



Clinical trial results:

A phase II/III, randomised, observer-blind, placebo-controlled, multicentre, clinical trial to assess the immunogenicity and safety of GSK Biologicals' Herpes Zoster GSK1437173A candidate vaccine when administered intramuscularly on a 0 and 1 to 2 months schedule to adults 18 years of age with solid tumours receiving chemotherapy.

Summary

EudraCT number	2012-002966-11
Trial protocol	ES GB CZ
Global end of trial date	20 May 2016

Results information

Result version number	v2
This version publication date	04 June 2017
First version publication date	02 July 2016
Version creation reason	• New data added to full data set Addition of LSLV results

Trial information

Trial identification

Sponsor protocol code	116427
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Additional study identifiers

ISRCTN number	-
ClinicalTrials.gov id (NCT number)	NCT01798056
WHO universal trial number (UTN)	-

Notes:

Sponsors

Sponsor organisation name	GlaxoSmithKline Biologicals
Sponsor organisation address	Rue de l'Institut 89, Rixensart, Belgium, B-1330
Public contact	Clinical Trials Call Center, GlaxoSmithKline Biologicals, 44 2089904466, GSKClinicalSupportHD@gsk.com
Scientific contact	Clinical Trials Call Center, GlaxoSmithKline Biologicals, 44 2089904466, GSKClinicalSupportHD@gsk.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	Interim
Date of interim/final analysis	23 April 2016
Is this the analysis of the primary completion data?	Yes
Primary completion date	18 June 2015
Global end of trial reached?	Yes
Global end of trial date	20 May 2016
Was the trial ended prematurely?	No

Notes:

General information about the trial

Main objective of the trial:

- To evaluate anti-gE humoral immune responses at Month 2, following a two-dose administration of the GSK1437173A vaccine, as compared to placebo in subjects with solid tumours receiving chemotherapy (PreChemo Groups only).

Criteria to be used:

The objective is met if the lower limit of the 95% confidence interval (CI) of the Geometric Mean (GM) ratio (GSK1437173A PreChemo Group over Placebo PreChemo Group) in anti-gE ELISA antibody concentrations is greater than 3.

-To evaluate the safety and reactogenicity following administration of the GSK1437173A vaccine as compared to placebo up to 30 days post last vaccination in subjects with solid tumours receiving chemotherapy.

Protection of trial subjects:

All subjects were supervised for 30 min after vaccination/product administration with appropriate medical treatment readily available. Vaccines/products were administered by qualified and trained personnel. Vaccines/products were administered only to eligible subjects that had no contraindications to any components of the vaccines/products. Subjects were followed-up for 30 days after the last vaccination/product administration.

Background therapy: -

Evidence for comparator: -

Actual start date of recruitment	05 March 2013
Long term follow-up planned	No
Independent data monitoring committee (IDMC) involvement?	No

Notes:

Population of trial subjects

Subjects enrolled per country

Country: Number of subjects enrolled	Spain: 170
Country: Number of subjects enrolled	United Kingdom: 30
Country: Number of subjects enrolled	Czech Republic: 5
Country: Number of subjects enrolled	France: 20
Country: Number of subjects enrolled	Korea, Republic of: 35
Country: Number of subjects enrolled	Canada: 6
Worldwide total number of subjects	266
EEA total number of subjects	225

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)	192
From 65 to 84 years	72
85 years and over	2

Subject disposition

Recruitment

Recruitment details: -

Pre-assignment

Screening details:

During the screening the following steps occurred: check for inclusion/exclusion criteria, contraindications/precautions, medical history of the subjects and signing informed consent forms.

Pre-assignment period milestones

Number of subjects started	266
Number of subjects completed	232

Pre-assignment subject non-completion reasons

Reason: Number of subjects	No vaccination received: 34
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Period 1

Period 1 title	Overall Period (overall period)
Is this the baseline period?	Yes
Allocation method	Randomised - controlled
Blinding used	Double blind ^[1]
Roles blinded	Subject, Carer, Assessor

Blinding implementation details:

Observer-blind for study vaccine but not for time of vaccination relative to chemotherapy.

Arms

Are arms mutually exclusive?	Yes
Arm title	GSK1437173A Group

Arm description:

Subjects received the first dose of GSK 1437173A at least 10 days (up to 1 month) before start of chemotherapy cycle or at the first day (allowing a window of +/- 1 day) of the first (or second) chemotherapy cycle. The second dose of GSK 1437173A vaccine was administered between 1 and 2 months after the first vaccination and at the first day (allowing a window of +/- 1 day) of a subsequent cycle of chemotherapy. The study products were administered intramuscularly into a deltoid muscle. The choice of and use of chemotherapy, or any other medication related to the patients' current conditions, were based on the local standard of care for the patients.

Arm type	Experimental
Investigational medicinal product name	GSK 1437173A
Investigational medicinal product code	
Other name	HZ/su vaccine
Pharmaceutical forms	Powder and solvent for suspension for injection
Routes of administration	Intramuscular use

Dosage and administration details:

The vaccine was administered intramuscularly into the deltoid muscle of the non-dominant arm.

Arm title	Placebo Group
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Arm description:

Subjects received the first dose of placebo at least 10 days (up to 1 month) before start of chemotherapy cycle or at the first day (allowing a window of +/- 1 day) of the first (or second) chemotherapy cycle. The second dose of placebo was administered between 1 and 2 months after the first vaccination and at the first day (allowing a window of +/- 1 day) of a subsequent cycle of chemotherapy. The study products were administered intramuscularly into a deltoid muscle. The choice of and use of chemotherapy, or any other medication related to the patients' current conditions, were based on the local standard of care for the patients.

Arm type	Placebo
Investigational medicinal product name	Placebo
Investigational medicinal product code	
Other name	Saline solution
Pharmaceutical forms	Powder and solvent for solution for injection
Routes of administration	Intramuscular use

Dosage and administration details:

The placebo was administered intramuscularly into the deltoid muscle of the non-dominant arm.

Notes:

[1] - The roles blinded appear to be inconsistent with a double blind trial.

Justification: This was an Observer-blind for study vaccine but not for time of vaccination relative to chemotherapy.

Number of subjects in period 1^[2]	GSK1437173A Group	Placebo Group
Started	117	115
Completed	90	90
Not completed	27	25
Consent withdrawn by subject	12	9
Migrated/moved from study area	1	1
Unspecified	-	2
Lost to follow-up	1	1
Serious Adverse Event	13	12

Notes:

[2] - The number of subjects reported to be in the baseline period are not the same as the worldwide number enrolled in the trial. It is expected that these numbers will be the same.

Justification: Not all study participants returned in time for every study visit, but they were allowed to continue the study nonetheless. The number of participants who started each study period depends on the actual rate of return of the subjects.

Baseline characteristics

Reporting groups

Reporting group title	GSK1437173A Group
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Reporting group description:

Subjects received the first dose of GSK 1437173A at least 10 days (up to 1 month) before start of chemotherapy cycle or at the first day (allowing a window of +/- 1 day) of the first (or second) chemotherapy cycle. The second dose of GSK 1437173A vaccine was administered between 1 and 2 months after the first vaccination and at the first day (allowing a window of +/- 1 day) of a subsequent cycle of chemotherapy. The study products were administered intramuscularly into a deltoid muscle. The choice of and use of chemotherapy, or any other medication related to the patients' current conditions, were based on the local standard of care for the patients.

Reporting group title	Placebo Group
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Reporting group description:

Subjects received the first dose of placebo at least 10 days (up to 1 month) before start of chemotherapy cycle or at the first day (allowing a window of +/- 1 day) of the first (or second) chemotherapy cycle. The second dose of placebo was administered between 1 and 2 months after the first vaccination and at the first day (allowing a window of +/- 1 day) of a subsequent cycle of chemotherapy. The study products were administered intramuscularly into a deltoid muscle. The choice of and use of chemotherapy, or any other medication related to the patients' current conditions, were based on the local standard of care for the patients.

Reporting group values	GSK1437173A Group	Placebo Group	Total
Number of subjects	117	115	232
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 Units: years			
arithmetic mean	57.1	58.5	
standard deviation	± 10.8	± 11.7	-
Gender categorical Units: Subjects			
Female	70	69	139
Male	47	46	93

End points

End points reporting groups

Reporting group title	GSK1437173A Group
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Reporting group description:

Subjects received the first dose of GSK 1437173A at least 10 days (up to 1 month) before start of chemotherapy cycle or at the first day (allowing a window of +/- 1 day) of the first (or second) chemotherapy cycle. The second dose of GSK 1437173A vaccine was administered between 1 and 2 months after the first vaccination and at the first day (allowing a window of +/- 1 day) of a subsequent cycle of chemotherapy. The study products were administered intramuscularly into a deltoid muscle. The choice of and use of chemotherapy, or any other medication related to the patients' current conditions, were based on the local standard of care for the patients.

Reporting group title	Placebo Group
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Reporting group description:

Subjects received the first dose of placebo at least 10 days (up to 1 month) before start of chemotherapy cycle or at the first day (allowing a window of +/- 1 day) of the first (or second) chemotherapy cycle. The second dose of placebo was administered between 1 and 2 months after the first vaccination and at the first day (allowing a window of +/- 1 day) of a subsequent cycle of chemotherapy. The study products were administered intramuscularly into a deltoid muscle. The choice of and use of chemotherapy, or any other medication related to the patients' current conditions, were based on the local standard of care for the patients.

Subject analysis set title	GSK1437173A-PreChemo
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Subject analysis set type	Sub-group analysis
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Subject analysis set description:

Subjects receiving the adjuvanted GSK1437173A vaccine, with the first vaccination at least 10 days (up to 1 month) before the start of a chemotherapy cycle.

Subject analysis set title	Placebo-PreChemo
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Subject analysis set type	Sub-group analysis
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Subject analysis set description:

Subjects receiving saline placebo, with the first vaccination at least 10 days (up to 1 month) before the start of a chemotherapy cycle.

Primary: Adjusted geometric means (GMCs) of GSK1437173A over placebo for anti-glycoprotein E (gE) antibody ELISA concentrations in PreChemo Groups only

End point title	Adjusted geometric means (GMCs) of GSK1437173A over placebo for anti-glycoprotein E (gE) antibody ELISA concentrations in PreChemo Groups only
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End point description:

End point type	Primary
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End point timeframe:

At Month 2

End point values	GSK1437173A-PreChemo	Placebo-PreChemo		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	65	76		
Units: EL.U/mL				
geometric mean (confidence interval 95%)				
Adjusted GMC of antibody titers	24501.57 (19051.99 to 31509.94)	1056.77 (990.37 to 1127.62)		

Statistical analyses

Statistical analysis title	Adjusted GMC ratio
Statistical analysis description:	
The analysis evaluated the anti-gE humoral immune responses at Month 2, following a two-dose administration of the GSK1437173A vaccine, as compared to placebo in subjects with solid tumours receiving chemotherapy (PreChemo Groups only).	
Criteria used:	
The objective is met if the lower limit of the 95% confidence interval (CI) of the Geometric Mean (GM) ratio (GSK1437173A PreChemo group over Placebo PreChemo group) in anti-gE ELISA antibody concentrations is greater than 3.	
Comparison groups	GSK1437173A-PreChemo v Placebo-PreChemo
Number of subjects included in analysis	141
Analysis specification	Pre-specified
Analysis type	non-inferiority ^[1]
P-value	< 0.0001
Method	Adjusted GMC ratio
Parameter estimate	Ratio
Point estimate	23.2
Confidence interval	
level	95 %
sides	2-sided
lower limit	17.9
upper limit	30

Notes:

[1] - Difference of means between vaccines and placebo were calculated together with 2-sided confidence intervals and back-transformed to the original units to provide GMCs and GM ratios.

Primary: Anti-gE antibody concentrations

End point title	Anti-gE antibody concentrations ^[2]
End point description:	
Antibody concentrations are presented as geometric mean concentrations (GMCs), expressed in milliinternational units per milliliter (mIU/mL). The reference seropositivity cut-off value was equal to or above (\geq) 97 mIU/mL.	
End point type	Primary
End point timeframe:	
At Month 2	

Notes:

[2] - 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: The scope of this primary end point was descriptive, no statistical hypothesis test was performed.

End point values	GSK1437173A Group	Placebo Group		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	87	98		
Units: mIU/mL				
geometric mean (confidence interval 95%)				
Anti-gE	18291.7 (14432.1 to 23183.5)	1060.5 (873.9 to 1287.1)		

Statistical analyses

No statistical analyses for this end point

Primary: Number of days with solicited local symptoms

End point title	Number of days with solicited local symptoms ^[3]
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End point description:

The number of days with solicited local symptoms during the solicited post-vaccination period.

End point type	Primary
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End point timeframe:

During the 7-day (Days 0-6) post-vaccination period following each dose and across doses

Notes:

[3] - 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: The scope of this primary end point was descriptive, no statistical hypothesis test was performed.

End point values	GSK1437173A Group	Placebo Group		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	117	115		
Units: Days				
median (inter-quartile range (Q1-Q3))				
Pain, post-Dose 1	2 (2 to 4)	2 (1 to 3)		
Pain, post-Dose 2	2 (1 to 3.5)	1 (1 to 2)		
Redness, post-Dose 1	3 (2 to 5)	0 (0 to 0)		
Redness, post-Dose 2	4 (2 to 5)	0 (0 to 0)		
Swelling, post-Dose 1	4 (2 to 5)	7 (7 to 7)		
Swelling, post-Dose 2	3.5 (2 to 5.5)	0 (0 to 0)		

Statistical analyses

No statistical analyses for this end point

Primary: Number of subjects with any, Grade 3 and related solicited general symptoms

End point title	Number of subjects with any, Grade 3 and related solicited general symptoms ^[4]
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End point description:

Assessed solicited general symptoms were fatigue, gastrointestinal symptoms (nausea, vomiting, diarrhoea and/or abdominal pain), headache, myalgia, shivering and fever [defined as temperature equal to or above (\geq) 37.5 degrees Celsius ($^{\circ}$ C) for oral, axillary or tympanic route]. Any = occurrence of the symptom regardless of intensity grade. Grade 3 symptom = symptom that prevented normal activity. Grade 3 fever = fever $> 39.0^{\circ}$ C. Related = symptom assessed by the investigator as causally related to the vaccination.

End point type	Primary
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End point timeframe:

During the 7-day (Days 0-6) post-vaccination period following each dose and across doses

Notes:

[4] - 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: The scope of this primary end point was descriptive, no statistical hypothesis test was performed.

End point values	GSK1437173A Group	Placebo Group		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	112	110		
Units: Subjects				
Any Fatigue, Dose 1 (N=112;110)	56	44		
Grade 3 Fatigue, Dose 1 (N=112;110)	10	3		
Related Fatigue, Dose 1 (N=112;110)	15	10		
Any Gastrointestinal, Dose 1 (N=112;110)	32	21		
Grade 3 Gastrointestinal, Dose 1 (N=112;110)	2	5		
Related Gastrointestinal, Dose 1 (N=112;110)	9	2		
Any Headache, Dose 1 (N=112;110)	28	24		
Grade 3 Headache, Dose 1 (N=112;110)	3	1		
Related Headache, Dose 1 (N=112;110)	10	4		
Any Myalgia, Dose 1 (N=112;110)	50	17		
Grade 3 Myalgia, Dose 1 (N=112;110)	8	3		
Related Myalgia, Dose 1 (N=112;110)	25	3		
Any Shivering, Dose 1 (N=112;110)	27	13		
Grade 3 Shivering, Dose 1 (N=112;110)	5	2		
Related Shivering, Dose 1 (N=112;110)	12	4		
Any Fever, Dose 1 (N=112;110)	13	4		
Grade 3 Fever, Dose 1 (N=112;110)	0	0		
Related Fever, Dose 1 (N=112;110)	11	1		
Any Fatigue, Dose 2 (N=97;104)	57	57		
Grade 3 Fatigue, Dose 2 (N=97;104)	9	6		
Related Fatigue, Dose 2 (N=97;104)	6	8		
Any Gastrointestinal, Dose 2 (N=97;104)	41	39		
Grade 3 Gastrointestinal, Dose 2 (N=97;104)	5	3		
Related Gastrointestinal, Dose 2 (N=97;104)	6	2		
Any Headache, Dose 2 (N=97;104)	29	25		
Grade 3 Headache, Dose 2 (N=97;104)	3	2		
Related Headache, Dose 2 (N=97;104)	7	2		
Any Myalgia, Dose 2 (N=97;104)	32	23		
Grade 3 Myalgia, Dose 2 (N=97;104)	4	1		

Related Myalgia, Dose 2 (N=97;104)	13	4		
Any Shivering, Dose 2 (N=97;104)	20	17		
Grade 3 Shivering, Dose 2 (N=97;104)	3	1		
Related Shivering, Dose 2 (N=97;104)	6	4		
Any Fever, Dose 2 (N=97;104)	8	1		
Grade 3 Fever, Dose 2 (N=97;104)	0	0		
Related Fever, Dose 2 (N=97;104)	4	0		
Any Fatigue, Across doses (N=112;110)	78	68		
Grade 3 Fatigue, Across doses (N=112;110)	16	8		
Related Fatigue, Across doses (N=112;110)	19	14		
Any Gastrointestinal, Across doses (N=112;110)	51	49		
Grade 3 Gastrointestinal, Across doses (N=112;110)	6	7		
Related Gastrointestinal, Across doses (N=112;110)	11	3		
Any Headache, Across doses (N=112;110)	43	40		
Grade 3 Headache, Across doses (N=112;110)	6	3		
Related Headache, Across doses (N=112;110)	16	6		
Any Myalgia, Across doses (N=112;110)	60	31		
Grade 3 Myalgia, Across doses (N=112;110)	12	4		
Related Myalgia, Across doses (N=112;110)	30	5		
Any Shivering, Across doses (N=112;110)	39	25		
Grade 3 Shivering, Across doses (N=112;110)	6	3		
Related Shivering, Across doses (N=112;110)	16	5		
Any Fever, Across doses (N=112;110)	20	5		
Grade 3 Fever, Across doses (N=112;110)	0	0		
Related Fever, Across doses (N=112;110)	14	1		

Statistical analyses

No statistical analyses for this end point

Primary: Number of days with solicited general symptoms

End point title	Number of days with solicited general symptoms ^[5]
End point description:	
The number of days with solicited general symptoms during the solicited post-vaccination period.	
End point type	Primary
End point timeframe:	
During the 7-day (Days 0-6) post-vaccination period following each dose and across doses	

Notes:

[5] - 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: The scope of this primary end point was descriptive, no statistical hypothesis test was performed.

End point values	GSK1437173A Group	Placebo Group		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	117	115		
Units: Days				
median (inter-quartile range (Q1-Q3))				
Fatigue, post-Dose 1	3 (1.5 to 6)	5 (2 to 6)		
Fatigue, post-Dose 2	5 (2 to 7)	5 (3 to 7)		
Gastrointestinal symptoms, post-Dose 1	2.5 (1.5 to 4)	4 (2 to 6)		
Gastrointestinal symptoms, post-Dose 2	4 (3 to 7)	3 (2 to 7)		
Headache, post-Dose 1	2 (1 to 3.5)	2 (1.5 to 4.5)		
Headache, post-Dose 2	2 (2 to 6)	2 (1 to 5)		
Myalgia, post-Dose 1	2.5 (1 to 4)	2 (2 to 6)		
Myalgia, post-Dose 2	3 (2 to 5.5)	5 (3 to 7)		
Shivering, post-Dose 1	2 (1 to 3)	2 (1 to 2)		
Shivering, post-Dose 2	3 (1 to 6)	2 (1 to 4)		
Fever, post-Dose 1	1 (1 to 2)	1 (1 to 3)		
Fever, post-Dose 2	1.5 (1 to 2.5)	1 (1 to 1)		

Statistical analyses

No statistical analyses for this end point

Secondary: Number of subjects with anti-gE antibody concentrations above the cut-off value as determined by ELISA

End point title	Number of subjects with anti-gE antibody concentrations above the cut-off value as determined by ELISA
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End point description:

Cut-off values assessed were greater than or equal to (\geq) 97 mIU/mL in the sera of subjects seronegative before vaccination.

End point type	Secondary
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End point timeframe:

At Month 2

End point values	GSK1437173A Group	Placebo Group		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	87	98		
Units: Subjects				
Anti-gE	87	97		

Statistical analyses

No statistical analyses for this end point

Secondary: Number of subjects with vaccine response for anti-gE antibody

End point title	Number of subjects with vaccine response for anti-gE antibody
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End point description:

Vaccine response for anti-gE antibody ELISA concentrations was defined as:

- For initially seronegative subjects, antibody concentration at post-vaccination ≥ 4 fold the cut-off for Anti-gE (4x97 mIU/ml);
- For initially seropositive subjects, antibody concentration at post-vaccination ≥ 4 fold the pre-vaccination antibody concentration.

End point type	Secondary
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End point timeframe:

At Months 1, 2, 6 and 13

End point values	GSK1437173A Group	Placebo Group		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	87	94		
Units: Subjects				
Vaccine responders, Month 1 (N=85;93)	73	0		
Vaccine responders, Month 2 (N=87;94)	75	0		
Vaccine responders, Month 6 (N=42;42)	31	1		
Vaccine responders, Month 13 (N=68;69)	35	0		

Statistical analyses

No statistical analyses for this end point

Secondary: Frequency of gE-specific CD4+ T-cells expressing at least two activation markers

End point title	Frequency of gE-specific CD4+ T-cells expressing at least two activation markers
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End point description:

Descriptive statistics were tabulated for CD4[2+] cells, which are gE-specific CD4+ T-cells with at least two activation markers ([2+]), expressed from the activation markers interferon-gamma (IFN- γ), interleukin-2 (IL-2), tumour necrosis factor-alpha (TNF- α) and cluster of differentiation 40-ligand (CD40-L), as determined by intracellular cytokine staining (ICS) method.

End point type	Secondary
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End point timeframe:
At Months 0, 1, 2 and 13

End point values	GSK1437173A- PreChemo	Placebo- PreChemo		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	20	25		
Units: CD4 T-cells per million T-cells				
median (inter-quartile range (Q1-Q3))				
CD4[2+] T-cells, Month 0 (N=20;23)	134.5 (42.8 to 329.7)	112 (39.3 to 151.5)		
CD4[2+] T-cells, Month 1 (N=19;25)	498.1 (336.1 to 652.4)	53.9 (1 to 179.4)		
CD4[2+] T-cells, Month 2 (N=20;21)	832.1 (536.2 to 1303.6)	58.9 (22.7 to 139.4)		
CD4[2+] T-cells, Month 13 (N=18;19)	332.9 (114.9 to 604.6)	51.2 (1 to 288.6)		

Statistical analyses

No statistical analyses for this end point

Secondary: Number of subjects with vaccine response for gE-specific CD4[2+] T-cells

End point title	Number of subjects with vaccine response for gE-specific CD4[2+] T-cells
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End point description:

Vaccine response for gE-specific CD4[2+] T-cells was defined as:

- For initially subjects with pre-vaccination T cell frequencies below the threshold, at least a 2-fold increase as compared to the threshold (2x320 Events/10E6 CD4+ T cells);
- For initially subjects with pre-vaccination T cell frequencies above the threshold, at least a 2-fold increase as compared to pre-vaccination T cell frequencies.

End point type	Secondary
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End point timeframe:

At Months 1, 2 and 13

End point values	GSK1437173A- PreChemo	Placebo- PreChemo		
Subject group type	Subject analysis set	Subject analysis set		
Number of subjects analysed	19	23		
Units: Subjects				
CD4[2+] T-cells, Month 1 (N=19;23)	5	0		
CD4[2+] T-cells, Month 2 (N=19;20)	11	0		
CD4[2+] T-cells, Month 13 (N=17;16)	3	0		

Statistical analyses

No statistical analyses for this end point

Secondary: Number of subjects with any, Grade 3 and related unsolicited adverse events (AEs)

End point title	Number of subjects with any, Grade 3 and related unsolicited adverse events (AEs)
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End point description:

An unsolicited AE covers any untoward medical occurrence in a clinical investigation subject temporally associated with the use of a medicinal product, whether or not considered related to the medicinal product and reported in addition to those solicited during the clinical study and any solicited symptom with onset outside the specified period of follow-up for solicited symptoms. Any was defined as the occurrence of any unsolicited AE regardless of intensity grade or relation to vaccination. Grade 3 AE = an AE which prevented normal, everyday activities. Related = AE assessed by the investigator as related to the vaccination.

End point type	Secondary
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End point timeframe:

During the 30-day (Days 0-29) post-vaccination period

End point values	GSK1437173A Group	Placebo Group		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	117	115		
Units: Subjects				
Any AE(s)	100	103		
Grade 3 AE(s)	18	15		
Related AE(s)	10	9		

Statistical analyses

No statistical analyses for this end point

Secondary: Number of subjects with any and related serious adverse events (SAEs)

End point title	Number of subjects with any and related serious adverse events (SAEs)
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End point description:

Serious adverse events (SAEs) assessed include medical occurrences that result in death, are life-threatening, require hospitalization or prolongation of hospitalization or result in disability/incapacity. Related = SAE assessed by the investigator as causally related to the study vaccination.

End point type	Secondary
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End point timeframe:

From Dose 1 up to 30 days post last vaccination period

End point values	GSK1437173A Group	Placebo Group		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	117	115		
Units: Subjects				
Any SAE(s)	16	14		
Related SAE(s)	0	0		

Statistical analyses

No statistical analyses for this end point

Secondary: Number of subjects with any and related potential Immune Mediated Diseases (pIMDs)

End point title	Number of subjects with any and related potential Immune Mediated Diseases (pIMDs)
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End point description:

Potential immune-mediated diseases (pIMDs) are a subset of AEs that include autoimmune diseases and other inflammatory and/or neurologic disorders of interest which may or may not have an autoimmune aetiology. Any = occurrence of the symptom regardless of intensity grade. Related = pIMDs assessed by the investigator as causally related to the study vaccination.

End point type	Secondary
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End point timeframe:

From first vaccination up to 30 days post last vaccination

End point values	GSK1437173A Group	Placebo Group		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	117	115		
Units: Subjects				
Any pIMD(s)	0	0		
Related pIMD(s)	0	0		

Statistical analyses

No statistical analyses for this end point

Secondary: Number of subjects with any and Grade 3 solicited local symptoms

End point title	Number of subjects with any and Grade 3 solicited local symptoms
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End point description:

Assessed solicited local symptoms were pain, redness and swelling. Any = occurrence of the symptom regardless of intensity grade. Grade 3 pain = pain that prevented normal activity. Grade 3

redness/swelling = redness/swelling spreading beyond 100 millimeters (mm) of injection site.

End point type	Secondary
End point timeframe:	
During the 7-day (Days 0-6) post-vaccination period following each dose and across doses	

End point values	GSK1437173A Group	Placebo Group		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	112	110		
Units: Subjects				
Any Pain, Dose 1 (N=112;110)	83	2		
Grade 3 Pain, Dose 1 (N=112;110)	8	0		
Any Redness, Dose 1 (N=112;110)	33	0		
Grade 3 Redness, Dose 1 (N=112;110)	2	0		
Any Swelling, Dose 1 (N=112;110)	15	1		
Grade 3 Swelling, Dose 1 (N=112;110)	0	0		
Any Pain, Dose 2 (N=98;105)	52	5		
Grade 3 Pain, Dose 2 (N=98;105)	4	0		
Any Redness, Dose 2 (N=98;105)	20	0		
Grade 3 Redness, Dose 2 (N=98;105)	0	0		
Any Swelling, Dose 2 (N=98;105)	8	0		
Grade 3 Swelling, Dose 2 (N=98;105)	0	0		
Any Pain, Across doses (N=112;110)	90	7		
Grade 3 Pain, Across doses (N=112;110)	11	0		
Any Redness, Across doses (N=112;110)	40	0		
Grade 3 Redness, Across doses (N=112;110)	2	0		
Any Swelling, Across doses (N=112;110)	18	1		
Grade 3 Swelling, Across doses (N=112;110)	0	0		

Statistical analyses

No statistical analyses for this end point

Secondary: Number of subjects with pIMDs

End point title	Number of subjects with pIMDs
End point description:	
pIMDs are a subset of AEs that include autoimmune diseases and other inflammatory and/or neurologic disorders of interest which may or may not have an autoimmune aetiology.	
End point type	Secondary
End point timeframe:	
From 30 days post last vaccination up to study end at Month 13	

End point values	GSK1437173A Group	Placebo Group		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	117	115		
Units: Subjects				
Any pIMD(s)	0	1		

Statistical analyses

No statistical analyses for this end point

Secondary: Number of subjects with SAE(s)

End point title	Number of subjects with SAE(s)
End point description: SAEs assessed include medical occurrences that result in death, are life-threatening, require hospitalization or prolongation of hospitalization or result in disability/incapacity. Related = SAE assessed by the investigator as causally related to the study vaccination.	
End point type	Secondary
End point timeframe: From 30 days post last vaccination up to study end at Month 13	

End point values	GSK1437173A Group	Placebo Group		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	117	115		
Units: Subjects				
Any SAE(s)	30	31		
Related SAE(s)	0	0		

Statistical analyses

No statistical analyses for this end point

Secondary: Anti-gE antibody concentrations

End point title	Anti-gE antibody concentrations
End point description: Antibody concentrations are presented as geometric mean concentrations (GMCs), expressed in millinternational units per milliliter (mIU/mL). The reference seropositivity cut-off value was equal to or above (\geq) 97 mIU/mL.	
End point type	Secondary
End point timeframe: At Months 0, 1, 6 and 13	

End point values	GSK1437173A Group	Placebo Group		
Subject group type	Reporting group	Reporting group		
Number of subjects analysed	87	97		
Units: mIU/mL				
geometric mean (confidence interval 95%)				
Anti-gE, Month 0 (N=87;94)	1049.8 (865.8 to 1273)	1116.7 (918.4 to 1358)		
Anti-gE, Month 1 (N=85;97)	24793.1 (18747.8 to 32787.6)	1107.2 (920 to 1332.6)		
Anti-gE, Month 6 (N=42;43)	7730.4 (5358.4 to 11152.2)	1380.2 (1066.3 to 1786.6)		
Anti-gE, Month 13 (N=68;70)	4477.3 (3482.4 to 5756.3)	1064.7 (845.9 to 1340.1)		

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information

Timeframe for reporting adverse events:

Solicited local and general symptoms: during the 7-day post-vaccination period; Unsolicited AEs: during the 30-day post-vaccination period; SAEs: during the entire study period (from Month 0 up to Month 13).

Adverse event reporting additional description:

Individual SAEs remain blinded as long as the study is ongoing.

Assessment type	Systematic
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Dictionary used

Dictionary name	MedDRA
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Dictionary version	19.0
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Reporting groups

Reporting group title	GSK1437173A Group
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Reporting group description:

Subjects received the first dose of GSK 1437173A at least 10 days (up to 1 month) before start of chemotherapy cycle or at the first day (allowing a window of +/- 1 day) of the first (or second) chemotherapy cycle. The second dose of GSK 1437173A vaccine was administered between 1 and 2 months after the first vaccination and at the first day (allowing a window of +/- 1 day) of a subsequent cycle of chemotherapy. The study products were administered intramuscularly into a deltoid muscle. The choice of and use of chemotherapy, or any other medication related to the patients' current conditions, were based on the local standard of care for the patients.

Reporting group title	Placebo Group
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Reporting group description:

Subjects received the first dose of placebo at least 10 days (up to 1 month) before start of chemotherapy cycle or at the first day (allowing a window of +/- 1 day) of the first (or second) chemotherapy cycle. The second dose of placebo was administered between 1 and 2 months after the first vaccination and at the first day (allowing a window of +/- 1 day) of a subsequent cycle of chemotherapy. The study products were administered intramuscularly into a deltoid muscle. The choice of and use of chemotherapy, or any other medication related to the patients' current conditions, were based on the local standard of care for the patients.

Serious adverse events	GSK1437173A Group	Placebo Group	
Total subjects affected by serious adverse events			
subjects affected / exposed	36 / 117 (30.77%)	42 / 115 (36.52%)	
number of deaths (all causes)	12	11	
number of deaths resulting from adverse events			
Neoplasms benign, malignant and unspecified (incl cysts and polyps)			
Adenocarcinoma of colon			
subjects affected / exposed	1 / 117 (0.85%)	0 / 115 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 1	0 / 0	
Breast cancer recurrent			

subjects affected / exposed	1 / 117 (0.85%)	0 / 115 (0.00%)	
occurrences causally related to treatment / all	0 / 2	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Cholangiocarcinoma			
subjects affected / exposed	1 / 117 (0.85%)	0 / 115 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Colon cancer			
subjects affected / exposed	0 / 117 (0.00%)	1 / 115 (0.87%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Colorectal cancer			
subjects affected / exposed	1 / 117 (0.85%)	0 / 115 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 1	0 / 0	
Colorectal cancer metastatic			
subjects affected / exposed	0 / 117 (0.00%)	1 / 115 (0.87%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Head and neck cancer			
subjects affected / exposed	0 / 117 (0.00%)	1 / 115 (0.87%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Liposarcoma			
subjects affected / exposed	0 / 117 (0.00%)	1 / 115 (0.87%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 1	
Lung neoplasm malignant			
subjects affected / exposed	1 / 117 (0.85%)	1 / 115 (0.87%)	
occurrences causally related to treatment / all	0 / 1	0 / 1	
deaths causally related to treatment / all	0 / 1	0 / 1	
Malignant melanoma			

subjects affected / exposed	0 / 117 (0.00%)	1 / 115 (0.87%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Metastases to central nervous system			
subjects affected / exposed	1 / 117 (0.85%)	0 / 115 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Metastases to liver			
subjects affected / exposed	1 / 117 (0.85%)	0 / 115 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 1	0 / 0	
Non-small cell lung cancer			
subjects affected / exposed	0 / 117 (0.00%)	1 / 115 (0.87%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 1	
Ovarian cancer			
subjects affected / exposed	0 / 117 (0.00%)	1 / 115 (0.87%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 1	
Prostate cancer			
subjects affected / exposed	1 / 117 (0.85%)	1 / 115 (0.87%)	
occurrences causally related to treatment / all	0 / 1	0 / 1	
deaths causally related to treatment / all	0 / 1	0 / 0	
Rectal cancer metastatic			
subjects affected / exposed	0 / 117 (0.00%)	1 / 115 (0.87%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 1	
Squamous cell carcinoma of lung			
subjects affected / exposed	1 / 117 (0.85%)	0 / 115 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 1	0 / 0	
Tongue neoplasm malignant stage unspecified			

subjects affected / exposed	0 / 117 (0.00%)	1 / 115 (0.87%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 1	
Tumour haemorrhage			
subjects affected / exposed	1 / 117 (0.85%)	0 / 115 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 1	0 / 0	
Uterine leiomyosarcoma			
subjects affected / exposed	0 / 117 (0.00%)	1 / 115 (0.87%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 1	
Vascular disorders			
Superior vena cava occlusion			
subjects affected / exposed	0 / 117 (0.00%)	1 / 115 (0.87%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 1	
Thrombosis			
subjects affected / exposed	1 / 117 (0.85%)	0 / 115 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Surgical and medical procedures			
Abdominal hernia repair			
subjects affected / exposed	0 / 117 (0.00%)	1 / 115 (0.87%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
General disorders and administration site conditions			
Death			
subjects affected / exposed	1 / 117 (0.85%)	0 / 115 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 1	0 / 0	
Mucosal inflammation			
subjects affected / exposed	2 / 117 (1.71%)	0 / 115 (0.00%)	
occurrences causally related to treatment / all	0 / 2	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	

Pyrexia			
subjects affected / exposed	1 / 117 (0.85%)	1 / 115 (0.87%)	
occurrences causally related to treatment / all	0 / 2	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Immune system disorders			
Drug hypersensitivity			
subjects affected / exposed	0 / 117 (0.00%)	1 / 115 (0.87%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Respiratory, thoracic and mediastinal disorders			
Bronchial obstruction			
subjects affected / exposed	0 / 117 (0.00%)	1 / 115 (0.87%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Pleural effusion			
subjects affected / exposed	1 / 117 (0.85%)	2 / 115 (1.74%)	
occurrences causally related to treatment / all	0 / 1	0 / 2	
deaths causally related to treatment / all	0 / 0	0 / 1	
Pulmonary embolism			
subjects affected / exposed	1 / 117 (0.85%)	2 / 115 (1.74%)	
occurrences causally related to treatment / all	0 / 1	0 / 2	
deaths causally related to treatment / all	0 / 0	0 / 0	
Respiratory failure			
subjects affected / exposed	1 / 117 (0.85%)	0 / 115 (0.00%)	
occurrences causally related to treatment / all	0 / 2	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Injury, poisoning and procedural complications			
Gastrostomy failure			
subjects affected / exposed	1 / 117 (0.85%)	0 / 115 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Lumbar vertebral fracture			

subjects affected / exposed	0 / 117 (0.00%)	1 / 115 (0.87%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Cardiac disorders			
Cardiac arrest			
subjects affected / exposed	1 / 117 (0.85%)	0 / 115 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Cardiac failure			
subjects affected / exposed	1 / 117 (0.85%)	0 / 115 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Cardiac failure congestive			
subjects affected / exposed	0 / 117 (0.00%)	1 / 115 (0.87%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Myocardial infarction			
subjects affected / exposed	1 / 117 (0.85%)	0 / 115 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Nervous system disorders			
Bladder cancer			
subjects affected / exposed	2 / 117 (1.71%)	0 / 115 (0.00%)	
occurrences causally related to treatment / all	0 / 2	0 / 0	
deaths causally related to treatment / all	0 / 1	0 / 0	
Hepatic encephalopathy			
subjects affected / exposed	1 / 117 (0.85%)	0 / 115 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 1	0 / 0	
Seizure			
subjects affected / exposed	1 / 117 (0.85%)	1 / 115 (0.87%)	
occurrences causally related to treatment / all	0 / 1	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Blood and lymphatic system disorders			

Anaemia			
subjects affected / exposed	2 / 117 (1.71%)	3 / 115 (2.61%)	
occurrences causally related to treatment / all	0 / 2	0 / 3	
deaths causally related to treatment / all	0 / 1	0 / 1	
Febrile neutropenia			
subjects affected / exposed	6 / 117 (5.13%)	2 / 115 (1.74%)	
occurrences causally related to treatment / all	0 / 8	0 / 3	
deaths causally related to treatment / all	0 / 0	0 / 0	
Neutropenia			
subjects affected / exposed	2 / 117 (1.71%)	4 / 115 (3.48%)	
occurrences causally related to treatment / all	0 / 2	0 / 4	
deaths causally related to treatment / all	0 / 0	0 / 1	
Pancytopenia			
subjects affected / exposed	2 / 117 (1.71%)	0 / 115 (0.00%)	
occurrences causally related to treatment / all	0 / 2	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Thrombocytopenia			
subjects affected / exposed	0 / 117 (0.00%)	2 / 115 (1.74%)	
occurrences causally related to treatment / all	0 / 0	0 / 2	
deaths causally related to treatment / all	0 / 0	0 / 1	
Gastrointestinal disorders			
Constipation			
subjects affected / exposed	0 / 117 (0.00%)	2 / 115 (1.74%)	
occurrences causally related to treatment / all	0 / 0	0 / 2	
deaths causally related to treatment / all	0 / 0	0 / 0	
Diarrhoea			
subjects affected / exposed	1 / 117 (0.85%)	0 / 115 (0.00%)	
occurrences causally related to treatment / all	0 / 2	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Dysphagia			
subjects affected / exposed	1 / 117 (0.85%)	0 / 115 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 1	0 / 0	
Enteritis			

subjects affected / exposed	0 / 117 (0.00%)	1 / 115 (0.87%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Mouth ulceration			
subjects affected / exposed	1 / 117 (0.85%)	0 / 115 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Nausea			
subjects affected / exposed	1 / 117 (0.85%)	0 / 115 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Odynophagia			
subjects affected / exposed	1 / 117 (0.85%)	0 / 115 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 1	0 / 0	
Oesophagitis			
subjects affected / exposed	1 / 117 (0.85%)	0 / 115 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 1	0 / 0	
Hepatobiliary disorders			
Cholangitis acute			
subjects affected / exposed	1 / 117 (0.85%)	0 / 115 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Skin and subcutaneous tissue disorders			
Rash			
subjects affected / exposed	0 / 117 (0.00%)	1 / 115 (0.87%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Skin haemorrhage			
subjects affected / exposed	0 / 117 (0.00%)	1 / 115 (0.87%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 1	
Renal and urinary disorders			

Acute kidney injury			
subjects affected / exposed	1 / 117 (0.85%)	2 / 115 (1.74%)	
occurrences causally related to treatment / all	0 / 1	0 / 2	
deaths causally related to treatment / all	0 / 1	0 / 0	
Hydronephrosis			
subjects affected / exposed	0 / 117 (0.00%)	1 / 115 (0.87%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Endocrine disorders			
Autoimmune thyroiditis			
subjects affected / exposed	0 / 117 (0.00%)	1 / 115 (0.87%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Musculoskeletal and connective tissue disorders			
Arthralgia			
subjects affected / exposed	0 / 117 (0.00%)	1 / 115 (0.87%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Musculoskeletal chest pain			
subjects affected / exposed	0 / 117 (0.00%)	1 / 115 (0.87%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Infections and infestations			
Anal abscess			
subjects affected / exposed	0 / 117 (0.00%)	1 / 115 (0.87%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Bacteraemia			
subjects affected / exposed	1 / 117 (0.85%)	0 / 115 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Candida infection			

subjects affected / exposed	1 / 117 (0.85%)	0 / 115 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Clostridium bacteriaemia			
subjects affected / exposed	0 / 117 (0.00%)	1 / 115 (0.87%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Clostridium difficile infection			
subjects affected / exposed	1 / 117 (0.85%)	0 / 115 (0.00%)	
occurrences causally related to treatment / all	0 / 2	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Device related sepsis			
subjects affected / exposed	1 / 117 (0.85%)	0 / 115 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Diverticulitis			
subjects affected / exposed	1 / 117 (0.85%)	0 / 115 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Epiglottitis			
subjects affected / exposed	1 / 117 (0.85%)	0 / 115 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Gastroenteritis			
subjects affected / exposed	2 / 117 (1.71%)	0 / 115 (0.00%)	
occurrences causally related to treatment / all	0 / 2	0 / 0	
deaths causally related to treatment / all	0 / 1	0 / 0	
Hepatitis c			
subjects affected / exposed	0 / 117 (0.00%)	1 / 115 (0.87%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Infected dermal cyst			

subjects affected / exposed	0 / 117 (0.00%)	1 / 115 (0.87%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Kidney infection			
subjects affected / exposed	0 / 117 (0.00%)	1 / 115 (0.87%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Lower respiratory tract infection			
subjects affected / exposed	1 / 117 (0.85%)	0 / 115 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Lung infection			
subjects affected / exposed	0 / 117 (0.00%)	1 / 115 (0.87%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Nasopharyngitis			
subjects affected / exposed	1 / 117 (0.85%)	0 / 115 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Neutropenic sepsis			
subjects affected / exposed	1 / 117 (0.85%)	2 / 115 (1.74%)	
occurrences causally related to treatment / all	0 / 1	0 / 3	
deaths causally related to treatment / all	0 / 0	0 / 0	
Oral candidiasis			
subjects affected / exposed	1 / 117 (0.85%)	0 / 115 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 1	0 / 0	
Pleural infection			
subjects affected / exposed	1 / 117 (0.85%)	0 / 115 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Pneumonia			

subjects affected / exposed	1 / 117 (0.85%)	2 / 115 (1.74%)	
occurrences causally related to treatment / all	0 / 1	0 / 2	
deaths causally related to treatment / all	0 / 0	0 / 1	
Respiratory tract infection			
subjects affected / exposed	2 / 117 (1.71%)	1 / 115 (0.87%)	
occurrences causally related to treatment / all	0 / 2	0 / 1	
deaths causally related to treatment / all	0 / 1	0 / 1	
Sepsis			
subjects affected / exposed	3 / 117 (2.56%)	2 / 115 (1.74%)	
occurrences causally related to treatment / all	0 / 3	0 / 2	
deaths causally related to treatment / all	0 / 1	0 / 0	
Staphylococcal infection			
subjects affected / exposed	0 / 117 (0.00%)	1 / 115 (0.87%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Upper respiratory tract infection			
subjects affected / exposed	0 / 117 (0.00%)	1 / 115 (0.87%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Urinary tract infection			
subjects affected / exposed	1 / 117 (0.85%)	0 / 115 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Urosepsis			
subjects affected / exposed	0 / 117 (0.00%)	1 / 115 (0.87%)	
occurrences causally related to treatment / all	0 / 0	0 / 1	
deaths causally related to treatment / all	0 / 0	0 / 0	
Metabolism and nutrition disorders			
Diabetic ketoacidosis			
subjects affected / exposed	2 / 117 (1.71%)	0 / 115 (0.00%)	
occurrences causally related to treatment / all	0 / 2	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Hypokalaemia			

subjects affected / exposed	1 / 117 (0.85%)	0 / 115 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Hyponatraemia			
subjects affected / exposed	1 / 117 (0.85%)	0 / 115 (0.00%)	
occurrences causally related to treatment / all	0 / 1	0 / 0	
deaths causally related to treatment / all	0 / 0	0 / 0	
Malnutrition			
subjects affected / exposed	2 / 117 (1.71%)	0 / 115 (0.00%)	
occurrences causally related to treatment / all	0 / 2	0 / 0	
deaths causally related to treatment / all	0 / 1	0 / 0	

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

Non-serious adverse events	GSK1437173A Group	Placebo Group	
Total subjects affected by non-serious adverse events			
subjects affected / exposed	115 / 117 (98.29%)	106 / 115 (92.17%)	
Nervous system disorders			
Dysgeusia			
subjects affected / exposed	1 / 117 (0.85%)	6 / 115 (5.22%)	
occurrences (all)	1	6	
Headache			
subjects affected / exposed	43 / 117 (36.75%)	40 / 115 (34.78%)	
occurrences (all)	61	52	
Blood and lymphatic system disorders			
Neutropenia			
subjects affected / exposed	11 / 117 (9.40%)	13 / 115 (11.30%)	
occurrences (all)	12	15	
General disorders and administration site conditions			
Asthenia			
subjects affected / exposed	30 / 117 (25.64%)	29 / 115 (25.22%)	
occurrences (all)	34	33	
Chills			
subjects affected / exposed	39 / 117 (33.33%)	25 / 115 (21.74%)	
occurrences (all)	48	30	

Fatigue			
subjects affected / exposed	78 / 117 (66.67%)	68 / 115 (59.13%)	
occurrences (all)	118	109	
Mucosal inflammation			
subjects affected / exposed	9 / 117 (7.69%)	6 / 115 (5.22%)	
occurrences (all)	11	8	
Pain			
subjects affected / exposed	90 / 117 (76.92%)	7 / 115 (6.09%)	
occurrences (all)	139	7	
Pyrexia			
subjects affected / exposed	22 / 117 (18.80%)	9 / 115 (7.83%)	
occurrences (all)	23	9	
Swelling			
subjects affected / exposed	18 / 117 (15.38%)	1 / 115 (0.87%)	
occurrences (all)	23	1	
Redness			
subjects affected / exposed	40 / 117 (34.19%)	0 / 115 (0.00%)	
occurrences (all)	40	0	
Shivering			
subjects affected / exposed	39 / 117 (33.33%)	25 / 115 (21.74%)	
occurrences (all)	39	25	
Fever			
subjects affected / exposed	20 / 117 (17.09%)	5 / 115 (4.35%)	
occurrences (all)	20	5	
Gastrointestinal disorders			
Constipation			
subjects affected / exposed	16 / 117 (13.68%)	11 / 115 (9.57%)	
occurrences (all)	19	11	
Diarrhoea			
subjects affected / exposed	9 / 117 (7.69%)	10 / 115 (8.70%)	
occurrences (all)	12	10	
Dyspepsia			
subjects affected / exposed	6 / 117 (5.13%)	13 / 115 (11.30%)	
occurrences (all)	6	13	
Gastrointestinal disorder			

subjects affected / exposed occurrences (all)	49 / 117 (41.88%) 74	51 / 115 (44.35%) 63	
Nausea subjects affected / exposed occurrences (all)	31 / 117 (26.50%) 36	28 / 115 (24.35%) 33	
Vomiting subjects affected / exposed occurrences (all)	10 / 117 (8.55%) 10	14 / 115 (12.17%) 16	
Skin and subcutaneous tissue disorders			
Alopecia subjects affected / exposed occurrences (all)	21 / 117 (17.95%) 21	22 / 115 (19.13%) 22	
Erythema subjects affected / exposed occurrences (all)	43 / 117 (36.75%) 58	1 / 115 (0.87%) 1	
Musculoskeletal and connective tissue disorders			
Myalgia subjects affected / exposed occurrences (all)	60 / 117 (51.28%) 88	31 / 115 (26.96%) 45	
Metabolism and nutrition disorders			
Decreased appetite subjects affected / exposed occurrences (all)	9 / 117 (7.69%) 12	5 / 115 (4.35%) 5	

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

Date	Amendment
19 November 2012	<p>The primary objective for immunogenicity response (based on Geometric Mean [GM] ratios) following the HZ/su vaccination compared to placebo will now be evaluated only in the PreChemo Groups.</p> <p>The secondary objectives have now been qualified to evaluate immunogenicity in either the PreChemo Groups (Vaccine Response Rates [VRR] in anti-gE humoral immunogenicity responses and VRR and GM ratio in gE-specific Cellular-Mediated Immunity [CMI]) or in all study subjects (VRR and GM ratio in anti-gE humoral immunogenicity responses).</p> <p>The CMI sub-cohort will now only be recruited in the PreChemo Groups.</p> <p>The timepoint for evaluation of the primary objective for safety/reactogenicity has been reworded for clarity ('up to 30 days post last vaccination' instead of 'up to month 2').</p>
11 August 2014	<p>The cut-off of the gE-specific ELISA assay has been changed from 18 to 97 mIU/mL.</p> <p>The definition of the according-to-protocol (ATP) cohort for safety was updated. (Section 9.4.2)</p> <p>Statistical section was updated to describe the descriptive cell-mediated immune (CMI) response analysis, to clarify other descriptive analysis for immunogenicity and safety. (Section 9.5.3)</p>

Notes:

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

None reported