

**Clinical trial results:****Improving outcomes for patients with hip osteoarthritis: a randomised controlled trial****Summary**

|                          |                  |
|--------------------------|------------------|
| EudraCT number           | 2014-003412-37   |
| Trial protocol           | GB               |
| Global end of trial date | 19 December 2018 |

**Results information**

|                                |  |
|--------------------------------|--|
| Result version number          | v2 (current)   |
| This version publication date  | 19 July 2020   |
| First version publication date | 04 January 2020  |
| Version creation reason        | <ul style="list-style-type: none"><li>• Correction of full data set</li></ul> Overall follow up numbers are now presented as total follow up responses (previously only primary outcome completion numbers had been recorded under 'Completion' within the section on 'Number of subjects in period 1'). Within this section, the total number of subject-withdrawals has been updated. Part incorrect and excluded BMI data has been updated. |

**Trial information****Trial identification**

|                       |        |
|-----------------------|--------|
| Sponsor protocol code | 323/12 |
|-----------------------|--------|

**Additional study identifiers**

|                                    |                |
|------------------------------------|----------------|
| ISRCTN number                      | ISRCTN50550256 |
| ClinicalTrials.gov id (NCT number) | -              |
| WHO universal trial number (UTN)   | -              |

Notes:

**Sponsors**

|                              |   |
|------------------------------|---|
| Sponsor organisation name    | Keele University  |
| Sponsor organisation address | Keele, Newcastle-under-Lyme, United Kingdom, ST5 5BG                            |
| Public contact               | Study co-ordinator, Keele University, 44 01782734875, a.cherrington@keele.ac.uk |
| Scientific contact           | Study co-ordinator, Keele University, 44 01782734875, a.cherrington@keele.ac.uk |

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                       | 03 June 2019     |
| Is this the analysis of the primary completion data? | Yes              |
| Primary completion date                              | 19 December 2018 |
| Global end of trial reached?                         | Yes              |
| Global end of trial date                             | 19 December 2018 |
| Was the trial ended prematurely?                     | No               |

Notes:

## General information about the trial

Main objective of the trial:

The primary objective of this trial is to compare longitudinal average mean pain scores over 6 months in people with hip osteoarthritis between those receiving best current treatment in addition to a steroid and local anesthetic injection with those receiving best current treatment alone.

Protection of trial subjects:

The trial was performed in accordance with the recommendations guiding physicians in biomedical research involving human subjects adopted by the 18th World Medical Assembly, Helsinki, Finland, 1964, amended at the 52nd World Medical Association General Assembly, Edinburgh, Scotland. Informed written consent was obtained from the participants prior to any trial-specific procedures taking place. The right of a participant to refuse participation without giving reasons was respected. The trial was submitted to and approved by a main NHS Research Ethics Committee (main REC) and the appropriate site approvals given for each participating centre prior to entering participants into the trial. Subsequent amendments were approved by the Health Research Authority (HRA), main REC and MHRA as required. All information collected during the course of the trial is kept strictly confidential. Keele CTU complied with all aspects of the applicable Data Protection Act.

Background therapy:

None

Evidence for comparator:

Best current treatment comprised verbal and written information to enhance understanding of osteoarthritis and its management, and provide personalised advice and information about weight loss, exercise, footwear, walking aids and optimising pain management, consistent with the National Institute for Health and Care Excellence (NICE) osteoarthritis care and management clinical guideline (CG 177, published February 2014)). <https://www.nice.org.uk/guidance/cg177>

Triamcinolone acetonide has a well-established safety profile and was used at the dosage and form detailed in the Summary of Product Characteristics (SPC). It is licensed for use in osteoarthritis and is widely used for this purpose in clinical practice. There is one published randomised trial of an intra-articular injection of triamcinolone acetonide for hip osteoarthritis, which showed that triamcinolone acetonide 80mg produced greater reduction in pain than 1% mepivocaine (Kullenberg J Rheumatol 2004;31(11):2265-8).

1% lidocaine hydrochloride is licensed for regional anaesthesia and the dosage used in the trial is within current established practice as detailed in the Summary of Product Characteristics (SPC). There is one published randomised trial in which intra-articular injection interventions for hip osteoarthritis included 1% lidocaine hydrochloride, finding that 1ml 1% lidocaine hydrochloride plus saline water was less effective than 1ml 1% lidocaine hydrochloride in combination with a corticosteroid (methylprednisolone acetate) (Qvistgaard 2006;14(2):163-70).

|   |                 |
|---|-----------------|
| Actual start date of recruitment                          | 01 October 2015 |
| Long term follow-up planned                               | No              |
| Independent data monitoring committee (IDMC) involvement? | Yes             |

Notes:

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**Population of trial subjects**

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**Subjects enrolled per country**

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|                                      |                     |
|--------------------------------------|---------------------|
| Country: Number of subjects enrolled | United Kingdom: 199 |
| Worldwide total number of subjects   | 199                 |
| EEA total number of subjects         | 199                 |

Notes:

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**Subjects enrolled per age group**

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|   |     |
|---|-----|
| 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)                      | 113 |
| From 65 to 84 years                       | 83  |
| 85 years and over                         | 3   |

## Subject disposition

### Recruitment

Recruitment details:

Participants were recruited from primary care referrals to orthopaedics, rheumatology and two musculoskeletal NHS interface services, and direct from primary care.

### Pre-assignment

Screening details:

Potentially eligible patients were posted study information and invited to attend musculoskeletal hip clinics within two musculoskeletal interface services, where patients were screened, consented and treated.

### Pre-assignment period milestones

|                              |     |
|------------------------------|-----|
| Number of subjects started   | 199 |
| Number of subjects completed | 199 |

### Period 1

|                              |  |
|------------------------------|--|
| Period 1 title               | Trial recruitment and follow up (overall period) |
| Is this the baseline period? | Yes  |
| Allocation method            | Randomised - controlled                          |
| Blinding used                | Single blind                                     |
| Roles blinded                | Data analyst <sup>[1]</sup>                      |

Blinding implementation details:

Participants and clinicians were not blind to allocation to BCT alone, or, BCT plus injection. However, for those participants randomised to either of the two injection arms, participants and non-injecting clinicians were blind to the exact nature of the injection (triamcinolone acetonide plus 1% lidocaine hydrochloride or 1% lidocaine hydrochloride alone). The statisticians and research nurses (who conducted minimal data collection) were blind to allocation.

### Arms

|                              |                        |
|------------------------------|------------------------|
| Are arms mutually exclusive? | Yes                    |
| <b>Arm title</b>             | Best Current Treatment |

Arm description:

BCT comprised written information (Arthritis Research UK Osteoarthritis leaflet and a bespoke leaflet on exercise and functional activities), personalised advice and information about weight loss, exercise, footwear, walking aids and optimising pain management, delivered within the clinic visit.

|   |             |
|---|-------------|
| Arm type  | Control arm |
| No investigational medicinal product assigned in this arm |             |

|                  |          |
|------------------|----------|
| <b>Arm title</b> | BCT+US-L |
|------------------|----------|

Arm description:

Best Current Treatment (BCT) combined with an ultra-sound guided injection (USGI) of 5ml 1% lidocaine only.

|  |                            |
|--|----------------------------|
| Arm type                               | Active comparator          |
| Investigational medicinal product name | 1% lidocaine hydrochloride |
| Investigational medicinal product code |                            |
| Other name                             |                            |
| Pharmaceutical forms                   | Solution for injection     |
| Routes of administration               | Intraarticular use         |

Dosage and administration details:

Single intra-articular injection of 5mls 1% lidocaine hydrochloride into the hip

|                  |          |
|------------------|----------|
| <b>Arm title</b> | BCT+US-T |
|------------------|----------|

**Arm description:**

Best Current Treatment (BCT) combined with an ultra-sound guided injection (USGI) of 40mg triamcinolone acetonide and 4ml 1% lidocaine hydrochloride.

|  |                          |
|--|--------------------------|
| Arm type                               | Experimental             |
| Investigational medicinal product name | Triamcinolone acetonide  |
| Investigational medicinal product code |                          |
| Other name                             |                          |
| Pharmaceutical forms                   | Suspension for injection |
| Routes of administration               | Intraarticular use       |

**Dosage and administration details:**

Single intra-articular injection of 40mg triamcinolone acetonide into the hip (combined with 4mls 1% lidocaine hydrochloride)

|  |                            |
|--|----------------------------|
| Investigational medicinal product name | 1% lidocaine hydrochloride |
| Investigational medicinal product code |                            |
| Other name                             |                            |
| Pharmaceutical forms                   | Solution for injection     |
| Routes of administration               | Intraarticular use         |

**Dosage and administration details:**

Single intra-articular injection of 4mls 1% lidocaine hydrochloride into the hip (combined with 40mg triamcinolone acetonide)

**Notes:**

[1] - The roles blinded appear inconsistent with a simple blinded trial.

Justification: Analysis was performed blind to treatment allocation. Subjects were blind to injection type but not whether or not they received an injection. Data collection was self reported but a blind assessor collected data from non responders.

| <b>Number of subjects in period 1</b> | <b>Best Current Treatment</b> | <b>BCT+US-L</b> | <b>BCT+US-T</b> |
|---------------------------------------|-------------------------------|-----------------|-----------------|
| Started                               | 67                            | 66              | 66              |
| Baseline                              | 67                            | 66              | 66              |
| 2 weeks follow up                     | 62                            | 65              | 65              |
| 2 months follow up                    | 59                            | 65              | 66              |
| 4 months follow up                    | 57                            | 63              | 61              |
| 6 months follow up                    | 56                            | 61              | 61              |
| Completed                             | 56                            | 61              | 61              |
| Not completed                         | 11                            | 5               | 5               |
| Adverse event, serious fatal          | -                             | -               | 2               |
| Consent withdrawn by subject          | 9                             | 3               | 2               |
| Lost to follow-up                     | 2                             | 2               | 1               |

## Baseline characteristics

### Reporting groups

|                       |                        |
|-----------------------|------------------------|
| Reporting group title | Best Current Treatment |
|-----------------------|------------------------|

Reporting group description:

BCT comprised written information (Arthritis Research UK Osteoarthritis leaflet and a bespoke leaflet on exercise and functional activities), personalised advice and information about weight loss, exercise, footwear, walking aids and optimising pain management, delivered within the clinic visit.

|                       |          |
|-----------------------|----------|
| Reporting group title | BCT+US-L |
|-----------------------|----------|

Reporting group description:

Best Current Treatment (BCT) combined with an ultra-sound guided injection (USGI) of 5ml 1% lidocaine only.

|                       |          |
|-----------------------|----------|
| Reporting group title | BCT+US-T |
|-----------------------|----------|

Reporting group description:

Best Current Treatment (BCT) combined with an ultra-sound guided injection (USGI) of 40mg triamcinolone acetonide and 4ml 1% lidocaine hydrochloride.

| Reporting group values   | Best Current Treatment | BCT+US-L | BCT+US-T |
|--|------------------------|----------|----------|
| Number of subjects   | 67                     | 66       | 66       |
| Age categorical  |                        |          |          |
| 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                      | 0        | 0        |
| Adolescents (12-17 years)  | 0                      | 0        | 0        |
| Adults (18-64 years)   | 37                     | 39       | 37       |
| From 65-84 years   | 28                     | 26       | 29       |
| 85 years and over  | 2                      | 1        | 0        |
| Age continuous   |                        |          |          |
| Units: years   |                        |          |          |
| arithmetic mean  | 63.7                   | 62.3     | 62.5     |
| standard deviation   | ± 10.9                 | ± 9.8    | ± 9.3    |
| Gender categorical   |                        |          |          |
| Units: Subjects  |                        |          |          |
| Female   | 42                     | 36       | 35       |
| Male   | 25                     | 30       | 31       |
| Centre   |                        |          |          |
| Units: Subjects  |                        |          |          |
| Haywood  | 57                     | 56       | 50       |
| Cannock  | 10                     | 10       | 16       |
| Ethnic group   |                        |          |          |
| Ethnic group question: Which group do you consider yourself to belong to?  |                        |          |          |
| White  |                        |          |          |
| Non-white = Black/African/Carribbean/Black British or Asian/Asian British or Mixed/multiple ethnic groups or Other |                        |          |          |
| Units: Subjects  |                        |          |          |
| Non-white  | 0                      | 1        | 0        |

|  |    |    |    |
|--|----|----|----|
| White  | 67 | 65 | 66 |
| Living alone   |    |    |    |
| Units: Subjects  |    |    |    |
| No   | 57 | 53 | 57 |
| Yes  | 10 | 13 | 9  |
| Currently employed                                     |    |    |    |
| Units: Subjects  |    |    |    |
| No   | 10 | 10 | 6  |
| No, retired  | 30 | 29 | 23 |
| Yes  | 25 | 26 | 37 |
| Missing data   | 2  | 1  | 0  |
| Smoking status   |    |    |    |
| Units: Subjects  |    |    |    |
| Never  | 33 | 29 | 35 |
| Previous   | 24 | 24 | 21 |
| Current  | 10 | 13 | 10 |
| Alcohol consumption                                    |    |    |    |
| Units: Subjects  |    |    |    |
| Daily / most days                                      | 12 | 7  | 12 |
| Once or twice a week                                   | 22 | 31 | 25 |
| Once or twice a month                                  | 16 | 9  | 11 |
| Once or twice a year                                   | 7  | 8  | 12 |
| Never  | 10 | 11 | 6  |
| Hip(s) affected  |    |    |    |
| Over the last 12 months, pain in which hip(s)          |    |    |    |
| Units: Subjects  |    |    |    |
| Both   | 16 | 19 | 14 |
| Right only   | 32 | 30 | 28 |
| Left only  | 19 | 17 | 24 |
| Duration of symptoms                                   |    |    |    |
| Over the last 12 months, how many days had pain        |    |    |    |
| Units: Subjects  |    |    |    |
| Less than 3 months                                     | 2  | 1  | 3  |
| Between 3 months and 6 months                          | 8  | 4  | 5  |
| Between 6 months and 1 year                            | 19 | 14 | 9  |
| More than 1 year                                       | 38 | 47 | 48 |
| Missing data   | 0  | 0  | 1  |
| Days of pain in last 12 months                         |    |    |    |
| Over last 12 months, how many days in pain             |    |    |    |
| Units: Subjects  |    |    |    |
| Less than 7 days                                       | 0  | 1  | 0  |
| 1-4 weeks  | 0  | 0  | 0  |
| More than 1 month but less than 3 months               | 4  | 2  | 6  |
| 3 months or more                                       | 63 | 63 | 60 |
| Previous hip injury                                    |    |    |    |
| Ever injured hip badly enough to see a doctor about it |    |    |    |
| Units: Subjects  |    |    |    |
| No   | 59 | 55 | 58 |
| Right hip only   | 2  | 5  | 4  |
| Left hip only  | 2  | 5  | 3  |

|  |        |        |        |
|--|--------|--------|--------|
| Both hips  | 3      | 1      | 1      |
| Missing data   | 1      | 0      | 0      |
| Sleep problems   |        |        |        |
| During past 4 weeks, troubled by pain from hip in bed at night   |        |        |        |
| Units: Subjects  |        |        |        |
| No nights  | 6      | 2      | 1      |
| Only 1 or 2 nights   | 2      | 5      | 3      |
| Some nights  | 19     | 10     | 10     |
| Most nights  | 19     | 19     | 24     |
| Every night  | 21     | 30     | 28     |
| Previous hip injection   |        |        |        |
| Ever had steroid injection(s) into hip(s)?   |        |        |        |
| Units: Subjects  |        |        |        |
| No   | 64     | 63     | 65     |
| Yes  | 3      | 3      | 1      |
| Injection to other joint   |        |        |        |
| Ever had a steroid injection into a joint other than the hip   |        |        |        |
| Units: Subjects  |        |        |        |
| No   | 48     | 43     | 40     |
| Yes  | 19     | 23     | 25     |
| Missing data   | 0      | 0      | 1      |
| Preference   |        |        |        |
| Treatment preference   |        |        |        |
| Units: Subjects  |        |        |        |
| To have a hip injection  | 62     | 61     | 62     |
| Not to have a hip injection  | 5      | 3      | 3      |
| Missing data   | 0      | 2      | 1      |
| Comorbidity  |        |        |        |
| Other health conditions  |        |        |        |
| Units: Subjects  |        |        |        |
| No   | 20     | 19     | 29     |
| Yes  | 47     | 46     | 36     |
| Missing data   | 0      | 1      | 1      |
| BMI  |        |        |        |
| Body Mass Index (kg/m2)  |        |        |        |
| Units: kg/m2   |        |        |        |
| arithmetic mean  | 29.6   | 28.4   | 29.5   |
| standard deviation   | ± 6.7  | ± 4.9  | ± 5.6  |
| Pain NRS   |        |        |        |
| How severe is hip pain today (0-10 scale; 0=no pain at all, 10=worst pain imaginable)  |        |        |        |
| Units: 0-10 scale  |        |        |        |
| arithmetic mean  | 5.7    | 5.7    | 5.8    |
| standard deviation   | ± 2.2  | ± 2.1  | ± 2.1  |
| WOMAC - Total  |        |        |        |
| Western Ontario and McMaster Universities Arthritis Index (WOMAC) - Total scale score (0-96 scale; 0=no problems; 96=extreme problems) |        |        |        |
| Units: 0-96 scale  |        |        |        |
| arithmetic mean  | 51.1   | 50.7   | 50.2   |
| standard deviation   | ± 19.0 | ± 13.0 | ± 14.8 |
| WOMAC-P  |        |        |        |
| Western Ontario and McMaster Universities Arthritis Index (WOMAC) - Pain subscale score (0-20 scale; 0=no pain, 20=extreme pain)       |        |        |        |



|  |        |        |        |
|--|--------|--------|--------|
| Units: 0-20 scale  |        |        |        |
| arithmetic mean  | 10.7   | 10.7   | 10.7   |
| standard deviation   | ± 4.0  | ± 3.2  | ± 2.8  |
| WOMAC-S  |        |        |        |
| Western Ontario and McMaster Universities Arthritis Index (WOMAC) - Stiffness subscale score (0-8 scale; 0=no stiffness, 8=extreme stiffness)              |        |        |        |
| Units: 0-8 scale   |        |        |        |
| arithmetic mean  | 4.3    | 4.6    | 4.6    |
| standard deviation   | ± 1.5  | ± 1.5  | ± 1.4  |
| WOMAC-F  |        |        |        |
| Western Ontario and McMaster Universities Arthritis Index (WOMAC) - Function subscale (0-68; 0=no difficulty; 68=extreme difficulty)                       |        |        |        |
| Units: 0-68 scale  |        |        |        |
| arithmetic mean  | 36.0   | 35.4   | 35.0   |
| standard deviation   | ± 14.6 | ± 10.9 | ± 11.6 |
| PSEQ   |        |        |        |
| Pain Self-Efficacy Questionnaire (0-60 scale; 0=no confidence; 60=highest confidence)  |        |        |        |
| Units: 0-60 scale  |        |        |        |
| arithmetic mean  | 35.7   | 38.5   | 36.4   |
| standard deviation   | ± 14.7 | ± 13.0 | ± 13.4 |
| IPQ  |        |        |        |
| modified brief Illness Perceptions Questionnaire (0-50 scale; 0=full understanding, 50=least understanding)  |        |        |        |
| Units: 0-50 scale  |        |        |        |
| arithmetic mean  | 30.7   | 29.9   | 29.8   |
| standard deviation   | ± 7.2  | ± 5.4  | ± 7.3  |
| IPQ-Consequences   |        |        |        |
| modified brief Illness Perceptions Questionnaire - Consequences subscale (0-10 scale; 0=no affect at all; 10=severely affects life)                        |        |        |        |
| Units: 0-10 scale  |        |        |        |
| arithmetic mean  | 6.5    | 6.5    | 6.4    |
| standard deviation   | ± 2.4  | ± 1.8  | ± 2.1  |
| IPQ-Timeline   |        |        |        |
| modified brief Illness Perceptions Questionnaire - Timeline subscale (0-10 scale; 0=last very short time; 10=last forever)                                 |        |        |        |
| Units: 0-10 scale  |        |        |        |
| arithmetic mean  | 9.0    | 9.2    | 8.7    |
| standard deviation   | ± 1.4  | ± 1.3  | ± 1.8  |
| IPQ-Personal control   |        |        |        |
| modified brief Illness Perceptions Questionnaire - Personal control subscale (0-10 scale; 0=no control; 10=extreme control)                                |        |        |        |
| Units: 0-10 scale  |        |        |        |
| arithmetic mean  | 3.6    | 4.1    | 4.2    |
| standard deviation   | ± 2.8  | ± 2.9  | ± 2.6  |
| IPQ-Treatment control  |        |        |        |
| modified brief Illness Perceptions Questionnaire - Treatment control subscale (0-10 scale; 0=treatment no help; 10=treatment extremely helpful)            |        |        |        |
| Units: 0-10 scale  |        |        |        |
| arithmetic mean  | 7.4    | 7.4    | 7.3    |
| standard deviation   | ± 2.0  | ± 2.0  | ± 2.0  |
| IPQ-Emotional response   |        |        |        |
| modified brief Illness Perceptions Questionnaire - Emotional response subscale (0-10 scale; 0=not affected emotionally; 10=extremely affected emotionally) |        |        |        |
| Units: 0-10 scale  |        |        |        |

|   |        |        |        |
|---|--------|--------|--------|
| arithmetic mean   | 6.1    | 5.7    | 6.1    |
| standard deviation  | ± 2.9  | ± 2.8  | ± 2.7  |
| EQ5D  |        |        |        |
| EuroQoL EQ5D (health utilit) (-0.59 to 1.00; [-0.59=worst health utility, 1.00=best health utility])  |        |        |        |
| Units: -0.59 to 1.00  |        |        |        |
| arithmetic mean   | 0.50   | 0.48   | 0.49   |
| standard deviation  | ± 0.22 | ± 0.24 | ± 0.23 |
| SF-12 PCS   |        |        |        |
| Short Form-12 Physical Component Scale (SF12_PCS) (0-100 scale; 0=worst physical health, 100=best physical health)  |        |        |        |
| Units: 0-100  |        |        |        |
| arithmetic mean   | 33.9   | 33.2   | 34.5   |
| standard deviation  | ± 9.1  | ± 8.9  | ± 9.0  |
| SF12-MCS  |        |        |        |
| Short Form-12 Mental Component Scale (SF12_MCS) (0-100 scale; 0=worst mental health, 100=best mental health)  |        |        |        |
| Units: 0-100 scale  |        |        |        |
| arithmetic mean   | 49.3   | 52.9   | 51.5   |
| standard deviation  | ± 13.3 | ± 10.0 | ± 12.2 |
| GAD-7   |        |        |        |
| Generalised Anxiety Disorder Assessment (7-item scale)  |        |        |        |
| Units: 0-21 scale   |        |        |        |
| arithmetic mean   | 6.1    | 5.3    | 5.9    |
| standard deviation  | ± 6.3  | ± 5.8  | ± 5.9  |
| PHQ-8   |        |        |        |
| Patient Health Questionnaire depression scale   |        |        |        |
| Units: 0-24 scale   |        |        |        |
| arithmetic mean   | 6.9    | 6.2    | 6.7    |
| standard deviation  | ± 6.2  | ± 6.0  | ± 6.2  |
| SPS   |        |        |        |
| Stanford Presenteeism Scale (6-30 scale; 6=minimum ability, 30=maximum ability)   |        |        |        |
| Units: score  |        |        |        |
| arithmetic mean   | 20.0   | 20.2   | 20.2   |
| standard deviation  | ± 6.1  | ± 3.7  | ± 4.7  |
| Work Performance  |        |        |        |
| Work Performance (Numerical Rating Scale (NRS), 0-10; 0=Not at all affected, 10=Pain so bad that unable to do job).<br>Question worded: On average to what extent has your hip problem affected your performance at work in the last 6 weeks? |        |        |        |
| Units: score  |        |        |        |
| arithmetic mean   | 3.9    | 5.2    | 4.7    |
| standard deviation  | ± 3.3  | ± 2.8  | ± 2.4  |

|  |       |  |  |
|--|-------|--|--|
| <b>Reporting group values</b>                      | Total |  |  |
| Number of subjects                                 | 199   |  |  |
| Age categorical                                    |       |  |  |
| Units: Subjects                                    |       |  |  |
| In utero   | 0     |  |  |
| Preterm newborn infants (gestational age < 37 wks) | 0     |  |  |
| Newborns (0-27 days)                               | 0     |  |  |
| Infants and toddlers (28 days-23 months)           | 0     |  |  |
| Children (2-11 years)                              | 0     |  |  |

|   |     |  |  |
|---|-----|--|--|
| Adolescents (12-17 years)   | 0   |  |  |
| Adults (18-64 years)  | 113 |  |  |
| From 65-84 years  | 83  |  |  |
| 85 years and over   | 3   |  |  |
| Age continuous  |     |  |  |
| Units: years  |     |  |  |
| arithmetic mean   |     |  |  |
| standard deviation  | -   |  |  |
| Gender categorical  |     |  |  |
| Units: Subjects   |     |  |  |
| Female  | 113 |  |  |
| Male  | 86  |  |  |
| Centre  |     |  |  |
| Units: Subjects   |     |  |  |
| Haywood   | 163 |  |  |
| Cannock   | 36  |  |  |
| Ethnic group  |     |  |  |
| Ethnic group question: Which group do you consider yourself to belong to?   |     |  |  |
| White   |     |  |  |
| Non-white = Black/African/Caribbean/Black British or Asian/Asian British or Mixed/multiple ethnic groups or Other |     |  |  |
| Units: Subjects   |     |  |  |
| Non-white   | 1   |  |  |
| White   | 198 |  |  |
| Living alone  |     |  |  |
| Units: Subjects   |     |  |  |
| No  | 167 |  |  |
| Yes   | 32  |  |  |
| Currently employed  |     |  |  |
| Units: Subjects   |     |  |  |
| No  | 26  |  |  |
| No, retired   | 82  |  |  |
| Yes   | 88  |  |  |
| Missing data  | 3   |  |  |
| Smoking status  |     |  |  |
| Units: Subjects   |     |  |  |
| Never   | 97  |  |  |
| Previous  | 69  |  |  |
| Current   | 33  |  |  |
| Alcohol consumption   |     |  |  |
| Units: Subjects   |     |  |  |
| Daily / most days   | 31  |  |  |
| Once or twice a week  | 78  |  |  |
| Once or twice a month   | 36  |  |  |
| Once or twice a year  | 27  |  |  |
| Never   | 27  |  |  |
| Hip(s) affected   |     |  |  |
| Over the last 12 months, pain in which hip(s)   |     |  |  |
| Units: Subjects   |     |  |  |
| Both  | 49  |  |  |
| Right only  | 90  |  |  |
| Left only   | 60  |  |  |

|  |     |  |  |
|--|-----|--|--|
| Duration of symptoms   |     |  |  |
| Over the last 12 months, how many days had pain                |     |  |  |
| Units: Subjects  |     |  |  |
| Less than 3 months   | 6   |  |  |
| Between 3 months and 6 months                                  | 17  |  |  |
| Between 6 months and 1 year                                    | 42  |  |  |
| More than 1 year   | 133 |  |  |
| Missing data   | 1   |  |  |
| Days of pain in last 12 months                                 |     |  |  |
| Over last 12 months, how many days in pain                     |     |  |  |
| Units: Subjects  |     |  |  |
| Less than 7 days   | 1   |  |  |
| 1-4 weeks  | 0   |  |  |
| More than 1 month but less than 3 months                       | 12  |  |  |
| 3 months or more   | 186 |  |  |
| Previous hip injury  |     |  |  |
| Ever injured hip badly enough to see a doctor about it         |     |  |  |
| Units: Subjects  |     |  |  |
| No   | 172 |  |  |
| Right hip only   | 11  |  |  |
| Left hip only  | 10  |  |  |
| Both hips  | 5   |  |  |
| Missing data   | 1   |  |  |
| Sleep problems   |     |  |  |
| During past 4 weeks, troubled by pain from hip in bed at night |     |  |  |
| Units: Subjects  |     |  |  |
| No nights  | 9   |  |  |
| Only 1 or 2 nights   | 10  |  |  |
| Some nights  | 39  |  |  |
| Most nights  | 62  |  |  |
| Every night  | 79  |  |  |
| Previous hip injection   |     |  |  |
| Ever had steroid injection(s) into hip(s)?                     |     |  |  |
| Units: Subjects  |     |  |  |
| No   | 192 |  |  |
| Yes  | 7   |  |  |
| Injection to other joint                                       |     |  |  |
| Ever had a steroid injection into a joint other than the hip   |     |  |  |
| Units: Subjects  |     |  |  |
| No   | 131 |  |  |
| Yes  | 67  |  |  |
| Missing data   | 1   |  |  |
| Preference   |     |  |  |
| Treatment preference   |     |  |  |
| Units: Subjects  |     |  |  |
| To have a hip injection  | 185 |  |  |
| Not to have a hip injection                                    | 11  |  |  |
| Missing data   | 3   |  |  |
| Comorbidity  |     |  |  |
| Other health conditions  |     |  |  |
| Units: Subjects  |     |  |  |

|   |     |  |  |
|---|-----|--|--|
| No  | 68  |  |  |
| Yes   | 129 |  |  |
| Missing data  | 2   |  |  |
| BMI   |     |  |  |
| Body Mass Index (kg/m2)   |     |  |  |
| Units: kg/m2  |     |  |  |
| arithmetic mean   |     |  |  |
| standard deviation  | -   |  |  |
| Pain NRS  |     |  |  |
| How severe is hip pain today (0-10 scale; 0=no pain at all, 10=worst pain imaginable)   |     |  |  |
| Units: 0-10 scale   |     |  |  |
| arithmetic mean   |     |  |  |
| standard deviation  | -   |  |  |
| WOMAC - Total   |     |  |  |
| Western Ontario and McMaster Universities Arthritis Index (WOMAC) - Total scale score (0-96 scale; 0=no problems; 96=extreme problems)        |     |  |  |
| Units: 0-96 scale   |     |  |  |
| arithmetic mean   |     |  |  |
| standard deviation  | -   |  |  |
| WOMAC-P   |     |  |  |
| Western Ontario and McMaster Universities Arthritis Index (WOMAC) - Pain subscale score (0-20 scale; 0=no pain, 20=extreme pain)              |     |  |  |
| Units: 0-20 scale   |     |  |  |
| arithmetic mean   |     |  |  |
| standard deviation  | -   |  |  |
| WOMAC-S   |     |  |  |
| Western Ontario and McMaster Universities Arthritis Index (WOMAC) - Stiffness subscale score (0-8 scale; 0=no stiffness, 8=extreme stiffness) |     |  |  |
| Units: 0-8 scale  |     |  |  |
| arithmetic mean   |     |  |  |
| standard deviation  | -   |  |  |
| WOMAC-F   |     |  |  |
| Western Ontario and McMaster Universities Arthritis Index (WOMAC) - Function subscale (0-68; 0=no difficulty; 68=extreme difficulty)          |     |  |  |
| Units: 0-68 scale   |     |  |  |
| arithmetic mean   |     |  |  |
| standard deviation  | -   |  |  |
| PSEQ  |     |  |  |
| Pain Self-Efficacy Questionnaire (0-60 scale; 0=no confidence; 60=highest confidence)   |     |  |  |
| Units: 0-60 scale   |     |  |  |
| arithmetic mean   |     |  |  |
| standard deviation  | -   |  |  |
| IPQ   |     |  |  |
| modified brief Illness Perceptions Questionnaire (0-50 scale; 0=full understanding, 50=least understanding)                                   |     |  |  |
| Units: 0-50 scale   |     |  |  |
| arithmetic mean   |     |  |  |
| standard deviation  | -   |  |  |
| IPQ-Consequences  |     |  |  |
| modified brief Illness Perceptions Questionnaire - Consequences subscale (0-10 scale; 0=no affect at all; 10=severely affects life)           |     |  |  |
| Units: 0-10 scale   |     |  |  |
| arithmetic mean   |     |  |  |

|  |   |  |  |
|--|---|--|--|
| standard deviation   | - |  |  |
| IPQ-Timeline   |   |  |  |
| modified brief Illness Perceptions Questionnaire - Timeline subscale (0-10 scale; 0=last very short time; 10=last forever)                                 |   |  |  |
| Units: 0-10 scale  |   |  |  |
| arithmetic mean  |   |  |  |
| standard deviation   | - |  |  |
| IPQ-Personal control   |   |  |  |
| modified brief Illness Perceptions Questionnaire - Personal control subscale (0-10 scale; 0=no control; 10=extreme control)                                |   |  |  |
| Units: 0-10 scale  |   |  |  |
| arithmetic mean  |   |  |  |
| standard deviation   | - |  |  |
| IPQ-Treatment control  |   |  |  |
| modified brief Illness Perceptions Questionnaire - Treatment control subscale (0-10 scale; 0=treatment no help; 10=treatment extremely helpful)            |   |  |  |
| Units: 0-10 scale  |   |  |  |
| arithmetic mean  |   |  |  |
| standard deviation   | - |  |  |
| IPQ-Emotional response   |   |  |  |
| modified brief Illness Perceptions Questionnaire - Emotional response subscale (0-10 scale; 0=not affected emotionally; 10=extremely affected emotionally) |   |  |  |
| Units: 0-10 scale  |   |  |  |
| arithmetic mean  |   |  |  |
| standard deviation   | - |  |  |
| EQ5D   |   |  |  |
| EuroQoL EQ5D (health utilit) (-0.59 to 1.00; [-0.59=worst health utility, 1.00=best health utility)  |   |  |  |
| Units: -0.59 to 1.00   |   |  |  |
| arithmetic mean  |   |  |  |
| standard deviation   | - |  |  |
| SF-12 PCS  |   |  |  |
| Short Form-12 Physical Component Scale (SF12_PCS) (0-100 scale; 0=worst physical health, 100=best physical health)   |   |  |  |
| Units: 0-100   |   |  |  |
| arithmetic mean  |   |  |  |
| standard deviation   | - |  |  |
| SF12-MCS   |   |  |  |
| Short Form-12 Mental Component Scale (SF12_MCS) (0-100 scale; 0=worst mental health, 100=best mental health)   |   |  |  |
| Units: 0-100 scale   |   |  |  |
| arithmetic mean  |   |  |  |
| standard deviation   | - |  |  |
| GAD-7  |   |  |  |
| Generalised Anxiety Disorder Assessment (7-item scale)   |   |  |  |
| Units: 0-21 scale  |   |  |  |
| arithmetic mean  |   |  |  |
| standard deviation   | - |  |  |
| PHQ-8  |   |  |  |
| Patient Health Questionnaire depression scale  |   |  |  |
| Units: 0-24 scale  |   |  |  |
| arithmetic mean  |   |  |  |
| standard deviation   | - |  |  |
| SPS  |   |  |  |
| Stanford Presenteeism Scale (6-30 scale; 6=minimum ability, 30=maximum ability)  |   |  |  |

|   |   |  |  |
|---|---|--|--|
| Units: score  |   |  |  |
| arithmetic mean   |   |  |  |
| standard deviation  | - |  |  |
| Work Performance  |   |  |  |
| Work Performance (Numerical Rating Scale (NRS), 0-10; 0=Not at all affected, 10=Pain so bad that unable to do job).<br>Question worded: On average to what extent has your hip problem affected your performance at work in the last 6 weeks? |   |  |  |
| Units: score  |   |  |  |
| arithmetic mean   |   |  |  |
| standard deviation  | - |  |  |

## Subject analysis sets

|   |                    |
|---|--------------------|
| Subject analysis set title  | Primary endpoint   |
| Subject analysis set type   | Intention-to-treat |
| Subject analysis set description:   |                    |
| Primary endpoint = average NRS-pain score over 2 weeks, 2 months, 4 months and 6 months follow up |                    |

| Reporting group values  | Primary endpoint |  |  |
|---|------------------|--|--|
| Number of subjects  | 194              |  |  |
| Age categorical   |                  |  |  |
| Units: Subjects   |                  |  |  |
| In utero  | 0                |  |  |
| Preterm newborn infants (gestational age < 37 wks)  | 0                |  |  |
| Newborns (0-27 days)  | 0                |  |  |
| Infants and toddlers (28 days-23 months)  | 0                |  |  |
| Children (2-11 years)   | 0                |  |  |
| Adolescents (12-17 years)   | 0                |  |  |
| Adults (18-64 years)  | 109              |  |  |
| From 65-84 years  | 82               |  |  |
| 85 years and over   | 3                |  |  |
| Age continuous  |                  |  |  |
| Units: years  |                  |  |  |
| arithmetic mean   | 63.0             |  |  |
| standard deviation  | ± 9.8            |  |  |
| Gender categorical  |                  |  |  |
| Units: Subjects   |                  |  |  |
| Female  | 110              |  |  |
| Male  | 84               |  |  |
| Centre  |                  |  |  |
| Units: Subjects   |                  |  |  |
| Haywood   | 159              |  |  |
| Cannock   | 35               |  |  |
| Ethnic group  |                  |  |  |
| Ethnic group question: Which group do you consider yourself to belong to?   |                  |  |  |
| White   |                  |  |  |
| Non-white = Black/African/Caribbean/Black British or Asian/Asian British or Mixed/multiple ethnic groups or Other |                  |  |  |
| Units: Subjects   |                  |  |  |
| Non-white   | 1                |  |  |
| White   | 193              |  |  |

|  |     |  |  |
|--|-----|--|--|
| Living alone   |     |  |  |
| Units: Subjects  |     |  |  |
| No   | 164 |  |  |
| Yes  | 30  |  |  |
| Currently employed                                     |     |  |  |
| Units: Subjects  |     |  |  |
| No   | 25  |  |  |
| No, retired  | 81  |  |  |
| Yes  | 85  |  |  |
| Missing data   | 3   |  |  |
| Smoking status   |     |  |  |
| Units: Subjects  |     |  |  |
| Never  | 95  |  |  |
| Previous   | 67  |  |  |
| Current  | 32  |  |  |
| Alcohol consumption                                    |     |  |  |
| Units: Subjects  |     |  |  |
| Daily / most days                                      | 31  |  |  |
| Once or twice a week                                   | 77  |  |  |
| Once or twice a month                                  | 35  |  |  |
| Once or twice a year                                   | 24  |  |  |
| Never  | 27  |  |  |
| Hip(s) affected  |     |  |  |
| Over the last 12 months, pain in which hip(s)          |     |  |  |
| Units: Subjects  |     |  |  |
| Both   | 48  |  |  |
| Right only   | 88  |  |  |
| Left only  | 58  |  |  |
| Duration of symptoms                                   |     |  |  |
| Over the last 12 months, how many days had pain        |     |  |  |
| Units: Subjects  |     |  |  |
| Less than 3 months                                     | 6   |  |  |
| Between 3 months and 6 months                          | 16  |  |  |
| Between 6 months and 1 year                            | 41  |  |  |
| More than 1 year                                       | 130 |  |  |
| Missing data   | 1   |  |  |
| Days of pain in last 12 months                         |     |  |  |
| Over last 12 months, how many days in pain             |     |  |  |
| Units: Subjects  |     |  |  |
| Less than 7 days                                       | 1   |  |  |
| 1-4 weeks  | 0   |  |  |
| More than 1 month but less than 3 months               | 12  |  |  |
| 3 months or more                                       | 181 |  |  |
| Previous hip injury                                    |     |  |  |
| Ever injured hip badly enough to see a doctor about it |     |  |  |
| Units: Subjects  |     |  |  |
| No   | 169 |  |  |
| Right hip only   | 10  |  |  |
| Left hip only  | 10  |  |  |
| Both hips  | 5   |  |  |
| Missing data   | 0   |  |  |



|  |        |  |  |
|--|--------|--|--|
| Sleep problems   |        |  |  |
| During past 4 weeks, troubled by pain from hip in bed at night   |        |  |  |
| Units: Subjects  |        |  |  |
| No nights  | 9      |  |  |
| Only 1 or 2 nights   | 10     |  |  |
| Some nights  | 38     |  |  |
| Most nights  | 61     |  |  |
| Every night  | 76     |  |  |
| Previous hip injection   |        |  |  |
| Ever had steroid injection(s) into hip(s)?   |        |  |  |
| Units: Subjects  |        |  |  |
| No   | 187    |  |  |
| Yes  | 7      |  |  |
| Injection to other joint   |        |  |  |
| Ever had a steroid injection into a joint other than the hip   |        |  |  |
| Units: Subjects  |        |  |  |
| No   | 128    |  |  |
| Yes  | 65     |  |  |
| Missing data   | 1      |  |  |
| Preference   |        |  |  |
| Treatment preference   |        |  |  |
| Units: Subjects  |        |  |  |
| To have a hip injection  | 180    |  |  |
| Not to have a hip injection  | 11     |  |  |
| Missing data   | 3      |  |  |
| Comorbidity  |        |  |  |
| Other health conditions  |        |  |  |
| Units: Subjects  |        |  |  |
| No   | 67     |  |  |
| Yes  | 125    |  |  |
| Missing data   | 2      |  |  |
| BMI  |        |  |  |
| Body Mass Index (kg/m2)  |        |  |  |
| Units: kg/m2   |        |  |  |
| arithmetic mean  | 29.2   |  |  |
| standard deviation   | ± 5.7  |  |  |
| Pain NRS   |        |  |  |
| How severe is hip pain today (0-10 scale; 0=no pain at all, 10=worst pain imaginable)  |        |  |  |
| Units: 0-10 scale  |        |  |  |
| arithmetic mean  | 5.7    |  |  |
| standard deviation   | ± 2.1  |  |  |
| WOMAC - Total  |        |  |  |
| Western Ontario and McMaster Universities Arthritis Index (WOMAC) - Total scale score (0-96 scale; 0=no problems; 96=extreme problems) |        |  |  |
| Units: 0-96 scale  |        |  |  |
| arithmetic mean  | 50.8   |  |  |
| standard deviation   | ± 16.0 |  |  |
| WOMAC-P  |        |  |  |
| Western Ontario and McMaster Universities Arthritis Index (WOMAC) - Pain subscale score (0-20 scale; 0=no pain, 20=extreme pain)       |        |  |  |
| Units: 0-20 scale  |        |  |  |
| arithmetic mean  | 10.7   |  |  |

|  |        |  |  |
|--|--------|--|--|
| standard deviation   | ± 3.3  |  |  |
| WOMAC-S  |        |  |  |
| Western Ontario and McMaster Universities Arthritis Index (WOMAC) - Stiffness subscale score (0-8 scale; 0=no stiffness, 8=extreme stiffness)              |        |  |  |
| Units: 0-8 scale   |        |  |  |
| arithmetic mean  | 4.5    |  |  |
| standard deviation   | ± 1.5  |  |  |
| WOMAC-F  |        |  |  |
| Western Ontario and McMaster Universities Arthritis Index (WOMAC) - Function subscale (0-68; 0=no difficulty; 68=extreme difficulty)                       |        |  |  |
| Units: 0-68 scale  |        |  |  |
| arithmetic mean  | 35.6   |  |  |
| standard deviation   | ± 12.3 |  |  |
| PSEQ   |        |  |  |
| Pain Self-Efficacy Questionnaire (0-60 scale; 0=no confidence; 60=highest confidence)  |        |  |  |
| Units: 0-60 scale  |        |  |  |
| arithmetic mean  | 37.1   |  |  |
| standard deviation   | ± 13.7 |  |  |
| IPQ  |        |  |  |
| modified brief Illness Perceptions Questionnaire (0-50 scale; 0=full understanding, 50=least understanding)  |        |  |  |
| Units: 0-50 scale  |        |  |  |
| arithmetic mean  | 30.0   |  |  |
| standard deviation   | ± 6.7  |  |  |
| IPQ-Consequences   |        |  |  |
| modified brief Illness Perceptions Questionnaire - Consequences subscale (0-10 scale; 0=no affect at all; 10=severely affects life)                        |        |  |  |
| Units: 0-10 scale  |        |  |  |
| arithmetic mean  | 6.5    |  |  |
| standard deviation   | ± 2.1  |  |  |
| IPQ-Timeline   |        |  |  |
| modified brief Illness Perceptions Questionnaire - Timeline subscale (0-10 scale; 0=last very short time; 10=last forever)                                 |        |  |  |
| Units: 0-10 scale  |        |  |  |
| arithmetic mean  | 9.0    |  |  |
| standard deviation   | ± 1.5  |  |  |
| IPQ-Personal control   |        |  |  |
| modified brief Illness Perceptions Questionnaire - Personal control subscale (0-10 scale; 0=no control; 10=extreme control)                                |        |  |  |
| Units: 0-10 scale  |        |  |  |
| arithmetic mean  | 4.0    |  |  |
| standard deviation   | ± 2.8  |  |  |
| IPQ-Treatment control  |        |  |  |
| modified brief Illness Perceptions Questionnaire - Treatment control subscale (0-10 scale; 0=treatment no help; 10=treatment extremely helpful)            |        |  |  |
| Units: 0-10 scale  |        |  |  |
| arithmetic mean  | 7.4    |  |  |
| standard deviation   | ± 2.0  |  |  |
| IPQ-Emotional response   |        |  |  |
| modified brief Illness Perceptions Questionnaire - Emotional response subscale (0-10 scale; 0=not affected emotionally; 10=extremely affected emotionally) |        |  |  |
| Units: 0-10 scale  |        |  |  |
| arithmetic mean  | 5.9    |  |  |
| standard deviation   | ± 2.8  |  |  |

|   |        |  |  |
|---|--------|--|--|
| EQ5D  |        |  |  |
| EuroQoL EQ5D (health utilit) (-0.59 to 1.00; [-0.59=worst health utility, 1.00=best health utility])  |        |  |  |
| Units: -0.59 to 1.00  |        |  |  |
| arithmetic mean   | 0.49   |  |  |
| standard deviation  | ± 0.23 |  |  |
| SF-12 PCS   |        |  |  |
| Short Form-12 Physical Component Scale (SF12_PCS) (0-100 scale; 0=worst physical health, 100=best physical health)  |        |  |  |
| Units: 0-100  |        |  |  |
| arithmetic mean   | 34.0   |  |  |
| standard deviation  | ± 8.8  |  |  |
| SF12-MCS  |        |  |  |
| Short Form-12 Mental Component Scale (SF12_MCS) (0-100 scale; 0=worst mental health, 100=best mental health)  |        |  |  |
| Units: 0-100 scale  |        |  |  |
| arithmetic mean   | 51.3   |  |  |
| standard deviation  | ± 11.8 |  |  |
| GAD-7   |        |  |  |
| Generalised Anxiety Disorder Assessment (7-item scale)  |        |  |  |
| Units: 0-21 scale   |        |  |  |
| arithmetic mean   | 5.7    |  |  |
| standard deviation  | ± 5.9  |  |  |
| PHQ-8   |        |  |  |
| Patient Health Questionnaire depression scale   |        |  |  |
| Units: 0-24 scale   |        |  |  |
| arithmetic mean   | 6.6    |  |  |
| standard deviation  | ± 6.0  |  |  |
| SPS   |        |  |  |
| Stanford Presenteeism Scale (6-30 scale; 6=minimum ability, 30=maximum ability)   |        |  |  |
| Units: score  |        |  |  |
| arithmetic mean   | 20.2   |  |  |
| standard deviation  | ± 4.9  |  |  |
| Work Performance  |        |  |  |
| Work Performance (Numerical Rating Scale (NRS), 0-10; 0=Not at all affected, 10=Pain so bad that unable to do job).<br>Question worded: On average to what extent has your hip problem affected your performance at work in the last 6 weeks? |        |  |  |
| Units: score  |        |  |  |
| arithmetic mean   | 4.6    |  |  |
| standard deviation  | ± 2.8  |  |  |

## End points

### End points reporting groups

|  |                        |
|--|------------------------|
| Reporting group title  | Best Current Treatment |
| Reporting group description:<br>BCT comprised written information (Arthritis Research UK Osteoarthritis leaflet and a bespoke leaflet on exercise and functional activities), personalised advice and information about weight loss, exercise, footwear, walking aids and optimising pain management, delivered within the clinic visit. |                        |
| Reporting group title  | BCT+US-L               |
| Reporting group description:<br>Best Current Treatment (BCT) combined with an ultra-sound guided injection (USGI) of 5ml 1% lidocaine only.  |                        |
| Reporting group title  | BCT+US-T               |
| Reporting group description:<br>Best Current Treatment (BCT) combined with an ultra-sound guided injection (USGI) of 40mg triamcinolone acetonide and 4ml 1% lidocaine hydrochloride.  |                        |
| Subject analysis set title   | Primary endpoint       |
| Subject analysis set type  | Intention-to-treat     |
| Subject analysis set description:<br>Primary endpoint = average NRS-pain score over 2 weeks, 2 months, 4 months and 6 months follow up   |                        |

### Primary: Pain score at 2 weeks

|  |                       |
|--|-----------------------|
| End point title  | Pain score at 2 weeks |
| End point description:<br>Comparison of pain scores at 2 weeks follow up (0-10 pain scale; 0=no pain, 10=maximum pain) |                       |
| End point type   | Primary               |
| End point timeframe:<br>2 weeks  |                       |

| End point values                     | Best Current Treatment | BCT+US-L        | BCT+US-T        | Primary endpoint     |
|--------------------------------------|------------------------|-----------------|-----------------|----------------------|
| Subject group type                   | Reporting group        | Reporting group | Reporting group | Subject analysis set |
| Number of subjects analysed          | 62                     | 63              | 64              | 189                  |
| Units: score                         |                        |                 |                 |                      |
| arithmetic mean (standard deviation) | 6.0 (± 2.3)            | 4.0 (± 2.4)     | 3.0 (± 2.5)     | 4.3 (± 2.7)          |

### Statistical analyses

|  |  |
|--|--|
| Statistical analysis title   | Pain score (2 weeks) - BCT+US-T versus BCT |
| Statistical analysis description:<br>Pain score at 2 weeks follow up (BCT+US-T minus BCT) adjusted for age, gender and baseline pain score |  |
| Comparison groups  | Best Current Treatment v BCT+US-T          |

|   |                                |
|---|--------------------------------|
| Number of subjects included in analysis | 126                            |
| Analysis specification                  | Pre-specified                  |
| Analysis type                           | superiority                    |
| P-value                                 | < 0.001                        |
| Method                                  | Mixed models analysis          |
| Parameter estimate                      | Mean difference (final values) |
| Point estimate                          | -3.17                          |
| Confidence interval                     |                                |
| level                                   | 95 %                           |
| sides                                   | 2-sided                        |
| lower limit                             | -4.06                          |
| upper limit                             | -2.28                          |
| Variability estimate                    | Standard error of the mean     |

|  |   |
|--|---|
| <b>Statistical analysis title</b>  | Pain score (2 weeks) - BCT+US-T versus BCT+US-L |
| Statistical analysis description:  |   |
| Pain score at 2 weeks follow up (BCT+US-T minus BCT+US-L) adjusted for age, gender and baseline pain score |   |
| Comparison groups  | BCT+US-L v BCT+US-T                             |
| Number of subjects included in analysis  | 127   |
| Analysis specification   | Pre-specified                                   |
| Analysis type  | superiority                                     |
| P-value  | = 0.023   |
| Method   | Mixed models analysis                           |
| Parameter estimate   | Mean difference (final values)                  |
| Point estimate   | -1.02   |
| Confidence interval  |   |
| level  | 95 %  |
| sides  | 2-sided   |
| lower limit  | -1.9  |
| upper limit  | -0.14   |
| Variability estimate   | Standard error of the mean                      |

|  |                        |
|--|------------------------|
| <b>Primary: Pain score at 2 months</b> |                        |
| End point title                        | Pain score at 2 months |
| End point description:                 |                        |
| Pain score at 2 months follow up       |                        |
| End point type                         | Primary                |
| End point timeframe:                   |                        |
| 2 months                               |                        |

| End point values                     | Best Current Treatment | BCT+US-L        | BCT+US-T        | Primary endpoint     |
|--------------------------------------|------------------------|-----------------|-----------------|----------------------|
| Subject group type                   | Reporting group        | Reporting group | Reporting group | Subject analysis set |
| Number of subjects analysed          | 58                     | 65              | 64              | 187                  |
| Units: score                         |                        |                 |                 |                      |
| arithmetic mean (standard deviation) | 5.8 (± 2.5)            | 4.7 (± 2.6)     | 4.2 (± 2.8)     | 4.9 (± 2.7)          |

## Statistical analyses

| Statistical analysis title   | Pain score (2 months) - BCT+US-T versus BCT |
|--|---|
| Statistical analysis description:  |   |
| Pain score at 2 months follow up (BCT+US-T minus BCT) adjusted for age, gender and baseline pain score |   |
| Comparison groups  | Best Current Treatment v BCT+US-T           |
| Number of subjects included in analysis  | 122   |
| Analysis specification   | Pre-specified                               |
| Analysis type  | superiority                                 |
| P-value  | < 0.001                                     |
| Method   | Mixed models analysis                       |
| Parameter estimate   | Mean difference (final values)              |
| Point estimate   | -1.81                                       |
| Confidence interval  |   |
| level  | 95 %  |
| sides  | 2-sided                                     |
| lower limit  | -2.71                                       |
| upper limit  | -0.92                                       |
| Variability estimate   | Standard error of the mean                  |

| Statistical analysis title  | Pain score (2 months) - BCT+US-T versus BCT+US-L |
|---|--|
| Statistical analysis description:   |  |
| Pain score at 2 months follow up (BCT+US-T minus BCT+US-L) adjusted for age, gender and baseline pain score |  |
| Comparison groups   | BCT+US-L v BCT+US-T                              |
| Number of subjects included in analysis   | 129  |
| Analysis specification  | Pre-specified                                    |
| Analysis type   | superiority                                      |
| P-value   | = 0.136  |
| Method  | Mixed models analysis                            |
| Parameter estimate  | Mean difference (final values)                   |
| Point estimate  | -0.67  |
| Confidence interval   |  |
| level   | 95 %   |
| sides   | 2-sided  |
| lower limit   | -1.54  |
| upper limit   | 0.21   |
| Variability estimate  | Standard error of the mean                       |

---

**Primary: Pain score at 4 months**

---

|                 |                        |
|-----------------|------------------------|
| End point title | Pain score at 4 months |
|-----------------|------------------------|

End point description:

Pain score at 4 months follow up

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

End point timeframe:

4 months

---

| End point values                     | Best Current Treatment | BCT+US-L        | BCT+US-T        | Primary endpoint     |
|--------------------------------------|------------------------|-----------------|-----------------|----------------------|
| Subject group type                   | Reporting group        | Reporting group | Reporting group | Subject analysis set |
| Number of subjects analysed          | 57                     | 63              | 59              | 179                  |
| Units: score                         |                        |                 |                 |                      |
| arithmetic mean (standard deviation) | 5.4 (± 2.9)            | 5.0 (± 2.6)     | 4.5 (± 2.7)     | 4.9 (± 2.7)          |

**Statistical analyses**

|                                   |   |
|-----------------------------------|---|
| <b>Statistical analysis title</b> | Pain score (4 months) - BCT+US-T versus BCT |
|-----------------------------------|---|

Statistical analysis description:

Pain score at 4 months follow up (BCT+US-T minus BCT) adjusted for age, gender and baseline pain score

|                   |                                   |
|-------------------|-----------------------------------|
| Comparison groups | BCT+US-T v Best Current Treatment |
|-------------------|-----------------------------------|

|   |     |
|---|-----|
| Number of subjects included in analysis | 116 |
|---|-----|

|                        |               |
|------------------------|---------------|
| Analysis specification | Pre-specified |
|------------------------|---------------|

|               |             |
|---------------|-------------|
| Analysis type | superiority |
|---------------|-------------|

|         |         |
|---------|---------|
| P-value | = 0.063 |
|---------|---------|

|        |                       |
|--------|-----------------------|
| Method | Mixed models analysis |
|--------|-----------------------|

|                    |                                |
|--------------------|--------------------------------|
| Parameter estimate | Mean difference (final values) |
|--------------------|--------------------------------|

|                |       |
|----------------|-------|
| Point estimate | -0.86 |
|----------------|-------|

Confidence interval

|       |      |
|-------|------|
| level | 95 % |
|-------|------|

|       |         |
|-------|---------|
| sides | 2-sided |
|-------|---------|

|             |       |
|-------------|-------|
| lower limit | -1.78 |
|-------------|-------|

|             |      |
|-------------|------|
| upper limit | 0.05 |
|-------------|------|

|                      |                            |
|----------------------|----------------------------|
| Variability estimate | Standard error of the mean |
|----------------------|----------------------------|

---

|                                   |  |
|-----------------------------------|--|
| <b>Statistical analysis title</b> | Pain score (4 months) - BCT+US-T versus BCT+US-L |
|-----------------------------------|--|

Statistical analysis description:

Pain score at 4 months follow up (BCT+US-T minus BCT+US-L) adjusted for age, gender and baseline pain score

|                   |                     |
|-------------------|---------------------|
| Comparison groups | BCT+US-L v BCT+US-T |
|-------------------|---------------------|

---

|   |                            |
|---|----------------------------|
| Number of subjects included in analysis | 122                        |
| Analysis specification                  | Pre-specified              |
| Analysis type                           | superiority                |
| P-value                                 | = 0.291                    |
| Method                                  | Mixed models analysis      |
| Parameter estimate                      | Mean difference (net)      |
| Point estimate                          | -0.48                      |
| Confidence interval                     |                            |
| level                                   | 95 %                       |
| sides                                   | 2-sided                    |
| lower limit                             | -1.37                      |
| upper limit                             | 0.41                       |
| Variability estimate                    | Standard error of the mean |

### Primary: Pain score at 6 months

|                        |                        |
|------------------------|------------------------|
| End point title        | Pain score at 6 months |
| End point description: |                        |
| End point type         | Primary                |
| End point timeframe:   |                        |
| 6 months               |                        |

| End point values                     | Best Current Treatment | BCT+US-L        | BCT+US-T        | Primary endpoint     |
|--------------------------------------|------------------------|-----------------|-----------------|----------------------|
| Subject group type                   | Reporting group        | Reporting group | Reporting group | Subject analysis set |
| Number of subjects analysed          | 56                     | 61              | 61              | 178                  |
| Units: score                         |                        |                 |                 |                      |
| arithmetic mean (standard deviation) | 5.0 (± 2.8)            | 5.0 (± 2.5)     | 5.1 (± 2.7)     | 5.1 (± 2.7)          |

### Statistical analyses

|  |   |
|--|---|
| <b>Statistical analysis title</b>  | Pain score (6 months) - BCT+US-T versus BCT |
| Statistical analysis description:  |   |
| Pain score at 6 months follow up (BCT+US-T minus BCT) adjusted for age, gender and baseline pain score |   |
| Comparison groups  | Best Current Treatment v BCT+US-T           |
| Number of subjects included in analysis  | 117   |
| Analysis specification   | Pre-specified                               |
| Analysis type  | superiority                                 |
| P-value  | = 0.797                                     |
| Method   | Mixed models analysis                       |
| Parameter estimate   | Mean difference (final values)              |
| Point estimate   | 0.12  |



|                      |                            |
|----------------------|----------------------------|
| Confidence interval  |                            |
| level                | 95 %                       |
| sides                | 2-sided                    |
| lower limit          | -0.8                       |
| upper limit          | 1.04                       |
| Variability estimate | Standard error of the mean |

|                                   |  |
|-----------------------------------|--|
| <b>Statistical analysis title</b> | Pain score (6 months) - BCT+US-T versus BCT+US-L |
|-----------------------------------|--|

Statistical analysis description:

Pain score at 6 months follow up (BCT+US-T minus BCT+US-L) adjusted for age, gender and baseline pain score

|   |                                |
|---|--------------------------------|
| Comparison groups                       | BCT+US-L v BCT+US-T            |
| Number of subjects included in analysis | 122                            |
| Analysis specification                  | Pre-specified                  |
| Analysis type                           | superiority                    |
| P-value                                 | = 0.823                        |
| Method                                  | Mixed models analysis          |
| Parameter estimate                      | Mean difference (final values) |
| Point estimate                          | 0.1                            |
| Confidence interval                     |                                |
| level                                   | 95 %                           |
| sides                                   | 2-sided                        |
| lower limit                             | -0.79                          |
| upper limit                             | 1                              |
| Variability estimate                    | Standard error of the mean     |

### Primary: Pain score - overall, primary endpoint

|                 |  |
|-----------------|--|
| End point title | Pain score - overall, primary endpoint |
|-----------------|--|

End point description:

Primary endpoint (based on all follow up pain scores)

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

End point timeframe:

Overall (all follow up scores: 2 weeks, 2 months, 4 months, 6 months)

| End point values                     | Best Current Treatment | BCT+US-L        | BCT+US-T        | Primary endpoint     |
|--------------------------------------|------------------------|-----------------|-----------------|----------------------|
| Subject group type                   | Reporting group        | Reporting group | Reporting group | Subject analysis set |
| Number of subjects analysed          | 63                     | 65              | 66              | 733                  |
| Units: score                         |                        |                 |                 |                      |
| arithmetic mean (standard deviation) | 5.6 (± 2.7)            | 4.7 (± 2.6)     | 4.2 (± 2.8)     | 4.8 (± 2.7)          |

## Statistical analyses

|  |  |
|--|--|
| <b>Statistical analysis title</b>  | Pain score (overall) - BCT+US-T versus BCT |
| Statistical analysis description:  |  |
| Pain score for all available follow up data [primary endpoint] - BCT+US-T minus BCT (adjusted for age, gender and baseline pain score) |  |
| Comparison groups  | Best Current Treatment v BCT+US-T          |
| Number of subjects included in analysis  | 129  |
| Analysis specification   | Pre-specified                              |
| Analysis type  | superiority                                |
| P-value  | < 0.001                                    |
| Method   | Mixed models analysis                      |
| Parameter estimate   | Mean difference (final values)             |
| Point estimate   | -1.43                                      |
| Confidence interval  |  |
| level  | 95 %                                       |
| sides  | 2-sided                                    |
| lower limit  | -2.15                                      |
| upper limit  | -0.72                                      |
| Variability estimate   | Standard error of the mean                 |

|   |   |
|---|---|
| <b>Statistical analysis title</b>   | Pain score (overall) - BCT+US-T versus BCT+US-L |
| Statistical analysis description:   |   |
| Pain score for all available follow up data [primary endpoint] BCT+US-T minus BCT+US-L (adjusted for age, gender and baseline pain score) |   |
| Comparison groups   | BCT+US-L v BCT+US-T                             |
| Number of subjects included in analysis   | 131   |
| Analysis specification  | Pre-specified                                   |
| Analysis type   | superiority                                     |
| P-value   | = 0.148   |
| Method  | Mixed models analysis                           |
| Parameter estimate  | Mean difference (final values)                  |
| Point estimate  | -0.52   |
| Confidence interval   |   |
| level   | 95 %  |
| sides   | 2-sided   |
| lower limit   | -1.21   |
| upper limit   | 0.18  |
| Variability estimate  | Standard error of the mean                      |

## Secondary: WOMAC-Total at 2 months

|   |                         |
|---|-------------------------|
| End point title   | WOMAC-Total at 2 months |
| End point description:  |                         |
| Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC-Total) 0-96 [0=Minimum problems, 96=maximum problems] |                         |
| End point type  | Secondary               |
| End point timeframe:  |                         |
| 2 months  |                         |

| <b>End point values</b>              | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|--------------------------------------|------------------------|-----------------|-----------------|--|
| Subject group type                   | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed          | 55                     | 62              | 61              |  |
| Units: score                         |                        |                 |                 |  |
| arithmetic mean (standard deviation) | 50.3 (± 21.1)          | 41.4 (± 19.2)   | 34.2 (± 20.3)   |  |

## Statistical analyses

| <b>Statistical analysis title</b>  | WOMAC-Total at 2 months           |
|--|-----------------------------------|
| Statistical analysis description:<br>WOMAC-Total at 2 months (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline WOMAC-Total |                                   |
| Comparison groups  | Best Current Treatment v BCT+US-T |
| Number of subjects included in analysis  | 116                               |
| Analysis specification   | Pre-specified                     |
| Analysis type  | superiority                       |
| P-value  | < 0.001                           |
| Method   | Mixed models analysis             |
| Parameter estimate   | Mean difference (final values)    |
| Point estimate   | -14.8                             |
| Confidence interval  |                                   |
| level  | 95 %                              |
| sides  | 2-sided                           |
| lower limit  | -20.9                             |
| upper limit  | -8.64                             |
| Variability estimate   | Standard error of the mean        |

| <b>Statistical analysis title</b>   | WOMAC-Total at 2 months        |
|---|--------------------------------|
| Statistical analysis description:<br>WOMAC-Total at 2 months (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain and baseline WOMAC-Total |                                |
| Comparison groups   | BCT+US-L v BCT+US-T            |
| Number of subjects included in analysis   | 123                            |
| Analysis specification  | Pre-specified                  |
| Analysis type   | superiority                    |
| P-value   | = 0.027                        |
| Method  | Mixed models analysis          |
| Parameter estimate  | Mean difference (final values) |
| Point estimate  | -6.68                          |

|                      |                            |
|----------------------|----------------------------|
| Confidence interval  |                            |
| level                | 95 %                       |
| sides                | 2-sided                    |
| lower limit          | -12.6                      |
| upper limit          | -0.76                      |
| Variability estimate | Standard error of the mean |

### Secondary: WOMAC-Total at 4 months

|   |                         |
|---|-------------------------|
| End point title   | WOMAC-Total at 4 months |
| End point description:<br>Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC-Total) 0-96 [0=Minimum problems, 96=maximum problems] |                         |
| End point type  | Secondary               |
| End point timeframe:<br>4 months  |                         |

| End point values                     | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|--------------------------------------|------------------------|-----------------|-----------------|--|
| Subject group type                   | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed          | 51                     | 56              | 59              |  |
| Units: score                         |                        |                 |                 |  |
| arithmetic mean (standard deviation) | 43.6 (± 23.1)          | 43.9 (± 18.5)   | 38.3 (± 20.7)   |  |

### Statistical analyses

|  |                                   |
|--|-----------------------------------|
| <b>Statistical analysis title</b>  | WOMAC-Total at 4 months           |
| Statistical analysis description:<br>WOMAC-Total at 4 months (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline WOMAC-Total |                                   |
| Comparison groups  | Best Current Treatment v BCT+US-T |
| Number of subjects included in analysis  | 110                               |
| Analysis specification   | Pre-specified                     |
| Analysis type  | superiority                       |
| P-value  | = 0.043                           |
| Method   | Mixed models analysis             |
| Parameter estimate   | Mean difference (final values)    |
| Point estimate   | -6.38                             |
| Confidence interval  |                                   |
| level  | 95 %                              |
| sides  | 2-sided                           |
| lower limit  | -12.5                             |
| upper limit  | -0.21                             |
| Variability estimate   | Standard error of the mean        |

|   |                                |
|---|--------------------------------|
| <b>Statistical analysis title</b>   | WOMAC-Total at 4 months        |
| Statistical analysis description:<br>WOMAC-Total at 2 months (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain and baseline WOMAC-Total |                                |
| Comparison groups   | BCT+US-L v BCT+US-T            |
| Number of subjects included in analysis   | 115                            |
| Analysis specification  | Pre-specified                  |
| Analysis type   | superiority                    |
| P-value   | = 0.035                        |
| Method  | Mixed models analysis          |
| Parameter estimate  | Mean difference (final values) |
| Point estimate  | -6.42                          |
| Confidence interval   |                                |
| level   | 95 %                           |
| sides   | 2-sided                        |
| lower limit   | -12.4                          |
| upper limit   | -0.45                          |
| Variability estimate  | Standard error of the mean     |

## Secondary: WOMAC-Total at 6 months

|   |                         |
|---|-------------------------|
| End point title   | WOMAC-Total at 6 months |
| End point description:<br>Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC-Total) 0-96 [0=Minimum problems, 96=maximum problems] |                         |
| End point type  | Secondary               |
| End point timeframe:<br>6 months  |                         |

| End point values                     | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|--------------------------------------|------------------------|-----------------|-----------------|--|
| Subject group type                   | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed          | 53                     | 59              | 55              |  |
| Units: score                         |                        |                 |                 |  |
| arithmetic mean (standard deviation) | 42.9 (± 22.6)          | 44.0 (± 19.4)   | 41.8 (± 20.8)   |  |

## Statistical analyses

|  |                         |
|--|-------------------------|
| <b>Statistical analysis title</b>  | WOMAC-Total at 6 months |
| Statistical analysis description:<br>WOMAC-Total at 6 months (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline WOMAC-Total |                         |

|   |                                   |
|---|-----------------------------------|
| Comparison groups                       | Best Current Treatment v BCT+US-T |
| Number of subjects included in analysis | 108                               |
| Analysis specification                  | Pre-specified                     |
| Analysis type                           | superiority                       |
| P-value                                 | = 0.657                           |
| Method                                  | Mixed models analysis             |
| Parameter estimate                      | Mean difference (final values)    |
| Point estimate                          | -1.42                             |
| Confidence interval                     |                                   |
| level                                   | 95 %                              |
| sides                                   | 2-sided                           |
| lower limit                             | -7.68                             |
| upper limit                             | 4.84                              |
| Variability estimate                    | Standard error of the mean        |

|  |   |
|--|---|
| <b>Statistical analysis title</b>  | WOMAC-Total (6 months) - BCT+US-T versus BCT+US-L |
| Statistical analysis description:  |   |
| WOMAC-Total at 6 months (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain and baseline WOMAC-Total |   |
| Comparison groups  | BCT+US-T v BCT+US-L                               |
| Number of subjects included in analysis  | 114   |
| Analysis specification   | Pre-specified                                     |
| Analysis type  | superiority                                       |
| P-value  | = 0.801   |
| Method   | Mixed models analysis                             |
| Parameter estimate   | Mean difference (final values)                    |
| Point estimate   | -0.78   |
| Confidence interval  |   |
| level  | 95 %  |
| sides  | 2-sided   |
| lower limit  | -6.82   |
| upper limit  | 5.27  |
| Variability estimate   | Standard error of the mean                        |

## Secondary: WOMAC-Total - Overall

|   |                       |
|---|-----------------------|
| End point title   | WOMAC-Total - Overall |
| End point description:  |                       |
| Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC-Total) 0-96 [0=Minimum problems, 96=maximum problems] |                       |
| End point type  | Secondary             |
| End point timeframe:  |                       |
| Overall (all follow up scores: 2 months, 4 months, 6 months)  |                       |

| <b>End point values</b>              | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|--------------------------------------|------------------------|-----------------|-----------------|--|
| Subject group type                   | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed          | 60                     | 65              | 64              |  |
| Units: score                         |                        |                 |                 |  |
| arithmetic mean (standard deviation) | 45.7 (± 22.4)          | 43.0 (± 19.0)   | 38.0 (± 20.7)   |  |

## Statistical analyses

|   |                                   |
|---|-----------------------------------|
| <b>Statistical analysis title</b>       | WOMAC-Total - Overall             |
| Comparison groups                       | Best Current Treatment v BCT+US-T |
| Number of subjects included in analysis | 124                               |
| Analysis specification                  | Pre-specified                     |
| Analysis type                           | superiority                       |
| P-value                                 | = 0.007                           |
| Method                                  | Mixed models analysis             |
| Parameter estimate                      | Mean difference (final values)    |
| Point estimate                          | -7.52                             |
| Confidence interval                     |                                   |
| level                                   | 95 %                              |
| sides                                   | 2-sided                           |
| lower limit                             | -13                               |
| upper limit                             | -2.04                             |
| Variability estimate                    | Standard error of the mean        |

|   |                                |
|---|--------------------------------|
| <b>Statistical analysis title</b>       | WOMAC-Total - Overall          |
| Comparison groups                       | BCT+US-T v BCT+US-L            |
| Number of subjects included in analysis | 129                            |
| Analysis specification                  | Pre-specified                  |
| Analysis type                           | superiority                    |
| P-value                                 | = 0.087                        |
| Method                                  | Mixed models analysis          |
| Parameter estimate                      | Mean difference (final values) |
| Point estimate                          | -4.62                          |
| Confidence interval                     |                                |
| level                                   | 95 %                           |
| sides                                   | 2-sided                        |
| lower limit                             | -9.91                          |
| upper limit                             | 0.67                           |
| Variability estimate                    | Standard error of the mean     |

## Secondary: PSEQ at 2 months

|                 |                  |
|-----------------|------------------|
| End point title | PSEQ at 2 months |
|-----------------|------------------|

|  |           |
|--|-----------|
| End point description:   |           |
| Pain Self-Efficacy Questionnaire (PSEQ), 0-60 [0=No confidence; 60=Highest confidence] |           |
| End point type   | Secondary |
| End point timeframe:   |           |
| 2 months   |           |

| End point values                     | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|--------------------------------------|------------------------|-----------------|-----------------|--|
| Subject group type                   | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed          | 55                     | 63              | 62              |  |
| Units: score                         |                        |                 |                 |  |
| arithmetic mean (standard deviation) | 34.3 (± 15.9)          | 39.2 (± 13.6)   | 44.4 (± 14.2)   |  |

## Statistical analyses

| Statistical analysis title  | PSEQ at 2 months                  |
|---|-----------------------------------|
| Statistical analysis description:   |                                   |
| PSEQ at 2 months (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline PSEQ |                                   |
| Comparison groups   | Best Current Treatment v BCT+US-T |
| Number of subjects included in analysis   | 117                               |
| Analysis specification  | Pre-specified                     |
| Analysis type   | superiority                       |
| P-value   | < 0.001                           |
| Method  | Mixed models analysis             |
| Parameter estimate  | Mean difference (final values)    |
| Point estimate  | 9.27                              |
| Confidence interval   |                                   |
| level   | 95 %                              |
| sides   | 2-sided                           |
| lower limit   | 5.1                               |
| upper limit   | 13.4                              |
| Variability estimate  | Standard error of the mean        |

| Statistical analysis title   | PSEQ at 2 months    |
|--|---------------------|
| Statistical analysis description:  |                     |
| PSEQ at 2 months (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain and baseline PSEQ |                     |
| Comparison groups  | BCT+US-L v BCT+US-T |



|   |                                |
|---|--------------------------------|
| Number of subjects included in analysis | 125                            |
| Analysis specification                  | Pre-specified                  |
| Analysis type                           | superiority                    |
| P-value                                 | = 0.003                        |
| Method                                  | Mixed models analysis          |
| Parameter estimate                      | Mean difference (final values) |
| Point estimate                          | 6.18                           |
| Confidence interval                     |                                |
| level                                   | 95 %                           |
| sides                                   | 2-sided                        |
| lower limit                             | 2.15                           |
| upper limit                             | 10.2                           |
| Variability estimate                    | Standard error of the mean     |

### Secondary: PSEQ at 4 months

|  |                  |
|--|------------------|
| End point title  | PSEQ at 4 months |
| End point description:   |                  |
| Pain Self-Efficacy Questionnaire (PSEQ), 0-60 [0=No confidence; 60=Highest confidence] |                  |
| End point type   | Secondary        |
| End point timeframe:   |                  |
| 4 months   |                  |

| End point values                     | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|--------------------------------------|------------------------|-----------------|-----------------|--|
| Subject group type                   | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed          | 52                     | 59              | 60              |  |
| Units: score                         |                        |                 |                 |  |
| arithmetic mean (standard deviation) | 35.2 (± 16.7)          | 37.9 (± 13.2)   | 41.2 (± 15.0)   |  |

### Statistical analyses

|   |                                   |
|---|-----------------------------------|
| <b>Statistical analysis title</b>   | PSEQ at 4 months                  |
| Statistical analysis description:   |                                   |
| PSEQ at 4 months (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline PSEQ |                                   |
| Comparison groups   | Best Current Treatment v BCT+US-T |
| Number of subjects included in analysis   | 112                               |
| Analysis specification  | Pre-specified                     |
| Analysis type   | superiority                       |
| P-value   | = 0.002                           |
| Method  | Mixed models analysis             |
| Parameter estimate  | Mean difference (final values)    |
| Point estimate  | 6.71                              |

|                      |                            |
|----------------------|----------------------------|
| Confidence interval  |                            |
| level                | 95 %                       |
| sides                | 2-sided                    |
| lower limit          | 2.51                       |
| upper limit          | 10.9                       |
| Variability estimate | Standard error of the mean |

|                                   |                  |
|-----------------------------------|------------------|
| <b>Statistical analysis title</b> | PSEQ at 4 months |
|-----------------------------------|------------------|

Statistical analysis description:

PSEQ at 4 months (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain and baseline PSEQ

|   |                                |
|---|--------------------------------|
| Comparison groups                       | BCT+US-L v BCT+US-T            |
| Number of subjects included in analysis | 119                            |
| Analysis specification                  | Pre-specified                  |
| Analysis type                           | superiority                    |
| P-value                                 | = 0.011                        |
| Method                                  | Mixed models analysis          |
| Parameter estimate                      | Mean difference (final values) |
| Point estimate                          | 5.27                           |
| Confidence interval                     |                                |
| level                                   | 95 %                           |
| sides                                   | 2-sided                        |
| lower limit                             | 1.21                           |
| upper limit                             | 9.34                           |
| Variability estimate                    | Standard error of the mean     |

## Secondary: PSEQ at 6 months

|  |                  |
|--|------------------|
| End point title  | PSEQ at 6 months |
| End point description:   |                  |
| Pain Self-Efficacy Questionnaire (PSEQ), 0-60 [0=No confidence; 60=Highest confidence] |                  |
| End point type   | Secondary        |
| End point timeframe:   |                  |
| 6 months   |                  |

| End point values                     | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|--------------------------------------|------------------------|-----------------|-----------------|--|
| Subject group type                   | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed          | 53                     | 59              | 58              |  |
| Units: score                         |                        |                 |                 |  |
| arithmetic mean (standard deviation) | 37.8 (± 14.7)          | 36.9 (± 12.8)   | 38.8 (± 15.1)   |  |

## Statistical analyses

|  |                                   |
|--|-----------------------------------|
| <b>Statistical analysis title</b>  | PSEQ at 6 months                  |
| Statistical analysis description:<br>PSEQ at 6 months (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline PSEQ |                                   |
| Comparison groups  | BCT+US-T v Best Current Treatment |
| Number of subjects included in analysis  | 111                               |
| Analysis specification   | Pre-specified                     |
| Analysis type  | superiority                       |
| P-value  | = 0.452                           |
| Method   | Mixed models analysis             |
| Parameter estimate   | Mean difference (final values)    |
| Point estimate   | 1.64                              |
| Confidence interval  |                                   |
| level  | 95 %                              |
| sides  | 2-sided                           |
| lower limit  | -2.62                             |
| upper limit  | 5.9                               |
| Variability estimate   | Standard error of the mean        |

|   |                                |
|---|--------------------------------|
| <b>Statistical analysis title</b>   | PSEQ at 6 months               |
| Statistical analysis description:<br>PSEQ at 6 months (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain and baseline PSEQ |                                |
| Comparison groups   | BCT+US-L v BCT+US-T            |
| Number of subjects included in analysis   | 117                            |
| Analysis specification  | Pre-specified                  |
| Analysis type   | superiority                    |
| P-value   | = 0.171                        |
| Method  | Mixed models analysis          |
| Parameter estimate  | Mean difference (final values) |
| Point estimate  | 2.88                           |
| Confidence interval   |                                |
| level   | 95 %                           |
| sides   | 2-sided                        |
| lower limit   | -1.24                          |
| upper limit   | 7                              |
| Variability estimate  | Standard error of the mean     |

## Secondary: PSEQ - Overall

|  |                |
|--|----------------|
| End point title  | PSEQ - Overall |
| End point description:<br>Pain Self-Efficacy Questionnaire (PSEQ), 0-60 [0=No confidence; 60=Highest confidence] |                |
| End point type   | Secondary      |
| End point timeframe:<br>Overall (all follow up scores: 2 months, 4 months, 6 months)                             |                |

| <b>End point values</b>              | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|--------------------------------------|------------------------|-----------------|-----------------|--|
| Subject group type                   | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed          | 60                     | 65              | 65              |  |
| Units: score                         |                        |                 |                 |  |
| arithmetic mean (standard deviation) | 35.7 (± 15.7)          | 38.0 (± 13.2)   | 41.5 (± 14.9)   |  |

## Statistical analyses

| <b>Statistical analysis title</b>  | PSEQ - Overall                    |
|--|-----------------------------------|
| Statistical analysis description:<br>PSEQ overall (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline PSEQ |                                   |
| Comparison groups  | Best Current Treatment v BCT+US-T |
| Number of subjects included in analysis  | 125                               |
| Analysis specification   | Pre-specified                     |
| Analysis type  | superiority                       |
| P-value  | = 0.001                           |
| Method   | Mixed models analysis             |
| Parameter estimate   | Mean difference (final values)    |
| Point estimate   | 5.87                              |
| Confidence interval  |                                   |
| level  | 95 %                              |
| sides  | 2-sided                           |
| lower limit  | 2.3                               |
| upper limit  | 9.45                              |
| Variability estimate   | Standard error of the mean        |

| <b>Statistical analysis title</b>   | PSEQ - Overall                 |
|---|--------------------------------|
| Statistical analysis description:<br>PSEQ at 6 months (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain and baseline PSEQ |                                |
| Comparison groups   | BCT+US-L v BCT+US-T            |
| Number of subjects included in analysis   | 130                            |
| Analysis specification  | Pre-specified                  |
| Analysis type   | superiority                    |
| P-value   | = 0.007                        |
| Method  | Mixed models analysis          |
| Parameter estimate  | Mean difference (final values) |
| Point estimate  | 4.78                           |
| Confidence interval   |                                |
| level   | 95 %                           |
| sides   | 2-sided                        |
| lower limit   | 1.32                           |
| upper limit   | 8.23                           |

|                      |                            |
|----------------------|----------------------------|
| Variability estimate | Standard error of the mean |
|----------------------|----------------------------|

## Secondary: IPQ at 2 months

|   |                 |
|---|-----------------|
| End point title   | IPQ at 2 months |
| End point description:<br>modified brief Illness Perceptions Questionnaire (IPQ), 0-50 [0=Full understanding, 50=Least understanding] |                 |
| End point type  | Secondary       |
| End point timeframe:<br>2 months  |                 |

| End point values                     | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|--------------------------------------|------------------------|-----------------|-----------------|--|
| Subject group type                   | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed          | 51                     | 60              | 60              |  |
| Units: score                         |                        |                 |                 |  |
| arithmetic mean (standard deviation) | 33.0 (± 9.2)           | 30.0 (± 8.6)    | 27.2 (± 10.6)   |  |

## Statistical analyses

|  |                                   |
|--|-----------------------------------|
| <b>Statistical analysis title</b>  | IPQ at 2 months                   |
| Statistical analysis description:<br>IPQ at 2 months (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline IPQ |                                   |
| Comparison groups  | Best Current Treatment v BCT+US-T |
| Number of subjects included in analysis  | 111                               |
| Analysis specification   | Pre-specified                     |
| Analysis type  | superiority                       |
| P-value  | = 0.003                           |
| Method   | Mixed models analysis             |
| Parameter estimate   | Mean difference (final values)    |
| Point estimate   | -6.04                             |
| Confidence interval  |                                   |
| level  | 95 %                              |
| sides  | 2-sided                           |
| lower limit  | -9.23                             |
| upper limit  | -2.84                             |
| Variability estimate   | Standard error of the mean        |

|   |                     |
|---|---------------------|
| <b>Statistical analysis title</b>   | IPQ at 2 months     |
| Statistical analysis description:<br>IPQ at 2 months (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain and baseline IPQ |                     |
| Comparison groups   | BCT+US-L v BCT+US-T |

|   |                                |
|---|--------------------------------|
| Number of subjects included in analysis | 120                            |
| Analysis specification                  | Pre-specified                  |
| Analysis type                           | superiority                    |
| P-value                                 | = 0.073                        |
| Method                                  | Mixed models analysis          |
| Parameter estimate                      | Mean difference (final values) |
| Point estimate                          | -2.55                          |
| Confidence interval                     |                                |
| level                                   | 95 %                           |
| sides                                   | 2-sided                        |
| lower limit                             | -5.59                          |
| upper limit                             | 0.48                           |
| Variability estimate                    | Standard error of the mean     |

### Secondary: IPQ at 6 months

|   |                 |
|---|-----------------|
| End point title   | IPQ at 6 months |
| End point description:  |                 |
| modified brief Illness Perceptions Questionnaire (IPQ), 0-50 [0=Full understanding, 50=Least understanding] |                 |
| End point type  | Secondary       |
| End point timeframe:  |                 |
| 6 months  |                 |

| End point values                     | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|--------------------------------------|------------------------|-----------------|-----------------|--|
| Subject group type                   | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed          | 49                     | 58              | 53              |  |
| Units: score                         |                        |                 |                 |  |
| arithmetic mean (standard deviation) | 30.1 (± 9.2)           | 29.2 (± 9.5)    | 30.0 (± 9.0)    |  |

### Statistical analyses

|   |                                   |
|---|-----------------------------------|
| <b>Statistical analysis title</b>   | IPQ at 6 months                   |
| Statistical analysis description:   |                                   |
| IPQ at 6 months (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline IPQ |                                   |
| Comparison groups   | Best Current Treatment v BCT+US-T |
| Number of subjects included in analysis   | 102                               |
| Analysis specification  | Pre-specified                     |
| Analysis type   | superiority                       |
| P-value   | = 0.701                           |
| Method  | Mixed models analysis             |
| Parameter estimate  | Mean difference (final values)    |
| Point estimate  | -0.15                             |

|                      |                            |
|----------------------|----------------------------|
| Confidence interval  |                            |
| level                | 95 %                       |
| sides                | 2-sided                    |
| lower limit          | -3.44                      |
| upper limit          | 3.14                       |
| Variability estimate | Standard error of the mean |

|   |                                |
|---|--------------------------------|
| <b>Statistical analysis title</b>   | IPQ at 6 months                |
| Statistical analysis description:<br>IPQ at 6 months (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain and baseline IPQ |                                |
| Comparison groups   | BCT+US-L v BCT+US-T            |
| Number of subjects included in analysis   | 111                            |
| Analysis specification  | Pre-specified                  |
| Analysis type   | superiority                    |
| P-value   | = 0.912                        |
| Method  | Mixed models analysis          |
| Parameter estimate  | Mean difference (final values) |
| Point estimate  | 0.79                           |
| Confidence interval   |                                |
| level   | 95 %                           |
| sides   | 2-sided                        |
| lower limit   | -2.33                          |
| upper limit   | 3.91                           |
| Variability estimate  | Standard error of the mean     |

## Secondary: IPQ - Overall

|   |               |
|---|---------------|
| End point title   | IPQ - Overall |
| End point description:<br>modified brief Illness Perceptions Questionnaire (IPQ), 0-50 [0=Full understanding, 50=Least understanding] |               |
| End point type  | Secondary     |
| End point timeframe:<br>Overall (all follow up scores: 2 months, 6 months)  |               |

| End point values                     | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|--------------------------------------|------------------------|-----------------|-----------------|--|
| Subject group type                   | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed          | 58                     | 65              | 63              |  |
| Units: score                         |                        |                 |                 |  |
| arithmetic mean (standard deviation) | 31.6 (± 9.27)          | 29.6 (± 9.04)   | 28.5 (± 9.94)   |  |

## Statistical analyses

| Statistical analysis title  | IPQ - Overall                     |
|---|-----------------------------------|
| Statistical analysis description:   |                                   |
| IPQ overall (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline IPQ |                                   |
| Comparison groups   | Best Current Treatment v BCT+US-T |
| Number of subjects included in analysis   | 121                               |
| Analysis specification  | Pre-specified                     |
| Analysis type   | superiority                       |
| P-value   | = 0.032                           |
| Method  | Mixed models analysis             |
| Parameter estimate  | Mean difference (final values)    |
| Point estimate  | -3.1                              |
| Confidence interval   |                                   |
| level   | 95 %                              |
| sides   | 2-sided                           |
| lower limit   | -5.92                             |
| upper limit   | -0.27                             |
| Variability estimate  | Standard error of the mean        |

| Statistical analysis title   | IPQ - Overall                  |
|--|--------------------------------|
| Statistical analysis description:  |                                |
| IPQ overall (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain and baseline IPQ |                                |
| Comparison groups  | BCT+US-L v BCT+US-T            |
| Number of subjects included in analysis  | 128                            |
| Analysis specification   | Pre-specified                  |
| Analysis type  | superiority                    |
| P-value  | = 0.326                        |
| Method   | Mixed models analysis          |
| Parameter estimate   | Mean difference (final values) |
| Point estimate   | -0.88                          |
| Confidence interval  |                                |
| level  | 95 %                           |
| sides  | 2-sided                        |
| lower limit  | -3.57                          |
| upper limit  | 1.8                            |
| Variability estimate   | Standard error of the mean     |

## Secondary: SF-PCS at 2 months

|   |                    |
|---|--------------------|
| End point title   | SF-PCS at 2 months |
| End point description:  |                    |
| Short Form-12 Physical Component Scale (SF12-PCS) 0-100 [0=Worst physical health, 100=Best physical health] |                    |
| End point type  | Secondary          |
| End point timeframe:  |                    |
| 2 months  |                    |



| <b>End point values</b>              | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|--------------------------------------|------------------------|-----------------|-----------------|--|
| Subject group type                   | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed          | 55                     | 60              | 59              |  |
| Units: score                         |                        |                 |                 |  |
| arithmetic mean (standard deviation) | 32.8 (± 8.0)           | 35.0 (± 9.5)    | 39.1 (± 9.8)    |  |

## Statistical analyses

| <b>Statistical analysis title</b>  | SF_PCS at 2 months                |
|--|-----------------------------------|
| Statistical analysis description:<br>SF_PCS at 2 months (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline SF_PCS |                                   |
| Comparison groups  | Best Current Treatment v BCT+US-T |
| Number of subjects included in analysis  | 114                               |
| Analysis specification   | Pre-specified                     |
| Analysis type  | superiority                       |
| P-value  | < 0.001                           |
| Method   | Mixed models analysis             |
| Parameter estimate   | Mean difference (final values)    |
| Point estimate   | 5.3                               |
| Confidence interval  |                                   |
| level  | 95 %                              |
| sides  | 2-sided                           |
| lower limit  | 2.38                              |
| upper limit  | 8.21                              |
| Variability estimate   | Standard error of the mean        |

| <b>Statistical analysis title</b>   | SF-PCS at 2 months             |
|---|--------------------------------|
| Statistical analysis description:<br>SF_PCS at 2 months (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain and baseline SF_PCS |                                |
| Comparison groups   | BCT+US-L v BCT+US-T            |
| Number of subjects included in analysis   | 119                            |
| Analysis specification  | Pre-specified                  |
| Analysis type   | superiority                    |
| P-value   | = 0.005                        |
| Method  | Mixed models analysis          |
| Parameter estimate  | Mean difference (final values) |
| Point estimate  | 4.05                           |

|                      |                            |
|----------------------|----------------------------|
| Confidence interval  |                            |
| level                | 95 %                       |
| sides                | 2-sided                    |
| lower limit          | 1.2                        |
| upper limit          | 6.89                       |
| Variability estimate | Standard error of the mean |

### Secondary: SF-PCS at 4 months

|   |                    |
|---|--------------------|
| End point title   | SF-PCS at 4 months |
| End point description:<br>Short Form-12 Physical Component Scale (SF12-PCS) 0-100 [0=Worst physical health, 100=Best physical health] |                    |
| End point type  | Secondary          |
| End point timeframe:<br>4 months  |                    |

| End point values                     | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|--------------------------------------|------------------------|-----------------|-----------------|--|
| Subject group type                   | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed          | 53                     | 53              | 58              |  |
| Units: score                         |                        |                 |                 |  |
| arithmetic mean (standard deviation) | 35.7 (± 10.8)          | 33.7 (± 9.7)    | 39.0 (± 10.6)   |  |

### Statistical analyses

|  |                                   |
|--|-----------------------------------|
| Statistical analysis title   | SF-PCS at 4 months                |
| Statistical analysis description:<br>SF_PCS at 4 months (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline SF_PCS |                                   |
| Comparison groups  | Best Current Treatment v BCT+US-T |
| Number of subjects included in analysis  | 111                               |
| Analysis specification   | Pre-specified                     |
| Analysis type  | superiority                       |
| P-value  | = 0.041                           |
| Method   | Mixed models analysis             |
| Parameter estimate   | Mean difference (final values)    |
| Point estimate   | 3.07                              |
| Confidence interval  |                                   |
| level  | 95 %                              |
| sides  | 2-sided                           |
| lower limit  | 0.13                              |
| upper limit  | 6.01                              |
| Variability estimate   | Standard error of the mean        |

|   |                                |
|---|--------------------------------|
| <b>Statistical analysis title</b>   | SF-PCS at 4 months             |
| Statistical analysis description:<br>SF_PCS at 4 months (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain and baseline SF_PCS |                                |
| Comparison groups   | BCT+US-L v BCT+US-T            |
| Number of subjects included in analysis   | 111                            |
| Analysis specification  | Pre-specified                  |
| Analysis type   | superiority                    |
| P-value   | < 0.001                        |
| Method  | Mixed models analysis          |
| Parameter estimate  | Mean difference (final values) |
| Point estimate  | 5.31                           |
| Confidence interval   |                                |
| level   | 95 %                           |
| sides   | 2-sided                        |
| lower limit   | 2.41                           |
| upper limit   | 8.21                           |
| Variability estimate  | Standard error of the mean     |

## Secondary: SF-PCS at 6 months

|   |                    |
|---|--------------------|
| End point title   | SF-PCS at 6 months |
| End point description:<br>Short Form-12 Physical Component Scale (SF12-PCS) 0-100 [0=Worst physical health, 100=Best physical health] |                    |
| End point type  | Secondary          |
| End point timeframe:<br>6 months  |                    |

| End point values                     | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|--------------------------------------|------------------------|-----------------|-----------------|--|
| Subject group type                   | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed          | 50                     | 54              | 51              |  |
| Units: score                         |                        |                 |                 |  |
| arithmetic mean (standard deviation) | 33.7 (± 9.9)           | 34.0 (± 9.5)    | 37.7 (± 10.1)   |  |

## Statistical analyses

|  |                    |
|--|--------------------|
| <b>Statistical analysis title</b>  | SF-PCS at 6 months |
| Statistical analysis description:<br>SF_PCS at 6 months (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline SF_PCS |                    |

|   |                                   |
|---|-----------------------------------|
| Comparison groups                       | Best Current Treatment v BCT+US-T |
| Number of subjects included in analysis | 101                               |
| Analysis specification                  | Pre-specified                     |
| Analysis type                           | superiority                       |
| P-value                                 | = 0.05                            |
| Method                                  | Mixed models analysis             |
| Parameter estimate                      | Mean difference (final values)    |
| Point estimate                          | 3.04                              |
| Confidence interval                     |                                   |
| level                                   | 95 %                              |
| sides                                   | 2-sided                           |
| lower limit                             | 0                                 |
| upper limit                             | 6.08                              |
| Variability estimate                    | Standard error of the mean        |

|                                   |                    |
|-----------------------------------|--------------------|
| <b>Statistical analysis title</b> | SF-PCS at 6 months |
|-----------------------------------|--------------------|

Statistical analysis description:

SF\_PCS at 6 months (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline SF\_PCS

|   |                                |
|---|--------------------------------|
| Comparison groups                       | BCT+US-L v BCT+US-T            |
| Number of subjects included in analysis | 105                            |
| Analysis specification                  | Pre-specified                  |
| Analysis type                           | superiority                    |
| P-value                                 | = 0.155                        |
| Method                                  | Mixed models analysis          |
| Parameter estimate                      | Mean difference (final values) |
| Point estimate                          | 2.15                           |
| Confidence interval                     |                                |
| level                                   | 95 %                           |
| sides                                   | 2-sided                        |
| lower limit                             | -0.81                          |
| upper limit                             | 5.11                           |
| Variability estimate                    | Standard error of the mean     |

## Secondary: SF-PCS - Overall

|                 |                  |
|-----------------|------------------|
| End point title | SF-PCS - Overall |
|-----------------|------------------|

End point description:

Short Form-12 Physical Component Scale (SF12-PCS) 0-100 [0=Worst physical health, 100=Best physical health]

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

End point timeframe:

Overall (all follow up scores: 2 months, 4 months, 6 months)

| End point values                     | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|--------------------------------------|------------------------|-----------------|-----------------|--|
| Subject group type                   | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed          | 60                     | 64              | 64              |  |
| Units: score                         |                        |                 |                 |  |
| arithmetic mean (standard deviation) | 34.1 (± 9.6)           | 34.2 (± 9.6)    | 38.7 (± 10.1)   |  |

## Statistical analyses

| Statistical analysis title   | SF-PCS - Overall                  |
|--|-----------------------------------|
| Statistical analysis description:<br>SF_PCS overall (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline SF_PCS |                                   |
| Comparison groups  | Best Current Treatment v BCT+US-T |
| Number of subjects included in analysis  | 124                               |
| Analysis specification   | Pre-specified                     |
| Analysis type  | superiority                       |
| P-value  | = 0.003                           |
| Method   | Mixed models analysis             |
| Parameter estimate   | Mean difference (final values)    |
| Point estimate   | 3.8                               |
| Confidence interval  |                                   |
| level  | 95 %                              |
| sides  | 2-sided                           |
| lower limit  | 1.33                              |
| upper limit  | 6.27                              |
| Variability estimate   | Standard error of the mean        |

| Statistical analysis title  | SF-PCS - Overall               |
|---|--------------------------------|
| Statistical analysis description:<br>SF_PCS at 2 months (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain and baseline SF_PCS |                                |
| Comparison groups   | BCT+US-L v BCT+US-T            |
| Number of subjects included in analysis   | 128                            |
| Analysis specification  | Pre-specified                  |
| Analysis type   | superiority                    |
| P-value   | = 0.002                        |
| Method  | Mixed models analysis          |
| Parameter estimate  | Mean difference (final values) |
| Point estimate  | 3.84                           |
| Confidence interval   |                                |
| level   | 95 %                           |
| sides   | 2-sided                        |
| lower limit   | 1.43                           |
| upper limit   | 6.24                           |
| Variability estimate  | Standard error of the mean     |

---

**Secondary: SF-MCS at 2 months**

---

|                 |                    |
|-----------------|--------------------|
| End point title | SF-MCS at 2 months |
|-----------------|--------------------|

End point description:

Short Form-12 Mental Component Scale (SF12-MCS) 0-100 [0=Worst mental health, 100=Best mental health]

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

End point timeframe:

2 months

---

| End point values                     | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|--------------------------------------|------------------------|-----------------|-----------------|--|
| Subject group type                   | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed          | 55                     | 60              | 59              |  |
| Units: score                         |                        |                 |                 |  |
| arithmetic mean (standard deviation) | 47.5 (± 12.9)          | 50.1 (± 12.3)   | 50.2 (± 12.0)   |  |

**Statistical analyses**

|                                   |                    |
|-----------------------------------|--------------------|
| <b>Statistical analysis title</b> | SF-MCS at 2 months |
|-----------------------------------|--------------------|

Statistical analysis description:

SF\_MCS at 2 months (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline SF\_MCS

|                   |                                   |
|-------------------|-----------------------------------|
| Comparison groups | Best Current Treatment v BCT+US-T |
|-------------------|-----------------------------------|

|   |     |
|---|-----|
| Number of subjects included in analysis | 114 |
|---|-----|

|                        |               |
|------------------------|---------------|
| Analysis specification | Pre-specified |
|------------------------|---------------|

|               |             |
|---------------|-------------|
| Analysis type | superiority |
|---------------|-------------|

|         |         |
|---------|---------|
| P-value | = 0.572 |
|---------|---------|

|        |                       |
|--------|-----------------------|
| Method | Mixed models analysis |
|--------|-----------------------|

|                    |                                |
|--------------------|--------------------------------|
| Parameter estimate | Mean difference (final values) |
|--------------------|--------------------------------|

|                |      |
|----------------|------|
| Point estimate | 1.09 |
|----------------|------|

Confidence interval

|       |      |
|-------|------|
| level | 95 % |
|-------|------|

|       |         |
|-------|---------|
| sides | 2-sided |
|-------|---------|

|             |       |
|-------------|-------|
| lower limit | -2.69 |
|-------------|-------|

|             |      |
|-------------|------|
| upper limit | 4.87 |
|-------------|------|

|                      |                            |
|----------------------|----------------------------|
| Variability estimate | Standard error of the mean |
|----------------------|----------------------------|

---

|                                   |                    |
|-----------------------------------|--------------------|
| <b>Statistical analysis title</b> | SF-MCS at 2 months |
|-----------------------------------|--------------------|

Statistical analysis description:

SF\_MCS at 2 months (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain and baseline SF\_MCS

|   |                                |
|---|--------------------------------|
| Comparison groups                       | BCT+US-L v BCT+US-T            |
| Number of subjects included in analysis | 119                            |
| Analysis specification                  | Pre-specified                  |
| Analysis type                           | superiority                    |
| P-value                                 | = 0.575                        |
| Method                                  | Mixed models analysis          |
| Parameter estimate                      | Mean difference (final values) |
| Point estimate                          | -1.05                          |
| Confidence interval                     |                                |
| level                                   | 95 %                           |
| sides                                   | 2-sided                        |
| lower limit                             | -4.73                          |
| upper limit                             | 2.63                           |
| Variability estimate                    | Standard error of the mean     |

### Secondary: SF-MCS at 4 months

|   |                    |
|---|--------------------|
| End point title   | SF-MCS at 4 months |
| End point description:  |                    |
| Short Form-12 Mental Component Scale (SF12-MCS) 0-100 [0=Worst mental health, 100=Best mental health] |                    |
| End point type  | Secondary          |
| End point timeframe:  |                    |
| 4 months  |                    |

| End point values                     | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|--------------------------------------|------------------------|-----------------|-----------------|--|
| Subject group type                   | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed          | 53                     | 53              | 58              |  |
| Units: score                         |                        |                 |                 |  |
| arithmetic mean (standard deviation) | 46.3 (± 13.5)          | 49.9 (± 11.8)   | 49.4 (± 12.4)   |  |

### Statistical analyses

|   |                                   |
|---|-----------------------------------|
| <b>Statistical analysis title</b>   | SF-MCS at 4 months                |
| Statistical analysis description:   |                                   |
| SF_MCS at 4 months (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline SF_MCS |                                   |
| Comparison groups   | Best Current Treatment v BCT+US-T |
| Number of subjects included in analysis   | 111                               |
| Analysis specification  | Pre-specified                     |
| Analysis type   | superiority                       |
| P-value   | = 0.301                           |
| Method  | Mixed models analysis             |
| Parameter estimate  | Mean difference (final values)    |
| Point estimate  | 2.01                              |

|                      |                            |
|----------------------|----------------------------|
| Confidence interval  |                            |
| level                | 95 %                       |
| sides                | 2-sided                    |
| lower limit          | -1.8                       |
| upper limit          | 5.83                       |
| Variability estimate | Standard error of the mean |

|                                   |                    |
|-----------------------------------|--------------------|
| <b>Statistical analysis title</b> | SF-MCS at 4 months |
|-----------------------------------|--------------------|

Statistical analysis description:

SF\_MCS at 4 months (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain and baseline SF\_MCS

|   |                                |
|---|--------------------------------|
| Comparison groups                       | BCT+US-L v BCT+US-T            |
| Number of subjects included in analysis | 111                            |
| Analysis specification                  | Pre-specified                  |
| Analysis type                           | superiority                    |
| P-value                                 | = 0.865                        |
| Method                                  | Mixed models analysis          |
| Parameter estimate                      | Mean difference (final values) |
| Point estimate                          | 0.33                           |
| Confidence interval                     |                                |
| level                                   | 95 %                           |
| sides                                   | 2-sided                        |
| lower limit                             | -3.44                          |
| upper limit                             | 4.1                            |
| Variability estimate                    | Standard error of the mean     |

## Secondary: SF-MCS at 6 months

|                 |                    |
|-----------------|--------------------|
| End point title | SF-MCS at 6 months |
|-----------------|--------------------|

End point description:

Short Form-12 Mental Component Scale (SF12-MCS) 0-100 [0=Worst mental health, 100=Best mental health]

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

End point timeframe:

6 months

| End point values                     | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|--------------------------------------|------------------------|-----------------|-----------------|--|
| Subject group type                   | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed          | 50                     | 54              | 51              |  |
| Units: score                         |                        |                 |                 |  |
| arithmetic mean (standard deviation) | 49.8 (± 12.7)          | 49.2 (± 12.2)   | 48.7 (± 11.9)   |  |



## Statistical analyses

|  |                                   |
|--|-----------------------------------|
| <b>Statistical analysis title</b>  | SF-MCS at 6 months                |
| Statistical analysis description:<br>SF_MCS at 6 months (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline SF_MCS |                                   |
| Comparison groups  | Best Current Treatment v BCT+US-T |
| Number of subjects included in analysis  | 101                               |
| Analysis specification   | Pre-specified                     |
| Analysis type  | superiority                       |
| P-value  | = 0.195                           |
| Method   | Mixed models analysis             |
| Parameter estimate   | Mean difference (final values)    |
| Point estimate   | -2.63                             |
| Confidence interval  |                                   |
| level  | 95 %                              |
| sides  | 2-sided                           |
| lower limit  | -6.61                             |
| upper limit  | 1.35                              |
| Variability estimate   | Standard error of the mean        |

|   |                                |
|---|--------------------------------|
| <b>Statistical analysis title</b>   | SF-MCS at 6 months             |
| Statistical analysis description:<br>SF_MCS at 6 months (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain and baseline SF_MCS |                                |
| Comparison groups   | BCT+US-L v BCT+US-T            |
| Number of subjects included in analysis   | 105                            |
| Analysis specification  | Pre-specified                  |
| Analysis type   | superiority                    |
| P-value   | = 0.8                          |
| Method  | Mixed models analysis          |
| Parameter estimate  | Mean difference (final values) |
| Point estimate  | -0.5                           |
| Confidence interval   |                                |
| level   | 95 %                           |
| sides   | 2-sided                        |
| lower limit   | -4.37                          |
| upper limit   | 3.37                           |
| Variability estimate  | Standard error of the mean     |

## Secondary: SF-MCS - Overall

|   |                  |
|---|------------------|
| End point title   | SF-MCS - Overall |
| End point description:<br>Short Form-12 Mental Component Scale (SF12-MCS) 0-100 [0=Worst mental health, 100=Best mental health] |                  |
| End point type  | Secondary        |

End point timeframe:

Overall (all follow up scores: 2 months, 4 months, 6 months)

| End point values                     | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|--------------------------------------|------------------------|-----------------|-----------------|--|
| Subject group type                   | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed          | 60                     | 64              | 64              |  |
| Units: score                         |                        |                 |                 |  |
| arithmetic mean (standard deviation) | 47.8 (± 13.0)          | 49.8 (± 12.0)   | 49.5 (± 12.0)   |  |

## Statistical analyses

| Statistical analysis title   | SF-MCS - Overall                  |
|--|-----------------------------------|
| Statistical analysis description:<br>SF_MCS overall (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline SF_MCS |                                   |
| Comparison groups  | Best Current Treatment v BCT+US-T |
| Number of subjects included in analysis  | 124                               |
| Analysis specification   | Pre-specified                     |
| Analysis type  | superiority                       |
| P-value  | = 0.918                           |
| Method   | Mixed models analysis             |
| Parameter estimate   | Mean difference (final values)    |
| Point estimate   | 0.16                              |
| Confidence interval  |                                   |
| level  | 95 %                              |
| sides  | 2-sided                           |
| lower limit  | -2.83                             |
| upper limit  | 3.15                              |
| Variability estimate   | Standard error of the mean        |

| Statistical analysis title   | SF-MCS - Overall               |
|--|--------------------------------|
| Statistical analysis description:<br>SF_MCS overall (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline SF_MCS |                                |
| Comparison groups  | BCT+US-L v BCT+US-T            |
| Number of subjects included in analysis  | 128                            |
| Analysis specification   | Pre-specified                  |
| Analysis type  | superiority                    |
| P-value  | = 0.843                        |
| Method   | Mixed models analysis          |
| Parameter estimate   | Mean difference (final values) |
| Point estimate   | 0.29                           |

|                      |                            |
|----------------------|----------------------------|
| Confidence interval  |                            |
| level                | 95 %                       |
| sides                | 2-sided                    |
| lower limit          | -2.6                       |
| upper limit          | 3.19                       |
| Variability estimate | Standard error of the mean |

### Secondary: EQ5D at 2 weeks

|  |                 |
|--|-----------------|
| End point title  | EQ5D at 2 weeks |
| End point description:<br>EuroQol EQ5D (utility) -0.59 – 1.00 [-0.59=Worst health utility, 1.00=Best health utility] |                 |
| End point type   | Secondary       |
| End point timeframe:<br>2 weeks  |                 |

| End point values                     | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|--------------------------------------|------------------------|-----------------|-----------------|--|
| Subject group type                   | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed          | 61                     | 64              | 63              |  |
| Units: score                         |                        |                 |                 |  |
| arithmetic mean (standard deviation) | 0.47 (± 0.27)          | 0.59 (± 0.22)   | 0.64 (± 0.23)   |  |

### Statistical analyses

|   |                                   |
|---|-----------------------------------|
| Statistical analysis title  | EQ5D at 2 weeks                   |
| Statistical analysis description:<br>EQ5D at 2 weeks (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline EQ5D |                                   |
| Comparison groups   | Best Current Treatment v BCT+US-T |
| Number of subjects included in analysis   | 124                               |
| Analysis specification  | Pre-specified                     |
| Analysis type   | superiority                       |
| P-value   | < 0.001                           |
| Method  | Mixed models analysis             |
| Parameter estimate  | Mean difference (final values)    |
| Point estimate  | 0.18                              |
| Confidence interval   |                                   |
| level   | 95 %                              |
| sides   | 2-sided                           |
| lower limit   | 0.12                              |
| upper limit   | 0.24                              |
| Variability estimate  | Standard error of the mean        |

|  |                                |
|--|--------------------------------|
| <b>Statistical analysis title</b>  | EQ5D at 2 weeks                |
| Statistical analysis description:<br>EQ5D at 2 weeks (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain and baseline EQ5D |                                |
| Comparison groups  | BCT+US-L v BCT+US-T            |
| Number of subjects included in analysis  | 127                            |
| Analysis specification   | Pre-specified                  |
| Analysis type  | superiority                    |
| P-value  | = 0.053                        |
| Method   | Mixed models analysis          |
| Parameter estimate   | Mean difference (final values) |
| Point estimate   | 0.06                           |
| Confidence interval  |                                |
| level  | 95 %                           |
| sides  | 2-sided                        |
| lower limit  | 0                              |
| upper limit  | 0.12                           |
| Variability estimate   | Standard error of the mean     |

## Secondary: EQ5D at 2 months

|  |                  |
|--|------------------|
| End point title  | EQ5D at 2 months |
| End point description:<br>EuroQol EQ5D (utility) -0.59 – 1.00 [-0.59=Worst health utility, 1.00=Best health utility] |                  |
| End point type   | Secondary        |
| End point timeframe:<br>2 months   |                  |

| End point values                     | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|--------------------------------------|------------------------|-----------------|-----------------|--|
| Subject group type                   | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed          | 56                     | 64              | 62              |  |
| Units: score                         |                        |                 |                 |  |
| arithmetic mean (standard deviation) | 0.44 (± 0.29)          | 0.52 (± 0.24)   | 0.60 (± 0.26)   |  |

## Statistical analyses

|  |                                   |
|--|-----------------------------------|
| <b>Statistical analysis title</b>  | EQ5D at 2 months                  |
| Statistical analysis description:<br>EQ5D at 2 months (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline EQ5D |                                   |
| Comparison groups  | Best Current Treatment v BCT+US-T |

|   |                                |
|---|--------------------------------|
| Number of subjects included in analysis | 118                            |
| Analysis specification                  | Pre-specified                  |
| Analysis type                           | superiority                    |
| P-value                                 | < 0.001                        |
| Method                                  | Mixed models analysis          |
| Parameter estimate                      | Mean difference (final values) |
| Point estimate                          | 0.15                           |
| Confidence interval                     |                                |
| level                                   | 95 %                           |
| sides                                   | 2-sided                        |
| lower limit                             | 0.08                           |
| upper limit                             | 0.22                           |
| Variability estimate                    | Standard error of the mean     |

|   |                                |
|---|--------------------------------|
| <b>Statistical analysis title</b>   | EQ5D at 2 months               |
| Statistical analysis description:<br>EQ5D at 2 months (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain and baseline EQ5D |                                |
| Comparison groups   | BCT+US-L v BCT+US-T            |
| Number of subjects included in analysis   | 126                            |
| Analysis specification  | Pre-specified                  |
| Analysis type   | superiority                    |
| P-value   | = 0.042                        |
| Method  | Mixed models analysis          |
| Parameter estimate  | Mean difference (final values) |
| Point estimate  | 0.07                           |
| Confidence interval   |                                |
| level   | 95 %                           |
| sides   | 2-sided                        |
| lower limit   | 0                              |
| upper limit   | 0.14                           |
| Variability estimate  | Standard error of the mean     |

|  |                  |
|--|------------------|
| <b>Secondary: EQ5D at 4 months</b>   |                  |
| End point title  | EQ5D at 4 months |
| End point description:<br>EuroQol EQ5D (utility) -0.59 – 1.00 [-0.59=Worst health utility, 1.00=Best health utility] |                  |
| End point type   | Secondary        |
| End point timeframe:<br>4 months   |                  |

| End point values                     | Best Current Treatment | BCT+US-L           | BCT+US-T           |  |
|--------------------------------------|------------------------|--------------------|--------------------|--|
| Subject group type                   | Reporting group        | Reporting group    | Reporting group    |  |
| Number of subjects analysed          | 56                     | 62                 | 58                 |  |
| Units: score                         |                        |                    |                    |  |
| arithmetic mean (standard deviation) | 0.48 ( $\pm$ 0.28)     | 0.48 ( $\pm$ 0.28) | 0.59 ( $\pm$ 0.23) |  |

## Statistical analyses

| Statistical analysis title   | EQ5D at 4 months                  |
|--|-----------------------------------|
| Statistical analysis description:<br>EQ5D at 4 months (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline EQ5D |                                   |
| Comparison groups  | BCT+US-T v Best Current Treatment |
| Number of subjects included in analysis  | 114                               |
| Analysis specification   | Pre-specified                     |
| Analysis type  | superiority                       |
| P-value  | = 0.004                           |
| Method   | Mixed models analysis             |
| Parameter estimate   | Mean difference (final values)    |
| Point estimate   | 0.12                              |
| Confidence interval  |                                   |
| level  | 95 %                              |
| sides  | 2-sided                           |
| lower limit  | 0.04                              |
| upper limit  | 0.19                              |
| Variability estimate   | Standard error of the mean        |

| Statistical analysis title  | EQ5D at 4 months               |
|---|--------------------------------|
| Statistical analysis description:<br>EQ5D at 4 months (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain and baseline EQ5D |                                |
| Comparison groups   | BCT+US-L v BCT+US-T            |
| Number of subjects included in analysis   | 120                            |
| Analysis specification  | Pre-specified                  |
| Analysis type   | superiority                    |
| P-value   | = 0.007                        |
| Method  | Mixed models analysis          |
| Parameter estimate  | Mean difference (final values) |
| Point estimate  | 0.1                            |
| Confidence interval   |                                |
| level   | 95 %                           |
| sides   | 2-sided                        |
| lower limit   | 0.03                           |
| upper limit   | 0.18                           |
| Variability estimate  | Standard error of the mean     |

---

**Secondary: EQ5D at 6 months**

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|                 |                  |
|-----------------|------------------|
| End point title | EQ5D at 6 months |
|-----------------|------------------|

End point description:

EuroQol EQ5D (utility) -0.59 – 1.00 [-0.59=Worst health utility, 1.00=Best health utility]

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

End point timeframe:

6 months

---

| End point values                     | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|--------------------------------------|------------------------|-----------------|-----------------|--|
| Subject group type                   | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed          | 54                     | 60              | 57              |  |
| Units: score                         |                        |                 |                 |  |
| arithmetic mean (standard deviation) | 0.52 (± 0.25)          | 0.50 (± 0.24)   | 0.50 (± 0.25)   |  |

**Statistical analyses**

|                                   |                  |
|-----------------------------------|------------------|
| <b>Statistical analysis title</b> | EQ5D at 6 months |
|-----------------------------------|------------------|

Statistical analysis description:

EQ5D at 6 months (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline EQ5D

|                   |                                   |
|-------------------|-----------------------------------|
| Comparison groups | Best Current Treatment v BCT+US-T |
|-------------------|-----------------------------------|

|   |     |
|---|-----|
| Number of subjects included in analysis | 111 |
|---|-----|

|                        |               |
|------------------------|---------------|
| Analysis specification | Pre-specified |
|------------------------|---------------|

|               |             |
|---------------|-------------|
| Analysis type | superiority |
|---------------|-------------|

|         |         |
|---------|---------|
| P-value | = 0.889 |
|---------|---------|

|        |                       |
|--------|-----------------------|
| Method | Mixed models analysis |
|--------|-----------------------|

|                    |                                |
|--------------------|--------------------------------|
| Parameter estimate | Mean difference (final values) |
|--------------------|--------------------------------|

|                |      |
|----------------|------|
| Point estimate | 0.01 |
|----------------|------|

Confidence interval

|       |      |
|-------|------|
| level | 95 % |
|-------|------|

|       |         |
|-------|---------|
| sides | 2-sided |
|-------|---------|

|             |       |
|-------------|-------|
| lower limit | -0.07 |
|-------------|-------|

|             |      |
|-------------|------|
| upper limit | 0.08 |
|-------------|------|

|                      |                            |
|----------------------|----------------------------|
| Variability estimate | Standard error of the mean |
|----------------------|----------------------------|

---

|                                   |                  |
|-----------------------------------|------------------|
| <b>Statistical analysis title</b> | EQ5D at 6 months |
|-----------------------------------|------------------|

Statistical analysis description:

EQ5D at 6 months (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain and baseline EQ5D

|                   |                     |
|-------------------|---------------------|
| Comparison groups | BCT+US-L v BCT+US-T |
|-------------------|---------------------|

|   |                                |
|---|--------------------------------|
| Number of subjects included in analysis | 117                            |
| Analysis specification                  | Pre-specified                  |
| Analysis type                           | superiority                    |
| P-value                                 | = 0.914                        |
| Method                                  | Mixed models analysis          |
| Parameter estimate                      | Mean difference (final values) |
| Point estimate                          | 0                              |
| Confidence interval                     |                                |
| level                                   | 95 %                           |
| sides                                   | 2-sided                        |
| lower limit                             | -0.07                          |
| upper limit                             | 0.08                           |
| Variability estimate                    | Standard error of the mean     |

### Secondary: EQ5D - Overall

|  |                |
|--|----------------|
| End point title  | EQ5D - Overall |
| End point description:   |                |
| EuroQol EQ5D (utility) -0.59 – 1.00 [-0.59=Worst health utility, 1.00=Best health utility] |                |
| End point type   | Secondary      |
| End point timeframe:   |                |
| Overall (all follow up scores: 2 weeks, 2 months, 4 months, 6 months)                      |                |

| End point values                     | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|--------------------------------------|------------------------|-----------------|-----------------|--|
| Subject group type                   | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed          | 63                     | 65              | 66              |  |
| Units: score                         |                        |                 |                 |  |
| arithmetic mean (standard deviation) | 0.48 (± 0.27)          | 0.52 (± 0.25)   | 0.58 (± 0.25)   |  |

### Statistical analyses

|   |                                   |
|---|-----------------------------------|
| <b>Statistical analysis title</b>   | EQ5D - Overall                    |
| Statistical analysis description:   |                                   |
| EQ5D overall (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline EQ5D |                                   |
| Comparison groups   | Best Current Treatment v BCT+US-T |
| Number of subjects included in analysis   | 129                               |
| Analysis specification  | Pre-specified                     |
| Analysis type   | superiority                       |
| P-value   | < 0.001                           |
| Method  | Mixed models analysis             |
| Parameter estimate  | Mean difference (final values)    |
| Point estimate  | 0.11                              |



|                      |                            |
|----------------------|----------------------------|
| Confidence interval  |                            |
| level                | 95 %                       |
| sides                | 2-sided                    |
| lower limit          | 0.06                       |
| upper limit          | 0.17                       |
| Variability estimate | Standard error of the mean |

|  |                                |
|--|--------------------------------|
| <b>Statistical analysis title</b>  | EQ5D - Overall                 |
| Statistical analysis description:<br>EQ5D overall (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline EQ5D |                                |
| Comparison groups  | BCT+US-L v BCT+US-T            |
| Number of subjects included in analysis  | 131                            |
| Analysis specification   | Pre-specified                  |
| Analysis type  | superiority                    |
| P-value  | = 0.034                        |
| Method   | Mixed models analysis          |
| Parameter estimate   | Mean difference (final values) |
| Point estimate   | 0.06                           |
| Confidence interval  |                                |
| level  | 95 %                           |
| sides  | 2-sided                        |
| lower limit  | 0.01                           |
| upper limit  | 0.11                           |
| Variability estimate   | Standard error of the mean     |

### Secondary: SPS at 2 months

|  |                 |
|--|-----------------|
| End point title  | SPS at 2 months |
| End point description:<br>Stanford Presenteeism Scale (SPS) 6-30 [6=Minimum ability, 30=Maximum ability] |                 |
| End point type   | Secondary       |
| End point timeframe:<br>2 months   |                 |

| End point values                     | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|--------------------------------------|------------------------|-----------------|-----------------|--|
| Subject group type                   | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed          | 22                     | 27              | 35              |  |
| Units: scale                         |                        |                 |                 |  |
| arithmetic mean (standard deviation) | 20.0 (± 6.0)           | 20.1 (± 6.0)    | 23.4 (± 4.4)    |  |

### Statistical analyses

|   |                                   |
|---|-----------------------------------|
| <b>Statistical analysis title</b>   | SPS at 2 months                   |
| Statistical analysis description:   |                                   |
| SPS at 2 months (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline SPS |                                   |
| Comparison groups   | Best Current Treatment v BCT+US-T |
| Number of subjects included in analysis   | 57                                |
| Analysis specification  | Pre-specified                     |
| Analysis type   | superiority                       |
| P-value   | = 0.001                           |
| Method  | Mixed models analysis             |
| Parameter estimate  | Mean difference (final values)    |
| Point estimate  | 4.06                              |
| Confidence interval   |                                   |
| level   | 95 %                              |
| sides   | 2-sided                           |
| lower limit   | 1.75                              |
| upper limit   | 6.38                              |
| Variability estimate  | Standard error of the mean        |

|  |                                |
|--|--------------------------------|
| <b>Statistical analysis title</b>  | SPS at 2 months                |
| Statistical analysis description:  |                                |
| SPS at 2 months (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain and baseline SPS |                                |
| Comparison groups  | BCT+US-L v BCT+US-T            |
| Number of subjects included in analysis  | 62                             |
| Analysis specification   | Pre-specified                  |
| Analysis type  | superiority                    |
| P-value  | = 0.001                        |
| Method   | Mixed models analysis          |
| Parameter estimate   | Mean difference (final values) |
| Point estimate   | 3.4                            |
| Confidence interval  |                                |
| level  | 95 %                           |
| sides  | 2-sided                        |
| lower limit  | 1.22                           |
| upper limit  | 5.59                           |
| Variability estimate   | Standard error of the mean     |

## Secondary: SPS at 6 months

|  |                 |
|--|-----------------|
| End point title  | SPS at 6 months |
| End point description:   |                 |
| Stanford Presenteeism Scale (SPS) 6-30 [6=Minimum ability, 30=Maximum ability] |                 |
| End point type   | Secondary       |
| End point timeframe:   |                 |
| 6 months   |                 |

| <b>End point values</b>              | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|--------------------------------------|------------------------|-----------------|-----------------|--|
| Subject group type                   | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed          | 21                     | 26              | 32              |  |
| Units: score                         |                        |                 |                 |  |
| arithmetic mean (standard deviation) | 19.9 (± 6.6)           | 20.0 (± 4.7)    | 21.8 (± 5.1)    |  |

## Statistical analyses

| <b>Statistical analysis title</b>   | SPS at 6 months                   |
|---|-----------------------------------|
| Statistical analysis description:   |                                   |
| SPS at 6 months (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline SPS |                                   |
| Comparison groups   | Best Current Treatment v BCT+US-T |
| Number of subjects included in analysis   | 53                                |
| Analysis specification  | Pre-specified                     |
| Analysis type   | superiority                       |
| P-value   | = 0.073                           |
| Method  | Mixed models analysis             |
| Parameter estimate  | Mean difference (final values)    |
| Point estimate  | 2.16                              |
| Confidence interval   |                                   |
| level   | 95 %                              |
| sides   | 2-sided                           |
| lower limit   | -0.2                              |
| upper limit   | 4.53                              |
| Variability estimate  | Standard error of the mean        |

| <b>Statistical analysis title</b>  | SPS at 6 months                |
|--|--------------------------------|
| Statistical analysis description:  |                                |
| SPS at 6 months (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain and baseline SPS |                                |
| Comparison groups  | BCT+US-L v BCT+US-T            |
| Number of subjects included in analysis  | 58                             |
| Analysis specification   | Pre-specified                  |
| Analysis type  | superiority                    |
| P-value  | = 0.031                        |
| Method   | Mixed models analysis          |
| Parameter estimate   | Mean difference (final values) |
| Point estimate   | 2.45                           |
| Confidence interval  |                                |
| level  | 95 %                           |
| sides  | 2-sided                        |
| lower limit  | 0.22                           |
| upper limit  | 4.69                           |

|                      |                            |
|----------------------|----------------------------|
| Variability estimate | Standard error of the mean |
|----------------------|----------------------------|

## Secondary: SPS - Overall

|  |               |
|--|---------------|
| End point title  | SPS - Overall |
| End point description:<br>Stanford Presenteeism Scale (SPS) 6-30 [6=Minimum ability, 30=Maximum ability] |               |
| End point type   | Secondary     |
| End point timeframe:<br>Overall (all follow up scores: 2 months, 6 months)                               |               |

| End point values                     | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|--------------------------------------|------------------------|-----------------|-----------------|--|
| Subject group type                   | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed          | 25                     | 30              | 37              |  |
| Units: score                         |                        |                 |                 |  |
| arithmetic mean (standard deviation) | 19.9 (± 6.2)           | 20.1 (± 5.4)    | 22.7 (± 4.8)    |  |

## Statistical analyses

|  |                                   |
|--|-----------------------------------|
| <b>Statistical analysis title</b>  | SPS - Overall                     |
| Statistical analysis description:<br>SPS overall (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline SPS |                                   |
| Comparison groups  | Best Current Treatment v BCT+US-T |
| Number of subjects included in analysis  | 62                                |
| Analysis specification   | Pre-specified                     |
| Analysis type  | superiority                       |
| P-value  | = 0.003                           |
| Method   | Mixed models analysis             |
| Parameter estimate   | Mean difference (final values)    |
| Point estimate   | 3.11                              |
| Confidence interval  |                                   |
| level  | 95 %                              |
| sides  | 2-sided                           |
| lower limit  | 1.05                              |
| upper limit  | 5.18                              |
| Variability estimate   | Standard error of the mean        |

|   |                     |
|---|---------------------|
| <b>Statistical analysis title</b>   | SPS - Overall       |
| Statistical analysis description:<br>SPS overall (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain and baseline SPS |                     |
| Comparison groups   | BCT+US-L v BCT+US-T |

|   |                                |
|---|--------------------------------|
| Number of subjects included in analysis | 67                             |
| Analysis specification                  | Pre-specified                  |
| Analysis type                           | superiority                    |
| P-value                                 | = 0.003                        |
| Method                                  | Mixed models analysis          |
| Parameter estimate                      | Mean difference (final values) |
| Point estimate                          | 2.93                           |
| Confidence interval                     |                                |
| level                                   | 95 %                           |
| sides                                   | 2-sided                        |
| lower limit                             | 0.98                           |
| upper limit                             | 4.88                           |
| Variability estimate                    | Standard error of the mean     |

## Secondary: Work performance at 2 months

|  |                              |
|--|------------------------------|
| End point title  | Work performance at 2 months |
| End point description:   |                              |
| Work Performance 0-10 numerical integer scale [0=Not at all affected, 10=Pain is so bad unable to do job]                                      |                              |
| Question worded: On average to what extent has your hip pain affected your performance at work in the last 2 months since your clinical visit? |                              |
| End point type   | Secondary                    |
| End point timeframe:   |                              |
| 2 months   |                              |

| End point values                     | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|--------------------------------------|------------------------|-----------------|-----------------|--|
| Subject group type                   | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed          | 21                     | 28              | 36              |  |
| Units: score                         |                        |                 |                 |  |
| arithmetic mean (standard deviation) | 4.1 (± 3.0)            | 4.9 (± 3.0)     | 3.1 (± 2.4)     |  |

## Statistical analyses

|   |                                   |
|---|-----------------------------------|
| Statistical analysis title  | Work performance at 2 months      |
| Statistical analysis description:   |                                   |
| WP at 2 months (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline WP |                                   |
| Comparison groups   | Best Current Treatment v BCT+US-T |
| Number of subjects included in analysis   | 57                                |
| Analysis specification  | Pre-specified                     |
| Analysis type   | superiority                       |
| P-value   | = 0.005                           |
| Method  | Mixed models analysis             |
| Parameter estimate  | Mean difference (final values)    |
| Point estimate  | -1.72                             |

|                      |                            |
|----------------------|----------------------------|
| Confidence interval  |                            |
| level                | 95 %                       |
| sides                | 2-sided                    |
| lower limit          | -2.93                      |
| upper limit          | -0.51                      |
| Variability estimate | Standard error of the mean |

|  |                                |
|--|--------------------------------|
| <b>Statistical analysis title</b>  | Work performance at 2 months   |
| Statistical analysis description:  |                                |
| WP at 2 months (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain and baseline WP |                                |
| Comparison groups  | BCT+US-L v BCT+US-T            |
| Number of subjects included in analysis  | 64                             |
| Analysis specification   | Pre-specified                  |
| Analysis type  | superiority                    |
| P-value  | = 0.011                        |
| Method   | Mixed models analysis          |
| Parameter estimate   | Mean difference (final values) |
| Point estimate   | -1.49                          |
| Confidence interval  |                                |
| level  | 95 %                           |
| sides  | 2-sided                        |
| lower limit  | -2.64                          |
| upper limit  | -0.34                          |
| Variability estimate   | Standard error of the mean     |

### Secondary: Work performance at 6 months

|  |                              |
|--|------------------------------|
| End point title  | Work performance at 6 months |
| End point description:   |                              |
| Work Performance 0-10 numerical integer scale [0=Not at all affected, 10=Pain is so bad unable to do job]                                      |                              |
| Question worded: On average to what extent has your hip pain affected your performance at work in the last 6 months since your clinical visit? |                              |
| End point type   | Secondary                    |
| End point timeframe:   |                              |
| 6 months   |                              |

| End point values                     | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|--------------------------------------|------------------------|-----------------|-----------------|--|
| Subject group type                   | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed          | 21                     | 26              | 32              |  |
| Units: score                         |                        |                 |                 |  |
| arithmetic mean (standard deviation) | 4.4 (± 3.2)            | 4.5 (± 2.7)     | 4.2 (± 2.7)     |  |

## Statistical analyses

|  |                                   |
|--|-----------------------------------|
| <b>Statistical analysis title</b>  | Work performance at 6 months      |
| Statistical analysis description:<br>WP at 6 months (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline WP |                                   |
| Comparison groups  | Best Current Treatment v BCT+US-T |
| Number of subjects included in analysis  | 53                                |
| Analysis specification   | Pre-specified                     |
| Analysis type  | superiority                       |
| P-value  | = 0.182                           |
| Method   | Mixed models analysis             |
| Parameter estimate   | Mean difference (final values)    |
| Point estimate   | -0.84                             |
| Confidence interval  |                                   |
| level  | 95 %                              |
| sides  | 2-sided                           |
| lower limit  | -2.08                             |
| upper limit  | 0.39                              |
| Variability estimate   | Standard error of the mean        |

|   |                                |
|---|--------------------------------|
| <b>Statistical analysis title</b>   | Work performance at 6 months   |
| Statistical analysis description:<br>WP at 6 months (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain and baseline WP |                                |
| Comparison groups   | BCT+US-L v BCT+US-T            |
| Number of subjects included in analysis   | 58                             |
| Analysis specification  | Pre-specified                  |
| Analysis type   | superiority                    |
| P-value   | = 0.435                        |
| Method  | Mixed models analysis          |
| Parameter estimate  | Mean difference (final values) |
| Point estimate  | -0.47                          |
| Confidence interval   |                                |
| level   | 95 %                           |
| sides   | 2-sided                        |
| lower limit   | -1.64                          |
| upper limit   | 0.71                           |
| Variability estimate  | Standard error of the mean     |

## Secondary: Work performance - Overall

|                 |                            |
|-----------------|----------------------------|
| End point title | Work performance - Overall |
|-----------------|----------------------------|

End point description:

Work Performance 0-10 numerical integer scale [0=Not at all affected, 10=Pain is so bad unable to do job]

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

End point timeframe:

Overall (all follow up scores: 2 months, 6 months)

| End point values                     | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|--------------------------------------|------------------------|-----------------|-----------------|--|
| Subject group type                   | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed          | 24                     | 30              | 38              |  |
| Units: score                         |                        |                 |                 |  |
| arithmetic mean (standard deviation) | 4.3 (± 3.1)            | 4.7 (± 2.8)     | 3.6 (± 2.6)     |  |

### Statistical analyses

|                                   |                            |
|-----------------------------------|----------------------------|
| <b>Statistical analysis title</b> | Work performance - Overall |
|-----------------------------------|----------------------------|

Statistical analysis description:

WP overall (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline WP

|   |                                   |
|---|-----------------------------------|
| Comparison groups                       | Best Current Treatment v BCT+US-T |
| Number of subjects included in analysis | 62                                |
| Analysis specification                  | Pre-specified                     |
| Analysis type                           | superiority                       |
| P-value                                 | = 0.023                           |
| Method                                  | Mixed models analysis             |
| Parameter estimate                      | Mean difference (final values)    |
| Point estimate                          | -1.28                             |
| Confidence interval                     |                                   |
| level                                   | 95 %                              |
| sides                                   | 2-sided                           |
| lower limit                             | -2.39                             |
| upper limit                             | -0.18                             |
| Variability estimate                    | Standard error of the mean        |

|                                   |                            |
|-----------------------------------|----------------------------|
| <b>Statistical analysis title</b> | Work performance - Overall |
|-----------------------------------|----------------------------|

Statistical analysis description:

WP overall (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain and baseline WP

|                   |                     |
|-------------------|---------------------|
| Comparison groups | BCT+US-L v BCT+US-T |
|-------------------|---------------------|



|   |                                |
|---|--------------------------------|
| Number of subjects included in analysis | 68                             |
| Analysis specification                  | Pre-specified                  |
| Analysis type                           | superiority                    |
| P-value                                 | = 0.067                        |
| Method                                  | Mixed models analysis          |
| Parameter estimate                      | Mean difference (final values) |
| Point estimate                          | -0.98                          |
| Confidence interval                     |                                |
| level                                   | 95 %                           |
| sides                                   | 2-sided                        |
| lower limit                             | -2.03                          |
| upper limit                             | 0.07                           |
| Variability estimate                    | Standard error of the mean     |

### Secondary: Perceived change at 2 weeks

|  |                             |
|--|-----------------------------|
| End point title  | Perceived change at 2 weeks |
| End point description:   |                             |
| Perceived change at 2 weeks (6-point ordered categorical scale: completely better, much better, somewhat better, same, somewhat worse, much worse)         |                             |
| Question worded: Compared to 2 weeks ago when you attended your hospital clinic appointment for your hip problem, how would you rate your hip problem now? |                             |
| End point type   | Secondary                   |
| End point timeframe:   |                             |
| 2 weeks  |                             |

| End point values            | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|-----------------------------|------------------------|-----------------|-----------------|--|
| Subject group type          | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed | 62                     | 64              | 64              |  |
| Units: participants         |                        |                 |                 |  |
| completely better           | 0                      | 1               | 2               |  |
| much better                 | 0                      | 15              | 34              |  |
| somewhat better             | 7                      | 20              | 14              |  |
| same                        | 39                     | 23              | 10              |  |
| somewhat worse              | 10                     | 4               | 4               |  |
| much worse                  | 6                      | 1               | 0               |  |

### Statistical analyses

|   |                                   |
|---|-----------------------------------|
| Statistical analysis title  | Perceived change at 2 weeks       |
| Statistical analysis description:   |                                   |
| Perceived change (specifically for this analysis (due to zero cell counts) dichotomised as: completely better/much better/somewhat better and same/somewhat worse/much worse. |                                   |
| Comparison BCT+US-T v BCT (reference) adjusted for age, gender and baseline pain.   |                                   |
| Comparison groups   | Best Current Treatment v BCT+US-T |

|   |                            |
|---|----------------------------|
| Number of subjects included in analysis | 126                        |
| Analysis specification                  | Pre-specified              |
| Analysis type                           | superiority                |
| P-value                                 | < 0.001                    |
| Method                                  | Mixed models analysis      |
| Parameter estimate                      | Risk ratio (RR)            |
| Point estimate                          | 6.93                       |
| Confidence interval                     |                            |
| level                                   | 95 %                       |
| sides                                   | 2-sided                    |
| lower limit                             | 3.39                       |
| upper limit                             | 14.2                       |
| Variability estimate                    | Standard error of the mean |

|  |                                   |
|--|-----------------------------------|
| <b>Statistical analysis title</b>  | Perceived change at 2 weeks       |
| Statistical analysis description:  |                                   |
| Perceived change (for analysis dichotomised as: completely better/much better and somewhat better/same/somewhat worse/much worse). |                                   |
| Comparison BCT+US-T v BCT+US-L (reference) adjusted for age, gender and baseline pain.   |                                   |
| Comparison groups  | Best Current Treatment v BCT+US-T |
| Number of subjects included in analysis  | 126                               |
| Analysis specification   | Pre-specified                     |
| Analysis type  | superiority                       |
| P-value  | = 0.009                           |
| Method   | Mixed models analysis             |
| Parameter estimate   | Risk ratio (RR)                   |
| Point estimate   | 2.28                              |
| Confidence interval  |                                   |
| level  | 95 %                              |
| sides  | 2-sided                           |
| lower limit  | 1.42                              |
| upper limit  | 3.66                              |
| Variability estimate   | Standard error of the mean        |

## Secondary: Perceived change at 2 months

|   |                              |
|---|------------------------------|
| End point title   | Perceived change at 2 months |
| End point description:  |                              |
| Perceived change at 2 months (6-point ordered categorical scale: completely better, much better, somewhat better, same, somewhat worse, much worse)         |                              |
| Question worded: Compared to 2 months ago when you attended your hospital clinic appointment for your hip problem, how would you rate your hip problem now? |                              |
| End point type  | Secondary                    |
| End point timeframe:  |                              |
| 2 months  |                              |

| End point values            | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|-----------------------------|------------------------|-----------------|-----------------|--|
| Subject group type          | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed | 58                     | 65              | 66              |  |
| Units: participants         |                        |                 |                 |  |
| completely better           | 1                      | 0               | 2               |  |
| much better                 | 3                      | 11              | 28              |  |
| somewhat better             | 6                      | 21              | 9               |  |
| same                        | 27                     | 19              | 14              |  |
| somewhat worse              | 16                     | 12              | 9               |  |
| much worse                  | 5                      | 2               | 4               |  |

## Statistical analyses

| Statistical analysis title   | Perceived change at 2 months      |
|--|-----------------------------------|
| Statistical analysis description:  |                                   |
| Perceived change (dichotomised as completely better/much better and somewhat better/same/somewhat worse/much worse). |                                   |
| Comparison BCT+US-T v BCT (reference) adjusted for age, gender and baseline pain.                                    |                                   |
| Comparison groups  | Best Current Treatment v BCT+US-T |
| Number of subjects included in analysis  | 124                               |
| Analysis specification   | Pre-specified                     |
| Analysis type  | superiority                       |
| P-value  | < 0.001                           |
| Method   | Mixed models analysis             |
| Parameter estimate   | Risk ratio (RR)                   |
| Point estimate   | 6.66                              |
| Confidence interval  |                                   |
| level  | 95 %                              |
| sides  | 2-sided                           |
| lower limit  | 2.48                              |
| upper limit  | 17.9                              |
| Variability estimate   | Standard error of the mean        |

| Statistical analysis title  | Perceived change at 2 months      |
|---|-----------------------------------|
| Statistical analysis description:   |                                   |
| Perceived improvement: completely better/much better & somewhat better/same/somewhat worse/much worse |                                   |
| Comparison BCT+US-T v BCT+US-L (reference) adjusted for age, gender and baseline pain.                |                                   |
| Comparison groups   | Best Current Treatment v BCT+US-T |
| Number of subjects included in analysis   | 124                               |
| Analysis specification  | Pre-specified                     |
| Analysis type   | superiority                       |
| P-value   | < 0.001                           |
| Method  | Mixed models analysis             |
| Parameter estimate  | Risk ratio (RR)                   |
| Point estimate  | 2.63                              |

|                      |                            |
|----------------------|----------------------------|
| Confidence interval  |                            |
| level                | 95 %                       |
| sides                | 2-sided                    |
| lower limit          | 1.43                       |
| upper limit          | 4.82                       |
| Variability estimate | Standard error of the mean |

## Secondary: Perceived change at 4 months

|   |                              |
|---|------------------------------|
| End point title   | Perceived change at 4 months |
| End point description:  |                              |
| Perceived change at 4 months (6-point ordered categorical scale: completely better, much better, somewhat better, same, somewhat worse, much worse)         |                              |
| Question worded: Compared to 4 months ago when you attended your hospital clinic appointment for your hip problem, how would you rate your hip problem now? |                              |
| End point type  | Secondary                    |
| End point timeframe:  |                              |
| 4 months  |                              |

| End point values            | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|-----------------------------|------------------------|-----------------|-----------------|--|
| Subject group type          | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed | 57                     | 63              | 60              |  |
| Units: participants         |                        |                 |                 |  |
| completely better           | 0                      | 0               | 1               |  |
| much better                 | 10                     | 9               | 15              |  |
| somewhat better             | 5                      | 10              | 15              |  |
| same                        | 17                     | 24              | 14              |  |
| somewhat worse              | 16                     | 14              | 13              |  |
| much worse                  | 9                      | 6               | 2               |  |

## Statistical analyses

|  |                                   |
|--|-----------------------------------|
| Statistical analysis title   | Perceived change at 4 months      |
| Statistical analysis description:  |                                   |
| Perceived change (for analysis dichotomised: as completely better/much better and somewhat better/same/somewhat worse/much worse). |                                   |
| Comparison BCT+US-T v BCT (reference) adjusted for age, gender and baseline pain.  |                                   |
| Comparison groups  | Best Current Treatment v BCT+US-T |
| Number of subjects included in analysis  | 117                               |
| Analysis specification   | Pre-specified                     |
| Analysis type  | superiority                       |
| P-value  | = 0.234                           |
| Method   | Mixed models analysis             |
| Parameter estimate   | Risk ratio (RR)                   |
| Point estimate   | 1.54                              |

|                      |                            |
|----------------------|----------------------------|
| Confidence interval  |                            |
| level                | 95 %                       |
| sides                | 2-sided                    |
| lower limit          | 0.76                       |
| upper limit          | 3.11                       |
| Variability estimate | Standard error of the mean |

|                                   |                              |
|-----------------------------------|------------------------------|
| <b>Statistical analysis title</b> | Perceived change at 4 months |
|-----------------------------------|------------------------------|

Statistical analysis description:

Perceived change (for analysis dichotomised: as completely better/much better and somewhat better/same/somewhat worse/much worse).

Comparison BCT+US-T v BCT+US-L (reference) adjusted for age, gender and baseline pain.

|   |                            |
|---|----------------------------|
| Comparison groups                       | BCT+US-L v BCT+US-T        |
| Number of subjects included in analysis | 123                        |
| Analysis specification                  | Pre-specified              |
| Analysis type                           | superiority                |
| P-value                                 | = 0.105                    |
| Method                                  | Mixed models analysis      |
| Parameter estimate                      | Risk ratio (RR)            |
| Point estimate                          | 1.85                       |
| Confidence interval                     |                            |
| level                                   | 95 %                       |
| sides                                   | 2-sided                    |
| lower limit                             | 0.88                       |
| upper limit                             | 3.88                       |
| Variability estimate                    | Standard error of the mean |

## Secondary: Perceived change at 6 months

|                 |                              |
|-----------------|------------------------------|
| End point title | Perceived change at 6 months |
|-----------------|------------------------------|

End point description:

Perceived change at 6 months (6-point ordered categorical scale: completely better, much better, somewhat better, same, somewhat worse, much worse)

Question worded: Compared to 6 months ago when you attended your hospital clinic appointment for your hip problem, how would you rate your hip problem now?

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

End point timeframe:

6 months

| End point values            | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|-----------------------------|------------------------|-----------------|-----------------|--|
| Subject group type          | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed | 56                     | 61              | 61              |  |
| Units: participants         |                        |                 |                 |  |
| completely better           | 2                      | 0               | 1               |  |
| much better                 | 10                     | 11              | 13              |  |

|                 |    |    |    |  |
|-----------------|----|----|----|--|
| somewhat better | 7  | 12 | 13 |  |
| same            | 14 | 18 | 13 |  |
| somewhat worse  | 14 | 15 | 18 |  |
| much worse      | 9  | 5  | 3  |  |

## Statistical analyses

| Statistical analysis title   | Perceived change at 6 months      |
|--|-----------------------------------|
| Statistical analysis description:  |                                   |
| Perceived change (for analysis dichotomised: as completely better/much better and somewhat better/same/somewhat worse/much worse). |                                   |
| Comparison BCT+US-T v BCT (reference) adjusted for age, gender and baseline pain.  |                                   |
| Comparison groups  | Best Current Treatment v BCT+US-T |
| Number of subjects included in analysis  | 117                               |
| Analysis specification   | Pre-specified                     |
| Analysis type  | superiority                       |
| P-value  | = 0.794                           |
| Method   | Mixed models analysis             |
| Parameter estimate   | Risk ratio (RR)                   |
| Point estimate   | 1.1                               |
| Confidence interval  |                                   |
| level  | 95 %                              |
| sides  | 2-sided                           |
| lower limit  | 0.55                              |
| upper limit  | 2.17                              |
| Variability estimate   | Standard error of the mean        |

| Statistical analysis title   | Perceived change at 6 months |
|--|------------------------------|
| Statistical analysis description:  |                              |
| Perceived change (for analysis dichotomised: as completely better/much better and somewhat better/same/somewhat worse/much worse). |                              |
| Comparison BCT+US-T v BCT+US-L (reference) adjusted for age, gender and baseline pain.   |                              |
| Comparison groups  | BCT+US-L v BCT+US-T          |
| Number of subjects included in analysis  | 122                          |
| Analysis specification   | Pre-specified                |
| Analysis type  | superiority                  |
| P-value  | = 0.516                      |
| Method   | Mixed models analysis        |
| Parameter estimate   | Risk ratio (RR)              |
| Point estimate   | 1.27                         |
| Confidence interval  |                              |
| level  | 95 %                         |
| sides  | 2-sided                      |
| lower limit  | 0.62                         |
| upper limit  | 2.58                         |
| Variability estimate   | Standard error of the mean   |

## Secondary: Sleep difficulty at 2 months

|                 |                              |
|-----------------|------------------------------|
| End point title | Sleep difficulty at 2 months |
|-----------------|------------------------------|

End point description:

Nights with sleep difficulty during past 4 weeks (5-point ordered categorical scale: no nights, only 1 or 2 nights, some nights, most nights, every night)

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

End point timeframe:

2 months

| End point values            | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|-----------------------------|------------------------|-----------------|-----------------|--|
| Subject group type          | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed | 55                     | 62              | 63              |  |
| Units: participants         |                        |                 |                 |  |
| no nights                   | 4                      | 7               | 12              |  |
| 1-2 nights                  | 5                      | 5               | 16              |  |
| some nights                 | 17                     | 19              | 15              |  |
| most nights                 | 15                     | 17              | 12              |  |
| every night                 | 14                     | 14              | 8               |  |

## Statistical analyses

|                            |                              |
|----------------------------|------------------------------|
| Statistical analysis title | Sleep difficulty at 2 months |
|----------------------------|------------------------------|

Statistical analysis description:

For analysis categories were dichotomised as: no nights/1-2 nights/ some nights & most nights/every night.

Comparison BCT+US-T v BCT (reference) adjusted for age, gender, baseline pain and baseline sleep.

|   |                                   |
|---|-----------------------------------|
| Comparison groups                       | Best Current Treatment v BCT+US-T |
| Number of subjects included in analysis | 118                               |
| Analysis specification                  | Pre-specified                     |
| Analysis type                           | superiority                       |
| P-value                                 | = 0.002                           |
| Method                                  | Mixed models analysis             |
| Parameter estimate                      | Risk ratio (RR)                   |
| Point estimate                          | 1.96                              |
| Confidence interval                     |                                   |
| level                                   | 95 %                              |
| sides                                   | 2-sided                           |
| lower limit                             | 1.28                              |
| upper limit                             | 3.03                              |
| Variability estimate                    | Standard error of the mean        |

|   |                              |
|---|------------------------------|
| <b>Statistical analysis title</b>   | Sleep difficulty at 2 months |
| Statistical analysis description:<br>For analysis categories were dichotomised as: no nights/1-2 nights/ some nights & most nights/every night.<br>Comparison BCT+US-T v BCT+US-L (reference) adjusted for age, gender, baseline pain and baseline sleep. |                              |
| Comparison groups   | BCT+US-L v BCT+US-T          |
| Number of subjects included in analysis   | 125                          |
| Analysis specification  | Pre-specified                |
| Analysis type   | superiority                  |
| P-value   | = 0.013                      |
| Method  | Mixed models analysis        |
| Parameter estimate  | Risk ratio (RR)              |
| Point estimate  | 1.72                         |
| Confidence interval   |                              |
| level   | 95 %                         |
| sides   | 2-sided                      |
| lower limit   | 1.12                         |
| upper limit   | 2.63                         |
| Variability estimate  | Standard error of the mean   |

## Secondary: Sleep difficulty at 4 months

|  |                              |
|--|------------------------------|
| End point title  | Sleep difficulty at 4 months |
| End point description:<br>Nights with sleep difficulty during past 4 weeks (5-point ordered categorical scale: no nights, only 1 or 2 nights, some nights, most nights, every night) |                              |
| End point type   | Secondary                    |
| End point timeframe:<br>4 months   |                              |

| End point values            | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|-----------------------------|------------------------|-----------------|-----------------|--|
| Subject group type          | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed | 54                     | 61              | 59              |  |
| Units: participants         |                        |                 |                 |  |
| no nights                   | 8                      | 6               | 9               |  |
| 1-2 nights                  | 9                      | 9               | 13              |  |
| some nights                 | 16                     | 12              | 15              |  |
| most nights                 | 13                     | 25              | 14              |  |
| every night                 | 8                      | 11              | 8               |  |



## Statistical analyses

| Statistical analysis title   | Sleep difficulty at 4 months      |
|--|-----------------------------------|
| Statistical analysis description:  |                                   |
| For analysis categories were dichotomised as: no nights/1-2 nights/ some nights & most nights/every night. |                                   |
| Comparison BCT+US-T v BCT (reference) adjusted for age, gender, baseline pain and baseline sleep.          |                                   |
| Comparison groups  | Best Current Treatment v BCT+US-T |
| Number of subjects included in analysis  | 113                               |
| Analysis specification   | Pre-specified                     |
| Analysis type  | superiority                       |
| P-value  | = 0.314                           |
| Method   | Mixed models analysis             |
| Parameter estimate   | Risk ratio (RR)                   |
| Point estimate   | 1.27                              |
| Confidence interval  |                                   |
| level  | 95 %                              |
| sides  | 2-sided                           |
| lower limit  | 0.79                              |
| upper limit  | 2.04                              |
| Variability estimate   | Standard error of the mean        |

| Statistical analysis title   | Sleep difficulty at 4 months |
|--|------------------------------|
| Statistical analysis description:  |                              |
| For analysis categories were dichotomised as: no nights/1-2 nights/ some nights & most nights/every night. |                              |
| Comparison BCT+US-T v BCT+US-L (reference) adjusted for age, gender, baseline pain and baseline sleep.     |                              |
| Comparison groups  | BCT+US-L v BCT+US-T          |
| Number of subjects included in analysis  | 120                          |
| Analysis specification   | Pre-specified                |
| Analysis type  | superiority                  |
| P-value  | = 0.022                      |
| Method   | Mixed models analysis        |
| Parameter estimate   | Risk ratio (RR)              |
| Point estimate   | 1.56                         |
| Confidence interval  |                              |
| level  | 95 %                         |
| sides  | 2-sided                      |
| lower limit  | 1.06                         |
| upper limit  | 2.27                         |
| Variability estimate   | Standard error of the mean   |

## Secondary: Sleep difficulty at 6 months

|  |                              |
|--|------------------------------|
| End point title  | Sleep difficulty at 6 months |
| End point description:   |                              |
| Nights with sleep difficulty during past 4 weeks (5-point ordered categorical scale: no nights, only 1 or 2 nights, some nights, most nights, every night) |                              |

|                      |           |
|----------------------|-----------|
| End point type       | Secondary |
| End point timeframe: |           |
| 6 months             |           |

| End point values            | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|-----------------------------|------------------------|-----------------|-----------------|--|
| Subject group type          | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed | 52                     | 60              | 57              |  |
| Units: participants         |                        |                 |                 |  |
| no nights                   | 9                      | 7               | 8               |  |
| 1-2 nights                  | 6                      | 5               | 5               |  |
| some nights                 | 15                     | 16              | 14              |  |
| most nights                 | 15                     | 21              | 15              |  |
| every night                 | 7                      | 11              | 15              |  |

## Statistical analyses

|  |                                   |
|--|-----------------------------------|
| <b>Statistical analysis title</b>  | Sleep difficulty at 6 months      |
| Statistical analysis description:  |                                   |
| For analysis categories were dichotomised as: no nights/1-2 nights/ some nights & most nights/every night. |                                   |
| Comparison BCT+US-T v BCT (reference) adjusted for age, gender, baseline pain and baseline sleep.          |                                   |
| Comparison groups  | Best Current Treatment v BCT+US-T |
| Number of subjects included in analysis  | 109                               |
| Analysis specification   | Pre-specified                     |
| Analysis type  | superiority                       |
| P-value  | = 0.799                           |
| Method   | Mixed models analysis             |
| Parameter estimate   | Risk ratio (RR)                   |
| Point estimate   | 1.06                              |
| Confidence interval  |                                   |
| level  | 95 %                              |
| sides  | 2-sided                           |
| lower limit  | 0.69                              |
| upper limit  | 1.61                              |
| Variability estimate   | Standard error of the mean        |

|  |                              |
|--|------------------------------|
| <b>Statistical analysis title</b>  | Sleep difficulty at 6 months |
| Statistical analysis description:  |                              |
| For analysis categories were dichotomised as: no nights/1-2 nights/ some nights & most nights/every night. |                              |
| Comparison BCT+US-T v BCT+US-L (reference) adjusted for age, gender, baseline pain and baseline sleep.     |                              |
| Comparison groups  | BCT+US-L v BCT+US-T          |

|   |                            |
|---|----------------------------|
| Number of subjects included in analysis | 117                        |
| Analysis specification                  | Pre-specified              |
| Analysis type                           | superiority                |
| P-value                                 | = 0.586                    |
| Method                                  | Mixed models analysis      |
| Parameter estimate                      | Risk ratio (RR)            |
| Point estimate                          | 1.1                        |
| Confidence interval                     |                            |
| level                                   | 95 %                       |
| sides                                   | 2-sided                    |
| lower limit                             | 0.79                       |
| upper limit                             | 1.52                       |
| Variability estimate                    | Standard error of the mean |

### Secondary: Satisfaction with care received at 2 months

|  |  |
|--|--|
| End point title  | Satisfaction with care received at 2 months  |
| End point description:                                 |  |
| Question worded:                                       | How satisfied are you with the care you have received for your hip problem in the last 2 months? |
| Response options on 5-point ordered categorical scale: | very satisfied, quite satisfied, no opinion, not very satisfied, not at all satisfied            |
| End point type   | Secondary  |
| End point timeframe:                                   |  |
| 2 months   |  |

| End point values            | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|-----------------------------|------------------------|-----------------|-----------------|--|
| Subject group type          | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed | 51                     | 62              | 57              |  |
| Units: participants         |                        |                 |                 |  |
| very satisfied              | 6                      | 14              | 27              |  |
| quite satisfied             | 13                     | 14              | 14              |  |
| no opinion                  | 15                     | 22              | 9               |  |
| not very satisfied          | 10                     | 7               | 5               |  |
| not at all satisfied        | 7                      | 5               | 2               |  |

### Statistical analyses

|  |  |
|--|--|
| Statistical analysis title                   | Satisfaction with care received at 2 months  |
| Statistical analysis description:            |  |
| For analysis dichotomisation was as follows: | very satisfied/quite satisfied & no opinion/not very satisfied/not at all satisfied. |
| Comparison                                   | BCT+US-T v BCT (reference) adjusted for age, gender and baseline pain.               |
| Comparison groups                            | Best Current Treatment v BCT+US-T  |

|   |                            |
|---|----------------------------|
| Number of subjects included in analysis | 108                        |
| Analysis specification                  | Pre-specified              |
| Analysis type                           | superiority                |
| P-value                                 | = 0.001                    |
| Method                                  | Mixed models analysis      |
| Parameter estimate                      | Risk ratio (RR)            |
| Point estimate                          | 1.97                       |
| Confidence interval                     |                            |
| level                                   | 95 %                       |
| sides                                   | 2-sided                    |
| lower limit                             | 1.33                       |
| upper limit                             | 2.93                       |
| Variability estimate                    | Standard error of the mean |

|   |   |
|---|---|
| <b>Statistical analysis title</b>   | Satisfaction with care received at 2 months |
| Statistical analysis description:   |   |
| For analysis dichotomisation was as follows: very satisfied/quite satisfied & no opinion/not very satisfied/not at all satisfied. |   |
| Comparison BCT+US-T v BCT+US-L (reference) adjusted for age, gender and baseline pain.  |   |
| Comparison groups   | BCT+US-L v BCT+US-T                         |
| Number of subjects included in analysis   | 119   |
| Analysis specification  | Pre-specified                               |
| Analysis type   | superiority                                 |
| P-value   | = 0.004                                     |
| Method  | Mixed models analysis                       |
| Parameter estimate  | Risk ratio (RR)                             |
| Point estimate  | 1.61  |
| Confidence interval   |   |
| level   | 95 %  |
| sides   | 2-sided                                     |
| lower limit   | 1.17  |
| upper limit   | 2.21  |
| Variability estimate  | Standard error of the mean                  |

## Secondary: Satisfaction with care received at 6 months

|  |   |
|--|---|
| End point title  | Satisfaction with care received at 6 months |
| End point description:   |   |
| Question worded: How satisfied are you with the care you have received for your hip problem in the last 4 months?                            |   |
| Response options on 5-point ordered categorical scale: very satisfied, quite satisfied, no opinion, not very satisfied, not at all satisfied |   |
| End point type   | Secondary                                   |
| End point timeframe:   |   |
| 6 months   |   |

| End point values            | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|-----------------------------|------------------------|-----------------|-----------------|--|
| Subject group type          | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed | 52                     | 57              | 55              |  |
| Units: participants         |                        |                 |                 |  |
| very satisfied              | 6                      | 17              | 15              |  |
| quite satisfied             | 12                     | 19              | 17              |  |
| no opinion                  | 20                     | 15              | 12              |  |
| not very satisfied          | 10                     | 6               | 7               |  |
| not at all satisfied        | 4                      | 0               | 4               |  |

## Statistical analyses

| Statistical analysis title  | Satisfaction with care received at 6 months |
|---|---|
| Statistical analysis description:   |   |
| For analysis dichotomisation was as follows: very satisfied/quite satisfied & no opinion/not very satisfied/not at all satisfied. |   |
| Comparison BCT+US-T v BCT (reference) adjusted for age, gender and baseline pain.   |   |
| Comparison groups   | Best Current Treatment v BCT+US-T           |
| Number of subjects included in analysis   | 107   |
| Analysis specification  | Pre-specified                               |
| Analysis type   | superiority                                 |
| P-value   | = 0.016                                     |
| Method  | Mixed models analysis                       |
| Parameter estimate  | Risk ratio (RR)                             |
| Point estimate  | 1.72  |
| Confidence interval   |   |
| level   | 95 %  |
| sides   | 2-sided                                     |
| lower limit   | 1.11  |
| upper limit   | 2.66  |
| Variability estimate  | Standard error of the mean                  |

| Statistical analysis title  | Satisfaction with care received at 6 months |
|---|---|
| Statistical analysis description:   |   |
| For analysis dichotomisation was as follows: very satisfied/quite satisfied & no opinion/not very satisfied/not at all satisfied. |   |
| Comparison BCT+US-T v BCT+US-L (reference) adjusted for age, gender and baseline pain.  |   |
| Comparison groups   | BCT+US-L v BCT+US-T                         |
| Number of subjects included in analysis   | 112   |
| Analysis specification  | Pre-specified                               |
| Analysis type   | superiority                                 |
| P-value   | = 0.63                                      |
| Method  | Mixed models analysis                       |
| Parameter estimate  | Risk ratio (RR)                             |
| Point estimate  | 0.93  |

|                      |                            |
|----------------------|----------------------------|
| Confidence interval  |                            |
| level                | 95 %                       |
| sides                | 2-sided                    |
| lower limit          | 0.69                       |
| upper limit          | 1.25                       |
| Variability estimate | Standard error of the mean |

### Secondary: Rating of overall results of care at 2 months

|  |   |
|--|---|
| End point title  | Rating of overall results of care at 2 months |
| End point description:   |   |
| Question worded: How would you rate the overall results of the care for your hip problem? (0-10 scale; 0=terrible, 10=excellent) |   |
| End point type   | Secondary                                     |
| End point timeframe:   |   |
| 2 months   |   |

| End point values                     | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|--------------------------------------|------------------------|-----------------|-----------------|--|
| Subject group type                   | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed          | 50                     | 61              | 57              |  |
| Units: score                         |                        |                 |                 |  |
| arithmetic mean (standard deviation) | 4.7 (± 3.3)            | 5.8 (± 3.3)     | 7.2 (± 2.6)     |  |

### Statistical analyses

|  |   |
|--|---|
| <b>Statistical analysis title</b>  | Rating of overall results of care at 2 months |
| Statistical analysis description:  |   |
| Mean difference for BCT+US-T minus BCT adjusted for age, gender and baseline pain. |   |
| Comparison groups  | Best Current Treatment v BCT+US-T             |
| Number of subjects included in analysis  | 107   |
| Analysis specification   | Pre-specified                                 |
| Analysis type  | superiority                                   |
| P-value  | < 0.001                                       |
| Method   | Mixed models analysis                         |
| Parameter estimate   | Mean difference (final values)                |
| Point estimate   | 2.51  |
| Confidence interval  |   |
| level  | 95 %  |
| sides  | 2-sided                                       |
| lower limit  | 1.4   |
| upper limit  | 3.61  |
| Variability estimate   | Standard error of the mean                    |

|  |   |
|--|---|
| <b>Statistical analysis title</b>  | Rating of overall results of care at 2 months |
| Statistical analysis description:<br>Mean difference for BCT+US-T minus BCT+US-L adjusted for age, gender and baseline pain. |   |
| Comparison groups  | BCT+US-L v BCT+US-T                           |
| Number of subjects included in analysis  | 118   |
| Analysis specification   | Pre-specified                                 |
| Analysis type  | superiority                                   |
| P-value  | = 0.008                                       |
| Method   | Mixed models analysis                         |
| Parameter estimate   | Mean difference (final values)                |
| Point estimate   | 1.43  |
| Confidence interval  |   |
| level  | 95 %  |
| sides  | 2-sided                                       |
| lower limit  | 0.38  |
| upper limit  | 2.47  |
| Variability estimate   | Standard error of the mean                    |

## Secondary: Rating of overall results of care at 6 months

|  |   |
|--|---|
| End point title  | Rating of overall results of care at 6 months |
| End point description:<br>Question worded: How would you rate the overall results of the care for your hip problem? (0-10 scale; 0=terrible, 10=excellent) |   |
| End point type   | Secondary                                     |
| End point timeframe:<br>6 months   |   |

| End point values                     | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|--------------------------------------|------------------------|-----------------|-----------------|--|
| Subject group type                   | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed          | 51                     | 58              | 55              |  |
| Units: score                         |                        |                 |                 |  |
| arithmetic mean (standard deviation) | 5.0 (± 2.9)            | 6.6 (± 2.7)     | 6.6 (± 2.8)     |  |

## Statistical analyses

|   |   |
|---|---|
| <b>Statistical analysis title</b>   | Rating of overall results of care at 6 months |
| Statistical analysis description:<br>Mean difference for BCT+US-T minus BCT adjusted for age, gender and baseline pain. |   |
| Comparison groups   | Best Current Treatment v BCT+US-T             |

|   |                                |
|---|--------------------------------|
| Number of subjects included in analysis | 106                            |
| Analysis specification                  | Pre-specified                  |
| Analysis type                           | superiority                    |
| P-value                                 | = 0.004                        |
| Method                                  | Mixed models analysis          |
| Parameter estimate                      | Mean difference (final values) |
| Point estimate                          | 1.6                            |
| Confidence interval                     |                                |
| level                                   | 95 %                           |
| sides                                   | 2-sided                        |
| lower limit                             | 0.5                            |
| upper limit                             | 2.71                           |
| Variability estimate                    | Standard error of the mean     |

|   |   |
|---|---|
| <b>Statistical analysis title</b>   | Rating of overall results of care at 6 months |
| Statistical analysis description:   |   |
| Mean difference for BCT+US-T minus BCT+US-L adjusted for age, gender and baseline pain. |   |
| Comparison groups   | BCT+US-L v BCT+US-T                           |
| Number of subjects included in analysis   | 113   |
| Analysis specification  | Pre-specified                                 |
| Analysis type   | superiority                                   |
| P-value   | = 0.784                                       |
| Method  | Mixed models analysis                         |
| Parameter estimate  | Mean difference (final values)                |
| Point estimate  | 0.15  |
| Confidence interval   |   |
| level   | 95 %  |
| sides   | 2-sided                                       |
| lower limit   | -0.91   |
| upper limit   | 1.21  |
| Variability estimate  | Standard error of the mean                    |

|  |   |
|--|---|
| <b>Secondary: Expectation for pain relief at 2 months</b>  |   |
| End point title  | Expectation for pain relief at 2 months |
| End point description:   |   |
| Question worded as: To what extent do you feel your expectations for pain relief have been met?              |   |
| Response options on 4-point ordered categorical scale: definitely not met, not met, no opinion, probably met |   |
| End point type   | Secondary                               |
| End point timeframe:   |   |
| 2 months   |   |



| End point values            | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|-----------------------------|------------------------|-----------------|-----------------|--|
| Subject group type          | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed | 53                     | 62              | 57              |  |
| Units: participants         |                        |                 |                 |  |
| probably met                | 15                     | 22              | 32              |  |
| no opinion                  | 11                     | 13              | 8               |  |
| not met                     | 20                     | 19              | 12              |  |
| definitely not met          | 7                      | 8               | 5               |  |

## Statistical analyses

| Statistical analysis title   | Expectations for pain relief at 2 months |
|--|--|
| Statistical analysis description:  |  |
| For analysis dichotomisation was as follows: probably met/no opinion & not met/definitely not met. Comparison BCT+US-T v BCT (reference) adjusted for age, gender and baseline pain. |  |
| Comparison groups  | Best Current Treatment v BCT+US-T        |
| Number of subjects included in analysis  | 110                                      |
| Analysis specification   | Pre-specified                            |
| Analysis type  | superiority                              |
| P-value  | = 0.01                                   |
| Method   | Mixed models analysis                    |
| Parameter estimate   | Risk ratio (RR)                          |
| Point estimate   | 1.52                                     |
| Confidence interval  |  |
| level  | 95 %                                     |
| sides  | 2-sided                                  |
| lower limit  | 1.1                                      |
| upper limit  | 2.1                                      |
| Variability estimate   | Standard error of the mean               |

| Statistical analysis title  | Expectations for pain relief at 2 months |
|---|--|
| Statistical analysis description:   |  |
| For analysis dichotomisation was as follows: probably met/no opinion & not met/definitely not met. Comparison BCT+US-T v BCT+US-L (reference) adjusted for age, gender and baseline pain. |  |
| Comparison groups   | BCT+US-L v BCT+US-T                      |
| Number of subjects included in analysis   | 119                                      |
| Analysis specification  | Pre-specified                            |
| Analysis type   | superiority                              |
| P-value   | = 0.105                                  |
| Method  | Mixed models analysis                    |
| Parameter estimate  | Risk ratio (RR)                          |
| Point estimate  | 1.26                                     |
| Confidence interval   |  |
| level   | 95 %                                     |
| sides   | 2-sided                                  |
| lower limit   | 0.95                                     |
| upper limit   | 1.67                                     |

|                      |                            |
|----------------------|----------------------------|
| Variability estimate | Standard error of the mean |
|----------------------|----------------------------|

## Secondary: Expectation for pain relief at 6 months

|  |   |
|--|---|
| End point title  | Expectation for pain relief at 6 months |
| End point description:   |   |
| Question worded as: To what extent do you feel your expectations for pain relief have been met?              |   |
| Response options on 4-point ordered categorical scale: definitely not met, not met, no opinion, probably met |   |
| End point type   | Secondary                               |
| End point timeframe:   |   |
| 6 months   |   |

| End point values            | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|-----------------------------|------------------------|-----------------|-----------------|--|
| Subject group type          | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed | 51                     | 59              | 57              |  |
| Units: participants         |                        |                 |                 |  |
| probably met                | 17                     | 22              | 25              |  |
| no opinion                  | 10                     | 9               | 13              |  |
| not met                     | 15                     | 20              | 13              |  |
| definitely not met          | 9                      | 8               | 6               |  |

## Statistical analyses

|  |   |
|--|---|
| Statistical analysis title   | Expectation for pain relief at 6 months |
| Statistical analysis description:  |   |
| For analysis dichotomisation was as follows: probably met/no opinion & not met/definitely not met. Comparison BCT+US-T v BCT (reference) adjusted for age, gender and baseline pain. |   |
| Comparison groups  | Best Current Treatment v BCT+US-T       |
| Number of subjects included in analysis  | 108                                     |
| Analysis specification   | Pre-specified                           |
| Analysis type  | superiority                             |
| P-value  | = 0.059                                 |
| Method   | Mixed models analysis                   |
| Parameter estimate   | Risk ratio (RR)                         |
| Point estimate   | 1.35                                    |
| Confidence interval  |   |
| level  | 95 %                                    |
| sides  | 2-sided                                 |
| lower limit  | 0.99                                    |
| upper limit  | 1.84                                    |
| Variability estimate   | Standard error of the mean              |

|   |  |
|---|--|
| <b>Statistical analysis title</b>   | Expectations for pain relief at 6 months |
| Statistical analysis description:<br>For analysis dichotomisation was as follows: probably met/no opinion & not met/definitely not met.<br>Comparison BCT+US-T v BCT+US-L (reference) adjusted for age, gender and baseline pain. |  |
| Comparison groups   | BCT+US-L v BCT+US-T                      |
| Number of subjects included in analysis   | 116                                      |
| Analysis specification  | Pre-specified                            |
| Analysis type   | superiority                              |
| P-value   | = 0.098                                  |
| Method  | Mixed models analysis                    |
| Parameter estimate  | Risk ratio (RR)                          |
| Point estimate  | 1.29                                     |
| Confidence interval   |  |
| level   | 95 %                                     |
| sides   | 2-sided                                  |
| lower limit   | 0.95                                     |
| upper limit   | 1.73                                     |
| Variability estimate  | Standard error of the mean               |

### Secondary: Same care again for hip problem at 2 months

|  |   |
|--|---|
| End point title  | Same care again for hip problem at 2 months |
| End point description:<br>Question worded: Would you have the same care again if you had the same condition?<br>Ordered 5-point categorical response options: definitely not, probably not, no opinion, probably, definitely |   |
| End point type   | Secondary                                   |
| End point timeframe:<br>2 months   |   |

| End point values            | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|-----------------------------|------------------------|-----------------|-----------------|--|
| Subject group type          | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed | 51                     | 61              | 58              |  |
| Units: participants         |                        |                 |                 |  |
| definitely                  | 4                      | 16              | 26              |  |
| probably                    | 11                     | 14              | 15              |  |
| no opinion                  | 16                     | 14              | 11              |  |
| probably not                | 12                     | 11              | 4               |  |
| definitely not              | 8                      | 6               | 2               |  |

### Statistical analyses

|                                   |                             |
|-----------------------------------|-----------------------------|
| <b>Statistical analysis title</b> | Same care again at 2 months |
|-----------------------------------|-----------------------------|

Statistical analysis description:  
Final analysis categories dichotomised as: definitely/probably & no opinion/probably not/definitely not.

Comparison BCT+US-T v BCT (reference) adjusted for age, gender and baseline pain.

|   |                                   |
|---|-----------------------------------|
| Comparison groups                       | Best Current Treatment v BCT+US-T |
| Number of subjects included in analysis | 109                               |
| Analysis specification                  | Pre-specified                     |
| Analysis type                           | superiority                       |
| P-value                                 | < 0.001                           |
| Method                                  | Mixed models analysis             |
| Parameter estimate                      | Risk ratio (RR)                   |
| Point estimate                          | 2.41                              |
| Confidence interval                     |                                   |
| level                                   | 95 %                              |
| sides                                   | 2-sided                           |
| lower limit                             | 1.53                              |
| upper limit                             | 3.8                               |
| Variability estimate                    | Standard error of the mean        |

|                                   |                             |
|-----------------------------------|-----------------------------|
| <b>Statistical analysis title</b> | Same care again at 2 months |
|-----------------------------------|-----------------------------|

Statistical analysis description:

Final analysis categories dichotomised as: definitely/probably & no opinion/probably not/definitely not.  
Comparison BCT+US-T v BCT+US-L (reference) adjusted for age, gender and baseline pain.

|   |                            |
|---|----------------------------|
| Comparison groups                       | BCT+US-L v BCT+US-T        |
| Number of subjects included in analysis | 119                        |
| Analysis specification                  | Pre-specified              |
| Analysis type                           | superiority                |
| P-value                                 | = 0.016                    |
| Method                                  | Mixed models analysis      |
| Parameter estimate                      | Risk ratio (RR)            |
| Point estimate                          | 1.45                       |
| Confidence interval                     |                            |
| level                                   | 95 %                       |
| sides                                   | 2-sided                    |
| lower limit                             | 1.07                       |
| upper limit                             | 1.96                       |
| Variability estimate                    | Standard error of the mean |

### Secondary: Same care again for hip problem at 6 months

|                 |   |
|-----------------|---|
| End point title | Same care again for hip problem at 6 months |
|-----------------|---|

End point description:

Question worded: Would you have the same care again if you had the same condition?

Ordered 5-point categorical response options: definitely not, probably not, no opinion, probably, definitely

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

End point timeframe:

6 months

| <b>End point values</b>     | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|-----------------------------|------------------------|-----------------|-----------------|--|
| Subject group type          | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed | 49                     | 58              | 54              |  |
| Units: participants         |                        |                 |                 |  |
| definitely                  | 6                      | 17              | 18              |  |
| probably                    | 11                     | 19              | 17              |  |
| no opinion                  | 20                     | 10              | 10              |  |
| probably not                | 7                      | 7               | 5               |  |
| definitely not              | 5                      | 5               | 4               |  |

## Statistical analyses

| <b>Statistical analysis title</b>  | Same care again at 6 months       |
|--|-----------------------------------|
| Statistical analysis description:  |                                   |
| Final analysis categories dichotomised as: definitely/probably & no opinion/probably not/definitely not. Comparison BCT+US-T v BCT (reference) adjusted for age, gender and baseline pain. |                                   |
| Comparison groups  | Best Current Treatment v BCT+US-T |
| Number of subjects included in analysis  | 103                               |
| Analysis specification   | Pre-specified                     |
| Analysis type  | superiority                       |
| P-value  | = 0.004                           |
| Method   | Mixed models analysis             |
| Parameter estimate   | Risk ratio (RR)                   |
| Point estimate   | 1.89                              |
| Confidence interval  |                                   |
| level  | 95 %                              |
| sides  | 2-sided                           |
| lower limit  | 1.22                              |
| upper limit  | 2.92                              |
| Variability estimate   | Standard error of the mean        |

| <b>Statistical analysis title</b>   | Same care again at 6 months |
|---|-----------------------------|
| Statistical analysis description:   |                             |
| Final analysis categories dichotomised as: definitely/probably & no opinion/probably not/definitely not. Comparison BCT+US-T v BCT+US-L (reference) adjusted for age, gender and baseline pain. |                             |
| Comparison groups   | BCT+US-L v BCT+US-T         |
| Number of subjects included in analysis   | 112                         |
| Analysis specification  | Pre-specified               |
| Analysis type   | superiority                 |
| P-value   | = 0.687                     |
| Method  | Mixed models analysis       |
| Parameter estimate  | Risk ratio (RR)             |
| Point estimate  | 1.06                        |

|                      |                            |
|----------------------|----------------------------|
| Confidence interval  |                            |
| level                | 95 %                       |
| sides                | 2-sided                    |
| lower limit          | 0.8                        |
| upper limit          | 1.4                        |
| Variability estimate | Standard error of the mean |

## Secondary: Satisfaction with information received at 2 months

|  |  |
|--|--|
| End point title  | Satisfaction with information received at 2 months |
| End point description:   |  |
| Question worded: How satisfied are you with the information you received concerning your hip problem?<br>5-point ordered categorical response options: very satisfied, quite satisfied, no opinion, not very satisfied, not at all satisfied |  |
| End point type   | Secondary  |
| End point timeframe:   |  |
| 2 months   |  |

| End point values            | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|-----------------------------|------------------------|-----------------|-----------------|--|
| Subject group type          | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed | 56                     | 61              | 62              |  |
| Units: participants         |                        |                 |                 |  |
| very satisfied              | 15                     | 28              | 35              |  |
| quite satisfied             | 23                     | 20              | 21              |  |
| no opinion                  | 5                      | 5               | 1               |  |
| not very satisfied          | 6                      | 7               | 3               |  |
| not at all satisfied        | 7                      | 1               | 2               |  |

## Statistical analyses

|   |  |
|---|--|
| Statistical analysis title  | Satisfaction with information received at 2 months |
| Statistical analysis description:   |  |
| Final analysis category dichotomisation: very satisfied/quite satisfied & no opinion/not very satisfied/not at all satisfied. |  |
| Comparison BCT+US-T v BCT (reference) adjusted for age, gender and baseline pain.   |  |
| Comparison groups   | Best Current Treatment v BCT+US-T                  |
| Number of subjects included in analysis   | 118  |
| Analysis specification  | Pre-specified                                      |
| Analysis type   | superiority  |
| P-value   | = 0.004  |
| Method  | Mixed models analysis                              |
| Parameter estimate  | Risk ratio (RR)                                    |
| Point estimate  | 1.35   |

|                      |                            |
|----------------------|----------------------------|
| Confidence interval  |                            |
| level                | 95 %                       |
| sides                | 2-sided                    |
| lower limit          | 1.1                        |
| upper limit          | 1.64                       |
| Variability estimate | Standard error of the mean |

|   |  |
|---|--|
| <b>Statistical analysis title</b>   | Satisfaction with information received at 2 months |
| Statistical analysis description:   |  |
| Final analysis category dichotomisation: very satisfied/quite satisfied & no opinion/not very satisfied/not at all satisfied. |  |
| Comparison BCT+US-T v BCT+US-L (reference) adjusted for age, gender and baseline pain.  |  |
| Comparison groups   | BCT+US-L v BCT+US-T                                |
| Number of subjects included in analysis   | 123  |
| Analysis specification  | Pre-specified                                      |
| Analysis type   | superiority  |
| P-value   | = 0.07   |
| Method  | Mixed models analysis                              |
| Parameter estimate  | Risk ratio (RR)                                    |
| Point estimate  | 1.15   |
| Confidence interval   |  |
| level   | 95 %   |
| sides   | 2-sided  |
| lower limit   | 0.99   |
| upper limit   | 1.34   |
| Variability estimate  | Standard error of the mean                         |

## Secondary: Satisfaction with information received at 6 months

|   |  |
|---|--|
| End point title   | Satisfaction with information received at 6 months |
| End point description:  |  |
| Question worded: How satisfied are you with the information you received concerning your hip problem?                               |  |
| 5-point ordered categorical response options: very satisfied, quite satisfied, no opinion, not very satisfied, not at all satisfied |  |
| End point type  | Secondary  |
| End point timeframe:  |  |
| 6 months  |  |

| End point values            | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|-----------------------------|------------------------|-----------------|-----------------|--|
| Subject group type          | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed | 52                     | 60              | 58              |  |
| Units: participants         |                        |                 |                 |  |
| very satisfied              | 12                     | 29              | 23              |  |
| quite satisfied             | 20                     | 21              | 19              |  |
| no opinion                  | 8                      | 6               | 8               |  |

|                      |   |   |   |  |
|----------------------|---|---|---|--|
| not very satisfied   | 9 | 4 | 6 |  |
| not at all satisfied | 3 | 0 | 2 |  |

## Statistical analyses

|   |  |
|---|--|
| <b>Statistical analysis title</b>   | Satisfaction with information received at 6 months |
| Statistical analysis description:   |  |
| Final analysis category dichotomisation: very satisfied/quite satisfied & no opinion/not very satisfied/not at all satisfied. |  |
| Comparison BCT+US-T v BCT (reference) adjusted for age, gender and baseline pain.   |  |
| Comparison groups   | BCT+US-T v Best Current Treatment                  |
| Number of subjects included in analysis   | 110  |
| Analysis specification  | Pre-specified                                      |
| Analysis type   | superiority  |
| P-value   | = 0.209  |
| Method  | Mixed models analysis                              |
| Parameter estimate  | Risk ratio (RR)                                    |
| Point estimate  | 1.19   |
| Confidence interval   |  |
| level   | 95 %   |
| sides   | 2-sided  |
| lower limit   | 0.91   |
| upper limit   | 1.56   |
| Variability estimate  | Standard error of the mean                         |

|   |  |
|---|--|
| <b>Statistical analysis title</b>   | Satisfaction with information received at 6 months |
| Statistical analysis description:   |  |
| Final analysis category dichotomisation: very satisfied/quite satisfied & no opinion/not very satisfied/not at all satisfied. |  |
| Comparison BCT+US-T v BCT+US-L (reference) adjusted for age, gender and baseline pain.  |  |
| Comparison groups   | BCT+US-L v BCT+US-T                                |
| Number of subjects included in analysis   | 118  |
| Analysis specification  | Pre-specified                                      |
| Analysis type   | superiority  |
| P-value   | = 0.174  |
| Method  | Mixed models analysis                              |
| Parameter estimate  | Risk ratio (RR)                                    |
| Point estimate  | 1.15   |
| Confidence interval   |  |
| level   | 95 %   |
| sides   | 2-sided  |
| lower limit   | 0.94   |
| upper limit   | 1.4  |
| Variability estimate  | Standard error of the mean                         |



## Secondary: Understanding of hip problem at 2 months

|                 |  |
|-----------------|--|
| End point title | Understanding of hip problem at 2 months |
|-----------------|--|

End point description:

Question worded as: How well do you understand your hip problem?

4-point categorical response options of: very clearly, quite clearly, no opinion, not very clearly

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

End point timeframe:

2 months

| End point values            | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|-----------------------------|------------------------|-----------------|-----------------|--|
| Subject group type          | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed | 56                     | 62              | 62              |  |
| Units: participants         |                        |                 |                 |  |
| very clearly                | 19                     | 29              | 25              |  |
| quite clearly               | 29                     | 24              | 29              |  |
| no opinion                  | 2                      | 5               | 1               |  |
| not very clearly            | 6                      | 4               | 7               |  |

## Statistical analyses

|                            |                                       |
|----------------------------|---------------------------------------|
| Statistical analysis title | Understanding hip problem at 2 months |
|----------------------------|---------------------------------------|

Statistical analysis description:

Final analysis categories dichotomised as: very clearly/quite clearly & no opinion/not very clearly.  
Comparison BCT+US-T v BCT (reference) adjusted for age, gender and baseline pain.

|                   |                                   |
|-------------------|-----------------------------------|
| Comparison groups | Best Current Treatment v BCT+US-T |
|-------------------|-----------------------------------|

|   |     |
|---|-----|
| Number of subjects included in analysis | 118 |
|---|-----|

|                        |               |
|------------------------|---------------|
| Analysis specification | Pre-specified |
|------------------------|---------------|

|               |             |
|---------------|-------------|
| Analysis type | superiority |
|---------------|-------------|

|         |         |
|---------|---------|
| P-value | = 0.884 |
|---------|---------|

|        |                       |
|--------|-----------------------|
| Method | Mixed models analysis |
|--------|-----------------------|

|                    |                 |
|--------------------|-----------------|
| Parameter estimate | Risk ratio (RR) |
|--------------------|-----------------|

|                |      |
|----------------|------|
| Point estimate | 1.01 |
|----------------|------|

Confidence interval

|       |      |
|-------|------|
| level | 95 % |
|-------|------|

|       |         |
|-------|---------|
| sides | 2-sided |
|-------|---------|

|             |      |
|-------------|------|
| lower limit | 0.87 |
|-------------|------|

|             |      |
|-------------|------|
| upper limit | 1.17 |
|-------------|------|

|                      |                            |
|----------------------|----------------------------|
| Variability estimate | Standard error of the mean |
|----------------------|----------------------------|

|                            |  |
|----------------------------|--|
| Statistical analysis title | Understanding of hip problem at 2 months |
|----------------------------|--|

**Statistical analysis description:**

Final analysis categories dichotomised as: very clearly/quite clearly & no opinion/not very clearly.  
Comparison BCT+US-T v BCT+US-L (reference) adjusted for age, gender and baseline pain.

|   |                            |
|---|----------------------------|
| Comparison groups                       | BCT+US-L v BCT+US-T        |
| Number of subjects included in analysis | 124                        |
| Analysis specification                  | Pre-specified              |
| Analysis type                           | superiority                |
| P-value                                 | = 0.797                    |
| Method                                  | Mixed models analysis      |
| Parameter estimate                      | Risk ratio (RR)            |
| Point estimate                          | 1.02                       |
| Confidence interval                     |                            |
| level                                   | 95 %                       |
| sides                                   | 2-sided                    |
| lower limit                             | 0.89                       |
| upper limit                             | 1.17                       |
| Variability estimate                    | Standard error of the mean |

**Secondary: Understanding of hip problem at 6 months**

|  |  |
|--|--|
| End point title  | Understanding of hip problem at 6 months |
| End point description:   |  |
| Question worded as: How well do you understand your hip problem?                                   |  |
| 4-point categorical response options of: very clearly, quite clearly, no opinion, not very clearly |  |
| End point type   | Secondary                                |
| End point timeframe:   |  |
| 6 months   |  |

| End point values            | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|-----------------------------|------------------------|-----------------|-----------------|--|
| Subject group type          | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed | 52                     | 60              | 58              |  |
| Units: participants         |                        |                 |                 |  |
| very clearly                | 18                     | 24              | 22              |  |
| quite clearly               | 24                     | 30              | 24              |  |
| no opinion                  | 5                      | 1               | 5               |  |
| not very clearly            | 5                      | 5               | 7               |  |

**Statistical analyses**

|  |  |
|--|--|
| <b>Statistical analysis title</b>  | Understanding of hip problem at 6 months |
| Statistical analysis description:  |  |
| Final analysis categories dichotomised as: very clearly/quite clearly & no opinion/not very clearly. |  |
| Comparison BCT+US-T v BCT (reference) adjusted for age, gender and baseline pain.                    |  |
| Comparison groups  | BCT+US-T v Best Current Treatment        |

|   |                            |
|---|----------------------------|
| Number of subjects included in analysis | 110                        |
| Analysis specification                  | Pre-specified              |
| Analysis type                           | superiority                |
| P-value                                 | = 0.813                    |
| Method                                  | Mixed models analysis      |
| Parameter estimate                      | Risk ratio (RR)            |
| Point estimate                          | 0.98                       |
| Confidence interval                     |                            |
| level                                   | 95 %                       |
| sides                                   | 2-sided                    |
| lower limit                             | 0.81                       |
| upper limit                             | 1.18                       |
| Variability estimate                    | Standard error of the mean |

|  |  |
|--|--|
| <b>Statistical analysis title</b>  | Understanding of hip problem at 6 months |
| Statistical analysis description:  |  |
| Comparison BCT+US-T v BCT+US-L (reference) adjusted for age, gender and baseline pain. |  |
| Comparison groups  | BCT+US-L v BCT+US-T                      |
| Number of subjects included in analysis  | 118                                      |
| Analysis specification   | Pre-specified                            |
| Analysis type  | superiority                              |
| P-value  | = 0.104                                  |
| Method   | Mixed models analysis                    |
| Parameter estimate   | Risk ratio (RR)                          |
| Point estimate   | 0.88                                     |
| Confidence interval  |  |
| level  | 95 %                                     |
| sides  | 2-sided                                  |
| lower limit  | 0.76                                     |
| upper limit  | 1.03                                     |
| Variability estimate   | Standard error of the mean               |

|  |                                  |
|--|----------------------------------|
| <b>Secondary: Still have questions at 2 months</b>                               |                                  |
| End point title  | Still have questions at 2 months |
| End point description:   |                                  |
| Question worded as: Do you still have questions about your hip problem? (yes/no) |                                  |
| End point type   | Secondary                        |
| End point timeframe:   |                                  |
| 2 months   |                                  |

| End point values            | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|-----------------------------|------------------------|-----------------|-----------------|--|
| Subject group type          | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed | 55                     | 61              | 61              |  |
| Units: participants         |                        |                 |                 |  |
| no                          | 30                     | 33              | 37              |  |
| yes                         | 25                     | 28              | 24              |  |

## Statistical analyses

| Statistical analysis title  | Still have questions at 2 months  |
|---|-----------------------------------|
| Statistical analysis description:   |                                   |
| Comparison BCT+US-T v BCT (reference) adjusted for age, gender and baseline pain. |                                   |
| Comparison groups   | Best Current Treatment v BCT+US-T |
| Number of subjects included in analysis   | 116                               |
| Analysis specification  | Pre-specified                     |
| Analysis type   | superiority                       |
| P-value   | = 0.446                           |
| Method  | Mixed models analysis             |
| Parameter estimate  | Risk ratio (RR)                   |
| Point estimate  | 1.19                              |
| Confidence interval   |                                   |
| level   | 95 %                              |
| sides   | 2-sided                           |
| lower limit   | 0.76                              |
| upper limit   | 1.82                              |
| Variability estimate  | Standard error of the mean        |

| Statistical analysis title   | Still have questions at 2 months |
|--|----------------------------------|
| Statistical analysis description:  |                                  |
| Comparison BCT+US-T v BCT+US-L (reference) adjusted for age, gender and baseline pain. |                                  |
| Comparison groups  | BCT+US-L v BCT+US-T              |
| Number of subjects included in analysis  | 122                              |
| Analysis specification   | Pre-specified                    |
| Analysis type  | superiority                      |
| P-value  | = 0.486                          |
| Method   | Mixed models analysis            |
| Parameter estimate   | Risk ratio (RR)                  |
| Point estimate   | 1.16                             |
| Confidence interval  |                                  |
| level  | 95 %                             |
| sides  | 2-sided                          |
| lower limit  | 0.76                             |
| upper limit  | 1.75                             |
| Variability estimate   | Standard error of the mean       |

---

**Secondary: Still have questions at 6 months**

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|                 |                                  |
|-----------------|----------------------------------|
| End point title | Still have questions at 6 months |
|-----------------|----------------------------------|

End point description:

Question worded as: Do you still have questions about your hip problem? (yes/no)

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

End point timeframe:

6 months

---

| End point values            | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|-----------------------------|------------------------|-----------------|-----------------|--|
| Subject group type          | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed | 52                     | 60              | 57              |  |
| Units: participants         |                        |                 |                 |  |
| no                          | 27                     | 26              | 28              |  |
| yes                         | 25                     | 34              | 29              |  |

---

**Statistical analyses**

---

|                            |                                  |
|----------------------------|----------------------------------|
| Statistical analysis title | Still have questions at 6 months |
|----------------------------|----------------------------------|

Statistical analysis description:

Comparison BCT+US-T v BCT (reference) adjusted for age, gender and baseline pain.

|                   |                                   |
|-------------------|-----------------------------------|
| Comparison groups | Best Current Treatment v BCT+US-T |
|-------------------|-----------------------------------|

|   |     |
|---|-----|
| Number of subjects included in analysis | 109 |
|---|-----|

|                        |               |
|------------------------|---------------|
| Analysis specification | Pre-specified |
|------------------------|---------------|

|               |             |
|---------------|-------------|
| Analysis type | superiority |
|---------------|-------------|

|         |         |
|---------|---------|
| P-value | = 0.844 |
|---------|---------|

|        |                       |
|--------|-----------------------|
| Method | Mixed models analysis |
|--------|-----------------------|

|                    |                 |
|--------------------|-----------------|
| Parameter estimate | Risk ratio (RR) |
|--------------------|-----------------|

|                |      |
|----------------|------|
| Point estimate | 0.96 |
|----------------|------|

Confidence interval

|       |      |
|-------|------|
| level | 95 % |
|-------|------|

|       |         |
|-------|---------|
| sides | 2-sided |
|-------|---------|

|             |      |
|-------------|------|
| lower limit | 0.65 |
|-------------|------|

|             |      |
|-------------|------|
| upper limit | 1.43 |
|-------------|------|

|                      |                            |
|----------------------|----------------------------|
| Variability estimate | Standard error of the mean |
|----------------------|----------------------------|

---

|                            |                                  |
|----------------------------|----------------------------------|
| Statistical analysis title | Still have questions at 6 months |
|----------------------------|----------------------------------|

Statistical analysis description:

Comparison BCT+US-T v BCT+US-L (reference) adjusted for age, gender and baseline pain.

|                   |                     |
|-------------------|---------------------|
| Comparison groups | BCT+US-L v BCT+US-T |
|-------------------|---------------------|

---

|   |                            |
|---|----------------------------|
| Number of subjects included in analysis | 117                        |
| Analysis specification                  | Pre-specified              |
| Analysis type                           | superiority                |
| P-value                                 | = 0.481                    |
| Method                                  | Mixed models analysis      |
| Parameter estimate                      | Risk ratio (RR)            |
| Point estimate                          | 1.14                       |
| Confidence interval                     |                            |
| level                                   | 95 %                       |
| sides                                   | 2-sided                    |
| lower limit                             | 0.8                        |
| upper limit                             | 1.61                       |
| Variability estimate                    | Standard error of the mean |

### Secondary: Kept from usual activities at 2 months

|   |  |
|---|--|
| End point title   | Kept from usual activities at 2 months |
| End point description:  |  |
| Question worded: Have you been kept from your usual activities (e.g. work, hobbies, housework) at any time in the last 2 months because of hip pain? (yes/no) |  |
| End point type  | Secondary                              |
| End point timeframe:  |  |
| 2 months  |  |

| End point values            | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|-----------------------------|------------------------|-----------------|-----------------|--|
| Subject group type          | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed | 56                     | 62              | 60              |  |
| Units: participants         |                        |                 |                 |  |
| no                          | 25                     | 32              | 40              |  |
| yes                         | 31                     | 30              | 20              |  |

### Statistical analyses

|   |  |
|---|--|
| Statistical analysis title  | Kept from usual activities at 2 months |
| Statistical analysis description:   |  |
| Comparison BCT+US-T v BCT (reference) adjusted for age, gender and baseline pain. |  |
| Comparison groups   | Best Current Treatment v BCT+US-T      |
| Number of subjects included in analysis   | 116                                    |
| Analysis specification  | Pre-specified                          |
| Analysis type   | superiority                            |
| P-value   | = 0.009                                |
| Method  | Mixed models analysis                  |
| Parameter estimate  | Risk ratio (RR)                        |
| Point estimate  | 1.79                                   |

|                      |                            |
|----------------------|----------------------------|
| Confidence interval  |                            |
| level                | 95 %                       |
| sides                | 2-sided                    |
| lower limit          | 1.15                       |
| upper limit          | 2.7                        |
| Variability estimate | Standard error of the mean |

|  |  |
|--|--|
| <b>Statistical analysis title</b>  | Kept from usual activities at 2 months |
| Statistical analysis description:  |  |
| Comparison BCT+US-T v BCT+US-L (reference) adjusted for age, gender and baseline pain. |  |
| Comparison groups  | BCT+US-L v BCT+US-T                    |
| Number of subjects included in analysis  | 122                                    |
| Analysis specification   | Pre-specified                          |
| Analysis type  | superiority                            |
| P-value  | = 0.121                                |
| Method   | Mixed models analysis                  |
| Parameter estimate   | Risk ratio (RR)                        |
| Point estimate   | 1.41                                   |
| Confidence interval  |  |
| level  | 95 %                                   |
| sides  | 2-sided                                |
| lower limit  | 0.91                                   |
| upper limit  | 2.22                                   |
| Variability estimate   | Standard error of the mean             |

### Secondary: Kept from usual activities at 6 months

|   |  |
|---|--|
| End point title   | Kept from usual activities at 6 months |
| End point description:  |  |
| Question worded: Have you been kept from your usual activities (e.g. work, hobbies, housework) at any time in the last 4 months because of hip pain? (yes/no) |  |
| End point type  | Secondary                              |
| End point timeframe:  |  |
| 6 months  |  |

| End point values            | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|-----------------------------|------------------------|-----------------|-----------------|--|
| Subject group type          | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed | 53                     | 59              | 55              |  |
| Units: participants         |                        |                 |                 |  |
| no                          | 25                     | 28              | 27              |  |
| yes                         | 28                     | 31              | 28              |  |

## Statistical analyses

|   |  |
|---|--|
| <b>Statistical analysis title</b>   | Kept from usual activities at 6 months |
| Statistical analysis description:   |  |
| Comparison BCT+US-T v BCT (reference) adjusted for age, gender and baseline pain. |  |
| Comparison groups   | Best Current Treatment v BCT+US-T      |
| Number of subjects included in analysis   | 108                                    |
| Analysis specification  | Pre-specified                          |
| Analysis type   | superiority                            |
| P-value   | = 0.465                                |
| Method  | Mixed models analysis                  |
| Parameter estimate  | Risk ratio (RR)                        |
| Point estimate  | 1.15                                   |
| Confidence interval   |  |
| level   | 95 %                                   |
| sides   | 2-sided                                |
| lower limit   | 0.79                                   |
| upper limit   | 1.69                                   |
| Variability estimate  | Standard error of the mean             |

|  |  |
|--|--|
| <b>Statistical analysis title</b>  | Kept from usual activities at 6 months |
| Statistical analysis description:  |  |
| Comparison BCT+US-T v BCT+US-L (reference) adjusted for age, gender and baseline pain. |  |
| Comparison groups  | BCT+US-L v BCT+US-T                    |
| Number of subjects included in analysis  | 114                                    |
| Analysis specification   | Pre-specified                          |
| Analysis type  | superiority                            |
| P-value  | = 0.677                                |
| Method   | Mixed models analysis                  |
| Parameter estimate   | Risk ratio (RR)                        |
| Point estimate   | 1.08                                   |
| Confidence interval  |  |
| level  | 95 %                                   |
| sides  | 2-sided                                |
| lower limit  | 0.76                                   |
| upper limit  | 1.54                                   |
| Variability estimate   | Standard error of the mean             |

## Secondary: Pain score dichotomy at 2 weeks

|   |                                 |
|---|---------------------------------|
| End point title   | Pain score dichotomy at 2 weeks |
| End point description:  |                                 |
| Evaluation of dichotomised follow up pain score (pain score <5; pain score ≥ 5) |                                 |
| End point type  | Secondary                       |
| End point timeframe:  |                                 |
| 2 weeks   |                                 |



| <b>End point values</b>     | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|-----------------------------|------------------------|-----------------|-----------------|--|
| Subject group type          | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed | 62                     | 63              | 64              |  |
| Units: participants         |                        |                 |                 |  |
| <5                          | 16                     | 32              | 44              |  |
| >=5                         | 46                     | 31              | 20              |  |

## Statistical analyses

| <b>Statistical analysis title</b>   | Pain >=5 at 2 weeks               |
|---|-----------------------------------|
| Statistical analysis description:<br>Pain dichotomy (0-4, 5-10). Difference (BCT+US-T minus BCT) adjusted for age, gender, baseline pain. |                                   |
| Comparison groups   | Best Current Treatment v BCT+US-T |
| Number of subjects included in analysis   | 126                               |
| Analysis specification  | Pre-specified                     |
| Analysis type   | superiority                       |
| P-value   | < 0.001                           |
| Method  | Mixed models analysis             |
| Parameter estimate  | Risk ratio (RR)                   |
| Point estimate  | 2.73                              |
| Confidence interval   |                                   |
| level   | 95 %                              |
| sides   | 2-sided                           |
| lower limit   | 1.75                              |
| upper limit   | 4.26                              |
| Variability estimate  | Standard error of the mean        |

| <b>Statistical analysis title</b>  | Pain >=5 at 2 weeks   |
|--|-----------------------|
| Statistical analysis description:<br>Pain dichotomy (0-4, 5-10). Difference (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain. |                       |
| Comparison groups  | BCT+US-L v BCT+US-T   |
| Number of subjects included in analysis  | 127                   |
| Analysis specification   | Pre-specified         |
| Analysis type  | superiority           |
| P-value  | = 0.028               |
| Method   | Mixed models analysis |
| Parameter estimate   | Risk ratio (RR)       |
| Point estimate   | 1.37                  |

|                      |                            |
|----------------------|----------------------------|
| Confidence interval  |                            |
| level                | 95 %                       |
| sides                | 2-sided                    |
| lower limit          | 1.03                       |
| upper limit          | 1.82                       |
| Variability estimate | Standard error of the mean |

### Secondary: Pain score dichotomy at 2 months

|  |                                  |
|--|----------------------------------|
| End point title  | Pain score dichotomy at 2 months |
| End point description:<br>Evaluation of dichotomised follow up pain score (pain score <5; pain score ≥5) |                                  |
| End point type   | Secondary                        |
| End point timeframe:<br>2 months   |                                  |

| End point values            | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|-----------------------------|------------------------|-----------------|-----------------|--|
| Subject group type          | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed | 58                     | 65              | 64              |  |
| Units: participants         |                        |                 |                 |  |
| <5                          | 20                     | 32              | 37              |  |
| ≥5                          | 38                     | 33              | 27              |  |

### Statistical analyses

|   |                                   |
|---|-----------------------------------|
| Statistical analysis title  | Pain ≥5 at 2 months               |
| Statistical analysis description:<br>Pain dichotomy (0-4, 5-10). Difference (BCT+US-T minus BCT) adjusted for age, gender, baseline pain. |                                   |
| Comparison groups   | Best Current Treatment v BCT+US-T |
| Number of subjects included in analysis   | 122                               |
| Analysis specification  | Pre-specified                     |
| Analysis type   | superiority                       |
| P-value   | = 0.007                           |
| Method  | Mixed models analysis             |
| Parameter estimate  | Risk ratio (RR)                   |
| Point estimate  | 1.75                              |
| Confidence interval   |                                   |
| level   | 95 %                              |
| sides   | 2-sided                           |
| lower limit   | 1.16                              |
| upper limit   | 2.63                              |
| Variability estimate  | Standard error of the mean        |

|  |                            |
|--|----------------------------|
| <b>Statistical analysis title</b>  | Pain $\geq 5$ at 2 months  |
| Statistical analysis description:<br>Pain dichotomy (0-4, 5-10). Difference (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain. |                            |
| Comparison groups  | BCT+US-L v BCT+US-T        |
| Number of subjects included in analysis  | 129                        |
| Analysis specification   | Pre-specified              |
| Analysis type  | superiority                |
| P-value  | = 0.279                    |
| Method   | Mixed models analysis      |
| Parameter estimate   | Risk ratio (RR)            |
| Point estimate   | 1.2                        |
| Confidence interval  |                            |
| level  | 95 %                       |
| sides  | 2-sided                    |
| lower limit  | 0.87                       |
| upper limit  | 1.65                       |
| Variability estimate   | Standard error of the mean |

## Secondary: Pain score dichotomy at 4 months

|  |                                  |
|--|----------------------------------|
| End point title  | Pain score dichotomy at 4 months |
| End point description:<br>Evaluation of dichotomised follow up pain score (pain score $<5$ ; pain score $\geq 5$ ) |                                  |
| End point type   | Secondary                        |
| End point timeframe:<br>4 months   |                                  |

| End point values            | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|-----------------------------|------------------------|-----------------|-----------------|--|
| Subject group type          | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed | 57                     | 63              | 59              |  |
| Units: participants         |                        |                 |                 |  |
| $<5$                        | 19                     | 27              | 31              |  |
| $\geq 5$                    | 38                     | 36              | 28              |  |

## Statistical analyses

|   |                                   |
|---|-----------------------------------|
| <b>Statistical analysis title</b>   | Pain $\geq 5$ at 4 months         |
| Statistical analysis description:<br>Pain dichotomy (0-4, 5-10). Difference (BCT+US-T minus BCT) adjusted for age, gender, baseline pain. |                                   |
| Comparison groups   | Best Current Treatment v BCT+US-T |

|   |                            |
|---|----------------------------|
| Number of subjects included in analysis | 116                        |
| Analysis specification                  | Pre-specified              |
| Analysis type                           | superiority                |
| P-value                                 | = 0.03                     |
| Method                                  | Mixed models analysis      |
| Parameter estimate                      | Risk ratio (RR)            |
| Point estimate                          | 1.63                       |
| Confidence interval                     |                            |
| level                                   | 95 %                       |
| sides                                   | 2-sided                    |
| lower limit                             | 1.05                       |
| upper limit                             | 2.52                       |
| Variability estimate                    | Standard error of the mean |

|  |                            |
|--|----------------------------|
| <b>Statistical analysis title</b>  | Pain >=5 at 4 months       |
| Statistical analysis description:<br>Pain dichotomy (0-4, 5-10). Difference (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain. |                            |
| Comparison groups  | BCT+US-L v BCT+US-T        |
| Number of subjects included in analysis  | 122                        |
| Analysis specification   | Pre-specified              |
| Analysis type  | superiority                |
| P-value  | = 0.258                    |
| Method   | Mixed models analysis      |
| Parameter estimate   | Risk ratio (RR)            |
| Point estimate   | 1.24                       |
| Confidence interval  |                            |
| level  | 95 %                       |
| sides  | 2-sided                    |
| lower limit  | 0.85                       |
| upper limit  | 1.8                        |
| Variability estimate   | Standard error of the mean |

|   |                                  |
|---|----------------------------------|
| <b>Secondary: Pain score dichotomy at 6 months</b>  |                                  |
| End point title   | Pain score dichotomy at 6 months |
| End point description:<br>Evaluation of dichotomised follow up pain score (pain score <5; pain score >=5) |                                  |
| End point type  | Secondary                        |
| End point timeframe:<br>6 months  |                                  |

| End point values            | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|-----------------------------|------------------------|-----------------|-----------------|--|
| Subject group type          | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed | 56                     | 61              | 61              |  |
| Units: participants         |                        |                 |                 |  |
| <5                          | 24                     | 23              | 25              |  |
| >=5                         | 32                     | 38              | 36              |  |

## Statistical analyses

| Statistical analysis title  | Pain >=5 at 6 months              |
|---|-----------------------------------|
| Statistical analysis description:<br>Pain dichotomy (0-4, 5-10). Difference (BCT+US-T minus BCT) adjusted for age, gender, baseline pain. |                                   |
| Comparison groups   | Best Current Treatment v BCT+US-T |
| Number of subjects included in analysis   | 117                               |
| Analysis specification  | Pre-specified                     |
| Analysis type   | superiority                       |
| P-value   | = 0.97                            |
| Method  | Mixed models analysis             |
| Parameter estimate  | Risk ratio (RR)                   |
| Point estimate  | 0.99                              |
| Confidence interval   |                                   |
| level   | 95 %                              |
| sides   | 2-sided                           |
| lower limit   | 0.66                              |
| upper limit   | 1.5                               |
| Variability estimate  | Standard error of the mean        |

| Statistical analysis title   | Pain >=5 at 6 months       |
|--|----------------------------|
| Statistical analysis description:<br>Pain dichotomy (0-4, 5-10). Difference (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain. |                            |
| Comparison groups  | BCT+US-L v BCT+US-T        |
| Number of subjects included in analysis  | 122                        |
| Analysis specification   | Pre-specified              |
| Analysis type  | superiority                |
| Method   | Mixed models analysis      |
| Parameter estimate   | Risk ratio (RR)            |
| Point estimate   | 1.1                        |
| Confidence interval  |                            |
| level  | 95 %                       |
| sides  | 2-sided                    |
| lower limit  | 0.72                       |
| upper limit  | 1.7                        |
| Variability estimate   | Standard error of the mean |

## Secondary: WOMAC - Pain subscale at 2 months

|                 |                                   |
|-----------------|-----------------------------------|
| End point title | WOMAC - Pain subscale at 2 months |
|-----------------|-----------------------------------|

End point description:

WOMAC pain subscale (0-20; 0=no pain, 20=max pain)

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

End point timeframe:

2 months

| End point values                     | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|--------------------------------------|------------------------|-----------------|-----------------|--|
| Subject group type                   | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed          | 57                     | 62              | 61              |  |
| Units: scale                         |                        |                 |                 |  |
| arithmetic mean (standard deviation) | 10.7 (± 3.8)           | 8.7 (± 4.1)     | 7.0 (± 4.3)     |  |

## Statistical analyses

|                            |                                 |
|----------------------------|---------------------------------|
| Statistical analysis title | WOMAC pain subscale at 2 months |
|----------------------------|---------------------------------|

Statistical analysis description:

WOMAC mean pain difference (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline WOMAC pain.

|                   |                                   |
|-------------------|-----------------------------------|
| Comparison groups | BCT+US-T v Best Current Treatment |
|-------------------|-----------------------------------|

|   |     |
|---|-----|
| Number of subjects included in analysis | 118 |
|---|-----|

|                        |               |
|------------------------|---------------|
| Analysis specification | Pre-specified |
|------------------------|---------------|

|               |             |
|---------------|-------------|
| Analysis type | superiority |
|---------------|-------------|

|         |         |
|---------|---------|
| P-value | < 0.001 |
|---------|---------|

|        |                       |
|--------|-----------------------|
| Method | Mixed models analysis |
|--------|-----------------------|

|                    |                                |
|--------------------|--------------------------------|
| Parameter estimate | Mean difference (final values) |
|--------------------|--------------------------------|

|                |       |
|----------------|-------|
| Point estimate | -3.61 |
|----------------|-------|

Confidence interval

|       |      |
|-------|------|
| level | 95 % |
|-------|------|

|       |         |
|-------|---------|
| sides | 2-sided |
|-------|---------|

|             |       |
|-------------|-------|
| lower limit | -5.02 |
|-------------|-------|

|             |      |
|-------------|------|
| upper limit | -2.2 |
|-------------|------|

|                      |                            |
|----------------------|----------------------------|
| Variability estimate | Standard error of the mean |
|----------------------|----------------------------|

|                            |                                 |
|----------------------------|---------------------------------|
| Statistical analysis title | WOMAC pain subscale at 2 months |
|----------------------------|---------------------------------|

Statistical analysis description:

WOMAC mean pain difference (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain and baseline WOMAC pain.

|                   |                     |
|-------------------|---------------------|
| Comparison groups | BCT+US-L v BCT+US-T |
|-------------------|---------------------|

|   |                                |
|---|--------------------------------|
| Number of subjects included in analysis | 123                            |
| Analysis specification                  | Pre-specified                  |
| Analysis type                           | superiority                    |
| P-value                                 | = 0.013                        |
| Method                                  | Mixed models analysis          |
| Parameter estimate                      | Mean difference (final values) |
| Point estimate                          | -1.74                          |
| Confidence interval                     |                                |
| level                                   | 95 %                           |
| sides                                   | 2-sided                        |
| lower limit                             | -3.1                           |
| upper limit                             | -0.37                          |
| Variability estimate                    | Standard error of the mean     |

### Secondary: WOMAC - Pain subscale at 4 months

|  |                                   |
|--|-----------------------------------|
| End point title                                    | WOMAC - Pain subscale at 4 months |
| End point description:                             |                                   |
| WOMAC pain subscale (0-20; 0=no pain, 20=max pain) |                                   |
| End point type                                     | Secondary                         |
| End point timeframe:                               |                                   |
| 4 months   |                                   |

| End point values                     | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|--------------------------------------|------------------------|-----------------|-----------------|--|
| Subject group type                   | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed          | 53                     | 59              | 59              |  |
| Units: scale                         |                        |                 |                 |  |
| arithmetic mean (standard deviation) | 9.0 (± 4.6)            | 9.1 (± 4.1)     | 7.9 (± 4.3)     |  |

### Statistical analyses

|  |                                   |
|--|-----------------------------------|
| <b>Statistical analysis title</b>  | WOMAC pain subscale at 4 months   |
| Statistical analysis description:  |                                   |
| WOMAC mean pain difference (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline WOMAC pain. |                                   |
| Comparison groups  | Best Current Treatment v BCT+US-T |
| Number of subjects included in analysis  | 112                               |
| Analysis specification   | Pre-specified                     |
| Analysis type  | superiority                       |
| P-value  | = 0.087                           |
| Method   | Mixed models analysis             |
| Parameter estimate   | Mean difference (final values)    |
| Point estimate   | -1.25                             |

|                      |                            |
|----------------------|----------------------------|
| Confidence interval  |                            |
| level                | 95 %                       |
| sides                | 2-sided                    |
| lower limit          | -2.67                      |
| upper limit          | 0.18                       |
| Variability estimate | Standard error of the mean |

|                                   |                                 |
|-----------------------------------|---------------------------------|
| <b>Statistical analysis title</b> | WOMAC pain subscale at 4 months |
|-----------------------------------|---------------------------------|

Statistical analysis description:

WOMAC mean pain difference (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain and baseline WOMAC pain.

|   |                                |
|---|--------------------------------|
| Comparison groups                       | BCT+US-L v BCT+US-T            |
| Number of subjects included in analysis | 118                            |
| Analysis specification                  | Pre-specified                  |
| Analysis type                           | superiority                    |
| P-value                                 | = 0.079                        |
| Method                                  | Mixed models analysis          |
| Parameter estimate                      | Mean difference (final values) |
| Point estimate                          | -1.24                          |
| Confidence interval                     |                                |
| level                                   | 95 %                           |
| sides                                   | 2-sided                        |
| lower limit                             | -2.62                          |
| upper limit                             | 0.14                           |
| Variability estimate                    | Standard error of the mean     |

## Secondary: WOMAC - Pain subscale at 6 months

|  |                                   |
|--|-----------------------------------|
| End point title                                    | WOMAC - Pain subscale at 6 months |
| End point description:                             |                                   |
| WOMAC pain subscale (0-20; 0=no pain, 20=max pain) |                                   |
| End point type                                     | Secondary                         |
| End point timeframe:                               |                                   |
| 6 months   |                                   |

| End point values                     | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|--------------------------------------|------------------------|-----------------|-----------------|--|
| Subject group type                   | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed          | 53                     | 60              | 56              |  |
| Units: scale                         |                        |                 |                 |  |
| arithmetic mean (standard deviation) | 9.0 (± 4.5)            | 9.1 (± 4.1)     | 8.8 (± 4.3)     |  |



## Statistical analyses

|   |                                   |
|---|-----------------------------------|
| <b>Statistical analysis title</b>   | WOMAC pain subscale at 6 months   |
| Statistical analysis description:<br>WOMAC mean pain difference (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline WOMAC pain. |                                   |
| Comparison groups   | Best Current Treatment v BCT+US-T |
| Number of subjects included in analysis   | 109                               |
| Analysis specification  | Pre-specified                     |
| Analysis type   | superiority                       |
| P-value   | = 0.738                           |
| Method  | Mixed models analysis             |
| Parameter estimate  | Mean difference (final values)    |
| Point estimate  | -0.47                             |
| Confidence interval   |                                   |
| level   | 95 %                              |
| sides   | 2-sided                           |
| lower limit   | -1.91                             |
| upper limit   | 0.97                              |
| Variability estimate  | Standard error of the mean        |

|  |                                 |
|--|---------------------------------|
| <b>Statistical analysis title</b>  | WOMAC pain subscale at 6 months |
| Statistical analysis description:<br>WOMAC mean pain difference (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain and baseline WOMAC pain. |                                 |
| Comparison groups  | BCT+US-L v BCT+US-T             |
| Number of subjects included in analysis  | 116                             |
| Analysis specification   | Pre-specified                   |
| Analysis type  | superiority                     |
| P-value  | = 0.738                         |
| Method   | Mixed models analysis           |
| Parameter estimate   | Mean difference (final values)  |
| Point estimate   | -0.24                           |
| Confidence interval  |                                 |
| level  | 95 %                            |
| sides  | 2-sided                         |
| lower limit  | -1.63                           |
| upper limit  | 1.15                            |
| Variability estimate   | Standard error of the mean      |

## Secondary: WOMAC - Pain subscale overall

|   |                               |
|---|-------------------------------|
| End point title   | WOMAC - Pain subscale overall |
| End point description:<br>WOMAC pain subscale (0-20; 0=no pain, 20=severe pain) |                               |
| End point type  | Secondary                     |
| End point timeframe:<br>Overall (all data across 2 months, 4 months, 6 months)  |                               |

| <b>End point values</b>              | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|--------------------------------------|------------------------|-----------------|-----------------|--|
| Subject group type                   | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed          | 61                     | 65              | 64              |  |
| Units: scale                         |                        |                 |                 |  |
| arithmetic mean (standard deviation) | 9.6 (± 4.4)            | 9.0 (± 4.1)     | 7.9 (± 4.3)     |  |

## Statistical analyses

| <b>Statistical analysis title</b>  | WOMAC pain subscale - Overall     |
|--|-----------------------------------|
| Statistical analysis description:  |                                   |
| WOMAC mean pain difference (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline WOMAC pain. |                                   |
| Comparison groups  | Best Current Treatment v BCT+US-T |
| Number of subjects included in analysis  | 125                               |
| Analysis specification   | Pre-specified                     |
| Analysis type  | superiority                       |
| P-value  | = 0.005                           |
| Method   | Mixed models analysis             |
| Parameter estimate   | Mean difference (final values)    |
| Point estimate   | -1.78                             |
| Confidence interval  |                                   |
| level  | 95 %                              |
| sides  | 2-sided                           |
| lower limit  | -3.01                             |
| upper limit  | -0.54                             |
| Variability estimate   | Standard error of the mean        |

| <b>Statistical analysis title</b>   | WOMAC pain subscale - Overall |
|---|-------------------------------|
| Statistical analysis description:   |                               |
| WOMAC mean pain difference (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain and baseline WOMAC pain. |                               |
| Comparison groups   | BCT+US-L v BCT+US-T           |
| Number of subjects included in analysis   | 129                           |
| Analysis specification  | Pre-specified                 |
| Analysis type   | superiority                   |
| P-value   | = 0.079                       |
| Method  | Mixed models analysis         |
| Parameter estimate  | Mean difference (net)         |
| Point estimate  | -1.07                         |

|                      |                            |
|----------------------|----------------------------|
| Confidence interval  |                            |
| level                | 95 %                       |
| sides                | 2-sided                    |
| lower limit          | -2.26                      |
| upper limit          | 0.12                       |
| Variability estimate | Standard error of the mean |

### Secondary: WOMAC - Stiffness subscale at 2 months

|   |  |
|---|--|
| End point title   | WOMAC - Stiffness subscale at 2 months |
| End point description:<br>WOMAC stiffness subscale (0-8; 0=no stiffness, 8=max stiffness) |  |
| End point type  | Secondary                              |
| End point timeframe:<br>2 months  |  |

| End point values                     | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|--------------------------------------|------------------------|-----------------|-----------------|--|
| Subject group type                   | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed          | 57                     | 63              | 63              |  |
| Units: scale                         |                        |                 |                 |  |
| arithmetic mean (standard deviation) | 4.3 (± 1.9)            | 3.7 (± 1.7)     | 3.2 (± 1.9)     |  |

### Statistical analyses

|   |                                      |
|---|--------------------------------------|
| Statistical analysis title  | WOMAC stiffness subscale at 2 months |
| Statistical analysis description:<br>WOMAC mean stiffness difference (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline WOMAC stiffness. |                                      |
| Comparison groups   | Best Current Treatment v BCT+US-T    |
| Number of subjects included in analysis   | 120                                  |
| Analysis specification  | Pre-specified                        |
| Analysis type   | superiority                          |
| P-value   | < 0.001                              |
| Method  | Mixed models analysis                |
| Parameter estimate  | Mean difference (final values)       |
| Point estimate  | -1.24                                |
| Confidence interval   |                                      |
| level   | 95 %                                 |
| sides   | 2-sided                              |
| lower limit   | -1.87                                |
| upper limit   | -0.62                                |
| Variability estimate  | Standard error of the mean           |

|  |                                      |
|--|--------------------------------------|
| <b>Statistical analysis title</b>  | WOMAC stiffness subscale at 2 months |
| Statistical analysis description:<br>WOMAC mean stiffness difference (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain and baseline WOMAC stiffness. |                                      |
| Comparison groups  | BCT+US-L v BCT+US-T                  |
| Number of subjects included in analysis  | 126                                  |
| Analysis specification   | Pre-specified                        |
| Analysis type  | superiority                          |
| P-value  | = 0.088                              |
| Method   | Mixed models analysis                |
| Parameter estimate   | Mean difference (final values)       |
| Point estimate   | -0.53                                |
| Confidence interval  |                                      |
| level  | 95 %                                 |
| sides  | 2-sided                              |
| lower limit  | -1.14                                |
| upper limit  | 0.08                                 |
| Variability estimate   | Standard error of the mean           |

## Secondary: WOMAC - Stiffness subscale at 4 months

|   |  |
|---|--|
| End point title   | WOMAC - Stiffness subscale at 4 months |
| End point description:<br>WOMAC stiffness subscale (0-8; 0=no stiffness, 8=max stiffness) |  |
| End point type  | Secondary                              |
| End point timeframe:<br>4 months  |  |

| End point values                     | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|--------------------------------------|------------------------|-----------------|-----------------|--|
| Subject group type                   | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed          | 53                     | 60              | 60              |  |
| Units: scale                         |                        |                 |                 |  |
| arithmetic mean (standard deviation) | 3.8 (± 1.9)            | 3.8 (± 1.8)     | 3.7 (± 1.9)     |  |

## Statistical analyses

|   |                                      |
|---|--------------------------------------|
| <b>Statistical analysis title</b>   | WOMAC stiffness subscale at 4 months |
| Statistical analysis description:<br>WOMAC mean stiffness difference (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline WOMAC stiffness. |                                      |
| Comparison groups   | Best Current Treatment v BCT+US-T    |

|   |                                |
|---|--------------------------------|
| Number of subjects included in analysis | 113                            |
| Analysis specification                  | Pre-specified                  |
| Analysis type                           | superiority                    |
| P-value                                 | = 0.445                        |
| Method                                  | Mixed models analysis          |
| Parameter estimate                      | Mean difference (final values) |
| Point estimate                          | -0.25                          |
| Confidence interval                     |                                |
| level                                   | 95 %                           |
| sides                                   | 2-sided                        |
| lower limit                             | -0.89                          |
| upper limit                             | 0.39                           |
| Variability estimate                    | Standard error of the mean     |

|   |                                      |
|---|--------------------------------------|
| <b>Statistical analysis title</b>   | WOMAC stiffness subscale at 4 months |
| Statistical analysis description:   |                                      |
| WOMAC mean stiffness difference (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain and baseline WOMAC stiffness. |                                      |
| Comparison groups   | BCT+US-L v BCT+US-T                  |
| Number of subjects included in analysis   | 120                                  |
| Analysis specification  | Pre-specified                        |
| Analysis type   | superiority                          |
| P-value   | = 0.714                              |
| Method  | Mixed models analysis                |
| Parameter estimate  | Mean difference (final values)       |
| Point estimate  | -0.12                                |
| Confidence interval   |                                      |
| level   | 95 %                                 |
| sides   | 2-sided                              |
| lower limit   | -0.73                                |
| upper limit   | 0.5                                  |
| Variability estimate  | Standard error of the mean           |

|   |  |
|---|--|
| <b>Secondary: WOMAC - Stiffness subscale at 6 months</b>        |  |
| End point title   | WOMAC - Stiffness subscale at 6 months |
| End point description:  |  |
| WOMAC stiffness subscale (0-8; 0=no stiffness, 8=max stiffness) |  |
| End point type  | Secondary                              |
| End point timeframe:  |  |
| 6 months  |  |

| End point values                     | Best Current Treatment | BCT+US-L         | BCT+US-T         |  |
|--------------------------------------|------------------------|------------------|------------------|--|
| Subject group type                   | Reporting group        | Reporting group  | Reporting group  |  |
| Number of subjects analysed          | 53                     | 59               | 56               |  |
| Units: scale                         |                        |                  |                  |  |
| arithmetic mean (standard deviation) | 3.7 ( $\pm$ 1.9)       | 3.8 ( $\pm$ 1.8) | 3.7 ( $\pm$ 1.7) |  |

## Statistical analyses

| Statistical analysis title  | WOMAC stiffness subscale at 6 months |
|---|--------------------------------------|
| Statistical analysis description:<br>WOMAC mean stiffness difference (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline WOMAC stiffness. |                                      |
| Comparison groups   | Best Current Treatment v BCT+US-T    |
| Number of subjects included in analysis   | 109                                  |
| Analysis specification  | Pre-specified                        |
| Analysis type   | superiority                          |
| P-value   | = 0.866                              |
| Method  | Mixed models analysis                |
| Parameter estimate  | Mean difference (final values)       |
| Point estimate  | -0.11                                |
| Confidence interval   |                                      |
| level   | 95 %                                 |
| sides   | 2-sided                              |
| lower limit   | -0.75                                |
| upper limit   | 0.54                                 |
| Variability estimate  | Standard error of the mean           |

| Statistical analysis title   | WOMAC stiffness subscale at 6 months |
|--|--------------------------------------|
| Statistical analysis description:<br>WOMAC mean stiffness difference (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain and baseline WOMAC stiffness. |                                      |
| Comparison groups  | BCT+US-L v BCT+US-T                  |
| Number of subjects included in analysis  | 115                                  |
| Analysis specification   | Pre-specified                        |
| Analysis type  | superiority                          |
| P-value  | = 0.749                              |
| Method   | Mixed models analysis                |
| Parameter estimate   | Mean difference (final values)       |
| Point estimate   | -0.05                                |
| Confidence interval  |                                      |
| level  | 95 %                                 |
| sides  | 2-sided                              |
| lower limit  | -0.68                                |
| upper limit  | 0.57                                 |
| Variability estimate   | Standard error of the mean           |

## Secondary: WOMAC - Stiffness subscale - Overall

|                 |                                      |
|-----------------|--------------------------------------|
| End point title | WOMAC - Stiffness subscale - Overall |
|-----------------|--------------------------------------|

End point description:

WOMAC Stiffness subscale (0-8; 0=no stiffness, 8=max stiffness)

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

End point timeframe:

Overall (all data across 2, 4 and 6 months)

| End point values                     | Best Current Treatment | BCT+US-L         | BCT+US-T         |  |
|--------------------------------------|------------------------|------------------|------------------|--|
| Subject group type                   | Reporting group        | Reporting group  | Reporting group  |  |
| Number of subjects analysed          | 61                     | 65               | 65               |  |
| Units: scale                         |                        |                  |                  |  |
| arithmetic mean (standard deviation) | 3.9 ( $\pm$ 1.9)       | 3.8 ( $\pm$ 1.8) | 3.5 ( $\pm$ 1.8) |  |

## Statistical analyses

|                            |                                  |
|----------------------------|----------------------------------|
| Statistical analysis title | WOMAC stiffness subscale Overall |
|----------------------------|----------------------------------|

Statistical analysis description:

WOMAC mean stiffness difference (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline WOMAC stiffness.

|                   |                                   |
|-------------------|-----------------------------------|
| Comparison groups | Best Current Treatment v BCT+US-T |
|-------------------|-----------------------------------|

|   |     |
|---|-----|
| Number of subjects included in analysis | 126 |
|---|-----|

|                        |               |
|------------------------|---------------|
| Analysis specification | Pre-specified |
|------------------------|---------------|

|               |             |
|---------------|-------------|
| Analysis type | superiority |
|---------------|-------------|

|         |         |
|---------|---------|
| P-value | = 0.389 |
|---------|---------|

|        |                       |
|--------|-----------------------|
| Method | Mixed models analysis |
|--------|-----------------------|

|                    |                                |
|--------------------|--------------------------------|
| Parameter estimate | Mean difference (final values) |
|--------------------|--------------------------------|

|                |       |
|----------------|-------|
| Point estimate | -0.53 |
|----------------|-------|

Confidence interval

|       |      |
|-------|------|
| level | 95 % |
|-------|------|

|       |         |
|-------|---------|
| sides | 2-sided |
|-------|---------|

|             |       |
|-------------|-------|
| lower limit | -1.08 |
|-------------|-------|

|             |      |
|-------------|------|
| upper limit | 0.01 |
|-------------|------|

|                      |                            |
|----------------------|----------------------------|
| Variability estimate | Standard error of the mean |
|----------------------|----------------------------|

|                            |                                  |
|----------------------------|----------------------------------|
| Statistical analysis title | WOMAC stiffness subscale Overall |
|----------------------------|----------------------------------|

Statistical analysis description:

WOMAC mean stiffness difference (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain and baseline WOMAC stiffness.

|                   |                     |
|-------------------|---------------------|
| Comparison groups | BCT+US-L v BCT+US-T |
|-------------------|---------------------|

|   |                                |
|---|--------------------------------|
| Number of subjects included in analysis | 130                            |
| Analysis specification                  | Pre-specified                  |
| Analysis type                           | superiority                    |
| P-value                                 | = 0.056                        |
| Method                                  | Mixed models analysis          |
| Parameter estimate                      | Mean difference (final values) |
| Point estimate                          | -0.23                          |
| Confidence interval                     |                                |
| level                                   | 95 %                           |
| sides                                   | 2-sided                        |
| lower limit                             | -0.76                          |
| upper limit                             | 0.3                            |
| Variability estimate                    | Standard error of the mean     |

### Secondary: WOMAC - Function subscale at 2 months

|                        |  |
|------------------------|--|
| End point title        | WOMAC - Function subscale at 2 months  |
| End point description: | WOMAC function subscale (0-68; 0=no functional limitation, 68=max functional limitation) |
| End point type         | Secondary  |
| End point timeframe:   | 2 months   |

| End point values                     | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|--------------------------------------|------------------------|-----------------|-----------------|--|
| Subject group type                   | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed          | 55                     | 63              | 62              |  |
| Units: scale                         |                        |                 |                 |  |
| arithmetic mean (standard deviation) | 35.3 (± 16.1)          | 29.1 (± 14.3)   | 23.8 (± 15.0)   |  |

### Statistical analyses

|   |   |
|---|---|
| <b>Statistical analysis title</b>       | WOMAC function subscale at 2 months   |
| Statistical analysis description:       | WOMAC mean function subscale difference (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline WOMAC function score. |
| Comparison groups                       | Best Current Treatment v BCT+US-T   |
| Number of subjects included in analysis | 117   |
| Analysis specification                  | Pre-specified   |
| Analysis type                           | superiority   |
| P-value                                 | < 0.001   |
| Method                                  | Mixed models analysis   |
| Parameter estimate                      | Mean difference (final values)  |
| Point estimate                          | -10.4   |



|                      |                            |
|----------------------|----------------------------|
| Confidence interval  |                            |
| level                | 95 %                       |
| sides                | 2-sided                    |
| lower limit          | -14.8                      |
| upper limit          | 5.95                       |
| Variability estimate | Standard error of the mean |

|                                   |                                     |
|-----------------------------------|-------------------------------------|
| <b>Statistical analysis title</b> | WOMAC function subscale at 2 months |
|-----------------------------------|-------------------------------------|

Statistical analysis description:

WOMAC mean function subscale difference (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain and baseline WOMAC function score.

|   |                                |
|---|--------------------------------|
| Comparison groups                       | BCT+US-L v BCT+US-T            |
| Number of subjects included in analysis | 125                            |
| Analysis specification                  | Pre-specified                  |
| Analysis type                           | superiority                    |
| P-value                                 | = 0.002                        |
| Method                                  | Mixed models analysis          |
| Parameter estimate                      | Mean difference (final values) |
| Point estimate                          | -4.94                          |
| Confidence interval                     |                                |
| level                                   | 95 %                           |
| sides                                   | 2-sided                        |
| lower limit                             | -9.19                          |
| upper limit                             | -0.7                           |
| Variability estimate                    | Standard error of the mean     |

## Secondary: WOMAC function subscale at 4 months

|                 |                                     |
|-----------------|-------------------------------------|
| End point title | WOMAC function subscale at 4 months |
|-----------------|-------------------------------------|

End point description:

WOMAC function subscale (0-68; 0=no functional limitation, 68=max functional limitation)

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

End point timeframe:

4 months

| End point values                     | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|--------------------------------------|------------------------|-----------------|-----------------|--|
| Subject group type                   | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed          | 51                     | 59              | 60              |  |
| Units: scale                         |                        |                 |                 |  |
| arithmetic mean (standard deviation) | 30.7 (± 17.2)          | 31.3 (± 13.5)   | 26.7 (± 15.1)   |  |

## Statistical analyses

|   |                                     |
|---|-------------------------------------|
| <b>Statistical analysis title</b>   | WOMAC function subscale at 4 months |
| Statistical analysis description:   |                                     |
| WOMAC mean function subscale difference (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline WOMAC function score. |                                     |
| Comparison groups   | Best Current Treatment v BCT+US-T   |
| Number of subjects included in analysis   | 111                                 |
| Analysis specification  | Pre-specified                       |
| Analysis type   | superiority                         |
| P-value   | = 0.034                             |
| Method  | Mixed models analysis               |
| Parameter estimate  | Mean difference (final values)      |
| Point estimate  | -4.81                               |
| Confidence interval   |                                     |
| level   | 95 %                                |
| sides   | 2-sided                             |
| lower limit   | -9.23                               |
| upper limit   | -0.37                               |
| Variability estimate  | Standard error of the mean          |

|  |                                     |
|--|-------------------------------------|
| <b>Statistical analysis title</b>  | WOMAC function subscale at 4 months |
| Statistical analysis description:  |                                     |
| WOMAC mean function subscale difference (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain and baseline WOMAC function score. |                                     |
| Comparison groups  | BCT+US-L v BCT+US-T                 |
| Number of subjects included in analysis  | 119                                 |
| Analysis specification   | Pre-specified                       |
| Analysis type  | superiority                         |
| P-value  | = 0.025                             |
| Method   | Mixed models analysis               |
| Parameter estimate   | Mean difference (final values)      |
| Point estimate   | -4.89                               |
| Confidence interval  |                                     |
| level  | 95 %                                |
| sides  | 2-sided                             |
| lower limit  | -9.16                               |
| upper limit  | -0.61                               |
| Variability estimate   | Standard error of the mean          |

## Secondary: WOMAC - Function subscale at 6 months

|  |                                       |
|--|---------------------------------------|
| End point title  | WOMAC - Function subscale at 6 months |
| End point description:   |                                       |
| WOMAC function subscale (0-68; 0=no functional limitation, 68=max functional limitation) |                                       |
| End point type   | Secondary                             |
| End point timeframe:   |                                       |
| 6 months   |                                       |

| <b>End point values</b>              | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|--------------------------------------|------------------------|-----------------|-----------------|--|
| Subject group type                   | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed          | 53                     | 59              | 57              |  |
| Units: scale                         |                        |                 |                 |  |
| arithmetic mean (standard deviation) | 30.2 (± 16.7)          | 31.0 (± 14.3)   | 28.8 (± 15.2)   |  |

## Statistical analyses

| <b>Statistical analysis title</b>  | WOMAC function subscale at 6 months |
|--|-------------------------------------|
| Statistical analysis description:<br>WOMAC mean function subscale difference (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline WOMAC function score. |                                     |
| Comparison groups  | Best Current Treatment v BCT+US-T   |
| Number of subjects included in analysis  | 110                                 |
| Analysis specification   | Pre-specified                       |
| Analysis type  | superiority                         |
| P-value  | = 0.587                             |
| Method   | Mixed models analysis               |
| Parameter estimate   | Mean difference (final values)      |
| Point estimate   | -1.25                               |
| Confidence interval  |                                     |
| level  | 95 %                                |
| sides  | 2-sided                             |
| lower limit  | -5.74                               |
| upper limit  | 3.25                                |
| Variability estimate   | Standard error of the mean          |

| <b>Statistical analysis title</b>   | WOMAC function subscale at 6 months |
|---|-------------------------------------|
| Statistical analysis description:<br>WOMAC mean function subscale difference (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain and baseline WOMAC function score. |                                     |
| Comparison groups   | BCT+US-L v BCT+US-T                 |
| Number of subjects included in analysis   | 116                                 |
| Analysis specification  | Pre-specified                       |
| Analysis type   | superiority                         |
| P-value   | = 0.666                             |
| Method  | Mixed models analysis               |
| Parameter estimate  | Mean difference (final values)      |
| Point estimate  | -0.96                               |

|                      |                            |
|----------------------|----------------------------|
| Confidence interval  |                            |
| level                | 95 %                       |
| sides                | 2-sided                    |
| lower limit          | -5.3                       |
| upper limit          | 3.38                       |
| Variability estimate | Standard error of the mean |

### Secondary: WOMAC - Function subscale Overall

|  |                                   |
|--|-----------------------------------|
| End point title  | WOMAC - Function subscale Overall |
| End point description:<br>WOMAC function subscale (0-68; 0=no functional limitation, 68=max functional limitation) |                                   |
| End point type   | Secondary                         |
| End point timeframe:<br>Overall (all data across 2, 4 and 6 months)  |                                   |

| End point values                     | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|--------------------------------------|------------------------|-----------------|-----------------|--|
| Subject group type                   | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed          | 60                     | 65              | 65              |  |
| Units: scale                         |                        |                 |                 |  |
| arithmetic mean (standard deviation) | 32.1 (± 16.7)          | 30.4 (± 14.0)   | 26.4 (± 15.1)   |  |

### Statistical analyses

|  |                                   |
|--|-----------------------------------|
| Statistical analysis title   | WOMAC function subscale Overall   |
| Statistical analysis description:<br>WOMAC mean function subscale difference (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline WOMAC function score. |                                   |
| Comparison groups  | Best Current Treatment v BCT+US-T |
| Number of subjects included in analysis  | 125                               |
| Analysis specification   | Pre-specified                     |
| Analysis type  | superiority                       |
| P-value  | = 0.007                           |
| Method   | Mixed models analysis             |
| Parameter estimate   | Mean difference (final values)    |
| Point estimate   | -5.47                             |
| Confidence interval  |                                   |
| level  | 95 %                              |
| sides  | 2-sided                           |
| lower limit  | -9.41                             |
| upper limit  | -1.53                             |
| Variability estimate   | Standard error of the mean        |

|   |                                 |
|---|---------------------------------|
| <b>Statistical analysis title</b>   | WOMAC function subscale Overall |
| Statistical analysis description:<br>WOMAC mean function subscale difference (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain and baseline WOMAC function score. |                                 |
| Comparison groups   | BCT+US-L v BCT+US-T             |
| Number of subjects included in analysis   | 130                             |
| Analysis specification  | Pre-specified                   |
| Analysis type   | superiority                     |
| P-value   | = 0.064                         |
| Method  | Mixed models analysis           |
| Parameter estimate  | Mean difference (final values)  |
| Point estimate  | -3.6                            |
| Confidence interval   |                                 |
| level   | 95 %                            |
| sides   | 2-sided                         |
| lower limit   | -7.4                            |
| upper limit   | 0.21                            |
| Variability estimate  | Standard error of the mean      |

## Secondary: IPQ Consequences subscale Overall

|   |                                   |
|---|-----------------------------------|
| End point title   | IPQ Consequences subscale Overall |
| End point description:<br>IPQ consequences subscale (0-10; 0=No affect at all, 10=Severly affects life) |                                   |
| End point type  | Secondary                         |
| End point timeframe:<br>Overall (all data for 2 and 6 months)   |                                   |

| End point values                     | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|--------------------------------------|------------------------|-----------------|-----------------|--|
| Subject group type                   | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed          | 59                     | 65              | 65              |  |
| Units: scale                         |                        |                 |                 |  |
| arithmetic mean (standard deviation) | 6.0 (± 2.6)            | 5.9 (± 2.3)     | 5.5 (± 2.7)     |  |

## Statistical analyses

|   |                                   |
|---|-----------------------------------|
| <b>Statistical analysis title</b>   | IPQ Consequences subscale Overall |
| Statistical analysis description:<br>Mean subscale difference (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline IPQ subscale score. |                                   |
| Comparison groups   | Best Current Treatment v BCT+US-T |

|   |                                |
|---|--------------------------------|
| Number of subjects included in analysis | 124                            |
| Analysis specification                  | Pre-specified                  |
| Analysis type                           | superiority                    |
| P-value                                 | = 0.133                        |
| Method                                  | Mixed models analysis          |
| Parameter estimate                      | Mean difference (final values) |
| Point estimate                          | -0.55                          |
| Confidence interval                     |                                |
| level                                   | 95 %                           |
| sides                                   | 2-sided                        |
| lower limit                             | -1.27                          |
| upper limit                             | 0.17                           |
| Variability estimate                    | Standard error of the mean     |

|   |                                   |
|---|-----------------------------------|
| <b>Statistical analysis title</b>   | IPQ Consequences subscale Overall |
| Statistical analysis description:   |                                   |
| Mean subscale difference (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain and baseline IPQ subscale score. |                                   |
| Comparison groups   | BCT+US-L v BCT+US-T               |
| Number of subjects included in analysis   | 130                               |
| Analysis specification  | Pre-specified                     |
| Analysis type   | superiority                       |
| P-value   | = 0.326                           |
| Method  | Mixed models analysis             |
| Parameter estimate  | Mean difference (final values)    |
| Point estimate  | -0.35                             |
| Confidence interval   |                                   |
| level   | 95 %                              |
| sides   | 2-sided                           |
| lower limit   | -1.04                             |
| upper limit   | 0.35                              |
| Variability estimate  | Standard error of the mean        |

|  |                               |
|--|-------------------------------|
| <b>Secondary: IPQ Timeline subscale Overall</b>                        |                               |
| End point title  | IPQ Timeline subscale Overall |
| End point description:   |                               |
| IPQ timelines subscale (0-10; 0=Last very short time, 10=Last forever) |                               |
| End point type   | Secondary                     |
| End point timeframe:   |                               |
| Overall (all data across 2 and 6 months)                               |                               |

| End point values                     | Best Current Treatment | BCT+US-L         | BCT+US-T         |  |
|--------------------------------------|------------------------|------------------|------------------|--|
| Subject group type                   | Reporting group        | Reporting group  | Reporting group  |  |
| Number of subjects analysed          | 59                     | 65               | 65               |  |
| Units: scale                         |                        |                  |                  |  |
| arithmetic mean (standard deviation) | 8.7 ( $\pm$ 2.1)       | 8.4 ( $\pm$ 2.2) | 8.7 ( $\pm$ 2.2) |  |

## Statistical analyses

| Statistical analysis title   | IPQ Timeline subscale Overall     |
|--|-----------------------------------|
| Statistical analysis description:  |                                   |
| Mean subscale difference (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline IPQ subscale score. |                                   |
| Comparison groups  | Best Current Treatment v BCT+US-T |
| Number of subjects included in analysis  | 124                               |
| Analysis specification   | Pre-specified                     |
| Analysis type  | superiority                       |
| P-value  | = 0.847                           |
| Method   | Mixed models analysis             |
| Parameter estimate   | Mean difference (final values)    |
| Point estimate   | 0.07                              |
| Confidence interval  |                                   |
| level  | 95 %                              |
| sides  | 2-sided                           |
| lower limit  | -0.74                             |
| upper limit  | 0.6                               |
| Variability estimate   | Standard error of the mean        |

| Statistical analysis title  | IPQ Timeline subscale Overall  |
|---|--------------------------------|
| Statistical analysis description:   |                                |
| Mean subscale difference (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain and baseline IPQ subscale score. |                                |
| Comparison groups   | BCT+US-L v BCT+US-T            |
| Number of subjects included in analysis   | 130                            |
| Analysis specification  | Pre-specified                  |
| Analysis type   | superiority                    |
| P-value   | = 0.228                        |
| Method  | Mixed models analysis          |
| Parameter estimate  | Mean difference (final values) |
| Point estimate  | 0.4                            |
| Confidence interval   |                                |
| level   | 95 %                           |
| sides   | 2-sided                        |
| lower limit   | -0.25                          |
| upper limit   | 1.05                           |
| Variability estimate  | Standard error of the mean     |

## Secondary: IPQ Personal control subscale

|  |                               |
|--|-------------------------------|
| End point title  | IPQ Personal control subscale |
| End point description:<br>IPQ personal control subscale (0-10; 0=No control, 10=Extreme control) |                               |
| End point type   | Secondary                     |
| End point timeframe:<br>Overall (across 2 and 6 months)  |                               |

| End point values                     | Best Current Treatment | BCT+US-L         | BCT+US-T         |  |
|--------------------------------------|------------------------|------------------|------------------|--|
| Subject group type                   | Reporting group        | Reporting group  | Reporting group  |  |
| Number of subjects analysed          | 59                     | 65               | 65               |  |
| Units: scale                         |                        |                  |                  |  |
| arithmetic mean (standard deviation) | 4.3 ( $\pm$ 2.7)       | 4.2 ( $\pm$ 2.7) | 4.5 ( $\pm$ 2.9) |  |

## Statistical analyses

|   |                                   |
|---|-----------------------------------|
| Statistical analysis title  | IPQ Personal control Overall      |
| Statistical analysis description:<br>Mean subscale difference (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline IPQ subscale score. |                                   |
| Comparison groups   | BCT+US-T v Best Current Treatment |
| Number of subjects included in analysis   | 124                               |
| Analysis specification  | Pre-specified                     |
| Analysis type   | superiority                       |
| P-value   | = 0.777                           |
| Method  | Mixed models analysis             |
| Parameter estimate  | Mean difference (final values)    |
| Point estimate  | 0.12                              |
| Confidence interval   |                                   |
| level   | 95 %                              |
| sides   | 2-sided                           |
| lower limit   | -0.93                             |
| upper limit   | 0.69                              |
| Variability estimate  | Standard error of the mean        |

|  |                                       |
|--|---------------------------------------|
| Statistical analysis title   | IPQ Personal control subscale Overall |
| Statistical analysis description:<br>Mean subscale difference (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain and baseline IPQ subscale score. |                                       |
| Comparison groups  | BCT+US-L v BCT+US-T                   |



|   |                                |
|---|--------------------------------|
| Number of subjects included in analysis | 130                            |
| Analysis specification                  | Pre-specified                  |
| Analysis type                           | superiority                    |
| P-value                                 | = 0.519                        |
| Method                                  | Mixed models analysis          |
| Parameter estimate                      | Mean difference (final values) |
| Point estimate                          | 0.25                           |
| Confidence interval                     |                                |
| level                                   | 95 %                           |
| sides                                   | 2-sided                        |
| lower limit                             | -0.52                          |
| upper limit                             | 1.03                           |
| Variability estimate                    | Standard error of the mean     |

### Secondary: IPQ Treatment control subscale Overall

|  |  |
|--|--|
| End point title  | IPQ Treatment control subscale Overall |
| End point description:   |  |
| IPQ treatment control subscale (0-10; 0=Treatment no help, 10=Treatment extremely helpful) |  |
| End point type   | Secondary                              |
| End point timeframe:   |  |
| Overall (across 2 and 6 months)  |  |

| End point values                     | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|--------------------------------------|------------------------|-----------------|-----------------|--|
| Subject group type                   | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed          | 59                     | 65              | 64              |  |
| Units: scale                         |                        |                 |                 |  |
| arithmetic mean (standard deviation) | 3.9 (± 2.9)            | 5.0 (± 3.1)     | 6.1 (± 3.2)     |  |

### Statistical analyses

|  |  |
|--|--|
| <b>Statistical analysis title</b>  | IPQ Treatment control subscale Overall |
| Statistical analysis description:  |  |
| Mean subscale difference (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline IPQ subscale score. |  |
| Comparison groups  | Best Current Treatment v BCT+US-T      |
| Number of subjects included in analysis  | 123                                    |
| Analysis specification   | Pre-specified                          |
| Analysis type  | superiority                            |
| P-value  | < 0.001                                |
| Method   | Mixed models analysis                  |
| Parameter estimate   | Mean difference (final values)         |
| Point estimate   | 2.13                                   |

|                      |                            |
|----------------------|----------------------------|
| Confidence interval  |                            |
| level                | 95 %                       |
| sides                | 2-sided                    |
| lower limit          | 1.11                       |
| upper limit          | 3.15                       |
| Variability estimate | Standard error of the mean |

|  |  |
|--|--|
| <b>Statistical analysis title</b>  | IPQ Treatment control subscale Overall |
| Statistical analysis description:<br>Mean subscale difference (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain and baseline IPQ subscale score. |  |
| Comparison groups  | BCT+US-L v BCT+US-T                    |
| Number of subjects included in analysis  | 129                                    |
| Analysis specification   | Pre-specified                          |
| Analysis type  | superiority                            |
| P-value  | = 0.048                                |
| Method   | Mixed models analysis                  |
| Parameter estimate   | Mean difference (final values)         |
| Point estimate   | 0.98                                   |
| Confidence interval  |  |
| level  | 95 %                                   |
| sides  | 2-sided                                |
| lower limit  | 0.01                                   |
| upper limit  | 1.95                                   |
| Variability estimate   | Standard error of the mean             |

## Secondary: IPQ Emotional response subscale Overall

|   |   |
|---|---|
| End point title   | IPQ Emotional response subscale Overall |
| End point description:<br>IPQ emotional response subscale (0-10; 0=Not affected emotionally, 10=Extremely affected emotionally) |   |
| End point type  | Secondary                               |
| End point timeframe:<br>Overall (all data across 2 and 6 months)  |   |

| End point values                     | Best Current Treatment | BCT+US-L        | BCT+US-T        |  |
|--------------------------------------|------------------------|-----------------|-----------------|--|
| Subject group type                   | Reporting group        | Reporting group | Reporting group |  |
| Number of subjects analysed          | 59                     | 65              | 65              |  |
| Units: scale                         |                        |                 |                 |  |
| arithmetic mean (standard deviation) | 5.2 (± 2.9)            | 4.8 (± 2.9)     | 4.7 (± 3.1)     |  |

## Statistical analyses

|  |   |
|--|---|
| <b>Statistical analysis title</b>  | IPQ Emotional response subscale Overall |
| Statistical analysis description:  |   |
| Mean subscale difference (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline IPQ subscale score. |   |
| Comparison groups  | Best Current Treatment v BCT+US-T       |
| Number of subjects included in analysis  | 124                                     |
| Analysis specification   | Pre-specified                           |
| Analysis type  | superiority                             |
| P-value  | = 0.116                                 |
| Method   | Mixed models analysis                   |
| Parameter estimate   | Mean difference (final values)          |
| Point estimate   | -0.63                                   |
| Confidence interval  |   |
| level  | 95 %                                    |
| sides  | 2-sided                                 |
| lower limit  | -1.43                                   |
| upper limit  | 0.16                                    |
| Variability estimate   | Standard error of the mean              |

|   |   |
|---|---|
| <b>Statistical analysis title</b>   | IPQ Emotional response subscale Overall |
| Statistical analysis description:   |   |
| Mean subscale difference (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain and baseline IPQ subscale score. |   |
| Comparison groups   | BCT+US-L v BCT+US-T                     |
| Number of subjects included in analysis   | 130                                     |
| Analysis specification  | Pre-specified                           |
| Analysis type   | superiority                             |
| P-value   | = 0.268                                 |
| Method  | Mixed models analysis                   |
| Parameter estimate  | Mean difference (final values)          |
| Point estimate  | -0.43                                   |
| Confidence interval   |   |
| level   | 95 %                                    |
| sides   | 2-sided                                 |
| lower limit   | -1.19                                   |
| upper limit   | 0.33                                    |
| Variability estimate  | Standard error of the mean              |

## Secondary: QALYs

|  |                      |
|--|----------------------|
| End point title  | QALYs <sup>[1]</sup> |
| End point description:   |                      |
| Calculation of Quality-Adjusted-Life-Years by linear interpolation of EQ5D values for baseline through 2 weeks, 2 months, 4 months and 6 months (with imputation of missing EQ5D data via multiple imputation) |                      |
| End point type   | Secondary            |

End point timeframe:

Overall (Baseline through to 6 months follow up)

Notes:

[1] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.  
Justification: QALYs are derived from measures of EQ5D at all timepoints and hence can not be reported solely at baseline or any other time point.

| End point values                     | Best Current Treatment | BCT+US-T        |  |  |
|--------------------------------------|------------------------|-----------------|--|--|
| Subject group type                   | Reporting group        | Reporting group |  |  |
| Number of subjects analysed          | 67                     | 66              |  |  |
| Units: scale                         |                        |                 |  |  |
| arithmetic mean (standard deviation) | 0.218 (± 0.110)        | 0.264 (± 0.102) |  |  |

## Statistical analyses

| Statistical analysis title  | QALYs                             |
|---|-----------------------------------|
| Statistical analysis description:   |                                   |
| Mean QALYs difference (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline EQ5D score. |                                   |
| Comparison groups   | Best Current Treatment v BCT+US-T |
| Number of subjects included in analysis   | 133                               |
| Analysis specification  | Pre-specified                     |
| Analysis type   | superiority                       |
| Method  | Regression, Linear                |
| Parameter estimate  | Mean difference (final values)    |
| Point estimate  | 0.048                             |
| Confidence interval   |                                   |
| level   | 95 %                              |
| sides   | 2-sided                           |
| lower limit   | 0.026                             |
| upper limit   | 0.07                              |
| Variability estimate  | Standard error of the mean        |

## Secondary: NHS costs

|   |                          |
|---|--------------------------|
| End point title                                 | NHS costs <sup>[2]</sup> |
| End point description:                          |                          |
| Total UK National Health Service Costs (GBP, £) |                          |
| End point type                                  | Secondary                |
| End point timeframe:                            |                          |
| Overall (baseline through 6 months follow up)   |                          |
| Notes:  |                          |

[2] - The end point is not reporting statistics for all the arms in the baseline period. It is expected all the baseline period arms will be reported on when providing values for an end point on the baseline period.  
Justification: NHS costs are assessed between baseline and 6 months and were not collected at baseline.

| End point values                     | Best Current Treatment  | BCT+US-T               |  |  |
|--------------------------------------|-------------------------|------------------------|--|--|
| Subject group type                   | Reporting group         | Reporting group        |  |  |
| Number of subjects analysed          | 67                      | 66                     |  |  |
| Units: pounds (GBP)                  |                         |                        |  |  |
| arithmetic mean (standard deviation) | 327.45 ( $\pm$ 1188.68) | 165.85 ( $\pm$ 212.71) |  |  |

## Statistical analyses

| Statistical analysis title                        | NHS cost difference               |
|---|-----------------------------------|
| Statistical analysis description:                 |                                   |
| Mean NHS cost (£) difference (BCT+US-T minus BCT) |                                   |
| Comparison groups                                 | Best Current Treatment v BCT+US-T |
| Number of subjects included in analysis           | 133                               |
| Analysis specification                            | Pre-specified                     |
| Analysis type                                     | superiority                       |
| Method  | Regression, Linear                |
| Parameter estimate                                | Mean difference (final values)    |
| Point estimate                                    | -161.59                           |
| Confidence interval                               |                                   |
| level   | 95 %                              |
| sides   | 2-sided                           |
| lower limit                                       | -583.95                           |
| upper limit                                       | 54.18                             |
| Variability estimate                              | Standard error of the mean        |

## Secondary: BMI at 6 months

|                                     |                 |
|-------------------------------------|-----------------|
| End point title                     | BMI at 6 months |
| End point description:              |                 |
| Body Mass Index at 6 months (kg/m2) |                 |
| End point type                      | Secondary       |
| End point timeframe:                |                 |
| 6 months                            |                 |

| End point values                     | Best Current Treatment | BCT+US-L          | BCT+US-T          |  |
|--------------------------------------|------------------------|-------------------|-------------------|--|
| Subject group type                   | Reporting group        | Reporting group   | Reporting group   |  |
| Number of subjects analysed          | 52                     | 57                | 56                |  |
| Units: kg/m2                         |                        |                   |                   |  |
| arithmetic mean (standard deviation) | 29.2 ( $\pm$ 6.1)      | 28.0 ( $\pm$ 4.7) | 29.2 ( $\pm$ 5.4) |  |

## Statistical analyses

|  |                                   |
|--|-----------------------------------|
| <b>Statistical analysis title</b>  | BMI at 6 months                   |
| Statistical analysis description:  |                                   |
| Mean difference (BCT+US-T minus BCT) adjusted for age, gender, baseline pain and baseline BMI. |                                   |
| Comparison groups  | Best Current Treatment v BCT+US-T |
| Number of subjects included in analysis  | 108                               |
| Analysis specification   | Pre-specified                     |
| Analysis type  | superiority                       |
| P-value  | = 0.521                           |
| Method   | Regression, Linear                |
| Parameter estimate   | Mean difference (final values)    |
| Point estimate   | -0.22                             |
| Confidence interval  |                                   |
| level  | 95 %                              |
| sides  | 2-sided                           |
| lower limit  | -0.91                             |
| upper limit  | 0.46                              |
| Variability estimate   | Standard error of the mean        |

|   |                                |
|---|--------------------------------|
| <b>Statistical analysis title</b>   | BMI at 6 months                |
| Statistical analysis description:   |                                |
| Mean difference (BCT+US-T minus BCT+US-L) adjusted for age, gender, baseline pain and baseline BMI. |                                |
| Comparison groups   | BCT+US-L v BCT+US-T            |
| Number of subjects included in analysis   | 113                            |
| Analysis specification  | Pre-specified                  |
| Analysis type   | superiority                    |
| P-value   | = 0.769                        |
| Method  | Regression, Linear             |
| Parameter estimate  | Mean difference (final values) |
| Point estimate  | 0.1                            |
| Confidence interval   |                                |
| level   | 95 %                           |
| sides   | 2-sided                        |
| lower limit   | -0.55                          |
| upper limit   | 0.74                           |
| Variability estimate  | Standard error of the mean     |

## Adverse events

### Adverse events information

Timeframe for reporting adverse events:

6 months

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

### Dictionary used

|                 |       |
|-----------------|-------|
| Dictionary name | CTCAE |
|-----------------|-------|

|                    |     |
|--------------------|-----|
| Dictionary version | 4.0 |
|--------------------|-----|

### Reporting groups

|                       |                        |
|-----------------------|------------------------|
| Reporting group title | Best Current Treatment |
|-----------------------|------------------------|

Reporting group description:

BCT comprised written information (Arthritis Research UK Osteoarthritis leaflet and a bespoke leaflet on exercise and functional activities), personalised advice and information about weight loss, exercise, footwear, walking aids and optimising pain management, delivered within the clinic visit.

|                       |          |
|-----------------------|----------|
| Reporting group title | BCT+US-L |
|-----------------------|----------|

Reporting group description:

Best Current Treatment (BCT) combined with an ultra-sound guided injection (USGI) of 5ml 1% lidocaine only.

|                       |          |
|-----------------------|----------|
| Reporting group title | BCT+US-T |
|-----------------------|----------|

Reporting group description:

Best Current Treatment (BCT) combined with an ultra-sound guided injection (USGI) of 40mg triamcinolone acetonide and 4ml 1% lidocaine hydrochloride.

| Serious adverse events                            | Best Current Treatment | BCT+US-L       | BCT+US-T       |
|---|------------------------|----------------|----------------|
| Total subjects affected by serious adverse events |                        |                |                |
| subjects affected / exposed                       | 2 / 67 (2.99%)         | 2 / 65 (3.08%) | 3 / 65 (4.62%) |
| number of deaths (all causes)                     | 0                      | 0              | 2              |
| number of deaths resulting from adverse events    | 0                      | 0              | 2              |
| Cardiac disorders                                 |                        |                |                |
| Myocardial infarction                             |                        |                |                |
| subjects affected / exposed                       | 0 / 67 (0.00%)         | 0 / 65 (0.00%) | 1 / 65 (1.54%) |
| occurrences causally related to treatment / all   | 0 / 0                  | 0 / 0          | 0 / 1          |
| deaths causally related to treatment / all        | 0 / 0                  | 0 / 0          | 0 / 0          |
| Chest pain  |                        |                |                |
| subjects affected / exposed                       | 0 / 67 (0.00%)         | 1 / 65 (1.54%) | 0 / 65 (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                          |                        |                |                |
| Multiple sclerosis relapse                        |                        |                |                |

|   |                |                |                |
|---|----------------|----------------|----------------|
| subjects affected / exposed                     | 0 / 67 (0.00%) | 1 / 65 (1.54%) | 0 / 65 (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          |
| Cerebrovascular accident                        |                |                |                |
| subjects affected / exposed                     | 0 / 67 (0.00%) | 0 / 65 (0.00%) | 1 / 65 (1.54%) |
| occurrences causally related to treatment / all | 0 / 0          | 0 / 0          | 0 / 1          |
| deaths causally related to treatment / all      | 0 / 0          | 0 / 0          | 0 / 1          |
| Gastrointestinal disorders                      |                |                |                |
| Colitis   |                |                |                |
| subjects affected / exposed                     | 1 / 67 (1.49%) | 0 / 65 (0.00%) | 0 / 65 (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          |
| Musculoskeletal and connective tissue disorders |                |                |                |
| Osteonecrosis                                   |                |                |                |
| subjects affected / exposed                     | 1 / 67 (1.49%) | 0 / 65 (0.00%) | 0 / 65 (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          |
| Infections and infestations                     |                |                |                |
| Endocarditis                                    |                |                |                |
| subjects affected / exposed                     | 0 / 67 (0.00%) | 0 / 65 (0.00%) | 1 / 65 (1.54%) |
| occurrences causally related to treatment / all | 0 / 0          | 0 / 0          | 1 / 1          |
| deaths causally related to treatment / all      | 0 / 0          | 0 / 0          | 1 / 1          |

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

| <b>Non-serious adverse events</b>                     | Best Current Treatment | BCT+US-L         | BCT+US-T         |
|---|------------------------|------------------|------------------|
| Total subjects affected by non-serious adverse events |                        |                  |                  |
| subjects affected / exposed                           | 2 / 67 (2.99%)         | 26 / 65 (40.00%) | 25 / 65 (38.46%) |
| Injury, poisoning and procedural complications        |                        |                  |                  |
| Bruising  |                        |                  |                  |
| alternative assessment type: Systematic               |                        |                  |                  |
| subjects affected / exposed                           | 0 / 67 (0.00%)         | 16 / 65 (24.62%) | 15 / 65 (23.08%) |
| occurrences (all)                                     | 0                      | 16               | 15               |
| Fall  |                        |                  |                  |



|  |                                       |                     |                     |
|--|---------------------------------------|---------------------|---------------------|
| subjects affected / exposed<br>occurrences (all)   | 0 / 67 (0.00%)<br>0                   | 1 / 65 (1.54%)<br>1 | 0 / 65 (0.00%)<br>0 |
| Vascular disorders<br>Flushing<br>alternative assessment type:<br>Systematic<br>subjects affected / exposed<br>occurrences (all) | 0 / 67 (0.00%)<br>0                   | 0 / 65 (0.00%)<br>0 | 4 / 65 (6.15%)<br>4 |
| Nervous system disorders<br>Headache<br>subjects affected / exposed<br>occurrences (all)   | 0 / 67 (0.00%)<br>0                   | 1 / 65 (1.54%)<br>1 | 0 / 65 (0.00%)<br>0 |
| Nervous system disorders - Other,<br>specify   | Additional description: Restless legs |                     |                     |
| subjects affected / exposed<br>occurrences (all)   | 0 / 67 (0.00%)<br>0                   | 0 / 65 (0.00%)<br>0 | 1 / 65 (1.54%)<br>1 |
| Neuralgia<br>subjects affected / exposed<br>occurrences (all)  | 0 / 67 (0.00%)<br>0                   | 1 / 65 (1.54%)<br>1 | 0 / 65 (0.00%)<br>0 |
| Paraesthesia<br>subjects affected / exposed<br>occurrences (all)   | 0 / 67 (0.00%)<br>0                   | 0 / 65 (0.00%)<br>0 | 1 / 65 (1.54%)<br>1 |
| Reproductive system and breast<br>disorders<br>Menorrhagia<br>subjects affected / exposed<br>occurrences (all)                   | 0 / 67 (0.00%)<br>0                   | 0 / 65 (0.00%)<br>0 | 1 / 65 (1.54%)<br>1 |
| Gastrointestinal disorders<br>Constipation<br>subjects affected / exposed<br>occurrences (all)                                   | 0 / 67 (0.00%)<br>0                   | 0 / 65 (0.00%)<br>0 | 1 / 65 (1.54%)<br>1 |
| Respiratory, thoracic and mediastinal<br>disorders<br>Cough<br>subjects affected / exposed<br>occurrences (all)                  | 0 / 67 (0.00%)<br>0                   | 0 / 65 (0.00%)<br>0 | 1 / 65 (1.54%)<br>1 |
| Skin and subcutaneous tissue disorders<br>Skin hypopigmentation<br>alternative assessment type:<br>Systematic                    |                                       |                     |                     |

|   |  |                 |                |
|---|--|-----------------|----------------|
| subjects affected / exposed                             | 0 / 67 (0.00%)   | 2 / 65 (3.08%)  | 4 / 65 (6.15%) |
| occurrences (all)                                       | 0  | 2               | 4              |
| Skin atrophy  |  |                 |                |
| alternative assessment type:<br>Systematic              |  |                 |                |
| subjects affected / exposed                             | 0 / 67 (0.00%)   | 2 / 65 (3.08%)  | 2 / 65 (3.08%) |
| occurrences (all)                                       | 0  | 2               | 2              |
| Skin and subcutaneous tissue disorders - Other, specify | Additional description: Rash - non-specific  |                 |                |
| subjects affected / exposed                             | 0 / 67 (0.00%)   | 2 / 65 (3.08%)  | 0 / 65 (0.00%) |
| occurrences (all)                                       | 0  | 2               | 0              |
| Psychiatric disorders                                   |  |                 |                |
| Anxiety   |  |                 |                |
| subjects affected / exposed                             | 0 / 67 (0.00%)   | 1 / 65 (1.54%)  | 1 / 65 (1.54%) |
| occurrences (all)                                       | 0  | 1               | 1              |
| Musculoskeletal and connective tissue disorders         |  |                 |                |
| Arthralgia  | Additional description: For Best Current Treatment, arthralgia during exercises. For BCT+US-L and BCT+US-T, arthralgia following injection |                 |                |
| alternative assessment type:<br>Systematic              |  |                 |                |
| subjects affected / exposed                             | 2 / 67 (2.99%)   | 7 / 65 (10.77%) | 1 / 65 (1.54%) |
| occurrences (all)                                       | 2  | 7               | 1              |
| Pain in extremity                                       | Additional description: Plantar fasciitis  |                 |                |
| subjects affected / exposed                             | 0 / 67 (0.00%)   | 0 / 65 (0.00%)  | 1 / 65 (1.54%) |
| occurrences (all)                                       | 0  | 0               | 1              |
| Infections and infestations                             |  |                 |                |
| Infections and infestations - Other, specify            |  |                 |                |
| subjects affected / exposed                             | 0 / 67 (0.00%)   | 1 / 65 (1.54%)  | 1 / 65 (1.54%) |
| occurrences (all)                                       | 0  | 1               | 1              |

## More information

### Substantial protocol amendments (globally)

Were there any global substantial amendments to the protocol? Yes

| Date              | Amendment   |
|-------------------|---|
| 01 September 2016 | <p>1) Change to the Reference Safety Information to ensure the latest version of the summary of product characteristics (SmPC) was being used. The new SmPC listed porphyria as an additional contraindication to 1% lidocaine hydrochloride. Addition to exclusion criteria and implementation of urgent safety measure therefore implemented.</p> <p>2) Due to day-to day variability of osteoarthritis symptoms, a number of potential participants did not meet the eligibility criterion of pain of 4/10 on the day of assessment. In order to address suboptimal recruitment, the inclusion criteria were amended from requiring "Moderate-to-severe hip pain (a score of four or more on a 0–10 numeric rating scale (NRS)) on the day of assessment" to Moderate-to-severe hip pain (a score of four or more on a 0–10 numeric rating scale (NRS)) on average over the last 2 weeks and current hip pain rated as at least 1 out of 10 (on a 0– 10 NRS) on the day of assessment."</p>  |
| 18 October 2016   | This amendment introduced an additional consent form to record consent to screening (eligibility assessment) by potential participants who attended having consulted with hip pain in primary care in the last 12 months and being identified by electronic search of GP practices by the local clinical research network.  |
| 06 February 2017  | Following an MHRA Drug Safety Update (dated 14 December 2016) which highlighted the risk of systemic corticosteroid adverse effects when corticosteroids (including intra-articular triamcinolone) are co-administered to patients taking cobicistat and ritonavir, receiving cobicistat or ritonavir were added to the exclusion criteria via an urgent safety measure.  |
| 04 May 2018       | <p>1) Revision to required sample size. In response to under-recruitment, the Data Monitoring Committee advised us to explore the robustness of the baseline parameters used to inform the sample size calculation. The original sample size calculation was based on comparisons of participants' 'average' follow-up pain numeric rating scale (NRS) scores, based on a random effects linear repeated-measures model, with a 'cluster' size of 4 (denoting 4 follow-up assessments), postulated intra-correlation of 0.7 and baseline-outcome correlation of 0.5. 116 participants per arm (348 total) were required to detect a minimum difference of 1.5 points in mean pain NRS score (anticipated baseline standard deviation (SD) of pain scores=4.5; effect size 0.33) between BCT+US-T and BCT across the 6-month follow-up period (5% 2-tailed significance, 90% power, 15% loss to follow-up). The observed baseline SD was 1.7 (SD for follow up scores 2.5) ie lower than the expected SD of 4.5. The stipulated clinically important difference in the primary outcome of 1.5 in context of this baseline SD would be 'large' (effect size&gt; 0.8). It was also noted that the MCID was as low as 1.0 in some studies (equating to a "moderate" effect size 0.4 with respect to SD of 2.5). Hence the revised sample size required 68 participants per arm (204 total) to detect a minimum difference of 1.0 point in mean pain NRS score (SD 2.5; effect size 0.4) between BCT+US-T and BCT alone across the 6-month follow-up period (80% power, 5% 2-tailed significance, repeated measures correlation 0.5, baseline-outcome correlation 0.2, 15% loss to follow-up).</p> <p>2) Clarification of safety reporting procedures. Addition to the Participant Information Leaflet information about possible visual side-effects of triamcinolone acetone following a MHRA drug safety update.</p> <p>3) Owing to lack of capacity and funding, a secondary qualitative objective to explore reasons for non-participation was removed.</p> |

|                  |   |
|------------------|---|
| 06 November 2018 | Due to limited funding for long-term follow-up and linkage to the National Joint Registry, joint replacement surgery has been removed as a secondary outcome measure from the trial protocol. |
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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.

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| None |
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Notes:

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## Online references

<http://www.ncbi.nlm.nih.gov/pubmed/30021588>