



## Clinical trial results: An Open Label, Phase 2 Study to Evaluate Efficacy and Safety of Daratumumab in Relapsed or Refractory Mantle Cell Lymphoma, Diffuse Large B-Cell Lymphoma, and Follicular Lymphoma Summary

EudraCT number	2014-005299-26
Trial protocol	BE NL
Global end of trial date	01 June 2017

### Results information

Result version number	v1 (current)
This version publication date	13 June 2018
First version publication date	13 June 2018

### Trial information

#### Trial identification

Sponsor protocol code	54767414LYM2001
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#### Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT02413489
WHO universal trial number (UTN)	-

Notes:

### Sponsors

Sponsor organisation name	Janssen-Cilag International N.V
Sponsor organisation address	Turnhoutseweg 30, Beerse, Belgium, B-2340
Public contact	Clinical Registry Group, Janssen-Cilag International N.V, ClinicalTrialsEU@its.jnj.com
Scientific contact	Clinical Registry Group, Janssen-Cilag International N.V, ClinicalTrialsEU@its.jnj.com

Notes:

### Paediatric regulatory details

Is trial part of an agreed paediatric investigation plan (PIP)	No
Does article 45 of REGULATION (EC) No 1901/2006 apply to this trial?	No
Does article 46 of REGULATION (EC) No 1901/2006 apply to this trial?	No

Notes:

## Results analysis stage

Analysis stage	Final
Date of interim/final analysis	01 June 2017
Is this the analysis of the primary completion data?	No
Global end of trial reached?	Yes
Global end of trial date	01 June 2017
Was the trial ended prematurely?	No

Notes:

## General information about the trial

Main objective of the trial:

The main objectives were to assess overall response rate (ORR), including complete response (CR) and partial response (PR), of daratumumab in subjects with non-Hodgkin's lymphoma (NHL) and to evaluate association between ORR and CD38 expression level in order to determine a threshold for CD38 expression level in each NHL subtype, above which daratumumab activity is enhanced.

Protection of trial subjects:

Safety evaluations included adverse event monitoring, physical examinations, electrocardiogram (ECG) monitoring, clinical laboratory parameters (hematology, urinalysis and chemistry), vital sign measurements, and Eastern Cooperative Oncology Group (ECOG) performance status.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	25 September 2015
Long term follow-up planned	No
Independent data monitoring committee (IDMC) involvement?	No

Notes:

## Population of trial subjects

### Subjects enrolled per country

Country: Number of subjects enrolled	Korea, Republic of: 6
Country: Number of subjects enrolled	Netherlands: 7
Country: Number of subjects enrolled	Turkey: 5
Country: Number of subjects enrolled	Australia: 2
Country: Number of subjects enrolled	Belgium: 2
Country: Number of subjects enrolled	France: 6
Country: Number of subjects enrolled	United States: 8
Worldwide total number of subjects	36
EEA total number of subjects	15

Notes:

### Subjects enrolled per age group

In utero	0
Preterm newborn - gestational age < 37 wk	0
Newborns (0-27 days)	0
Infants and toddlers (28 days-23	0

months)	
Children (2-11 years)	0
Adolescents (12-17 years)	0
Adults (18-64 years)	18
From 65 to 84 years	18
85 years and over	0

## Subject disposition

### Recruitment

Recruitment details: -

### Pre-assignment

Screening details:

In total 36 subjects were treated (15 subjects in the diffuse large B-cell lymphoma {DLBCL} cohort, 16 subjects in the follicular lymphoma {FL} cohort, and 5 subjects in the mantle cell lymphoma {MCL} cohort).

### Period 1

Period 1 title	End of Study (overall period)
Is this the baseline period?	Yes
Allocation method	Non-randomised - controlled
Blinding used	Not blinded

### Arms

Are arms mutually exclusive?	Yes
<b>Arm title</b>	Diffuse Large B-cell Lymphoma (DLBCL)

Arm description:

Subjects received daratumumab 16 milligram per kilogram (mg/kg) as intravenous infusion once every week for 8 weeks; then once every other week for 16 weeks; thereafter once every 4 weeks until documented progression, unacceptable toxicity, or study end.

Arm type	Experimental
Investigational medicinal product name	Daratumumab
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Concentrate for solution for infusion
Routes of administration	Intravenous use

Dosage and administration details:

Subjects received daratumumab 16 mg/kg as intravenous infusion.

<b>Arm title</b>	Follicular Lymphoma (FL)
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Arm description:

Subjects received daratumumab 16 mg/kg as intravenous infusion once every week for 8 weeks; then once every other week for 16 weeks; thereafter once every 4 weeks until documented progression, unacceptable toxicity, or study end.

Arm type	Experimental
Investigational medicinal product name	Daratumumab
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Concentrate for solution for infusion
Routes of administration	Intravenous use

Dosage and administration details:

Subjects received daratumumab 16 mg/kg as intravenous infusion.

<b>Arm title</b>	Mantle Cell Lymphoma (MCL)
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Arm description:

Subjects received daratumumab 16 mg/kg as intravenous infusion once every week for 8 weeks; then once every other week for 16 weeks; thereafter once every 4 weeks until documented progression, unacceptable toxicity, or study end.

Arm type	Experimental
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Investigational medicinal product name	Daratumumab
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Concentrate for solution for infusion
Routes of administration	Intravenous use

Dosage and administration details:

Subjects received daratumumab 16 mg/kg as intravenous infusion.

<b>Number of subjects in period 1</b>	Diffuse Large B-cell Lymphoma (DLBCL)	Follicular Lymphoma (FL)	Mantle Cell Lymphoma (MCL)
Started	15	16	5
Completed	0	0	0
Not completed	15	16	5
Consent withdrawn by subject	2	-	-
Death	11	3	4
Study terminated by sponsor	2	13	1

## Baseline characteristics

### Reporting groups

Reporting group title	Diffuse Large B-cell Lymphoma (DLBCL)
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Reporting group description:

Subjects received daratumumab 16 milligram per kilogram (mg/kg) as intravenous infusion once every week for 8 weeks; then once every other week for 16 weeks; thereafter once every 4 weeks until documented progression, unacceptable toxicity, or study end.

Reporting group title	Follicular Lymphoma (FL)
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Reporting group description:

Subjects received daratumumab 16 mg/kg as intravenous infusion once every week for 8 weeks; then once every other week for 16 weeks; thereafter once every 4 weeks until documented progression, unacceptable toxicity, or study end.

Reporting group title	Mantle Cell Lymphoma (MCL)
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Reporting group description:

Subjects received daratumumab 16 mg/kg as intravenous infusion once every week for 8 weeks; then once every other week for 16 weeks; thereafter once every 4 weeks until documented progression, unacceptable toxicity, or study end.

Reporting group values	Diffuse Large B-cell Lymphoma (DLBCL)	Follicular Lymphoma (FL)	Mantle Cell Lymphoma (MCL)
Number of subjects	15	16	5
Title for AgeCategorical Units: subjects			
Children (2-11 years)	0	0	0
Adolescents (12-17 years)	0	0	0
Adults (18-64 years)	5	9	4
From 65 to 84 years	10	7	1
85 years and over	0	0	0
Title for AgeContinuous Units: years			
arithmetic mean	66.7	62.3	59.8
standard deviation	± 11.88	± 9.77	± 6.69
Title for Gender Units: subjects			
Female	6	5	0
Male	9	11	5
CD38 expression value			
The expression levels of CD38 were used to do diagnosis of MCL, DLBCL, or FL and measurable disease.			
Units: Percentage of CD38 expression			
arithmetic mean	76.3	70.3	64
standard deviation	± 18.07	± 16.78	± 8.22

Reporting group values	Total		
Number of subjects	36		
Title for AgeCategorical Units: subjects			
Children (2-11 years)	0		
Adolescents (12-17 years)	0		
Adults (18-64 years)	18		
From 65 to 84 years	18		

85 years and over	0		
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Title for AgeContinuous Units: years arithmetic mean standard deviation			
Title for Gender Units: subjects			
Female	11		
Male	25		
CD38 expression value			
The expression levels of CD38 were used to do diagnosis of MCL, DLBCL, or FL and measurable disease.			
Units: Percentage of CD38 expression arithmetic mean standard deviation			

## End points

### End points reporting groups

Reporting group title	Diffuse Large B-cell Lymphoma (DLBCL)
Reporting group description: Subjects received daratumumab 16 milligram per kilogram (mg/kg) as intravenous infusion once every week for 8 weeks; then once every other week for 16 weeks; thereafter once every 4 weeks until documented progression, unacceptable toxicity, or study end.	
Reporting group title	Follicular Lymphoma (FL)
Reporting group description: Subjects received daratumumab 16 mg/kg as intravenous infusion once every week for 8 weeks; then once every other week for 16 weeks; thereafter once every 4 weeks until documented progression, unacceptable toxicity, or study end.	
Reporting group title	Mantle Cell Lymphoma (MCL)
Reporting group description: Subjects received daratumumab 16 mg/kg as intravenous infusion once every week for 8 weeks; then once every other week for 16 weeks; thereafter once every 4 weeks until documented progression, unacceptable toxicity, or study end.	

### Primary: Overall Response Rate (ORR)

End point title	Overall Response Rate (ORR) <sup>[1]</sup>
End point description: ORR was defined as the percentage of subjects who achieved complete response (CR) or partial response (PR). As per Revised Response Criteria for Malignant Lymphoma, Lymph node measurements were taken from Computed Tomography (CT), CT portion of the Positron Emission Tomography/Computed Tomography (PET/CT), or Magnetic resonance imaging (MRI) scans where applicable. CR is defined as complete disappearance of all evidence of disease; PR as a > 50 % decrease in the sum of the products of the maximal perpendicular diameters of measured lesions (SPD) and no new sites. The analysis population was all subjects that were treated with daratumumab. Here "99999" indicates data was not estimable as no subjects had response.	
End point type	Primary
End point timeframe: After the first dose until disease progression, withdrawal of consent from study participation, or the end of study (approximately 1.9 years)	
Notes: [1] - No statistical analyses have been specified for this primary end point. It is expected there is at least one statistical analysis for each primary end point. Justification: Descriptive statistics were done, no inferential statistical analyses were performed.	

End point values	Diffuse Large B-cell Lymphoma (DLBCL)	Follicular Lymphoma (FL)	Mantle Cell Lymphoma (MCL)	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	15	16	5	
Units: Percentage of subjects				
number (confidence interval 95%)	6.7 (0.2 to 31.9)	12.5 (1.6 to 38.3)	0 (0 to 99999)	

### Statistical analyses

No statistical analyses for this end point

### Secondary: Duration of Response

End point title | Duration of Response

End point description:

Duration of response was the duration from the date of the initial documentation of a response to the date of first documented evidence of progressive disease (PD). PD is defined as any new lesion >1.5 centimeter (cm) in any axis or  $\geq 50\%$  increase in previously involved sites. The analysis population was all subjects that were treated with daratumumab and who achieved overall response. There was insufficient data to perform Kaplan Meier analysis, therefore individual data for each evaluable subject was reported.

End point type | Secondary

End point timeframe:

Approximately 1.9 years

End point values	Diffuse Large B-cell Lymphoma (DLBCL)	Follicular Lymphoma (FL)	Mantle Cell Lymphoma (MCL)	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	1	2	0 <sup>[2]</sup>	
Units: Months				
number (not applicable)				
Subject 1	1.6	0.7		
Subject 2	0	7.4		

Notes:

[2] - None of subjects achieved response for this particular arm.

### Statistical analyses

No statistical analyses for this end point

### Secondary: Progression Free Survival (PFS)

End point title | Progression Free Survival (PFS)

End point description:

PFS was defined as the duration from the date of the first daratumumab dose to the date of Progression or death, whichever comes first. The analysis population was all subjects that were treated with daratumumab.

End point type | Secondary

End point timeframe:

Approximately 1.9 years

<b>End point values</b>	Diffuse Large B-cell Lymphoma (DLBCL)	Follicular Lymphoma (FL)	Mantle Cell Lymphoma (MCL)	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	15	16	5	
Units: Months				
number (confidence interval 95%)	1.2 (0.6 to 1.7)	3.3 (1.9 to 3.8)	1.3 (0.5 to 1.9)	

### Statistical analyses

No statistical analyses for this end point

### Secondary: Overall Survival (OS)

End point title	Overall Survival (OS)
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End point description:

Overall survival was defined as the duration from the date of the first daratumumab dose to the date of death. The analysis population was all subjects that were treated with daratumumab. Here "99999" upper limit of CI was not estimable due to less number of subjects with events and "99999" for MCL group indicates that Upper limit of CI could not be estimated due to less number of subjects analyzed.

End point type	Secondary
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End point timeframe:

Approximately 1.9 years

<b>End point values</b>	Diffuse Large B-cell Lymphoma (DLBCL)	Follicular Lymphoma (FL)	Mantle Cell Lymphoma (MCL)	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	15	16	5	
Units: Months				
number (confidence interval 95%)	4.9 (2.1 to 9.0)	17.2 (15.0 to 99999)	4.8 (1.7 to 99999)	

### Statistical analyses

No statistical analyses for this end point

### Secondary: Time to Response

End point title	Time to Response
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End point description:

Time to response was defined as the duration from the date of the first dose of daratumumab to the earliest date that a response (CR/PR) is first documented. The analysis population was all subjects that were treated with daratumumab and who achieved overall response There was insufficient data to perform Kaplan Meier analysis, therefore individual data for each evaluable subject was reported.

End point type	Secondary
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End point timeframe:  
Approximately 1.9 years

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<b>End point values</b>	Diffuse Large B-cell Lymphoma (DLBCL)	Follicular Lymphoma (FL)	Mantle Cell Lymphoma (MCL)	
Subject group type	Reporting group	Reporting group	Reporting group	
Number of subjects analysed	1	2	0 <sup>[3]</sup>	
Units: Months				
number (not applicable)				
Subject 1	1.9	2.3		
Subject 2	0	1.9		

Notes:

[3] - None of subjects achieved response for this particular arm.

### **Statistical analyses**

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No statistical analyses for this end point

## Adverse events

### Adverse events information

Timeframe for reporting adverse events:

Up to 1.9 years

Adverse event reporting additional description:

Analysis set included all subjects who received at least 1 dose of study treatment, and contributed any safety data after the start of study treatment.

Assessment type	Non-systematic
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### Dictionary used

Dictionary name	MedDRA
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Dictionary version	19.1
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### Reporting groups

Reporting group title	Diffuse Large B-cell Lymphoma (DLBCL)
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Reporting group description:

Subjects received daratumumab 16 milligram per kilogram (mg/kg) as intravenous infusion once every week for 8 weeks; then once every other week for 16 weeks; thereafter once every 4 weeks until documented progression, unacceptable toxicity, or study end.

Reporting group title	Follicular Lymphoma (FL)
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Reporting group description:

Subjects received daratumumab 16 mg/kg as intravenous infusion once every week for 8 weeks; then once every other week for 16 weeks; thereafter once every 4 weeks until documented progression, unacceptable toxicity, or study end.

Reporting group title	Mantle Cell Lymphoma (MCL)
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Reporting group description:

Subjects received daratumumab 16 mg/kg as intravenous infusion once every week for 8 weeks; then once every other week for 16 weeks; thereafter once every 4 weeks until documented progression, unacceptable toxicity, or study end.

<b>Serious adverse events</b>	Diffuse Large B-cell Lymphoma (DLBCL)	Follicular Lymphoma (FL)	Mantle Cell Lymphoma (MCL)
Total subjects affected by serious adverse events			
subjects affected / exposed	6 / 15 (40.00%)	6 / 16 (37.50%)	3 / 5 (60.00%)
number of deaths (all causes)	11	3	4
number of deaths resulting from adverse events			
Neoplasms benign, malignant and unspecified (incl cysts and polyps)			
Diffuse Large B-Cell Lymphoma			
subjects affected / exposed	0 / 15 (0.00%)	1 / 16 (6.25%)	0 / 5 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
Injury, poisoning and procedural complications			
Spinal Fracture			

subjects affected / exposed	0 / 15 (0.00%)	1 / 16 (6.25%)	0 / 5 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
<b>Blood and lymphatic system disorders</b>			
<b>Febrile Neutropenia</b>			
subjects affected / exposed	0 / 15 (0.00%)	1 / 16 (6.25%)	1 / 5 (20.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	1 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
<b>Lymphadenopathy</b>			
subjects affected / exposed	0 / 15 (0.00%)	1 / 16 (6.25%)	0 / 5 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
<b>Thrombocytopenia</b>			
subjects affected / exposed	1 / 15 (6.67%)	0 / 16 (0.00%)	0 / 5 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
<b>General disorders and administration site conditions</b>			
<b>General Physical Health Deterioration</b>			
subjects affected / exposed	1 / 15 (6.67%)	0 / 16 (0.00%)	1 / 5 (20.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 1
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 1
<b>Pyrexia</b>			
subjects affected / exposed	0 / 15 (0.00%)	0 / 16 (0.00%)	2 / 5 (40.00%)
occurrences causally related to treatment / all	0 / 0	0 / 0	2 / 2
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
<b>Gastrointestinal disorders</b>			
<b>Abdominal Pain Lower</b>			
subjects affected / exposed	1 / 15 (6.67%)	0 / 16 (0.00%)	0 / 5 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
<b>Renal and urinary disorders</b>			
<b>Acute Kidney Injury</b>			

subjects affected / exposed	1 / 15 (6.67%)	0 / 16 (0.00%)	0 / 5 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
<b>Chronic Kidney Disease</b>			
subjects affected / exposed	1 / 15 (6.67%)	0 / 16 (0.00%)	0 / 5 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 1	0 / 0	0 / 0
<b>Musculoskeletal and connective tissue disorders</b>			
<b>Musculoskeletal Pain</b>			
subjects affected / exposed	1 / 15 (6.67%)	0 / 16 (0.00%)	0 / 5 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
<b>Infections and infestations</b>			
<b>Pneumonia</b>			
subjects affected / exposed	1 / 15 (6.67%)	1 / 16 (6.25%)	0 / 5 (0.00%)
occurrences causally related to treatment / all	0 / 2	1 / 1	0 / 0
deaths causally related to treatment / all	0 / 1	0 / 0	0 / 0
<b>Pneumonia Cytomegaloviral</b>			
subjects affected / exposed	0 / 15 (0.00%)	1 / 16 (6.25%)	0 / 5 (0.00%)
occurrences causally related to treatment / all	0 / 0	0 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
<b>Urinary Tract Infection</b>			
subjects affected / exposed	0 / 15 (0.00%)	1 / 16 (6.25%)	0 / 5 (0.00%)
occurrences causally related to treatment / all	0 / 0	1 / 1	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0
<b>Metabolism and nutrition disorders</b>			
<b>Decreased Appetite</b>			
subjects affected / exposed	1 / 15 (6.67%)	0 / 16 (0.00%)	0 / 5 (0.00%)
occurrences causally related to treatment / all	0 / 1	0 / 0	0 / 0
deaths causally related to treatment / all	0 / 0	0 / 0	0 / 0

Frequency threshold for reporting non-serious adverse events: 5 %

<b>Non-serious adverse events</b>	Diffuse Large B-cell Lymphoma (DLBCL)	Follicular Lymphoma (FL)	Mantle Cell Lymphoma (MCL)
Total subjects affected by non-serious adverse events subjects affected / exposed	15 / 15 (100.00%)	16 / 16 (100.00%)	5 / 5 (100.00%)
Neoplasms benign, malignant and unspecified (incl cysts and polyps) Tumour Pain subjects affected / exposed occurrences (all)	0 / 15 (0.00%) 0	1 / 16 (6.25%) 2	0 / 5 (0.00%) 0
Vascular disorders Flushing subjects affected / exposed occurrences (all)  Hot Flush subjects affected / exposed occurrences (all)  Hypertension subjects affected / exposed occurrences (all)  Hypotension subjects affected / exposed occurrences (all)	0 / 15 (0.00%) 0  0 / 15 (0.00%) 0  2 / 15 (13.33%) 2  1 / 15 (6.67%) 1	2 / 16 (12.50%) 2  0 / 16 (0.00%) 0  3 / 16 (18.75%) 3  1 / 16 (6.25%) 1	1 / 5 (20.00%) 1  1 / 5 (20.00%) 1  0 / 5 (0.00%) 0  0 / 5 (0.00%) 0
General disorders and administration site conditions Asthenia subjects affected / exposed occurrences (all)  Catheter Site Erythema subjects affected / exposed occurrences (all)  Catheter Site Inflammation subjects affected / exposed occurrences (all)  Chest Discomfort subjects affected / exposed occurrences (all)  Chills subjects affected / exposed occurrences (all)	0 / 15 (0.00%) 0  1 / 15 (6.67%) 1  1 / 15 (6.67%) 1  0 / 15 (0.00%) 0  2 / 15 (13.33%) 2	1 / 16 (6.25%) 2  0 / 16 (0.00%) 0  0 / 16 (0.00%) 0  1 / 16 (6.25%) 1  1 / 16 (6.25%) 1	0 / 5 (0.00%) 0  0 / 5 (0.00%) 0  0 / 5 (0.00%) 0  0 / 5 (0.00%) 0  1 / 5 (20.00%) 1

Fatigue			
subjects affected / exposed	4 / 15 (26.67%)	3 / 16 (18.75%)	1 / 5 (20.00%)
occurrences (all)	4	4	1
General Physical Health Deterioration			
subjects affected / exposed	1 / 15 (6.67%)	0 / 16 (0.00%)	0 / 5 (0.00%)
occurrences (all)	1	0	0
Influenza Like Illness			
subjects affected / exposed	0 / 15 (0.00%)	2 / 16 (12.50%)	0 / 5 (0.00%)
occurrences (all)	0	2	0
Malaise			
subjects affected / exposed	3 / 15 (20.00%)	1 / 16 (6.25%)	0 / 5 (0.00%)
occurrences (all)	4	1	0
Non-Cardiac Chest Pain			
subjects affected / exposed	0 / 15 (0.00%)	1 / 16 (6.25%)	1 / 5 (20.00%)
occurrences (all)	0	1	1
Oedema Peripheral			
subjects affected / exposed	1 / 15 (6.67%)	2 / 16 (12.50%)	1 / 5 (20.00%)
occurrences (all)	1	2	3
Pain			
subjects affected / exposed	1 / 15 (6.67%)	1 / 16 (6.25%)	0 / 5 (0.00%)
occurrences (all)	1	1	0
Pyrexia			
subjects affected / exposed	2 / 15 (13.33%)	4 / 16 (25.00%)	1 / 5 (20.00%)
occurrences (all)	2	6	1
Respiratory, thoracic and mediastinal disorders			
Cough			
subjects affected / exposed	7 / 15 (46.67%)	6 / 16 (37.50%)	4 / 5 (80.00%)
occurrences (all)	7	9	5
Dysphonia			
subjects affected / exposed	0 / 15 (0.00%)	1 / 16 (6.25%)	0 / 5 (0.00%)
occurrences (all)	0	1	0
Dyspnoea			
subjects affected / exposed	1 / 15 (6.67%)	2 / 16 (12.50%)	2 / 5 (40.00%)
occurrences (all)	1	2	3
Hiccups			

subjects affected / exposed	0 / 15 (0.00%)	1 / 16 (6.25%)	0 / 5 (0.00%)
occurrences (all)	0	1	0
<b>Hypoxia</b>			
subjects affected / exposed	0 / 15 (0.00%)	1 / 16 (6.25%)	0 / 5 (0.00%)
occurrences (all)	0	1	0
<b>Laryngeal Oedema</b>			
subjects affected / exposed	0 / 15 (0.00%)	1 / 16 (6.25%)	0 / 5 (0.00%)
occurrences (all)	0	1	0
<b>Nasal Congestion</b>			
subjects affected / exposed	0 / 15 (0.00%)	3 / 16 (18.75%)	1 / 5 (20.00%)
occurrences (all)	0	4	1
<b>Oropharyngeal Discomfort</b>			
subjects affected / exposed	0 / 15 (0.00%)	1 / 16 (6.25%)	0 / 5 (0.00%)
occurrences (all)	0	1	0
<b>Oropharyngeal Pain</b>			
subjects affected / exposed	0 / 15 (0.00%)	1 / 16 (6.25%)	0 / 5 (0.00%)
occurrences (all)	0	1	0
<b>Pharyngeal Oedema</b>			
subjects affected / exposed	0 / 15 (0.00%)	0 / 16 (0.00%)	1 / 5 (20.00%)
occurrences (all)	0	0	1
<b>Pleural Effusion</b>			
subjects affected / exposed	0 / 15 (0.00%)	1 / 16 (6.25%)	0 / 5 (0.00%)
occurrences (all)	0	1	0
<b>Productive Cough</b>			
subjects affected / exposed	0 / 15 (0.00%)	2 / 16 (12.50%)	0 / 5 (0.00%)
occurrences (all)	0	5	0
<b>Rales</b>			
subjects affected / exposed	0 / 15 (0.00%)	1 / 16 (6.25%)	0 / 5 (0.00%)
occurrences (all)	0	1	0
<b>Respiratory Failure</b>			
subjects affected / exposed	0 / 15 (0.00%)	1 / 16 (6.25%)	0 / 5 (0.00%)
occurrences (all)	0	1	0
<b>Rhinorrhoea</b>			
subjects affected / exposed	0 / 15 (0.00%)	2 / 16 (12.50%)	0 / 5 (0.00%)
occurrences (all)	0	2	0
<b>Sinus Congestion</b>			

subjects affected / exposed occurrences (all)	0 / 15 (0.00%) 0	0 / 16 (0.00%) 0	1 / 5 (20.00%) 1
Sneezing subjects affected / exposed occurrences (all)	0 / 15 (0.00%) 0	2 / 16 (12.50%) 2	0 / 5 (0.00%) 0
Throat Irritation subjects affected / exposed occurrences (all)	0 / 15 (0.00%) 0	2 / 16 (12.50%) 2	2 / 5 (40.00%) 3
Upper-Airway Cough Syndrome subjects affected / exposed occurrences (all)	0 / 15 (0.00%) 0	0 / 16 (0.00%) 0	1 / 5 (20.00%) 1
Wheezing subjects affected / exposed occurrences (all)	0 / 15 (0.00%) 0	0 / 16 (0.00%) 0	1 / 5 (20.00%) 1
Psychiatric disorders			
Anxiety subjects affected / exposed occurrences (all)	2 / 15 (13.33%) 2	0 / 16 (0.00%) 0	0 / 5 (0.00%) 0
Delirium subjects affected / exposed occurrences (all)	1 / 15 (6.67%) 1	0 / 16 (0.00%) 0	0 / 5 (0.00%) 0
Depressed Mood subjects affected / exposed occurrences (all)	1 / 15 (6.67%) 1	0 / 16 (0.00%) 0	0 / 5 (0.00%) 0
Insomnia subjects affected / exposed occurrences (all)	3 / 15 (20.00%) 3	2 / 16 (12.50%) 3	1 / 5 (20.00%) 1
Product issues			
Thrombosis in Device subjects affected / exposed occurrences (all)	0 / 15 (0.00%) 0	1 / 16 (6.25%) 1	0 / 5 (0.00%) 0
Investigations			
Alanine Aminotransferase Increased subjects affected / exposed occurrences (all)	1 / 15 (6.67%) 1	0 / 16 (0.00%) 0	1 / 5 (20.00%) 1
Aspartate Aminotransferase Increased			

subjects affected / exposed occurrences (all)	2 / 15 (13.33%) 2	0 / 16 (0.00%) 0	0 / 5 (0.00%) 0
C-Reactive Protein Increased subjects affected / exposed occurrences (all)	1 / 15 (6.67%) 1	0 / 16 (0.00%) 0	0 / 5 (0.00%) 0
Cytomegalovirus Test Positive subjects affected / exposed occurrences (all)	1 / 15 (6.67%) 1	0 / 16 (0.00%) 0	0 / 5 (0.00%) 0
Oxygen Saturation Decreased subjects affected / exposed occurrences (all)	1 / 15 (6.67%) 1	1 / 16 (6.25%) 1	0 / 5 (0.00%) 0
Prostatic Specific Antigen Increased subjects affected / exposed occurrences (all)	0 / 15 (0.00%) 0	1 / 16 (6.25%) 1	0 / 5 (0.00%) 0
Weight Decreased subjects affected / exposed occurrences (all)	3 / 15 (20.00%) 3	2 / 16 (12.50%) 2	0 / 5 (0.00%) 0
Weight Increased subjects affected / exposed occurrences (all)	0 / 15 (0.00%) 0	1 / 16 (6.25%) 1	0 / 5 (0.00%) 0
Injury, poisoning and procedural complications			
Contusion subjects affected / exposed occurrences (all)	1 / 15 (6.67%) 1	0 / 16 (0.00%) 0	0 / 5 (0.00%) 0
Hip Fracture subjects affected / exposed occurrences (all)	0 / 15 (0.00%) 0	1 / 16 (6.25%) 1	0 / 5 (0.00%) 0
Procedural Pain subjects affected / exposed occurrences (all)	0 / 15 (0.00%) 0	1 / 16 (6.25%) 1	0 / 5 (0.00%) 0
Skin Abrasion subjects affected / exposed occurrences (all)	0 / 15 (0.00%) 0	1 / 16 (6.25%) 1	0 / 5 (0.00%) 0
Cardiac disorders			

Sinus Bradycardia subjects affected / exposed occurrences (all)	0 / 15 (0.00%) 0	1 / 16 (6.25%) 1	0 / 5 (0.00%) 0
Nervous system disorders			
Dizziness subjects affected / exposed occurrences (all)	1 / 15 (6.67%) 1	1 / 16 (6.25%) 2	1 / 5 (20.00%) 1
Dysarthria subjects affected / exposed occurrences (all)	0 / 15 (0.00%) 0	0 / 16 (0.00%) 0	1 / 5 (20.00%) 1
Headache subjects affected / exposed occurrences (all)	0 / 15 (0.00%) 0	5 / 16 (31.25%) 6	1 / 5 (20.00%) 1
Nerve Compression subjects affected / exposed occurrences (all)	0 / 15 (0.00%) 0	1 / 16 (6.25%) 2	0 / 5 (0.00%) 0
Neuralgia subjects affected / exposed occurrences (all)	0 / 15 (0.00%) 0	1 / 16 (6.25%) 1	0 / 5 (0.00%) 0
Paraesthesia subjects affected / exposed occurrences (all)	1 / 15 (6.67%) 1	0 / 16 (0.00%) 0	0 / 5 (0.00%) 0
Peripheral Sensory Neuropathy subjects affected / exposed occurrences (all)	1 / 15 (6.67%) 1	0 / 16 (0.00%) 0	0 / 5 (0.00%) 0
Post Herpetic Neuralgia subjects affected / exposed occurrences (all)	0 / 15 (0.00%) 0	1 / 16 (6.25%) 2	0 / 5 (0.00%) 0
Sensory Disturbance subjects affected / exposed occurrences (all)	0 / 15 (0.00%) 0	0 / 16 (0.00%) 0	1 / 5 (20.00%) 1
Somnolence subjects affected / exposed occurrences (all)	0 / 15 (0.00%) 0	1 / 16 (6.25%) 1	0 / 5 (0.00%) 0
Blood and lymphatic system disorders			

Anaemia			
subjects affected / exposed	1 / 15 (6.67%)	5 / 16 (31.25%)	1 / 5 (20.00%)
occurrences (all)	1	8	1
Leukopenia			
subjects affected / exposed	1 / 15 (6.67%)	1 / 16 (6.25%)	0 / 5 (0.00%)
occurrences (all)	1	1	0
Lymph Node Pain			
subjects affected / exposed	2 / 15 (13.33%)	2 / 16 (12.50%)	0 / 5 (0.00%)
occurrences (all)	2	4	0
Lymphadenopathy			
subjects affected / exposed	0 / 15 (0.00%)	1 / 16 (6.25%)	0 / 5 (0.00%)
occurrences (all)	0	1	0
Lymphocytosis			
subjects affected / exposed	0 / 15 (0.00%)	1 / 16 (6.25%)	0 / 5 (0.00%)
occurrences (all)	0	1	0
Lymphopenia			
subjects affected / exposed	0 / 15 (0.00%)	2 / 16 (12.50%)	0 / 5 (0.00%)
occurrences (all)	0	8	0
Neutropenia			
subjects affected / exposed	1 / 15 (6.67%)	1 / 16 (6.25%)	1 / 5 (20.00%)
occurrences (all)	1	4	2
Thrombocytopenia			
subjects affected / exposed	3 / 15 (20.00%)	3 / 16 (18.75%)	1 / 5 (20.00%)
occurrences (all)	4	7	4
Ear and labyrinth disorders			
Ear Pain			
subjects affected / exposed	0 / 15 (0.00%)	2 / 16 (12.50%)	0 / 5 (0.00%)
occurrences (all)	0	2	0
Eye disorders			
Diplopia			
subjects affected / exposed	0 / 15 (0.00%)	1 / 16 (6.25%)	0 / 5 (0.00%)
occurrences (all)	0	1	0
Erythema of Eyelid			
subjects affected / exposed	0 / 15 (0.00%)	1 / 16 (6.25%)	0 / 5 (0.00%)
occurrences (all)	0	1	0
Eyelid Oedema			

subjects affected / exposed occurrences (all)	0 / 15 (0.00%) 0	1 / 16 (6.25%) 1	0 / 5 (0.00%) 0
Ocular Hyperaemia subjects affected / exposed occurrences (all)	0 / 15 (0.00%) 0	1 / 16 (6.25%) 1	1 / 5 (20.00%) 1
Visual Acuity Reduced subjects affected / exposed occurrences (all)	0 / 15 (0.00%) 0	0 / 16 (0.00%) 0	1 / 5 (20.00%) 1
<b>Gastrointestinal disorders</b>			
Abdominal Discomfort subjects affected / exposed occurrences (all)	0 / 15 (0.00%) 0	1 / 16 (6.25%) 1	0 / 5 (0.00%) 0
Abdominal Pain subjects affected / exposed occurrences (all)	2 / 15 (13.33%) 2	5 / 16 (31.25%) 5	1 / 5 (20.00%) 1
Abdominal Pain Lower subjects affected / exposed occurrences (all)	1 / 15 (6.67%) 3	0 / 16 (0.00%) 0	0 / 5 (0.00%) 0
Abdominal Pain Upper subjects affected / exposed occurrences (all)	1 / 15 (6.67%) 1	1 / 16 (6.25%) 1	0 / 5 (0.00%) 0
Anal Incontinence subjects affected / exposed occurrences (all)	0 / 15 (0.00%) 0	1 / 16 (6.25%) 1	0 / 5 (0.00%) 0
Constipation subjects affected / exposed occurrences (all)	2 / 15 (13.33%) 2	2 / 16 (12.50%) 2	1 / 5 (20.00%) 1
Dental Caries subjects affected / exposed occurrences (all)	0 / 15 (0.00%) 0	1 / 16 (6.25%) 1	0 / 5 (0.00%) 0
Diarrhoea subjects affected / exposed occurrences (all)	1 / 15 (6.67%) 1	2 / 16 (12.50%) 2	0 / 5 (0.00%) 0
Dry Mouth subjects affected / exposed occurrences (all)	0 / 15 (0.00%) 0	1 / 16 (6.25%) 1	0 / 5 (0.00%) 0

Gastroesophageal Reflux Disease subjects affected / exposed occurrences (all)	0 / 15 (0.00%) 0	0 / 16 (0.00%) 0	1 / 5 (20.00%) 1
Nausea subjects affected / exposed occurrences (all)	5 / 15 (33.33%) 7	1 / 16 (6.25%) 1	2 / 5 (40.00%) 3
Paraesthesia Oral subjects affected / exposed occurrences (all)	0 / 15 (0.00%) 0	1 / 16 (6.25%) 1	0 / 5 (0.00%) 0
Swollen Tongue subjects affected / exposed occurrences (all)	0 / 15 (0.00%) 0	0 / 16 (0.00%) 0	1 / 5 (20.00%) 1
Vomiting subjects affected / exposed occurrences (all)	4 / 15 (26.67%) 5	0 / 16 (0.00%) 0	1 / 5 (20.00%) 2
Hepatobiliary disorders Hyperbilirubinaemia subjects affected / exposed occurrences (all)	0 / 15 (0.00%) 0	0 / 16 (0.00%) 0	1 / 5 (20.00%) 1
Skin and subcutaneous tissue disorders Acne subjects affected / exposed occurrences (all)	1 / 15 (6.67%) 1	0 / 16 (0.00%) 0	0 / 5 (0.00%) 0
Blood Blister subjects affected / exposed occurrences (all)	1 / 15 (6.67%) 1	0 / 16 (0.00%) 0	0 / 5 (0.00%) 0
Eczema subjects affected / exposed occurrences (all)	1 / 15 (6.67%) 2	0 / 16 (0.00%) 0	0 / 5 (0.00%) 0
Erythema subjects affected / exposed occurrences (all)	0 / 15 (0.00%) 0	0 / 16 (0.00%) 0	1 / 5 (20.00%) 2
Night Sweats subjects affected / exposed occurrences (all)	1 / 15 (6.67%) 1	2 / 16 (12.50%) 2	0 / 5 (0.00%) 0
Pain of Skin			

subjects affected / exposed occurrences (all)	1 / 15 (6.67%) 3	2 / 16 (12.50%) 3	0 / 5 (0.00%) 0
Pruritus subjects affected / exposed occurrences (all)	1 / 15 (6.67%) 1	0 / 16 (0.00%) 0	1 / 5 (20.00%) 1
Rash subjects affected / exposed occurrences (all)	1 / 15 (6.67%) 1	1 / 16 (6.25%) 1	0 / 5 (0.00%) 0
Skin Burning Sensation subjects affected / exposed occurrences (all)	0 / 15 (0.00%) 0	1 / 16 (6.25%) 1	0 / 5 (0.00%) 0
Urticaria subjects affected / exposed occurrences (all)	1 / 15 (6.67%) 2	3 / 16 (18.75%) 3	0 / 5 (0.00%) 0
Renal and urinary disorders Chronic Kidney Disease subjects affected / exposed occurrences (all)	1 / 15 (6.67%) 1	0 / 16 (0.00%) 0	0 / 5 (0.00%) 0
Haematuria subjects affected / exposed occurrences (all)	0 / 15 (0.00%) 0	1 / 16 (6.25%) 1	0 / 5 (0.00%) 0
Urinary Tract Obstruction subjects affected / exposed occurrences (all)	1 / 15 (6.67%) 1	0 / 16 (0.00%) 0	0 / 5 (0.00%) 0
Urine Flow Decreased subjects affected / exposed occurrences (all)	0 / 15 (0.00%) 0	0 / 16 (0.00%) 0	1 / 5 (20.00%) 1
Musculoskeletal and connective tissue disorders Arthralgia subjects affected / exposed occurrences (all)	0 / 15 (0.00%) 0	2 / 16 (12.50%) 3	0 / 5 (0.00%) 0
Back Pain subjects affected / exposed occurrences (all)	1 / 15 (6.67%) 2	4 / 16 (25.00%) 5	1 / 5 (20.00%) 1
Flank Pain			

subjects affected / exposed	1 / 15 (6.67%)	0 / 16 (0.00%)	0 / 5 (0.00%)
occurrences (all)	1	0	0
Mobility Decreased			
subjects affected / exposed	1 / 15 (6.67%)	0 / 16 (0.00%)	0 / 5 (0.00%)
occurrences (all)	1	0	0
Muscle Spasms			
subjects affected / exposed	0 / 15 (0.00%)	1 / 16 (6.25%)	2 / 5 (40.00%)
occurrences (all)	0	3	2
Musculoskeletal Chest Pain			
subjects affected / exposed	1 / 15 (6.67%)	0 / 16 (0.00%)	0 / 5 (0.00%)
occurrences (all)	1	0	0
Musculoskeletal Pain			
subjects affected / exposed	2 / 15 (13.33%)	1 / 16 (6.25%)	0 / 5 (0.00%)
occurrences (all)	2	1	0
Myalgia			
subjects affected / exposed	1 / 15 (6.67%)	2 / 16 (12.50%)	0 / 5 (0.00%)
occurrences (all)	1	2	0
Pain in Extremity			
subjects affected / exposed	0 / 15 (0.00%)	3 / 16 (18.75%)	1 / 5 (20.00%)
occurrences (all)	0	4	1
Pain in Jaw			
subjects affected / exposed	0 / 15 (0.00%)	0 / 16 (0.00%)	1 / 5 (20.00%)
occurrences (all)	0	0	1
Peripheral Arthritis			
subjects affected / exposed	0 / 15 (0.00%)	1 / 16 (6.25%)	0 / 5 (0.00%)
occurrences (all)	0	1	0
<b>Infections and infestations</b>			
Cellulitis			
subjects affected / exposed	0 / 15 (0.00%)	1 / 16 (6.25%)	0 / 5 (0.00%)
occurrences (all)	0	1	0
Fungal Skin Infection			
subjects affected / exposed	0 / 15 (0.00%)	1 / 16 (6.25%)	0 / 5 (0.00%)
occurrences (all)	0	1	0
Gastroenteritis			
subjects affected / exposed	0 / 15 (0.00%)	1 / 16 (6.25%)	0 / 5 (0.00%)
occurrences (all)	0	1	0

Genital Herpes			
subjects affected / exposed	0 / 15 (0.00%)	1 / 16 (6.25%)	0 / 5 (0.00%)
occurrences (all)	0	1	0
Groin Infection			
subjects affected / exposed	1 / 15 (6.67%)	0 / 16 (0.00%)	0 / 5 (0.00%)
occurrences (all)	1	0	0
Herpes Zoster			
subjects affected / exposed	0 / 15 (0.00%)	1 / 16 (6.25%)	1 / 5 (20.00%)
occurrences (all)	0	1	1
Lower Respiratory Tract Infection			
subjects affected / exposed	0 / 15 (0.00%)	1 / 16 (6.25%)	0 / 5 (0.00%)
occurrences (all)	0	1	0
Nasopharyngitis			
subjects affected / exposed	1 / 15 (6.67%)	1 / 16 (6.25%)	1 / 5 (20.00%)
occurrences (all)	2	1	1
Pneumonia			
subjects affected / exposed	0 / 15 (0.00%)	0 / 16 (0.00%)	1 / 5 (20.00%)
occurrences (all)	0	0	1
Rhinitis			
subjects affected / exposed	0 / 15 (0.00%)	1 / 16 (6.25%)	0 / 5 (0.00%)
occurrences (all)	0	1	0
Sinusitis			
subjects affected / exposed	0 / 15 (0.00%)	2 / 16 (12.50%)	0 / 5 (0.00%)
occurrences (all)	0	2	0
Upper Respiratory Tract Infection			
subjects affected / exposed	1 / 15 (6.67%)	3 / 16 (18.75%)	0 / 5 (0.00%)
occurrences (all)	1	3	0
Urinary Tract Infection			
subjects affected / exposed	1 / 15 (6.67%)	0 / 16 (0.00%)	0 / 5 (0.00%)
occurrences (all)	1	0	0
Viral Upper Respiratory Tract Infection			
subjects affected / exposed	0 / 15 (0.00%)	1 / 16 (6.25%)	0 / 5 (0.00%)
occurrences (all)	0	1	0
Metabolism and nutrition disorders			

Decreased Appetite subjects affected / exposed occurrences (all)	1 / 15 (6.67%) 1	1 / 16 (6.25%) 1	0 / 5 (0.00%) 0
Hyperglycaemia subjects affected / exposed occurrences (all)	0 / 15 (0.00%) 0	0 / 16 (0.00%) 0	1 / 5 (20.00%) 1
Hypertriglyceridaemia subjects affected / exposed occurrences (all)	0 / 15 (0.00%) 0	1 / 16 (6.25%) 1	0 / 5 (0.00%) 0
Hypoalbuminaemia subjects affected / exposed occurrences (all)	1 / 15 (6.67%) 1	0 / 16 (0.00%) 0	0 / 5 (0.00%) 0
Hyperuricaemia subjects affected / exposed occurrences (all)	0 / 15 (0.00%) 0	1 / 16 (6.25%) 1	0 / 5 (0.00%) 0
Hypokalaemia subjects affected / exposed occurrences (all)	1 / 15 (6.67%) 1	0 / 16 (0.00%) 0	0 / 5 (0.00%) 0
Hyponatraemia subjects affected / exposed occurrences (all)	0 / 15 (0.00%) 0	1 / 16 (6.25%) 1	0 / 5 (0.00%) 0
Vitamin B12 Deficiency subjects affected / exposed occurrences (all)	1 / 15 (6.67%) 1	0 / 16 (0.00%) 0	0 / 5 (0.00%) 0

## More information

### Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
19 January 2015	The main reason of this amendment was to Optimization of candidate screening potential, elaboration on Indirect Antiglobulin (Coombs) Testing (IAT) during the Screening Phase due to the risk of daratumumab interference with IAT, as well as updates throughout the protocol to align with the other daratumumab protocols, and some minor editorial changes.

Notes:

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### Interruptions (globally)

Were there any global interruptions to the trial? No

### Limitations and caveats

Limitations of the trial such as small numbers of subjects analysed or technical problems leading to unreliable data.

The study was terminated due to 2 non-Hodgkin's lymphoma (NHL) subtypes ([DLBCL] and FL cohorts) meeting the futility criteria defined in the protocol, and the cell lymphoma (MCL) cohort not having adequate recruitment.

Notes: