



Clinical trial results:

A Phase II, Open-Label, Uncontrolled, Single Center Study to Evaluate Safety and Immunogenicity of FLUVIRIN® [Influenza Vaccine (Surface Antigen, Inactivated) Ph.Eur], Formulation 2008-2009, when Administered to Non-Elderly Adult and Elderly Subjects

Summary

| | |
|--------------------------|----------------|
| EudraCT number | 2008-000939-17 |
| Trial protocol | GB |
| Global end of trial date | 07 August 2008 |

Results information

| | |
|--------------------------------|--|
| Result version number | v2 (current) |
| This version publication date | 28 July 2016 |
| First version publication date | 06 March 2015 |
| Version creation reason | <ul style="list-style-type: none">• Correction of full data set Required for the re-QC because of EudraCT system glitch as possible updates to results are required. Moreover, the study is now transferred to another primary user. |

Trial information

Trial identification

| | |
|-----------------------|--------|
| Sponsor protocol code | V78P6S |
|-----------------------|--------|

Additional study identifiers

| | |
|------------------------------------|-------------|
| ISRCTN number | - |
| ClinicalTrials.gov id (NCT number) | NCT00748150 |
| WHO universal trial number (UTN) | - |

Notes:

Sponsors

| | |
|------------------------------|--|
| Sponsor organisation name | Novartis Vaccines and Diagnostics S.r.l. |
| Sponsor organisation address | Frimley, Camberley, Surrey, United Kingdom, |
| Public contact | Posting Director, Novartis Vaccines, RegistryContactVaccinesUS@novartis.com |
| Scientific contact | Posting Director, Novartis Vaccines, RegistryContactVaccinesUS@novartis.com |

Notes:

Paediatric regulatory details

| | |
|--|----|
| Is trial part of an agreed paediatric investigation plan (PIP) | No |
| Does article 45 of REGULATION (EC) No 1901/2006 apply to this trial? | No |
| Does article 46 of REGULATION (EC) No 1901/2006 apply to this trial? | No |

Notes:

Results analysis stage

| | |
|--|----------------|
| Analysis stage | Final |
| Date of interim/final analysis | 15 August 2008 |
| Is this the analysis of the primary completion data? | No |

| | |
|----------------------------------|----------------|
| Global end of trial reached? | Yes |
| Global end of trial date | 07 August 2008 |
| Was the trial ended prematurely? | No |

Notes:

General information about the trial

Main objective of the trial:

To evaluate the antibody response to each influenza vaccine antigen, as measured by haemagglutination inhibition (HI) test at 21 days post-immunization in non-elderly adult and elderly subjects in compliance with the requirements of the current EU recommendations for clinical trials related to yearly licensing of influenza vaccines (CPMP/BWP/214/96).

Protection of trial subjects:

This trial was conducted in accordance with the ethical principles that have their origin in the Declaration of Helsinki, and that are consistent with Good Clinical Practices (GCPs) and the applicable regulatory requirement(s) for the country in which the trial was conducted, GCP according to International Conference on Harmonisation (ICH) guidelines, and applicable Standard Operating Procedures (SOPs).

Background therapy: -

Evidence for comparator: -

| | |
|---|--------------|
| Actual start date of recruitment | 14 July 2008 |
| 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 | United Kingdom: 143 |
| Worldwide total number of subjects | 143 |
| EEA total number of subjects | 143 |

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) | 77 |
| From 65 to 84 years | 64 |

| | |
|-------------------|---|
| 85 years and over | 2 |
|-------------------|---|

Subject disposition

Recruitment

Recruitment details:

Participants were enrolled at one study center in United Kingdom.

Pre-assignment

Screening details:

All enrolled subjects were included in study.

Period 1

| | |
|------------------------------|--------------------------------|
| Period 1 title | Overall Study (overall period) |
| Is this the baseline period? | Yes |
| Allocation method | Non-randomised - controlled |
| Blinding used | Not blinded |

Arms

| | |
|------------------------------|-----|
| Are arms mutually exclusive? | Yes |
|------------------------------|-----|

| | |
|------------------|-------------------------|
| Arm title | TIVf (18 to ≤ 60 Years) |
|------------------|-------------------------|

Arm description:

Adult subjects 18 to ≤60 years received one dose of a trivalent, surface antigen inactivated, egg-derived influenza virus vaccine (TIVf) formulation 2008/2009 Northern Hemisphere.

| | |
|--|--|
| Arm type | Experimental |
| Investigational medicinal product name | Trivalent influenza virus vaccine (surface antigen, inactivated, egg-derived, Fluvirin platform) |
| Investigational medicinal product code | |
| Other name | Fluvirin |
| Pharmaceutical forms | Suspension for injection in pre-filled syringe |
| Routes of administration | Intramuscular use |

Dosage and administration details:

Vaccination consisted of one 0.5 mL dose administered IM in the deltoid muscle, preferably of the non-dominant arm.

| | |
|------------------|-------------------|
| Arm title | TIVf (≥ 61 Years) |
|------------------|-------------------|

Arm description:

Adult subjects ≥61 years received one dose of a trivalent, surface antigen inactivated, egg-derived influenza virus vaccine (TIVf) formulation 2008/2009 Northern Hemisphere.

| | |
|--|--|
| Arm type | Experimental |
| Investigational medicinal product name | Trivalent influenza virus vaccine (surface antigen, inactivated, egg-derived, Fluvirin platform) |
| Investigational medicinal product code | |
| Other name | Fluvirin |
| Pharmaceutical forms | Suspension for injection in pre-filled syringe |
| Routes of administration | Intramuscular use |

Dosage and administration details:

Vaccination consisted of one 0.5 mL dose administered IM in the deltoid muscle, preferably of the non-dominant arm.

| Number of subjects in period 1 | TIVf (18 to ≤ 60 Years) | TIVf (≥ 61 Years) |
|---------------------------------------|-------------------------|-------------------|
| Started | 66 | 77 |
| Completed | 63 | 73 |
| Not completed | 3 | 4 |
| Lost to follow-up | 3 | 2 |
| Protocol deviation | - | 2 |

Baseline characteristics

Reporting groups

| | |
|---|-------------------------|
| Reporting group title | TIVf (18 to ≤ 60 Years) |
| Reporting group description: | |
| Adult subjects 18 to ≤60 years received one dose of a trivalent, surface antigen inactivated, egg-derived influenza virus vaccine (TIVf) formulation 2008/2009 Northern Hemisphere. | |
| Reporting group title | TIVf (≥ 61 Years) |
| Reporting group description: | |
| Adult subjects ≥61 years received one dose of a trivalent, surface antigen inactivated, egg-derived influenza virus vaccine (TIVf) formulation 2008/2009 Northern Hemisphere. | |

| Reporting group values | TIVf (18 to ≤ 60 Years) | TIVf (≥ 61 Years) | Total |
|--|-------------------------|-------------------|-------|
| Number of subjects | 66 | 77 | 143 |
| 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 | 45.9 | 72.3 | |
| standard deviation | ± 13 | ± 6.8 | - |
| Gender categorical Units: Subjects | | | |
| Female | 39 | 36 | 75 |
| Male | 27 | 41 | 68 |

End points

End points reporting groups

| | |
|--|-------------------------|
| Reporting group title | TIVf (18 to ≤ 60 Years) |
| Reporting group description: Adult subjects 18 to ≤60 years received one dose of a trivalent, surface antigen inactivated, egg-derived influenza virus vaccine (TIVf) formulation 2008/2009 Northern Hemisphere. | |
| Reporting group title | TIVf (≥ 61 Years) |
| Reporting group description: Adult subjects ≥61 years received one dose of a trivalent, surface antigen inactivated, egg-derived influenza virus vaccine (TIVf) formulation 2008/2009 Northern Hemisphere. | |
| Subject analysis set title | Enrolled Set |
| Subject analysis set type | Intention-to-treat |
| Subject analysis set description: All subjects who have been enrolled. | |
| Subject analysis set title | Per Protocol Set |
| Subject analysis set type | Per protocol |
| Subject analysis set description: All subjects in the full analysis set who received the relevant dose of vaccine correctly on Day 0, who provided evaluable serum samples with the relevant time windows and had no major protocol violations. | |
| Subject analysis set title | Safety Set |
| Subject analysis set type | Safety analysis |
| Subject analysis set description: All subjects in the Exposed Set (all enrolled subjects who actually received a study vaccine) who provided post-baseline safety data. | |

Primary: 1) Percentages of Subjects With Haemagglutination Inhibition (HI) Titers ≥40, against Each of Three Vaccine Strains After Receiving One Dose of TIVf

| | |
|---|---|
| End point title | 1) Percentages of Subjects With Haemagglutination Inhibition (HI) Titers ≥40, against Each of Three Vaccine Strains After Receiving One Dose of TIVf ^[1] |
| End point description: Immunogenicity was assessed in terms of percentages of subjects in both age groups with HI titers ≥40, against each of the three vaccine strains, three weeks after receiving one dose of TIVf. The related European [committee for medicinal products for human use (CHMP)] criterion for the assessment of immunogenicity is met if the percentage of subjects achieving HI titers ≥ 40 is >70% for adults aged 18 to ≤60 years and >60% for subjects aged ≥61 years. The analysis was performed on the per protocol dataset. | |
| End point type | Primary |
| End point timeframe: Day 21 post vaccination | |

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: There were no statistical analysis done.

| End point values | TIVf (18 to ≤ 60 Years) | TIVf (≥ 61 Years) | | |
|----------------------------------|-------------------------|-------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 60 | 70 | | |
| Units: Percentages of subjects | | | | |
| number (confidence interval 95%) | | | | |
| Day 0 (H1N1 strain) | 48 (35 to 62) | 40 (28 to 52) | | |
| Day 21 (H1N1 strain) | 93 (84 to 98) | 80 (69 to 89) | | |

| | | | | |
|----------------------|---------------|---------------|--|--|
| Day 0 (H3N2 strain) | 45 (32 to 58) | 47 (35 to 59) | | |
| Day 21 (H3N2 strain) | 95 (86 to 99) | 91 (82 to 97) | | |
| Day 0 (B strain) | 10 (4 to 21) | 16 (8 to 26) | | |
| Day 21 (B strain) | 58 (45 to 71) | 31 (21 to 44) | | |

Statistical analyses

No statistical analyses for this end point

Primary: 2) Percentages of Subjects With Seroconversion or Significant Increase in HI Antibody Titers After Receiving One Dose of TIVf

| | |
|-----------------|--|
| End point title | 2) Percentages of Subjects With Seroconversion or Significant Increase in HI Antibody Titers After Receiving One Dose of TIVf ^[2] |
|-----------------|--|

End point description:

Immunogenicity was assessed in terms of percentages of subjects in both age groups achieving seroconversion or significant increase in HI antibody titers after receiving one dose of TIVf. Seroconversion is defined as percentage of subjects with negative prevaccination serum/postvaccination serum titer ≥ 40 . Significant increase is defined as percentage of subjects with at least a 4-fold increase in postvaccination HI antibody titers. The related European (CHMP) criterion for the assessment of immunogenicity is met if $>40\%$ for adults aged 18 to ≤ 60 years and $>30\%$ for subjects aged ≥ 61 years achieve seroconversion or significant increase in postvaccination HI titers. The analysis was performed on the per protocol dataset.

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

End point timeframe:

Day 21 post vaccination

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: There were no statistical analysis done.

| End point values | TIVf (18 to \leq 60 Years) | TIVf (\geq 61 Years) | | |
|----------------------------------|------------------------------|-------------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 60 | 70 | | |
| Units: Percentages of subjects | | | | |
| number (confidence interval 95%) | | | | |
| H1N1 strain | 45 (32 to 58) | 24 (15 to 36) | | |
| H3N2 strain | 72 (59 to 83) | 71 (59 to 82) | | |
| B strain | 37 (25 to 50) | 14 (7 to 25) | | |

Statistical analyses

No statistical analyses for this end point

Primary: 3) Geometric Mean Ratio of Post Vaccination Versus Pre Vaccination HI Antibody Titers, After Receiving One Dose of TIVf

| | |
|-----------------|--|
| End point title | 3) Geometric Mean Ratio of Post Vaccination Versus Pre Vaccination HI Antibody Titers, After Receiving One Dose of TIVf ^[3] |
|-----------------|--|

End point description:

The antibody responses following one dose of TIV were evaluated in terms of GMRs of post vaccination against pre vaccination geometric mean HI titers against each of the three vaccine strains, three weeks after receiving one dose of TIVf.

The related European (CHMP) criterion for the assessment of immunogenicity is met if the GMR day 21/day 0 is >2.5 for adults aged 18 to ≤60 years and > 2.0 for subjects aged ≥61 years.

The analysis was performed on the per-protocol dataset.

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

End point timeframe:

Day 21 post vaccination

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: There were no statistical analysis done.

| End point values | TIVf (18 to ≤ 60 Years) | TIVf (≥ 61 Years) | | |
|--|-------------------------|---------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 60 | 70 | | |
| Units: Ratio | | | | |
| geometric mean (confidence interval 95%) | | | | |
| H1N1 strain | 4.92 (3.32 to 7.31) | 2.23 (1.89 to 2.64) | | |
| H3N2 strain | 6.35 (4.62 to 8.73) | 4.59 (3.77 to 5.61) | | |
| B strain | 3.07 (2.36 to 3.98) | 1.92 (1.61 to 2.29) | | |

Statistical analyses

No statistical analyses for this end point

Primary: 4) Percentages of Subjects With Single Radial Hemolysis (SRH) Areas ≥25mm², for B strain After Receiving One Dose of TIVf

| | |
|-----------------|---|
| End point title | 4) Percentages of Subjects With Single Radial Hemolysis (SRH) Areas ≥25mm ² , for B strain After Receiving One Dose of TIVf ^[4] |
|-----------------|---|

End point description:

Immunogenicity was assessed in terms of percentages of subjects in both age groups with SRH areas ≥25mm² against each of the three vaccine strains, three weeks after receiving one dose of TIVf.

The related European (CHMP) criterion for the assessment of immunogenicity is met if the percentage of subjects achieving post vaccination SRH areas ≥ 25mm² is >70% for adults aged 18 to ≤60 years and >60% for subjects aged ≥61 years.

The analysis was performed on the per-protocol dataset.

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

End point timeframe:

Day 21 post vaccination

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: There were no statistical analysis done.

| End point values | TIVf (18 to ≤ 60 Years) | TIVf (≥ 61 Years) | | |
|----------------------------------|-------------------------|-------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 60 | 70 | | |
| Units: Percentage of subjects | | | | |
| number (confidence interval 95%) | | | | |
| Day 0 (B strain) | 63 (50 to 75) | 69 (56 to 79) | | |
| Day 21 (B strain) | 92 (82 to 97) | 91 (82 to 97) | | |

Statistical analyses

No statistical analyses for this end point

Primary: 5) Percentages of Subjects With Seroconversion or Significant Increase in SRH Area, against Each of Three Vaccine Strains After Receiving One Dose of TIV

| | |
|-----------------|--|
| End point title | 5) Percentages of Subjects With Seroconversion or Significant Increase in SRH Area, against Each of Three Vaccine Strains After Receiving One Dose of TIV ^[5] |
|-----------------|--|

End point description:

Immunogenicity was assessed in terms of percentages of subjects in both age groups achieving seroconversion or significant increase by SRH area against each of the three vaccine strains, three weeks after receiving one dose of TIV.

Seroconversion is defined as percentage of subjects with a pre vaccination SRH area ≤4mm² achieving a post vaccination SRH area ≥25 mm². Significant increase is defined as percentage of subjects with a pre-vaccination SRH area >4mm² achieving at least 50% increase in post vaccination SRH area.

The related European (CHMP) criterion for the assessment of immunogenicity is met if the percentage of subjects achieving post vaccination SRH areas ≥ 25mm² is >40% for adults aged 18 to ≤60 years and >30% for subjects aged ≥61 years.

The analysis was performed on the per-protocol dataset.

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

End point timeframe:

Day 21 post vaccination

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: There were no statistical analysis done.

| End point values | TIVf (18 to ≤ 60 Years) | TIVf (≥ 61 Years) | | |
|----------------------------------|-------------------------|-------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 60 | 70 | | |
| Units: Percentage of subjects | | | | |
| number (confidence interval 95%) | | | | |
| B strain | 47 (34 to 60) | 34 (23 to 47) | | |

Statistical analyses

No statistical analyses for this end point

Primary: 6) Geometric Mean Ratio of Postvaccination Versus Prevaccination geometric mean SRH areas, After one Dose of TIVf

| | |
|-----------------|--|
| End point title | 6) Geometric Mean Ratio of Postvaccination Versus Prevaccination geometric mean SRH areas, After one Dose of TIVf ^[6] |
|-----------------|--|

End point description:

The antibody responses were evaluated in terms of GMRs of post vaccination to pre vaccination geometric mean SRH areas against each of the three vaccine strains, three weeks after receiving one dose of TIVf.

The related European (CHMP) criterion for the assessment of immunogenicity is met if the GMR day 21/day 0 is >2.5 for adults aged 18 to ≤60 years and > 2.0 in for subjects aged ≥61 years.

The analysis was performed on the per-protocol dataset.

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

End point timeframe:

Day 21 post vaccination

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: There were no statistical analysis done.

| End point values | TIVf (18 to ≤ 60 Years) | TIVf (≥ 61 Years) | | |
|---|----------------------------|------------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 60 | 70 | | |
| Units: Ratio | | | | |
| geometric mean (confidence interval 95%) | | | | |
| B strain | 2.21 (1.69 to 2.9) | 1.64 (1.37 to 1.97) | | |

Statistical analyses

No statistical analyses for this end point

Primary: 7) Number of Subjects Reporting Solicited Adverse Events After Receiving One Dose of TIVf

| | |
|-----------------|---|
| End point title | 7) Number of Subjects Reporting Solicited Adverse Events After Receiving One Dose of TIVf ^[7] |
|-----------------|---|

End point description:

The number of adult and elderly subjects reporting solicited local and systemic adverse events and other solicited adverse events after receiving one dose of TIVf are reported.

Analysis was done on the safety set.

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

End point timeframe:

Day 0 to Day 3 post vaccination

Notes:

[7] - 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: There were no statistical analysis done.

| End point values | TIVf (18 to ≤ 60 Years) | TIVf (≥ 61 Years) | | |
|-----------------------------|-------------------------|-------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 66 | 77 | | |
| Units: Number of subjects | | | | |
| Any Local | 33 | 12 | | |
| Injection site induration | 14 | 4 | | |
| Injection site erythema | 19 | 7 | | |
| Injection site ecchymosis | 0 | 4 | | |
| Injection site swelling | 14 | 5 | | |
| Injection site pain | 17 | 7 | | |
| Any Systemic | 26 | 10 | | |
| Chills Shivering | 2 | 0 | | |
| Malaise | 6 | 0 | | |
| Myalgia | 14 | 5 | | |
| Arthralgia | 6 | 3 | | |
| Fatigue | 17 | 2 | | |
| Headache | 7 | 3 | | |
| Sweating | 3 | 2 | | |
| Fever (≥ 38°C) | 0 | 1 | | |

Statistical analyses

No statistical analyses for this end point

Primary: 8) Number of Subjects Reporting Unsolicited Adverse Events After Receiving One Dose of TIVf

| | |
|-----------------|--|
| End point title | 8) Number of Subjects Reporting Unsolicited Adverse Events After Receiving One Dose of TIVf ^[8] |
|-----------------|--|

End point description:

The number of subjects in both age groups reporting unsolicited AEs between Day 0 and the study termination i.e., Day 21, after receiving one dose of TIVf is reported.

Analysis was done on the safety set population.

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

End point timeframe:

Day 0 to Day 21 post vaccination

Notes:

[8] - 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: There were no statistical analysis done.

| End point values | TIVf (18 to ≤ 60 Years) | TIVf (≥ 61 Years) | | |
|-------------------------------|-------------------------|-------------------|--|--|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 66 | 77 | | |
| Units: Number of subjects | | | | |
| Any AE | 10 | 4 | | |
| At least Possibly related AE | 8 | 2 | | |
| Any SAE | 0 | 0 | | |
| At least Possibly related SAE | 0 | 0 | | |
| AE leading to discontinuation | 0 | 0 | | |

| | | | | |
|-------|---|---|--|--|
| Death | 0 | 0 | | |
|-------|---|---|--|--|

Statistical analyses

No statistical analyses for this end point

Adverse events

Adverse events information

Timeframe for reporting adverse events:

All solicited AEs and unsolicited AEs were collected from Day 0 to Day 3; all unsolicited SAEs, medically attended AEs, AEs leading to withdrawal from the study were collected from Day 0 to Day 21.

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

Dictionary used

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

| | |
|--------------------|----|
| Dictionary version | 10 |
|--------------------|----|

Reporting groups

| | |
|-----------------------|-------------------|
| Reporting group title | TIVf (≥ 61 Years) |
|-----------------------|-------------------|

Reporting group description:

Adult subjects ≥61 years received one dose of a trivalent, surface antigen inactivated, egg-derived influenza virus vaccine (TIVf) formulation 2008/2009 Northern Hemisphere.

| | |
|-----------------------|-------------------------|
| Reporting group title | TIVf (18 to ≤ 60 Years) |
|-----------------------|-------------------------|

Reporting group description:

Adult subjects 18 to ≤60 years received one dose of a trivalent, surface antigen inactivated, egg-derived influenza virus vaccine (TIVf) formulation 2008/2009 Northern Hemisphere.

| Serious adverse events | TIVf (≥ 61 Years) | TIVf (18 to ≤ 60 Years) | |
|---|-------------------|-------------------------|--|
| Total subjects affected by serious adverse events | | | |
| subjects affected / exposed | 0 / 77 (0.00%) | 0 / 66 (0.00%) | |
| number of deaths (all causes) | 0 | 0 | |
| number of deaths resulting from adverse events | 0 | 0 | |

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

| Non-serious adverse events | TIVf (≥ 61 Years) | TIVf (18 to ≤ 60 Years) | |
|---|-------------------|-------------------------|--|
| Total subjects affected by non-serious adverse events | | | |
| subjects affected / exposed | 25 / 77 (32.47%) | 45 / 66 (68.18%) | |
| Nervous system disorders | | | |
| Headache | | | |
| alternative assessment type: Non-systematic | | | |
| subjects affected / exposed | 3 / 77 (3.90%) | 7 / 66 (10.61%) | |
| occurrences (all) | 3 | 8 | |
| General disorders and administration site conditions | | | |

| | | | |
|---|------------------|------------------|--|
| Fatigue | | | |
| subjects affected / exposed | 2 / 77 (2.60%) | 17 / 66 (25.76%) | |
| occurrences (all) | 2 | 17 | |
| Injection site erythema | | | |
| subjects affected / exposed | 16 / 77 (20.78%) | 26 / 66 (39.39%) | |
| occurrences (all) | 16 | 27 | |
| Injection site haemorrhage | | | |
| subjects affected / exposed | 7 / 77 (9.09%) | 4 / 66 (6.06%) | |
| occurrences (all) | 7 | 4 | |
| Injection site induration | | | |
| subjects affected / exposed | 10 / 77 (12.99%) | 25 / 66 (37.88%) | |
| occurrences (all) | 10 | 28 | |
| Injection site pain | | | |
| subjects affected / exposed | 7 / 77 (9.09%) | 17 / 66 (25.76%) | |
| occurrences (all) | 7 | 18 | |
| Injection site swelling | | | |
| subjects affected / exposed | 8 / 77 (10.39%) | 23 / 66 (34.85%) | |
| occurrences (all) | 8 | 25 | |
| Malaise | | | |
| subjects affected / exposed | 0 / 77 (0.00%) | 6 / 66 (9.09%) | |
| occurrences (all) | 0 | 7 | |
| Musculoskeletal and connective tissue disorders | | | |
| Arthralgia | | | |
| subjects affected / exposed | 3 / 77 (3.90%) | 6 / 66 (9.09%) | |
| occurrences (all) | 4 | 7 | |
| Myalgia | | | |
| subjects affected / exposed | 5 / 77 (6.49%) | 14 / 66 (21.21%) | |
| occurrences (all) | 8 | 15 | |

More information

Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? No

Interruptions (globally)

Were there any global interruptions to the trial? No

Limitations and caveats

None reported