



## Clinical trial results:

### A PHASE 3, MULTICENTER, RANDOMIZED, OPEN, PROSPECTIVE, CONTROLLED, PARALLEL-GROUP STUDY OF REDUCTION OF THERAPY IN PATIENTS WITH RHEUMATOID ARTHRITIS IN ONGOING REMISSION

### RETRO – REduction of Therapy in RA patients in Ongoing remission, Reduzierung der Therapie bei RA-Patienten in Remission

#### Summary

|                          |                |
|--------------------------|----------------|
| EudraCT number           | 2009-015740-42 |
| Trial protocol           | DE             |
| Global end of trial date | 15 July 2021   |

#### Results information

|                                |                |
|--------------------------------|----------------|
| Result version number          | v1 (current)   |
| This version publication date  | 21 August 2021 |
| First version publication date | 21 August 2021 |

#### Trial information

##### Trial identification

|                       |                |
|-----------------------|----------------|
| Sponsor protocol code | UKER00109STUM3 |
|-----------------------|----------------|

##### Additional study identifiers

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

Notes:

##### Sponsors

|                              |  |
|------------------------------|--|
| Sponsor organisation name    | Universitätsklinikum Erlangen  |
| Sponsor organisation address | Maximiliansplatz 2, Erlangen, Germany,   |
| Public contact               | PD Dr. med. Jürgen Rech, Medizinische Klinik 3, Universitätsklinikum Erlangen, juergen.rech@uk-erlangen.de |
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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 July 2021 |
| Is this the analysis of the primary completion data? | Yes          |
| Primary completion date                              | 15 July 2021 |
| Global end of trial reached?                         | Yes          |
| Global end of trial date                             | 15 July 2021 |
| Was the trial ended prematurely?                     | Yes          |

Notes:

## General information about the trial

Main objective of the trial:

The current concept of RA-therapy is remission, which is defined by reaching a disease activity score counted in 28 joints of the body (DAS 28) of less than 2,6 as a main target.

Rheumatoid Arthritis nowadays is being treated increasingly successful, due to better treatment with standard medications (dosage until limit, combination of therapies), due to quicker and more flexible therapy schemes (early start of treatment, close monitored therapy monitoring and due to introduction of new preparations. About 30% of RA patients reach clinical remission of RA.

Yet it is still unclear, if and for how long a patient in long lasting and stable remission is to continue therapy or whether it is possible to reduce medication without risking a relapse of the disease.

This study means on one hand to examine the possibility of a reduction of therapy or even a breaking off therapy in RA patients in long lasting remission.

Protection of trial subjects:

Regular lab controls, clinical visits every 3 months, continuous documentation and evaluation of AEs

Background therapy: -

Evidence for comparator: -

|   |             |
|---|-------------|
| Actual start date of recruitment                          | 03 May 2010 |
| 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 | Germany: 258 |
| Worldwide total number of subjects   | 258          |
| EEA total number of subjects         | 258          |

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) | 201 |
| From 65 to 84 years  | 57  |
| 85 years and over    | 0   |

## Subject disposition

### Recruitment

Recruitment details: -

### Pre-assignment

Screening details:

286 patients were screened at 13 centers. Due to screening failures, withdrawal of IC etc. 258 data sets were available

### Period 1

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

### Arms

|                              |         |
|------------------------------|---------|
| Are arms mutually exclusive? | Yes     |
| <b>Arm title</b>             | Control |

Arm description:

continuation of treatment

|  |  |
|--|--|
| Arm type                               | IMP full dose  |
| Investigational medicinal product name | RA treatment with corticosteroids, cDMARDs, bDMARDs (TNF inhibitors, IL-6 inhibitors, IL-1 inhibitors)   |
| Investigational medicinal product code |  |
| Other name                             |  |
| Pharmaceutical forms                   | Coated tablet, Concentrate for solution for infusion, Solution for infusion, Solution for injection, Solution for injection in pre-filled injector, Solution for injection in pre-filled syringe, Tablet |
| Routes of administration               | Concentrate for solution for infusion , Injection , Infusion , Oral use  |

Dosage and administration details:

full dose according to SmPC

|                  |           |
|------------------|-----------|
| <b>Arm title</b> | Reduction |
|------------------|-----------|

Arm description:

50% reduction of RA-treatment

|  |  |
|--|--|
| Arm type                               | IMP 50% dose   |
| Investigational medicinal product name | RA treatment with corticosteroids, cDMARDs, bDMARDs (TNF inhibitors, IL-6 inhibitors, IL-1 inhibitors)   |
| Investigational medicinal product code |  |
| Other name                             |  |
| Pharmaceutical forms                   | Coated tablet, Concentrate for solution for infusion, Solution for infusion, Solution for injection, Solution for injection in pre-filled injector, Solution for injection in pre-filled syringe, Tablet |
| Routes of administration               | Concentrate for solution for infusion , Infusion , Injection , Oral use  |

Dosage and administration details:

50% dose according to SmPC

|                  |                |
|------------------|----------------|
| <b>Arm title</b> | Reduction/stop |
|------------------|----------------|

Arm description:

50% reduction of IMP-treatment for 6 months followed by subsequent stopping of treatment when still in remission

|   |                  |
|---|------------------|
| Arm type  | 50% IMP+stop IMP |
| No investigational medicinal product assigned in this arm |                  |

| <b>Number of subjects in period 1</b> | Control | Reduction | Reduction/stop |
|---------------------------------------|---------|-----------|----------------|
| Started                               | 81      | 85        | 92             |
| Completed                             | 81      | 85        | 92             |

## Period 2

|                              |                         |
|------------------------------|-------------------------|
| Period 2 title               | Treatment               |
| Is this the baseline period? | No                      |
| Allocation method            | Randomised - controlled |
| Blinding used                | Not blinded             |

## Arms

|                              |              |
|------------------------------|--------------|
| Are arms mutually exclusive? | Yes          |
| <b>Arm title</b>             | Continuation |

Arm description:

Continuation of full dose RA-treatment

|  |  |
|--|--|
| Arm type                               | Full dose IMP  |
| Investigational medicinal product name | RA treatment with corticosteroids, cDMARDs, bDMARDs (TNF inhibitors, IL-6 inhibitors, IL-1 inhibitors)   |
| Investigational medicinal product code |  |
| Other name                             |  |
| Pharmaceutical forms                   | Coated tablet, Concentrate for solution for infusion, Solution for infusion, Solution for injection, Solution for injection in pre-filled injector, Solution for injection in pre-filled syringe, Tablet |
| Routes of administration               | Concentrate for solution for infusion , Infusion , Injection , Oral use  |

Dosage and administration details:

full dose according to SmPC

|                  |           |
|------------------|-----------|
| <b>Arm title</b> | Reduction |
|------------------|-----------|

Arm description:

50% reduction of RA-treatment

|  |  |
|--|--|
| Arm type                               | 50% reduction  |
| Investigational medicinal product name | RA treatment with corticosteroids, cDMARDs, bDMARDs (TNF inhibitors, IL-6 inhibitors, IL-1 inhibitors)   |
| Investigational medicinal product code |  |
| Other name                             |  |
| Pharmaceutical forms                   | Concentrate for solution for infusion, Solution for infusion, Solution for injection, Solution for injection in pre-filled injector, Coated tablet, Solution for injection in pre-filled syringe, Tablet |
| Routes of administration               | Infusion , Injection , Oral use, Concentrate for solution for infusion   |

Dosage and administration details:

full dose according to SmPC

|   |  |
|---|--|
| <b>Arm title</b>  | Reduction/stop   |
| Arm description:<br>50% reduction of RA-treatment with subsequent stopping after 6 months when still in remission |  |
| Arm type  | 50% IMP+stop IMP   |
| Investigational medicinal product name  | RA treatment with corticosteroids, cDMARDs, bDMARDs (TNF inhibitors, IL-6 inhibitors, IL-1 inhibitors)   |
| Investigational medicinal product code  |  |
| Other name  |  |
| Pharmaceutical forms  | Concentrate for solution for infusion, Solution for infusion, Solution for injection, Coated tablet, Solution for injection in pre-filled injector, Solution for injection in pre-filled syringe, Tablet |
| Routes of administration  | Infusion , Injection , Oral use, Concentrate for solution for infusion   |

Dosage and administration details:  
full dose according to SmPC

| <b>Number of subjects in period 2</b> | Continuation | Reduction | Reduction/stop |
|---------------------------------------|--------------|-----------|----------------|
| Started                               | 81           | 85        | 92             |
| Completed                             | 81           | 85        | 92             |

## Baseline characteristics

### Reporting groups

|  |                |
|--|----------------|
| Reporting group title  | Control        |
| Reporting group description:<br>continuation of treatment  |                |
| Reporting group title  | Reduction      |
| Reporting group description:<br>50% reduction of RA-treatment  |                |
| Reporting group title  | Reduction/stop |
| Reporting group description:<br>50% reduction of IMP-treatment for 6 months followed by subsequent stopping of treatment when still in remission |                |

| Reporting group values  | Control | Reduction | Reduction/stop |
|---|---------|-----------|----------------|
| Number of subjects  | 81      | 85        | 92             |
| Age categorical<br>Units: Subjects  |         |           |                |
| In utero<br>Preterm newborn infants (gestational age < 37 wks)<br>Newborns (0-27 days)<br>Infants and toddlers (28 days-23 months)<br>Children (2-11 years)<br>Adolescents (12-17 years)<br>Adults (18-64 years)<br>From 65-84 years<br>85 years and over |         |           |                |
| Age continuous<br>Units: years  |         |           |                |
| arithmetic mean   | 57.3    | 57.9      | 57.0           |
| standard deviation  | ± 12.6  | ± 12.8    | ± 13.2         |
| Gender categorical<br>Units: Subjects   |         |           |                |
| Female  | 44      | 49        | 53             |
| Male  | 37      | 36        | 39             |
| bDMARD use<br>Units: Subjects   |         |           |                |
| yes   | 32      | 39        | 37             |
| no  | 49      | 46        | 55             |
| Rheumatoid factor<br>Units: Subjects  |         |           |                |
| yes   | 42      | 51        | 49             |
| no  | 39      | 34        | 43             |
| ACPA positivity<br>Units: Subjects  |         |           |                |
| yes   | 47      | 49        | 52             |
| no  | 34      | 36        | 40             |
| Methotrexate use  |         |           |                |

|                     |        |        |        |
|---------------------|--------|--------|--------|
| Units: Subjects     |        |        |        |
| yes                 | 64     | 62     | 72     |
| no                  | 17     | 23     | 20     |
| other cDMARD        |        |        |        |
| Units: Subjects     |        |        |        |
| yes                 | 12     | 12     | 12     |
| no                  | 69     | 73     | 80     |
| Glucocorticoids use |        |        |        |
| Units: Subjects     |        |        |        |
| yes                 | 15     | 15     | 14     |
| no                  | 66     | 70     | 78     |
| Disease duration    |        |        |        |
| Units: years        |        |        |        |
| arithmetic mean     | 7.2    | 7.6    | 6.8    |
| standard deviation  | ± 7.1  | ± 7.1  | ± 8.2  |
| Remission duration  |        |        |        |
| Units: months       |        |        |        |
| arithmetic mean     | 17.3   | 14.5   | 22.1   |
| standard deviation  | ± 13.8 | ± 13.0 | ± 30.8 |
| HAQ standard        |        |        |        |
| Units: points       |        |        |        |
| arithmetic mean     | 0.2    | 0.2    | 0.2    |
| standard deviation  | ± 0.4  | ± 0.3  | ± 0.4  |
| DAS28               |        |        |        |
| Units: unit(s)      |        |        |        |
| arithmetic mean     | 1.6    | 1.6    | 1.7    |
| standard deviation  | ± 0.7  | ± 0.7  | ± 0.6  |

|   |       |  |  |
|---|-------|--|--|
| <b>Reporting group values</b>                         | Total |  |  |
| Number of subjects                                    | 258   |  |  |
| Age categorical                                       |       |  |  |
| 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<br>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                                       | -     |  |  |
| standard deviation                                    |       |  |  |
| Gender categorical                                    |       |  |  |
| Units: Subjects                                       |       |  |  |
| Female  | 146   |  |  |
| Male  | 112   |  |  |



|                     |     |  |  |
|---------------------|-----|--|--|
| bDMARD use          |     |  |  |
| Units: Subjects     |     |  |  |
| yes                 | 108 |  |  |
| no                  | 150 |  |  |
| Rheumatoid factor   |     |  |  |
| Units: Subjects     |     |  |  |
| yes                 | 142 |  |  |
| no                  | 116 |  |  |
| ACPA positivity     |     |  |  |
| Units: Subjects     |     |  |  |
| yes                 | 148 |  |  |
| no                  | 110 |  |  |
| Methotrexate use    |     |  |  |
| Units: Subjects     |     |  |  |
| yes                 | 198 |  |  |
| no                  | 60  |  |  |
| other cDMARD        |     |  |  |
| Units: Subjects     |     |  |  |
| yes                 | 36  |  |  |
| no                  | 222 |  |  |
| Glucocorticoids use |     |  |  |
| Units: Subjects     |     |  |  |
| yes                 | 44  |  |  |
| no                  | 214 |  |  |
| Disease duration    |     |  |  |
| Units: years        |     |  |  |
| arithmetic mean     |     |  |  |
| standard deviation  | -   |  |  |
| Remission duration  |     |  |  |
| Units: months       |     |  |  |
| arithmetic mean     |     |  |  |
| standard deviation  | -   |  |  |
| HAQ standard        |     |  |  |
| Units: points       |     |  |  |
| arithmetic mean     |     |  |  |
| standard deviation  | -   |  |  |
| DAS28               |     |  |  |
| Units: unit(s)      |     |  |  |
| arithmetic mean     |     |  |  |
| standard deviation  | -   |  |  |

## End points

### End points reporting groups

|  |                |
|--|----------------|
| Reporting group title  | Control        |
| Reporting group description:<br>continuation of treatment  |                |
| Reporting group title  | Reduction      |
| Reporting group description:<br>50% reduction of RA-treatment  |                |
| Reporting group title  | Reduction/stop |
| Reporting group description:<br>50% reduction of IMP-treatment for 6 months followed by subsequent stopping of treatment when still in remission |                |
| Reporting group title  | Continuation   |
| Reporting group description:<br>Continuation of full dose RA-treatment   |                |
| Reporting group title  | Reduction      |
| Reporting group description:<br>50% reduction of RA-treatment  |                |
| Reporting group title  | Reduction/stop |
| Reporting group description:<br>50% reduction of RA-treatment with subsequent stopping after 6 months when still in remission                    |                |

### Primary: Remission

|  |           |
|--|-----------|
| End point title  | Remission |
| End point description:<br>proportion of subjects still remission after 12 months |           |
| End point type   | Primary   |
| End point timeframe:<br>12 months  |           |

| End point values            | Continuation    | Reduction       | Reduction/stop  |  |
|-----------------------------|-----------------|-----------------|-----------------|--|
| Subject group type          | Reporting group | Reporting group | Reporting group |  |
| Number of subjects analysed | 81              | 85              | 92              |  |
| Units: subjects             | 69              | 50              | 41              |  |

### Statistical analyses

|                            |                                     |
|----------------------------|-------------------------------------|
| Statistical analysis title | Remission continuation vs reduction |
| Comparison groups          | Continuation v Reduction            |

|   |               |
|---|---------------|
| Number of subjects included in analysis | 166           |
| Analysis specification                  | Pre-specified |
| Analysis type                           | superiority   |
| P-value                                 | < 0.0001      |
| Method                                  | Logrank       |

## Adverse events

### Adverse events information

Timeframe for reporting adverse events:

From time of enrollment until visit 4 (month 12)

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

### Dictionary used

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

|                    |      |
|--------------------|------|
| Dictionary version | 23.0 |
|--------------------|------|

### Reporting groups

|                       |         |
|-----------------------|---------|
| Reporting group title | Control |
|-----------------------|---------|

Reporting group description:

continuation of treatment

|                       |           |
|-----------------------|-----------|
| Reporting group title | Reduction |
|-----------------------|-----------|

Reporting group description:

50% reduction of RA-treatment

|                       |                |
|-----------------------|----------------|
| Reporting group title | Reduction/stop |
|-----------------------|----------------|

Reporting group description:

50% reduction of IMP-treatment for 6 months followed by subsequent stopping of treatment when still in remission

| Serious adverse events  | Control          | Reduction      | Reduction/stop   |
|---|------------------|----------------|------------------|
| Total subjects affected by serious adverse events                   |                  |                |                  |
| subjects affected / exposed   | 10 / 81 (12.35%) | 7 / 85 (8.24%) | 13 / 92 (14.13%) |
| number of deaths (all causes)                                       | 1                | 0              | 0                |
| number of deaths resulting from adverse events                      | 1                | 0              | 0                |
| Neoplasms benign, malignant and unspecified (incl cysts and polyps) |                  |                |                  |
| Invasive ductal breast carcinoma                                    |                  |                |                  |
| subjects affected / exposed   | 1 / 81 (1.23%)   | 0 / 85 (0.00%) | 0 / 92 (0.00%)   |
| occurrences causally related to treatment / all                     | 0 / 1            | 0 / 0          | 0 / 0            |
| deaths causally related to treatment / all                          | 0 / 0            | 0 / 0          | 0 / 0            |
| Injury, poisoning and procedural complications                      |                  |                |                  |
| Synovial rupture  |                  |                |                  |
| subjects affected / exposed   | 1 / 81 (1.23%)   | 0 / 85 (0.00%) | 0 / 92 (0.00%)   |
| occurrences causally related to treatment / all                     | 0 / 1            | 0 / 0          | 0 / 0            |
| deaths causally related to treatment / all                          | 0 / 0            | 0 / 0          | 0 / 0            |
| Lower limb fracture   |                  |                |                  |

|   |                |                |                |
|---|----------------|----------------|----------------|
| subjects affected / exposed                     | 0 / 81 (0.00%) | 0 / 85 (0.00%) | 1 / 92 (1.09%) |
| occurrences causally related to treatment / all | 0 / 0          | 0 / 0          | 0 / 1          |
| deaths causally related to treatment / all      | 0 / 0          | 0 / 0          | 0 / 0          |
| Femur fracture                                  |                |                |                |
| subjects affected / exposed                     | 0 / 81 (0.00%) | 0 / 85 (0.00%) | 1 / 92 (1.09%) |
| occurrences causally related to treatment / all | 0 / 0          | 0 / 0          | 0 / 1          |
| deaths causally related to treatment / all      | 0 / 0          | 0 / 0          | 0 / 0          |
| Rib fracture                                    |                |                |                |
| subjects affected / exposed                     | 1 / 81 (1.23%) | 0 / 85 (0.00%) | 0 / 92 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1          | 0 / 0          | 0 / 0          |
| deaths causally related to treatment / all      | 0 / 0          | 0 / 0          | 0 / 0          |
| Procedural intestinal perforation               |                |                |                |
| subjects affected / exposed                     | 0 / 81 (0.00%) | 0 / 85 (0.00%) | 1 / 92 (1.09%) |
| occurrences causally related to treatment / all | 0 / 0          | 0 / 0          | 0 / 1          |
| deaths causally related to treatment / all      | 0 / 0          | 0 / 0          | 0 / 0          |
| Meniscus injury                                 |                |                |                |
| subjects affected / exposed                     | 0 / 81 (0.00%) | 0 / 85 (0.00%) | 1 / 92 (1.09%) |
| occurrences causally related to treatment / all | 0 / 0          | 0 / 0          | 0 / 1          |
| deaths causally related to treatment / all      | 0 / 0          | 0 / 0          | 0 / 0          |
| Patella fracture                                |                |                |                |
| subjects affected / exposed                     | 0 / 81 (0.00%) | 0 / 85 (0.00%) | 1 / 92 (1.09%) |
| occurrences causally related to treatment / all | 0 / 0          | 0 / 0          | 0 / 1          |
| deaths causally related to treatment / all      | 0 / 0          | 0 / 0          | 0 / 0          |
| Surgical and medical procedures                 |                |                |                |
| Removal of internal fixation                    |                |                |                |
| subjects affected / exposed                     | 1 / 81 (1.23%) | 0 / 85 (0.00%) | 0 / 92 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1          | 0 / 0          | 0 / 0          |
| deaths causally related to treatment / all      | 0 / 0          | 0 / 0          | 0 / 0          |
| Large intestinal polypectomy                    |                |                |                |
| subjects affected / exposed                     | 1 / 81 (1.23%) | 0 / 85 (0.00%) | 0 / 92 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1          | 0 / 0          | 0 / 0          |
| deaths causally related to treatment / all      | 0 / 0          | 0 / 0          | 0 / 0          |
| Heart valve operation                           |                |                |                |

|   |                |                |                |
|---|----------------|----------------|----------------|
| subjects affected / exposed                     | 0 / 81 (0.00%) | 1 / 85 (1.18%) | 0 / 92 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0          | 0 / 1          | 0 / 0          |
| deaths causally related to treatment / all      | 0 / 0          | 0 / 0          | 0 / 0          |
| Radical prostatectomy                           |                |                |                |
| subjects affected / exposed                     | 1 / 81 (1.23%) | 0 / 85 (0.00%) | 0 / 92 (0.00%) |
| occurrences causally related to treatment / all | 0 / 1          | 0 / 0          | 0 / 0          |
| deaths causally related to treatment / all      | 0 / 0          | 0 / 0          | 0 / 0          |
| Coronary arterial stent insertion               |                |                |                |
| subjects affected / exposed                     | 0 / 81 (0.00%) | 0 / 85 (0.00%) | 1 / 92 (1.09%) |
| occurrences causally related to treatment / all | 0 / 0          | 0 / 0          | 0 / 1          |
| deaths causally related to treatment / all      | 0 / 0          | 0 / 0          | 0 / 0          |
| Cardiac disorders                               |                |                |                |
| Atrial flutter                                  |                |                |                |
| subjects affected / exposed                     | 0 / 81 (0.00%) | 1 / 85 (1.18%) | 0 / 92 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0          | 0 / 1          | 0 / 0          |
| deaths causally related to treatment / all      | 0 / 0          | 0 / 0          | 0 / 0          |
| Acute myocardial infarction                     |                |                |                |
| subjects affected / exposed                     | 0 / 81 (0.00%) | 0 / 85 (0.00%) | 1 / 92 (1.09%) |
| occurrences causally related to treatment / all | 0 / 0          | 0 / 0          | 0 / 1          |
| deaths causally related to treatment / all      | 0 / 0          | 0 / 0          | 0 / 0          |
| Myocardial infarction                           |                |                |                |
| subjects affected / exposed                     | 0 / 81 (0.00%) | 1 / 85 (1.18%) | 0 / 92 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0          | 0 / 1          | 0 / 0          |
| deaths causally related to treatment / all      | 0 / 0          | 0 / 0          | 0 / 0          |
| Nervous system disorders                        |                |                |                |
| Carotid artery stenosis                         |                |                |                |
| subjects affected / exposed                     | 0 / 81 (0.00%) | 1 / 85 (1.18%) | 0 / 92 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0          | 0 / 1          | 0 / 0          |
| deaths causally related to treatment / all      | 0 / 0          | 0 / 0          | 0 / 0          |
| Headache  |                |                |                |
| subjects affected / exposed                     | 0 / 81 (0.00%) | 0 / 85 (0.00%) | 1 / 92 (1.09%) |
| occurrences causally related to treatment / all | 0 / 0          | 0 / 0          | 0 / 1          |
| deaths causally related to treatment / all      | 0 / 0          | 0 / 0          | 0 / 0          |
| Syncope   |                |                |                |

|  |                |                |                |
|--|----------------|----------------|----------------|
| subjects affected / exposed                          | 0 / 81 (0.00%) | 0 / 85 (0.00%) | 1 / 92 (1.09%) |
| occurrences causally related to treatment / all      | 0 / 0          | 0 / 0          | 0 / 1          |
| deaths causally related to treatment / all           | 0 / 0          | 0 / 0          | 0 / 0          |
| Cerebral infarction                                  |                |                |                |
| subjects affected / exposed                          | 0 / 81 (0.00%) | 1 / 85 (1.18%) | 0 / 92 (0.00%) |
| occurrences causally related to treatment / all      | 0 / 0          | 0 / 1          | 0 / 0          |
| deaths causally related to treatment / all           | 0 / 0          | 0 / 0          | 0 / 0          |
| Myasthenia gravis crisis                             |                |                |                |
| subjects affected / exposed                          | 0 / 81 (0.00%) | 1 / 85 (1.18%) | 0 / 92 (0.00%) |
| occurrences causally related to treatment / all      | 0 / 0          | 0 / 1          | 0 / 0          |
| deaths causally related to treatment / all           | 0 / 0          | 0 / 0          | 0 / 0          |
| Pregnancy, puerperium and perinatal conditions       |                |                |                |
| Pregnancy  |                |                |                |
| subjects affected / exposed                          | 0 / 81 (0.00%) | 0 / 85 (0.00%) | 1 / 92 (1.09%) |
| occurrences causally related to treatment / all      | 0 / 0          | 0 / 0          | 0 / 1          |
| deaths causally related to treatment / all           | 0 / 0          | 0 / 0          | 0 / 0          |
| General disorders and administration site conditions |                |                |                |
| Death  |                |                |                |
| subjects affected / exposed                          | 1 / 81 (1.23%) | 0 / 85 (0.00%) | 0 / 92 (0.00%) |
| occurrences causally related to treatment / all      | 0 / 1          | 0 / 0          | 0 / 0          |
| deaths causally related to treatment / all           | 0 / 1          | 0 / 0          | 0 / 0          |
| Gastrointestinal disorders                           |                |                |                |
| Gastritis  |                |                |                |
| subjects affected / exposed                          | 1 / 81 (1.23%) | 0 / 85 (0.00%) | 0 / 92 (0.00%) |
| occurrences causally related to treatment / all      | 0 / 1          | 0 / 0          | 0 / 0          |
| deaths causally related to treatment / all           | 0 / 0          | 0 / 0          | 0 / 0          |
| Respiratory, thoracic and mediastinal disorders      |                |                |                |
| Pulmonary fibrosis                                   |                |                |                |
| subjects affected / exposed                          | 0 / 81 (0.00%) | 0 / 85 (0.00%) | 1 / 92 (1.09%) |
| occurrences causally related to treatment / all      | 0 / 0          | 0 / 0          | 0 / 1          |
| deaths causally related to treatment / all           | 0 / 0          | 0 / 0          | 0 / 0          |
| Hepatobiliary disorders                              |                |                |                |
| Cholecystitis acute                                  |                |                |                |

|   |                |                |                |
|---|----------------|----------------|----------------|
| subjects affected / exposed                     | 0 / 81 (0.00%) | 1 / 85 (1.18%) | 0 / 92 (0.00%) |
| occurrences causally related to treatment / all | 0 / 0          | 0 / 1          | 0 / 0          |
| deaths causally related to treatment / all      | 0 / 0          | 0 / 0          | 0 / 0          |
| <b>Infections and infestations</b>              |                |                |                |
| Diverticulitis                                  |                |                |                |
| subjects affected / exposed                     | 2 / 81 (2.47%) | 0 / 85 (0.00%) | 0 / 92 (0.00%) |
| occurrences causally related to treatment / all | 0 / 2          | 0 / 0          | 0 / 0          |
| deaths causally related to treatment / all      | 0 / 0          | 0 / 0          | 0 / 0          |
| Sinusitis                                       |                |                |                |
| subjects affected / exposed                     | 0 / 81 (0.00%) | 0 / 85 (0.00%) | 1 / 92 (1.09%) |
| occurrences causally related to treatment / all | 0 / 0          | 0 / 0          | 0 / 1          |
| deaths causally related to treatment / all      | 0 / 0          | 0 / 0          | 0 / 0          |
| Gastroenteritis                                 |                |                |                |
| subjects affected / exposed                     | 0 / 81 (0.00%) | 0 / 85 (0.00%) | 1 / 92 (1.09%) |
| occurrences causally related to treatment / all | 0 / 0          | 0 / 0          | 0 / 1          |
| deaths causally related to treatment / all      | 0 / 0          | 0 / 0          | 0 / 0          |

Frequency threshold for reporting non-serious adverse events: 2.5 %

| <b>Non-serious adverse events</b>                                   | Control          | Reduction        | Reduction/stop   |
|---|------------------|------------------|------------------|
| Total subjects affected by non-serious adverse events               |                  |                  |                  |
| subjects affected / exposed   | 48 / 81 (59.26%) | 55 / 85 (64.71%) | 45 / 92 (48.91%) |
| Neoplasms benign, malignant and unspecified (incl cysts and polyps) |                  |                  |                  |
| Syncope   |                  |                  |                  |
| subjects affected / exposed   | 0 / 81 (0.00%)   | 0 / 85 (0.00%)   | 2 / 92 (2.17%)   |
| occurrences (all)   | 0                | 0                | 2                |
| Vascular disorders  |                  |                  |                  |
| Hypertensive crisis   |                  |                  |                  |
| subjects affected / exposed   | 0 / 81 (0.00%)   | 2 / 85 (2.35%)   | 0 / 92 (0.00%)   |
| occurrences (all)   | 0                | 2                | 0                |
| Surgical and medical procedures                                     |                  |                  |                  |
| Tooth extraction  |                  |                  |                  |
| subjects affected / exposed   | 4 / 81 (4.94%)   | 2 / 85 (2.35%)   | 2 / 92 (2.17%)   |
| occurrences (all)   | 4                | 2                | 2                |
| Respiratory, thoracic and mediastinal disorders                     |                  |                  |                  |



|  |                     |                     |                     |
|--|---------------------|---------------------|---------------------|
| Rhinitis allergic<br>subjects affected / exposed<br>occurrences (all)      | 1 / 81 (1.23%)<br>1 | 2 / 85 (2.35%)<br>2 | 1 / 92 (1.09%)<br>1 |
| Injury, poisoning and procedural complications                             |                     |                     |                     |
| Soft tissue injury<br>subjects affected / exposed<br>occurrences (all)     | 1 / 81 (1.23%)<br>1 | 5 / 85 (5.88%)<br>5 | 2 / 92 (2.17%)<br>2 |
| Multiple injuries<br>subjects affected / exposed<br>occurrences (all)      | 0 / 81 (0.00%)<br>0 | 0 / 85 (0.00%)<br>0 | 2 / 92 (2.17%)<br>2 |
| Rib fracture<br>subjects affected / exposed<br>occurrences (all)           | 0 / 81 (0.00%)<br>0 | 2 / 85 (2.35%)<br>2 | 0 / 92 (0.00%)<br>0 |
| Radius fracture<br>subjects affected / exposed<br>occurrences (all)        | 2 / 81 (2.47%)<br>2 | 0 / 85 (0.00%)<br>0 | 0 / 92 (0.00%)<br>0 |
| Nervous system disorders   |                     |                     |                     |
| Sciatica<br>subjects affected / exposed<br>occurrences (all)               | 1 / 81 (1.23%)<br>3 | 3 / 85 (3.53%)<br>3 | 3 / 92 (3.26%)<br>4 |
| Carpal tunnel syndrome<br>subjects affected / exposed<br>occurrences (all) | 2 / 81 (2.47%)<br>3 | 0 / 85 (0.00%)<br>0 | 2 / 92 (2.17%)<br>2 |
| Migraine<br>subjects affected / exposed<br>occurrences (all)               | 1 / 81 (1.23%)<br>1 | 1 / 85 (1.18%)<br>2 | 1 / 92 (1.09%)<br>1 |
| Ear and labyrinth disorders  |                     |                     |                     |
| Vertigo<br>subjects affected / exposed<br>occurrences (all)                | 0 / 81 (0.00%)<br>0 | 2 / 85 (2.35%)<br>2 | 1 / 92 (1.09%)<br>1 |
| Eye disorders  |                     |                     |                     |
| Cataract<br>subjects affected / exposed<br>occurrences (all)               | 0 / 81 (0.00%)<br>0 | 3 / 85 (3.53%)<br>3 | 1 / 92 (1.09%)<br>1 |
| Gastrointestinal disorders   |                     |                     |                     |

|   |                     |                     |                     |
|---|---------------------|---------------------|---------------------|
| Gastritis<br>subjects affected / exposed<br>occurrences (all)   | 3 / 81 (3.70%)<br>3 | 1 / 85 (1.18%)<br>1 | 0 / 92 (0.00%)<br>0 |
| Colon adenoma<br>subjects affected / exposed<br>occurrences (all)   | 1 / 81 (1.23%)<br>1 | 2 / 85 (2.35%)<br>2 | 1 / 92 (1.09%)<br>1 |
| Skin and subcutaneous tissue disorders<br>Eczema<br>subjects affected / exposed<br>occurrences (all)              | 1 / 81 (1.23%)<br>1 | 2 / 85 (2.35%)<br>2 | 2 / 92 (2.17%)<br>2 |
| Pruritus<br>subjects affected / exposed<br>occurrences (all)  | 0 / 81 (0.00%)<br>0 | 0 / 85 (0.00%)<br>0 | 2 / 92 (2.17%)<br>2 |
| Renal and urinary disorders<br>Renal failure<br>subjects affected / exposed<br>occurrences (all)                  | 0 / 81 (0.00%)<br>0 | 0 / 85 (0.00%)<br>0 | 2 / 92 (2.17%)<br>2 |
| Musculoskeletal and connective tissue disorders<br>Arthralgia<br>subjects affected / exposed<br>occurrences (all) | 5 / 81 (6.17%)<br>5 | 5 / 85 (5.88%)<br>4 | 1 / 92 (1.09%)<br>1 |
| Bursitis<br>subjects affected / exposed<br>occurrences (all)  | 1 / 81 (1.23%)<br>1 | 1 / 85 (1.18%)<br>2 | 1 / 92 (1.09%)<br>1 |
| Synovial cyst<br>subjects affected / exposed<br>occurrences (all)   | 0 / 81 (0.00%)<br>0 | 0 / 85 (0.00%)<br>0 | 2 / 92 (2.17%)<br>2 |
| Trigger finger<br>subjects affected / exposed<br>occurrences (all)  | 1 / 81 (1.23%)<br>1 | 2 / 85 (2.35%)<br>2 | 0 / 92 (0.00%)<br>0 |
| Myalgia<br>subjects affected / exposed<br>occurrences (all)   | 0 / 81 (0.00%)<br>0 | 2 / 85 (2.35%)<br>2 | 0 / 92 (0.00%)<br>0 |
| Infections and infestations<br>Upper respiratory tract infection  |                     |                     |                     |

|                             |                  |                  |                  |
|-----------------------------|------------------|------------------|------------------|
| subjects affected / exposed | 24 / 81 (29.63%) | 25 / 85 (29.41%) | 20 / 92 (21.74%) |
| occurrences (all)           | 31               | 43               | 25               |
| Gastroenteritis             |                  |                  |                  |
| subjects affected / exposed | 2 / 81 (2.47%)   | 2 / 85 (2.35%)   | 3 / 92 (3.26%)   |
| occurrences (all)           | 2                | 2                | 3                |
| Oral herpes                 |                  |                  |                  |
| subjects affected / exposed | 3 / 81 (3.70%)   | 3 / 85 (3.53%)   | 1 / 92 (1.09%)   |
| occurrences (all)           | 3                | 3                | 1                |
| Urinary tract infection     |                  |                  |                  |
| subjects affected / exposed | 2 / 81 (2.47%)   | 2 / 85 (2.35%)   | 1 / 92 (1.09%)   |
| occurrences (all)           | 2                | 2                | 1                |
| Sinusitis                   |                  |                  |                  |
| subjects affected / exposed | 1 / 81 (1.23%)   | 2 / 85 (2.35%)   | 1 / 92 (1.09%)   |
| occurrences (all)           | 1                | 2                | 1                |
| Soft tissue infection       |                  |                  |                  |
| subjects affected / exposed | 1 / 81 (1.23%)   | 2 / 85 (2.35%)   | 2 / 92 (2.17%)   |
| occurrences (all)           | 1                | 2                | 2                |
| Conjunctivitis              |                  |                  |                  |
| subjects affected / exposed | 0 / 81 (0.00%)   | 0 / 85 (0.00%)   | 2 / 92 (2.17%)   |
| occurrences (all)           | 0                | 0                | 2                |
| Erysipelas                  |                  |                  |                  |
| subjects affected / exposed | 2 / 81 (2.47%)   | 0 / 85 (0.00%)   | 1 / 92 (1.09%)   |
| occurrences (all)           | 2                | 0                | 1                |
| Candida infection           |                  |                  |                  |
| subjects affected / exposed | 2 / 81 (2.47%)   | 0 / 85 (0.00%)   | 0 / 92 (0.00%)   |
| occurrences (all)           | 2                | 0                | 0                |

## More information

### Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

| Date             | Amendment  |
|------------------|--|
| 13 June 2011     | participation of more centres; Restruction of ICF, actualisation of medication information   |
| 12 March 2012    | wording in some protocol areas; wordings SAE=serious adverse event   |
| 12 November 2012 | adress of Sponsor; participation of more centres; wording protocol; CCS Erlangen as central safety organization; personel changes  |
| 16 February 2015 | Abatacept and Tocilizumab s.c. as study medication; wording of questionnaires; wording treatment group-> reduction group; wording documents; timeline: May 2010-> app. 6/2022 (due to long-term observation) |

Notes:

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### Interruptions (globally)

Were there any global interruptions to the trial? No

### Limitations and caveats

None reported