



Clinical trial results:

A multi-center, open label, uncontrolled, Phase IIa clinical trial evaluating the safety and efficacy of NOX-A12 in combination with a background therapy of bortezomib and dexamethasone (VD) in previously treated patients with multiple myeloma (MM)

Summary

EudraCT number	2011-004651-40
Trial protocol	DE AT IT
Global end of trial date	30 September 2015

Results information

Result version number	v1 (current)
This version publication date	30 September 2016
First version publication date	30 September 2016

Trial information

Trial identification

Sponsor protocol code	SNOXA12C301
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Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT01521533
WHO universal trial number (UTN)	-

Notes:

Sponsors

Sponsor organisation name	NOXXON Pharma AG
Sponsor organisation address	Max-Dohrn-Strasse 8-10, Berlin, Germany, 10589
Public contact	Clinical Trial Disclosure Desk NOXXON, NOXXON Pharma AG, clinicaltrialdisclosuredesk@noxxon.com
Scientific contact	Clinical Trial Disclosure Desk NOXXON, NOXXON Pharma AG, clinicaltrialdisclosuredesk@noxxon.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	26 April 2016
Is this the analysis of the primary completion data?	Yes
Primary completion date	30 September 2015
Global end of trial reached?	Yes
Global end of trial date	30 September 2015
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

To assess the safety and tolerability of olaptesed pegol alone (pilot group only) and in combination with VD

To determine the overall response rate according to IMWG uniform response criteria (ORR = best response at least partial response(PR))

Protection of trial subjects:

This clinical study was written, conducted and reported in accordance with the protocol, ICH GCP Guidelines, and applicable local regulations, including the European Directive 2001/20/EC, 2005/28/EC, and 2003/63/EC and relevant national and local legislations, and with the ethical principles that have their origin in the Declaration of Helsinki. Only subjects that met all the study inclusion and none of the exclusion criteria were randomized. Study drug administrations were performed by qualified and trained study personnel. Patient who received treatment were closely followed by means of adverse event reporting and vital signs. In the event of a study related adverse event, patients were monitored to determine the outcome. The clinical course of the AE was followed up according to accepted standards of medical practice, even after the end of the period of observation, until a satisfactory explanation is found or the Investigator considered it medically justifiable to terminate follow-up.

Background therapy:

bortezomib and dexamethasone

Evidence for comparator: -

Actual start date of recruitment	20 July 2012
Long term follow-up planned	No
Independent data monitoring committee (IDMC) involvement?	Yes

Notes:

Population of trial subjects

Subjects enrolled per country

Country: Number of subjects enrolled	Austria: 12
Country: Number of subjects enrolled	France: 4
Country: Number of subjects enrolled	Germany: 5
Country: Number of subjects enrolled	Italy: 7
Worldwide total number of subjects	28
EEA total number of subjects	28

Notes:

Subjects enrolled per age group

In utero	0
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Preterm newborn - gestational age < 37 wk	0
Newborns (0-27 days)	0
Infants and toddlers (28 days-23 months)	0
Children (2-11 years)	0
Adolescents (12-17 years)	0
Adults (18-64 years)	11
From 65 to 84 years	17
85 years and over	0

Subject disposition

Recruitment

Recruitment details: -

Pre-assignment

Screening details:

32 patients with diagnosis of relapsed and refractory multiple myeloma for which bortezomib / dexamethasone would be given as standard of care were screened; 4 patients were screening failure. After a screening period of 2 weeks 28 patients were enrolled.

Period 1

Period 1 title	Overall trial (overall period)
Is this the baseline period?	Yes
Allocation method	Not applicable
Blinding used	Not blinded

Arms

Arm title	Olaptesed pegol + VD
Arm description: -	
Arm type	Experimental
Investigational medicinal product name	Olaptesed pegol
Investigational medicinal product code	NOX-A12
Other name	
Pharmaceutical forms	Solution for injection
Routes of administration	Intravenous use

Dosage and administration details:

Pilot group: 1, 2, or 4 mg/kg body weight olaptesed pegol given as single i.v. injections on Day -14. If no DLT occurred, doses given on Days 1, 4, 8 and 11 of each 21-day cycle were 1 mg/kg for Cycle 1, 2 mg/kg for Cycle 2 and 4 mg/kg for Cycle 3 and the highest individually titrated doses through cycles 4 to 8.

Expansion group: i.v. injections of 1 mg/kg body weight olaptesed pegol for Cycle 1, 2 mg/kg for Cycle 2 and 4 mg/kg for Cycle 3 given on Days 1, 4, 8 and 11 of each 21-day cycle and the highest individually titrated doses through cycles 4 - 8.

Doses were calculated according to screening body weight. In case body weight changed by more than 10%, the dose was re-calculated.

Single-use, preservative-free, sterile solution of olaptesed pegol in an aqueous glucose solution for adjustment of tonicity to physiological levels.

Number of subjects in period 1	Olaptesed pegol + VD
Started	28
Completed	16
Not completed	12
Consent withdrawn by subject	3
Adverse event, non-fatal	1
progressive disease	7
Lack of efficacy	1

Baseline characteristics

Reporting groups

Reporting group title	Overall trial
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Reporting group description: -

Reporting group values	Overall trial	Total	
Number of subjects	28	28	
Age categorical Units: Subjects			
Adults (18-64 years)	11	11	
From 65-84 years	17	17	
Age continuous Units: years			
arithmetic mean	66.3		
full range (min-max)	47 to 79	-	
Gender categorical Units: Subjects			
Female	14	14	
Male	14	14	

End points

End points reporting groups

Reporting group title	Olaptesed pegol + VD
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Reporting group description: -

Primary: Overall response

End point title	Overall response ^[1]
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End point description:

The primary efficacy parameter was to determine the overall response rate according to IMWG uniform response criteria (ORR = best response at least partial response (PR))

End point type	Primary
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End point timeframe:

Eight 21-day cycles of treatment

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: Treatment with olaptesed pegol + VD resulted in an ORR of 68%. These results compare favorably with the 40%, 50% and 53% obtained in the RETRIEVE (Petrucci 2013), MMY-3021 (Arnulf 2012), and BoMER study (Harrison 2015). The PANORAMA1 study reported an ORR of 55% for the VD control group (San-Miguel 2015). Importantly, the patient population on which the approval of panobinostat is based (at least 2 prior regimens, including bortezomib and an IMiD), showed an ORR of approx. 40% (Richardson 2015).

End point values	Olaptesed pegol + VD			
Subject group type	Reporting group			
Number of subjects analysed	28			
Units: patients				
Overall response	19			

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information

Timeframe for reporting adverse events:

From time the patient gives informed consent until 30 days after the last NOX-A12 administration

Assessment type	Systematic
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Dictionary used

Dictionary name	MedDRA
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Dictionary version	15.1
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Reporting groups

Reporting group title	Olaptesed pegol + VD
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Reporting group description: -

Serious adverse events	Olaptesed pegol + VD		
Total subjects affected by serious adverse events			
subjects affected / exposed	14 / 28 (50.00%)		
number of deaths (all causes)	1		
number of deaths resulting from adverse events	0		
Vascular disorders			
Hypertension			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
General disorders and administration site conditions			
Asthenia			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences causally related to treatment / all	1 / 1		
deaths causally related to treatment / all	0 / 0		
Respiratory, thoracic and mediastinal disorders			
Chronic obstructive pulmonary disease			
subjects affected / exposed	2 / 28 (7.14%)		
occurrences causally related to treatment / all	1 / 2		
deaths causally related to treatment / all	0 / 0		
Dyspnoea			

subjects affected / exposed	1 / 28 (3.57%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Dyspnoea exertional			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Pulmonary embolism			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Injury, poisoning and procedural complications			
Fall			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Subdural haematoma			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Cardiac disorders			
Cardiac failure congestive			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Nervous system disorders			
Brain compression			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 1		
Paraesthesia			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		

Polyneuropathy			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Blood and lymphatic system disorders			
Thrombocytopenia			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Gastrointestinal disorders			
Constipation			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Diarrhoea			
subjects affected / exposed	3 / 28 (10.71%)		
occurrences causally related to treatment / all	1 / 3		
deaths causally related to treatment / all	0 / 0		
Enteritis			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Skin and subcutaneous tissue disorders			
Rash			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Renal and urinary disorders			
Renal failure			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Musculoskeletal and connective tissue disorders			
Musculoskeletal pain			

subjects affected / exposed	1 / 28 (3.57%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Infections and infestations			
Bronchitis			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Pneumonia			
subjects affected / exposed	4 / 28 (14.29%)		
occurrences causally related to treatment / all	0 / 4		
deaths causally related to treatment / all	0 / 0		
Upper respiratory tract infection			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences causally related to treatment / all	0 / 1		
deaths causally related to treatment / all	0 / 0		
Metabolism and nutrition disorders			
Hypercalcaemia			
subjects affected / exposed	3 / 28 (10.71%)		
occurrences causally related to treatment / all	0 / 3		
deaths causally related to treatment / all	0 / 0		

Frequency threshold for reporting non-serious adverse events: 3.6 %

Non-serious adverse events	Olaptesed pegol + VD		
Total subjects affected by non-serious adverse events			
subjects affected / exposed	28 / 28 (100.00%)		
Vascular disorders			
Haematoma			
subjects affected / exposed	2 / 28 (7.14%)		
occurrences (all)	2		
Hypertension			
subjects affected / exposed	4 / 28 (14.29%)		
occurrences (all)	5		
Orthostatic hypotension			

subjects affected / exposed	1 / 28 (3.57%)		
occurrences (all)	1		
Phlebitis			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences (all)	1		
General disorders and administration site conditions			
Asthenia			
subjects affected / exposed	5 / 28 (17.86%)		
occurrences (all)	7		
Catheter site pain			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences (all)	1		
Chest discomfort			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences (all)	1		
Chest pain			
subjects affected / exposed	2 / 28 (7.14%)		
occurrences (all)	2		
Fatigue			
subjects affected / exposed	5 / 28 (17.86%)		
occurrences (all)	5		
Gait disturbance			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences (all)	1		
General physical health deterioration			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences (all)	1		
Oedema peripheral			
subjects affected / exposed	7 / 28 (25.00%)		
occurrences (all)	9		
Pain			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences (all)	1		
Pyrexia			

subjects affected / exposed occurrences (all)	5 / 28 (17.86%) 6		
Immune system disorders Drug hypersensitivity subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		
Reproductive system and breast disorders Pelvic pain subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		
Respiratory, thoracic and mediastinal disorders Asthma subjects affected / exposed occurrences (all) Chronic obstructive pulmonary disease subjects affected / exposed occurrences (all) Cough subjects affected / exposed occurrences (all) Dyspnoea subjects affected / exposed occurrences (all) Dyspnoea exertional subjects affected / exposed occurrences (all) Pulmonary congestion subjects affected / exposed occurrences (all) Pulmonary embolism subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1 2 / 28 (7.14%) 2 6 / 28 (21.43%) 10 3 / 28 (10.71%) 4 3 / 28 (10.71%) 3 1 / 28 (3.57%) 1 1 / 28 (3.57%) 1		
Psychiatric disorders Agitation			

subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		
Anxiety subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		
Confusional state subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		
Depression subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		
Insomnia subjects affected / exposed occurrences (all)	3 / 28 (10.71%) 3		
Nervousness subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		
Investigations			
Blast cell count decreased subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		
Blast cells present subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		
Blood alkaline phosphatase increased subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		
Body temperature increased subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		
C-reactive protein increased subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		
Electrocardiogram QT prolonged subjects affected / exposed occurrences (all)	2 / 28 (7.14%) 2		

Gamma-glutamyltransferase increased subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		
Hepatic enzyme increased subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		
Vitamin D decreased subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		
Weight decreased subjects affected / exposed occurrences (all)	2 / 28 (7.14%) 2		
White blood cell count decreased subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		
Injury, poisoning and procedural complications			
Arthropod bite subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		
Fall subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		
Hand fracture subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		
Limb injury subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		
Subdural haematoma subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		
Cardiac disorders			
Angina pectoris subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		
Cardiac failure			

subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		
Cardiac failure congestive subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		
Palpitations subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		
Sinus tachycardia subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		
Nervous system disorders			
Brain compression subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		
Dizziness postural subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 2		
Dysgeusia subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		
Headache subjects affected / exposed occurrences (all)	2 / 28 (7.14%) 4		
Hypoaesthesia subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		
Neuralgia subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		
Neuropathy peripheral subjects affected / exposed occurrences (all)	5 / 28 (17.86%) 5		
Orthostatic intolerance subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		

Paraesthesia subjects affected / exposed occurrences (all)	5 / 28 (17.86%) 5		
Peripheral sensory neuropathy subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		
Polyneuropathy subjects affected / exposed occurrences (all)	5 / 28 (17.86%) 7		
Post herpetic neuralgia subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		
Blood and lymphatic system disorders			
Anaemia subjects affected / exposed occurrences (all)	11 / 28 (39.29%) 15		
Leukocytosis subjects affected / exposed occurrences (all)	4 / 28 (14.29%) 11		
Leukopenia subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 2		
Lymphopenia subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		
Neutropenia subjects affected / exposed occurrences (all)	5 / 28 (17.86%) 8		
Thrombocytopenia subjects affected / exposed occurrences (all)	11 / 28 (39.29%) 19		
Ear and labyrinth disorders			
Vertigo subjects affected / exposed occurrences (all)	3 / 28 (10.71%) 6		
Eye disorders			

Cataract			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences (all)	1		
Conjunctivitis			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences (all)	1		
Diplopia			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences (all)	1		
Meibomianitis			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences (all)	1		
Retinal vascular occlusion			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences (all)	1		
Scotoma			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences (all)	1		
Vision blurred			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences (all)	1		
Visual impairment			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences (all)	1		
Gastrointestinal disorders			
Abdominal pain			
subjects affected / exposed	3 / 28 (10.71%)		
occurrences (all)	5		
Abdominal pain upper			
subjects affected / exposed	2 / 28 (7.14%)		
occurrences (all)	2		
Aerophagia			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences (all)	1		
Constipation			

subjects affected / exposed	9 / 28 (32.14%)		
occurrences (all)	10		
Diarrhoea			
subjects affected / exposed	14 / 28 (50.00%)		
occurrences (all)	23		
Dyspepsia			
subjects affected / exposed	2 / 28 (7.14%)		
occurrences (all)	2		
Enteritis			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences (all)	1		
Gastritis			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences (all)	1		
Gastrooesophageal reflux disease			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences (all)	1		
Lip dry			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences (all)	1		
Nausea			
subjects affected / exposed	2 / 28 (7.14%)		
occurrences (all)	3		
Rectal haemorrhage			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences (all)	1		
Reflux gastritis			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences (all)	1		
Stomatitis			
subjects affected / exposed	2 / 28 (7.14%)		
occurrences (all)	3		
Vomiting			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences (all)	2		
Hepatobiliary disorders			

Bile duct stone subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		
Skin and subcutaneous tissue disorders			
Alopecia subjects affected / exposed occurrences (all)	2 / 28 (7.14%) 2		
Decubitus ulcer subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		
Dermatitis subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		
Dermatitis exfoliative subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		
Erythema subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 2		
Pruritus subjects affected / exposed occurrences (all)	2 / 28 (7.14%) 5		
Rash macular subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		
Skin hyperpigmentation subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		
Swelling face subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		
Renal and urinary disorders			
Dysuria subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		
Renal failure			

subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		
Musculoskeletal and connective tissue disorders			
Back pain			
subjects affected / exposed	3 / 28 (10.71%)		
occurrences (all)	3		
Bone pain			
subjects affected / exposed	3 / 28 (10.71%)		
occurrences (all)	3		
Musculoskeletal chest pain			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences (all)	1		
Musculoskeletal pain			
subjects affected / exposed	4 / 28 (14.29%)		
occurrences (all)	4		
Pain in extremity			
subjects affected / exposed	2 / 28 (7.14%)		
occurrences (all)	2		
Infections and infestations			
Abscess			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences (all)	1		
Bronchitis			
subjects affected / exposed	5 / 28 (17.86%)		
occurrences (all)	5		
Candidiasis			
subjects affected / exposed	2 / 28 (7.14%)		
occurrences (all)	2		
Cystitis			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences (all)	1		
Gingival infection			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences (all)	1		
Herpes simplex			

subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		
Herpes zoster subjects affected / exposed occurrences (all)	3 / 28 (10.71%) 3		
Hordeolum subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		
Infection subjects affected / exposed occurrences (all)	3 / 28 (10.71%) 3		
Influenza subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 2		
Nasopharyngitis subjects affected / exposed occurrences (all)	4 / 28 (14.29%) 5		
Pneumonia subjects affected / exposed occurrences (all)	4 / 28 (14.29%) 4		
Pulpitis dental subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		
Rhinitis subjects affected / exposed occurrences (all)	2 / 28 (7.14%) 2		
Upper respiratory tract infection subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		
Urinary tract infection subjects affected / exposed occurrences (all)	1 / 28 (3.57%) 1		
Metabolism and nutrition disorders Decreased appetite subjects affected / exposed occurrences (all)	2 / 28 (7.14%) 2		

Dehydration			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences (all)	1		
Hypercalcaemia			
subjects affected / exposed	3 / 28 (10.71%)		
occurrences (all)	4		
Hyperglycaemia			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences (all)	1		
Hyperkalaemia			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences (all)	1		
Hypocalcaemia			
subjects affected / exposed	6 / 28 (21.43%)		
occurrences (all)	9		
Hypokalaemia			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences (all)	1		
Hypomagnesaemia			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences (all)	2		
Hyponatraemia			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences (all)	1		
Hypophosphataemia			
subjects affected / exposed	1 / 28 (3.57%)		
occurrences (all)	1		

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
14 March 2012	<p>Amendment 1 DE: administrative: to clarify that quantitation of immunoglobulins is part of tumor assessment only; clarification that ECGs, vitals & samples for PK/SDF-1, CD34+, plasma & myeloma cell analysis that are taken 1 h after olaptesed pegol, should be taken before BTZ-DEX; reduction in time period between olaptesed i.v. bolus and bortezomib i.v. bolus injection to improve alignment of the olaptesed PK/PD profiles with BTZ PK/PD profiles</p> <p>Amendment 1 AT & IT: implementation of changes required by BfArM in other countries further specification of Inclusion Criterion #7: details of permissible forms of reliable contraceptive methods are included; further specification of Inclusion Criterion #8: acceptable liver function is documented, in accordance with the bortezomib SPC; further specification of Inclusion Criterion #11: excluding patients with concomitant diseases; e.g. heart diseases; impaired liver function is included as a separate DLT due to increased liver values noted during the early development of olaptesed and in accordance with requirements to monitor liver values closely in order to adjust the dosage of BTZ and thus prevent any decrease in efficacy; hematological toxicity associated with olaptesed alone or olaptesed & BTZ-DEX in combination is included as a DLT to safeguard patient safety; time window & examination hierarchy: administrative correction to allow more time for pre-dose assessments; administrative: to provide further details of the ultrasound assessments of liver</p>

Notes:

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

None reported