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Protocol Registration and Results System

ID: C18083/2048 Study to Evaluate the Efficacy and Safety of Treatment With Bendamustine in Combination With Ofatumumab in Previously Untreated Patients With Indolent B-Cell Non-Hodgkin's Lymphoma (NHL) NCT01108341

Protocol Registration and Results Preview

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Study to Evaluate the Efficacy and Safety of Treatment With Bendamustine in Combination With Ofatumumab in Previously Untreated Patients With Indolent B-Cell Non-Hodgkin's Lymphoma (NHL)

This study has been completed.

Sponsor:	Cephalon
Collaborators:	
Information provided by (Responsible Party):	Teva Pharmaceutical Industries (Cephalon)
ClinicalTrials.gov Identifier:	NCT01108341

► Purpose

The primary objective of the study is to determine the efficacy, as measured by overall response (complete response + partial response) of bendamustine in combination with ofatumumab in previously untreated patients with indolent B-Cell Non-Hodgkin's Lymphoma (NHL).

Condition	Intervention	Phase
Non-Hodgkin's Lymphoma (NHL)	Drug: Bendamustine hydrochloride Drug: Ofatumumab	Phase 2

Study Type: Interventional

Study Design: Treatment, Single Group Assignment, Open Label, N/A

Official Title: An Open-Label Study to Evaluate the Efficacy and Safety of Treatment With Bendamustine in Combination With Ofatumumab in Previously Untreated Patients With Indolent B-Cell Non-Hodgkin's Lymphoma (NHL)

Further study details as provided by Teva Pharmaceutical Industries (Cephalon):

Primary Outcome Measure:

- Percentage of Participants With a Best Overall Response of Complete Response (CR) or Partial Response (PR), as Determined by the

International Working Group (IWG) Criteria As Assessed by Investigators
[Time Frame: up to Week 32] [Designated as safety issue: No]

The IWG criteria (Cheson et al 2007) for a CR is a complete disappearance of all detectable clinical evidence of disease and disease-related symptoms if present before therapy. A PR is at least a 50% decrease in sum of the product of the diameters (SPD) of up to 6 of the largest dominant nodes or nodal masses, no increase should be observed in the size of other nodes, liver or spleen, and no new sites of disease should be observed.

Secondary Outcome Measures:

- Percentage of Participants With a Best Overall Response of Complete Response (CR), as Determined by the International Working Group (IWG) Criteria As Assessed by Investigators [Time Frame: up to Week 32] [Designated as safety issue: No]
The IWG criteria (Cheson et al 2007) for a CR is a complete disappearance of all detectable clinical evidence of disease and disease-related symptoms if present before therapy.

Enrollment: 50

Study Start Date: May 2010

Study Completion Date: October 2011

Primary Completion Date: July 2011

Arms	Assigned Interventions
<p>Experimental: Bendamustine and Ofatumumab</p> <p>There are 6 planned and 2 optional 28-day cycles in which participants are administered both bendamustine and ofatumumab in the following doses: Bendamustine administered at 90 mg/m² intravenously (iv) on study days 1 and 2. Ofatumumab administered at 300 mg iv on day 1 and 1000 mg iv on day 8 of cycle 1. Ofatumumab administered at 1000 mg iv on day 1 of all additional cycles.</p>	<p>Drug: Bendamustine hydrochloride</p> <p>Bendamustine will be administered at 90 mg/m² as a 30-minute intravenous (iv) infusion on days 1 and 2 of each cycle.</p> <p>Other Names:</p> <ul style="list-style-type: none"> • CEP-18083 • Treanda <p>Drug: Ofatumumab</p> <p>Ofatumumab will be administered at 300 mg as an iv infusion on day 1 and 1000 mg on day 8 of cycle 1 and 1000 mg on day 1 of each subsequent cycle.</p> <p>Other Names:</p> <ul style="list-style-type: none"> • Arzerra

 **Eligibility**

Ages Eligible for Study: 18 Years and older

Genders Eligible for Study: Both

Key Inclusion Criteria:

- The patient has histopathologic confirmation of one of the protocol-specific CD20+ B-cell non-Hodgkin's lymphomas. Tissue diagnostic procedures must be performed within 6 months of study entry and with biopsy material available for review.
- The patient meets 1 of the following need-for-treatment criteria:
 - a. Presence of at least 1 of the following B-symptoms:
 - fever ($>38^{\circ}\text{C}$) of unclear etiology
 - night sweats
 - weight loss of greater than 10% within the prior 6 months
 - b. large tumor mass (bulky disease) characterized by lymphomas with a diameter of more than 3 cm in 3 or more regions or by a lymphoma with a diameter of more than 7 cm in 1 region
 - c. presence of lymphoma-related complications
 - d. hyperviscosity syndrome due to monoclonal gammopathy
- The patient's tumor is verified to be CD20+ positive from current or previous excisional or incisional tissue diagnostic procedures performed within 6 months of study entry.
- The screening phase CT scan (based on local evaluation) shows:
 - 2 or more clearly demarcated lesions with a largest diameter ≥ 1.5 cm, or
 - 1 clearly demarcated lesion with a largest diameter ≥ 2.0 cm
- The patient was not previously treated for indolent lymphoma (with the exception of a single course of local radiation therapy not exceeding 2 adjacent lymph node regions).
- The patient has adequate hematologic and hepatic function.
- The patient has Eastern Cooperative Oncology Group (ECOG) performance status 0, 1, or 2.
- The patient has serum creatinine of 2.0 mg/dL or less or creatinine clearance of 30 mL/min or more, based on the Cockcroft-Gault method, or from a 24-hour urine collection.
- The patient is willing to comply with contraception requirements.

Key Exclusion Criteria:

The patient:

- Has small lymphocytic lymphoma or mantle cell lymphoma.
- Has documented history of central nervous system (CNS) lymphomatous involvement.
- Has or has had an active malignancy, other than NHL, within the past 3 years except for localized prostate cancer without evidence of bone metastases, bladder, cervical, or breast carcinoma in-situ, or non-melanoma skin cancer .

- Has New York Heart Association (NYHC) Class III or IV heart failure, uncontrolled arrhythmias or unstable angina, electrocardiographic evidence of active ischemia or active conduction system abnormalities, or myocardial infarction within the last 6 months.
- Has known human immunodeficiency virus (HIV) infection.
- Has acute or chronic hepatitis B or hepatitis C infection.
- Is a pregnant or lactating woman. (Any women becoming pregnant during the study will be withdrawn from the study.)
- Has any serious uncontrolled, medical or psychological disorder that would impair the ability of the subject to receive study drugs.
- Has received another investigational agent within 30 days of study entry.
- Has known hypersensitivity to mannitol.
- Has Ann Arbor stage I disease.

Contacts and Locations

Locations

United States, Alabama

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Birmingham, Alabama, United States, 35294-3300

United States, California

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United States, Connecticut

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United States, Florida

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United States, Georgia

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 Texas Oncology, P.A.
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Investigators

Study Director: Sponsor's Medical Expert Cephalon

More Information

Responsible Party: Cephalon
 Study ID Numbers: C18083/2048
 2009-016725-34 [EudraCT Number]
 Health Authority: United States: Food and Drug Administration
 Belgium: Federal Agency for Medicinal Products and Health

Products

France: Afssaps - Agence française de sécurité sanitaire des produits de santé (Saint-Denis)

Israel: Israeli Health Ministry Pharmaceutical Administration

Poland: Office for Registration of Medicinal Products, Medical Devices and Biocidal Products

Study Results

▶ Participant Flow

Recruitment Details	
Pre-Assignment Details	

Arm/Group Title	Bendamustine and Ofatumumab	Total (Not public)
▼ Arm/Group Description	There are 6 planned and 2 optional 28-day cycles in which participants are administered both bendamustine and ofatumumab in the following doses: Bendamustine administered at 90 mg/m ² intravenously (iv) on study days 1 and 2. Ofatumumab administered at 300 mg iv on day 1 and 1000 mg iv on day 8 of cycle 1. Ofatumumab administered at 1000 mg iv on day 1 of all additional cycles.	
Period Title: Overall Study		
Started	50	50
Safety Set (Enrolled and Treated)	49	49
Completed	45	45
Not Completed	5	5
<u>Reason Not Completed</u>		
Death	2	2
Withdrawal by Subject	1	1
Lost to Follow-up	1	1
not specified	1	1
(Not Public)	Not Completed = 5 Total from all reasons = 5	

 **Baseline Characteristics**

Arm/Group Title	Bendamustine and Ofatumumab
▼ Arm/Group Description	There are 6 planned and 2 optional 28-day cycles in which participants are administered both bendamustine and ofatumumab in the following doses: Bendamustine administered at 90 mg/m ² intravenously (iv) on study days 1 and 2. Ofatumumab administered at 300 mg iv on day 1 and 1000 mg iv on day 8 of cycle 1. Ofatumumab administered at 1000 mg iv on day 1 of all additional cycles.
Overall Number of Baseline Participants	49
▼ Baseline Analysis Population Description [Not specified]	
Age, Continuous Mean (Standard Deviation) Units: years	59.1 (10.77)
Age, Customized Measure Type: Number Units: participants	
<65 years	31
>=65 years	18
Gender, Male/Female Measure Type: Number Units: participants	
Female	23
Male	26
Ethnicity (NIH/OMB) Measure Type: Number Units: participants	
Hispanic or Latino	3
Not Hispanic or Latino	45
Unknown or Not Reported	1
Race/Ethnicity, Customized Measure Type: Number Units: participants	
American Indian or Alaska Native	1
Asian	2

Pacific Islander	0
Black	2
White	44
Other	0

► Outcome Measures

1. Primary Outcome

Title:	Percentage of Participants With a Best Overall Response of Complete Response (CR) or Partial Response (PR), as Determined by the International Working Group (IWG) Criteria As Assessed by Investigators
▼ Description:	The IWG criteria (Cheson et al 2007) for a CR is a complete disappearance of all detectable clinical evidence of disease and disease-related symptoms if present before therapy. A PR is at least a 50% decrease in sum of the product of the diameters (SPD) of up to 6 of the largest dominant nodes or nodal masses, no increase should be observed in the size of other nodes, liver or spleen, and no new sites of disease should be observed.
Time Frame:	up to Week 32
Safety Issue?	No
▼ Outcome Measure Data 	
▼ Analysis Population Description	
Safety population of participants who were treated	

Arm/Group Title	Bendamustine and Ofatumumab
▼ Arm/Group Description:	There are 6 planned and 2 optional 28-day cycles in which participants are administered both bendamustine and ofatumumab in the following doses: Bendamustine administered at 90 mg/m ² intravenously (iv) on study days 1 and 2. Ofatumumab administered at 300 mg iv on day 1 and 1000 mg iv on day 8 of cycle 1. Ofatumumab administered at 1000 mg iv on day 1 of all additional cycles.
Number of Participants Analyzed	49
Number (95% Confidence Interval) Units: percentage of participants	90 (77.8 to 96.6)

2. Secondary Outcome

Title:	Percentage of Participants With a Best Overall Response of Complete Response (CR), as Determined by the International Working Group (IWG) Criteria As Assessed by Investigators
▼ Description:	The IWG criteria (Cheson et al 2007) for a CR is a complete disappearance of all detectable clinical evidence of disease and disease-related symptoms if present before therapy.
Time Frame:	up to Week 32
Safety Issue?	No

▼ Outcome Measure Data

▼ Analysis Population Description

Safety population of participants who were treated

Arm/Group Title	Bendamustine and Ofatumumab
▼ Arm/Group Description:	There are 6 planned and 2 optional 28-day cycles in which participants are administered both bendamustine and ofatumumab in the following doses: Bendamustine administered at 90 mg/m ² intravenously (iv) on study days 1 and 2. Ofatumumab administered at 300 mg iv on day 1 and 1000 mg iv on day 8 of cycle 1. Ofatumumab administered at 1000 mg iv on day 1 of all additional cycles.

Number of Participants Analyzed	49
Number (95% Confidence Interval) Units: percentage of participants	67 (52.6 to 80.1)

▶ Adverse Events

Time Frame	up to 39 weeks
Additional Description	
Source Vocabulary Name	MedDRA (13.0)
Assessment Type	Systematic Assessment
Arm/Group Title	Bendamustine and Ofatumumab
▼ Arm/Group Description	There are 6 planned and 2 optional 28-day cycles in which participants are administered both bendamustine and ofatumumab in the following doses: Bendamustine administered at 90 mg/m ² intravenously (iv) on study days 1 and 2. Ofatumumab administered at 300 mg iv on day 1 and 1000 mg iv on day 8 of cycle 1. Ofatumumab administered at 1000 mg iv on day 1 of all additional cycles.
▼ Serious Adverse Events	
	Bendamustine and Ofatumumab
	Affected / at Risk (%)
Total	14/49 (28.57%)
Blood and lymphatic system disorders	
Febrile neutropenia †A	2/49 (4.08%)
Eye disorders	
Diplopia †A	1/49 (2.04%)
Gastrointestinal disorders	
Ascites †A	1/49 (2.04%)
Colitis †A	1/49 (2.04%)
Diarrhoea †A	1/49 (2.04%)

Faeces discoloured † ^A	1/49 (2.04%)
Nausea † ^A	1/49 (2.04%)
General disorders	
Asthenia † ^A	1/49 (2.04%)
Device dislocation † ^A	1/49 (2.04%)
Fatigue † ^A	1/49 (2.04%)
Infusion related reaction † ^A	2/49 (4.08%)
Pyrexia † ^A	2/49 (4.08%)
Hepatobiliary disorders	
Portal vein thrombosis † ^A	1/49 (2.04%)
Infections and infestations	
Bacterial sepsis † ^A	1/49 (2.04%)
Device related sepsis † ^A	1/49 (2.04%)
Gastroenteritis † ^A	1/49 (2.04%)
Pneumonia † ^A	1/49 (2.04%)
Sepsis † ^A	1/49 (2.04%)
Tooth abscess † ^A	1/49 (2.04%)
Investigations	
Oxygen saturation decreased † ^A	1/49 (2.04%)
Metabolism and nutrition disorders	
Dehydration † ^A	1/49 (2.04%)
Failure to thrive † ^A	1/49 (2.04%)
Hypercalcaemia † ^A	1/49 (2.04%)
Hyperkalaemia † ^A	1/49 (2.04%)
Hypophagia † ^A	1/49 (2.04%)
Musculoskeletal and connective tissue disorders	
Muscular weakness † ^A	1/49 (2.04%)
Neoplasms benign, malignant and unspecified (incl cysts and polyps)	
Non-small cell lung cancer † ^A	1/49 (2.04%)
Nervous system disorders	
Depressed level of consciousness † _A	1/49 (2.04%)
Renal and urinary disorders	
Renal failure acute † ^A	1/49 (2.04%)
Respiratory, thoracic and mediastinal disorders	
Bronchospasm † ^A	1/49 (2.04%)
Sinus congestion † ^A	1/49 (2.04%)
Skin and subcutaneous tissue disorders	
Hyperhidrosis † ^A	1/49 (2.04%)

Rash † ^A	1/49 (2.04%)
Vascular disorders	
Hot flush † ^A	1/49 (2.04%)
<p>† Indicates events were collected by systematic assessment. ^A Term from vocabulary, MedDRA (13.0)</p>	
▼ Other (Not Including Serious) Adverse Events	
Frequency Threshold for Reporting Other Adverse Events	5%
	Bendamustine and Ofatumumab
	Affected / at Risk (%)
Total	49/49 (100%)
Blood and lymphatic system disorders	
Anaemia † ^A	5/49 (10.2%)
Leukopenia † ^A	7/49 (14.29%)
Lymphopenia † ^A	3/49 (6.12%)
Neutropenia † ^A	10/49 (20.41%)
Thrombocytopenia † ^A	4/49 (8.16%)
Cardiac disorders	
Palpitations † ^A	3/49 (6.12%)
Tachycardia † ^A	5/49 (10.2%)
Eye disorders	
Eye irritation † ^A	4/49 (8.16%)
Gastrointestinal disorders	
Abdominal pain † ^A	5/49 (10.2%)
Constipation † ^A	17/49 (34.69%)
Diarrhoea † ^A	12/49 (24.49%)
Dyspepsia † ^A	3/49 (6.12%)
Gastrooesophageal reflux disease † ^A	4/49 (8.16%)
Nausea † ^A	29/49 (59.18%)
Stomatitis † ^A	4/49 (8.16%)
Vomiting † ^A	12/49 (24.49%)
General disorders	
Asthenia † ^A	4/49 (8.16%)
Chills † ^A	6/49 (12.24%)
Fatigue † ^A	26/49 (53.06%)
Infusion related reaction † ^A	20/49 (40.82%)
Oedema peripheral † ^A	10/49 (20.41%)
Pyrexia † ^A	6/49 (12.24%)

Immune system disorders		
Drug hypersensitivity	† ^A	5/49 (10.2%)
Infections and infestations		
Sinusitis	† ^A	4/49 (8.16%)
Upper respiratory tract infection	† ^A	4/49 (8.16%)
Investigations		
Haemoglobin decreased	† ^A	3/49 (6.12%)
Neutrophil count decreased	† ^A	11/49 (22.45%)
Platelet count decreased	† ^A	7/49 (14.29%)
Weight decreased	† ^A	4/49 (8.16%)
White blood cell count decreased	† ^A	13/49 (26.53%)
Metabolism and nutrition disorders		
Decreased appetite	† ^A	7/49 (14.29%)
Hypokalaemia	† ^A	3/49 (6.12%)
Hypomagnesaemia	† ^A	3/49 (6.12%)
Musculoskeletal and connective tissue disorders		
Back pain	† ^A	6/49 (12.24%)
Myalgia	† ^A	7/49 (14.29%)
Pain in extremity	† ^A	3/49 (6.12%)
Nervous system disorders		
Dizziness	† ^A	10/49 (20.41%)
Dysgeusia	† ^A	4/49 (8.16%)
Headache	† ^A	12/49 (24.49%)
Psychiatric disorders		
Anxiety	† ^A	4/49 (8.16%)
Insomnia	† ^A	7/49 (14.29%)
Respiratory, thoracic and mediastinal disorders		
Cough	† ^A	8/49 (16.33%)
Dyspnoea	† ^A	13/49 (26.53%)
Nasal congestion	† ^A	4/49 (8.16%)
Rhinitis allergic	† ^A	3/49 (6.12%)
Skin and subcutaneous tissue disorders		
Periorbital oedema	† ^A	3/49 (6.12%)
Pruritus	† ^A	8/49 (16.33%)
Rash	† ^A	9/49 (18.37%)
Urticaria	† ^A	8/49 (16.33%)
Vascular disorders		
Hypertension	† ^A	5/49 (10.2%)
Hypotension	† ^A	3/49 (6.12%)

† Indicates events were collected by systematic assessment.
A Term from vocabulary, MedDRA (13.0)

▶ Limitations and Caveats

[Not Specified]

▶ More Information

Certain Agreements

Principal Investigators are NOT employed by the organization sponsoring the study.

There IS an agreement between the Principal Investigator and the Sponsor (or its agents) that restricts the PI's rights to discuss or publish trial results after the trial is completed.

Sponsor has the right 60 days before submission for publication to review/provide comments. If the Sponsor's review shows that potentially patentable subject matter would be disclosed, publication or public disclosure shall be delayed for up to 90 additional days in order for the Sponsor, or Sponsor's designees, to file the necessary patent applications. In multicenter trials, each PI will postpone single center publications until after disclosure or publication of multicenter data.

Results Point of Contact

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