



Clinical trial results:

Tolerability and Immunogenicity Study of FLUVAL AB Influenza Vaccine (trivalent, seasonal, active ingredient content: 15 gHA/strain/0.5 mL) for the Use in the Season 2013/2014 in Adults and Elderly Subjects

Summary

| | |
|--------------------------|-------------------|
| EudraCT number | 2013-002153-30 |
| Trial protocol | HU |
| Global end of trial date | 17 September 2013 |

Results information

| | |
|-----------------------------------|--|
| Result version number | v1 |
| This version publication date | 06 January 2017 |
| First version publication date | 06 January 2017 |
| Summary attachment (see zip file) | 2013-002153-30-FSR synopsis (FluvalAB-H-YL2013 FSR synopsis.pdf) |

Trial information

Trial identification

| | |
|-----------------------|-------------------|
| Sponsor protocol code | FluvalAB-H-YL2013 |
|-----------------------|-------------------|

Additional study identifiers

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

Notes:

Sponsors

| | |
|------------------------------|--|
| Sponsor organisation name | Omninvest Ltd. |
| Sponsor organisation address | Fő utca 7., Pilisborosjenő, Hungary, H-2097 |
| Public contact | Clinical expert, Fluart Innovative Vaccines Ltd., 36 204197063, jeno.makra@fluart.hu |
| Scientific contact | Study director, Omninvest Ltd., 36 204197136, brigitta.kozma@omninvest.hu |

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 | 30 September 2013 |
| Is this the analysis of the primary completion data? | Yes |
| Primary completion date | 17 September 2013 |
| Global end of trial reached? | Yes |
| Global end of trial date | 17 September 2013 |
| Was the trial ended prematurely? | No |

Notes:

General information about the trial

Main objective of the trial:

Aim of this study is to assess immunogenicity and safety of Fluval AB seasonal influenza vaccine with 3 x 15 µgHA active ingredient in two age groups (18-59 years and ≥60 years) in accordance with CPMP/BWP/214/96: "Note for Guidance on Harmonization of Requirements for Influenza Vaccines", 12 March 1997.

Protection of trial subjects:

Only subjects that met all the study inclusion and none of the exclusion criteria were randomized and vaccinated in the study. Vaccinations were performed by qualified and trained study personnel. Subjects with allergy to any of the vaccine components were not vaccinated. After vaccination, subjects were also kept under clinical observation for 30 minutes to ensure their safety. Appropriate medical equipment was also available on site in case of any immediate allergic reactions.

Background therapy:

-

Evidence for comparator:

-

| | |
|---|----------------|
| Actual start date of recruitment | 21 August 2013 |
| Long term follow-up planned | No |
| Independent data monitoring committee (IDMC) involvement? | Yes |

Notes:

Population of trial subjects

Subjects enrolled per country

| | |
|--------------------------------------|--------------|
| Country: Number of subjects enrolled | Hungary: 120 |
| Worldwide total number of subjects | 120 |
| EEA total number of subjects | 120 |

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) | 60 |
| From 65 to 84 years | 60 |
| 85 years and over | 0 |

Subject disposition

Recruitment

Recruitment details:

The study subjects were enrolled from 22/08/2013 to 17/09/2013 in 3 study center around Budapest, in Hungary.

Pre-assignment

Screening details:

A total of 120 healthy volunteers (males and females) were selected for inclusion in the study, and screened prior to vaccination. All 120 subjects entered the study and were vaccinated (ITT population). 119 subjects attended the control visit at Day 21-28. The data of 119 subjects were available and evaluated at Day 21-28 (PP population).

Period 1

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

Blinding implementation details:

This study was an Phase IV, open label, uncontrolled uncontrolled, multi-centre immunogenicity and tolerability study.

Arms

| | |
|-----------|--|
| Arm title | Treatment with Fluval AB trivalent influenza vaccine |
|-----------|--|

Arm description:

Subjects were enrolled in two groups according to age (18-59 years and ≥ 60 years) and assigned to the following vaccine group:

Adult subject aged 18-59 years:

An adult subject is belonging to age group 18-59 years, if he/she has already been turning 18 but has not yet been turning 60 on the day of vaccination. 15 μ gHA/strain/0.5mL of Fluval AB trivalent influenza vaccine was administered once (at Day 0) as a treatment for this age group.

Elderly subject aged ≥ 60 years:

An elderly subject is belonging to age group ≥ 60 years, if he/she was turning or has already been turning 60 on the day of vaccination. 15 μ gHA/strain/0.5mL of Fluval AB trivalent influenza vaccine was administered once (at Day 0) as a treatment for this age group.

| | |
|--|------------------------------------|
| Arm type | Intervention |
| Investigational medicinal product name | Fluval AB suspension for injection |
| Investigational medicinal product code | |
| Other name | |
| Pharmaceutical forms | Suspension for injection |
| Routes of administration | Intramuscular use |

Dosage and administration details:

Age group 18-59:

Treatment: 15 μ gHA/strain/0.5mL of Fluval AB trivalent influenza vaccine was administered once (at Day 0).

Age group ≥ 60 :

Treatment: 15 μ gHA/strain/dos of Fluval AB trivalent influenza vaccine was administered once (at Day 0).

| Number of subjects in period 1 | Treatment with Fluval AB trivalent influenza vaccine |
|--|--|
| Started | 120 |
| Completed | 119 |
| Not completed | 1 |
| One subject did not attend the visit 2. | 1 |

Baseline characteristics

Reporting groups

| Reporting group title | Overall trial |
|---|---------------|
| Reporting group description: | |
| Max. 120 healthy volunteers of full contractual capacity were planned to be enrolled in two age groups (18 to 59 years and ≥60 years) from both sexes to ensure a study population of at least 50-50 evaluable cases in each age group. | |
| Adults aged 18-59 years: Screened: 60 healthy volunteers of full contractual capacity from both sexes. PP population: 59 persons. | |
| Elderly aged ≥60 years: Screened: 60 healthy volunteers of full contractual capacity from both sexes. PP population: 60 persons. | |

| Reporting group values | Overall trial | Total | |
|---|---------------|-------|--|
| Number of subjects | 120 | 120 | |
| Age categorical | | | |
| Adult subject aged 18-59 years: An adult subject is belonging to age group 18-59 years, if he/she has already been turning 18 but has not yet been turning 60 on the day of vaccination. | | | |
| Elderly subject aged ≥60 years: An elderly subject is belonging to age group ≥60 years, if he/she was turning or has already been turning 60 on the day of vaccination. | | | |
| Units: Subjects | | | |
| In utero | 0 | 0 | |
| Preterm newborn infants (gestational age < 37 wks) | 0 | 0 | |
| Newborns (0-27 days) | 0 | 0 | |
| Infants and toddlers (28 days-23 months) | 0 | 0 | |
| Children (2-11 years) | 0 | 0 | |
| Adolescents (12-17 years) | 0 | 0 | |
| Adults (18-64 years) | 0 | 0 | |
| From 65-84 years | 0 | 0 | |
| 85 years and over | 0 | 0 | |
| Adults (aged 18-59 years) | 60 | 60 | |
| Elderly (aged over 60 years) | 60 | 60 | |
| Age continuous | | | |
| Descriptive statistics (mean, standard deviation, median, minimum and maximum) for age at enrolment are calculated overall and by age group. | | | |
| Units: years | | | |
| geometric mean | 58.1 | | |
| standard deviation | ± 14.5 | - | |
| Gender categorical | | | |
| Distributions of subjects by sex are summarized overall | | | |
| Units: Subjects | | | |
| Female | 69 | 69 | |
| Male | 51 | 51 | |

End points

End points reporting groups

| | |
|-----------------------|--|
| Reporting group title | Treatment with Fluval AB trivalent influenza vaccine |
|-----------------------|--|

Reporting group description:

Subjects were enrolled in two groups according to age (18-59 years and ≥ 60 years) and assigned to the following vaccine group:

Adult subject aged 18-59 years:

An adult subject is belonging to age group 18-59 years, if he/she has already been turning 18 but has not yet been turning 60 on the day of vaccination. 15 µgHA/strain/0.5mL of Fluval AB trivalent influenza vaccine was administered once (at Day 0) as a treatment for this age group.

Elderly subject aged ≥ 60 years:

An elderly subject is belonging to age group ≥ 60 years, if he/she was turning or has already been turning 60 on the day of vaccination. 15 µgHA/strain/0.5mL of Fluval AB trivalent influenza vaccine was administered once (at Day 0) as a treatment for this age group.

Primary: Geometric Mean Titers (GMTs) of influenza Antibodies Before and After Vaccination in subjects aged 18-59 years

| | |
|-----------------|---|
| End point title | Geometric Mean Titers (GMTs) of influenza Antibodies Before and After Vaccination in subjects aged 18-59 years ^[1] |
|-----------------|---|

End point description:

Anti-hemagglutinin antibody titers were measured for each strain with the seroneutralization method. The GMTs were determined by HI titer.

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

End point timeframe:

Day 0 (pre-vaccination) and Day 21-28 (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: Descriptive analysis was performed based on the study group and the study vaccine administered for this outcome.

| End point values | Treatment with Fluval AB trivalent influenza vaccine | | | |
|----------------------------------|--|--|--|--|
| Subject group type | Reporting group | | | |
| Number of subjects analysed | 59 ^[2] | | | |
| Units: Titers (1/dil) | | | | |
| number (confidence interval 95%) | | | | |
| A/H1N1; Day 0 | 49.1 (37.4 to 64.6) | | | |
| A/H1N1; Day 21 | 154 (119 to 198) | | | |
| A/H3N2; Day 0 | 92.7 (69.7 to 123) | | | |
| A/H3N2; Day 21 | 331 (264 to 416) | | | |
| B/; Day 0 | 17.7 (13.6 to 23) | | | |
| B/; Day 21 | 63.2 (50.9 to 78.5) | | | |

Notes:

[2] - PP population in this age group were 59 persons.

Statistical analyses

No statistical analyses for this end point

Primary: Geometric Mean Titers (GMTs) of influenza Antibodies Before and After Vaccination in subjects aged over 60 years

| | |
|-----------------|---|
| End point title | Geometric Mean Titers (GMTs) of influenza Antibodies Before and After Vaccination in subjects aged over 60 years ^[3] |
|-----------------|---|

End point description:

Anti-hemagglutinin antibody titers were measured for each strain with the seroneutralization method. The GMTs were determined by HI titer.

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

End point timeframe:

Day 0 (pre-vaccination) and Day 21-28 (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: Descriptive analysis was performed based on the study group and the study vaccine administered for this outcome.

| End point values | Treatment with Fluval AB trivalent influenza vaccine | | | |
|----------------------------------|--|--|--|--|
| Subject group type | Reporting group | | | |
| Number of subjects analysed | 60 ^[4] | | | |
| Units: Titers (1/dil) | | | | |
| number (confidence interval 95%) | | | | |
| A/H1N1; Day 0 | 34.4 (27.9 to 42.4) | | | |
| A/H1N1; Day 21 | 109 (88.4 to 135) | | | |
| A/H3N2; Day 0 | 80 (62.5 to 102) | | | |
| A/H3N2; Day 21 | 309 (248 to 386) | | | |
| B/; Day 0 | 11.1 (8.75 to 14.1) | | | |
| B/; Day 21 | 47.6 (36.9 to 61.4) | | | |

Notes:

[4] - PP population in this age group were 60 persons.

Statistical analyses

No statistical analyses for this end point

Primary: Percentage of Subjects Aged 18-59 years With Seroconversion Against

Influenza Antigens After the Vaccination

| | |
|-----------------|---|
| End point title | Percentage of Subjects Aged 18-59 years With Seroconversion Against Influenza Antigens After the Vaccination ^[5] |
|-----------------|---|

End point description:

Anti-hemagglutinin antibody titers were measured for each strain with the seroneutralization method. Seroconversion was defined as the proportion of subjects with a pre-vaccination titer < 10 (1/dil) to a post-vaccination titer ≥ 40 (1/dil). Significant increase was defined as proportion of subjects with a pre-vaccination titer ≥ 10 (1/dil) and ≥ 4-fold increase of the titer.

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

End point timeframe:

Day 21-28 post-vaccination/Day 0 (pre-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: Descriptive analysis was performed based on the study group and the study vaccine administered for this outcome.

| | | | | |
|----------------------------------|--|--|--|--|
| End point values | Treatment with Fluval AB trivalent influenza vaccine | | | |
| Subject group type | Reporting group | | | |
| Number of subjects analysed | 59 ^[6] | | | |
| Units: Subject percentage | | | | |
| number (confidence interval 95%) | | | | |
| A/H1N1; Day 21 | 59.3 (45.7 to 71.9) | | | |
| A/H3N2; Day21 | 69.5 (56.1 to 80.8) | | | |
| B/; Day 21 | 54.2 (40.8 to 67.3) | | | |

Notes:

[6] - PP population in this age group were 59 persons.

Statistical analyses

No statistical analyses for this end point

Primary: Percentage of Subjects Aged ove 60 years With Seroconversion Against Influenza Antigens After the Vaccination

| | |
|-----------------|--|
| End point title | Percentage of Subjects Aged ove 60 years With Seroconversion Against Influenza Antigens After the Vaccination ^[7] |
|-----------------|--|

End point description:

Anti-hemagglutinin antibody titers were measured for each strain with the seroneutralization method. Seroconversion was defined as the proportion of subjects with a pre-vaccination titer < 10 (1/dil) to a post-vaccination titer ≥ 40 (1/dil). Significant increase was defined as proportion of subjects with a pre-vaccination titer ≥ 10 (1/dil) and ≥ 4-fold increase of the titer.

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

End point timeframe:

Day 21-28 post-vaccination/Day 0 (pre-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: Descriptive analysis was performed based on the study group and the study vaccine administered for this outcome.

| | | | | |
|----------------------------------|--|--|--|--|
| End point values | Treatment with Fluval AB trivalent influenza vaccine | | | |
| Subject group type | Reporting group | | | |
| Number of subjects analysed | 60 ^[8] | | | |
| Units: Subject percentage | | | | |
| number (confidence interval 95%) | | | | |
| A/H1N1; Day 21 | 66.7 (53.3 to 78.3) | | | |
| A/H3N2; Day 21 | 70 (56.8 to 81.2) | | | |
| B/; Day 21 | 65 (51.6 to 76.9) | | | |

Notes:

[8] - PP population in this age group were 60 persons.

Statistical analyses

No statistical analyses for this end point

Primary: Geometric Mean Titer Ratios (GMTRs) of influenza Antibodies After Vaccination in subjects aged 18-59 years

| | |
|-----------------|---|
| End point title | Geometric Mean Titer Ratios (GMTRs) of influenza Antibodies After Vaccination in subjects aged 18-59 years ^[9] |
|-----------------|---|

End point description:

Anti-hemagglutinin antibody titers were measured for each strain with the seroneutralization method. The GMTs were determined by HI titer.

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

End point timeframe:

Day 21 post-vaccination/Day 0 (pre-vaccination)

Notes:

[9] - 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: Descriptive analysis was performed based on the study group and the study vaccine administered for this outcome.

| | | | | |
|--|--|--|--|--|
| End point values | Treatment with Fluval AB trivalent influenza vaccine | | | |
| Subject group type | Reporting group | | | |
| Number of subjects analysed | 59 ^[10] | | | |
| Units: Titer ratios (1/dil) | | | | |
| geometric mean (confidence interval 95%) | | | | |
| A/H1N1 | 3.13 (2.63 to 3.72) | | | |
| A/H3N2 | 3.58 (2.92 to 4.38) | | | |
| B/ | 3.58 (2.96 to 4.32) | | | |

Notes:

[10] - PP population in this age group were 59 persons.

Statistical analyses

No statistical analyses for this end point

Primary: Geometric Mean Titer Ratios (GMTRs) of influenza Antibodies After Vaccination in subjects aged over 60 years

| | |
|-----------------|--|
| End point title | Geometric Mean Titer Ratios (GMTRs) of influenza Antibodies After Vaccination in subjects aged over 60 years ^[11] |
|-----------------|--|

End point description:

Anti-hemagglutinin antibody titers were measured for each strain with the seroneutralization method. The GMTs were determined by HI titer.

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

End point timeframe:

Day 21 post-vaccination/Day 0 (pre-vaccination)

Notes:

[11] - 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: Descriptive analysis was performed based on the study group and the study vaccine administered for this outcome.

| End point values | Treatment with Fluval AB trivalent influenza vaccine | | | |
|--|--|--|--|--|
| Subject group type | Reporting group | | | |
| Number of subjects analysed | 60 ^[12] | | | |
| Units: Titer ratios (1/dil) | | | | |
| geometric mean (confidence interval 95%) | | | | |
| A/H1N1 | 3.17 (2.65 to 3.8) | | | |
| A/H3N2 | 3.86 (3.19 to 4.68) | | | |
| B/ | 4.29 (3.45 to 5.33) | | | |

Notes:

[12] - PP population in this age group were 60 persons.

Statistical analyses

No statistical analyses for this end point

Primary: Percentage of Subjects Aged 18 to 59 Years With Seroprotection Against Influenza Antigens Before and After Vaccination

| | |
|-----------------|--|
| End point title | Percentage of Subjects Aged 18 to 59 Years With Seroprotection Against Influenza Antigens Before and After Vaccination ^[13] |
|-----------------|--|

End point description:

Anti-hemagglutinin antibody titers were measured for each strain with the seroneutralization method. Seroprotection was defined as antibody titers ≥ 40 (1/dil).

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

End point timeframe:

Day 0 (pre-vaccination to Day 21-28 (post-vaccination))

Notes:

[13] - 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: Descriptive analysis was performed based on the study group and the study vaccine administered for this outcome.

| End point values | Treatment with Fluval AB trivalent influenza vaccine | | | |
|----------------------------------|--|--|--|--|
| Subject group type | Reporting group | | | |
| Number of subjects analysed | 59 ^[14] | | | |
| Units: Subject percentage | | | | |
| number (confidence interval 95%) | | | | |
| A/H1N1; Day 0 | 69.5 (56.1 to 80.8) | | | |
| A/H1N1; Day 21 | 94.9 (85.9 to 98.9) | | | |
| A/H3N2; Day 0 | 88.1 (77.1 to 95.1) | | | |
| A/H3N2; Day 21 | 100 (93.9 to 100) | | | |
| B/; Day 0 | 30.5 (19.2 to 43.9) | | | |
| B/; Day 21 | 79.7 (67.2 to 89) | | | |

Notes:

[14] - PP population in this age group were 59 persons.

Statistical analyses

No statistical analyses for this end point

Primary: Percentage of Subjects Aged over 60 Years With Seroprotection Against Influenza Antigens Before and After Vaccination

| | |
|-----------------|---|
| End point title | Percentage of Subjects Aged over 60 Years With Seroprotection Against Influenza Antigens Before and After Vaccination ^[15] |
|-----------------|---|

End point description:

Anti-hemagglutinin antibody titers were measured for each strain with the seroneutralization method. Seroprotection was defined as antibody titers ≥ 40 (1/dil).

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

End point timeframe:

Day 0 (pre-vaccination) and Day 21-28 post-vaccination

Notes:

[15] - 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: Descriptive analysis was performed based on the study group and the study vaccine administered for this outcome.

| End point values | Treatment with Fluval AB trivalent influenza vaccine | | | |
|-------------------------------|--|--|--|--|
| Subject group type | Reporting group | | | |
| Number of subjects analysed | 60 ^[16] | | | |
| Units: Percentage of subjects | | | | |

| number (confidence interval 95%) | | | | |
|----------------------------------|---------------------|--|--|--|
| A/H1N1; Day 0 | 51.7 (38.4 to 64.8) | | | |
| A/H1N1; Day 21 | 96.7 (88.5 to 99.6) | | | |
| A/H3N2; Day 0 | 88.3 (77.4 to 95.2) | | | |
| A/H3N2; Day 21 | 100 (94 to 100) | | | |
| B/; Day 0 | 18.3 (9.52 to 30.4) | | | |
| B/; Day 21 | 78.3 (65.8 to 87.9) | | | |

Notes:

[16] - PP population in this age group were 60 persons.

Statistical analyses

No statistical analyses for this end point

Primary: Proportion of subjects seroconverted or had a significant increase in titres in subjects aged 18-59 years

| | |
|-----------------|---|
| End point title | Proportion of subjects seroconverted or had a significant increase in titres in subjects aged 18-59 years ^[17] |
|-----------------|---|

End point description:

Criteria: number of seroconversions or significant increase in antihaemagglutinin antibody titre >40%

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

End point timeframe:

From Day 0 (pre-vaccination) to Day 21-28 (post-vaccination).

Notes:

[17] - 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: Descriptive analysis was performed based on the study group and the study vaccine administered for this outcome.

| End point values | Treatment with Fluval AB trivalent influenza vaccine | | | |
|-------------------------------|--|--|--|--|
| Subject group type | Reporting group | | | |
| Number of subjects analysed | 119 | | | |
| Units: Percentage of subjects | | | | |
| A/H1N1 | 59 | | | |
| A/H3N2 | 69 | | | |
| B/ | 54 | | | |

Statistical analyses

No statistical analyses for this end point

Primary: Increase in GMT in subjects aged 18-59 years

| | |
|-----------------|--|
| End point title | Increase in GMT in subjects aged 18-59 years ^[18] |
|-----------------|--|

End point description:

Criteria: mean geometric increase of antihaemagglutinin antibody titres: >2.5.

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

End point timeframe:

From Day 0 (pre-vaccination) to Day 21-28 (postvaccination).

Notes:

[18] - 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: Descriptive analysis was performed based on the study group and the study vaccine administered for this outcome.

| End point values | Treatment with Fluval AB trivalent influenza vaccine | | | |
|-----------------------------|--|--|--|--|
| Subject group type | Reporting group | | | |
| Number of subjects analysed | 59 ^[19] | | | |
| Units: unit(s) | | | | |
| number (not applicable) | | | | |
| A/H1N1 | 3.1 | | | |
| A/H3N2 | 3.6 | | | |
| B/ | 3.6 | | | |

Notes:

[19] - PP population in this age group were 59 persons.

Statistical analyses

No statistical analyses for this end point

Primary: Proportion of subjects seroprotected in subjects aged 18-59 years

| | |
|-----------------|---|
| End point title | Proportion of subjects seroprotected in subjects aged 18-59 years ^[20] |
|-----------------|---|

End point description:

Criteria: The proportion of subjects achieving an antihaemagglutinin antibody titre ≥ 40 should be >70%.

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

End point timeframe:

From Day 0 (pre-vaccination) to Day 21-28 (postvaccination)

Notes:

[20] - 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: Descriptive analysis was performed based on the study group and the study vaccine administered for this outcome.

| End point values | Treatment with Fluval AB trivalent influenza vaccine | | | |
|-------------------------------|--|--|--|--|
| Subject group type | Reporting group | | | |
| Number of subjects analysed | 59 ^[21] | | | |
| Units: Percentage of subjects | | | | |
| A/H1N1 | 95 | | | |
| A/H3N2 | 100 | | | |
| B/ | 80 | | | |

Notes:

[21] - PP population in this age group were 59 persons.

Statistical analyses

No statistical analyses for this end point

Primary: Proportion of subjects seroconverted or had a significant increase in titres in subjects aged over 60 years

| | |
|-----------------|---|
| End point title | Proportion of subjects seroconverted or had a significant increase in titres in subjects aged over 60 years ^[22] |
|-----------------|---|

End point description:

Criteria: Number of seroconversions or significant increase in antihaemagglutinin antibody titre > 30 %

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

End point timeframe:

From Day 0 (pre-vaccination) to Day21-28 (postvaccination).

Notes:

[22] - 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: Descriptive analysis was performed based on the study group and the study vaccine administered for this outcome.

| | | | | |
|-------------------------------|--|--|--|--|
| End point values | Treatment with Fluval AB trivalent influenza vaccine | | | |
| Subject group type | Reporting group | | | |
| Number of subjects analysed | 60 ^[23] | | | |
| Units: Percentage of subjects | | | | |
| A/H1N1 | 67 | | | |
| A/H3N2 | 70 | | | |
| B/ | 65 | | | |

Notes:

[23] - PP population in this age group were 60 persons.

Statistical analyses

No statistical analyses for this end point

Primary: Increase in GMT in subjects aged over 60 years

| | |
|-----------------|--|
| End point title | Increase in GMT in subjects aged over 60 years ^[24] |
|-----------------|--|

End point description:

Criteria: Mean geometric increase of antihaemagglutinin antibody titres: > 2.0

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

End point timeframe:

From Day 0 (pre-vaccination) to Day 21-28 (post vaccination).

Notes:

[24] - 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: Descriptive analysis was performed based on the study group and the study vaccine administered for this outcome.

| End point values | Treatment with Fluval AB trivalent influenza vaccine | | | |
|-----------------------------|--|--|--|--|
| Subject group type | Reporting group | | | |
| Number of subjects analysed | 60 ^[25] | | | |
| Units: unit(s) | | | | |
| number (not applicable) | | | | |
| A/H1N1 | 3.2 | | | |
| A/H3N2 | 3.9 | | | |
| B/ | 4.3 | | | |

Notes:

[25] - PP population in this age group were 60 persons.

Statistical analyses

No statistical analyses for this end point

Primary: Proportion of subjects seroprotected in subjects aged over 60 years

| | |
|-----------------|---|
| End point title | Proportion of subjects seroprotected in subjects aged over 60 years ^[26] |
|-----------------|---|

End point description:

Criteria: The proportion of subjects achieving an antihaemagglutinin antibody titre ≥ 40 should be $> 60\%$.

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

End point timeframe:

From Day 0 (pre-vaccination) to Day 21-28 (post vaccination).

Notes:

[26] - 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: Descriptive analysis was performed based on the study group and the study vaccine administered for this outcome.

| End point values | Treatment with Fluval AB trivalent influenza vaccine | | | |
|-------------------------------|--|--|--|--|
| Subject group type | Reporting group | | | |
| Number of subjects analysed | 60 ^[27] | | | |
| Units: Percentage of subjects | | | | |
| A/H1N1 | 97 | | | |
| A/H3N2 | 100 | | | |
| B/ | 78 | | | |

Notes:

[27] - PP population in this age group were 60 persons.

Statistical analyses

Adverse events

Adverse events information

Timeframe for reporting adverse events:

From Day 0 (pre-vaccination) to Day 21-28 (post vaccination).

| | |
|-----------------|----------------|
| Assessment type | Non-systematic |
|-----------------|----------------|

Dictionary used

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

| | |
|--------------------|----|
| Dictionary version | 14 |
|--------------------|----|

Reporting groups

| | |
|-----------------------|-----------------|
| Reporting group title | Treatment group |
|-----------------------|-----------------|

Reporting group description: -

| Serious adverse events | Treatment group | | |
|---|-----------------|--|--|
| Total subjects affected by serious adverse events | | | |
| subjects affected / exposed | 0 / 120 (0.00%) | | |
| number of deaths (all causes) | 0 | | |
| number of deaths resulting from adverse events | 0 | | |

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

| Non-serious adverse events | Treatment group | | |
|---|---|--|--|
| Total subjects affected by non-serious adverse events | | | |
| subjects affected / exposed | 33 / 120 (27.50%) | | |
| Nervous system disorders | | | |
| Headache | Additional description: 4 of them were not related to the study vaccine according to the investigators. | | |
| subjects affected / exposed | 8 / 120 (6.67%) | | |
| occurrences (all) | 8 | | |
| General disorders and administration site conditions | | | |
| Vaccination site pain | | | |
| subjects affected / exposed | 23 / 120 (19.17%) | | |
| occurrences (all) | 23 | | |
| Vaccination site erythema | | | |
| subjects affected / exposed | 16 / 120 (13.33%) | | |
| occurrences (all) | 16 | | |
| Vaccination site induration | | | |

| | | | |
|---|---|--|--|
| subjects affected / exposed | 12 / 120 (10.00%) | | |
| occurrences (all) | 12 | | |
| Vaccination site swelling | | | |
| subjects affected / exposed | 14 / 120 (11.67%) | | |
| occurrences (all) | 14 | | |
| Vaccination site haematoma | | | |
| subjects affected / exposed | 2 / 120 (1.67%) | | |
| occurrences (all) | 2 | | |
| Hyperhydrosis | | | |
| subjects affected / exposed | 1 / 120 (0.83%) | | |
| occurrences (all) | 1 | | |
| Malaise | Additional description: 2 of them were not related to the study vaccine according to the investigators. | | |
| subjects affected / exposed | 4 / 120 (3.33%) | | |
| occurrences (all) | 4 | | |
| Pyrexia | | | |
| subjects affected / exposed | 2 / 120 (1.67%) | | |
| occurrences (all) | 2 | | |
| Musculoskeletal and connective tissue disorders | | | |
| Myalgia | Additional description: 1 of them was not related to the study vaccine according to the investigators. | | |
| subjects affected / exposed | 4 / 120 (3.33%) | | |
| occurrences (all) | 4 | | |
| Arthralgia | | | |
| subjects affected / exposed | 1 / 120 (0.83%) | | |
| occurrences (all) | 1 | | |

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