



## Clinical trial results:

**A randomised, double-blind phase II trial to determine efficacy, safety and immunogenicity of BI 1361849 (CV9202) maintenance vaccination therapy versus placebo given intradermally in patients with inoperable locally advanced Non-Small Cell Lung Cancer (NSCLC) after definitive concurrent chemoradiation (CRT) therapy**

### Summary

EudraCT number	2014-004959-30
Trial protocol	DE NO ES BE
Global end of trial date	10 October 2016

### Results information

Result version number	v1 (current)
This version publication date	06 January 2019
First version publication date	06 January 2019
Summary attachment (see zip file)	Statement (1373.3_Statement_Eudract.pdf)

### Trial information

#### Trial identification

Sponsor protocol code	1373.3
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#### Additional study identifiers

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

Notes:

### Sponsors

Sponsor organisation name	Boehringer Ingelheim
Sponsor organisation address	Binger Strasse 173, Ingelheim am Rhein, Germany, 55216
Public contact	QRPE Processes and Systems Coordination, Clinical Trial Information Disclosure, Boehringer Ingelheim , 001 8002430127, clintrriage.rdg@boehringer-ingelheim.com
Scientific contact	QRPE Processes and Systems Coordination, Clinical Trial Information Disclosure, Boehringer Ingelheim , 001 8002430127, clintrriage.rdg@boehringer-ingelheim.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:

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**Results analysis stage**

Analysis stage	Final
Date of interim/final analysis	10 October 2016
Is this the analysis of the primary completion data?	Yes
Primary completion date	10 October 2016
Global end of trial reached?	Yes
Global end of trial date	10 October 2016
Was the trial ended prematurely?	Yes

Notes:

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**General information about the trial**

Main objective of the trial:

To evaluate efficacy, immunogenicity and safety of BI 1361849 (CV9202) as maintenance treatment following chemoradiation therapy for inoperable stage III NSCLC

Protection of trial subjects:

No patient entered the study, therefore no results data available. 99999 is "Not applicable" value or 0 participants, this trial was discontinued with no participants entering the trial. 199998 number entered in population of trial subjects is "Not applicable", the number is added to match the count in the participant flow which we get after adding the NA value "99999" for each treatment arm.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	10 October 2016
Long term follow-up planned	No
Independent data monitoring committee (IDMC) involvement?	No

Notes:

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**Population of trial subjects****Subjects enrolled per country**

Country: Number of subjects enrolled	Netherlands: 199998
Worldwide total number of subjects	199998
EEA total number of subjects	199998

Notes:

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**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)	199998
From 65 to 84 years	0
85 years and over	0

## Subject disposition

### Recruitment

Recruitment details:

No patient was entered in the trial.

### Pre-assignment

Screening details:

All patients were planned to be screened for eligibility to participate in the trial. Patients had to attend specialist sites which would then ensure that they (the patients) met all inclusion/exclusion criteria. Patients were not to be entered to the trial if any one of the specific entry criteria were violated.

### Period 1

Period 1 title	Treatment period (overall period)
Is this the baseline period?	Yes
Allocation method	Randomised - controlled
Blinding used	Double blind
Roles blinded	Subject, Investigator, Monitor, Assessor
Blinding implementation details: double-blind trial.	

### Arms

Are arms mutually exclusive?	Yes
<b>Arm title</b>	BI 1361849 (CV9202)

Arm description:

Patients were to be administered BI 1361849 (CV9202) (Strictly intradermal (i.d.)) Repeated i.d. injections (Day 1 of Weeks 1, 2, 3, 5, 7, 9, 12, 15, 18, 21, 24, and continued thereafter every 6 weeks); 2 injections per component resulting in 12 i.d. injections per single vaccination; all injections together spread over 4 different body sites (altogether 3 injections each in inner side of the left and right upper arm and 3 injections each in left and right thigh). Each component will be injected into the arm and thigh of the same body half.

Arm type	Experimental
Investigational medicinal product name	BI 1361849
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Injection
Routes of administration	Intradermal use

Dosage and administration details:

Patients were to be administered BI 1361849 (CV9202) (Strictly intradermal (i.d.)) Repeated i.d. injections (Day 1 of Weeks 1, 2, 3, 5, 7, 9, 12, 15, 18, 21, 24, and continued thereafter every 6 weeks); 2 injections per component resulting in 12 i.d. injections per single vaccination; all injections together spread over 4 different body sites (altogether 3 injections each in inner side of the left and right upper arm and 3 injections each in left and right thigh). Each component will be injected into the arm and thigh of the same body half.

<b>Arm title</b>	Placebo matching all components of BI 1361849 (CV9202)
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Arm description:

Patients were to be administered with placebo matching all components of BI 1361849 (CV9202) via intradermal injection Repeated intradermal injections (day 1 of weeks 1, 2, 3, 5, 7, 9, 12, 15, 18, 21, 24, and continued thereafter every six weeks); 2 injections per component resulting in 12 i.d. injections per single vaccination, all injections together spread over 4 different body sites (altogether 3 injections each in inner side of the left and right upper arm and 3 injections each in left and right thigh). Each component will be injected into the arm and thigh of the same body half.

Arm type	Placebo
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Investigational medicinal product name	Placebo
Investigational medicinal product code	
Other name	
Pharmaceutical forms	Injection
Routes of administration	Intradermal use

Dosage and administration details:

Patients were to be administered with placebo matching all components of BI 1361849 (CV9202) via intradermal injection Repeated intradermal injections (day 1 of weeks 1, 2, 3, 5, 7, 9, 12, 15, 18, 21, 24, and continued thereafter every six weeks); 2 injections per component resulting in 12 i.d. injections per single vaccination, all injections together spread over 4 different body sites (altogether 3 injections each in inner side of the left and right upper arm and 3 injections each in left and right thigh). Each component will be injected into the arm and thigh of the same body half.

Number of subjects in period 1	BI 1361849 (CV9202)	Placebo matching all components of BI 1361849 (CV9202)
Started	99999	99999
Completed	99999	99999

## Baseline characteristics

### Reporting groups

Reporting group title	BI 1361849 (CV9202)
Reporting group description:	
Patients were to be administered BI 1361849 (CV9202) (Strictly intradermal (i.d.)) Repeated i.d. injections (Day 1 of Weeks 1, 2, 3, 5, 7, 9, 12, 15, 18, 21, 24, and continued thereafter every 6 weeks); 2 injections per component resulting in 12 i.d. injections per single vaccination; all injections together spread over 4 different body sites (altogether 3 injections each in inner side of the left and right upper arm and 3 injections each in left and right thigh). Each component will be injected into the arm and thigh of the same body half.	
Reporting group title	Placebo matching all components of BI 1361849 (CV9202)
Reporting group description:	
Patients were to be administered with placebo matching all components of BI 1361849 (CV9202) via intradermal injection Repeated intradermal injections (day 1 of weeks 1, 2, 3, 5, 7, 9, 12, 15, 18, 21, 24, and continued thereafter every six weeks); 2 injections per component resulting in 12 i.d. injections per single vaccination, all injections together spread over 4 different body sites (altogether 3 injections each in inner side of the left and right upper arm and 3 injections each in left and right thigh). Each component will be injected into the arm and thigh of the same body half.	

Reporting group values	BI 1361849 (CV9202)	Placebo matching all components of BI 1361849 (CV9202)	Total
Number of subjects	99999	99999	199998
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)			0
From 65-84 years			0
85 years and over			0
Age continuous			
Treated set (TS); that is, all participants who received at least one dose of study medication. 99999 is "Not applicable" value or 0 participants, this trial was discontinued with no participants entered in the trial.			
Units: years			
arithmetic mean	0	0	
standard deviation	± 0	± 0	-
Gender categorical			
Treated set (TS); that is, all participants who received at least one dose of study medication. 99999 is "Not applicable" value or 0 participants, this trial was discontinued with no participants entered in the trial.			
Units: Subjects			
Female	99999	99999	199998
Male	0	0	0

## End points

### End points reporting groups

Reporting group title	BI 1361849 (CV9202)
Reporting group description: Patients were to be administered BI 1361849 (CV9202) (Strictly intradermal (i.d.)) Repeated i.d. injections (Day 1 of Weeks 1, 2, 3, 5, 7, 9, 12, 15, 18, 21, 24, and continued thereafter every 6 weeks); 2 injections per component resulting in 12 i.d. injections per single vaccination; all injections together spread over 4 different body sites (altogether 3 injections each in inner side of the left and right upper arm and 3 injections each in left and right thigh). Each component will be injected into the arm and thigh of the same body half.	
Reporting group title	Placebo matching all components of BI 1361849 (CV9202)
Reporting group description: Patients were to be administered with placebo matching all components of BI 1361849 (CV9202) via intradermal injection Repeated intradermal injections (day 1 of weeks 1, 2, 3, 5, 7, 9, 12, 15, 18, 21, 24, and continued thereafter every six weeks); 2 injections per component resulting in 12 i.d. injections per single vaccination, all injections together spread over 4 different body sites (altogether 3 injections each in inner side of the left and right upper arm and 3 injections each in left and right thigh). Each component will be injected into the arm and thigh of the same body half.	

### Primary: Progression free survival (PFS)

End point title	Progression free survival (PFS) <sup>[1]</sup>
End point description: Progression free survival (PFS), defined as time (days) from the date of randomisation to the date of progression or to the date of death, whichever occurs first. This will be centrally adjudicated by independent review according to Response Evaluation Criteria In Solid Tumors Criteria (RECIST 1.1). 99999 is "Not applicable" value or 0 participants, this trial was discontinued with no participants entered in the trial.	
End point type	Primary
End point timeframe: From the date of randomisation to the date of progression or to the date of death	

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: No participant entered in the trial hence results are not available.

End point values	BI 1361849 (CV9202)	Placebo matching all components of BI 1361849 (CV9202)		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	99999 <sup>[2]</sup>	99999 <sup>[3]</sup>		
Units: days				
median (inter-quartile range (Q1-Q3))	99999 (99999 to 99999)	99999 (99999 to 99999)		

Notes:

[2] - Treated set

[3] - Treated set

### 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 (OS), defined as time (days) from the date of randomisation to the date of death. 99999 is "Not applicable" value or 0 participants, this trial was discontinued with no participants entered in the trial.

End point type	Secondary
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End point timeframe:

From the date of randomisation to the date of death.

End point values	BI 1361849 (CV9202)	Placebo matching all components of BI 1361849 (CV9202)		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	99999 <sup>[4]</sup>	99999 <sup>[5]</sup>		
Units: days				
median (inter-quartile range (Q1-Q3))	99999 (99999 to 99999)	99999 (99999 to 99999)		

Notes:

[4] - Treated set

[5] - Treated set

## Statistical analyses

No statistical analyses for this end point

## Secondary: PFS status at 52 weeks

End point title	PFS status at 52 weeks
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End point description:

Progression free survival (PFS) status at 52 weeks, defined as time (days) from the date of randomisation to the date of progression or to the date of death or week 52, whichever occurs first. This will be centrally adjudicated by independent review according to Response Evaluation Criteria In Solid Tumors Criteria (RECIST 1.1). 99999 is "Not applicable" value or 0 participants, this trial was discontinued with no participants entered in the trial.

End point type	Secondary
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End point timeframe:

At 52 weeks after randomisation

End point values	BI 1361849 (CV9202)	Placebo matching all components of BI 1361849 (CV9202)		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	99999 <sup>[6]</sup>	99999 <sup>[7]</sup>		
Units: days				
median (inter-quartile range (Q1-Q3))	99999 (99999 to 99999)	99999 (99999 to 99999)		

Notes:

[6] - Treated set

[7] - Treated set

## Statistical analyses

No statistical analyses for this end point

### Secondary: Progression free survival 2 (PFS2)

End point title	Progression free survival 2 (PFS2)
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End point description:

PFS2, defined as time (days) from randomisation to either death or disease progression by investigator assessment occurring after initiation of 1st subsequent post trial systemic therapy. 99999 is "Not applicable" value or 0 participants, this trial was discontinued with no participants entered in the trial.

End point type	Secondary
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End point timeframe:

From randomisation to either death or disease progression by investigator assessment occurring after initiation of 1st subsequent post trial systemic therapy

End point values	BI 1361849 (CV9202)	Placebo matching all components of BI 1361849 (CV9202)		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	99999 <sup>[8]</sup>	99999 <sup>[9]</sup>		
Units: days				
median (inter-quartile range (Q1-Q3))	99999 (99999 to 99999)	99999 (99999 to 99999)		

Notes:

[8] - Treated set

[9] - Treated set

## Statistical analyses

No statistical analyses for this end point

### Secondary: Immune response status from blood samples obtained at Week 6 and Week 13 (planned time points).

End point title	Immune response status from blood samples obtained at Week 6 and Week 13 (planned time points).
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End point description:

A planned total amount of approx. 330 ml blood will be taken within a planned time of week 13 in all 120 patients for the purpose of immunomonitoring at time points before start of treatment (C1V1) as well as at planned time points week 6 (C2V1) and week 13 (C3V2) after the first vaccination. Patients are considered to show an immune response against BI 1361849 (CV9202) if at least one of the two post-baseline time points, week 6 and 13, show assay positivity for at least one of the assessments by Intracellular Cytokine Staining (ICS), Enzyme-linked immunosorbent spot (ELISpot) or Enzyme-linked immunosorbent assay (ELISA) for at least one of the six antigens. 99999 is "Not applicable" value or 0 participants, this trial was discontinued with no participants entered in the trial.

End point type	Secondary
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End point timeframe:

Week 6 and 13

End point values	BI 1361849 (CV9202)	Placebo matching all components of BI 1361849 (CV9202)		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	99999 <sup>[10]</sup>	99999 <sup>[11]</sup>		
Units: participants				
number (not applicable)	99999	99999		

Notes:

[10] - Treated set

[11] - Treated set

## Statistical analyses

No statistical analyses for this end point

## Secondary: Symptomatic progression

End point title	Symptomatic progression
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End point description:

Symptomatic progression, defined as time (days) from randomisation to an increase of at least 10 points from baseline for one or more of cough (Q1, QLQ-LC13), dyspnoea (Q3-5, QLQ-LC13) or chest pain (Q10, QLQ-LC13) based on the European Organisation for Research and Treatment of Cancer Quality of Life Questionnaire Lung cancer specific supplementary module (EORTC QLQ-LC13). 99999 is "Not applicable" value or 0 participants, this trial was discontinued with no participants entered in the trial.

End point type	Secondary
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End point timeframe:

From randomisation to an increase of at least 10 points from baseline for one or one or more of cough (Q1, QLQ-LC13), dyspnea (Q3-5, QLQ-LC13) or chest pain (Q10, QLQ-LC13)

End point values	BI 1361849 (CV9202)	Placebo matching all components of BI 1361849 (CV9202)		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	99999 <sup>[12]</sup>	99999 <sup>[13]</sup>		
Units: days				
median (inter-quartile range (Q1-Q3))	99999 (99999 to 99999)	99999 (99999 to 99999)		

Notes:

[12] - Treated set

[13] - Treated set

## Statistical analyses

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**Secondary: Discontinuation of study treatment by 24 weeks after randomisation either due to an adverse event (not tumour related) or due to patient withdrawal from study treatment for drug associated reasons**


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End point title	Discontinuation of study treatment by 24 weeks after randomisation either due to an adverse event (not tumour related) or due to patient withdrawal from study treatment for drug associated reasons
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## End point description:

Discontinuation of study treatment by 24 weeks after randomisation either due to an adverse event not related to tumour or due to patient withdrawal from study treatment for drug associated reasons. This will only be analysed at the primary analysis, planned at 52 weeks after the last patient has been randomised.

It was planned to analyse separately for all randomised patients from phase I, and all randomised patients across both phase I and phase II portions of the trial.

99999 is "Not applicable" value or 0 participants, this trial was discontinued with no participants entered in the trial.

End point type	Secondary
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## End point timeframe:

At 52 weeks after the last patient has been randomised

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End point values	BI 1361849 (CV9202)	Placebo matching all components of BI 1361849 (CV9202)		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	99999 <sup>[14]</sup>	99999 <sup>[15]</sup>		
Units: participants				
number (not applicable)	99999	99999		

## Notes:

[14] - Treated set

[15] - Treated set

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**Statistical analyses**


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No statistical analyses for this end point

## Adverse events

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### Adverse events information<sup>[1]</sup>

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Timeframe for reporting adverse events:

All adverse events occurring after first intake of treatment until end of the follow up period.

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Adverse event reporting additional description:

99999 is "Not applicable" value or 0 participants, this trial was discontinued with no participants enrolled in the trial.

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Assessment type	Systematic
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### Dictionary used

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Dictionary name	MedDRA
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Dictionary version	0
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Frequency threshold for reporting non-serious adverse events: 5 %

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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: No participant entered in the trial hence results are not available.

## More information

### Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? No

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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.

This trial was discontinued with no participants enrolled in the trial.
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Notes: