# Clinical trial results:
# Clinical Safety Study of the Tdap Combined Vaccine (ADACEL) as a Booster Dose in Healthy Adults and Children in China

## Summary

| | |
|---|---|
| EudraCT number | 2015-003914-25 |
| Trial protocol | Outside EU/EEA |
| Global end of trial date | 08 October 2013 |

**Results information**

| | |
|---|---|
| Result version number | v1 (current) |
| This version publication date | 20 February 2016 |
| First version publication date | 20 February 2016 |

## Trial information

**Trial identification**

| | |
|---|---|
| Sponsor protocol code | Td527 |

**Additional study identifiers**

| | |
|---|---|
| ISRCTN number | - |
| ClinicalTrials.gov id (NCT number) | NCT01933776 |
| WHO universal trial number (UTN) | U1111-1127-7738 |

Notes:

**Sponsors**

| | |
|---|---|
| Sponsor organisation name | Sanofi Pasteur China |
| Sponsor organisation address | 6th floor, No. 112 Jian Guo Lu, Chaoyang District, Beijing, China, 100022 |
| Public contact | Director, Medical Affairs, Sanofi Pasteur China, 86 10-6568 5588 ex 7312, Jean-Denis.SHU@sanofipasteur.com |
| Scientific contact | Director, Medical Affairs, Sanofi Pasteur China, 86 10-6568 5588 ex 7312, Jean-Denis.SHU@sanofipasteur.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? | Yes |

Notes:

## Results analysis stage

| | |
|---|---|
| Analysis stage | Final |
| Date of interim/final analysis | 20 November 2013 |
| Is this the analysis of the primary completion data? | No |

| | |
|---|---|
| Global end of trial reached? | Yes |
| Global end of trial date | 08 October 2013 |
| Was the trial ended prematurely? | No |

Notes:

## General information about the trial

Main objective of the trial:

To describe the safety in terms of occurrence of serious adverse reactions and Grade 3 adverse reactions after administration of Sanofi Pasteur’s Tdap vaccine (ADACEL) given as a single dose in 20 adults and 20 children.

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:

Not applicable

Evidence for comparator:

Not applicable

| | |
|---|---|
| Actual start date of recruitment | 27 August 2013 |
| Long term follow-up planned | No |
| Independent data monitoring committee (IDMC) involvement? | No |

Notes:

## Population of trial subjects

### Subjects enrolled per country

| | |
|---|---|
| Country: Number of subjects enrolled | China: 40 |
| Worldwide total number of subjects | 40 |
| EEA total number of subjects | 0 |

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) | 20 |
| Adolescents (12-17 years) | 0 |
| Adults (18-64 years) | 20 |

| | |
|---|---|
| From 65 to 84 years | 0 |
| 85 years and over | 0 |

## Subject disposition

### Recruitment

Recruitment details:

The study subjects were enrolled from 27 August 2013 through 08 October 2013 at 1 clinic center in China.

### Pre-assignment

Screening details:

A total of 40 subjects who met all the inclusion and none of the exclusion criteria were enrolled and vaccinated in this study.

### Period 1

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

Blinding implementation details:

Not applicable

### Arms

| | |
|---|---|
| Are arms mutually exclusive? | Yes |
| **Arm title** | ADACEL™ Vaccine Group 1 (Adults) |

Arm description:

Adults 18 through 64 years of age received a single booster dose of Tdap vaccine (ADACEL™).

| | |
|---|---|
| Arm type | Experimental |
| Investigational medicinal product name | Tetanus Toxoid, Reduced Diphtheria Toxoid and Acellular Pertussis Vaccine Adsorbed -Tdap (Adacel™) |
| Investigational medicinal product code | |
| Other name | |
| Pharmaceutical forms | Suspension for injection |
| Routes of administration | Intramuscular use |

Dosage and administration details:

0.5, intramuscular in the right deltoid, 1 injection of ADACEL on Day 0 (Visit 1).

| | |
|---|---|
| **Arm title** | ADACEL™ Vaccine Group 2 (Children) |

Arm description:

Children 4 to 8 years of age received a single booster dose of Tdap vaccine (ADACEL™).

| | |
|---|---|
| Arm type | Active comparator |
| Investigational medicinal product name | Tetanus Toxoid, Reduced Diphtheria Toxoid and Acellular Pertussis Vaccine Adsorbed -Tdap (Adacel™) |
| Investigational medicinal product code | |
| Other name | |
| Pharmaceutical forms | Suspension for injection |
| Routes of administration | Intramuscular use |

Dosage and administration details:

0.5, intramuscular in the right deltoid, 1 injection of ADACEL on Day 0 (Visit 1).

| **Number of subjects in period 1** | ADACEL™ Vaccine Group 1 (Adults) | ADACEL™ Vaccine Group 2 (Children) |
|---|---|---|
| Started | 20 | 20 |
| Completed | 20 | 20 |

## Baseline characteristics

| Reporting groups | |
|---|---|
| Reporting group title | ADACEL™ Vaccine Group 1 (Adults) |
| Reporting group description: | |
| Adults 18 through 64 years of age received a single booster dose of Tdap vaccine (ADACEL™). | |
| Reporting group title | ADACEL™ Vaccine Group 2 (Children) |
| Reporting group description: | |
| Children 4 to 8 years of age received a single booster dose of Tdap vaccine (ADACEL™). | |

| Reporting group values | ADACEL™ Vaccine Group 1 (Adults) | ADACEL™ Vaccine Group 2 (Children) | Total |
|---|---|---|---|
| Number of subjects | 20 | 20 | 40 |
| Age categorical<br>Units: Subjects | | | |
| In utero | 0 | 0 | 0 |
| Preterm newborn infants (gestational age < 37 wks) | 0 | 0 | 0 |
| Newborns (0-27 days) | 0 | 0 | 0 |
| Infants and toddlers (28 days-23 months) | 0 | 0 | 0 |
| Children (2-11 years) | 0 | 20 | 20 |
| Adolescents (12-17 years) | 0 | 0 | 0 |
| Adults (18-64 years) | 20 | 0 | 20 |
| From 65-84 years | 0 | 0 | 0 |
| 85 years and over | 0 | 0 | 0 |
| Age continuous<br>Units: years | | | |
| arithmetic mean | 44.2 | 5.8 | |
| standard deviation | ± 14.4 | ± 1.1 | - |
| Gender categorical<br>Units: Subjects | | | |
| Female | 10 | 14 | 24 |
| Male | 10 | 6 | 16 |

## End points

### End points reporting groups

| | |
|---|---|
| Reporting group title | ADACEL™ Vaccine Group 1 (Adults) |
| Reporting group description: | |
| Adults 18 through 64 years of age received a single booster dose of Tdap vaccine (ADACEL™). | |
| Reporting group title | ADACEL™ Vaccine Group 2 (Children) |
| Reporting group description: | |
| Children 4 to 8 years of age received a single booster dose of Tdap vaccine (ADACEL™). | |

### Primary: Number of Subjects Reporting Serious Adverse Events and Grade 3 Adverse Reactions Following a Single Booster Dose of ADACEL™ Vaccine

| | |
|---|---|
| End point title | Number of Subjects Reporting Serious Adverse Events and Grade 3 Adverse Reactions Following a Single Booster Dose of ADACEL™ Vaccine[1] |

End point description:

Solicited injection site reactions: Pain, Erythema, and Swelling; Solicited systemic reactions: Fever (Temperature), Headache, Malaise, and Myalgia.

China Food and Drug Administration (CFDA)-defined Grade 3 solicited reactions: Pain, Incapacitating, unable to perform usual activities (Children, Group 2) and significant, prevents daily activity (Adults, Group 1); All Participants, Erythema and Swelling, > 30 mm; Fever (Temperature) > 39°C; Headache, Malaise, and Myalgia, Significant, prevents daily activity.

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

End point timeframe:

Day 0 up to Day 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 analyses were performed based on the study groups and the study vaccine administered for this outcome.

| End point values | ADACEL™ Vaccine Group 1 (Adults) | ADACEL™ Vaccine Group 2 (Children) | | |
|---|---|---|---|---|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 20 | 20 | | |
| Units: Number of subjects | | | | |
| number (not applicable) | | | | |
| Grade 3 Injection site Pain | 0 | 0 | | |
| Grade 3 Injection site Erythema | 0 | 3 | | |
| Grade 3 Injection site Swelling | 0 | 3 | | |
| Grade 3 Fever | 0 | 0 | | |
| Grade 3 Headache | 0 | 0 | | |
| Grade 3 Malaise | 0 | 0 | | |
| Grade 3 Myalgia | 0 | 0 | | |
| Serious adverse events | 0 | 0 | | |

## Statistical analyses

No statistical analyses for this end point

## Secondary: Number of Subjects Reporting a Solicited Injection Site or Systemic Reactions Following A Single Booster Dose of Adacel™ Vaccine

| End point title | Number of Subjects Reporting a Solicited Injection Site or Systemic Reactions Following A Single Booster Dose of Adacel™ Vaccine |
|---|---|

End point description:

Solicited injection site reactions: Pain, Erythema, and Swelling; Solicited systemic reactions: Fever (Temperature), Headache, Malaise, and Myalgia.

China Food and Drug Administration (CFDA)-defined Grade 3 solicited reactions: Pain, Incapacitating, unable to perform usual activities (Children, Group 2) and significant, prevents daily activity (Adults, Group 1); All Participants, Erythema and Swelling, > 30 mm; Fever (Temperature) > 39°C; Headache, Malaise, and Myalgia, Significant, prevents daily activity.

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

End point timeframe:

Day 0 up to Day 7 post-vaccination

| End point values | ADACEL™ Vaccine Group 1 (Adults) | ADACEL™ Vaccine Group 2 (Children) | | |
|---|---|---|---|---|
| Subject group type | Reporting group | Reporting group | | |
| Number of subjects analysed | 20 | 20 | | |
| Units: Number of subjects | | | | |
| number (not applicable) | | | | |
| Injection site Pain | 6 | 9 | | |
| Grade 3 Injection site Pain | 0 | 0 | | |
| Injection site Erythema | 1 | 9 | | |
| Grade 3 Injection site Erythema | 0 | 3 | | |
| Injection site Swelling | 3 | 9 | | |
| Grade 3 Injection site Swelling | 0 | 3 | | |
| Fever | 0 | 3 | | |
| Grade 3 Fever | 0 | 0 | | |
| Headache | 1 | 1 | | |
| Grade 3 Headache | 0 | 0 | | |
| Malaise | 0 | 0 | | |
| Grade 3 Malaise | 0 | 0 | | |
| Myalgia | 1 | 1 | | |
| Grade 3 Myalgia | 0 | 0 | | |

### Statistical analyses

No statistical analyses for this end point

## Adverse events

| Adverse events information | |
|---|---|
| Timeframe for reporting adverse events: | |
| Adverse event data were collected from Day 0 (post-vaccination) up to Day 28 post-vaccination. | |
| Assessment type | Non-systematic |

| Dictionary used | |
|---|---|
| Dictionary name | MedDRA |
| Dictionary version | 16 |

| Reporting groups | |
|---|---|
| Reporting group title | ADACEL™ Vaccine Group 1 (Adults) |
| Reporting group description: | |
| Adults 18 through 64 years of age received a single booster dose of Tdap vaccine (ADACEL™). | |
| Reporting group title | ADACEL™ Vaccine Group 2 (Children) |
| Reporting group description: | |
| Children 4 to 8 years of age received a single booster dose of Tdap vaccine (ADACEL™). | |

| Serious adverse events | ADACEL™ Vaccine Group 1 (Adults) | ADACEL™ Vaccine Group 2 (Children) | |
|---|---|---|---|
| Total subjects affected by serious adverse events | | | |
| subjects affected / exposed | 0 / 20 (0.00%) | 0 / 20 (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 | ADACEL™ Vaccine Group 1 (Adults) | ADACEL™ Vaccine Group 2 (Children) | |
|---|---|---|---|
| Total subjects affected by non-serious adverse events | | | |
| subjects affected / exposed | 6 / 20 (30.00%) | 9 / 20 (45.00%) | |
| Nervous system disorders | | | |
| Headache | | | |
| alternative assessment type: Systematic | | | |
| subjects affected / exposed | 1 / 20 (5.00%) | 1 / 20 (5.00%) | |
| occurrences (all) | 1 | 1 | |
| General disorders and administration site conditions | | | |
| Fever | | | |
| alternative assessment type: Systematic | | | |

| | | | |
|---|---|---|---|
| subjects affected / exposed | 0 / 20 (0.00%) | 3 / 20 (15.00%) | |
| occurrences (all) | 0 | 3 | |
| Injection site Erythema | | | |
| alternative assessment type: Systematic | | | |
| subjects affected / exposed | 1 / 20 (5.00%) | 9 / 20 (45.00%) | |
| occurrences (all) | 1 | 9 | |
| Injection site Pain | | | |
| alternative assessment type: Systematic | | | |
| subjects affected / exposed | 6 / 20 (30.00%) | 9 / 20 (45.00%) | |
| occurrences (all) | 6 | 9 | |
| Injection site Swelling | | | |
| alternative assessment type: Systematic | | | |
| subjects affected / exposed | 3 / 20 (15.00%) | 9 / 20 (45.00%) | |
| occurrences (all) | 3 | 9 | |
| Musculoskeletal and connective tissue disorders | | | |
| Myalgia | | | |
| alternative assessment type: Systematic | | | |
| subjects affected / exposed | 1 / 20 (5.00%) | 1 / 20 (5.00%) | |
| occurrences (all) | 1 | 1 | |
| Infections and infestations | | | |
| Upper respiratory tract infection | | | |
| subjects affected / exposed | 0 / 20 (0.00%) | 1 / 20 (5.00%) | |
| occurrences (all) | 0 | 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