



Clinical trial results:

A Phase I, Open–Label, Randomized, Pharmacokinetic, Pharmacodynamic, And Safety Study Of Etrolizumab Followed By Open–Label Extension And Safety Monitoring In Pediatric Patients From 4 Years To Less Than 18 Years Of Age With Moderate To Severe Ulcerative Colitis Or Moderate To Severe Crohn's Disease

Summary

| | |
|--------------------------|-------------------|
| EudraCT number | 2017-003649-10 |
| Trial protocol | ES GB PL DE BE |
| Global end of trial date | 27 September 2023 |

Results information

| | |
|--------------------------------|---------------|
| Result version number | v3 (current) |
| This version publication date | 05 April 2024 |
| First version publication date | 04 June 2020 |
| Version creation reason | |

Trial information

Trial identification

| | |
|-----------------------|---------|
| Sponsor protocol code | CA40192 |
|-----------------------|---------|

Additional study identifiers

| | |
|------------------------------------|-------------|
| ISRCTN number | - |
| ClinicalTrials.gov id (NCT number) | NCT03478956 |
| WHO universal trial number (UTN) | - |

Notes:

Sponsors

| | |
|------------------------------|---|
| Sponsor organisation name | F. Hoffmann-La Roche, Ltd. |
| Sponsor organisation address | Grenzacherstrasse 124, Basel, Switzerland, CH-4070 |
| Public contact | F. Hoffmann-La Roche, Ltd., F. Hoffmann-La Roche, Ltd., +41 616878333, global.trial_information@roche.com |
| Scientific contact | F. Hoffmann-La Roche, Ltd., F. Hoffmann-La Roche, Ltd., +41 616878333, global.trial_information@roche.com |

Notes:

Paediatric regulatory details

| | |
|--|---------------------|
| Is trial part of an agreed paediatric investigation plan (PIP) | Yes |
| EMA paediatric investigation plan number(s) | EMA-001434-PIP01-13 |
| 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? | Yes |

Notes:

Results analysis stage

| | |
|--|-------------------|
| Analysis stage | Final |
| Date of interim/final analysis | 27 September 2023 |
| Is this the analysis of the primary completion data? | No |
| Global end of trial reached? | Yes |
| Global end of trial date | 27 September 2023 |
| Was the trial ended prematurely? | Yes |

Notes:

General information about the trial

Main objective of the trial:

To evaluate the pharmacokinetics and pharmacodynamics of etrolizumab in a pediatric inflammatory bowel disease patient population.

Protection of trial subjects:

This study was conducted in full conformance with the ICH E6 guideline for Good Clinical Practice and the principles of the Declaration of Helsinki, or the laws and regulations of the country in which the research was conducted, whichever afforded the greater protection to the individual. The Informed Consent Forms and Child's Informed Assent Forms were signed and dated by the patient or the patient's legally authorized representative before his or her participation in the study.

Background therapy: -

Evidence for comparator: -

| | |
|---|---------------|
| Actual start date of recruitment | 27 March 2018 |
| Long term follow-up planned | Yes |
| Long term follow-up rationale | Safety |
| Long term follow-up duration | 2 Years |
| Independent data monitoring committee (IDMC) involvement? | No |

Notes:

Population of trial subjects

Subjects enrolled per country

| | |
|--------------------------------------|-------------------|
| Country: Number of subjects enrolled | Belgium: 1 |
| Country: Number of subjects enrolled | Poland: 20 |
| Country: Number of subjects enrolled | Spain: 2 |
| Country: Number of subjects enrolled | United Kingdom: 1 |
| Worldwide total number of subjects | 24 |
| EEA total number of subjects | 23 |

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) | 8 |
| Adolescents (12-17 years) | 16 |
| Adults (18-64 years) | 0 |
| From 65 to 84 years | 0 |
| 85 years and over | 0 |

Subject disposition

Recruitment

Recruitment details: -

Pre-assignment

Screening details:

A total of 30 patients were screened and 6 failed screenings, 2 due to administrative reasons and 4 due to failure to meet exclusion criteria; a total of 24 subjects were enrolled in the study.

Period 1

| | |
|------------------------------|-----------------------------|
| Period 1 title | Randomized Treatment Period |
| Is this the baseline period? | Yes |
| Allocation method | Randomised - controlled |
| Blinding used | Not blinded |

Arms

| | |
|------------------------------|-----------------|
| Are arms mutually exclusive? | Yes |
| Arm title | Etrolizumab Q4W |

Arm description:

Etrolizumab 1.5 milligrams per kilogram of body weight (mg/kg) was administered by subcutaneous (SC) injection once every 4 weeks (Q4W) for a total of 4 doses over the course of the 24-week randomized treatment phase (16-week treatment period plus 8-week safety follow-up). Participants were then given the option to participate in the 312-week open-label extension (OLE) treatment phase with etrolizumab 1.5 mg/kg SC Q4W followed by the 104-week safety surveillance phase (no etrolizumab treatment) to monitor for progressive multifocal leukoencephalopathy (PML). All participants who chose not to enter the OLE phase after the 24-week randomized treatment phase entered the 104-week PML monitoring phase.

| | |
|--|------------------------|
| Arm type | Experimental |
| Investigational medicinal product name | Etrolizumab |
| Investigational medicinal product code | RO5490261/F02-01 |
| Other name | |
| Pharmaceutical forms | Solution for injection |
| Routes of administration | Subcutaneous use |

Dosage and administration details:

All participants randomized to this arm received 150 milligrams per millilitre (mg/mL) etrolizumab by subcutaneous injection of 0.01 mL per kilogram (kg) of body weight (1.5 mg/kg) once every 4 weeks (Q4W) during the 24-week randomized treatment phase. Following the completion of this phase, participants who chose to enter the open-label extension phase received 150 mg/mL etrolizumab by subcutaneous injection of 0.01 mL per kg of body weight (1.5 mg/kg) Q4W for up to 312 weeks.

| | |
|------------------|-----------------|
| Arm title | Etrolizumab Q8W |
|------------------|-----------------|

Arm description:

Etrolizumab 3.0 mg/kg was administered by subcutaneous (SC) injection once every 8 weeks (Q8W) for a total of 2 doses over the course of the 24-week randomized treatment phase (16-week treatment period plus 8-week safety follow-up). Participants were then given the option to participate in the 312-week open-label extension (OLE) treatment phase with etrolizumab 1.5 mg/kg SC Q4W followed by the 104-week safety surveillance phase (no etrolizumab treatment) to monitor for progressive multifocal leukoencephalopathy (PML). All participants who chose not to enter the OLE phase after the 24-week randomized treatment phase entered the 104-week PML monitoring phase.

| | |
|--|------------------------|
| Arm type | Experimental |
| Investigational medicinal product name | Etrolizumab |
| Investigational medicinal product code | RO5490261/F02-01 |
| Other name | |
| Pharmaceutical forms | Solution for injection |
| Routes of administration | Subcutaneous use |

Dosage and administration details:

All participants randomized to this arm received 150 milligrams per millilitre (mg/mL) etrolizumab by

subcutaneous injection of 0.02 mL per kg of body weight (3 mg/kg) once every 8 weeks (Q8W) during the 24-week randomized treatment phase. Following the completion of this phase, participants who chose to enter the open-label extension phase received 150 mg/mL etrolizumab by subcutaneous injection of 0.01 mL per kg of body weight (1.5 mg/kg) Q4W for up to 312 weeks.

| Number of subjects in period 1 | Etrolizumab Q4W | Etrolizumab Q8W |
|--|-----------------|-------------------|
| Started | 12 | 12 |
| Received at Least One Dose of Study Drug | 12 | 12 |
| Completed Treatment | 11 | 10 ^[1] |
| Completed | 11 | 11 |
| Not completed | 1 | 1 |
| Consent withdrawn by subject | - | 1 |
| Adverse event | 1 | - |

Notes:

[1] - The number of subjects at this milestone seems inconsistent with the number of subjects in the arm. It is expected that the number of subjects will be greater than, or equal to the number that completed, minus those who left.

Justification: Number reflects the number of subjects who completed treatment.

Period 2

| | |
|------------------------------|------------------------------------|
| Period 2 title | Open Label Extension (OLE) and PML |
| Is this the baseline period? | No |
| Allocation method | Not applicable |
| Blinding used | Not blinded |

Arms

| | |
|------------------------------|-----------------|
| Are arms mutually exclusive? | No |
| Arm title | Etrolizumab Q4W |

Arm description:

Etrolizumab 1.5 milligrams per kilogram of body weight (mg/kg) was administered by subcutaneous (SC) injection once every 4 weeks (Q4W) for a total of 4 doses over the course of the 24-week randomized treatment phase (16-week treatment period plus 8-week safety follow-up). Participants were then given the option to participate in the 312-week open-label extension (OLE) treatment phase with etrolizumab 1.5 mg/kg SC Q4W followed by the 104-week safety surveillance phase (no etrolizumab treatment) to monitor for progressive multifocal leukoencephalopathy (PML). All participants who chose not to enter the OLE phase after the 24-week randomized treatment phase entered the 104-week PML monitoring phase.

| | |
|--|------------------------|
| Arm type | Experimental |
| Investigational medicinal product name | Etrolizumab |
| Investigational medicinal product code | RO5490261/F02-01 |
| Other name | |
| Pharmaceutical forms | Solution for injection |
| Routes of administration | Subcutaneous use |

Dosage and administration details:

All participants randomized to this arm received 150 milligrams per millilitre (mg/mL) etrolizumab by subcutaneous injection of 0.01 mL per kilogram (kg) of body weight (1.5 mg/kg) once every 4 weeks (Q4W) during the 24-week randomized treatment phase. Following the completion of this phase,

participants who chose to enter the open-label extension phase received 150 mg/mL etrolizumab by subcutaneous injection of 0.01 mL per kg of body weight (1.5 mg/kg) Q4W for up to 312 weeks.

| | |
|---|------------------------|
| Arm title | Etrolizumab Q8W |
| Arm description: | |
| Etrolizumab 3.0 mg/kg was administered by subcutaneous (SC) injection once every 8 weeks (Q8W) for a total of 2 doses over the course of the 24-week randomized treatment phase (16-week treatment period plus 8-week safety follow-up). Participants were then given the option to participate in the 312-week open-label extension (OLE) treatment phase with etrolizumab 1.5 mg/kg SC Q4W followed by the 104-week safety surveillance phase (no etrolizumab treatment) to monitor for progressive multifocal leukoencephalopathy (PML). All participants who chose not to enter the OLE phase after the 24-week randomized treatment phase entered the 104-week PML monitoring phase. | |
| Arm type | Experimental |
| Investigational medicinal product name | Etrolizumab |
| Investigational medicinal product code | RO5490261/F02-01 |
| Other name | |
| Pharmaceutical forms | Solution for injection |
| Routes of administration | Subcutaneous use |
| Dosage and administration details: | |
| All participants randomized to this arm received 150 milligrams per millilitre (mg/mL) etrolizumab by subcutaneous injection of 0.02 mL per kg of body weight (3 mg/kg) once every 8 weeks (Q8W) during the 24-week randomized treatment phase. Following the completion of this phase, participants who chose to enter the open-label extension phase received 150 mg/mL etrolizumab by subcutaneous injection of 0.01 mL per kg of body weight (1.5 mg/kg) Q4W for up to 312 weeks. | |
| Arm title | PML Safety Monitoring |
| Arm description: | |
| After the randomized treatment period (if participants did not enter the OLE period) or after the OLE period participants were monitored during the 104-week safety surveillance phase (no etrolizumab treatment) for progressive multifocal leukoencephalopathy (PML). | |
| Arm type | No intervention |
| No investigational medicinal product assigned in this arm | |

| Number of subjects in period 2 | Etrolizumab Q4W | Etrolizumab Q8W | PML Safety Monitoring |
|---------------------------------------|-----------------|-----------------|-----------------------|
| Started | 11 | 10 | 13 |
| Completed | 0 | 0 | 4 |
| Not completed | 11 | 10 | 9 |
| Consent withdrawn by subject | - | 2 | - |
| Study terminated by sponsor | 4 | 2 | 9 |
| Adverse event | 3 | 1 | - |
| Lack of efficacy | 3 | 5 | - |
| Reason not provided | 1 | - | - |

Baseline characteristics

Reporting groups

| | |
|-----------------------|-----------------|
| Reporting group title | Etrolizumab Q4W |
|-----------------------|-----------------|

Reporting group description:

Etrolizumab 1.5 milligrams per kilogram of body weight (mg/kg) was administered by subcutaneous (SC) injection once every 4 weeks (Q4W) for a total of 4 doses over the course of the 24-week randomized treatment phase (16-week treatment period plus 8-week safety follow-up). Participants were then given the option to participate in the 312-week open-label extension (OLE) treatment phase with etrolizumab 1.5 mg/kg SC Q4W followed by the 104-week safety surveillance phase (no etrolizumab treatment) to monitor for progressive multifocal leukoencephalopathy (PML). All participants who chose not to enter the OLE phase after the 24-week randomized treatment phase entered the 104-week PML monitoring phase.

| | |
|-----------------------|-----------------|
| Reporting group title | Etrolizumab Q8W |
|-----------------------|-----------------|

Reporting group description:

Etrolizumab 3.0 mg/kg was administered by subcutaneous (SC) injection once every 8 weeks (Q8W) for a total of 2 doses over the course of the 24-week randomized treatment phase (16-week treatment period plus 8-week safety follow-up). Participants were then given the option to participate in the 312-week open-label extension (OLE) treatment phase with etrolizumab 1.5 mg/kg SC Q4W followed by the 104-week safety surveillance phase (no etrolizumab treatment) to monitor for progressive multifocal leukoencephalopathy (PML). All participants who chose not to enter the OLE phase after the 24-week randomized treatment phase entered the 104-week PML monitoring phase.

| Reporting group values | Etrolizumab Q4W | Etrolizumab Q8W | Total |
|---|-----------------|-----------------|-------|
| Number of subjects | 12 | 12 | 24 |
| Age categorical | | | |
| Units: Subjects | | | |
| Children (2-11 years) | 4 | 4 | 8 |
| Adolescents (12-17 years) | 8 | 8 | 16 |
| Age Continuous | | | |
| Units: Years | | | |
| arithmetic mean | 12.25 | 13.42 | |
| standard deviation | ± 3.62 | ± 4.46 | - |
| Sex: Female, Male | | | |
| Units: Participants | | | |
| Male | 8 | 5 | 13 |
| Female | 4 | 7 | 11 |
| Race | | | |
| Units: Subjects | | | |
| White | 12 | 12 | 24 |
| Ethnicity | | | |
| Units: Subjects | | | |
| Hispanic or Latino | 0 | 1 | 1 |
| Not Hispanic or Latino | 12 | 11 | 23 |
| Disease Indication: Crohn's Disease or Ulcerative Colitis | | | |
| Units: Subjects | | | |
| Crohn's Disease | 5 | 5 | 10 |
| Ulcerative Colitis | 7 | 7 | 14 |
| Randomization Stratification Factor: Body Weight <40 kg or ≥40 kg | | | |
| Units: Subjects | | | |
| <40 kg | 5 | 4 | 9 |

| | | | |
|--------|---|---|----|
| ≥40 kg | 7 | 8 | 15 |
|--------|---|---|----|

End points

End points reporting groups

| | |
|--|-----------------------|
| Reporting group title | Etrolizumab Q4W |
| Reporting group description: Etrolizumab 1.5 milligrams per kilogram of body weight (mg/kg) was administered by subcutaneous (SC) injection once every 4 weeks (Q4W) for a total of 4 doses over the course of the 24-week randomized treatment phase (16-week treatment period plus 8-week safety follow-up). Participants were then given the option to participate in the 312-week open-label extension (OLE) treatment phase with etrolizumab 1.5 mg/kg SC Q4W followed by the 104-week safety surveillance phase (no etrolizumab treatment) to monitor for progressive multifocal leukoencephalopathy (PML). All participants who chose not to enter the OLE phase after the 24-week randomized treatment phase entered the 104-week PML monitoring phase. | |
| Reporting group title | Etrolizumab Q8W |
| Reporting group description: Etrolizumab 3.0 mg/kg was administered by subcutaneous (SC) injection once every 8 weeks (Q8W) for a total of 2 doses over the course of the 24-week randomized treatment phase (16-week treatment period plus 8-week safety follow-up). Participants were then given the option to participate in the 312-week open-label extension (OLE) treatment phase with etrolizumab 1.5 mg/kg SC Q4W followed by the 104-week safety surveillance phase (no etrolizumab treatment) to monitor for progressive multifocal leukoencephalopathy (PML). All participants who chose not to enter the OLE phase after the 24-week randomized treatment phase entered the 104-week PML monitoring phase. | |
| Reporting group title | Etrolizumab Q4W |
| Reporting group description: Etrolizumab 1.5 milligrams per kilogram of body weight (mg/kg) was administered by subcutaneous (SC) injection once every 4 weeks (Q4W) for a total of 4 doses over the course of the 24-week randomized treatment phase (16-week treatment period plus 8-week safety follow-up). Participants were then given the option to participate in the 312-week open-label extension (OLE) treatment phase with etrolizumab 1.5 mg/kg SC Q4W followed by the 104-week safety surveillance phase (no etrolizumab treatment) to monitor for progressive multifocal leukoencephalopathy (PML). All participants who chose not to enter the OLE phase after the 24-week randomized treatment phase entered the 104-week PML monitoring phase. | |
| Reporting group title | Etrolizumab Q8W |
| Reporting group description: Etrolizumab 3.0 mg/kg was administered by subcutaneous (SC) injection once every 8 weeks (Q8W) for a total of 2 doses over the course of the 24-week randomized treatment phase (16-week treatment period plus 8-week safety follow-up). Participants were then given the option to participate in the 312-week open-label extension (OLE) treatment phase with etrolizumab 1.5 mg/kg SC Q4W followed by the 104-week safety surveillance phase (no etrolizumab treatment) to monitor for progressive multifocal leukoencephalopathy (PML). All participants who chose not to enter the OLE phase after the 24-week randomized treatment phase entered the 104-week PML monitoring phase. | |
| Reporting group title | PML Safety Monitoring |
| Reporting group description: After the randomized treatment period (if participants did not enter the OLE period) or after the OLE period participants were monitored during the 104-week safety surveillance phase (no etrolizumab treatment) for progressive multifocal leukoencephalopathy (PML). | |

Primary: Maximum Serum Concentration (C_{max}) of Etrolizumab After First and Last Dose During the Randomized Treatment Phase

| | |
|--|---|
| End point title | Maximum Serum Concentration (C _{max}) of Etrolizumab After First and Last Dose During the Randomized Treatment Phase ^[1] |
| End point description: Etrolizumab concentrations in all pharmacokinetics (PK) samples were measured using a validated assay method. Non-compartmental analysis methods were employed to calculate PK parameters. The PK Evaluable Population included all participants who received at least one dose of study drug and had evaluable PK data. This analysis included data from participants who had received their first dose (Day 1 for both arms) and last dose (on Day 56 for Q8W arm and Day 84 for Q4W arm) of study drug. | |
| End point type | Primary |

End point timeframe:

Arm Etro Q4W: Day 1, 84 and Arm Etro Q8W: Day 1, 56

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 formal hypothesis testing was planned for this study. All analyses were summarized by descriptive statistics.

| End point values | Etrolizumab Q4W | Etrolizumab Q8W | | |
|--|-----------------|-----------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 11 | 12 | | |
| Units: micrograms per millilitre (µg/mL) | | | | |
| arithmetic mean (standard deviation) | | | | |
| After First Dose (n = 10, 12) | 7.73 (± 2.18) | 19.0 (± 8.21) | | |
| After Last Dose (n = 11, 11) | 9.80 (± 4.86) | 18.1 (± 6.25) | | |

Statistical analyses

No statistical analyses for this end point

Primary: Time to Maximum Serum Concentration (Tmax) of Etrolizumab After First and Last Dose During the Randomized Treatment Phase

| | |
|-----------------|--|
| End point title | Time to Maximum Serum Concentration (Tmax) of Etrolizumab After First and Last Dose During the Randomized Treatment Phase ^[2] |
|-----------------|--|

End point description:

Etrolizumab concentrations in all pharmacokinetics (PK) samples were measured using a validated assay method. Non-compartmental analysis methods were employed to calculate PK parameters. The PK Evaluable Population included all participants who received at least one dose of study drug and had evaluable PK data. This analysis included data from participants who had received their first dose (Day 1 for both arms) and last dose (on Day 56 for Q8W arm and Day 84 for Q4W arm) of study drug.

| | |
|----------------|---------|
| End point type | Primary |
|----------------|---------|

End point timeframe:

Arm Etro Q4W: Day 1, 84 and Arm Etro Q8W: Day 1, 56

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: No formal hypothesis testing was planned for this study. All analyses were summarized by descriptive statistics.

| End point values | Etrolizumab Q4W | Etrolizumab Q8W | | |
|--------------------------------------|-----------------|-----------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 11 | 12 | | |
| Units: Day | | | | |
| arithmetic mean (standard deviation) | | | | |
| After First Dose (n = 10, 12) | 4.65 (± 1.43) | 4.00 (± 1.48) | | |
| After Last Dose (n = 11, 11) | 5.04 (± 2.92) | 4.94 (± 3.28) | | |

Statistical analyses

No statistical analyses for this end point

Primary: Area Under the Concentration-Time Curve Within the Last Dosing Interval (AUC-tau) of Etrolizumab During the Randomized Treatment Phase

| | |
|-----------------|---|
| End point title | Area Under the Concentration-Time Curve Within the Last Dosing Interval (AUC-tau) of Etrolizumab During the Randomized Treatment Phase ^[3] |
|-----------------|---|

End point description:

Etrolizumab concentrations in all pharmacokinetics (PK) samples were measured using a validated assay method. Non-compartmental analysis methods were employed to calculate PK parameters. The PK Evaluable Population included all participants who received at least one dose of study drug and had evaluable PK data. This analysis included data from participants who had received their last dose of study drug (on Day 56 for Q8W arm and Day 84 for Q4W arm). The value '999999' indicates that the mean and standard deviation were not reported because 0 participants were assessed at that timepoint.

| | |
|----------------|---------|
| End point type | Primary |
|----------------|---------|

End point timeframe:

Arm Etro Q4W: Days 56, 84, 88, 98, 112 and Arm Etro Q8W: Day 56, 60, 70, 84, 88, 98, 112

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: No formal hypothesis testing was planned for this study. All analyses were summarized by descriptive statistics.

| End point values | Etrolizumab Q4W | Etrolizumab Q8W | | |
|--------------------------------------|-------------------|-------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 11 | 10 | | |
| Units: Day*µg/mL | | | | |
| arithmetic mean (standard deviation) | | | | |
| AUC56-112 (n = 0, 10) | 999999 (± 999999) | 521 (± 306) | | |
| AUC84-112 (n = 11, 0) | 167 (± 86.9) | 999999 (± 999999) | | |

Statistical analyses

No statistical analyses for this end point

Primary: Elimination Half-Life (t_{1/2}) of Etrolizumab After Last Dose During the Randomized Treatment Phase

| | |
|-----------------|---|
| End point title | Elimination Half-Life (t _{1/2}) of Etrolizumab After Last Dose During the Randomized Treatment Phase ^[4] |
|-----------------|---|

End point description:

Etrolizumab concentrations in all pharmacokinetics (PK) samples were measured using a validated assay method. Non-compartmental analysis methods were employed to calculate PK parameters. The PK Evaluable Population included all participants who received at least one dose of study drug and had evaluable PK data. This analysis included data from participants who had received their last dose of study drug (on Day 56 for Q8W arm and Day 84 for Q4W arm).

| | |
|----------------|---------|
| End point type | Primary |
|----------------|---------|

End point timeframe:

Arm Etro Q4W: Days 84, 88, 98, 112, 126, 140, 168 and Arm Etro Q8W: Days 56, 60, 70, 84, 88, 98, 112, 126, 140, 168

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: No formal hypothesis testing was planned for this study. All analyses were summarized by descriptive statistics.

| End point values | Etrolizumab Q4W | Etrolizumab Q8W | | |
|--------------------------------------|-----------------|-----------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 11 | 10 | | |
| Units: Day | | | | |
| arithmetic mean (standard deviation) | | | | |
| After Last Dose | 7.31 (± 1.76) | 8.65 (± 3.74) | | |

Statistical analyses

No statistical analyses for this end point

Primary: Serum Trough Concentration (Ctough) of Etrolizumab at the End of Each Dosing Interval During the Randomized Treatment Phase

| | |
|-----------------|--|
| End point title | Serum Trough Concentration (Ctough) of Etrolizumab at the End of Each Dosing Interval During the Randomized Treatment Phase ^[5] |
|-----------------|--|

End point description:

Etrolizumab concentrations in all pharmacokinetics (PK) samples were measured using a validated assay method. The PK Evaluable Population included all participants who received at least one dose of study drug and had evaluable PK data. This analysis included data from participants at the end of each dosing interval (on Days 28, 56, 84, and 112 for Q4W arm and Days 56 and 112 for Q8W arm). The value '999999' indicates that the mean and standard deviation were not reported because 0 participants were assessed at that timepoint.

| | |
|----------------|---------|
| End point type | Primary |
|----------------|---------|

End point timeframe:

Arm Etro Q4W: Predose on Days 28, 56, 84, 112 and Arm Etro Q8W: Predose on Days 56, 112

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: No formal hypothesis testing was planned for this study. All analyses were summarized by descriptive statistics.

| End point values | Etrolizumab Q4W | Etrolizumab Q8W | | |
|--|-----------------|-------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 11 | 12 | | |
| Units: micrograms per millilitre (µg/mL) | | | | |
| arithmetic mean (standard deviation) | | | | |
| Day 28 (n = 11, 0) | 1.87 (± 1.32) | 999999 (± 999999) | | |
| Day 56 (n = 11, 11) | 3.22 (± 2.24) | 1.82 (± 1.99) | | |
| Day 84 (n = 11, 0) | 3.00 (± 2.38) | 999999 (± 999999) | | |
| Day 112 (n = 11, 10) | 2.79 (± 2.01) | 3.70 (± 4.64) | | |

Statistical analyses

No statistical analyses for this end point

Primary: Percentage of Baseline Absolute Numbers of Beta7 Receptor-Expressing Gut Homing CD3, CD4, and CD8 T Cells and CD19 B Cells with Unoccupied Beta7 Receptors in Peripheral Blood, Assessed by Flow Cytometry, During the Randomized Treatment Phase

| | |
|-----------------|--|
| End point title | Percentage of Baseline Absolute Numbers of Beta7 Receptor-Expressing Gut Homing CD3, CD4, and CD8 T Cells and CD19 B Cells with Unoccupied Beta7 Receptors in Peripheral Blood, Assessed by Flow Cytometry, During the Randomized Treatment Phase ^[6] |
|-----------------|--|

End point description:

Target engagement of etrolizumab was assessed via measurement of Beta7 receptor occupancy on Beta7 receptor expressing gut homing lymphocyte subsets in peripheral blood, including CD3, CD4, and CD8 T cells and CD19 B cells, using qualified flow cytometry methods. A decrease to 0% of baseline (BL) in median absolute cell counts of Beta7 receptor-expressing T and B cell subsets with unoccupied Beta7 receptors following etrolizumab treatment indicated maximal receptor occupancy by etrolizumab. The Pharmacodynamics (PD) Evaluable Population included all participants who received at least one dose of study treatment and had evaluable PD data.

| | |
|----------------|---------|
| End point type | Primary |
|----------------|---------|

End point timeframe:

Predose at Baseline (Day 1) and on Days 4, 56, 84, 98, and 112 (Treatment Period), and Days 126, 140, and 168 (Follow-Up Period)

Notes:

[6] - 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 formal hypothesis testing was planned for this study. All analyses were summarized by descriptive statistics.

| End point values | Etrolizumab Q4W | Etrolizumab Q8W | | |
|--|-----------------|-----------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 12 | 12 | | |
| Units: Percentage of BL Unoccupied Beta7 Cells | | | | |
| median (standard deviation) | | | | |
| CD3 T Cells: Baseline (n = 11, 10) | 100 (± 0.0) | 100 (± 0.0) | | |
| CD3 T Cells: Day 4 (n = 8, 10) | 0.18 (± 0.2) | 0.40 (± 0.4) | | |
| CD3 T Cells: Day 56 (n = 9, 10) | 1.92 (± 1.9) | 13.74 (± 13.5) | | |
| CD3 T Cells: Day 84 (n = 9, 9) | 7.43 (± 6.0) | 1.06 (± 1.1) | | |
| CD3 T Cells: Day 98 (n = 10, 9) | 0.36 (± 0.4) | 1.06 (± 1.1) | | |
| CD3 T Cells: Day 112 (n = 10, 9) | 4.06 (± 2.6) | 6.01 (± 5.6) | | |
| CD3 T Cells: Day 126 (n = 9, 8) | 12.00 (± 12.0) | 27.24 (± 24.6) | | |
| CD3 T Cells: Day 140 (n = 9, 9) | 47.47 (± 21.9) | 56.82 (± 22.2) | | |
| CD3 T Cells: Day 168 (n = 10, 9) | 71.64 (± 22.4) | 51.79 (± 23.1) | | |
| CD4 T Cells: Baseline (n = 11, 10) | 100 (± 0.0) | 100 (± 0.0) | | |
| CD4 T Cells: Day 4 (n = 8, 10) | 0.17 (± 0.2) | 0.00 (± 0.0) | | |
| CD4 T Cells: Day 56 (n = 9, 10) | 3.33 (± 3.3) | 16.56 (± 16.1) | | |
| CD4 T Cells: Day 84 (n = 9, 9) | 7.14 (± 7.1) | 1.28 (± 1.0) | | |
| CD4 T Cells: Day 98 (n = 10, 9) | 0.24 (± 0.2) | 1.28 (± 1.3) | | |
| CD4 T Cells: Day 112 (n = 10, 9) | 3.60 (± 3.1) | 6.74 (± 6.4) | | |
| CD4 T Cells: Day 126 (n = 9, 8) | 13.33 (± 13.3) | 37.03 (± 33.7) | | |
| CD4 T Cells: Day 140 (n = 9, 9) | 55.34 (± 23.9) | 62.01 (± 20.3) | | |
| CD4 T Cells: Day 168 (n = 10, 9) | 74.49 (± 26.1) | 50.00 (± 16.3) | | |
| CD8 T Cells: Baseline (n = 11, 10) | 100 (± 0.0) | 100 (± 0.0) | | |

| | | | | |
|-------------------------------------|----------------|----------------|--|--|
| CD8 T Cells: Day 4 (n = 8, 10) | 0.00 (± 0.0) | 0.00 (± 0.0) | | |
| CD8 T Cells: Day 56 (n = 9, 10) | 1.56 (± 1.6) | 8.41 (± 8.4) | | |
| CD8 T Cells: Day 84 (n = 9, 9) | 2.72 (± 2.7) | 0.00 (± 0.0) | | |
| CD8 T Cells: Day 98 (n = 10, 9) | 1.10 (± 1.1) | 2.33 (± 2.3) | | |
| CD8 T Cells: Day 112 (n = 10, 9) | 0.97 (± 1.0) | 2.46 (± 2.5) | | |
| CD8 T Cells: Day 126 (n = 9, 8) | 20.00 (± 20.0) | 14.51 (± 14.5) | | |
| CD8 T Cells: Day 140 (n = 9, 9) | 54.17 (± 18.8) | 40.98 (± 24.7) | | |
| CD8 T Cells: Day 168 (n = 10, 9) | 63.34 (± 40.1) | 55.56 (± 21.1) | | |
| CD19 B Cells: Baseline (n = 11, 10) | 100 (± 0.0) | 100 (± 0.0) | | |
| CD19 B Cells: Day 4 (n = 8, 10) | 0.00 (± 0.0) | 0.00 (± 0.0) | | |
| CD19 B Cells: Day 56 (n = 9, 10) | 3.57 (± 3.6) | 19.14 (± 17.1) | | |
| CD19 B Cells: Day 84 (n = 9, 9) | 10.71 (± 10.7) | 0.00 (± 0.0) | | |
| CD19 B Cells: Day 98 (n = 10, 9) | 0.00 (± 0.0) | 0.00 (± 0.0) | | |
| CD19 B Cells: Day 112 (n = 9, 9) | 7.14 (± 7.1) | 7.14 (± 7.1) | | |
| CD19 B Cells: Day 126 (n = 9, 8) | 42.86 (± 21.4) | 33.93 (± 32.3) | | |
| CD19 B Cells: Day 140 (n = 9, 9) | 68.00 (± 30.5) | 77.78 (± 32.6) | | |
| CD19 B Cells: Day 168 (n = 10, 9) | 73.21 (± 17.7) | 40.00 (± 13.2) | | |

Statistical analyses

No statistical analyses for this end point

Secondary: Number of Participants with Adverse Events by Highest Severity Grade, Assessed According to National Cancer Institute Common Terminology Criteria for Adverse Events, version 4.0 (NCI-CTCAE v4.0), During the Randomized Treatment Phase

| | |
|-----------------|---|
| End point title | Number of Participants with Adverse Events by Highest Severity Grade, Assessed According to National Cancer Institute Common Terminology Criteria for Adverse Events, version 4.0 (NCI-CTCAE v4.0), During the Randomized Treatment Phase |
|-----------------|---|

End point description:

All adverse events (AEs) were graded for severity using the NCI-CTCAE v4.0. Any AE not specifically listed was assessed per the following 5 grades: Grade 1 = mild; asymptomatic or mild symptoms; clinical or diagnostic observations only; or intervention not indicated. Grade 2 = moderate; minimal, local, or non-invasive intervention indicated; or limiting age-appropriate instrumental activities of daily living. Grade 3 = severe or medically significant, but not immediately life-threatening; hospitalization or prolongation of hospitalization indicated; disabling; or limiting self-care activities of daily living. Grade 4 = life-threatening consequences or urgent intervention indicated. Grade 5 = death related to AE. Not all grades are appropriate for all AEs; some AEs have fewer than 5 options. The terms "severe" and "serious" are not synonymous and are independently assessed for each AE. Multiple occurrences of AEs were counted only once per participant at the highest (worst) grade.

| | |
|----------------|-----------|
| End point type | Secondary |
|----------------|-----------|

End point timeframe:

From Baseline until 12 weeks (Q4W arm only) or 16 weeks (Q8W arm only) after the last dose of study drug during the randomized treatment phase (up to 24 weeks)

| End point values | Etrolizumab Q4W | Etrolizumab Q8W | | |
|-------------------------------|-----------------|-----------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 12 | 12 | | |
| Units: Participants | | | | |
| Any Adverse Event - Any Grade | 9 | 10 | | |
| Any Adverse Event - Grade 1 | 2 | 2 | | |
| Any Adverse Event - Grade 2 | 4 | 5 | | |
| Any Adverse Event - Grade 3 | 3 | 3 | | |
| Any Adverse Event - Grade 4 | 0 | 0 | | |
| Any Adverse Event - Grade 5 | 0 | 0 | | |

Statistical analyses

No statistical analyses for this end point

Secondary: Number of Participants with Serious Infection-Related Adverse Events by Highest Severity Grade, Assessed According to NCI-CTCAE v4.0, During the Randomized Treatment Phase

| | |
|-----------------|---|
| End point title | Number of Participants with Serious Infection-Related Adverse Events by Highest Severity Grade, Assessed According to NCI-CTCAE v4.0, During the Randomized Treatment Phase |
|-----------------|---|

End point description:

Serious infection-related AEs were graded for severity per the NCI-CTCAE v4.0. Any AE not specifically listed was assessed per the following 5 grades: Grade 1 = mild; asymptomatic or mild symptoms; clinical or diagnostic observations only; or intervention not indicated. Grade 2 = moderate; minimal, local, or non-invasive intervention indicated; or limiting age-appropriate instrumental activities of daily living. Grade 3 = severe or medically significant, but not immediately life-threatening; hospitalization or prolongation of hospitalization indicated; disabling; or limiting self-care activities of daily living. Grade 4 = life-threatening consequences or urgent intervention indicated. Grade 5 = death related to AE. Not all grades are appropriate for all AEs; some AEs have fewer than 5 options. The terms "severe" and "serious" are not synonymous and are independently assessed for each AE. Multiple occurrences of AEs were counted only once per participant at the highest (worst) grade.

| | |
|----------------|-----------|
| End point type | Secondary |
|----------------|-----------|

End point timeframe:

From Baseline until 12 weeks (Q4W arm only) or 16 weeks (Q8W arm only) after the last dose of study drug during the randomized treatment phase (up to 24 weeks)

| End point values | Etrolizumab Q4W | Etrolizumab Q8W | | |
|-----------------------------|-----------------|-----------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 12 | 12 | | |
| Units: Participants | 0 | 0 | | |

Statistical analyses

No statistical analyses for this end point

Secondary: Number of Participants with Hypersensitivity Reactions by Highest Severity Grade, Assessed According to NCI-CTCAE v4.0, During the Randomized Treatment Phase

| | |
|-----------------|---|
| End point title | Number of Participants with Hypersensitivity Reactions by Highest Severity Grade, Assessed According to NCI-CTCAE v4.0, During the Randomized Treatment Phase |
|-----------------|---|

End point description:

Hypersensitivity reactions were graded for severity using the NCI-CTCAE v4.0. Any AE not specifically listed was assessed per the following 5 grades: Grade 1 = mild; asymptomatic or mild symptoms; clinical or diagnostic observations only; or intervention not indicated. Grade 2 = moderate; minimal, local, or non-invasive intervention indicated; or limiting age-appropriate instrumental activities of daily living. Grade 3 = severe or medically significant, but not immediately life-threatening; hospitalization or prolongation of hospitalization indicated; disabling; or limiting self-care activities of daily living. Grade 4 = life-threatening consequences or urgent intervention indicated. Grade 5 = death related to AE. Not all grades are appropriate for all AEs; some AEs have fewer than 5 options. The terms "severe" and "serious" are not synonymous and are independently assessed for each AE. Multiple occurrences of AEs were counted only once per participant at the highest (worst) grade.

| | |
|----------------|-----------|
| End point type | Secondary |
|----------------|-----------|

End point timeframe:

From Baseline until 12 weeks (Q4W arm only) or 16 weeks (Q8W arm only) after the last dose of study drug during the randomized treatment phase (up to 24 weeks)

| End point values | Etrolizumab Q4W | Etrolizumab Q8W | | |
|-----------------------------|-----------------|-----------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 12 | 12 | | |
| Units: Participants | 0 | 0 | | |

Statistical analyses

No statistical analyses for this end point

Secondary: Number of Participants with Malignancies by Highest Severity Grade, Assessed According to NCI-CTCAE v4.0, During the Randomized Treatment Phase

| | |
|-----------------|---|
| End point title | Number of Participants with Malignancies by Highest Severity Grade, Assessed According to NCI-CTCAE v4.0, During the Randomized Treatment Phase |
|-----------------|---|

End point description:

Malignancies were graded for severity using the NCI-CTCAE v4.0. Any AE not specifically listed was assessed per the following 5 grades: Grade 1 = mild; asymptomatic or mild symptoms; clinical or diagnostic observations only; or intervention not indicated. Grade 2 = moderate; minimal, local, or non-invasive intervention indicated; or limiting age-appropriate instrumental activities of daily living. Grade 3 = severe or medically significant, but not immediately life-threatening; hospitalization or prolongation of hospitalization indicated; disabling; or limiting self-care activities of daily living. Grade 4 = life-threatening consequences or urgent intervention indicated. Grade 5 = death related to AE. Not all grades are appropriate for all AEs; some AEs have fewer than 5 options. The terms "severe" and "serious" are not synonymous and are independently assessed for each AE. Multiple occurrences of AEs were counted only once per participant at the highest (worst) grade.

| | |
|----------------|-----------|
| End point type | Secondary |
|----------------|-----------|

End point timeframe:

From Baseline until 12 weeks (Q4W arm only) or 16 weeks (Q8W arm only) after the last dose of study drug during the randomized treatment phase (up to 24 weeks)

| End point values | Etrolizumab Q4W | Etrolizumab Q8W | | |
|-----------------------------|-----------------|-----------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 12 | 12 | | |
| Units: Participants | 0 | 0 | | |

Statistical analyses

No statistical analyses for this end point

Secondary: Number of Participants with Anti-Drug Antibodies (ADAs) to Etrolizumab at Baseline and Post-Baseline During the Randomized Treatment Phase

| | |
|-----------------|--|
| End point title | Number of Participants with Anti-Drug Antibodies (ADAs) to Etrolizumab at Baseline and Post-Baseline During the Randomized Treatment Phase |
|-----------------|--|

End point description:

Participants were considered to be etrolizumab anti-drug antibody (ADA) positive if they were ADA negative or had missing data at Baseline (BL) but developed an ADA response following study drug exposure (i.e., treatment-induced ADA positive), or if they were ADA positive at baseline and the titer of one or more postbaseline samples was at least 0.60 titer unit greater than the titer of the baseline sample (i.e., treatment-enhanced ADA positive); these ADA positive responses are summarized together (induced + enhanced) in the 'treatment-emergent ADA positive' category. Participants were considered to be ADA negative if they were ADA negative or had missing data at Baseline (BL) and all postbaseline samples were negative (i.e., treatment-emergent ADA negative), or if they were ADA positive at baseline but did not have any postbaseline samples with a titer that was at least 0.60 titer unit greater than the titer of the baseline sample (i.e., treatment unaffected).

| | |
|----------------|-----------|
| End point type | Secondary |
|----------------|-----------|

End point timeframe:

Predose (dosing days only) on Days 1, 28, 84, 112, and 168 (up to the end of the randomized treatment phase at Week 24)

| End point values | Etrolizumab Q4W | Etrolizumab Q8W | | |
|--|-----------------|-----------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 12 | 12 | | |
| Units: Participants | | | | |
| Baseline (BL): ADA Positive | 1 | 0 | | |
| BL: ADA Negative | 11 | 12 | | |
| Post-BL: Treatment-Emergent ADA Positive | 4 | 2 | | |
| Post-BL: Treatment-Induced ADA Positive | 4 | 2 | | |
| Post-BL: Treatment-Enhanced ADA Positive | 0 | 0 | | |
| Post-BL: Treatment-Emergent ADA Negative | 7 | 10 | | |
| Post-BL: Treatment Unaffected | 1 | 0 | | |

Statistical analyses

No statistical analyses for this end point

Secondary: Long-Term Safety of Etrolizumab: Number of Participants with Adverse Events by Highest Severity Grade, Assessed According to NCI-CTCAE v4.0

| | |
|-----------------|---|
| End point title | Long-Term Safety of Etrolizumab: Number of Participants with Adverse Events by Highest Severity Grade, Assessed According to NCI-CTCAE v4.0 |
|-----------------|---|

End point description:

All adverse events (AEs) were graded for severity using the NCI-CTCAE v4.0. Any AE not specifically listed was assessed per the following 5 grades: Grade 1 = mild; asymptomatic or mild symptoms; clinical or diagnostic observations only; or intervention not indicated. Grade 2 = moderate; minimal, local, or non-invasive intervention indicated; or limiting age-appropriate instrumental activities of daily living. Grade 3 = severe or medically significant, but not immediately life-threatening; hospitalization or prolongation of hospitalization indicated; disabling; or limiting self-care activities of daily living. Grade 4 = life-threatening consequences or urgent intervention indicated. Grade 5 = death related to AE. Not all grades are appropriate for all AEs; some AEs have fewer than 5 options. The terms "severe" and "serious" are not synonymous and are independently assessed for each AE. Multiple occurrences of AEs were counted only once per participant at the highest (worst) grade.

| | |
|----------------|-----------|
| End point type | Secondary |
|----------------|-----------|

End point timeframe:

From the start of 312-week OLE and the 104-week PML safety surveillance phase until the participant withdrew from the study (from Week 24 up to approximately 5.5 years)

| End point values | Etrolizumab Q4W | Etrolizumab Q8W | PML Safety Monitoring | |
|---------------------------------------|-----------------|-----------------|-----------------------|--|
| Subject group type | Reporting group | Reporting group | Reporting group | |
| Number of subjects analysed | 11 | 10 | 1 ^[7] | |
| Units: Participants | | | | |
| OLE: Any AE - Any Grade (n=11, 10, 0) | 11 | 9 | 0 | |
| OLE: Any AE - Grade 1 (n=11, 10, 0) | 0 | 0 | 0 | |
| OLE: Any AE - Grade 2 (n=11, 10, 0) | 8 | 4 | 0 | |
| OLE: Any AE - Grade 3 (n=11, 10, 0) | 3 | 5 | 0 | |
| OLE: Any AE - Grade 4 (n=11, 10, 0) | 0 | 0 | 0 | |
| OLE: Any AE - Grade 5 (n=11, 10, 0) | 0 | 0 | 0 | |
| PML: Any AE - Any Grade (n=6, 6, 1) | 2 | 2 | 0 | |
| PML: Any AE - Grade 1 (n=6, 6, 1) | 1 | 1 | 0 | |
| PML: Any AE - Grade 2 (n=6, 6, 1) | 1 | 1 | 0 | |
| PML: Any AE - Grade 3 (n=6, 6, 1) | 0 | 0 | 0 | |
| PML: Any AE - Grade 4 (n=6, 6, 1) | 0 | 0 | 0 | |
| PML: Any AE - Grade 5 (n=6, 6, 1) | 0 | 0 | 0 | |

Notes:

[7] - n=12 (6 each) captured under PML data for Etro Q4W and Q8W

Statistical analyses

No statistical analyses for this end point

Secondary: Long-Term Safety of Etrolizumab: Number of Participants with Serious Infection-Related Adverse Events

| | |
|-----------------|---|
| End point title | Long-Term Safety of Etrolizumab: Number of Participants with Serious Infection-Related Adverse Events |
|-----------------|---|

End point description:

Serious infection-related AEs were assessed using NCI-CTCAE v4.0. Safety Population: all participants who received at least one dose of study treatment.

| | |
|----------------|-----------|
| End point type | Secondary |
|----------------|-----------|

End point timeframe:

From the start of 312-week OLE and the 104-week PML safety surveillance phase until the participant withdrew from the study (from Week 24 up to approximately 5.5 years)

| End point values | Etrolizumab Q4W | Etrolizumab Q8W | PML Safety Monitoring | |
|-----------------------------|-----------------|-----------------|-----------------------|--|
| Subject group type | Reporting group | Reporting group | Reporting group | |
| Number of subjects analysed | 11 | 10 | 1 ^[8] | |
| Units: Participants | | | | |
| OLE phase (n=11, 10, 0) | 1 | 0 | 0 | |
| PML phase (n=6, 6, 1) | 0 | 0 | 0 | |

Notes:

[8] - n=12 (6 each) captured under PML data for Etro Q4W and Q8W

Statistical analyses

No statistical analyses for this end point

Secondary: Long-Term Safety of Etrolizumab: Number of Participants with Hypersensitivity Reactions

| | |
|-----------------|---|
| End point title | Long-Term Safety of Etrolizumab: Number of Participants with Hypersensitivity Reactions |
|-----------------|---|

End point description:

Hypersensitivity reactions were assessed using NCI-CTCAE v4.0. Safety Population: all participants who received at least one dose of study treatment.

| | |
|----------------|-----------|
| End point type | Secondary |
|----------------|-----------|

End point timeframe:

From the start of 312-week OLE and the 104-week PML safety surveillance phase until the participant withdrew from the study (from Week 24 up to approximately 5.5 years)

| End point values | Etrolizumab Q4W | Etrolizumab Q8W | PML Safety Monitoring | |
|-----------------------------|-----------------|-----------------|-----------------------|--|
| Subject group type | Reporting group | Reporting group | Reporting group | |
| Number of subjects analysed | 11 | 10 | 1 ^[9] | |
| Units: Participants | | | | |
| OLE phase (n=11, 10, 0) | 2 | 2 | 0 | |
| PML phase (n=6, 6, 1) | 0 | 1 | 0 | |

Notes:

[9] - n=12 (6 each) captured under PML data for Etro Q4W and Q8W

Statistical analyses

No statistical analyses for this end point

Secondary: Long-Term Safety of Etrolizumab: Number of Participants with Malignancies

| | |
|-----------------|---|
| End point title | Long-Term Safety of Etrolizumab: Number of Participants with Malignancies |
|-----------------|---|

End point description:

Malignancies were assessed using NCI-CTCAE v4.0. Safety Population: all participants who received at least one dose of study treatment.

| | |
|----------------|-----------|
| End point type | Secondary |
|----------------|-----------|

End point timeframe:

From the start of 312-week OLE and the 104-week PML safety surveillance phase until the participant withdrew from the study (from Week 24 up to approximately 5.5 years)

| End point values | Etrolizumab Q4W | Etrolizumab Q8W | PML Safety Monitoring | |
|-----------------------------|-----------------|-----------------|-----------------------|--|
| Subject group type | Reporting group | Reporting group | Reporting group | |
| Number of subjects analysed | 11 | 10 | 1 ^[10] | |
| Units: Participants | | | | |
| OLE phase (n=11, 10, 0) | 0 | 0 | 0 | |
| PML phase (n=6, 6, 1) | 0 | 0 | 0 | |

Notes:

[10] - n=12 (6 each) captured under PML data for Etro Q4W and Q8W

Statistical analyses

No statistical analyses for this end point

Secondary: Long-Term Safety of Etrolizumab: Number of Participants with Anti-Drug Antibodies (ADAs) to Etrolizumab at Baseline and Post-Baseline

| | |
|-----------------|---|
| End point title | Long-Term Safety of Etrolizumab: Number of Participants with Anti-Drug Antibodies (ADAs) to Etrolizumab at Baseline and Post-Baseline |
|-----------------|---|

End point description:

Participants were ADA positive if they were ADA negative or had missing data at Baseline (BL) but developed an ADA response following study drug exposure (treatment-induced ADA positive), or if they were ADA positive at baseline and the titer of one or more postbaseline samples was at least 0.60 titer unit greater than that of the baseline sample (treatment-enhanced ADA positive); ADA induced + enhanced are combined in the 'treatment-emergent ADA positive' category. Participants were ADA negative if they were ADA negative or had missing data at Baseline (BL) and all postbaseline samples were negative (treatment-emergent ADA negative), or if they were ADA positive at baseline but did not have any postbaseline samples with a titer that was at least 0.60 titer unit greater than the titer of the baseline sample (treatment unaffected). All participants, who received at least one dose of study treatment and had at least one baseline or post-baseline ADA result, were evaluated.

| | |
|---|-----------|
| End point type | Secondary |
| End point timeframe: | |
| Predose (dosing days only) at Baseline (Day 1), Days 28, 84, and 112, Weeks 24, 36, 72, and 120, and every 12 weeks thereafter for up to 4.25 years | |

| End point values | Etrolizumab Q4W | Etrolizumab Q8W | | |
|--|-----------------|-----------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 12 | 12 | | |
| Units: Participants | | | | |
| Baseline (BL): ADA Positive | 1 | 0 | | |
| BL: ADA Negative | 11 | 12 | | |
| Post-BL: Treatment-Emergent ADA Positive | 4 | 3 | | |
| Post-BL: Treatment-Induced ADA Positive | 4 | 3 | | |
| Post-BL: Treatment-Enhanced ADA Positive | 0 | 0 | | |
| Post-BL: Treatment-Emergent ADA Negative | 7 | 9 | | |
| Post-BL: Treatment Unaffected | 1 | 0 | | |

Statistical analyses

No statistical analyses for this end point

Secondary: Number of Participants with Confirmed Progressive Multifocal Leukoencephalopathy (PML) During the 104-Week Post-Treatment PML Monitoring Phase

| | |
|-----------------|--|
| End point title | Number of Participants with Confirmed Progressive Multifocal Leukoencephalopathy (PML) During the 104-Week Post-Treatment PML Monitoring Phase |
|-----------------|--|

End point description:

The 104-week safety surveillance PML-monitoring phase (no etrolizumab treatment) consisted of telephone calls approximately every 6 months with administration of the protocol's PML Subjective Checklist. If there were any signs or symptoms suggestive of PML identified on this subjective checklist during the telephone call, the participant was asked to come into the clinic for a neurologic examination. The protocol's PML Algorithm was followed for any suspected case of PML, and any confirmed case of PML would be reported as a serious adverse event. Safety Population: all participants who received at least one dose of study treatment.

| | |
|---|-----------|
| End point type | Secondary |
| End point timeframe: | |
| Approximately every 6 months from last dose of study drug until the end of the PML monitoring phase (up to 104 weeks) | |

| | | | | |
|-----------------------------|-----------------------|--|--|--|
| End point values | PML Safety Monitoring | | | |
| Subject group type | Reporting group | | | |
| Number of subjects analysed | 13 | | | |
| Units: Participants | 0 | | | |

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information

Timeframe for reporting adverse events:

Up to 5.5 years

Adverse event reporting additional description:

After informed consent but prior to initiation of study drug, only serious AEs caused by protocol-mandated intervention were reported. After initiation of study drug, all AEs were reported until the last study visit or 12 weeks after the last dose of study drug. After this period, only serious AEs related to prior study drug were reported.

| | |
|-----------------|------------|
| Assessment type | Systematic |
|-----------------|------------|

Dictionary used

| | |
|-----------------|--------|
| Dictionary name | MedDRA |
|-----------------|--------|

| | |
|--------------------|------|
| Dictionary version | 26.0 |
|--------------------|------|

Reporting groups

| | |
|-----------------------|-----------------|
| Reporting group title | Etrolizumab Q4W |
|-----------------------|-----------------|

Reporting group description:

Etrolizumab Q4W

Etrolizumab 1.5 milligrams per kilogram of body weight (mg/kg) was administered by subcutaneous (SC) injection once every 4 weeks (Q4W) for a total of 4 doses over the course of the 24-week randomized treatment phase (16-week treatment period plus 8-week safety follow-up).

| | |
|-----------------------|-----------------------|
| Reporting group title | PML Safety Monitoring |
|-----------------------|-----------------------|

Reporting group description:

After the randomized treatment period (if participants did not enter the OLE period) or after the OLE period participants were monitored during the 104-week safety surveillance phase (no etrolizumab treatment) for progressive multifocal leukoencephalopathy (PML).

| | |
|-----------------------|----------------------------|
| Reporting group title | Open Label Extension (OLE) |
|-----------------------|----------------------------|

Reporting group description:

After the randomized treatment phase, participants were given the option to participate in the 312-week open-label extension (OLE) treatment phase. Participants were administered etrolizumab 1.5 mg/kg SC Q4W.

| | |
|-----------------------|-----------------|
| Reporting group title | Etrolizumab Q8W |
|-----------------------|-----------------|

Reporting group description:

Etrolizumab Q8W

Etrolizumab 3.0 mg/kg was administered by subcutaneous (SC) injection once every 8 weeks (Q8W) for a total of 2 doses over the course of the 24-week randomized treatment phase (16-week treatment period plus 8-week safety follow-up).

| Serious adverse events | Etrolizumab Q4W | PML Safety Monitoring | Open Label Extension (OLE) |
|---|-----------------|-----------------------|----------------------------|
| Total subjects affected by serious adverse events | | | |
| subjects affected / exposed | 2 / 12 (16.67%) | 0 / 13 (0.00%) | 6 / 21 (28.57%) |
| number of deaths (all causes) | 0 | 0 | 0 |
| number of deaths resulting from adverse events | 0 | 0 | 0 |
| Nervous system disorders | | | |
| Idiopathic intracranial hypertension | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | 0 / 13 (0.00%) | 1 / 21 (4.76%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 0 | 1 / 1 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |

| | | | |
|---|----------------|----------------|----------------|
| Blood and lymphatic system disorders | | | |
| Anaemia | | | |
| subjects affected / exposed | 1 / 12 (8.33%) | 0 / 13 (0.00%) | 0 / 21 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1 | 0 / 0 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Gastrointestinal disorders | | | |
| Gastritis | | | |
| subjects affected / exposed | 1 / 12 (8.33%) | 0 / 13 (0.00%) | 0 / 21 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1 | 0 / 0 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Diarrhoea | | | |
| subjects affected / exposed | 1 / 12 (8.33%) | 0 / 13 (0.00%) | 0 / 21 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1 | 0 / 0 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Crohn's disease | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | 0 / 13 (0.00%) | 2 / 21 (9.52%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 2 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Colitis ulcerative | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | 0 / 13 (0.00%) | 2 / 21 (9.52%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 2 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Vomiting | | | |
| subjects affected / exposed | 1 / 12 (8.33%) | 0 / 13 (0.00%) | 0 / 21 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1 | 0 / 0 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Reproductive system and breast disorders | | | |
| Balanoposthitis | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | 0 / 13 (0.00%) | 1 / 21 (4.76%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 1 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Psychiatric disorders | | | |
| Intentional self-injury | | | |

| | | | |
|---|----------------|----------------|----------------|
| subjects affected / exposed | 0 / 12 (0.00%) | 0 / 13 (0.00%) | 1 / 21 (4.76%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 1 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Drug abuse | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | 0 / 13 (0.00%) | 1 / 21 (4.76%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 1 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Anxiety disorder | | | |
| subjects affected / exposed | 1 / 12 (8.33%) | 0 / 13 (0.00%) | 0 / 21 (0.00%) |
| occurrences causally related to treatment / all | 1 / 1 | 0 / 0 | 0 / 0 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |
| Infections and infestations | | | |
| Sinusitis | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | 0 / 13 (0.00%) | 1 / 21 (4.76%) |
| occurrences causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 1 |
| deaths causally related to treatment / all | 0 / 0 | 0 / 0 | 0 / 0 |

| | | | |
|---|-----------------|--|--|
| Serious adverse events | Etrolizumab Q8W | | |
| Total subjects affected by serious adverse events | | | |
| subjects affected / exposed | 2 / 12 (16.67%) | | |
| number of deaths (all causes) | 0 | | |
| number of deaths resulting from adverse events | 0 | | |
| Nervous system disorders | | | |
| Idiopathic intracranial hypertension | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | | |
| occurrences causally related to treatment / all | 0 / 0 | | |
| deaths causally related to treatment / all | 0 / 0 | | |
| Blood and lymphatic system disorders | | | |
| Anaemia | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | | |
| occurrences causally related to treatment / all | 0 / 0 | | |
| deaths causally related to treatment / all | 0 / 0 | | |
| Gastrointestinal disorders | | | |
| Gastritis | | | |

| | | | |
|---|----------------|--|--|
| subjects affected / exposed | 0 / 12 (0.00%) | | |
| occurrences causally related to treatment / all | 0 / 0 | | |
| deaths causally related to treatment / all | 0 / 0 | | |
| Diarrhoea | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | | |
| occurrences causally related to treatment / all | 0 / 0 | | |
| deaths causally related to treatment / all | 0 / 0 | | |
| Crohn's disease | | | |
| subjects affected / exposed | 1 / 12 (8.33%) | | |
| occurrences causally related to treatment / all | 0 / 1 | | |
| deaths causally related to treatment / all | 0 / 0 | | |
| Colitis ulcerative | | | |
| subjects affected / exposed | 1 / 12 (8.33%) | | |
| occurrences causally related to treatment / all | 0 / 1 | | |
| deaths causally related to treatment / all | 0 / 0 | | |
| Vomiting | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | | |
| occurrences causally related to treatment / all | 0 / 0 | | |
| deaths causally related to treatment / all | 0 / 0 | | |
| Reproductive system and breast disorders | | | |
| Balanoposthitis | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | | |
| occurrences causally related to treatment / all | 0 / 0 | | |
| deaths causally related to treatment / all | 0 / 0 | | |
| Psychiatric disorders | | | |
| Intentional self-injury | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | | |
| occurrences causally related to treatment / all | 0 / 0 | | |
| deaths causally related to treatment / all | 0 / 0 | | |
| Drug abuse | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | | |
| occurrences causally related to treatment / all | 0 / 0 | | |
| deaths causally related to treatment / all | 0 / 0 | | |

| | | | |
|---|----------------|--|--|
| Anxiety disorder | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | | |
| occurrences causally related to treatment / all | 0 / 0 | | |
| deaths causally related to treatment / all | 0 / 0 | | |
| Infections and infestations | | | |
| Sinusitis | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | | |
| occurrences causally related to treatment / all | 0 / 0 | | |
| deaths causally related to treatment / all | 0 / 0 | | |

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

| Non-serious adverse events | Etrolizumab Q4W | PML Safety Monitoring | Open Label Extension (OLE) |
|---|-----------------|-----------------------|----------------------------|
| Total subjects affected by non-serious adverse events | | | |
| subjects affected / exposed | 8 / 12 (66.67%) | 4 / 13 (30.77%) | 20 / 21 (95.24%) |
| General disorders and administration site conditions | | | |
| Pyrexia | | | |
| subjects affected / exposed | 4 / 12 (33.33%) | 1 / 13 (7.69%) | 6 / 21 (28.57%) |
| occurrences (all) | 7 | 1 | 6 |
| Peripheral swelling | | | |
| subjects affected / exposed | 1 / 12 (8.33%) | 0 / 13 (0.00%) | 0 / 21 (0.00%) |
| occurrences (all) | 1 | 0 | 0 |
| Chest pain | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | 0 / 13 (0.00%) | 3 / 21 (14.29%) |
| occurrences (all) | 0 | 0 | 4 |
| Vaccination site reaction | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | 1 / 13 (7.69%) | 1 / 21 (4.76%) |
| occurrences (all) | 0 | 1 | 1 |
| Reproductive system and breast disorders | | | |
| Amenorrhoea | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | 0 / 13 (0.00%) | 1 / 21 (4.76%) |
| occurrences (all) | 0 | 0 | 1 |
| Polymenorrhoea | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | 0 / 13 (0.00%) | 0 / 21 (0.00%) |
| occurrences (all) | 0 | 0 | 0 |

| | | | |
|--|----------------------|---------------------|---------------------|
| Dysmenorrhoea subjects affected / exposed occurrences (all) | 0 / 12 (0.00%) 0 | 0 / 13 (0.00%) 0 | 2 / 21 (9.52%) 2 |
| Respiratory, thoracic and mediastinal disorders | | | |
| Catarrh subjects affected / exposed occurrences (all) | 0 / 12 (0.00%) 0 | 0 / 13 (0.00%) 0 | 0 / 21 (0.00%) 0 |
| Cough subjects affected / exposed occurrences (all) | 0 / 12 (0.00%) 0 | 0 / 13 (0.00%) 0 | 1 / 21 (4.76%) 2 |
| Epistaxis subjects affected / exposed occurrences (all) | 1 / 12 (8.33%) 1 | 0 / 13 (0.00%) 0 | 2 / 21 (9.52%) 4 |
| Nasal congestion subjects affected / exposed occurrences (all) | 1 / 12 (8.33%) 1 | 0 / 13 (0.00%) 0 | 0 / 21 (0.00%) 0 |
| Oropharyngeal pain subjects affected / exposed occurrences (all) | 1 / 12 (8.33%) 1 | 0 / 13 (0.00%) 0 | 1 / 21 (4.76%) 1 |
| Rhinorrhoea subjects affected / exposed occurrences (all) | 0 / 12 (0.00%) 0 | 0 / 13 (0.00%) 0 | 2 / 21 (9.52%) 2 |
| Investigations | | | |
| Weight decreased subjects affected / exposed occurrences (all) | 2 / 12 (16.67%) 2 | 0 / 13 (0.00%) 0 | 1 / 21 (4.76%) 2 |
| Injury, poisoning and procedural complications | | | |
| Arthropod bite subjects affected / exposed occurrences (all) | 1 / 12 (8.33%) 1 | 0 / 13 (0.00%) 0 | 0 / 21 (0.00%) 0 |
| Head injury subjects affected / exposed occurrences (all) | 0 / 12 (0.00%) 0 | 0 / 13 (0.00%) 0 | 2 / 21 (9.52%) 2 |
| Ligament sprain subjects affected / exposed occurrences (all) | 0 / 12 (0.00%) 0 | 1 / 13 (7.69%) 1 | 1 / 21 (4.76%) 1 |

| | | | |
|--------------------------------------|-----------------|-----------------|-----------------|
| Nervous system disorders | | | |
| Syncope | | | |
| subjects affected / exposed | 1 / 12 (8.33%) | 0 / 13 (0.00%) | 2 / 21 (9.52%) |
| occurrences (all) | 1 | 0 | 2 |
| Headache | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | 0 / 13 (0.00%) | 5 / 21 (23.81%) |
| occurrences (all) | 0 | 0 | 8 |
| Blood and lymphatic system disorders | | | |
| Anaemia | | | |
| subjects affected / exposed | 3 / 12 (25.00%) | 0 / 13 (0.00%) | 4 / 21 (19.05%) |
| occurrences (all) | 3 | 0 | 5 |
| Lymphopenia | | | |
| subjects affected / exposed | 1 / 12 (8.33%) | 0 / 13 (0.00%) | 2 / 21 (9.52%) |
| occurrences (all) | 1 | 0 | 2 |
| Ear and labyrinth disorders | | | |
| Tinnitus | | | |
| subjects affected / exposed | 1 / 12 (8.33%) | 0 / 13 (0.00%) | 0 / 21 (0.00%) |
| occurrences (all) | 1 | 0 | 0 |
| Gastrointestinal disorders | | | |
| Diarrhoea | | | |
| subjects affected / exposed | 2 / 12 (16.67%) | 0 / 13 (0.00%) | 2 / 21 (9.52%) |
| occurrences (all) | 2 | 0 | 3 |
| Crohn's disease | | | |
| subjects affected / exposed | 2 / 12 (16.67%) | 0 / 13 (0.00%) | 5 / 21 (23.81%) |
| occurrences (all) | 2 | 0 | 9 |
| Abdominal pain | | | |
| subjects affected / exposed | 3 / 12 (25.00%) | 0 / 13 (0.00%) | 6 / 21 (28.57%) |
| occurrences (all) | 3 | 0 | 12 |
| Abdominal pain upper | | | |
| subjects affected / exposed | 1 / 12 (8.33%) | 2 / 13 (15.38%) | 4 / 21 (19.05%) |
| occurrences (all) | 1 | 2 | 5 |
| Aphthous ulcer | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | 0 / 13 (0.00%) | 2 / 21 (9.52%) |
| occurrences (all) | 0 | 0 | 3 |
| Colitis ulcerative | | | |
| subjects affected / exposed | 2 / 12 (16.67%) | 0 / 13 (0.00%) | 7 / 21 (33.33%) |
| occurrences (all) | 2 | 0 | 13 |

| | | | |
|---|----------------|----------------|-----------------|
| Constipation | | | |
| subjects affected / exposed | 1 / 12 (8.33%) | 0 / 13 (0.00%) | 0 / 21 (0.00%) |
| occurrences (all) | 1 | 0 | 0 |
| Vomiting | | | |
| subjects affected / exposed | 1 / 12 (8.33%) | 0 / 13 (0.00%) | 0 / 21 (0.00%) |
| occurrences (all) | 1 | 0 | 0 |
| Toothache | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | 0 / 13 (0.00%) | 0 / 21 (0.00%) |
| occurrences (all) | 0 | 0 | 0 |
| Nausea | | | |
| subjects affected / exposed | 1 / 12 (8.33%) | 0 / 13 (0.00%) | 3 / 21 (14.29%) |
| occurrences (all) | 1 | 0 | 3 |
| Haematochezia | | | |
| subjects affected / exposed | 1 / 12 (8.33%) | 0 / 13 (0.00%) | 1 / 21 (4.76%) |
| occurrences (all) | 1 | 0 | 1 |
| Dyspepsia | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | 0 / 13 (0.00%) | 1 / 21 (4.76%) |
| occurrences (all) | 0 | 0 | 1 |
| Odynophagia | | | |
| subjects affected / exposed | 1 / 12 (8.33%) | 0 / 13 (0.00%) | 1 / 21 (4.76%) |
| occurrences (all) | 1 | 0 | 1 |
| Skin and subcutaneous tissue disorders | | | |
| Rash papular | | | |
| subjects affected / exposed | 1 / 12 (8.33%) | 0 / 13 (0.00%) | 1 / 21 (4.76%) |
| occurrences (all) | 1 | 0 | 1 |
| Rash | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | 1 / 13 (7.69%) | 1 / 21 (4.76%) |
| occurrences (all) | 0 | 1 | 1 |
| Erythema | | | |
| subjects affected / exposed | 1 / 12 (8.33%) | 0 / 13 (0.00%) | 2 / 21 (9.52%) |
| occurrences (all) | 2 | 0 | 2 |
| Renal and urinary disorders | | | |
| Leukocyturia | | | |
| subjects affected / exposed | 1 / 12 (8.33%) | 0 / 13 (0.00%) | 0 / 21 (0.00%) |
| occurrences (all) | 1 | 0 | 0 |
| Musculoskeletal and connective tissue disorders | | | |

| | | | |
|---|-----------------|----------------|-----------------|
| Arthralgia | | | |
| subjects affected / exposed | 1 / 12 (8.33%) | 0 / 13 (0.00%) | 3 / 21 (14.29%) |
| occurrences (all) | 1 | 0 | 3 |
| Pain in extremity | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | 0 / 13 (0.00%) | 2 / 21 (9.52%) |
| occurrences (all) | 0 | 0 | 2 |
| Infections and infestations | | | |
| Conjunctivitis | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | 0 / 13 (0.00%) | 2 / 21 (9.52%) |
| occurrences (all) | 0 | 0 | 5 |
| Viral upper respiratory tract infection | | | |
| subjects affected / exposed | 1 / 12 (8.33%) | 0 / 13 (0.00%) | 1 / 21 (4.76%) |
| occurrences (all) | 1 | 0 | 1 |
| Varicella | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | 0 / 13 (0.00%) | 1 / 21 (4.76%) |
| occurrences (all) | 0 | 0 | 1 |
| Upper respiratory tract infection | | | |
| subjects affected / exposed | 2 / 12 (16.67%) | 0 / 13 (0.00%) | 8 / 21 (38.10%) |
| occurrences (all) | 2 | 0 | 16 |
| Respiratory tract infection viral | | | |
| subjects affected / exposed | 1 / 12 (8.33%) | 0 / 13 (0.00%) | 0 / 21 (0.00%) |
| occurrences (all) | 1 | 0 | 0 |
| Respiratory tract infection | | | |
| subjects affected / exposed | 1 / 12 (8.33%) | 0 / 13 (0.00%) | 4 / 21 (19.05%) |
| occurrences (all) | 1 | 0 | 7 |
| Nasopharyngitis | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | 0 / 13 (0.00%) | 3 / 21 (14.29%) |
| occurrences (all) | 0 | 0 | 5 |
| Folliculitis | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | 0 / 13 (0.00%) | 0 / 21 (0.00%) |
| occurrences (all) | 0 | 0 | 0 |
| Herpes zoster | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | 0 / 13 (0.00%) | 2 / 21 (9.52%) |
| occurrences (all) | 0 | 0 | 2 |
| Gastrointestinal infection | | | |

| | | | |
|------------------------------------|----------------|----------------|-----------------|
| subjects affected / exposed | 0 / 12 (0.00%) | 0 / 13 (0.00%) | 2 / 21 (9.52%) |
| occurrences (all) | 0 | 0 | 2 |
| Gastroenteritis | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | 0 / 13 (0.00%) | 2 / 21 (9.52%) |
| occurrences (all) | 0 | 0 | 2 |
| COVID-19 | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | 0 / 13 (0.00%) | 4 / 21 (19.05%) |
| occurrences (all) | 0 | 0 | 4 |
| Rhinitis | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | 0 / 13 (0.00%) | 4 / 21 (19.05%) |
| occurrences (all) | 0 | 0 | 4 |
| Pharyngitis | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | 0 / 13 (0.00%) | 5 / 21 (23.81%) |
| occurrences (all) | 0 | 0 | 5 |
| Oral herpes | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | 0 / 13 (0.00%) | 2 / 21 (9.52%) |
| occurrences (all) | 0 | 0 | 2 |
| Metabolism and nutrition disorders | | | |
| Decreased appetite | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | 0 / 13 (0.00%) | 0 / 21 (0.00%) |
| occurrences (all) | 0 | 0 | 0 |
| Iron deficiency | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | 0 / 13 (0.00%) | 1 / 21 (4.76%) |
| occurrences (all) | 0 | 0 | 1 |
| Vitamin B12 deficiency | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | 0 / 13 (0.00%) | 0 / 21 (0.00%) |
| occurrences (all) | 0 | 0 | 0 |

| | | | |
|---|-----------------|--|--|
| Non-serious adverse events | Etrolizumab Q8W | | |
| Total subjects affected by non-serious adverse events | | | |
| subjects affected / exposed | 9 / 12 (75.00%) | | |
| General disorders and administration site conditions | | | |
| Pyrexia | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | | |
| occurrences (all) | 0 | | |
| Peripheral swelling | | | |

| | | | |
|---|----------------|--|--|
| subjects affected / exposed | 0 / 12 (0.00%) | | |
| occurrences (all) | 0 | | |
| Chest pain | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | | |
| occurrences (all) | 0 | | |
| Vaccination site reaction | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | | |
| occurrences (all) | 0 | | |
| Reproductive system and breast disorders | | | |
| Amenorrhoea | | | |
| subjects affected / exposed | 1 / 12 (8.33%) | | |
| occurrences (all) | 1 | | |
| Polymenorrhoea | | | |
| subjects affected / exposed | 1 / 12 (8.33%) | | |
| occurrences (all) | 1 | | |
| Dysmenorrhoea | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | | |
| occurrences (all) | 0 | | |
| Respiratory, thoracic and mediastinal disorders | | | |
| Catarrh | | | |
| subjects affected / exposed | 1 / 12 (8.33%) | | |
| occurrences (all) | 1 | | |
| Cough | | | |
| subjects affected / exposed | 1 / 12 (8.33%) | | |
| occurrences (all) | 1 | | |
| Epistaxis | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | | |
| occurrences (all) | 0 | | |
| Nasal congestion | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | | |
| occurrences (all) | 0 | | |
| Oropharyngeal pain | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | | |
| occurrences (all) | 0 | | |
| Rhinorrhoea | | | |

| | | | |
|--|---|--|--|
| subjects affected / exposed occurrences (all) | 1 / 12 (8.33%) 1 | | |
| Investigations Weight decreased subjects affected / exposed occurrences (all) | 2 / 12 (16.67%) 2 | | |
| Injury, poisoning and procedural complications Arthropod bite subjects affected / exposed occurrences (all) Head injury subjects affected / exposed occurrences (all) Ligament sprain subjects affected / exposed occurrences (all) | 0 / 12 (0.00%) 0 0 / 12 (0.00%) 0 0 / 12 (0.00%) 0 | | |
| Nervous system disorders Syncope subjects affected / exposed occurrences (all) Headache subjects affected / exposed occurrences (all) | 0 / 12 (0.00%) 0 3 / 12 (25.00%) 4 | | |
| Blood and lymphatic system disorders Anaemia subjects affected / exposed occurrences (all) Lymphopenia subjects affected / exposed occurrences (all) | 1 / 12 (8.33%) 1 0 / 12 (0.00%) 0 | | |
| Ear and labyrinth disorders Tinnitus subjects affected / exposed occurrences (all) | 0 / 12 (0.00%) 0 | | |
| Gastrointestinal disorders | | | |

| | | | |
|-----------------------------|-----------------|--|--|
| Diarrhoea | | | |
| subjects affected / exposed | 2 / 12 (16.67%) | | |
| occurrences (all) | 2 | | |
| Crohn's disease | | | |
| subjects affected / exposed | 2 / 12 (16.67%) | | |
| occurrences (all) | 2 | | |
| Abdominal pain | | | |
| subjects affected / exposed | 2 / 12 (16.67%) | | |
| occurrences (all) | 4 | | |
| Abdominal pain upper | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | | |
| occurrences (all) | 0 | | |
| Aphthous ulcer | | | |
| subjects affected / exposed | 1 / 12 (8.33%) | | |
| occurrences (all) | 3 | | |
| Colitis ulcerative | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | | |
| occurrences (all) | 0 | | |
| Constipation | | | |
| subjects affected / exposed | 1 / 12 (8.33%) | | |
| occurrences (all) | 1 | | |
| Vomiting | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | | |
| occurrences (all) | 0 | | |
| Toothache | | | |
| subjects affected / exposed | 2 / 12 (16.67%) | | |
| occurrences (all) | 2 | | |
| Nausea | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | | |
| occurrences (all) | 0 | | |
| Haematochezia | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | | |
| occurrences (all) | 0 | | |
| Dyspepsia | | | |
| subjects affected / exposed | 1 / 12 (8.33%) | | |
| occurrences (all) | 1 | | |

| | | | |
|--|---|--|--|
| Odynophagia subjects affected / exposed occurrences (all) | 0 / 12 (0.00%) 0 | | |
| Skin and subcutaneous tissue disorders Rash papular subjects affected / exposed occurrences (all) Rash subjects affected / exposed occurrences (all) Erythema subjects affected / exposed occurrences (all) | 0 / 12 (0.00%) 0 1 / 12 (8.33%) 1 1 / 12 (8.33%) 1 | | |
| Renal and urinary disorders Leukocyturia subjects affected / exposed occurrences (all) | 0 / 12 (0.00%) 0 | | |
| Musculoskeletal and connective tissue disorders Arthralgia subjects affected / exposed occurrences (all) Pain in extremity subjects affected / exposed occurrences (all) | 1 / 12 (8.33%) 2 0 / 12 (0.00%) 0 | | |
| Infections and infestations Conjunctivitis subjects affected / exposed occurrences (all) Viral upper respiratory tract infection subjects affected / exposed occurrences (all) Varicella subjects affected / exposed occurrences (all) Upper respiratory tract infection | 1 / 12 (8.33%) 3 1 / 12 (8.33%) 1 1 / 12 (8.33%) 1 | | |

| | | | |
|------------------------------------|----------------|--|--|
| subjects affected / exposed | 0 / 12 (0.00%) | | |
| occurrences (all) | 0 | | |
| Respiratory tract infection viral | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | | |
| occurrences (all) | 0 | | |
| Respiratory tract infection | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | | |
| occurrences (all) | 0 | | |
| Nasopharyngitis | | | |
| subjects affected / exposed | 1 / 12 (8.33%) | | |
| occurrences (all) | 1 | | |
| Folliculitis | | | |
| subjects affected / exposed | 1 / 12 (8.33%) | | |
| occurrences (all) | 1 | | |
| Herpes zoster | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | | |
| occurrences (all) | 0 | | |
| Gastrointestinal infection | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | | |
| occurrences (all) | 0 | | |
| Gastroenteritis | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | | |
| occurrences (all) | 0 | | |
| COVID-19 | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | | |
| occurrences (all) | 0 | | |
| Rhinitis | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | | |
| occurrences (all) | 0 | | |
| Pharyngitis | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | | |
| occurrences (all) | 0 | | |
| Oral herpes | | | |
| subjects affected / exposed | 0 / 12 (0.00%) | | |
| occurrences (all) | 0 | | |
| Metabolism and nutrition disorders | | | |

| | | | |
|--|---------------------|--|--|
| Decreased appetite subjects affected / exposed occurrences (all) | 1 / 12 (8.33%) 1 | | |
| Iron deficiency subjects affected / exposed occurrences (all) | 1 / 12 (8.33%) 1 | | |
| Vitamin B12 deficiency subjects affected / exposed occurrences (all) | 1 / 12 (8.33%) 1 | | |

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

| Date | Amendment |
|------------------|---|
| 09 August 2018 | Protocol CA40192 Version 2 was amended to clarify the exclusion criteria and the Schedule of Assessments for the open-label extension (OLE) phase: -Exclusion criteria for patients with strictures (stenosis) of the colon have been revised to exclude patients with fixed symptomatic stenosis of the intestine; -Exclusion criteria for the use of other biologics (e.g., anti-TNF) has been clarified; -Exclusion criteria has been deleted for tube feeding, defined formula diets, or parenteral alimentation/nutrition. Based on investigator feedback, this is a standard of care for patients with Crohn's disease. Including these treatments as a exclusion criterion reduces the potential patient pool at the sites; -The option for the administration of etrolizumab outside the clinic site has been removed; -The option of patients enrolling in the adult OLE studies of GA28951 and GA29145 has been deleted. Protocols GA28951 and GA29145 do not specify that patients from this study are eligible for enrollment; -Instructions about patient withdrawal from the RBR after site closure have been modified to indicate that the investigator must inform the Sponsor of patient withdrawal by emailing the study number and patient number; -Language regarding pregnancies in partners of male patients has been modified to account for the fact that some sites may not allow follow-up on partner pregnancies; -Language has been added for consistency with Roche's current data retention policy and to accommodate more stringent local requirements (if applicable); -Appendix 1c, Schedule of Assessments, for the OLE phase has been revised to list out every 4-week, 12-week and dosing visit time point. |
| 22 November 2019 | Protocol CA40192 Version 3 was amended to increase the number of participants and to extend the duration of the open-label extension (OLE) phase: -The total number of participants enrolled in the study was increased from approximately 16 to approximately 24, in order to achieve the requirement of 4 children from 4 years to <12 years of age with evaluable pharmacokinetic profiles; -The duration of the OLE was extended from 2 years to 6 years (312 weeks) in order to ensure that participants currently in the OLE will have drug available until the start of the pediatric Phase III program; -The end of study and length of study have been updated to include the extended duration of the OLE phase; -The Schedule of Assessments for the OLE phase has been revised to include the extended duration. |
| 28 May 2021 | Protocol CA40192 Version 4 was amended to clarify the 12-week safety follow up period after completion or early termination of the open-label extension phase, to add results from completed Phase III ulcerative colitis studies, and to add coronavirus disease 2019 (COVID-19) vaccine-related language. In addition, guselkumab was removed from the list of prohibited therapy. Schedule of assessments during the OLE phase was updated to include visits for conducting pregnancy tests. |

Notes:

Interruptions (globally)

Were there any global interruptions to the trial? Yes

| Date | Interruption | Restart date |
|------|--------------|--------------|
|------|--------------|--------------|

| | | |
|-------------------|--|---|
| 27 September 2023 | The study was terminated due to program discontinuation, based on mixed efficacy results in the adult ulcerative colitis and Crohn's disease studies. There were no safety concerns. | - |
|-------------------|--|---|

Notes:

Limitations and caveats

None reported