown dates as described in the General Instructions, General Guidelines for Completing Forms.

Questions 192 – 193: Date therapy stopped

Indicate if therapy stop date is known. If **Known**, report the final administration date.

If the stop date is partially known, use the process for reporting partial or unknown dates as described in the General Instructions, General Guidelines for Completing Forms.

Questions 194 – 195 Specify intraocular therapy

Specify the drug given as intraocular therapy during the line of therapy being reported. If the drug is not listed as an option, select **Other intraocular therapy** and specify the drug.

Question 196: Radiation therapy

Radiation therapy utilizes high-energy x-rays, gamma rays, electron beams, or proton beams to kill cancer cells. Radiation therapy may be used to kill cells that have invaded other tissues and lymph nodes. Radiation therapy may be given in conjunction with systemic chemotherapy or as a separate line of therapy. Specify if the recipient received radiation as part of the line of therapy being reported.

If radiation therapy was given during or adjacent to administration of systemic therapy, report them together as single line of therapy on the form. Otherwise, capture the radiation treatment as a separate line of therapy.

Questions 197 – 198: Date therapy started

Indicate whether the therapy start date is known. If the therapy start date is **Known**, report the date the recipient began this line of therapy.

If the start date is partially known (e.g., the recipient started in mid-July 2010), use the process for reporting partial or unknown dates as described in the General Instructions, General Guidelines for Completing Forms.

Questions 199 – 200: Date therapy stopped

Indicate if therapy stop date is known. If **Known**, report the final administration date.

If the stop date is partially known, use the process for reporting partial or unknown dates as described in the General Instructions, General Guidelines for Completing Forms.

Question 201: What was the extent of the radiation field?

Indicate the extent of the radiation field.

Questions 202 – 203: Specify site(s) of radiation therapy *(check all that apply)*

Report all sites of radiation therapy administered between the reported start and stop dates for this line of therapy. If **Other site** is selected, specify all other sites.

Question 204: Dose per fraction

Enter the dose per fraction in either grays (Gy) or centigrays (cGy) for the reported line of therapy.

Question 205: Total number of fractions

Enter the total number of fractions (treatments) of radiation that were administered for the reported line of therapy. The recipient may receive more than one fraction per day (hyperfractionation).

Question 206: Total dose

Enter the total dose of radiation given for the reported line of therapy. If radiation was given as a single dose, the amount of radiation delivered in the single dose constitutes the total dose. If the radiation was given in fractionated doses, multiply the total number of fractions by the dose per fraction to determine the total dose. Enter the total dose of radiation in either grays (Gy) or centigrays (cGy).

The dose per fraction multiplied by the total number of fractions must be equal to the total dose reported.

Example 1: Radiation Order: TBI, 200 cGy/day for three days (3 doses)

- Total dose: 200 cGy x 3 doses = 600 cGy
- Report “Total Dose” as: 600 cGy

Questions 207 – 208: Specify technique

Indicate the technique used to deliver radiation therapy. If the technique was **Other**, specify.

Question 209: Surgery

Specify if the recipient underwent surgical treatment for lymphoma as part of the line of therapy being reported,.

Do not report the initial diagnostic biopsy, even if surgery was required, as pre-infusion therapy.

Questions 210 – 211: Date of surgery

Indicate whether the surgery date is known. If **Known**, report the surgery date.

If the date is partially known (e.g., the recipient started in mid-July 2010), use the process for reporting partial or unknown dates as described in the General Instructions, General Guidelines for Completing Forms.

Questions 212 – 214: Specify site(s) of surgery

Indicate the site(s) of the surgery by reporting **Yes** or **No** for *Splenectomy* and *Other site*. If **Yes** is reported for *Other site*, specify the surgery site(s).

Question 215: Photopheresis

Photopheresis involves removing blood from the body, exposing it to psoralen and ultraviolet light, and then reinfusing it. Indicate whether photopheresis was administered as part of the line of therapy being reported.

Reporting Prior Cellular Therapy as a Line of Therapy
As of June 28, 2023, the 'cellular therapy' option within the Pre-Infusion Lines of Therapy section is no longer enabled. Recipients who received a cellular therapy prior to the current infusion are no longer required to be reported as a line of therapy on the pre-infusion disease specific form.

Question 216: Cellular therapy *(e.g., CAR-T cells)*

This question is disabled.

Question 217: Best response to line of therapy by CT (radiographic) criteria

Indicate the best response to the line of therapy by CT using the international working group radiographic criteria provided in LYM Response Criteria section of the Forms Instruction Manual. The best response may occur during or after the line of therapy, but prior to starting the next line of therapy.

Report **Not assessed** if a CT (or a PET / CT with a CT component) was not performed at any time during the line of therapy reported and prior to the initiation of any new therapy.

Question 218: Date assessed

Report the date of the CT (or PET / CT with a CT component) scan used to determine the response reported. If the same response was achieved multiple times during the line of therapy, or after but prior to starting the next treatment, report the date of the first CT (or PET / CT with a CT component) confirming the reported best response.

If the date is partially known, use the process for reporting partial or unknown dates as described in the General Instructions, General Guidelines for Completing Forms.

Question 219: Best response to line of therapy by PET (metabolic) criteria

Indicate the best response to the line of therapy by PET using the international working group metabolic criteria provided in LYM Response Criteria section of the Forms Instruction Manual. The best response may occur during or after the line of therapy, but prior to starting the next line of therapy.

Report **Not assessed** if a PET (or PET / CT) scan was not performed at any time during the line of therapy being reported and prior to the initiation of any new therapy.

Question 220: Date assessed

Report the date of the PET (or PET / CT) scan used to determine the response reported. If the same response was achieved multiple times during the line of therapy, or after but prior to starting the next treatment, report the date of the first PET (or PET / CT) confirming the reported best response.

If the date is partially known, use the process for reporting partial or unknown dates as described in the General Instructions, General Guidelines for Completing Forms.

Question 221: Was this line of therapy maintenance / consolidation?

Indicate if the reported line of therapy given for maintenance or consolidation. See below for general definitions.

- Consolidation: Once a recipient has achieved a hematologic CR (1st, 2nd, 3rd or greater), they may receive several additional lines of therapy as part of a protocol or to eliminate known minimal residual disease.
- Maintenance: Following induction and consolidation, a recipient may receive low dose chemotherapy over an extended period of time to maintain a CR. Maintenance therapy is usually given as a single drug taken in the outpatient setting when the recipient has no known evidence of disease.

Questions 222 – 223: Did disease relapse / progression occur following this line of therapy?

The intent of this question is to determine if relapse / progression (radiographic or metabolic) occurred during the reported line of therapy, or after, but prior to starting the next treatment. Refer to the international working group criteria provided in LYM Response Criteria section of the Forms Instructions Manual to determine recurrence / progression of disease.

Specify if relapse / progression occurred during the reported line of therapy, or after, but prior to starting the next treatment.

Report **Yes** if the recipient met the relapse / progression criteria (radiographic or metabolic) or if relapse was detected based on clinical evidence (i.e., palpable nodes detected on the physician's exam, abnormal labs, etc.) after starting this line of therapy and prior to starting a subsequent line of therapy. If relapse / progression occurred, specify the date of relapse / progression. If there are multiple relapses / progressions, report the first assessment confirming relapse / progression.

Report **No** if the recipient's disease did not relapse or progress during the reported lie of therapy, or after, but prior to starting the next treatment or if relapse / progression occurred after beginning a subsequent line of therapy. This episode of relapse / progression will be captured in the subsequent line of therapy reported.

If this is the last line of therapy administered prior to infusion, only report **Yes** if relapse occurred prior to infusion. Relapse occurring after the infusion date will be captured on the Lymphoma Post-Infusion (2118) Form.

Section Updates

Question Number	Date of Change	Add/Remove/Modify	Description	Reasoning (if applicable)

Q224 – 233: Disease Assessment at the Failure of the 1st Line of Therapy (DLBCL Only)

Disease Assessments at the Failure of the 1st Line of Therapy (DLBCL only)
The Disease Assessment at the Failure of the 1st Line of Therapy (DLBCL only) section will only be completed if the primary disease for infusion is *de novo* diffuse large b-cell lymphoma (DLBCL) or untreated lymphoma which transformed DLBCL. This includes

but is not limited to the following subtypes: cell of origin unknown, germinal center B-cell type, and activated B-cell type (non-GCB). If this is a report of a subsequent infusion and:
1. The prior infusion was an autologous HCT that was not reported, complete the *Disease Assessment at the Failure of the 1st Line of Therapy*; or
2. A prior Lymphoma Pre-Infusion (2018) form was not completed, complete the *Disease Assessment at the Failure of the 1st Line of Therapy* ; or
3. A prior Lymphoma Pre-Infusion (2018) form was completed, skip to *Disease Assessment at the Last Evaluation Prior to the Start of the Preparative Regimen / Infusion*

Question 224: Did recipient achieve a CR after 1st line of therapy?

Refer to the international working group criteria provided in LYM Response Criteria section of the Forms Instruction Manual to review the CR criteria. Specify if the recipient achieved a CR (radiographic or metabolic) in response to their first line of therapy. CR must be achieved prior to the initiation of the second line of therapy (or infusion) to report **Yes**.

If the recipient did not receive therapy between diagnosis of DLBCL and the start of the preparative regimen / lymphodepleting therapy (or infusion if preparative regimen / lymphodepleting therapy was not given), leave this question blank, override the validation error using the code “unable to answer,” and specify in the comments the recipient did not receive therapy for DLBCL prior to the start of the preparative regimen / lymphodepleting therapy (or infusion).

Disease Assessments
Complete the disease assessment questions based on testing / evaluations performed between the end of the first line of therapy and the start of the second line of therapy. If a second line of therapy was not given prior to infusion, complete these questions based on testing performed between the end of the first line of therapy and the start of the preparative regimen / lymphodepleting therapy (or infusion if no preparative regimen was given). If multiple tests were performed during this time frame, report the most recent testing.

Questions 225 – 227: LDH

Indicate whether the recipient’s LDH value was known during the time frame specified above. If **Known**, report the test result, units of measurement and the upper limit of normal for the lab.

Question 228: Stage of organ involvement

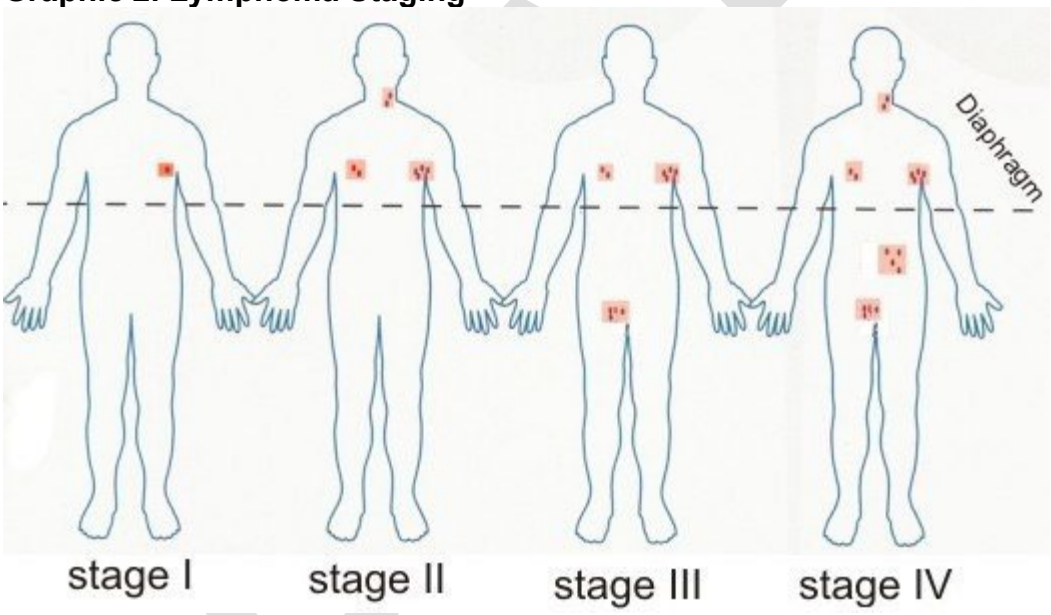
Using Table 1. Lymphoma Staging below, report the organ involvement during the time frame specified above.

If staging at this time is not available or not known, select **Unknown**.

Table 1. Lymphoma Staging

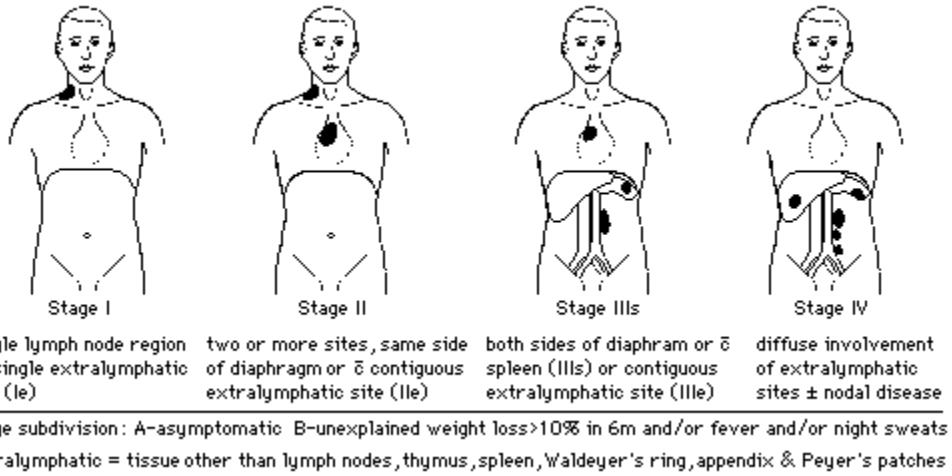
Stage	Description
Stage I	Involvement of a single lymph node region or of a single extralymphatic organ or site
Stage II	Involvement of two or more lymph node regions on same side of diaphragm, or localized involvement of an extralymphatic organ or site, and one or more lymph node regions on same side of diaphragm
Stage III	Involvement of lymph node regions on both sides of diaphragm, which may also be accompanied by localized involvement of extralymphatic organ or site, the spleen, or both
Stage IV	Diffuse or disseminated involvement of one or more extralymphatic organs in tissues with or without associated lymph node enlargement/involvement

Graphic 2. Lymphoma Staging[2]



[2] "Staging Lymphomas." Patients Against Lymphoma. 05 May 2013. Accessed on 9/22/2013 at http://www.lymphomation.org/stage.htm.

Graphic 3. Staging Classification[3]



[3] "Ann Arbor" Staging Classification," "Lymphoma: Clinical- Hodgkin's Lymphoma." Pathology Tool. University of Virginia Medical School. 02 May 2012. Accessed 9/22/2013 at http://www.med-ed.virginia.edu/courses/path/innes/wcd/hodgclinic.cfm.

Questions 229-230: ECOG score

Recipient performance status is a critical data field that has been determined to be essential for all outcome-based studies. If a performance score is not documented in the source documentation (e.g., inpatient progress note, physician's clinic notes), data management professionals should not assign a performance score based on analysis of available documents. Rather, a physician should provide documentation of the performance score. Documentation from an RN who has been trained and authorized to determine performance scores may also be used.

If the performance score has been documented using Karnofsky or Lansky scales, refer to Appendix L: Karnofsky / Lansky Performance Status for assistance converting the score to the ECOG scale.

Report whether the recipient's ECOG score during the time frame specified above and if **Known**, report the score.

Question 231: Did the recipient have known extranodal involvement?

Extranodal refers to the presentation of lymphoma outside of the lymph nodes. Common areas of extranodal involvement may include bone, gastrointestinal tract, and skin.

Splenic involvement in lymphoma is also common. It is usually evidenced by enlargement of the spleen (splenomegaly). Splenic or other extranodal involvement is most often detected by imaging techniques or pathological findings.

Specify if extranodal involvement was identified during the time frame specified above.

Questions 232 – 233: Specify site(s) of involvement *(check all that apply)*

Specify all sites with known lymphomatous involvement during the time frame specified above. Clarifications on some of the available option values are found below:

- **Adrenal**: The adrenals gland are small glands that sit on the top of each kidney and product hormones including sex hormones and cortisol. Select this option if there was lymphomatous involvement of or derived from the adrenal glands or their secretions.
- **Cerebrospinal fluid (CSF)**: A clear, colorless body fluid found in the brain and spinal cord that is produced by specialized ependymal cells.
- **Epidural space**: The epidural space is an anatomic space that is the outermost part of the spinal canal. The epidural space contains lymphatics, spinal nerve roots, loose fatty tissue, small arteries, and a network of internal vertebral venous plexuses.
- **Gastrointestinal (GI) tract**: Any of the organs that food and liquids travel through when they are swallowed, digested, absorbed, and leave the body as feces. These organs include the mouth, pharynx, esophagus, stomach, small intestine, large intestine, rectum, and anus.
- **Pericardium**: Of or pertaining to the membrane enclosing the heart that consists of an outer fibrous later and an inner double layer of serous membrane.
- **Pleura**: The delicate serous membrane that lines each half of the thorax of mammals and is folded back over the surface of the lung of the same side. The function of the pleura is to allow optimal expansion and contraction of the lungs during breathing.
- **Skin**: Of or pertaining to the outer or surrounding layer of the skin (epidermis).
- **Spleen**: Of or pertaining to the abdominal organ involved in the product and removal of blood cells.

If an involved site was documented but is not listed as an option, check **Other site** and report all other sites of lymphomatous involvement.

Section Updates

Question Number	Date of Change	Add/Remove/Modify	Description	Reasoning (if applicable)

Q234 – 288: Disease Assessment at Last Evaluation Prior to the Start of the Preparative Regimen / Infusion

Disease Assessment at Last Evaluation Prior to the Start of the Preparative Regimen / Infusion
All values reported must reflect the most recent testing prior to the start of the preparative regimen / lymphodepleting therapy (or infusion if no preparative regimen / lymphodepleting therapy was given). Do not report testing performed during a line of therapy reported above. If testing was not performed near the start of the preparative regimen / lymphodepleting therapy / infusion (within approximately 30 days) and after the most recent line of therapy (if applicable), the report **No**.

Question 234: Were cytogenetics tested (karyotyping or FISH)?

Cytogenetics is the study of chromosomes. This assessment involves testing blood or bone marrow for known chromosomal abnormalities that reflect the recipient's disease. For more information about cytogenetic testing and terminology, see Appendix C: Cytogenetics.

Indicate if cytogenetic studies were obtained at the last evaluation prior to the start of the preparative regimen / lymphodepleting therapy (or infusion).

Questions 235 – 236: Were cytogenetics tested via FISH?

Specify if FISH studies were performed at the last evaluation prior to the start of the preparative regimen / lymphodepleting therapy (or infusion) and indicate if abnormalities were detected.

If FISH studies were not performed at the last evaluation, or if FISH samples were inadequate or the results 'failed,' report **No**.

See Appendix C: Cytogenetics, for assistance interpreting FISH results.

Questions 237 – 258: Specify FISH abnormalities

For each abnormality specify if it was detected via FISH at the last evaluation.

- Report **Yes** if the abnormality was detected at the last evaluation
- Report **No** if the abnormality was assessed and not detected at the last evaluation
- Report **Not done** if the abnormality was not assessed or could not successfully be performed at the last evaluation

If a clonal abnormality is detected, but not listed as an option, select **Yes** for *Other abnormality* and specify the abnormality. If multiple other abnormalities were detected,

report “see attachment” and attach the final report(s) for any other abnormalities detected.

For further instructions on how to attach documents in FormsNet3SM, refer to the Training Guide.

Question 259: Was documentation submitted to the CIBMTR? *(e.g., FISH report)*

Indicate if a FISH testing report is attached to support the findings reported above.

For further instructions on how to attach documents in FormsNet3SM, refer to the Training Guide.

Questions 260 – 261: Were cytogenetics tested via karyotyping?

Specify if karyotyping was performed at the last evaluation and specify if abnormalities were detected. If karyotyping failed or the sample was inadequate, select **Yes** and specify the results as **No evaluable metaphases**.

If karyotyping was not performed at the last evaluation or unknown if completed, report **No**.

See Appendix C: Cytogenetics, for assistance interpreting karyotype results.

Questions 262 – 263: Specify karyotyping abnormalities *(check all that apply)*

Select all abnormalities detected by karyotyping at the last evaluation. If a clonal abnormality is detected, but not listed as option, select **Other abnormality** and specify the abnormality. If multiple other abnormalities were detected, report “see attachment” and attach the final report(s) for any other abnormalities detected.

For further instructions on how to attach documents in FormsNet3SM, refer to the Training Guide.

Question 264: Was documentation submitted to the CIBMTR? *(e.g., karyotyping report)*

Indicate if a karyotyping report is attached to support the findings reported above.

For further instructions on how to attach documents in FormsNet3SM, refer to the Training Guide.

Laboratory Studies at Last Evaluation
The laboratory studies at the last evaluation will be enabled / disabled in FormsNet3SM based on the histology identified at transformation or at diagnosis (if a transformation did not occur), as reported above.

Questions 265 – 267: Laboratory studies at last evaluation

For each laboratory study, indicate if the test result was known at the last evaluation. If **Known**, report the result and the unit of measure, if applicable.

All values reported from last evaluation must reflect testing performed after the last line of therapy. If testing was not performed near the start of the preparative regimen / lymphodepleting therapy / infusion (within approximately 30 days) and after the most recent line of therapy (if applicable), the report **Unknown**.

- **Hemoglobin** *(follicular and all Hodgkin histologies)*: Hemoglobin is a molecule in red blood cells that delivers oxygen to tissues throughout the body. A low hemoglobin count is considered "anemia" and blood transfusions or growth factors may be required to increase the hemoglobin level.
- **Absolute lymphocyte count** *(all Hodgkin histologies)*: The total number of lymphocytes, a subtype of white blood cells.

Question 269: Was minimal residual disease (MRD) assessed during the pre-HCT or pre-infusion evaluation?

Minimal residual disease assessments include flow cytometry, PCR, and next generation sequencing.

Indicate if testing was performed by any of these three methods on blood, bone marrow, or any other specimen at the last evaluation.

Questions 270 – 273: Flow cytometry

If MRD was assessed via flow cytometry at the last evaluation, specify the results. If testing was **Positive**, report the sample source and the date the sample was collected.

If the date is partially known, use the process for reporting partial or unknown dates as described in the General Instructions, General Guidelines for Completing Forms.

Questions 274 – 277: PCR

If MRD was assessed via PCR at the last evaluation, specify the results. If testing was performed for multiple disease markers and any of the markers were detected, report **Positive** and specify the sample source along with the date the sample was collected.

If the date is partially known, use the process for reporting partial or unknown dates as described in the General Instructions, General Guidelines for Completing Forms.

Questions 278 – 281: Next generation sequencing *(NGS, 3rd gen)*

If MRD was assessed via next generation sequencing (NGS, 3rd gen) at the last evaluation, specify the results. If testing was performed for multiple disease markers and any of the markers were detected, report **Positive** and specify the sample source along with the date the sample was collected.

If the date is partially known, use the process for reporting partial or unknown dates as described in the General Instructions, General Guidelines for Completing Forms.

Question 282: Was documentation submitted to the CIBMTR? *(e.g., path report)*

Indicate if documentation is attached to support the findings reported above.

For further instructions on how to attach documents in FormsNet3SM, refer to the Training Guide.

Question 283: Did the recipient have known nodal involvement? *(at last evaluation)*

Nodal involvement may be assessed by a physician palpating lymph nodes, pathology from a lymph node biopsy, or radiological assessment (e.g., PET or CT imaging).

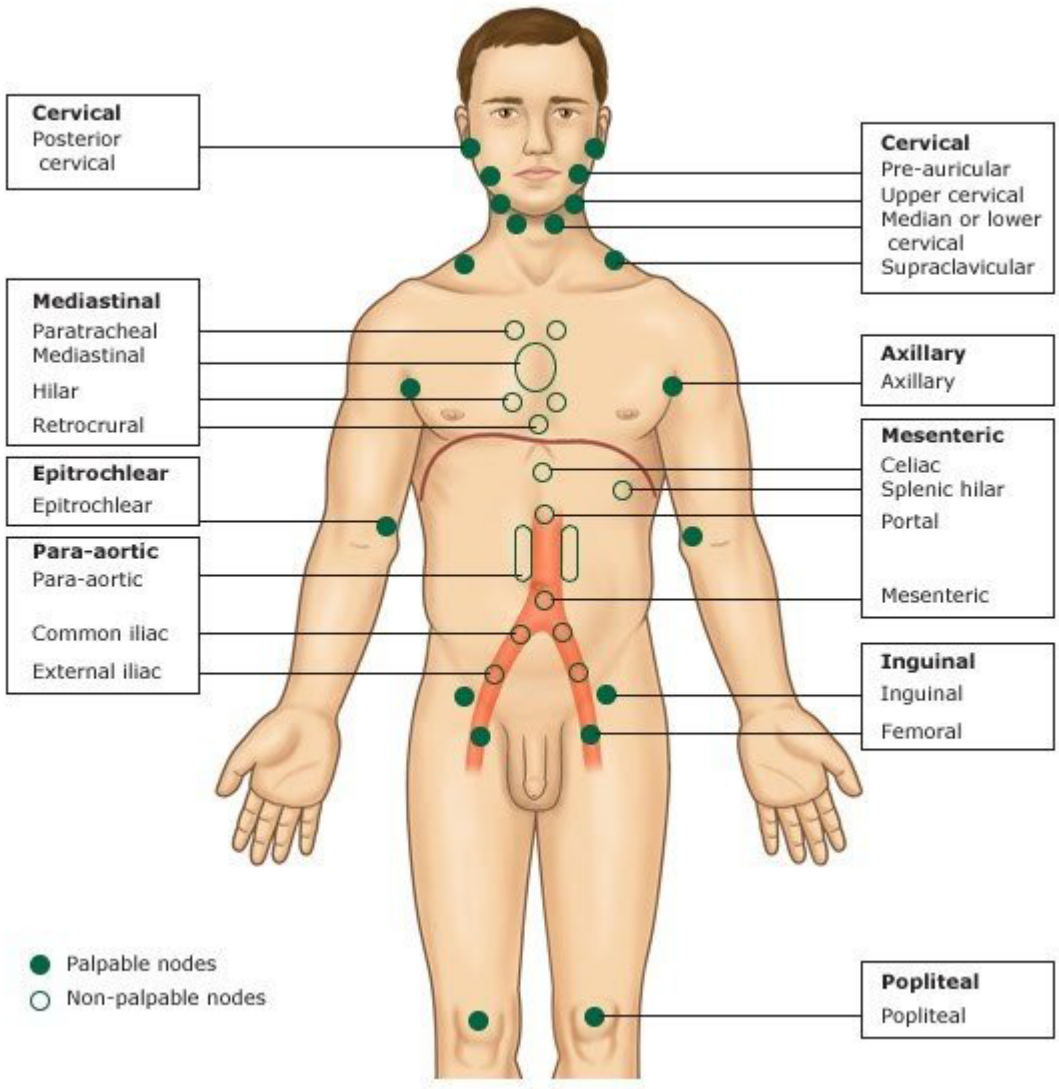
Indicate if nodal involvement was detected at the last evaluation. If nodal involvement was not detected, or it is unknown if detected, report **No**.

Question 284: Specify total number of nodal regions involved *(follicular only)*

Lymph node regions or groups occur above and below the diaphragm. Nodal regions include cervical (neck), axillary (underarm), mediastinal (thoracic), mesenteric (abdominal), para-aortic (pelvic), inguinal (groin), epitrochlear (inside of arm just above elbow), and popliteal (back of knee). Indicate the total number of nodal regions with evidence of lymphoma involvement. Refer to Graphic 1. Nodal Areas below for identification of nodal areas and specific nodes within each area.

Specify the total number of nodal regions involved at the last evaluation.

Graphic 1. Nodal Areas[1]



[1] "Lymphadenopathy." Web log post. Horses and Zebras. Morning Report at Toronto General Hospital, 20 July 2010. Accessed on 9/22/2013 at http://morningreporttgh.blogspot.com/2010/07/lymphadenopathy.html

Questions 285: Specify the size of the largest nodal mass

Report the size of the largest known nodal mass at the last evaluation (as measured in centimeters). If the mass is given in three dimensions (for example: 3 cm x 5 cm x 4 cm), report the longest two dimensions.

Question 286: Was there any known extranodal or splenic involvement? *(at last evaluation)*

Extranodal refers to the presentation of lymphoma outside of the lymph nodes. Common areas of extranodal involvement may include bone, gastrointestinal tract, and skin.

Splenic involvement in lymphoma is also common. It is usually evidenced by enlargement of the spleen (splenomegaly). Splenic or other extranodal involvement is most often detected by imaging techniques or pathological findings.

Specify if extranodal or splenic involvement was identified at the last evaluation.

Questions 287 – 288: Specify site(s) of involvement *(check all that apply)*

Specify all sites with known lymphomatous involvement at the last evaluation. Clarifications on some of the available option values are found below:

- **Adrenal**: The adrenals gland are small glands that sit on the top of each kidney and product hormones including sex hormones and cortisol. Select this option if there was lymphomatous involvement of or derived from the adrenal glands or their secretions.
- **Cerebrospinal fluid (CSF)**: A clear, colorless body fluid found in the brain and spinal cord that is produced by specialized ependymal cells.
- **Epidural space**: The epidural space is an anatomic space that is the outermost part of the spinal canal. The epidural space contains lymphatics, spinal nerve roots, loose fatty tissue, small arteries, and a network of internal vertebral venous plexuses.
- **Gastrointestinal (GI) tract**: Any of the organs that food and liquids travel through when they are swallowed, digested, absorbed, and leave the body as feces. These organs include the mouth, pharynx, esophagus, stomach, small intestine, large intestine, rectum, and anus.
- **Pericardium**: Of or pertaining to the membrane enclosing the heart that consists of an outer fibrous later and an inner double layer of serous membrane.
- **Pleura**: The delicate serous membrane that lines each half of the thorax of mammals and is folded back over the surface of the lung of the same side. The function of the pleura is to allow optimal expansion and contraction of the lungs during breathing.
- **Skin**: Of or pertaining to the outer or surrounding layer of the skin (epidermis).
- **Spleen**: Of or pertaining to the abdominal organ involved in the product and removal of blood cells.

If an involved site was documented but is not listed as an option, check **Other site** and report all other sites of lymphomatous involvement.

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Question Number	Date of Change	Add/Remove/Modify	Description	Reasoning (if applicable)