EU Clinical Trials Register

Clinical trial results:
MIMEB - Molecular Imaging with erlotinib and bevacizumab. A Phase II Clinical Trial to Evaluate the Accuracy of FDG-/FLT-PET and DCE-MRI for Early Prediction of Non-Progression in Patients with Advanced Non Squamous Cell Non Small Cell Lung Cancer (NSCLC) treated with Erlotinib and Bevacizumab and to Associate Imaging Findings with Molecular Markers

Summary

EudraCT number	2009-012607-26
Trial protocol	DE
Global end of trial date	23 November 2013

Results information

Result version number	v1 (current)
This version publication date	15 May 2021
First version publication date	15 May 2021
Summary attachment (see zip file)	Final_Report_MIMEB (MIMEB_Final_report_23.06.2020_F.pdf)

Trial information

Trial identification

Sponsor protocol code	MIMEB

Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT01047059
WHO universal trial number (UTN)	-

Notes:

Sponsors

Sponsor organisation name	University of Cologne
Sponsor organisation address	Albertus-Magnus-Platz, Cologne, Germany, 50923
Public contact	Jürgen Wolf, Lung Cancer Group Cologne, juergen.wolf@uk-koeln.de
Scientific contact	Matthias Scheffler, University of Cologne, matthias.scheffler@uk-koeln.de

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	23 November 2013
Is this the analysis of the primary completion data?	Yes
Primary completion date	23 November 2013
Global end of trial reached?	Yes
Global end of trial date	23 November 2013
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

To evaluate the accuracy of imaging findings in FDG-/FLT-PET and DCE-MRI after one week of treatment for early prediction of RECIST-based non-progression (CR+PR+SD) after 6 weeks of therapy in patients with NSCLC stage IIIb/IV treated first line with erlotinib and bevacizumab.

To evaluate the accuracy of imaging findings in FDG-/FLT-PET and DCE-MRI after one week of treatment for early prediction of PFS in patients with NSCLC stage IIIb/IV treated first line with erlotinib and bevacizumab.

Protection of trial subjects:	
All patients had trial insurance as demanded by the Arzneimittelgesetz (AMG).	
Background therapy:	
n/a	
Evidence for comparator:	
n/a	
Actual start date of recruitment	18 January 2010
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	Germany: 40
Worldwide total number of subjects	40
EEA total number of subjects	40

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 months)	0
Children (2-11 years)	0
Adolescents (12-17 years)	0

Adults (18-64 years)	25
From 65 to 84 years	15
85 years and over	0

Subject disposition

Recruitment

Recruitment details:

Monocentric recruitment in Cologne, Germany.

Pre-assignment

Screening details:

18.01.2010 - 23.11.2013 in Cologne.

Period 1

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

Arms

Arm title	Treatment arm

Arm description:

Erlotinib and Bevacizumab in St. IV NSCLC; early and late FLT-, FDG-PET and DCE-MRI

Arm type	Experimental
Investigational medicinal product name	Erlotinib
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Tablet
Routes of administration	Oral use

Dosage and administration details:

Tablets administrated once per day.

Investigational medicinal product name	Bevacizumab
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Infusion
Routes of administration	Intravenous use

Dosage and administration details:

Infusions q3 weeks.

Number of subjects in period 1	Treatment arm
Started	40
Completed	40

Baseline characteristics

Reporting groups

Reporting group title	Overall period

Reporting group description: -

Reporting group values	Overall period	Total	
Number of subjects	40	40	
Age categorical			
Units: Subjects			
In utero	0	0	
Preterm newborn infants (gestational age < 37 wks)	0	0	
Newborns (0-27 days)	0	0	
Infants and toddlers (28 days-23 months)	0	0	
Children (2-11 years)	0	0	
Adolescents (12-17 years)	0	0	
Adults (18-64 years)	25	25	
From 65-84 years	15	15	
85 years and over	0	0	
Age continuous			
Units: years			
median	60		
full range (min-max)	30 to 76	-	
Gender categorical			
Units: Subjects			
Female	16	16	
Male	24	24	

Subject analysis sets

Subject analysis set title	Intention-to-treat
Subject analysis set type	Intention-to-treat

Subject analysis set description:

All pateints that were included into the study

Reporting group values	Intention-to-treat		
Number of subjects	40		
Age categorical			
Units: Subjects			
In utero	0		
Preterm newborn infants (gestational age < 37 wks)	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)	25		

From 65-84 years	15		
85 years and over	0		

Age continuous			
Units: years			
median	60		
full range (min-max)	30 to 76		
Gender categorical			
Units: Subjects			
Female	16		
Male	24		

End points

End points reporting groups

Reporting group title	Treatment arm
Reporting group description:	
Erlotinib and Bevacizumab in St. IV NSCLC; early and late FLT-, FDG-PET and DCE-MRI	
Subject analysis set title	Intention-to-treat
Subject analysis set type	Intention-to-treat
Subject analysis set description:	
All pateints that were included into the study	

Primary: Changes in SUV

End point title	Changes in SUV

End point description:

Percentaged changes (proposed reductions) in the SUVs of PET images after one week of therapy as compared with the baseline assessment were compared with the response outcome (i. e., PD vs non-PD) in the first restaging procedure after six weeks of com-bined therapy. The related changes were analyzed using a responder-operator-characteristics (ROC) curve and the corresponding area under the curve (AUC).
The maximal Youden-indices found in these analyses were then taken as cut-off values for Kaplan Meier analyses regarding PFS. Further, we tested predefined cut-off values (20%, 30% reductions in PET activities) regarding their potential role in discriminating patients with benefit from therapy as seen in prolonged PFS.

End point type	Primary
End point timeframe:	
18.01.2010 - 23.11.2013	

End point values	Treatment arm	Intention-to-treat		
Subject group type	Reporting group	Subject analysis set		
Number of subjects analysed	40	40		
Units: n/a				
number (not applicable)				
Response	40	40		

Statistical analyses

Statistical analysis title	Sample size calculation

Statistical analysis description:

Assumptions:
(1) 20% responder, 40% progressers; thus 60% non-progressers
(2) Primary variable is the 'area under the ROC curve (AUC,)'
(3) Type-I-error 0.043; type-II-error 0.20
(4) True accuracy (AUC) is at least 0.70 (alternative hypothesis; some common diagnostic tests have an AUC greater than 0.70)
The sample size in the following table was calculated using formulae (6.3) and (6.6) in [118]. Thus, assuming Sigma1 = 0.75, about 40 patients are needed to reject the null hypothesis.

Comparison groups	Treatment arm v Intention-to-treat

Number of subjects included in analysis	80
Analysis specification	Pre-specified
Analysis type	other
P-value	< 0.05
Method	Responser Operator Characteristics (ROC)
Parameter estimate	Youden-Index

Adverse events

Adverse events information[1]

Timeframe for reporting adverse events:

18.01.2010 - 23.11.2013

Assessment type	Systematic

Dictionary used

Dictionary name	MedDRA
Dictionary version	16

Frequency threshold for reporting non-serious adverse events: 0 %

Notes:

[1] - There are no non-serious adverse events recorded for these results. It is expected that there will be at least one non-serious adverse event reported.
Justification: AE analysis is provided in summary.

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? No

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

 None reported