ClinicalTrials.gov Protocol and Results Registration System (PRS) Receipt
Release Date: 10/15/2015

ClinicalTrials.gov ID: NCT01094548

Study Identification

Unique Protocol ID: EMR63325-008

Brief Title: Study of Tecemotide (L-BLP25) in Subjects With Slowly Progressive Multiple Myeloma With no Symptoms and Who Have Had no Chemotherapy

Official Title: A Randomized, Open-label, Phase II Study With Stimuvax® (L-BLP25 or BLP25 Liposome Vaccine) in Subjects With Either Chemotherapy-naïve, Slowly Progressive, Asymptomatic Multiple Myeloma or With Stage II/III Multiple Myeloma in Stable Response/ Plateau Phase Following Anti-tumor Therapy

Secondary IDs:

Study Status

Record Verification: October 2015

Overall Status: Completed

Study Start: January 2008

Primary Completion: February 2011 [Actual]

Study Completion: March 2012 [Actual]

Sponsor/Collaborators

Sponsor: Merck KGaA

Responsible Party: Sponsor

Collaborators:

Oversight

FDA Regulated?:	No
IND/IDE Protocol?:	No
Review Board:	Approval Status: Approved Approval Number: IRB 2007/ 1548 - 32 Board Name: Regional Ethics Committee, Stockholm, Sweden Board Affiliation: Medical Products Agency, Sweden Phone: +4618174600 Email: registrator@mpa.se
Data Monitoring?:	No
Oversight Authorities:	Sweden: Medical Products Agency

Study Description

Brief Summary:	Tecemotide (L-BLP25) is believed to induce a Mucinous glycoprotein 1 (MUC1)-specific T-cell response after vaccination. The primary purpose of this study is to ascertain whether vaccination with tecemotide (L-BLP25) induces a MUC1-specific T-cell response in slowly progressive or chemotherapy naive multiple myeloma subjects.
Detailed Description:	

Conditions

Conditions:	Multiple Myeloma
Keywords:	L-BLP25 liposome Multiple myeloma

Study Design

Study Type:	Interventional
Primary Purpose:	Treatment
Study Phase:	Phase 2
Intervention Model:	Parallel Assignment
Number of Arms:	2
Masking:	Open Label
Allocation:	Randomized

Endpoint Classification: Safety/Efficacy Study

Enrollment: 34 [Actual]

Arms and Interventions

Arms	Assigned Interventions
Experimental: Tecemotide (L-BLP25) plus single low dose cyclophosphamide	Biological/Vaccine: Tecemotide (L-BLP25) After receiving single low dose of cyclophosphamide, subjects will receive 8 consecutive weekly subcutaneous vaccinations with 806 microgram (mcg) of tecemotide (L-BLP25) at Weeks 1, 2, 3, 4, 5, 6, 7 and 8 followed by maintenance vaccinations (806 mcg of tecemotide (L-BLP25) at 6-Week intervals, commencing at Week 14, until disease progression requiring anti-tumor therapy is documented. Other Names: • Stimuvax Drug: Single low dose cyclophosphamide An intravenous (IV) infusion of 300 milligram per square meter (mg/m^2) (to a maximum 600 mg) of cyclophosphamide will be given 3 days before the first vaccine treatment.
Experimental: Tecemotide (L-BLP25) plus multiple low dose cyclophosphamide	Biological/Vaccine: Tecemotide (L-BLP25) After receiving multiple low dose of cyclophosphamide, subjects will receive 8 consecutive weekly subcutaneous vaccinations with 806 mcg of tecemotide (L-BLP25) at Weeks 1, 2, 3, 4, 5, 6, 7 and 8 followed by maintenance vaccinations (806 mcg of tecemotide (L-BLP25) at 6-Week intervals, commencing at Week 14, until disease progression requiring anti-tumor therapy is documented. Other Names: • Stimuvax Drug: Multiple low dose cyclophosphamide An IV infusion of 300 mg/m^2 (to a maximum 600 mg) of cyclophosphamide will be given 3 days before the first vaccine treatment plus an intravenous dose of cyclophosphamide (300 mg/m^2, to a maximum of 600 mg) 3 days prior to the tecemotide (LBLP25) administration at week 5 of the weekly treatment phase and 3 days prior to every tecemotide (L-BLP25) administration during the treatment phase with 6-Weekly administration of tecemotide (L-BLP25), commencing at Week 14 up to a maximum treatment period of 2 years.

Outcome Measures

[See Results Section.]

Eligibility

Minimum Age: 18 Years

Maximum Age:

Gender: Both

Accepts Healthy Volunteers?: No

Criteria: Inclusion Criteria:

- Documented previously untreated, Mucinous glycoprotein 1 (MUC1)-expressing, slowly progressive asymptomatic multiple myeloma with an increasing M-protein concentration displayed on two occasions separated by an interval of at least 4 weeks within the last 18 months, or
- Documented MUC1-expressing stage II or III multiple myeloma with a treatment-free interval of at least 3 months following prior anti-tumor therapy, and fulfilling criteria for having a stable response/plateau phase
- Signed written informed consent
- MUC1-expressing myeloma cells in the bone marrow
- Greater than or equal to (>=) 18 years of age
- Life expectancy of at least 6 months
- Eastern Cooperative Oncology Group (ECOG) performance status of less than or equal to (<=) 1 at study entry
- Effective contraception for both male and female subjects, if the possibility of conception exists
- A platelet count >=100 x 10^9/Liter, white blood cells >=2.5 x 10^9/Liter, and hemoglobin >=90 gram per liter (g/L)
- Total bilirubin <= 1.5 x upper reference range
- Aspartate aminotransferase (AST) <= 2.5 x upper reference range
- Serum creatinine <= 2 x upper reference

Exclusion Criteria:

Pre-Therapies:

- Previous exposure to MUC1 targeting therapy
- Radiotherapy or any investigational drug in the 30 days before the start of treatment in this study
- Receipt of immunotherapy (Example: interferons, tumor necrosis factor [TNF], interleukins, or biological response modifiers [granulocyte macrophage colony stimulating factor {GM-CSF}, granulocyte colony stimulating factor {G-CSF}, macrophage-colony stimulating factor {M-CSF}], monoclonal antibodies) within 4 weeks (28 days) prior to randomization
- Any preexisting medical condition requiring chronic oral or intravenous steroid or immunosuppressive therapy except for maintenance doses of prednisone of <=10 milligram per day (mg/day)

Medical Conditions:

- Autoimmune disease that in the opinion of the investigator could compromise the safety of the subject in this study

- Hereditary or congenital immunodeficiencies
- Known hypersensitivity reaction to any of the components of study treatments
- Clinically significant cardiac disease, Example: New York Heart Association (NYHA) classes III-IV; unstable angina, uncontrolled arrhythmia or uncontrolled hypertension, myocardial infarction in the previous 6 months
- Other previous malignancies within 5 years, with exception of a history of a previous basal cell carcinoma of the skin, carcinoma in situ of uterine cervix, gastrointestinal intramucosal carcinoma
- Known Hepatitis B and/or C
- Splenectomy

Standard Safety:

- Known alcohol or drug abuse
- Medical or psychological conditions that would not permit the subject to complete the study or sign informed consent
- Significant disease which, in the investigator's opinion, would exclude the subject from the study
- Pregnant or breast-feeding women, women of childbearing potential, unless using effective contraception as determined by the investigator. Subjects whom the investigator considers may be at risk of pregnancy will have a pregnancy test performed per institutional standard
- Participation in another clinical study within the past 30 days
- Legal incapacity or limited legal capacity
- Concurrent treatment with a non-permitted drug
- Any other reason that, in the opinion of the investigator, precludes the subject from participating in the study

Contacts/Locations

Study Officials: Medical Responsible
Merck KGaA

Locations: Germany
Please Contact the Merck KGaA Communication Center
Darmstadt, Germany

References

Citations: Rossmann E, Österborg A, Löfvenberg E, et al. Randomized Phase II Study of BLP25 Liposome Vaccine (L-BLP25) in Patients with Multiple Myeloma. Am Soc Hematol. 53rd Annual Meeting, Dec 2011, Poster 2927.

Links:

Participant Flow

Recruitment Details	First/last participant (informed consent): 21 January 2008/11 January 2010. Last participant completed: 07 March 2012; Clinical data cut-off date: 07 March 2012.
Pre-Assignment Details	A total of 36 participants were screened for eligibility; 2 were excluded (mainly non-fulfillment of inclusion or exclusion) and 34 participants were enrolled and randomized.

Reporting Groups

	Description
Tecemotide (L-BLP25) Plus Single Low Dose Cyclophosphamide	Tecemotide (L-BLP25): After receiving single low dose cyclophosphamide, participants received 8 consecutive weekly subcutaneous vaccinations with 806 microgram (mcg) of tecemotide (L-BLP25) at Weeks 1, 2, 3, 4, 5, 6, 7 and 8 followed by maintenance vaccinations (806 mcg of tecemotide (L-BLP25) at 6-Week intervals, commencing at Week 14, until disease progression requiring anti-tumor therapy was documented. Single low dose cyclophosphamide: An intravenous (IV) infusion of 300 milligram per square meter (mg/m^2) (to a maximum 600 mg) of cyclophosphamide was given 3 days before the first vaccine treatment.
Tecemotide (L-BLP25) Plus Multiple Low Dose Cyclophosphamide	Tecemotide (L-BLP25): After receiving multiple low dose cyclophosphamide, participants received 8 consecutive weekly subcutaneous vaccinations with 806 mcg of tecemotide (L-BLP25) at Weeks 1, 2, 3, 4, 5, 6, 7 and 8 followed by maintenance vaccinations (806 mcg of tecemotide(L-BLP25) at 6-Week intervals, commencing at Week 14, until disease progression requiring anti-tumor therapy was documented. Multiple low dose cyclophosphamide: An IV infusion of 300 mg/m^2 (to a maximum 600 mg) of cyclophosphamide was given 3 days before the first vaccine treatment plus an IV dose of cyclophosphamide (300 mg/m^2, to a maximum of 600 mg) 3 days prior to the tecemotide(LBLP25) administration at week 5 of the weekly treatment phase and 3 days prior to every tecemotide (L-BLP25) administration during the treatment phase with 6-Weekly administration of tecemotide (L-BLP25), commencing at Week-14 up to a maximum treatment period of 2 years.

Overall Study

	Tecemotide (L-BLP25) Plus Single Low Dose Cyclophosphamide	Tecemotide (L-BLP25) Plus Multiple Low Dose Cyclophosphamide
Started	17	17
Completed	17	17
Not Completed	0	0

Baseline Characteristics

Analysis Population Description

Safety analysis set included all the randomized participants who received at least 1 dose of trial treatment.

Reporting Groups

	Description
Tecemotide (L-BLP25) Plus Single Low Dose Cyclophosphamide	Tecemotide (L-BLP25): After receiving single low dose cyclophosphamide, participants received 8 consecutive weekly subcutaneous vaccinations with 806 mcg of tecemotide (L-BLP25) at Weeks 1, 2, 3, 4, 5, 6, 7 and 8 followed by maintenance vaccinations (806 mcg of tecemotide [L-BLP25]) at 6-Week intervals, commencing at Week 14, until disease progression requiring anti-tumor therapy was documented. Single low dose cyclophosphamide: An intravenous (IV) infusion of 300 milligram per square meter (mg/m^2) (to a maximum 600 mg) of cyclophosphamide was given 3 days before the first vaccine treatment.
Tecemotide (L-BLP25) Plus Multiple Low Dose Cyclophosphamide	Tecemotide (L-BLP25): After receiving multiple low dose cyclophosphamide, participants received 8 consecutive weekly subcutaneous vaccinations with 806 mcg of tecemotide (L-BLP25) at Weeks 1, 2, 3, 4, 5, 6, 7 and 8 followed by maintenance vaccinations (806 mcg of tecemotide [L-BLP25]) at 6-Week intervals, commencing at Week 14, until disease progression requiring anti-tumor therapy was documented. Multiple low dose cyclophosphamide: An IV infusion of 300 mg/m^2 (to a maximum 600 mg) of cyclophosphamide was given 3 days before the first vaccine treatment plus an IV dose of cyclophosphamide (300 mg/m^2, to a maximum of 600 mg) 3 days prior to the tecemotide(LBLP25) administration at week 5 of the weekly treatment phase and 3 days prior to every tecemotide (L-BLP25) administration during the treatment phase with 6-Weekly administration of tecemotide (L-BLP25), commencing at Week-14 up to a maximum treatment period of 2 years.

Baseline Measures

	Tecemotide (L-BLP25) Plus Single Low Dose Cyclophosphamide	Tecemotide (L-BLP25) Plus Multiple Low Dose Cyclophosphamide	Total
Number of Participants	17	17	34
Age, Continuous [units: years] Mean (Standard Deviation)	62.5 (7.26)	63.9 (9.36)	63.2 (8.28)
Gender, Male/Female [units: participants]			
Female	9	10	19
Male	8	7	15

Outcome Measures

1. Primary Outcome Measure:

Measure Title	Number of Participants With Overall Induced Mucinous Glycoprotein-1 (MUC-1)-Specific Immune Response
Measure Description	The overall immune response was achieved at least for 2 timepoints; that is at least 1 parameter in at least 1 assay (Lymphoproliferation assay, enzyme-linked immunospot (ELISPOT) for interferon [IFN] gamma, and intracellular IFN gamma cytokine assay in peripheral blood mononuclear cell [PBMC]) with ratio to background >=2, and ratio of background-corrected value to baseline >=2;Specific immune response at a given timepoint 't' was considered as differences of log-scale values under stimulation (X vax,t) to those of the respective unstimulated controls (Xneg,t, background values)were computed after certain assay-specific pre-processing steps: Yt = Xvax,t – Xneg,t; A participant was considered to show positive stimulation-induced immune response at timepoint 't' (POS[t]=1), upon fulfilling the following criteria: Yt =>1 (That is at least a 2-fold higher value under stimulation than without stimulation). AVvax,t–1SEM vax,t > AVneg,t+1SEMneg,t (ELISPOT and proliferation assay only).
Time Frame	From the date of randomization up to Week 104
Safety Issue?	No

Analysis Population Description

Immunological diagnostic analysis set was defined as the subset of safety analysis set consisting of all the participants with at least one complete set of baseline (baseline/cyclophosphamide infusion visit or both), Week 5, and Week 9 data of either ELISPOT, proliferation assay or cytokine assay.

Reporting Groups

	Description
Tecemotide (L-BLP25) Plus Single Low Dose Cyclophosphamide	Tecemotide (L-BLP25): After receiving single low dose cyclophosphamide, participants received 8 consecutive weekly subcutaneous vaccinations with 806 mcg of tecemotide (L-BLP25) at Weeks 1, 2, 3, 4, 5, 6, 7 and 8 followed by maintenance vaccinations (806 mcg of tecemotide [L-BLP25]) at 6-Week intervals, commencing at Week 14, until disease progression requiring anti-tumor therapy was documented. Single low dose cyclophosphamide: An intravenous (IV) infusion of 300 milligram per square meter (mg/m^2) (to a maximum 600 mg) of cyclophosphamide was given 3 days before the first vaccine treatment.
Tecemotide (L-BLP25) Plus Multiple Low Dose Cyclophosphamide	Tecemotide (L-BLP25): After receiving multiple low dose cyclophosphamide, participants received 8 consecutive weekly subcutaneous vaccinations with 806 mcg of tecemotide (L-BLP25) at Weeks 1, 2, 3, 4, 5, 6, 7 and 8 followed by maintenance vaccinations (806 mcg of tecemotide(L-BLP25) at 6-Week intervals, commencing at Week 14, until disease progression requiring anti-tumor therapy was documented. Multiple low dose cyclophosphamide: An IV infusion of 300 mg/m^2 (to a maximum 600 mg) of cyclophosphamide was given 3 days before the first vaccine treatment plus an IV dose of cyclophosphamide (300 mg/m^2, to a maximum of 600 mg) 3 days prior to the tecemotide(LBLP25) administration in Weeks 1 and 5 of the weekly treatment phase and 3 days prior to every tecemotide (L-BLP25) administration during the treatment phase with 6-Weekly administration of tecemotide (L-BLP25), commencing at Week-14 up to a maximum treatment period of 2 years.

Measured Values

	Tecemotide (L-BLP25) Plus Single Low Dose Cyclophosphamide	Tecemotide (L-BLP25) Plus Multiple Low Dose Cyclophosphamide
Number of Participants Analyzed	17	15
Number of Participants With Overall Induced Mucinous Glycoprotein-1 (MUC-1)-Specific Immune Response [units: participants]	8	7

Statistical Analysis 1 for Number of Participants With Overall Induced Mucinous Glycoprotein-1 (MUC-1)-Specific Immune Response

Statistical Analysis Overview	Comparison Groups	Tecemotide (L-BLP25) Plus Single Low Dose Cyclophosphamide, Tecemotide (L-BLP25) Plus Multiple Low Dose Cyclophosphamide
	Comments	[Not specified]
	Non-Inferiority or Equivalence Analysis?	No
	Comments	[Not specified]

Statistical Test of Hypothesis	P-Value	1.0000
	Comments	[Not specified]
	Method	Fisher Exact
	Comments	[Not specified]

2. Secondary Outcome Measure:

Measure Title	Number of Participants With Baseline Immune Response and Initial Increase of MUC1 Specific Immune Response
Measure Description	Baseline immune response towards MUC1 was defined as an immune response towards BP25, MUC-A2 or MUC-A11 peptide stimulation which was present in at least one of the two baseline assessments; the specific immune responses at baseline were based on the averaged baseline values across the two baseline visits. Initial increase of MUC1-specific immune response was defined as an increase of MUC1-specific immune response during the primary treatment period (up to Week 9).
Time Frame	Baseline and Week 9
Safety Issue?	No

Analysis Population Description

Immunological diagnostic analysis set was defined as the subset of safety analysis set consisting of all the participants with at least one complete set of baseline (baseline/cyclophosphamide infusion visit or both), Week 5, and Week 9 data of either ELISPOT, proliferation assay or cytokine assay.

Reporting Groups

	Description
Tecemotide (L-BLP25) Plus Single Low Dose Cyclophosphamide	Tecemotide (L-BLP25): After receiving single low dose cyclophosphamide, participants received 8 consecutive weekly subcutaneous vaccinations with 806 mcg of tecemotide (L-BLP25) at Weeks 1, 2, 3, 4, 5, 6, 7 and 8 followed by maintenance vaccinations (806 mcg of tecemotide [L-BLP25]) at 6-Week intervals, commencing at Week 14, until disease progression requiring anti-tumor therapy was documented. Single low dose cyclophosphamide: An intravenous (IV) infusion of 300 milligram per square meter (mg/m^2) (to a maximum 600 mg) of cyclophosphamide was given 3 days before the first vaccine treatment.
Tecemotide (L-BLP25) Plus Multiple Low Dose Cyclophosphamide	Tecemotide (L-BLP25): After receiving multiple low dose cyclophosphamide, participants received 8 consecutive weekly subcutaneous vaccinations with 806 mcg of tecemotide (L-BLP25) at Weeks 1, 2, 3, 4, 5, 6, 7 and 8 followed by maintenance vaccinations (806 mcg of tecemotide(L-BLP25) at 6-Week intervals, commencing at Week 14, until disease progression requiring anti-tumor therapy was documented. Multiple low dose cyclophosphamide: An IV infusion of 300 mg/m^2 (to a maximum 600 mg/m^2) of cyclophosphamide was given 3 days before the first vaccine treatment plus an IV dose of cyclophosphamide (300 mg/m^2, to a maximum of 600 mg) 3 days prior to the tecemotide(LBLP25) administration at week 5 of the weekly treatment phase and 3 days prior to every tecemotide (L-BLP25) administration during the treatment phase with 6-Weekly administration of tecemotide (L-BLP25), commencing at Week-14 up to a maximum treatment period of 2 years.

Measured Values

	Tecemotide (L-BLP25) Plus Single Low Dose Cyclophosphamide	Tecemotide (L-BLP25) Plus Multiple Low Dose Cyclophosphamide
Number of Participants Analyzed	17	15
Number of Participants With Baseline Immune Response and Initial Increase of MUC1 Specific Immune Response [units: participants]		
Baseline immune response	10	7
MUC1 specific immune response at Week 9	8	7

3. Secondary Outcome Measure:

Measure Title	Number of Participants With Overall Induced Immune Response by Human Leukocyte-associated Antigen (HLA) Type

Measure Description	Relationship between immune response with HLA subtypes was determined by analyzing the number of participants with overall induced immune response grouped by the presence versus absence of the given HLA type.
Time Frame	From the date of randomization up to Week 104
Safety Issue?	No

Analysis Population Description

Immunological diagnostic analysis set was defined as the subset of safety analysis set consisting of all the participants with at least 1 complete set of baseline, Week 5, and Week 9 data of either ELISPOT, proliferation assay or cytokine assay. “n” signifies number of participants evaluable for the particular HLA type, respectively.

Reporting Groups

	Description
Tecemotide (L-BLP25) Plus Single Low Dose Cyclophosphamide	Tecemotide (L-BLP25): After receiving single low dose cyclophosphamide, participants received 8 consecutive weekly subcutaneous vaccinations with 806 mcg of tecemotide (L-BLP25) at Weeks 1, 2, 3, 4, 5, 6, 7 and 8 followed by maintenance vaccinations (806 mcg of tecemotide [L-BLP25]) at 6-Week intervals, commencing at Week 14, until disease progression requiring anti-tumor therapy was documented. Single low dose cyclophosphamide: An intravenous (IV) infusion of 300 milligram per square meter (mg/m^2) (to a maximum 600 mg) of cyclophosphamide was given 3 days before the first vaccine treatment.
Tecemotide (L-BLP25) Plus Multiple Low Dose Cyclophosphamide	Tecemotide (L-BLP25): After receiving multiple low dose cyclophosphamide, participants received 8 consecutive weekly subcutaneous vaccinations with 806 mcg of tecemotide (L-BLP25) at Weeks 1, 2, 3, 4, 5, 6, 7 and 8 followed by maintenance vaccinations (806 mcg of tecemotide(L-BLP25) at 6-Week intervals, commencing at Week 14, until disease progression requiring anti-tumor therapy was documented. Multiple low dose cyclophosphamide: An IV infusion of 300 mg/m^2 (to a maximum 600 mg) of cyclophosphamide was given 3 days before the first vaccine treatment plus an IV dose of cyclophosphamide (300 mg/m^2, to a maximum of 600 mg) 3 days prior to the tecemotide(LBLP25) administration at Week 5 of the weekly treatment phase and 3 days prior to every tecemotide (L-BLP25) administration during the treatment phase with 6-Weekly administration of tecemotide (L-BLP25), commencing at Week-14 up to a maximum treatment period of 2 years.

Measured Values

	Tecemotide (L-BLP25) Plus Single Low Dose Cyclophosphamide	Tecemotide (L-BLP25) Plus Multiple Low Dose Cyclophosphamide
Number of Participants Analyzed	17	15
Number of Participants With Overall Induced Immune Response by Human Leukocyte-associated Antigen (HLA) Type [units: participants]		
HLA A01 (n=3, 7)	2	3

	Tecemotide (L-BLP25) Plus Single Low Dose Cyclophosphamide	Tecemotide (L-BLP25) Plus Multiple Low Dose Cyclophosphamide
HLA A01 not present (n=14, 8)	6	4
HLA A02 present (n=10, 10)	5	4
HLA A02 not present (n=7, 5)	3	3
HLA A03 present (n=4, 3)	3	0
HLA A03 not present (n=13, 12)	5	7
HLA A24 present (n=7, 1)	3	1
HLA A24 not present (n=10, 14)	5	6
HLA A68 present (n=2, 3)	0	2
HLA A68 not present (n=15, 12)	8	5
HLA B07 present (n=6, 5)	3	2
HLA B07 not present (n=11, 10)	5	5
HLA B08 present (n=3, 6)	2	3
HLA B08 not present (n=14, 9)	6	4
HLA B15 present (n=4, 1)	1	0
HLA B15 not present (n=13, 14)	7	7
HLA B27 present (n=3, 2)	1	1
HLA B27 not present (n=14, 13)	7	6
HLA B35 present (n=2, 4)	2	2
HLA B35 not present (n=15, 11)	6	5
HLA B44 present (n=4, 2)	2	2
HLA B44 not present (n=13, 13)	6	5
HLA C01 present (n=1, 4)	1	3
HLA C01 not present (n=16, 11)	7	4
HLA C02 present (n=3, 1)	1	0
HLA C02 not present (n=14, 11)	7	7
HLA C03 present (n=9, 2)	4	0

	Tecemotide (L-BLP25) Plus Single Low Dose Cyclophosphamide	Tecemotide (L-BLP25) Plus Multiple Low Dose Cyclophosphamide
HLA C03 not present (n=8, 13)	4	7
HLA C04 present (n=1, 3)	1	2
HLA C04 not present (n=16, 12)	7	5
HLA C07 present (n=12, 10)	6	4
HLA C07 not present (n=5, 5)	2	3
HLA DQB02 present (n=2, 6)	0	3
HLA DQB02 not present (n=15, 9)	8	4
HLA DQB03 present (n=11, 9)	6	5
HLA DQB03 not present (n=6, 6)	2	2
HLA DQB05 present (n=6, 2)	2	0
HLA DQB05 not present (n=11, 13)	6	7
HLA DQB06 present (n=7, 5)	4	3
HLA DQB06 not present (n=10, 10)	4	4
HLA DRB01 present (n=3, 1)	1	0
HLA DRB01 not present (n=14, 14)	7	7
HLA DRB03 present (n=2, 6)	0	3
HLA DRB03 not present (n=15, 9)	8	4
HLA DRB04 present (n=11, 6)	6	3
HLA DRB04 not present (n=6, 9)	2	4
HLA DRB11 present (n=2, 5)	1	3
HLA DRB11 not present (n=15, 10)	7	4
HLA DRB13 present (n=5, 2)	3	1
HLA DRB13 not present (n=12, 13)	5	6
HLA DRB15 present (n=5, 3)	3	2
HLA DRB15 not present (n=12, 12)	5	5

4. Secondary Outcome Measure:

Measure Title	Percentage of Participants With Objective Clinical Response (Complete Response [CR], or Partial Response [PR], or Minimal Response [MR]
Measure Description	OCR (CR, or PR, or MR or NC or PD or NE) was defined per Blade Criteria. OCR rate (CR, or PR, or MR) was defined as the number of participants having experienced at least once a CR, PR, or MR, divided by the number of all participants. CR: negative immunofixation on serum and urine monoclonal paraprotein (M-protein), disappearance of any soft tissue plasmacytomas (STP), <=5% plasma cells in bone marrow (BM); PR: >=50% reduction in serum M-protein, plasma cells in BM, size of STP; >=90% reduction of urinary M-protein in 24 hours, no increase in size/ number of the lytic bone lesions (LBL). MR: 25%-49% reduction in serum M-protein, plasma cells in BM aspirate in non-secretory myeloma participants, size of STP; 50%-89% reduction in 24 h urinary light chain reaction (LCR), and no increase in size/number of LBL. PD: >25% increase in the serum M-protein level, 24 hour urinary LCR. Increase in size of existing BL or STP, development of new BL or STP, or development of hypercalcemia
Time Frame	From the date of randomization up to Week 104
Safety Issue?	No

Analysis Population Description

Immunological diagnostic analysis set was defined as the subset of safety analysis set consisting of all the participants with at least one complete set of baseline (baseline/cyclophosphamide infusion visit or both), Week 5, and Week 9 data of either ELISPOT, proliferation assay or cytokine assay.

Reporting Groups

	Description
Tecemotide (L-BLP25) Plus Single Low Dose Cyclophosphamide	Tecemotide (L-BLP25): After receiving single low dose cyclophosphamide, participants received 8 consecutive weekly subcutaneous vaccinations with 806 mcg of tecemotide (L-BLP25) at Weeks 1, 2, 3, 4, 5, 6, 7 and 8 followed by maintenance vaccinations (806 mcg of tecemotide [L-BLP25]) at 6-Week intervals, commencing at Week 14, until disease progression requiring anti-tumor therapy was documented. Single low dose cyclophosphamide: An intravenous (IV) infusion of 300 milligram per square meter (mg/m^2) (to a maximum 600 mg) of cyclophosphamide was given 3 days before the first vaccine treatment.
Tecemotide (L-BLP25) Plus Multiple Low Dose Cyclophosphamide	Tecemotide (L-BLP25): After receiving multiple low dose cyclophosphamide, participants received 8 consecutive weekly subcutaneous vaccinations with 806 mcg of tecemotide (L-BLP25) at Weeks 1, 2, 3, 4, 5, 6, 7 and 8 followed by maintenance vaccinations (806 mcg of tecemotide(L-BLP25) at 6-Week intervals, commencing at Week 14, until disease progression requiring anti-tumor therapy was documented. Multiple low dose cyclophosphamide: An IV infusion of 300 mg/m^2 (to a maximum 600 mg) of cyclophosphamide was given 3 days before the first vaccine treatment plus an IV dose of cyclophosphamide (300 mg/m^2, to a maximum of 600 mg) 3 days prior to the tecemotide(LBLP25) administration at Week 5 of the weekly treatment phase and 3 days prior to every tecemotide (L-BLP25) administration during the treatment phase with 6-Weekly administration of tecemotide (L-BLP25), commencing at Week-14 up to a maximum treatment period of 2 years.

Measured Values

	Tecemotide (L-BLP25) Plus Single Low Dose Cyclophosphamide	Tecemotide (L-BLP25) Plus Multiple Low Dose Cyclophosphamide
Number of Participants Analyzed	17	15
Percentage of Participants With Objective Clinical Response (Complete Response [CR], or Partial Response [PR], or Minimal Response [MR] [units: Percentage of participants]		
CR+PR+MR	0.0	0.0
CR	0.0	0.0
PR	0.0	0.0
MR	0.0	0.0

5. Secondary Outcome Measure:

Measure Title	Time to Progression (TTP)
Measure Description	Progression was defined as follows per Blade criteria: The disease was considered to be progressive if it met 1 or more of the following: >25% increase in the level of serum monoclonal paraprotein (M-protein);>25% increase in the 24 h urinary light chain excretion; >25% increase in plasma cells in the bone marrow- definite increase in the size of existing bone lesions or soft tissues plasmacytomas (STP); Development of new bone lesions or STP, or development of hypercalcemia. TTP was defined as time from randomization to disease progression. Participants without events were censored on the date of last tumor assessment. Participants without PD at time of treatment discontinuation were censored at the date of discontinuation. Participants without PD at the time of the analysis but still on treatment were censored at the date of the latest available multiple myeloma status assessment. Participants dying from causes other than PD were treated as censored observations at time of death.
Time Frame	From the date of randomization up to Week 104
Safety Issue?	No

Analysis Population Description

Immunological diagnostic analysis set was defined as the subset of safety analysis set consisting of all the participants with at least one complete set of baseline (baseline/cyclophosphamide infusion visit or both), Week 5, and Week 9 data of either ELISPOT, proliferation assay or cytokine assay.

Reporting Groups

	Description
Tecemotide (L-BLP25) Plus Single Low Dose Cyclophosphamide	Tecemotide (L-BLP25): After receiving single low dose cyclophosphamide, participants received 8 consecutive weekly subcutaneous vaccinations with 806 mcg of tecemotide (L-BLP25) at Weeks 1, 2, 3, 4, 5, 6, 7 and 8 followed by maintenance vaccinations (806 mcg of tecemotide [L-BLP25]) at 6-Week intervals, commencing at Week 14, until disease progression requiring anti-tumor therapy was documented. Single low dose cyclophosphamide: An intravenous (IV) infusion of 300 milligram per square meter (mg/m^2) (to a maximum 600 mg) of cyclophosphamide was given 3 days before the first vaccine treatment.
Tecemotide (L-BLP25) Plus Multiple Low Dose Cyclophosphamide	Tecemotide (L-BLP25): After receiving multiple low dose cyclophosphamide, participants received 8 consecutive weekly subcutaneous vaccinations with 806 mcg of tecemotide (L-BLP25) at Weeks 1, 2, 3, 4, 5, 6, 7 and 8 followed by maintenance vaccinations (806 mcg of tecemotide(L-BLP25) at 6-Week intervals, commencing at Week 14, until disease progression requiring anti-tumor therapy was documented. Multiple low dose cyclophosphamide: An IV infusion of 300 mg/m^2 (to a maximum 600 mg) of cyclophosphamide was given 3 days before the first vaccine treatment plus an IV dose of cyclophosphamide (300 mg/m^2, to a maximum of 600 mg) 3 days prior to the tecemotide(LBLP25) administration at Week 5 of the weekly treatment phase and 3 days prior to every tecemotide (L-BLP25) administration during the treatment phase with 6-Weekly administration of tecemotide (L-BLP25), commencing at Week-14 up to a maximum treatment period of 2 years.

Measured Values

	Tecemotide (L-BLP25) Plus Single Low Dose Cyclophosphamide	Tecemotide (L-BLP25) Plus Multiple Low Dose Cyclophosphamide
Number of Participants Analyzed	17	15
Time to Progression (TTP) [units: months] Median (95% Confidence Interval)	15.2 (14.5 to 20.8)	38.9 (17.3 to NA) [1]

[1] The number of events were not sufficient to calculate the upper limit of the confidence interval.

Statistical Analysis 1 for Time to Progression (TTP)

Statistical Analysis Overview	Comparison Groups	Tecemotide (L-BLP25) Plus Single Low Dose Cyclophosphamide, Tecemotide (L-BLP25) Plus Multiple Low Dose Cyclophosphamide
	Comments	[Not specified]
	Non-Inferiority or Equivalence Analysis?	No
	Comments	[Not specified]

Statistical Test of Hypothesis	P-Value	0.0940
	Comments	[Not specified]
	Method	Log Rank
	Comments	[Not specified]

Method of Estimation	Estimation Parameter	Hazard Ratio (HR)
	Estimated Value	0.431
	Confidence Interval	(2-Sided) 95% 0.157 to 1.185
	Estimation Comments	[Not specified]

6. Secondary Outcome Measure:

Measure Title	Time to Anti-tumor Therapy
Measure Description	Time from date of randomization to the date of first anti-tumor therapy since end of study treatment. In case a concomitant or concurrent procedure was identified as anti-tumor therapy during the medical review process, the start date of that anti-tumor therapy was used instead. Participants in the survival follow-up phase without subsequent anti-tumor therapy at the time of the analysis were censored at the latest available follow-up date. Participants without anti-tumor therapy and still on treatment at the time of analysis were censored at the data cut-off date if any trial treatment administration was recorded after the data cut-off date. In case no such record exists, the subject was censored at the last available administration date prior or equal to the data cut-off date. Participants dying before start of subsequent anti-tumor therapy were treated as censored observations at time of death.
Time Frame	From the date of randomization up to Week 104
Safety Issue?	No

Analysis Population Description

Immunological diagnostic analysis set was defined as the subset of safety analysis set consisting of all the participants with at least one complete set of baseline (baseline/cyclophosphamide infusion visit or both), Week 5, and Week 9 data of either ELISPOT, proliferation assay or cytokine assay.

Reporting Groups

	Description
Tecemotide (L-BLP25) Plus Single Low Dose Cyclophosphamide	Tecemotide (L-BLP25): After receiving single low dose cyclophosphamide, participants received 8 consecutive weekly subcutaneous vaccinations with 806 mcg of tecemotide (L-BLP25) at Weeks 1, 2, 3, 4, 5, 6, 7 and 8 followed by maintenance vaccinations (806 mcg of tecemotide [L-BLP25]) at 6-Week intervals, commencing at Week 14, until disease progression requiring anti-tumor therapy was documented. Single low dose cyclophosphamide: An intravenous (IV) infusion of 300 milligram per square meter (mg/m^2) (to a maximum 600 mg) of cyclophosphamide was given 3 days before the first vaccine treatment.

	Description
Tecemotide (L-BLP25) Plus Multiple Low Dose Cyclophosphamide	Tecemotide (L-BLP25): After receiving multiple low dose cyclophosphamide, participants received 8 consecutive weekly subcutaneous vaccinations with 806 mcg of tecemotide (L-BLP25) at Weeks 1, 2, 3, 4, 5, 6, 7 and 8 followed by maintenance vaccinations (806 mcg of tecemotide(L-BLP25) at 6-Week intervals, commencing at Week 14, until disease progression requiring anti-tumor therapy was documented. Multiple low dose cyclophosphamide: An IV infusion of 300 mg/m^2 (to a maximum 600 mg) of cyclophosphamide was given 3 days before the first vaccine treatment plus an IV dose of cyclophosphamide (300 mg/m^2, to a maximum of 600 mg) 3 days prior to the tecemotide(LBLP25) administration at Week 5 of the weekly treatment phase and 3 days prior to every tecemotide (L-BLP25) administration during the treatment phase with 6-Weekly administration of tecemotide (L-BLP25), commencing at Week-14 up to a maximum treatment period of 2 years.

Measured Values

	Tecemotide (L-BLP25) Plus Single Low Dose Cyclophosphamide	Tecemotide (L-BLP25) Plus Multiple Low Dose Cyclophosphamide
Number of Participants Analyzed	17	15
Time to Anti-tumor Therapy [units: months] Median (95% Confidence Interval)	24.7 (14.8 to NA) [1]	36.7 (23.3 to NA) [1]

[1] The number of events were not sufficient to calculate the upper limit of the confidence interval.

Statistical Analysis 1 for Time to Anti-tumor Therapy

Statistical Analysis Overview	Comparison Groups	Tecemotide (L-BLP25) Plus Single Low Dose Cyclophosphamide, Tecemotide (L-BLP25) Plus Multiple Low Dose Cyclophosphamide
	Comments	[Not specified]
	Non-Inferiority or Equivalence Analysis?	No
	Comments	[Not specified]

Statistical Test of Hypothesis	P-Value	0.3919
	Comments	[Not specified]
	Method	Log Rank
	Comments	[Not specified]

Method of Estimation	Estimation Parameter	Hazard Ratio (HR)

	Estimated Value	0.666
	Confidence Interval	(2-Sided) 95% 0.261 to 1.698
	Estimation Comments	[Not specified]

7. Secondary Outcome Measure:

Measure Title	Number of Participants With Treatment Emergent Adverse Events (TEAEs),Serious TEAEs, TEAEs of Grade 3 or 4 According to NCI-CTCAE v3.0, TEAEs Leading to Discontinuation and Injection Site Reactions (ISRs)
Measure Description	TEAEs occurred between the first dose of study drug administration and up to 42 days after the last dose of study drug administration that were absent before treatment or that worsened relative to pretreatment state. A Serious TEAE was an AE that resulted in any of the following outcomes: death; life threatening; persistent/significant disability/incapacity; initial or prolonged inpatient hospitalization; congenital anomaly/birth defect.Grade 3 and 4 TEAES as per National Cancer Institute Common Terminology Criteria for Adverse Experience version 3 (NCI-CTCAE v3.0) were presented. Grade 3 refers to severe or medically significant but not immediately life-threatening; hospitalization or prolongation of hospitalization indicated; disabling; limiting self-care and Activity of daily living (ADL).Grade 4 refers to Life-threatening consequences; where urgent intervention indicated. Injection site reactions, term used per NCI-CTCAE, were also presented.
Time Frame	From the first dose of study drug administration up to 42 days after the last dose of study drug administration or clinical data cut-off date (07 March 2012)
Safety Issue?	Yes

Analysis Population Description

Safety analysis set included all the randomized participants who received at least 1 dose of trial treatment.

Reporting Groups

	Description
Tecemotide (L-BLP25) Plus Single Low Dose Cyclophosphamide	Tecemotide (L-BLP25): After receiving single low dose cyclophosphamide, participants received 8 consecutive weekly subcutaneous vaccinations with 806 mcg of tecemotide (L-BLP25) at Weeks 1, 2, 3, 4, 5, 6, 7 and 8 followed by maintenance vaccinations (806 mcg of tecemotide [L-BLP25]) at 6-Week intervals, commencing at Week 14, until disease progression requiring anti-tumor therapy was documented. Single low dose cyclophosphamide: An intravenous (IV) infusion of 300 milligram per square meter (mg/m^2) (to a maximum 600 mg) of cyclophosphamide was given 3 days before the first vaccine treatment.

	Description
Tecemotide (L-BLP25) Plus Multiple Low Dose Cyclophosphamide	Tecemotide (L-BLP25): After receiving multiple low dose cyclophosphamide, participants received 8 consecutive weekly subcutaneous vaccinations with 806 mcg of tecemotide (L-BLP25) at Weeks 1, 2, 3, 4, 5, 6, 7 and 8 followed by maintenance vaccinations (806 mcg of tecemotide(L-BLP25) at 6-Week intervals, commencing at Week 14, until disease progression requiring anti-tumor therapy was documented. Multiple low dose cyclophosphamide: An IV infusion of 300 mg/m^2 (to a maximum 600 mg) of cyclophosphamide was given 3 days before the first vaccine treatment plus an IV dose of cyclophosphamide (300 mg/m^2, to a maximum of 600 mg) 3 days prior to the tecemotide(LBLP25) administration at Week 5 of the weekly treatment phase and 3 days prior to every tecemotide (L-BLP25) administration during the treatment phase with 6-Weekly administration of tecemotide (L-BLP25), commencing at Week-14 up to a maximum treatment period of 2 years.

Measured Values

	Tecemotide (L-BLP25) Plus Single Low Dose Cyclophosphamide	Tecemotide (L-BLP25) Plus Multiple Low Dose Cyclophosphamide
Number of Participants Analyzed	17	17
Number of Participants With Treatment Emergent Adverse Events (TEAEs),Serious TEAEs, TEAEs of Grade 3 or 4 According to NCI-CTCAE v3.0, TEAEs Leading to Discontinuation and Injection Site Reactions (ISRs) [units: participants]		
TEAEs	17	17
Serious TEAEs	6	5
NCI-CTC Grade 3 and 4 TEAEs	5	8
TEAEs leading to discontinuation of treatment	1	2
ISRs	8	11

Reported Adverse Events

Time Frame	From the first dose of study drug and up to 42 days after the last dose of study drug or clinical data cut-off date (07 March 2012)
Additional Description	[Not specified]

Reporting Groups

	Description
Tecemotide (L-BLP25) Plus Single Low Dose Cyclophosphamide	Tecemotide (L-BLP25): After receiving single low dose cyclophosphamide, participants received 8 consecutive weekly subcutaneous vaccinations with 806 mcg of tecemotide (L-BLP25) at Weeks 1, 2, 3, 4, 5, 6, 7 and 8 followed by maintenance vaccinations (806 mcg of tecemotide [L-BLP25]) at 6-Week intervals, commencing at Week 14, until disease progression requiring anti-tumor therapy was documented. Single low dose cyclophosphamide: An intravenous (IV) infusion of 300 milligram per square meter (mg/m^2) (to a maximum 600 mg) of cyclophosphamide was given 3 days before the first vaccine treatment.
Tecemotide (L-BLP25) Plus Multiple Low Dose Cyclophosphamide	Tecemotide (L-BLP25): After receiving multiple low dose cyclophosphamide, participants received 8 consecutive weekly subcutaneous vaccinations with 806 mcg of tecemotide (L-BLP25) at Weeks 1, 2, 3, 4, 5, 6, 7 and 8 followed by maintenance vaccinations (806 mcg of tecemotide(L-BLP25) at 6-Week intervals, commencing at Week 14, until disease progression requiring anti-tumor therapy was documented. Multiple low dose cyclophosphamide: An IV infusion of 300 mg/m^2 (to a maximum 600 mg) of cyclophosphamide was given 3 days before the first vaccine treatment plus an IV dose of cyclophosphamide (300 mg/m^2, to a maximum of 600 mg) 3 days prior to the tecemotide(LBLP25) administration at week 5 of the weekly treatment phase and 3 days prior to every tecemotide (L-BLP25) administration during the treatment phase with 6-Weekly administration of tecemotide (L-BLP25), commencing at Week-14 up to a maximum treatment period of 2 years.

Serious Adverse Events

	Tecemotide (L-BLP25) Plus Single Low Dose Cyclophosphamide	Tecemotide (L-BLP25) Plus Multiple Low Dose Cyclophosphamide
	Affected/At Risk (%)	Affected/At Risk (%)
Total	6/17 (35.29%)	5/17 (29.41%)
Cardiac disorders		
Atrial fibrillation [A] *	0/17 (0%)	2/17 (11.76%)
Eye disorders		
Retinal detachment [A] *	1/17 (5.88%)	0/17 (0%)
Gastrointestinal disorders		
Abdominal pain [A] *	1/17 (5.88%)	0/17 (0%)
General disorders		
Non-cardiac chest pain [A] *	1/17 (5.88%)	0/17 (0%)
Pyrexia [A] *	0/17 (0%)	1/17 (5.88%)

	Tecemotide (L-BLP25) Plus Single Low Dose Cyclophosphamide	Tecemotide (L-BLP25) Plus Multiple Low Dose Cyclophosphamide
	Affected/At Risk (%)	Affected/At Risk (%)
Hepatobiliary disorders		
Cholecystitis [A] *	0/17 (0%)	1/17 (5.88%)
Infections and infestations		
Arthritis bacterial [A] *	0/17 (0%)	1/17 (5.88%)
Pneumonia [A] *	1/17 (5.88%)	0/17 (0%)
Sepsis [A] *	0/17 (0%)	2/17 (11.76%)
Wound infection [A] *	0/17 (0%)	1/17 (5.88%)
Metabolism and nutrition disorders		
Hypercalcaemia [A] *	1/17 (5.88%)	0/17 (0%)
Musculoskeletal and connective tissue disorders		
Back pain [A] *	0/17 (0%)	1/17 (5.88%)
Neoplasms benign, malignant and unspecified (incl cysts and polyps)		
Breast cancer [A] *	1/17 (5.88%)	0/17 (0%)
Colon cancer [A] *	0/17 (0%)	1/17 (5.88%)
Nervous system disorders		
Cerebral haemorrhage [A] *	0/17 (0%)	1/17 (5.88%)
Encephalitis [A] *	0/17 (0%)	1/17 (5.88%)
Loss of consciousness [A] *	0/17 (0%)	1/17 (5.88%)
Status epilepticus [A] *	0/17 (0%)	1/17 (5.88%)
Respiratory, thoracic and mediastinal disorders		
Hypoxia [A] *	0/17 (0%)	1/17 (5.88%)
Vascular disorders		
Aortic aneurysm [A] *	1/17 (5.88%)	0/17 (0%)

* Indicates events were collected by non-systematic methods.
A Term from vocabulary, MedDRA Version 13.0

Other Adverse Events

Frequency Threshold Above Which Other Adverse Events are Reported: 5%

	Tecemotide (L-BLP25) Plus Single Low Dose Cyclophosphamide	Tecemotide (L-BLP25) Plus Multiple Low Dose Cyclophosphamide
	Affected/At Risk (%)	Affected/At Risk (%)
Total	17/17 (100%)	17/17 (100%)
Blood and lymphatic system disorders		
Anaemia [A] *	0/17 (0%)	3/17 (17.65%)
Iron deficiency anaemia [A] *	1/17 (5.88%)	0/17 (0%)
Cardiac disorders		
Tachycardia [A] *	0/17 (0%)	1/17 (5.88%)
Ear and labyrinth disorders		
Sudden hearing loss [A] *	1/17 (5.88%)	0/17 (0%)
Vertigo [A] *	1/17 (5.88%)	3/17 (17.65%)
Eye disorders		
Dacryostenosis acquired [A] *	1/17 (5.88%)	0/17 (0%)
Dry eye [A] *	1/17 (5.88%)	0/17 (0%)
Ectropion [A] *	0/17 (0%)	1/17 (5.88%)
Retinal detachment [A] *	1/17 (5.88%)	0/17 (0%)
Vision blurred [A] *	0/17 (0%)	1/17 (5.88%)
Visual impairment [A] *	2/17 (11.76%)	0/17 (0%)
Gastrointestinal disorders		
Abdominal pain upper [A] *	2/17 (11.76%)	1/17 (5.88%)
Constipation [A] *	2/17 (11.76%)	8/17 (47.06%)

	Tecemotide (L-BLP25) Plus Single Low Dose Cyclophosphamide	Tecemotide (L-BLP25) Plus Multiple Low Dose Cyclophosphamide
	Affected/At Risk (%)	Affected/At Risk (%)
Diarrhoea [A] *	2/17 (11.76%)	4/17 (23.53%)
Dry mouth [A] *	0/17 (0%)	1/17 (5.88%)
Dysphagia [A] *	0/17 (0%)	1/17 (5.88%)
Gastritis [A] *	0/17 (0%)	1/17 (5.88%)
Gingivitis [A] *	1/17 (5.88%)	0/17 (0%)
Nausea [A] *	7/17 (41.18%)	12/17 (70.59%)
Paraesthesia oral [A] *	1/17 (5.88%)	0/17 (0%)
Proctalgia [A] *	0/17 (0%)	1/17 (5.88%)
Tongue blistering [A] *	0/17 (0%)	1/17 (5.88%)
Toothache [A] *	0/17 (0%)	3/17 (17.65%)
Vomiting [A] *	1/17 (5.88%)	1/17 (5.88%)
General disorders		
Chest discomfort [A] *	1/17 (5.88%)	0/17 (0%)
Chest pain [A] *	3/17 (17.65%)	4/17 (23.53%)
Chills [A] *	0/17 (0%)	1/17 (5.88%)
Fatigue [A] *	9/17 (52.94%)	11/17 (64.71%)
Influenza like illness [A] *	0/17 (0%)	2/17 (11.76%)
Injection site erythema [A] *	3/17 (17.65%)	4/17 (23.53%)
Injection site haematoma [A] *	1/17 (5.88%)	4/17 (23.53%)
Injection site nodule [A] *	5/17 (29.41%)	7/17 (41.18%)
Injection site pruritus [A] *	3/17 (17.65%)	0/17 (0%)

	Tecemotide (L-BLP25) Plus Single Low Dose Cyclophosphamide	Tecemotide (L-BLP25) Plus Multiple Low Dose Cyclophosphamide
	Affected/At Risk (%)	Affected/At Risk (%)
Injection site rash [A] *	1/17 (5.88%)	0/17 (0%)
Injection site ulcer [A] *	1/17 (5.88%)	0/17 (0%)
Injection site warmth [A] *	0/17 (0%)	1/17 (5.88%)
Malaise [A] *	0/17 (0%)	2/17 (11.76%)
Non-cardiac chest pain [A] *	1/17 (5.88%)	0/17 (0%)
Oedema peripheral [A] *	0/17 (0%)	1/17 (5.88%)
Pain [A] *	1/17 (5.88%)	0/17 (0%)
Pyrexia [A] *	3/17 (17.65%)	4/17 (23.53%)
Immune system disorders		
Allergy to arthropod bite [A] *	2/17 (11.76%)	0/17 (0%)
Seasonal allergy [A] *	1/17 (5.88%)	0/17 (0%)
Infections and infestations		
Borrelia infection [A] *	0/17 (0%)	1/17 (5.88%)
Bronchopneumonia [A] *	1/17 (5.88%)	0/17 (0%)
Eczema infected [A] *	0/17 (0%)	1/17 (5.88%)
Erysipelas [A] *	1/17 (5.88%)	0/17 (0%)
Eye infection [A] *	1/17 (5.88%)	1/17 (5.88%)
Gastric infection [A] *	1/17 (5.88%)	0/17 (0%)
Gastroenteritis [A] *	0/17 (0%)	2/17 (11.76%)
Gastrointestinal infection [A] *	1/17 (5.88%)	0/17 (0%)
Herpes zoster [A] *	0/17 (0%)	1/17 (5.88%)
Herpes zoster ophthalmic [A] *	1/17 (5.88%)	0/17 (0%)

	Tecemotide (L-BLP25) Plus Single Low Dose Cyclophosphamide	Tecemotide (L-BLP25) Plus Multiple Low Dose Cyclophosphamide
	Affected/At Risk (%)	Affected/At Risk (%)
Influenza [A] *	0/17 (0%)	1/17 (5.88%)
Injection site abscess [A] *	1/17 (5.88%)	0/17 (0%)
Injection site infection [A] *	1/17 (5.88%)	0/17 (0%)
Localised infection [A] *	0/17 (0%)	1/17 (5.88%)
Nasopharyngitis [A] *	7/17 (41.18%)	7/17 (41.18%)
Otitis externa [A] *	2/17 (11.76%)	0/17 (0%)
Pharyngitis [A] *	0/17 (0%)	1/17 (5.88%)
Pneumonia [A] *	1/17 (5.88%)	1/17 (5.88%)
Respiratory moniliasis [A] *	0/17 (0%)	1/17 (5.88%)
Skin bacterial infection [A] *	0/17 (0%)	1/17 (5.88%)
Upper respiratory tract infection [A] *	7/17 (41.18%)	10/17 (58.82%)
Urinary tract infection [A] *	2/17 (11.76%)	0/17 (0%)
Viral infection [A] *	0/17 (0%)	1/17 (5.88%)
Injury, poisoning and procedural complications		
Arthropod bite [A] *	1/17 (5.88%)	0/17 (0%)
Back injury [A] *	1/17 (5.88%)	0/17 (0%)
Contusion [A] *	0/17 (0%)	1/17 (5.88%)
Eye injury [A] *	0/17 (0%)	1/17 (5.88%)
Fall [A] *	2/17 (11.76%)	0/17 (0%)
Foot fracture [A] *	0/17 (0%)	1/17 (5.88%)
Post-traumatic pain [A] *	1/17 (5.88%)	0/17 (0%)

	Tecemotide (L-BLP25) Plus Single Low Dose Cyclophosphamide	Tecemotide (L-BLP25) Plus Multiple Low Dose Cyclophosphamide
	Affected/At Risk (%)	Affected/At Risk (%)
Skin laceration [A] *	1/17 (5.88%)	0/17 (0%)
Sternal fracture [A] *	0/17 (0%)	1/17 (5.88%)
Thermal burn [A] *	1/17 (5.88%)	0/17 (0%)
Traumatic haematoma [A] *	1/17 (5.88%)	0/17 (0%)
Wound [A] *	1/17 (5.88%)	1/17 (5.88%)
Wrong drug administered [A] *	0/17 (0%)	1/17 (5.88%)
Investigations		
C-reactive protein increased [A] *	0/17 (0%)	1/17 (5.88%)
Haemoglobin decreased [A] *	0/17 (0%)	1/17 (5.88%)
Metabolism and nutrition disorders		
Appetite disorder [A] *	1/17 (5.88%)	0/17 (0%)
Hypercalcaemia [A] *	0/17 (0%)	1/17 (5.88%)
Hyperkalaemia [A] *	1/17 (5.88%)	0/17 (0%)
Hyperlipidaemia [A] *	0/17 (0%)	1/17 (5.88%)
Hypoalbuminaemia [A] *	0/17 (0%)	1/17 (5.88%)
Vitamin B12 deficiency [A] *	1/17 (5.88%)	0/17 (0%)
Musculoskeletal and connective tissue disorders		
Arthralgia [A] *	4/17 (23.53%)	3/17 (17.65%)
Back pain [A] *	10/17 (58.82%)	6/17 (35.29%)
Bone pain [A] *	1/17 (5.88%)	0/17 (0%)
Foot deformity [A] *	1/17 (5.88%)	0/17 (0%)
Joint hyperextension [A] *	0/17 (0%)	1/17 (5.88%)

	Tecemotide (L-BLP25) Plus Single Low Dose Cyclophosphamide	Tecemotide (L-BLP25) Plus Multiple Low Dose Cyclophosphamide
	Affected/At Risk (%)	Affected/At Risk (%)
Joint swelling [A] *	1/17 (5.88%)	0/17 (0%)
Muscle spasms [A] *	0/17 (0%)	1/17 (5.88%)
Muscular weakness [A] *	0/17 (0%)	1/17 (5.88%)
Musculoskeletal chest pain [A] *	2/17 (11.76%)	1/17 (5.88%)
Musculoskeletal pain [A] *	1/17 (5.88%)	0/17 (0%)
Myalgia [A] *	3/17 (17.65%)	2/17 (11.76%)
Neck pain [A] *	1/17 (5.88%)	2/17 (11.76%)
Pain in extremity [A] *	3/17 (17.65%)	5/17 (29.41%)
Sjogren's syndrome [A] *	0/17 (0%)	1/17 (5.88%)
Spinal osteoarthritis [A] *	0/17 (0%)	1/17 (5.88%)
Neoplasms benign, malignant and unspecified (incl cysts and polyps)		
Basal cell carcinoma [A] *	1/17 (5.88%)	0/17 (0%)
Tumor invasion [A] *	0/17 (0%)	1/17 (5.88%)
Nervous system disorders		
Amnesia [A] *	1/17 (5.88%)	0/17 (0%)
Aphasia [A] *	0/17 (0%)	1/17 (5.88%)
Dizziness [A] *	2/17 (11.76%)	1/17 (5.88%)
Formication [A] *	1/17 (5.88%)	0/17 (0%)
Headache [A] *	3/17 (17.65%)	3/17 (17.65%)
Hypoaesthesia [A] *	1/17 (5.88%)	1/17 (5.88%)
Migraine with aura [A] *	1/17 (5.88%)	0/17 (0%)
Paraesthesia [A] *	0/17 (0%)	1/17 (5.88%)

	Tecemotide (L-BLP25) Plus Single Low Dose Cyclophosphamide	Tecemotide (L-BLP25) Plus Multiple Low Dose Cyclophosphamide
	Affected/At Risk (%)	Affected/At Risk (%)
Psychiatric disorders		
Agitation [A] *	0/17 (0%)	1/17 (5.88%)
Anxiety [A] *	0/17 (0%)	2/17 (11.76%)
Bipolar disorder [A] *	0/17 (0%)	1/17 (5.88%)
Depression [A] *	4/17 (23.53%)	2/17 (11.76%)
Insomnia [A] *	2/17 (11.76%)	3/17 (17.65%)
Mood altered [A] *	0/17 (0%)	1/17 (5.88%)
Sleep disorder [A] *	0/17 (0%)	1/17 (5.88%)
Renal and urinary disorders		
Albuminuria [A] *	1/17 (5.88%)	0/17 (0%)
Haematuria [A] *	0/17 (0%)	1/17 (5.88%)
Pollakiuria [A] *	0/17 (0%)	1/17 (5.88%)
Urinary retention [A] *	0/17 (0%)	1/17 (5.88%)
Reproductive system and breast disorders		
Breast mass [A] *	1/17 (5.88%)	0/17 (0%)
Erectile dysfunction [A] *	1/17 (5.88%)	0/17 (0%)
Pelvic pain [A] *	1/17 (5.88%)	0/17 (0%)
Prostatitis [A] *	1/17 (5.88%)	0/17 (0%)
Respiratory, thoracic and mediastinal disorders		
Asthma [A] *	1/17 (5.88%)	1/17 (5.88%)
Cough [A] *	5/17 (29.41%)	2/17 (11.76%)
Dyspnoea [A] *	0/17 (0%)	2/17 (11.76%)

	Tecemotide (L-BLP25) Plus Single Low Dose Cyclophosphamide	Tecemotide (L-BLP25) Plus Multiple Low Dose Cyclophosphamide
	Affected/At Risk (%)	Affected/At Risk (%)
Epistaxis [A] *	1/17 (5.88%)	1/17 (5.88%)
Oropharyngeal pain [A] *	2/17 (11.76%)	0/17 (0%)
Skin and subcutaneous tissue disorders		
Alopecia [A] *	0/17 (0%)	3/17 (17.65%)
Blood blister [A] *	1/17 (5.88%)	0/17 (0%)
Dermatitis allergic [A] *	1/17 (5.88%)	0/17 (0%)
Dry skin [A] *	0/17 (0%)	1/17 (5.88%)
Erythema [A] *	0/17 (0%)	2/17 (11.76%)
Increased tendency to bruise [A] *	0/17 (0%)	1/17 (5.88%)
Pruritus [A] *	0/17 (0%)	1/17 (5.88%)
Rash [A] *	3/17 (17.65%)	4/17 (23.53%)
Skin nodule [A] *	1/17 (5.88%)	2/17 (11.76%)
Skin reaction [A] *	0/17 (0%)	1/17 (5.88%)
Urticaria [A] *	0/17 (0%)	1/17 (5.88%)
Vascular disorders		
Deep vein thrombosis [A] *	1/17 (5.88%)	0/17 (0%)
Hypertension [A] *	3/17 (17.65%)	4/17 (23.53%)
Hypotension [A] *	0/17 (0%)	1/17 (5.88%)

* Indicates events were collected by non-systematic methods.
A Term from vocabulary, MedDRA Version 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.

Any publications of the results, either in part or in total (abstracts in journals or newspapers, oral presentations, etc.) by Investigators or their representatives will require pre-submission review by the Sponsor. The Sponsor is entitled to delay publication in order to obtain patent protection.

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