

Supplemental Online Content

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This supplemental material has been provided by the authors to give readers additional information about their work.

eTable 1. Surgical characteristics in the intention-to-treat population

	Posterior surgery (n=119)	Anterior surgery (n=124)	Mean difference posterior versus anterior (95% CI)	<i>P</i> -value
Surgery according to randomization			-	-
Yes	117	123	-	-
No	2	1	-	-
Antibiotic prophylaxis	119 (100)	124 (100)	-	-
Operation time, mean (SD), m				
Including anesthesia	106.8 (30.8)	113.2 (35.2)	-6.4 (-14.8 to 2.0)	0.1
Including positioning time, w/o anesthesia	77.3 (23.2)	86.3 (30.0)	-9.0 (-16.3 to -1.7)	<0.05
Incision to end of surgery	61.6 (22.6)	75.0 (27.0)	-13.0 (-19.9 to -6.9)	<0.001
Surgical specifications - Anterior surgery^a				
No. of patients	2	123	-	-
Operated level			-	-
C5-C6	2 (100)	62 (50)	-	-
C6-C7	-	61 (50)	-	-
Side skin incision			-	-
Right	2 (100)	103 (84)	-	-
Left		19 (16)	-	-
Type of spacer			-	-
Bone cement	-	31 (25)	-	-
PEEK cage	-	24 (20)	-	-
Titanium cage	1 (50)	51 (41)	-	-
Titanium cage with spikes	1 (50)	17 (14)	-	-
Surgical specifications - Posterior surgery^a				
No. of patients	117	1	-	-
Nerve root decompressed			-	-
C5	3 (3)	-	-	-
C6	55 (47)	-	-	-
C7	59 (50)	1 (100)	-	-
Removal venous plexus			-	-
No	39 (49)	1 (100)	-	-
Yes	60 (59)	-	-	-
Removal discogenic component			-	-
No	95 (80)	-	-	-
Yes	22 (19)	-	-	-

Number of patients (no.), Polyetheretherketone (PEEK).

^aPercentages may not total 100, because of rounding. There were 2 cross-overs from the randomized posterior surgery group that underwent anterior surgery, and 1 cross-over from the anterior surgery group that underwent posterior surgery.

Data was missing for 1 patient in the anterior surgery group for side of skin incision; 16 patients in the posterior surgery group for removal of the venous plexus.

eTable 2. Post-hoc power calculations

Non-Inferiority Tests for the Difference Between Two Proportions

Numeric Results – Success rate according to Odom criteria for complete case analysis

Solve For: **Power**
 Test Statistic: Z-Test with Pooled Variance
 Hypotheses: $H_0: P_1 - P_2 \leq \delta_0$ vs. $H_1: P_1 - P_2 > \delta_0$

Power*	N1	N2	N	Ref. P2	P1 H0 P1.0	P1 H1 P1.1	NI Diff δ_0	Diff δ_1	Alpha
0,9725	98	106	204	0,76	0,66	0,87	-0,1	0,11	0,025 ^a
0,9874	98	106	204	0,76	0,66	0,87	-0,1	0,11	0,050 ^b

* Power was computed using the normal approximation method.

Power	The probability of rejecting a false null hypothesis when the alternative hypothesis is true.
N1 and N2	The number of items sampled from each population.
N	The total sample size. $N = N_1 + N_2$.
P2	The proportion for group 2, which is the standard, reference, or control group.
P1	The proportion for group 1, which is the treatment or experimental group.
P1.0	The smallest group 1 proportion that still yields a non-inferiority conclusion. $P1.0 = P1 H_0$.
P1.1	The proportion for group 1 under the alternative hypothesis at which power and sample size calculations are made. $P1.1 = P1 H_1$.
δ_0	The non-inferiority difference under H_0 . $\delta_0 = P1.0 - P2$.
δ_1	The non-inferiority difference assumed by the alternative hypothesis, H_1 . $\delta_1 = P1.1 - P2$.
Alpha	The probability of rejecting a true null hypothesis.
a	With Bonferroni correction
b	Without Bonferroni correction

Numeric Results – Success rate according to Odom criteria for full case analysis

Solve For: **Power**
 Test Statistic: Z-Test with Pooled Variance
 Hypotheses: $H_0: P_1 - P_2 \leq \delta_0$ vs. $H_1: P_1 - P_2 > \delta_0$

Power*	N1	N2	N	Ref. P2	P1 H0 P1.0	P1 H1 P1.1	NI Diff δ_0	Diff δ_1	Alpha
0,8143	119	124	243	0,65	0,55	0,72	-0,1	0,07	0,025 ^a
0,8869	119	124	243	0,65	0,55	0,72	-0,1	0,07	0,050 ^b

* Power was computed using the normal approximation method.

Power	The probability of rejecting a false null hypothesis when the alternative hypothesis is true.
N1 and N2	The number of items sampled from each population.
N	The total sample size. $N = N_1 + N_2$.
P2	The proportion for group 2, which is the standard, reference, or control group.
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P1.0	The smallest group 1 proportion that still yields a non-inferiority conclusion. $P1.0 = P1 H_0$.
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δ_0	The non-inferiority difference under H_0 . $\delta_0 = P1.0 - P2$.
δ_1	The non-inferiority difference assumed by the alternative hypothesis, H_1 . $\delta_1 = P1.1 - P2$.
Alpha	The probability of rejecting a true null hypothesis.
a	With Bonferroni correction
b	Without Bonferroni correction

Two-Sample T-Tests for Non-Inferiority Assuming Equal Variance

Numeric Results for an Equal-Variance T-Test – Visual Analogue Scale for Arm Pain at 1-year

Solve For: **Power**
 Difference: $\delta = \mu_1 - \mu_2 = \mu_T - \mu_R$
 Higher Means Are: Worse
 Hypotheses: $H_0: \delta \geq \text{NIM}$ vs. $H_1: \delta < \text{NIM}$

Power	N1	N2	N	NIM	δ	σ	Alpha
0,85548	99	96	195	10	0	23	0,025 ^a
0,91618	99	96	195	10	0	23	0,050 ^b

Power The probability of rejecting a false null hypothesis when the alternative hypothesis is true.
 N1 and N2 The number of items sampled from each population.
 N The total sample size. $N = N_1 + N_2$.
 NIM The magnitude of the margin of non-inferiority. Since higher means are worse, this value is positive and is the distance above the reference mean that is still considered non-inferior.
 δ The difference between the treatment and reference means at which power and sample size calculations are made. $\delta = \mu_1 - \mu_2 = \mu_T - \mu_R$.
 σ The assumed population standard deviation for each of the two groups.
 Alpha The probability of rejecting a true null hypothesis.
 a With Bonferroni correction
 b Without Bonferroni correction

Two-Sample T-Tests for Non-Inferiority Assuming Equal Variance

Numeric Results for an Equal-Variance T-Test – Decrease in Arm Pain at 1-year (0-100 scale)

Solve For: **Power**
 Difference: $\delta = \mu_1 - \mu_2 = \mu_T - \mu_R$
 Higher Means Are: Better
 Hypotheses: $H_0: \delta \leq -\text{NIM}$ vs. $H_1: \delta > -\text{NIM}$

Power	N1	N2	N	-NIM	δ	σ	Alpha
0,63204	94	98	192	-10	0	30	0,025 ^a
0,74403	94	98	192	-10	0	30	0,050 ^b

Power The probability of rejecting a false null hypothesis when the alternative hypothesis is true.
 N1 and N2 The number of items sampled from each population.
 N The total sample size. $N = N_1 + N_2$.
 -NIM The magnitude and direction of the margin of non-inferiority. Since higher means are better, this value is negative and is the distance below the reference mean that is still considered non-inferior.
 δ The difference between the treatment and reference means at which power and sample size calculations are made. $\delta = \mu_1 - \mu_2 = \mu_T - \mu_R$.
 σ The assumed population standard deviation for each of the two groups.
 Alpha The probability of rejecting a true null hypothesis.
 a With Bonferroni correction
 b Without Bonferroni correction

eTable 3. Baseline characteristics of all randomized patients^a

Characteristic	Posterior surgery (n=132)	Anterior surgery (n=133)
Age, mean (SD), y	51.3 (8.5)	51.1 (8.2)
Sex – no. (%)		
Female	71 (54)	61 (46)
Male	61 (46)	72 (54)
Body Mass Index, median (IQR) ^b	27 (24-30)	27 (24-31)
Level of radiculopathy– no. (%)		
C5 – right	1 (1)	2 (2)
C5 – left	1 (1)	-
C6 – right	34 (26)	37 (28)
C6 –left	32 (24)	24 (18)
C7 – right	24 (18)	28 (21)
C7 – left	39 (30)	42 (32)
Symptom duration in weeks, median (IQR), wk	31 (25-52)	32 (20-52)
ASA classification – no. (%) ^c		
ASA I	60 (46)	70 (53)
ASA II	65 (50)	55 (42)
ASA III	6 (5)	6 (5)
Current smoker – no. (%)	58 (46)	49 (38)
Use of NSAIDs – no. (%)	43 (33)	39 (30)
Radiological characteristics – no. (%)		
Discogenic (soft disc)	54 (41)	42 (32)
Spondylotic	14 (11)	14 (11)
Combined discogenic and spondylotic	63 (48)	74 (57)
Clinical characteristics – no. (%)		
Radiating arm and neck pain	61 (47)	64 (48)
Radiating arm pain only	70 (53)	69 (52)
Loss of strength	48 (37)	53 (40)
Loss of sensibility	87 (66)	86 (65)
Tingling in fingers or hand	103 (79)	114 (86)
Comorbidities - no. (%)	72 (55)	61 (46)
Specification of comorbidities - no. ^d		
Cardiovascular	39	30
Pulmonary	23	23
Endocrine	18	21
Musculoskeletal	16	14
Gastrointestinal and liver	7	10
Neurological	2	11
Thrombo-embolic	7	4
Psychiatric	3	1
Oncological	4	3
Nephrological	2	1
Clinically relevant other	4	5

American Society of Anesthesiologist classification (ASA), Inter Quartile Range (IQR), No. (number of patients), Non-Steroidal Anti-Inflammatory Drug (NSAID).

^a Plus-minus values are means ± standard deviation. Percentages may not total 100, because of rounding. Data was missing for Body Mass Index of 2 patients in the posterior- and 2 in the anterior surgery group; level plus side of radiculopathy, duration of symptoms, clinical characteristics, and comorbidities of 1 patient in the posterior surgery group; ASA-classification of 1 patient in the posterior- and 2 in the anterior surgery group; smoking status of 7 in the posterior- and 4 in the anterior surgery group; NSAID usage of 2 in the posterior- and 3 in the anterior surgery group; radiological characteristics of 1 in the posterior- and 3 in the anterior surgery group.

^b Body Mass Index is the weight in kilograms divided by the square of the height in meters.

^c The classification system of ASA ranges from I to VI, where higher classes indicate a greater risk. No patients had an ASA IV or VI classification.

^d The specification of comorbidities is given on event-level (in contrast to patient-level). Therefore no percentages are given, since several patients had multiple comorbidities. See *Supplementary table S2.* for an overview on all the clinically relevant other comorbidities.

eTable 4. Specification of comorbidities in all randomized patients

Comorbidities	Posterior surgery (n=132)	Anterior surgery (n=133)
Cardiovascular		
Hypertension	23	15
Myocardial infarction	7	4
Cardiomyopathy	2	2
Angina pectoris	0	2
Aortic valve stenosis	1	0
AVNRT ablation	1	0
Cardiac arrhythmia	0	1
Amaurosis fugax	0	1
Brugada syndrome	0	1
Hypercholesterolemia	3	1
Paroxysmal atrial fibrillation	2	0
Acute pericarditis	0	1
Total	39	30
Lung		
Unspecified	23	22
Sleep apnea	0	1
Total	22	23
Oncological		
Hepatocellular carcinoma	0	1
Acute leukemia	0	1
Hodgkin disease	1	0
Cervix carcinoma	1	0
Mamma carcinoma	1	0
Melanoma	1	0
Morbus. Bowen	0	1
Total	4	3
Neurological		
Migraine	1	1
Epilepsy	0	2
Cluster headache	1	0
Torticollis	0	1
Carpal tunnel syndrome	0	6
Trigeminal neuralgia	0	1
Total	2	11
Musculoskeletal		
Rotator cuff repair	1	0
Polymyalgia rheumatica	1	0
Lumbar discectomy	2	2
Lumbar spondylolisthesis	1	2
Fibromyalgia	3	1
Arthritis	2	1
Arthrosis	0	1
Multifactorial generalized chronic pain	0	1
Muscle weakness	0	1
Morbus Bechterew	1	1
Connective tissue disease	4	4
Costoclavicular depression syndrome	1	0
Total	16	14
Gastro-intestinal		
Esophagitis	2	3

Liver disease	0	3
Celiac disease	0	1
Colitis ulcerosa	2	0
Crohn disease	0	1
Irritable bowel syndrome	0	1
Barrett syndrome	1	0
Biliary pancreatitis	1	0
Helicobacter pylori eradication	0	1
Cholecystectomy	1	0
Total	7	10
Kidney		
Chronic kidney disease	1	1
Pyelonephritis	1	0
Total	2	1
Endocrine		
Anemia	0	2
Gout	0	1
Hashimoto	1	0
Hemithyroidectomy	0	1
Hemochromatosis	0	1
Hyperthyroidism	3	0
Hypothyroidism	1	1
Lyme disease	0	1
Chronic hepatitis B.	0	2
Vitamin B deficiency	0	2
Diabetes mellitus	13	10
Total	18	21
Psychiatric		
Anxiety disorder	2	0
Depression	0	1
Starting dementia	1	0
Total	3	1
Thrombo-embolic disease		
Deep venous thrombosis	3	1
Cerebrovascular disease	0	2
Stroke	0	1
Pulmonary embolus	4	0
Total	7	4
Clinically relevant other		
Peripheral vascular disease	3	2
Abscesses	0	1
Idiopathic thrombotic purpura	0	1
Epicondylitis lateralis	1	1
Total	4	5

Atrio-Ventricular Nodal Re-entry Tachycardia (AVNRT), Obstructive sleep apnea syndrome (OSAS),

This specification of comorbidities is given on event-level (not patient-level). Therefore no percentages are given, since several patients had multiple comorbidities.

eTable 5. Baseline characteristics neurological examination

	Posterior surgery (n=119)	Anterior surgery (n=124)
Sensibility disorder upper limb – no. (%)	80 (68)	87 (71)
Dermatome – no.		
C5	2/80	0/87
C6	34/80	39/87
C7	39/80	42/87
Atypical	5/80	5/87
Muscle atrophy – no. (%)		
Yes	4 (5)	4 (4)
No	77 (95)	91 (96)
Loss of strength – no. (%)		
Yes	28 (24)	34 (27)
No	91 (76)	90 (73)
Deltoid MRC – no.		
Yes	6/28	9/33
No	22/28	24/33
Biceps MRC – no. (%)		
Yes	12/28	10/34
No	16/28	24/34
Triceps MRC – no.		
Yes	9/28	18/34
No	19/28	16/34
Wrist flexion MRC – no.		
Yes	6/28	9/33
No	22/28	24/33
Wrist extension MRC – no.		
Yes	7/28	9/33
No	21/28	24/33
Interosseous MRC – no.		
Yes	14/28	17/33
No	14/28	16/33

Medical Research Council scale (MRC), Number of patients (no.).

Data was missing for sensibility disorder of 1 patient in the posterior- and 3 in the anterior surgery group; dermatome of 1 patient in the anterior surgery group; muscle atrophy of 38 in the posterior- and 29 in the anterior surgery group; the MRC grade for the musculus deltoideus, wrist flexion and extension, and interosseous in 1 patient in the anterior surgery group.

eTable 6. Responder analyses^a

	Mean value at Baseline	Mean value at 1 year	Mean change from Baseline to 1 year	Proportion of patients that reached MCID	Mean difference in proportion of responders in anterior vs. posterior group (95% CI)
Visual analogue scale – arm pain (0-100)^b					
Posterior surgery	62.3 ± 20.7	18.6 ± 22.9	41.9 ± 29.5	0.54	0.06 (-0.09 to 0.2)
Anterior surgery	60.3 ± 22.1	15.8 ± 23.7	45.3 ± 29.7	0.60	
Visual analogue scale – neck pain (0-100)^c					
Posterior surgery	55.0 ± 22.3	24.4 ± 27.5	29.5 ± 33.9	0.52	0.1 (-0.05 to 0.3)
Anterior surgery	53.1 ± 23.0	21.7 ± 26.1	31.6 ± 29.3	0.62	
Neck Disability Index score (0-100)^d					
Posterior surgery	43.6 ± 14.1	17.6 ± 14.6	24.3 ± 15.8	0.66	-0.02 (-0.2 to 0.1)
Anterior surgery	42.2 ± 13.5	19.2 ± 16.5	23.1 ± 16.8	0.63	
EuroQol 5-Dimensions 5-Level^e					
Posterior surgery	0.62 ± 0.18	0.84 ± 0.15	0.20 ± 0.17	0.38	-0.001 (-0.1 to 0.1)
Anterior surgery	0.62 ± 0.20	0.82 ± 0.14	0.19 ± 0.22	0.38	

Confidence Interval (CI), Minimal Clinical Important Difference (MCID), Standard Deviation (SD).

^a Plus-minus values are means ± standard deviation.

^b The prespecified MCID for VAS-arm was a decrease of 41 or more.

^c The prespecified MCID for VAS-neck was a decrease of 26 or more.

^d The prespecified MCID for NDI was an improvement of 17.3% or more.

^e The prespecified MCID for EQ-5D-5L was an improvement of 0.24 or more.

eTable 7. Specification of adverse events in the intention-to-treat population^a

	Posterior surgery (n=119)	Anterior surgery (n=124)	Total (n=243)
Adverse Events - no			
During operation			
Allergic reaction to antibiotics	1	0	1
Total	1	0	1
During hospitalization			
Dysphagia or globus sensation ^b	0	1	1
Wound infection	1	0	1
Urinary retention	1	0	1
Panic attack	1	0	1
Palpitations	1	0	1
Dyspnea	0	1	1
Total	4	2	6
After discharge			
Dysphagia or globus sensation ^b	1	5	6
Hoarseness	1	2	3
Neck pain	2	1	3
Neck- and shoulder symptoms ^c	0	3	3
New radicular symptoms w/o need for surgery ^d	1	4	5
Persistent radicular symptoms w/o need for surgery ^d	8	2	10
Non-radicular arm pain ^e	0	1	1
Shoulder symptoms ^f	9	6	15
Cardio-thoracic symptoms ^g	1	1	1
Respiratory symptoms ^h	0	1	1
Knee symptoms ⁱ	3	0	3
Lower back symptoms ^j	2	2	4
Hip/groin pain	1	0	1
Wound problems ^k	4	2	6
Implant malposition ^l	0	1	1
Elective surgery	2	8	10
Other ^m	5	3	9
Total	40	42	82
Serious Adverse Events – no			
During hospitalization			
Anaphylactic reaction to antibiotics	0	1	1
Wound hematoma without need for surgery	1	0	1
Pulmonary embolus	0	1	1
Total	1	2	3
After discharge			
Unresolved dysphagia within 1-year	0	1	1
Post-operative hematoma	0	1	1
Non-elective surgery:			
Reoperation at index-level	4	2	6
Reoperation adjacent level	0	2	2
Reoperation at index + adjacent level	2	0	2
Other ^m	1	2	3
Required hospitalization:			
Cardio-thoracic ^g	3	1	4
Wound problems ^k	2	1	3

Lumbar spondylolisthesis	0	1	1
Urinary retention and cystitis	1	0	1
Other ^m	1	6	7
Total	14	19	31

Not applicable (N/A), Without (w/o).

^a Depicted are all the (serious) adverse events (surgery-related and unrelated) on complication-level (not patient-level). Adverse events were considered serious (SAE) if lethal, life-threatening, required (prolongation of) hospitalization, caused significant disability, were a congenital anomaly or birth defect, or any other medically important event that jeopardized the subject or required intervention.

^b Dysphagia was temporary in 6 patients and unresolved within 1-year in 1 patient in the anterior surgery group. Hoarseness was temporary in 2 patients in the anterior surgery group. For the patients with dysphagia and hoarseness in the posterior surgery group, it is unknown whether they were resolved within 1-year.

^c Two patients had a combination of neck-and shoulder pain after being reoperated.

^d These were new or persistent radicular symptoms without reoperation within 1-year of follow-up. Some of these patients were treated with a selective nerve root blockage, referral to a pain center, pain specialist or were treated conservatively.

^e These patients had arm pain without signs of radiculopathy.

^f Shoulder symptoms included patients with shoulder pain, frozen shoulder, or tendinitis supraspinatus. Some of these patients were treated with a local steroid injection .

^g Cardiothoracic symptoms reported as adverse event included chest pain and atypical thoracic symptoms. Symptoms reported as serious adverse event included myocardial infarction requiring admission and treatment, chest pain during treatment for pericarditis, palpitations, implantation pace maker and coronary angiography.

^h Respiratory symptoms included coughing and complaints of COPD.

ⁱ Knee symptoms included pain or a lesion of the meniscus.

^j Lower back symptoms included low back pain or spondylolisthesis, without the need for surgery.

^k This includes patients with wound infections, leakage or swelling of the wound. When reported as an adverse event, the wound infection was superficial and treated with oral antibiotics. When reported as serious adverse event, a (longer) hospitalization was required. None of the wound infections were related to esophageal injury.

^l This patient had a slight cage subsidence at 6 weeks, without complaints and no reoperation.

^m "Other" included the following complications in the adverse event subsection: gout, hearing loss, diagnosis of polymyalgia rheumatica, fall after surgery, dizzy spell, pain after surgery, subcapital humerus fracture treated conservatively. The following were reported in the serious adverse event subsection for non-elective surgery: lobectomy, resection melanoma and surgery for liver empyema; that required hospitalization: analysis of abdominal pain, collapse and implantation pacemaker, elevated liver enzymes, visit emergency department after fall, viral meningitis, and septic cellulitis.

eTable 8. Reoperations within 1-year of follow-up

Number	Initial treatment	Initial symptomatic nerve root	Reoperation	Reason for reoperation	Months after initial surgery
1.	Posterior surgery C7.	C7 Left	Anterior surgery C5-6 & C6-7	Recurrent + new symptoms	10
2.	Posterior surgery C6.	C6 Right	Anterior surgery C5-6	Recurrent symptoms	4
3.	Posterior surgery C7.	C7 Left	Anterior surgery C5-6 & C6-7	Recurrent + new symptoms	6
4.	Posterior surgery C6.	C6 Right	Anterior surgery C5-6	Recurrent symptoms ^a	10
5.	Posterior surgery C6.	C6 Left	Anterior surgery C5-6	New symptoms right	12
6.	Posterior surgery C6.	C6 Right	Anterior surgery C5-6	Recurrent symptoms	1
1.	Anterior surgery C5-6.	C6 Right	Posterior surgery C6	Recurrent symptoms	10
2.	Anterior surgery C5-6.	C6 Right	Anterior surgery C5-6	Removal intervertebral cage ^b	7
3.	Anterior surgery C6-7.	C7 Right	Anterior surgery C5-6	New symptoms right	2
4.	Anterior surgery C5-6.	C6 Right	Anterior surgery C6-7	New symptoms right	8

^a After the reoperation, the wound drain had to be surgically removed.

^b Cage was removed due to malposition and a low-grade infection.

SUPPLEMENTARY QUESTIONNAIRES

The assessment of the Odom criteria^{1,2} was provided to the independent, blinded interviewers in English. The patient reported outcome measures were provided to the participants in Dutch.

	FACET	Patient number _ _ - _ _ _ _
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Visit |_| T5 |_| T6 |_| T7 |_| T8

Were the Odom's criteria assessed? |_| No |_| Yes

If yes, date |_|_|-|_|_|_|_|-|_|_|_|_| (DDMMMJJJJ)

How would you classify the outcome of the operation regarding improvement of complaints and ability to perform daily activities?

Excellent: complete improvement of complaints referable to cervical pathology. Able to perform daily activities without limitations.

Good; moderate to large improvement of complaints referable to cervical pathology. Able to perform daily activities without significant limitations.

Satisfactory; slight improvement of complaints referable to cervical pathology. Significant limitations in daily activities.

Poor: no improvement or aggravation of complaints referable to cervical pathology. Not able to perform daily activities.

Name _____ Date |_|_|-|_|_|_|_|-|_|_|_|_|

Signature _____




FACET

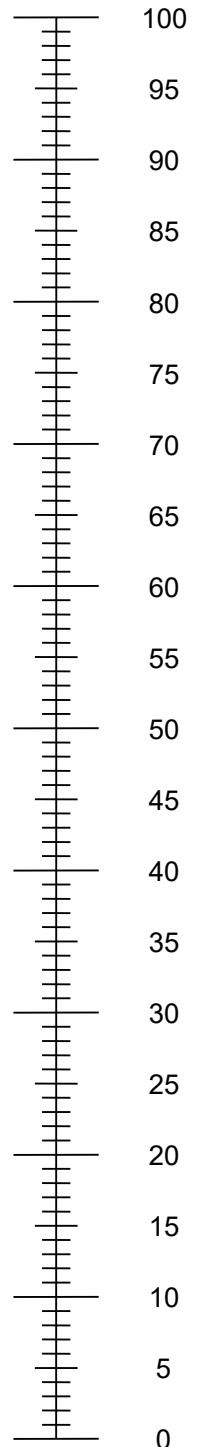
Studienummer |__|_|-|__|_|_|

Zet bij iedere groep in de lijst hieronder een kruisje in het hokje dat het best past bij uw gezondheid

MOBILITEIT	
Ik heb geen problemen met lopen	<input type="checkbox"/>
Ik heb een beetje problemen met lopen	<input type="checkbox"/>
Ik heb matige problemen met lopen	<input type="checkbox"/>
Ik heb ernstige problemen met lopen	<input type="checkbox"/>
Ik ben niet in staat om te lopen	<input type="checkbox"/>
ZELFZORG	
Ik heb geen problemen met mijzelf wassen of aankleden	<input type="checkbox"/>
Ik heb een beetje problemen met mijzelf wassen of aankleden	<input type="checkbox"/>
Ik heb matige problemen met mijzelf wassen of aankleden	<input type="checkbox"/>
Ik heb ernstige problemen met mijzelf wassen of aankleden	<input type="checkbox"/>
Ik ben niet in staat mijzelf te wassen of aan te kleden	<input type="checkbox"/>
DAGELIJKSE ACTIVITEITEN (bijv. werk, studie, huishouden, gezins- en vrijetijdsactiviteiten)	
Ik heb geen problemen met mijn dagelijkse activiteiten	<input type="checkbox"/>
Ik heb een beetje problemen met mijn dagelijkse activiteiten	<input type="checkbox"/>
Ik heb matige problemen met mijn dagelijkse activiteiten	<input type="checkbox"/>
Ik heb ernstige problemen met mijn dagelijkse activiteiten	<input type="checkbox"/>
Ik ben niet in staat mijn dagelijkse activiteiten uit te voeren	<input type="checkbox"/>
PIJN / ONGEMAK	
Ik heb geen pijn of ongemak	<input type="checkbox"/>
Ik heb een beetje pijn of ongemak	<input type="checkbox"/>
Ik heb matige pijn of ongemak	<input type="checkbox"/>
Ik heb ernstige pijn of ongemak	<input type="checkbox"/>
Ik heb extreme pijn of ongemak	<input type="checkbox"/>
ANGST / SOMBERHEID	
Ik ben niet angstig of somber	<input type="checkbox"/>
Ik ben een beetje angstig of somber	<input type="checkbox"/>
Ik ben matig angstig of somber	<input type="checkbox"/>
Ik ben erg angstig of somber	<input type="checkbox"/>


Ik ben extreem angstig of somber

	FACET	Studienummer _ _ - _ _ _ _
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UW GEZONDHEID =

De slechtste
gezondheid die u
zich kunt
voorstellen

	FACET	Studienummer __ _ - __ _ _
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Neck Disability Index

1. Pijn

0. Ik heb nu geen pijn
1. Ik heb nu weinig pijn
2. Ik heb nu matige pijn
3. Ik heb nu vrij hevige pijn
4. Ik heb nu zeer hevige pijn
5. Ik heb nu de slechtst denkbare pijn

2. Persoonlijke verzorging (wassen, aan- en uitkleden)

0. Ik kan goed voor mezelf zorgen zonder dat de pijn toeneemt
1. Ik kan goed voor mezelf zorgen hoewel dat de pijn doet toenemen
2. Voor mezelf zorgen is pijnlijk en gaat langzaam en voorzichtig
3. Voor mezelf zorgen lukt goed maar vaak met enige hulp
4. Elke dag voor mezelf zorgen lukt meestal alleen met hulp
5. Ik kan mezelf niet aankleden; mezelf wassen gaat moeilijk en ik blijf in bed

3. Tillen

0. Ik kan een zwaar gewicht tillen zonder dat de pijn toeneemt
1. Ik kan een zwaar gewicht tillen, maar dat doet de pijn toenemen
2. De pijn weerhoudt mij van het optillen van een zwaar gewicht van de grond, maar zou dat wel kunnen wanneer dat gewicht hoger (bijv. op een tafel) gelegen is
3. De pijn weerhoudt mij ervan om zware dingen op te tillen, maar het lukt me wel om lichte tot middelzware gewichten te tillen als ze makkelijk geplaatst zijn
4. Ik kan alleen zeer lichte gewichten tillen
5. Ik kan helemaal niets tillen of dragen

4. Lezen

0. Ik kan zo veel lezen als ik wil zonder pijn in mijn nek
1. Ik kan zo veel lezen als ik wil met weinig pijn in mijn nek
2. Ik kan zo veel lezen als ik wil met matige pijn in mijn nek
3. Ik kan niet zo veel lezen als ik zou willen vanwege de matige pijn in mijn nek
4. Ik kan bijna niet meer lezen vanwege de hevige pijn in mijn nek
5. Ik kan helemaal niet meer lezen

5. Hoofdpijn

0. Ik heb helemaal geen hoofdpijn
1. Ik heb af en toe lichte hoofdpijn
2. Ik heb af en toe matige hoofdpijn
3. Ik heb vaak matige hoofdpijn
4. Ik heb vaak hevige hoofdpijn
5. Ik heb bijna altijd hoofdpijn

6. Concentratie

0. Ik kan mij goed concentreren zonder moeite wanneer ik dat wil
1. Ik kan mij goed concentreren met enige moeite wanneer ik dat wil
2. Het kost mij duidelijk moeite om te concentreren wanneer ik dat wil
3. Het kost mij veel moeite om te concentreren wanneer ik dat wil
4. Het kost mij zeer veel moeite om te concentreren wanneer ik dat wil
5. Ik kan mij helemaal niet concentreren

7. Werk

0. Ik kan zo veel werk doen als ik wil
1. Ik kan alleen mijn gewone werk doen, maar niet meer
2. Ik kan het grootste deel van mijn gewone werk doen, maar niet meer
3. Ik kan mijn gewone werk niet doen
4. Ik kan bijna geen enkel werk meer doen
5. Ik kan helemaal niet meer werken

8. Autorijden


0. Ik kan autorijden zonder enige nekpijn
1. Ik kan autorijden zo lang als ik wil met weinig pijn in mijn nek
2. Ik kan autorijden zo lang als ik wil met matige pijn in mijn nek
3. Ik kan niet autorijden zo lang als ik wil vanwege de matige pijn in mijn nek
4. Ik kan bijna niet meer autorijden vanwege de hevige pijn in mijn nek
5. Ik kan helemaal niet meer autorijden

9. Slapen

0. Ik heb geen moeite met slapen
1. Mijn slaap is heel licht gestoord (minder dan 1 uur wakker)
2. Mijn slaap is licht gestoord (1 tot 2 uur wakker)
3. Mijn slaap is matig gestoord (2 tot 3 uur wakker)
4. Mijn slaap is fors gestoord (3 tot 5 uur wakker)
5. Mijn slaap is volledig gestoord (5 tot 7 uur wakker)

10. Vrije tijd

0. Ik kan aan alle activiteiten meedoen zonder enige pijn in mijn nek
1. Ik kan aan alle activiteiten meedoen met enige pijn in mijn nek
2. Vanwege de pijn in mijn nek kan ik aan de meeste, maar niet alle, gebruikelijke activiteiten meedoen
3. Vanwege de pijn in mijn nek kan ik aan maar weinig gebruikelijke activiteiten meedoen
4. Vanwege de pijn in mijn nek kan ik nagenoeg aan geen activiteiten meedoen
5. Ik kan aan geen enkele activiteit meer meedoen

	FACET	Studienummer _ _ - _ _ _
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WAI (Single item)

Veronderstel dat uw werkvermogen in de beste periode van uw leven een waarde van 10 punten bedroeg. Hoeveel punten zou u dan aan het huidige werkvermogen toekennen?

(‘0’ betekent dat u momenteel geheel niet in staat bent om te werken, ‘10’ betekent dat uw werkvermogen zich in de beste periode van uw leven bevindt)

geheel niet		werkvermogen in
in staat om	O ₀ O ₁ O ₂ O ₃ O ₄ O ₅ O ₆ O ₇ O ₈ O ₉ O ₁₀	beste periode
te werken		van uw leven

TEVREDENHEID NA OPERATIE

Hoe tevreden bent u over de uitkomst van de operatie? (één antwoord aanvinken)

- Zeer tevreden
- Tevreden
- Enigszins tevreden
- Niet tevreden, niet ontevreden
- Enigszins ontevreden
- Ontevreden
- Zeer ontevreden

Welke verandering van klachten heeft u bemerkt sinds het ontstaan van deze klachten? (één antwoord aanvinken)

- Volledig herstel van klachten
- Bijna volledig herstel van klachten
- Enig herstel van klachten
- Klachten gelijk gebleven
- Enige verslechtering van klachten
- Ernstige verslechtering van klachten
- Klachten erger dan ooit

TRANSLATED QUESTIONNAIRES

Visual Analogue Scale³

Date

|_|_|-|_|_|_|-|_|_|_| (DDMMMYYYY)

VAS arm pain

How would you rate the pain in your arm on average in the last 7 days on 0-100mm scale?
("0" stands for no pain at all, "100" stands for the worst possible pain)

	<hr/>		
	0	100	

VAS arm pain =

VAS neck pain

How would you rate the pain in your neck on average in the last 7 days on 0-100mm scale?
("0" stands for no pain at all, "100" stands for the worst possible pain)

	<hr/>		
	0	100	

VAS neck pain =

Neck Disability Index^{4,5}

1. Pain Intensity

- 0 I have no pain at the moment
- 1 The pain is very mild at the moment
- 2 The pain is moderate at the moment
- 3 The pain is fairly severe at the moment
- 4 The pain is very severe at the moment
- 5 The pain is the worst imaginable at the moment

2. Personal care (washing, dressing etc)

- 0 I can look after myself normally without causing extra pain
- 1 I can look after myself normally but it is very painful
- 2 It is painful to look after myself and I am slow and careful
- 3 I need some help but manage most of my personal care
- 4 I need help every day in most aspects of self-care
- 5 I do not get dressed, wash with difficulty and stay in bed

3. Lifting

- 0 I can lift heavy weights without extra pain
- 1 I can lift heavy weights but it gives extra pain
- 2 Pain prevents me from lifting weights off the floor but I can manage if they are conveniently positioned, e.g. on a table
- 3 Pain prevents me from lifting weights off the floor but I can manage light to medium weights if they are conveniently positioned
- 4 I can lift only very light weights
- 5 I cannot lift or carry anything at all

4. Reading

- 0 I can read as much as I want to with no pain in my neck
- 1 I can read as much as I want to with slight pain in my neck
- 2 I can read as much as I want to with moderate pain in my neck
- 3 I cannot read as much as I want because of moderate pain in my neck
- 4 I can hardly read at all because of severe pain in my neck
- 5 I cannot read at all

5. Headaches

- 0 I have no headaches at all
- 1 I have slight headaches which come infrequently
- 2 I have moderate headaches which come infrequently
- 3 I have moderate headaches which come frequently
- 4 I have severe headaches which come frequently
- 5 I have headaches almost all the time

6. Concentration

- 0 I can concentrate fully when I want to with no difficulty
- 1 I can concentrate fully when I want to with slight difficulty
- 2 I have a fair degree of difficulty in concentrating when I want to
- 3 I have a lot of difficulty concentrating when I want to
- 4 I have a great deal of difficulty concentrating when I want to
- 5 I cannot concentrate at all

7. Work

- 0 I can do as much work as I want to
- 1 I can only do my usual work, but no more
- 2 I can do most of my usual work, but no more
- 3 I cannot do my usual work
- 4 I can hardly do any work at all
- 5 I cannot do any work at all

8. Driving

- 0 I can drive my car without any neck pain
- 1 I can drive my car as long as I want with slight pain in my neck
- 2 I can drive my car as long as I want with moderate pain in my neck
- 3 I cannot drive my car as long as I want because of moderate pain in my neck
- 4 I can hardly drive at all because of severe pain in my neck
- 5 I cannot drive my car at all

9. Sleeping

- 0 I have no trouble sleeping
- 1 My sleep is slightly disturbed (less than 1 hour sleepless)
- 2 My sleep is mildly disturbed (1-2 hours sleepless)
- 3 My sleep is moderately disturbed (2-3 hours sleepless)
- 4 My sleep is greatly disturbed (3-5 hours sleepless)
- 5 My sleep is completely disturbed (5-7 hours)

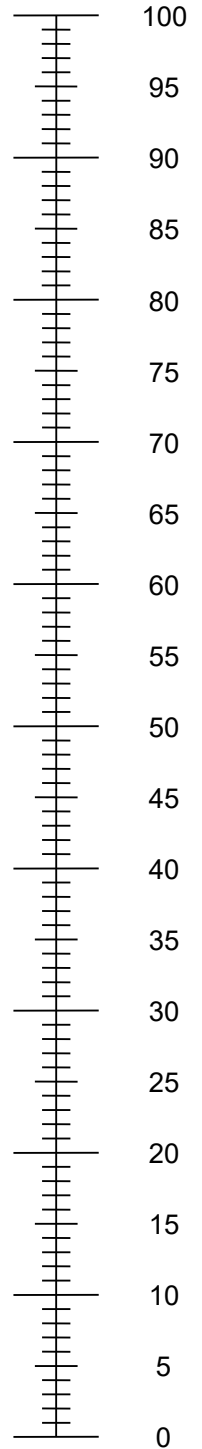
10. Recreation

- 0 I am able to engage in all of my recreational activities with no neck pain at all
- 1 I am able to engage in all of my recreational activities with some pain in my neck
- 2 I am able to engage in most, but not all of my recreational activities because of pain in my neck
- 3 I am able to engage in a few of my recreational activities because of pain in my neck
- 4 I can hardly do any recreational activities because of pain in my neck
- 5 I cannot do any recreational activities at all

EuroQol 5 Dimensions 5 level Survey⁶⁻⁸

Under each heading, please tick the ONE box that best describes your health TODAY.	
MOBILITY	
I have no problems in walking about	<input type="checkbox"/>
I have slight problems in walking about	<input type="checkbox"/>
I have moderate problems in walking about	<input type="checkbox"/>
I have severe problems in walking about	<input type="checkbox"/>
I am unable to walk about	<input type="checkbox"/>
SELF-CARE	
I have no problems washing or dressing myself	<input type="checkbox"/>
I have slight problems washing or dressing myself	<input type="checkbox"/>
I have moderate problems washing or dressing myself	<input type="checkbox"/>
I have severe problems washing or dressing myself	<input type="checkbox"/>
I am unable to wash or dress myself	<input type="checkbox"/>
USUAL ACTIVITIES (e.g. work, study, housework, family or leisure activities)	
I have no problems doing my usual activities	<input type="checkbox"/>
I have slight problems doing my usual activities	<input type="checkbox"/>
I have moderate problems doing my usual activities	<input type="checkbox"/>
I have severe problems doing my usual activities	<input type="checkbox"/>
I am unable to do my usual activities	<input type="checkbox"/>
PAIN / DISCOMFORT	
I have no pain or discomfort	<input type="checkbox"/>
I have slight pain or discomfort	<input type="checkbox"/>
I have moderate pain or discomfort	<input type="checkbox"/>
I have severe pain or discomfort	<input type="checkbox"/>
I have extreme pain or discomfort	<input type="checkbox"/>
ANXIETY / DEPRESSION	
I am not anxious or depressed	<input type="checkbox"/>
I am slightly anxious or depressed	<input type="checkbox"/>
I am moderately anxious or depressed	<input type="checkbox"/>
I am severely anxious or depressed	<input type="checkbox"/>
I am extremely anxious or depressed	<input type="checkbox"/>

The best health
you can imagine



YOUR HEALTH =

The worst health
you can imagine

Satisfaction score¹¹

How satisfied are you about the surgery? (mark 1 answer)

- Completely satisfied
- Satisfied
- Somewhat satisfied
- Not satisfied, not dissatisfied
- Somewhat dissatisfied
- Dissatisfied
- Extremely dissatisfied

How did your complaints change since the start of the treatment? (mark 1 answer)

- Completely improved
- Improved
- Somewhat improved
- Not improved, not worsened
- Somewhat worsened
- Worsened
- Extremely worsened

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