Study Adding Drugs to Usual Treatment for Large B-Cell Lymphoma That Returned or Did Not Respond to Treatment

Status: RECRUITING

Eligibility Criteria

Age: 18 years and over

This study is NOT accepting healthy

Healthy Volunteers: volunteers

Inclusion Criteria:

* Participants must have: * Histologically confirmed relapsed/refractory LBCL as outlined by the World Health Organization (WHO) guidelines * Follicular lymphoma, grade 3B * Transformed lymphoma * High grade B-cell lymphoma with or without MYC, BCL2 and/or BCL6 rearrangements * Participants must have staging imaging performed within 28 days prior to registration, as follows. Positron emission tomography (PET)-computed tomography (CT) baseline scans are strongly preferred; diagnostic quality magnetic resonance imaging (MRI), contrast-enhanced CT, or contrast-enhanced MRI scans are also acceptable if PET-CT is not feasible at baseline. Note: PET-CT will be required at end of treatment (EOT) and progression for response assessment. All measurable lesions (longest diameter \>= 1.5 cm) must be assessed within 28 days prior to registration. Tests to assess non-measurable disease must be performed within 28 days prior to registration. All disease must be documented on the Baseline Tumor Assessment Form. * Participants must have cell of origin (COO) determination of germinal center (GC)(GCB or non-GC GCB) of LBCL based on Hans immunohistochemistry algorithm (CD10, BCL6, MUM1) as noted on pathology report. * Participants must have had 1-5 prior systemic treatment regimens including one systemic multiagent regimen for aggressive lymphoma * Participants who have received prior systemic therapy must have completed their last treatment prior to registration. Participants must have recovered from previous therapy * Steroid use for the control of non-Hodgkin lymphoma symptoms is allowable, but must be discontinued prior to Cycle 1, Day 1 * Participant must be \>= 18 years old * Participant must have Zubrod Performance Status of 0-3 * Participant must have a complete medical history and physical exam within 28 days prior to registration * Absolute neutrophil count \>= 1.0 x 10\^3/uL (within 28 days prior to registration) * If there is documented lymphomatous involvement of the bone marrow as assessed by bone marrow biopsy within 90 days prior to registration, participants must have: Absolute neutrophil count (ANC) \>= 0.75 x 10\^3/uL * Platelets \>= 75 x 10\^3/uL (within 28 days prior to registration) * If there is documented lymphomatous involvement of the bone marrow as assessed by bone marrow biopsy within 90 days prior to registration, participants must have: Platelets \>= 50 x 10\^3/uL * Aspartate aminotransferase (AST) =\< 3 x institutional upper limit of normal (IULN), alanine aminotransferase (ALT) =\< 3 x IULN (within 28 days prior to registration) unless due to Gilbert's disease, hemolysis, or lymphomatous involvement of liver. * Participants with lymphomatous involvement of the liver must have AST =\< 5 x IULN, ALT =\< 5 x IULN * Total bilirubin =\< 1.5 x IULN (within 28 days prior to registration) unless due to Gilbert's disease, hemolysis, or lymphomatous involvement of liver. * Participants with lymphomatous involvement of the liver must have total bilirubin =\< 5 x IULN * Participants must have a calculated creatinine clearance \>= 30 mL/min using the following Cockcroft-Gault Formula. This specimen must have been drawn and processed within 28 days prior to registration * Participants with known history or current symptoms of cardiac disease, or history of treatment with cardiotoxic agents, should have a clinical risk assessment of cardiac function using the New York Heart Association Functional Classification. To be eligible for this trial, patients should be class 2B or better * Participants must have recovered from adverse events due to prior anti-cancer therapy (i.e., have residual toxicities \> Grade 1) with the exception of alopecia * Participants with known human immunodeficiency virus (HIV)-infection must be on effective anti-retroviral therapy at randomization and have undetectable viral load test on the most recent test results obtained within 6 months prior to registration * Participants with evidence of chronic hepatitis B virus (HBV) infection must have undetectable HBV viral load on the most recent test results obtained within the last year and received suppressive therapy * Participants with a history of hepatitis C virus (HCV) infection must have an undetectable viral load. Participants currently being treated for HCV infection must have undetectable HCV viral load test on the most recent test results obtained within 28 days prior to registration * Participants must be able to swallow and retain orally administered medication and does not have any clinically significant gastrointestinal abnormalities that may alter absorption, such as malabsorption syndrome or major resection of the stomach or bowels * Participants must be offered the opportunity to participate in specimen banking. With participant consent, specimens must be collected and submitted via the Southwest Oncology Group (SWOG) Specimen Tracking System * Participants who can complete the FACT-Lym and PRO-CTCAE forms in English or Spanish must agree to participate in the patient-reported outcome study * Participants must be informed of the investigational nature of this study and must sign and give informed consent in accordance with institutional and federal guidelines. * For participants with impaired decision-making capabilities, legally authorized representatives may sign and give informed consent on behalf of study participants in accordance with applicable federal, local, and central institutional review board (CIRB) regulations.

Exclusion Criteria:

* Participants must not have active lymphomatous involvement of the central nervous system (CNS) because the treatments used in this study are not effective to sufficiently penetrate the blood brain barrier * Participants must not have known abnormalities associated with myelodysplastic syndrome (MDS) (e.g., del 5q, chr 7 abn) and myeloproliferative neoplasms (MPN) (e.g., JAK2 V617F) observed in cytogenetic testing and deoxyribonucleic acid (DNA) sequencing. Testing is not required for eligibility determination * Participants must not have a known prior history of T-cell lymphoblastic lymphoma (T-LBL)/T-cell acute leukemia (T-ALL). Testing is not required for eligibility determination * Participants must not be a candidate based on investigator assessment to receive autologous stem cell transplant (ASCT) or must have declined ASCT. Participants who had disease progression after stem cell transplant or cellular therapy (such as chimeric antigen receptor (CAR) T-cell) are eligible * Participants must not have received prior treatment with tafasitamab and/or lenalidomide * Participants must not have had prior BTK inhibitor or tazemetostat * Participants must not have any known allergy or reaction to any component of tafasitamab, lenalidomide, tazemetostat or zanubrutinib * Participants must not be receiving direct vitamin K inhibitors or strong or moderate CYP3A inhibitors or inducers at the date of registration * Notes: Because the list of these agents is constantly changing, it is important to regularly consult a frequently updated medical reference * Participants must not have a prior or concurrent malignancy whose natural history or treatment (in the opinion of the treating physician) has the potential to interfere with the safety or efficacy assessment of the investigational regimen * Participants must not be pregnant or nursing and must follow the guidelines according to the lenalidomide Risk Evaluation and Mitigation Strategies (REMS) program. The effects of tazemetostat, zanubrutinib, lenalidomide and tafasitamab, and the combination of these drugs have not been studied on the developing human fetus are the effects are unknown. Individuals who are of reproductive potential must have agreed to use a highly effective contraceptive method with details provided as a part of the consent process. A person who has had menses at any time in the preceding 12 consecutive months or who has semen likely to contain sperm is considered to be of "reproductive potential". In addition to routine contraceptive methods, "acceptable contraception" also includes refraining from sexual activity that might result in pregnancy and surgery intended to prevent pregnancy (or with a side-effect of pregnancy prevention) including hysterectomy, bilateral oophorectomy, bilateral tubal ligation/occlusion, and vasectomy with testing showing no sperm in the semen

Conditions & Interventions

Interventions:

PROCEDURE: Biospecimen Collection, PROCEDURE: Computed Tomography, DRUG: Lenalidomide, PROCEDURE: Magnetic Resonance Imaging, PROCEDURE: Positron Emission Tomography, OTHER: Quality-of-Life Assessment, OTHER: Questionnaire Administration, BIOLOGICAL: Tafasitamab, DRUG: Tazemetostat, DRUG: Zanubrutinib

Conditions:

Conditions:
Grade 3b Follicular Lymphoma, High Grade B-Cell Lymphoma, High Grade B-Cell Lymphoma With MYC and BCL2 and/or BCL6 Rearrangements, Recurrent Diffuse Large B-Cell Lymphoma, Refractory Diffuse Large B-Cell Lymphoma, Transformed Non-Hodgkin Lymphoma

More Information

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