



## Clinical trial results:

### A Phase 2, Randomized, Double-Blind, Placebo Controlled, Study to Evaluate Multiple Doses of AK001 in Patients With Moderate to Severe Nasal Polyposis

#### Summary

|                          |                 |
|--------------------------|-----------------|
| EudraCT number           | 2016-000460-42  |
| Trial protocol           | BE GB ES NL DE  |
| Global end of trial date | 05 January 2018 |

#### Results information

|                                |                 |
|--------------------------------|-----------------|
| Result version number          | v1 (current)    |
| This version publication date  | 20 January 2019 |
| First version publication date | 20 January 2019 |

#### Trial information

##### Trial identification

|                       |           |
|-----------------------|-----------|
| Sponsor protocol code | AK001-002 |
|-----------------------|-----------|

##### Additional study identifiers

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

Notes:

##### Sponsors

|                              |   |
|------------------------------|---|
| Sponsor organisation name    | Allakos, Inc.   |
| Sponsor organisation address | 975 Island Drive, Suite 201, Redwood City, United States, CA 94065  |
| Public contact               | Clinical Trials Information, Allakos, Inc., +1 6505975002, <a href="mailto:rwinger@allakos.com">rwinger@allakos.com</a> |
| Scientific contact           | Clinical Trials Information, Allakos, Inc., +1 6505975002, <a href="mailto:rwinger@allakos.com">rwinger@allakos.com</a> |

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                       | 05 January 2018 |
| Is this the analysis of the primary completion data? | Yes             |
| Primary completion date                              | 13 October 2017 |
| Global end of trial reached?                         | Yes             |
| Global end of trial date                             | 05 January 2018 |
| Was the trial ended prematurely?                     | Yes             |

Notes:

## General information about the trial

Main objective of the trial:

The primary objective was to evaluate the effect of each of 2 doses of AK001 separately in combination with an intranasal steroid (INS) versus the INS alone on the reduction in size of nasal polyps as evaluated by the change from Baseline to Week 12 after the start of treatment in Total Polyp Score (TPS)

Protection of trial subjects:

A data monitoring committee was available to monitor the safety of patients over the course of the study. The intravenous (IV) infusion could be interrupted for 5 to 30 minutes and the rate could be reduced and gradually increased in 15-minute intervals if a patient experienced infusion-related reactions. Medication to treat mild or moderate infusion-reactions were ready to be used. Signs or symptoms of anaphylaxis were carefully monitored and treated according to standard of care. Emergency crash cart equipment was available at all times during the conduct of the study.

Background therapy:

Eligible patients entered a 4-week Run-In Period to achieve a stable regimen with a common intranasal topical steroid (NASONEX [mometasone furoate monohydrate]) and discontinued any other intranasal topical steroids. Patients were instructed to self-administer 2 nasal inhalations in each nostril twice a day. Patients still eligible after the run-in period were randomized and continued treatment with NASONEX as background therapy throughout the study.

Evidence for comparator: -

|   |               |
|---|---------------|
| Actual start date of recruitment                          | 04 April 2016 |
| 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 | United States: 15  |
| Country: Number of subjects enrolled | European Union: 25 |
| 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)                    | 0  |
| Adolescents (12-17 years)                | 0  |
| Adults (18-64 years)                     | 38 |
| From 65 to 84 years                      | 2  |
| 85 years and over                        | 0  |

## Subject disposition

### Recruitment

Recruitment details:

Patients with moderate to severe chronic nasal polyposis and whose symptoms were resistant to treatment with intranasal steroids were recruited at a total of 15 sites in the United States and European Union (including sites in Spain, Belgium, The Netherlands, and Germany). The first informed consent form was signed on 04-Apr-2016.

### Pre-assignment

Screening details:

After the Screening Period, eligible patients were enrolled and entered the Run-In Period to achieve a stable regimen with Nasonex and discontinued any other intranasal topical steroid. Thereafter, 40 eligible patients were randomized stratified by presence of asthma to 25mg or 250mg AK001 or placebo treatment.

### Period 1

|                              |  |
|------------------------------|--|
| Period 1 title               | Overall study (overall period)               |
| Is this the baseline period? | Yes  |
| Allocation method            | Randomised - controlled                      |
| Blinding used                | Double blind                                 |
| Roles blinded                | Subject, Investigator, Monitor, Data analyst |

Blinding implementation details:

To maintain the blind, the prepared test and control IV infusion solutions were identical in appearance. Access to the randomization codes were strictly controlled via the interactive voice or web response system. Throughout the study, the blind remained unbroken until completion of the study and after the study database had been locked.

### Arms

|                              |             |
|------------------------------|-------------|
| Are arms mutually exclusive? | Yes         |
| <b>Arm title</b>             | 25 mg AK001 |

Arm description:

25 mg AK001 was administered as a single IV infusion through a peripheral vein on Days 0, 21, and 49.

|  |                 |
|--|-----------------|
| Arm type                               | Experimental    |
| Investigational medicinal product name | AK001           |
| Investigational medicinal product code |                 |
| Other name                             |                 |
| Pharmaceutical forms                   | Infusion        |
| Routes of administration               | Intravenous use |

Dosage and administration details:

AK001 Drug Product was supplied as a sterile liquid in a single-use glass vial. For dose administration, the assigned amount of AK001 was diluted with 0.9% sodium chloride for IV injection.

|                  |              |
|------------------|--------------|
| <b>Arm title</b> | 250 mg AK001 |
|------------------|--------------|

Arm description:

250 mg AK001 was administered as a single IV infusion through a peripheral vein on Days 0, 21, and 49.

|  |                 |
|--|-----------------|
| Arm type                               | Experimental    |
| Investigational medicinal product name | AK001           |
| Investigational medicinal product code |                 |
| Other name                             |                 |
| Pharmaceutical forms                   | Infusion        |
| Routes of administration               | Intravenous use |

Dosage and administration details:

AK001 Drug Product was supplied as a sterile liquid in a single-use glass vial. For dose administration, the assigned amount of AK001 was diluted with 0.9% sodium chloride for IV injection.

|   |                 |
|---|-----------------|
| <b>Arm title</b>  | Placebo         |
| Arm description:<br>Placebo was administered as a single IV infusion through a peripheral vein on Days 0, 21, and 49. |                 |
| Arm type  | Placebo         |
| Investigational medicinal product name  | Placebo         |
| Investigational medicinal product code  |                 |
| Other name  |                 |
| Pharmaceutical forms  | Infusion        |
| Routes of administration  | Intravenous use |

Dosage and administration details:

The placebo was supplied as a sterile liquid in a single-use glass vial. The vial was indistinguishable from the AK001 active product. For dose administration, the assigned amount of placebo was diluted with 0.9% sodium chloride for IV injection.

| <b>Number of subjects in period 1<sup>[1]</sup></b> | 25 mg AK001 | 250 mg AK001 | Placebo |
|---|-------------|--------------|---------|
| Started   | 15          | 14           | 10      |
| Completed   | 12          | 14           | 9       |
| Not completed                                       | 3           | 0            | 1       |
| Consent withdrawn by subject                        | 2           | -            | 1       |
| Adverse event, non-fatal                            | 1           | -            | -       |

Notes:

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

Justification: One patient was randomized but never received study treatment, because it was noted that the subject did not qualify based on inclusion criteria. The patient was excluded from all analysis sets.

## Baseline characteristics

### Reporting groups

|  |              |
|--|--------------|
| Reporting group title  | 25 mg AK001  |
| Reporting group description:<br>25 mg AK001 was administered as a single IV infusion through a peripheral vein on Days 0, 21, and 49.  |              |
| Reporting group title  | 250 mg AK001 |
| Reporting group description:<br>250 mg AK001 was administered as a single IV infusion through a peripheral vein on Days 0, 21, and 49. |              |
| Reporting group title  | Placebo      |
| Reporting group description:<br>Placebo was administered as a single IV infusion through a peripheral vein on Days 0, 21, and 49.      |              |

| Reporting group values                                | 25 mg AK001 | 250 mg AK001 | Placebo  |
|---|-------------|--------------|----------|
| Number of subjects                                    | 15          | 14           | 10       |
| Age categorical<br>Units: Subjects                    |             |              |          |
| In utero  | 0           | 0            | 0        |
| Preterm newborn infants<br>(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           | 0            | 0        |
| Adolescents (12-17 years)                             | 0           | 0            | 0        |
| Adults (18-64 years)                                  | 13          | 14           | 10       |
| From 65-84 years                                      | 2           | 0            | 0        |
| 85 years and over                                     | 0           | 0            | 0        |
| Age continuous<br>Units: years                        |             |              |          |
| median  | 48.0        | 46.5         | 45.0     |
| full range (min-max)                                  | 24 to 71    | 27 to 63     | 29 to 60 |
| Gender categorical<br>Units: Subjects                 |             |              |          |
| Female  | 5           | 8            | 5        |
| Male  | 10          | 6            | 5        |

| Reporting group values                                | Total |  |  |
|---|-------|--|--|
| Number of subjects                                    | 39    |  |  |
| Age categorical<br>Units: Subjects                    |       |  |  |
| In utero  | 0     |  |  |
| Preterm newborn infants<br>(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) | 37 |  |  |
| From 65-84 years     | 2  |  |  |
| 85 years and over    | 0  |  |  |
| Age continuous       |    |  |  |
| Units: years         |    |  |  |
| median               |    |  |  |
| full range (min-max) | -  |  |  |
| Gender categorical   |    |  |  |
| Units: Subjects      |    |  |  |
| Female               | 18 |  |  |
| Male                 | 21 |  |  |

## End points

### End points reporting groups

|  |              |
|--|--------------|
| Reporting group title  | 25 mg AK001  |
| Reporting group description:<br>25 mg AK001 was administered as a single IV infusion through a peripheral vein on Days 0, 21, and 49.  |              |
| Reporting group title  | 250 mg AK001 |
| Reporting group description:<br>250 mg AK001 was administered as a single IV infusion through a peripheral vein on Days 0, 21, and 49. |              |
| Reporting group title  | Placebo      |
| Reporting group description:<br>Placebo was administered as a single IV infusion through a peripheral vein on Days 0, 21, and 49.      |              |

### Primary: Change in total polyp score (TPS)

|  |  |
|--|--|
| End point title  | Change in total polyp score (TPS) <sup>[1]</sup> |
| End point description:   |  |
| End point type   | Primary  |
| End point timeframe:<br>Change in TPS from Baseline (prior to the first dose) to Week 12 (Day 84). |  |

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: The study was terminated early because the Sponsor decided not to pursue further development of AK001 and was, consequently, underpowered for the endpoint comparison. Statistical analyses of the primary endpoint did not show statistically significant results for either the comparison of the 25 mg or the 250 mg group with placebo.

| End point values                             | 25 mg AK001        | 250 mg AK001       | Placebo            |  |
|--|--------------------|--------------------|--------------------|--|
| Subject group type                           | Reporting group    | Reporting group    | Reporting group    |  |
| Number of subjects analysed                  | 15                 | 14                 | 10                 |  |
| Units: score                                 |                    |                    |                    |  |
| least squares mean (confidence interval 95%) | -0.5 (-1.3 to 0.3) | -0.3 (-1.1 to 0.5) | -0.2 (-1.1 to 0.7) |  |

### Statistical analyses

No statistical analyses for this end point

## Adverse events

### Adverse events information

Timeframe for reporting adverse events:

From the time of study drug administration until completion of the last study-related procedure.

Adverse event reporting additional description:

If a patient completed the study with an ongoing adverse event (AE), investigational site personnel continued to follow-up until AE resolution and the documentation thereof. If, after 30 days from the study completion date, the AE was still continuing but not assessed as serious, the outcome was recorded as ongoing.

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

### Dictionary used

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

|                    |      |
|--------------------|------|
| Dictionary version | 18.0 |
|--------------------|------|

### Reporting groups

|                       |             |
|-----------------------|-------------|
| Reporting group title | 25 mg AX001 |
|-----------------------|-------------|

Reporting group description:

25 mg AX001 will be administered as a single intravenous infusion over about 1 hour through a peripheral vein on Day 0, 21, and 49.

|                       |              |
|-----------------------|--------------|
| Reporting group title | 250 mg AX001 |
|-----------------------|--------------|

Reporting group description:

250 mg AX001 will be administered as a single intravenous infusion over about 1 hour through a peripheral vein on Day 0, 21, and 49.

|                       |         |
|-----------------------|---------|
| Reporting group title | Placebo |
|-----------------------|---------|

Reporting group description:

Placebo will be administered as a single intravenous infusion over about 1 hour through a peripheral vein on Day 0, 21, and 49.

| Serious adverse events                            | 25 mg AX001    | 250 mg AX001   | Placebo        |
|---|----------------|----------------|----------------|
| Total subjects affected by serious adverse events |                |                |                |
| subjects affected / exposed                       | 0 / 15 (0.00%) | 0 / 14 (0.00%) | 0 / 10 (0.00%) |
| number of deaths (all causes)                     | 0              | 0              | 0              |
| number of deaths resulting from adverse events    | 0              | 0              | 0              |

Frequency threshold for reporting non-serious adverse events: 0 %

| Non-serious adverse events                            | 25 mg AX001      | 250 mg AX001     | Placebo         |
|---|------------------|------------------|-----------------|
| Total subjects affected by non-serious adverse events |                  |                  |                 |
| subjects affected / exposed                           | 11 / 15 (73.33%) | 10 / 14 (71.43%) | 7 / 10 (70.00%) |
| Vascular disorders                                    |                  |                  |                 |
| Hypertension  |                  |                  |                 |
| subjects affected / exposed                           | 2 / 15 (13.33%)  | 0 / 14 (0.00%)   | 0 / 10 (0.00%)  |
| occurrences (all)                                     | 2                | 0                | 0               |

|  |                 |                 |                 |
|--|-----------------|-----------------|-----------------|
| General disorders and administration site conditions |                 |                 |                 |
| Facial pain  |                 |                 |                 |
| subjects affected / exposed                          | 2 / 15 (13.33%) | 0 / 14 (0.00%)  | 0 / 10 (0.00%)  |
| occurrences (all)                                    | 2               | 0               | 0               |
| Fatigue  |                 |                 |                 |
| subjects affected / exposed                          | 0 / 15 (0.00%)  | 0 / 14 (0.00%)  | 1 / 10 (10.00%) |
| occurrences (all)                                    | 0               | 0               | 1               |
| Feeling hot  |                 |                 |                 |
| subjects affected / exposed                          | 0 / 15 (0.00%)  | 1 / 14 (7.14%)  | 0 / 10 (0.00%)  |
| occurrences (all)                                    | 0               | 1               | 0               |
| Pain   |                 |                 |                 |
| subjects affected / exposed                          | 0 / 15 (0.00%)  | 0 / 14 (0.00%)  | 1 / 10 (10.00%) |
| occurrences (all)                                    | 0               | 0               | 1               |
| Pyrexia  |                 |                 |                 |
| subjects affected / exposed                          | 0 / 15 (0.00%)  | 1 / 14 (7.14%)  | 0 / 10 (0.00%)  |
| occurrences (all)                                    | 0               | 1               | 0               |
| Respiratory, thoracic and mediastinal disorders      |                 |                 |                 |
| Asthma   |                 |                 |                 |
| subjects affected / exposed                          | 0 / 15 (0.00%)  | 2 / 14 (14.29%) | 0 / 10 (0.00%)  |
| occurrences (all)                                    | 0               | 2               | 0               |
| Cough  |                 |                 |                 |
| subjects affected / exposed                          | 1 / 15 (6.67%)  | 0 / 14 (0.00%)  | 0 / 10 (0.00%)  |
| occurrences (all)                                    | 1               | 0               | 0               |
| Dyspnoea   |                 |                 |                 |
| subjects affected / exposed                          | 1 / 15 (6.67%)  | 1 / 14 (7.14%)  | 0 / 10 (0.00%)  |
| occurrences (all)                                    | 1               | 1               | 0               |
| Epistaxis  |                 |                 |                 |
| subjects affected / exposed                          | 0 / 15 (0.00%)  | 1 / 14 (7.14%)  | 2 / 10 (20.00%) |
| occurrences (all)                                    | 0               | 1               | 2               |
| Nasal congestion                                     |                 |                 |                 |
| subjects affected / exposed                          | 2 / 15 (13.33%) | 2 / 14 (14.29%) | 0 / 10 (0.00%)  |
| occurrences (all)                                    | 2               | 2               | 0               |
| Nasal discharge discolouration                       |                 |                 |                 |
| subjects affected / exposed                          | 0 / 15 (0.00%)  | 1 / 14 (7.14%)  | 0 / 10 (0.00%)  |
| occurrences (all)                                    | 0               | 1               | 0               |
| Nasal obstruction                                    |                 |                 |                 |

|  |                      |                     |                      |
|--|----------------------|---------------------|----------------------|
| subjects affected / exposed<br>occurrences (all)   | 3 / 15 (20.00%)<br>3 | 0 / 14 (0.00%)<br>0 | 0 / 10 (0.00%)<br>0  |
| Rhinorrhoea<br>subjects affected / exposed<br>occurrences (all)  | 1 / 15 (6.67%)<br>2  | 0 / 14 (0.00%)<br>0 | 0 / 10 (0.00%)<br>0  |
| Throat irritation<br>subjects affected / exposed<br>occurrences (all)  | 0 / 15 (0.00%)<br>0  | 0 / 14 (0.00%)<br>0 | 1 / 10 (10.00%)<br>1 |
| Wheezing<br>subjects affected / exposed<br>occurrences (all)   | 2 / 15 (13.33%)<br>2 | 0 / 14 (0.00%)<br>0 | 0 / 10 (0.00%)<br>0  |
| Psychiatric disorders<br>Agitation<br>subjects affected / exposed<br>occurrences (all)                                 | 0 / 15 (0.00%)<br>0  | 0 / 14 (0.00%)<br>0 | 1 / 10 (10.00%)<br>1 |
| Insomnia<br>subjects affected / exposed<br>occurrences (all)   | 1 / 15 (6.67%)<br>1  | 0 / 14 (0.00%)<br>0 | 0 / 10 (0.00%)<br>0  |
| Investigations<br>Blood pressure increased<br>subjects affected / exposed<br>occurrences (all)                         | 1 / 15 (6.67%)<br>1  | 0 / 14 (0.00%)<br>0 | 0 / 10 (0.00%)<br>0  |
| Heart rate increased<br>subjects affected / exposed<br>occurrences (all)   | 0 / 15 (0.00%)<br>0  | 0 / 14 (0.00%)<br>0 | 1 / 10 (10.00%)<br>2 |
| Weight increased<br>subjects affected / exposed<br>occurrences (all)   | 1 / 15 (6.67%)<br>1  | 0 / 14 (0.00%)<br>0 | 0 / 10 (0.00%)<br>0  |
| Injury, poisoning and procedural complications<br>Forearm fracture<br>subjects affected / exposed<br>occurrences (all) | 0 / 15 (0.00%)<br>0  | 0 / 14 (0.00%)<br>0 | 1 / 10 (10.00%)<br>1 |
| Upper limb fracture<br>subjects affected / exposed<br>occurrences (all)  | 0 / 15 (0.00%)<br>0  | 1 / 14 (7.14%)<br>1 | 0 / 10 (0.00%)<br>0  |
| Cardiac disorders  |                      |                     |                      |

|   |                      |                      |                      |
|---|----------------------|----------------------|----------------------|
| Ventricular extrasystoles<br>subjects affected / exposed<br>occurrences (all) | 0 / 15 (0.00%)<br>0  | 0 / 14 (0.00%)<br>0  | 1 / 10 (10.00%)<br>1 |
| Nervous system disorders  |                      |                      |                      |
| Dizziness<br>subjects affected / exposed<br>occurrences (all)                 | 0 / 15 (0.00%)<br>0  | 0 / 14 (0.00%)<br>0  | 1 / 10 (10.00%)<br>2 |
| Headache<br>subjects affected / exposed<br>occurrences (all)                  | 2 / 15 (13.33%)<br>2 | 1 / 14 (7.14%)<br>1  | 0 / 10 (0.00%)<br>0  |
| Memory impairment<br>subjects affected / exposed<br>occurrences (all)         | 0 / 15 (0.00%)<br>0  | 0 / 14 (0.00%)<br>0  | 1 / 10 (10.00%)<br>1 |
| Migraine<br>subjects affected / exposed<br>occurrences (all)                  | 2 / 15 (13.33%)<br>3 | 0 / 14 (0.00%)<br>0  | 0 / 10 (0.00%)<br>0  |
| Syncope<br>subjects affected / exposed<br>occurrences (all)                   | 0 / 15 (0.00%)<br>0  | 1 / 14 (7.14%)<br>1  | 0 / 10 (0.00%)<br>0  |
| Blood and lymphatic system disorders  |                      |                      |                      |
| Lymphadenopathy<br>subjects affected / exposed<br>occurrences (all)           | 1 / 15 (6.67%)<br>1  | 0 / 14 (0.00%)<br>0  | 0 / 10 (0.00%)<br>0  |
| Ear and labyrinth disorders   |                      |                      |                      |
| Ear pain<br>subjects affected / exposed<br>occurrences (all)                  | 1 / 15 (6.67%)<br>2  | 0 / 14 (0.00%)<br>0  | 0 / 10 (0.00%)<br>0  |
| Gastrointestinal disorders  |                      |                      |                      |
| Abdominal discomfort<br>subjects affected / exposed<br>occurrences (all)      | 0 / 15 (0.00%)<br>0  | 2 / 14 (14.29%)<br>2 | 0 / 10 (0.00%)<br>0  |
| Nausea<br>subjects affected / exposed<br>occurrences (all)                    | 1 / 15 (6.67%)<br>1  | 1 / 14 (7.14%)<br>2  | 0 / 10 (0.00%)<br>0  |
| Toothache<br>subjects affected / exposed<br>occurrences (all)                 | 1 / 15 (6.67%)<br>1  | 1 / 14 (7.14%)<br>1  | 1 / 10 (10.00%)<br>1 |

|   |                |                |                 |
|---|----------------|----------------|-----------------|
| Skin and subcutaneous tissue disorders          |                |                |                 |
| Acne  |                |                |                 |
| subjects affected / exposed                     | 0 / 15 (0.00%) | 1 / 14 (7.14%) | 0 / 10 (0.00%)  |
| occurrences (all)                               | 0              | 1              | 0               |
| Angioedema                                      |                |                |                 |
| subjects affected / exposed                     | 0 / 15 (0.00%) | 1 / 14 (7.14%) | 0 / 10 (0.00%)  |
| occurrences (all)                               | 0              | 1              | 0               |
| Blister   |                |                |                 |
| subjects affected / exposed                     | 0 / 15 (0.00%) | 1 / 14 (7.14%) | 0 / 10 (0.00%)  |
| occurrences (all)                               | 0              | 2              | 0               |
| Erythema  |                |                |                 |
| subjects affected / exposed                     | 1 / 15 (6.67%) | 0 / 14 (0.00%) | 0 / 10 (0.00%)  |
| occurrences (all)                               | 1              | 0              | 0               |
| Generalised erythema                            |                |                |                 |
| subjects affected / exposed                     | 0 / 15 (0.00%) | 0 / 14 (0.00%) | 1 / 10 (10.00%) |
| occurrences (all)                               | 0              | 0              | 1               |
| Pruritus  |                |                |                 |
| subjects affected / exposed                     | 1 / 15 (6.67%) | 0 / 14 (0.00%) | 1 / 10 (10.00%) |
| occurrences (all)                               | 2              | 0              | 1               |
| Pruritus generalised                            |                |                |                 |
| subjects affected / exposed                     | 1 / 15 (6.67%) | 0 / 14 (0.00%) | 0 / 10 (0.00%)  |
| occurrences (all)                               | 1              | 0              | 0               |
| Rash  |                |                |                 |
| subjects affected / exposed                     | 0 / 15 (0.00%) | 1 / 14 (7.14%) | 0 / 10 (0.00%)  |
| occurrences (all)                               | 0              | 1              | 0               |
| Rash maculo-papular                             |                |                |                 |
| subjects affected / exposed                     | 1 / 15 (6.67%) | 0 / 14 (0.00%) | 0 / 10 (0.00%)  |
| occurrences (all)                               | 1              | 0              | 0               |
| Musculoskeletal and connective tissue disorders |                |                |                 |
| Arthralgia                                      |                |                |                 |
| subjects affected / exposed                     | 0 / 15 (0.00%) | 1 / 14 (7.14%) | 0 / 10 (0.00%)  |
| occurrences (all)                               | 0              | 1              | 0               |
| Muscle fatigue                                  |                |                |                 |
| subjects affected / exposed                     | 1 / 15 (6.67%) | 0 / 14 (0.00%) | 0 / 10 (0.00%)  |
| occurrences (all)                               | 1              | 0              | 0               |
| Pain in extremity                               |                |                |                 |

|  |                     |                     |                      |
|--|---------------------|---------------------|----------------------|
| subjects affected / exposed<br>occurrences (all) | 1 / 15 (6.67%)<br>3 | 0 / 14 (0.00%)<br>0 | 1 / 10 (10.00%)<br>1 |
| Infections and infestations                      |                     |                     |                      |
| Acute sinusitis                                  |                     |                     |                      |
| subjects affected / exposed                      | 0 / 15 (0.00%)      | 0 / 14 (0.00%)      | 1 / 10 (10.00%)      |
| occurrences (all)                                | 0                   | 0                   | 1                    |
| Bronchitis                                       |                     |                     |                      |
| subjects affected / exposed                      | 1 / 15 (6.67%)      | 0 / 14 (0.00%)      | 0 / 10 (0.00%)       |
| occurrences (all)                                | 1                   | 0                   | 0                    |
| Gastroenteritis                                  |                     |                     |                      |
| subjects affected / exposed                      | 0 / 15 (0.00%)      | 1 / 14 (7.14%)      | 0 / 10 (0.00%)       |
| occurrences (all)                                | 0                   | 1                   | 0                    |
| Gastroenteritis viral                            |                     |                     |                      |
| subjects affected / exposed                      | 0 / 15 (0.00%)      | 1 / 14 (7.14%)      | 0 / 10 (0.00%)       |
| occurrences (all)                                | 0                   | 3                   | 0                    |
| Impetigo   |                     |                     |                      |
| subjects affected / exposed                      | 0 / 15 (0.00%)      | 1 / 14 (7.14%)      | 0 / 10 (0.00%)       |
| occurrences (all)                                | 0                   | 1                   | 0                    |
| Influenza  |                     |                     |                      |
| subjects affected / exposed                      | 0 / 15 (0.00%)      | 2 / 14 (14.29%)     | 0 / 10 (0.00%)       |
| occurrences (all)                                | 0                   | 2                   | 0                    |
| Nasopharyngitis                                  |                     |                     |                      |
| subjects affected / exposed                      | 4 / 15 (26.67%)     | 2 / 14 (14.29%)     | 1 / 10 (10.00%)      |
| occurrences (all)                                | 4                   | 3                   | 2                    |
| Otitis media acute                               |                     |                     |                      |
| subjects affected / exposed                      | 1 / 15 (6.67%)      | 0 / 14 (0.00%)      | 0 / 10 (0.00%)       |
| occurrences (all)                                | 1                   | 0                   | 0                    |
| Paronychia                                       |                     |                     |                      |
| subjects affected / exposed                      | 1 / 15 (6.67%)      | 0 / 14 (0.00%)      | 0 / 10 (0.00%)       |
| occurrences (all)                                | 1                   | 0                   | 0                    |
| Rhinitis   |                     |                     |                      |
| subjects affected / exposed                      | 2 / 15 (13.33%)     | 0 / 14 (0.00%)      | 0 / 10 (0.00%)       |
| occurrences (all)                                | 2                   | 0                   | 0                    |
| Sinusitis  |                     |                     |                      |
| subjects affected / exposed                      | 1 / 15 (6.67%)      | 0 / 14 (0.00%)      | 0 / 10 (0.00%)       |
| occurrences (all)                                | 1                   | 0                   | 0                    |

|   |                      |                     |                     |
|---|----------------------|---------------------|---------------------|
| Upper respiratory tract infection<br>subjects affected / exposed<br>occurrences (all) | 3 / 15 (20.00%)<br>3 | 0 / 14 (0.00%)<br>0 | 0 / 10 (0.00%)<br>0 |
| Urinary tract infection<br>subjects affected / exposed<br>occurrences (all)           | 0 / 15 (0.00%)<br>0  | 1 / 14 (7.14%)<br>1 | 0 / 10 (0.00%)<br>0 |

## More information

### Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

| Date              | Amendment  |
|-------------------|--|
| 27 July 2016      | Amendment 2: <ul style="list-style-type: none"><li>- specified that 2 doses of AK001 were being evaluated</li><li>- clarified the handling of biomarker samples</li><li>- corrected typographical errors</li><li>- specified that dose preparation and administration were provided in a Study Manual</li><li>- clarified labelling information and methods of unblinding</li><li>- removed the recording of patient's initials in the eCRF.</li></ul>   |
| 05 September 2016 | Amendment 1: <ul style="list-style-type: none"><li>- following a health authority request, inclusion criteria were changed</li><li>- changed visit window of last study visit</li><li>- extended the Run-In Period into the Screening period</li><li>- added the assessment of clinical symptoms for rhinosinusitis by using a validated scale</li><li>- removed unnecessary requirements (i.e. 2-hour fasting, assessment of vital signs before blood draw, post-dose blood draw for pharmacokinetics)</li><li>- clarifications</li></ul> |

Notes:

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### Interruptions (globally)

Were there any global interruptions to the trial? No

### Limitations and caveats

Limitations of the trial such as small numbers of subjects analysed or technical problems leading to unreliable data.

After 40 of the 70 patients planned were randomized in the study, enrollment was stopped as the Sponsor decided not to pursue further development of AK001. The study was not stopped for any safety concern.

Notes: