# **Supplementary files**

Oostendorp RAB, Elvers JWH, van Trijffel E, Rutten GM, Scholten–Peeters GGM, Heijmans M, Hendriks E, Mikolajewska E, De Kooning M, Laekeman M, Nijs J, Roussel N, Samwel H.

Relationships Between Context, Process, and Outcome Indicators to Assess Quality of Physiotherapy Care in Patients with Whiplash-Associated Disorders: Applying Donabedian's Model of Care.

#### Patient Preference and Adherence. In Press 2020.

Adapted from Oostendorp RA, Elvers H, van Trijffel E, et al. Has the quality of physiotherapy care in patients with Whiplash-associated disorders (WAD) improved over time? A retrospective study using routinely collected data andquality indicators. Patient Prefer Adherence. 2018;12:2291–2308. Copyright © 2018 Oostendorp et al. This work is published and licensed by Dove Medical Press Limited The full terms of this license are available at: https://www.dovepress.com/terms.php and incorporate the Creative Commons Attribution – Non Commercial (unported, v3.0) License (http://creativecommons.org/licenses/by-nc/3.0/). By accessing the work you hereby accept the Terms. Non-commercial uses of the work are permitted without any further permission from Dove Medical Press Limited, providedt he work is properly attributed.

**Supplementary file 1.** Overview of variables of context (n=9), process (n=9), outcome (n=7) and structure (n=2) indicators for physiotherapy in patients with Whiplash-Associated Disorders (WAD).

*Supplementary file 2.* Variables per context indicator in patients with Whiplash-Associated Disorders (WAD).

*Supplementary file 3.* Variables per process indicator in patients with Whiplash-Associated Disorders (WAD).

#### Supplementary file 4.

Variables per outcome indicator in patients with Whiplash-Associated Disorders (WAD).

#### Supplementary file 1.

Overview of variables of context (n=9), process (n=9), outcome (n=7) and structure (n=2) indicators for physiotherapy in patients with Whiplash-Associated Disorders (WAD)

I Context indicators	
Indicator 1: Patient's information	
Year of referral	Interval: 1996 - 2011
Referral	
- General practitioner	Interval: number
<ul> <li>Medical specialist</li> </ul>	Interval: number
- Self-referral (since 2006)	Interval: number
Indicator 2: Patient's request for help	
Patient's request for care	Nominal: reducing pain; explaining consequences of whiplash; improving function; increasing
	activity and participation
Indicator 3: Patient's sociodemographic characteristics	
Age	Interval: age in years at start
Gender	Nominal: female; male
Education	Nominal: low; advanced; high
Employment status	Nominal: not employed; employed; retired
Indicator 4: Accident related information	
Direction of impact	Dichotomous: back; other
Anticipated collision	Dichotomous: no; yes
Type of trauma	Ordinal: neck trauma without direct head trauma; neck trauma with direct head trauma;
	other type of neck trauma; unknown
Time of onset of whiplash-related complaints	Ordinal: immediately; ≤ 2 days; 3-7 days; > 1 week
Indicator 5: Pre-existent functioning	
Pre-existent activity limitations	Dichotomous: no; yes
Pre-existent participation problems	Dichotomous: no; yes
Pre-existent job-related problems	Dichotomous: no; yes
Indicator 6: Pre-existent health status before injury	

Relevant medication use	Dichotomous: no; yes
Previous history of neck injury	Dichotomous: no; yes
Previous neck pain and stiffness	Dichotomous: no; yes
Previous pain else	Dichotomous: no; yes
Indicator 7: Previous diagnostics and treatment	
Medical imaging neck diagnostics	Dichotomous: no; yes
Cervical soft collar after trauma	Dichotomous: no; yes
	Interval: if yes, number of weeks
Pain medication	Dichotomous: no; yes
Modalities of (manual) physiotherapy	Code of Classification of Physiotherapy Modalities <sup>#</sup>
Recovery after previous treatment	Ordinal: fully recovered; partially recovered; stabilization; deterioration; inestimable
Indicator 8: Current health status	
Activity limitations	Dichotomous: no; yes
Participation problems	Dichotomous: no; yes
Job-related problems	Dichotomous: no; yes
Pain medication	Dichotomous: no; yes
Current type and number of complaints	Ordinal: $\leq 3$ : neck pain, stiffness, decreased range of neck motion; 4-6: + dizziness,
	headache and tinnitus; 7-9:+ cognitive impairments; > 9: + rest
Type of signs and symptoms	Ordinal: type 1: neck symptoms (pain, stiffness and tenderness) and no physical sign; type 2:
	+ decreased range of motion; type 3: + neurological signs
Indicator 9: Recovery since accident and previous progn	ostic factors
Estimation of previous coping	Ordinal: active; inestimable; passive
Estimation of previous fear avoidance	Ordinal: no; inestimable; yes
Classification Whiplash-Associated Disorders (WAD)	Ordinal:
	WAD 0: no neck symptoms, no physical sign(s);
	WAD 1: neck pain, stiffness or tenderness only, no physical sign(s);
	WAD 2: neck symptoms and musculoskeletal sign(s);
	WAD 3: neck symptoms and neurological sign(s);
	WAD 4: neck symptoms and fracture or dislocation
Time phase since accident	Ordinal: phase 1: < 7 days; phase 2: 1-3 weeks; phase 3a (normal recovery) and phase 3b
	(delayed recovery): 4-6 weeks; phase 4a (normal recovery) and phase 4b (delayed recovery): 7-
	12 weeks; phase 5 (chronic): 3-6 months; phase 6 (chronic): > 6 months
Recovery rate since accident	Nominal: normal; inestimable; delayed

Determination of health profile	Ordinal: Profile A: normal recovery, low intensity of pain, decreasing pain, increasing activities; active coping, no fear avoidance Profile B: inestimable recovery, middle intensity of pain, persistent pain, persistent activity limitations; inestimable coping, inestimable fear avoidance Profile C: delayed recovery, high intensity of pain, increasing pain, decreasing activities; passive coping, fear avoidance
<ul> <li>Added prognostic factors related to recovery:</li> <li>Inventory of prognostic non-organic modified Waddell's signs: (1) superficial tenderness, (2) non- anatomical tenderness, (3) pain simulation test, (4) cervical range of motion, (5) regional disturbance, (6) overreaction (since 2001)</li> <li>Estimation of central sensitization (since 2009)</li> </ul>	
	Nominal: no; inestimable; yes
II. Process indicators	
Indicator 10: Objectives of examination	
Objectives of musculoskeletal examination	Dichotomous: no; yes
Objectives of neurological examination	Dichotomous: no; yes
Objectives of oto-neurological examination (since 2000)	Dichotomous: no; yes
Objectives of psychological examination (since 2000)	Dichotomous: no; yes
Indicator 11: Musculoskeletal examination	
Observation of posture	Dichotomous: no; yes
Active range of motion	Dichotomous: no; yes
Passive range of motion	Dichotomous: no; yes
Palpation	Dichotomous: no; yes
Indicator 12: Neurological examination	
Sensory functions and pain	Dichotomous: no; yes
Muscle functions	Dichotomous: no; yes
Reflexes	Dichotomous: no; yes
Coordination	Dichotomous: no; yes
Indicator 13: Oto-neurological examination (since 2000)	
Standing and gait testing	Dichotomous: no; yes

Dizziness test	Dichotomous: no; yes	
Positional test	Dichotomous: no; yes	
Eye movement test	Dichotomous: no; yes	
Indicator 14: Psychological examination		
Observation of pain behavior (since 2000)	Dichotomous: no; inestimable; yes	
Pain Coping Inventory (PCI) (since 2002)	Score: 1: hardly ever; 4:very often	
	PCI-Active: interval: range score 12-48 (cutoff point $\geq$ 24)	
	PCI-Passive: Interval: range score 21-84 (cutoff point ≥ 42)	
Fear Avoidance Beliefs Questionnaire-Dutch Version	Score: 0 (strongly disagree); 6 (strongly agree)	
(FABQ-DV) (since 2002):	FABQ-DV-Activities: interval: range score 0-24 (cutoff point > 15)	
	FABQ-DV-work: interval: range score 0-42 (cutoff point > 34)	
Indicator 15: Conclusion diagnostic process		
Contact with general practitioner (GP) about	Dichotomous: no; yes	
physiotherapy indication		
Indication physiotherapy	Nominal: no; doubtful; yes	
Indicator 16: Treatment goals per phase after whiplash	-related accident	
Treatment goals		
Phase 1: <7 days (number): reducing pain; providing	Dichotomous: no; yes	
information and explaining the functioning		
consequences and underlying pain mechanisms		
Phase2: 1-3 weeks (number): see Phase 1 + improving	Dichotomous: no; yes	
functions		
Phase 3a (normal recovery): 4 – 6 weeks (number): see	Dichotomous: no; yes	
Phase 2 + increasing activities and participation		
Phase 3b (delayed recovery): 4 – 6 weeks (number):	Dichotomous: no; yes	
explaining underlying pain mechanisms, improving active		
coping, decreasing fear avoidance, increasing physical		
capacity, increasing activities and participation		
Phase 4a (normal recovery): 7 – 12 weeks (number):	Dichotomous: no; yes	
see Phase 3a + minimizing delay in work participation		
Phase 4b (delayed recovery): 7 – 12 weeks (number): see	Dichotomous: no; yes	
Phase 3b		

Phase 5 (chronic): 3 – 6 months (number): see Phase	Dichotomous: no; yes
3b Phase 6 (chronic): > 6 months (number): see Phase 3b	Dichotomous: no; yes
Treatment plan in agreement with patient	Dichotomous: no; yes
Estimation of treatment period	Ordinal: not estimable; < 1 month; 2-3 months; 4-6 months; > 6 months
Estimation number of treatment sessions	Ordinal: not estimable; < 5 sessions; 5-10; 11-15; 16-20; > 20
Indicator 17: Treatment (Manual) physiotherapy modalit	
Physiotherapy modalities with best available evidence in	
agreement with treatment goals per phase since	
whiplash-related accident	
Phase 1 (number): Education, coaching, active	Dichotomous: no; yes
exercise therapy	
Phase 2 (number): See Phase 1 + cervical soft collar (<	Dichotomous: no; yes
1 week), massage therapy (< 2 weeks)	Dichotomous. no, yes
Phase 3a (number): See Phase 1 + active physical	
loading exercise therapy	Dichotomous: no; yes
Phase 3b (number): Pain education, coaching, active	
exercise therapy based on cognitive and physical	Dichotomous: no; yes
principles	
Phase 4a (number): See Phase 3a + active	Dichotomous: no; yes
exercise therapy (graded activity)	
Phase 4b (number): See Phase 3b + active exercise	Dichotomous: no; yes
therapy (graded exposure)	
Phase 5 (number): See Phase 4b	Dichotomous: no; yes
Phase 6 (number): See Phase 5	Dichotomous: no; yes
Indicator 18: Side effects	
Check for treatment side or adverse effects	Dichotomous: no; yes
III. Outcome indicators	
Indicator 19: Intermediate evaluation	
Frequency	Nominal: no; weekly; monthly
	Normal no, weeky, monthly

If necessary, adjustment of treatment goals and	Dichotomous: no; yes	
treatment modalities		
Contact physician if insufficient treatment result	Dichotomous: no; yes	
Indicator 20: Subjective final evaluation		
Subjective evaluation	Dichotomous: by asking; by asking + treatment goals	
Return to work participation	Ordinal: no; not employed; employed with adjustments; employed without adjustments; retired	
Indicator 21: Objective final evaluation		
Pain intensity (Visual Analogue Scale [VAS]) (since 2002)	Interval: range score 0-100 (≤ 30: functionally recovered); pre- and posttreatment	
Functioning (Neck Disability Index [NDI]) (since 2002)	Interval: range score 0-50 (≤ 14: functionally recovered); pre- and posttreatment	
Indicator 22: Global perceived effect		
Evaluation by Global Perceived Effect (GPE) (since 2002)	Ordinal: range score 1 – 6: 1: complete improved; 2: much improved; 3: slightly improved; 4: no change; 5: slightly worse; 6: much worse (than ever)	
Indicator 23: Treatment duration and number of sessions		
Duration of treatment period	Ordinal: < 1 month; 2-3 months; 4-6 months; > 6 months	
Number of treatment sessions	Ordinal: < 5 sessions; 5-10 session; 11-15 sessions; 16-20 sessions; >20 sessions	
Indicator 24: Discharge		
Reason for discharge	Ordinal: maximal result; optimal result; minimal result (slightly improved or deteriorated); no result	
Written report	Dichotomous: no; yes	
Indicator 25: Aftercare		
Arrangement of aftercare (since 2003)	Dichotomous: no; yes	
IV. Structure indicators		
Indicator 26: Physiotherapy practice		
Number of physiotherapy practice	Interval: number	
Number of participating physiotherapists	Interval: number	
Indicator 27: Physiotherapist's sociodemographic characteristics		
Clinical experience	Interval: years at start	
Specialized experience	Interval: years at start	
Age	Interval: age in years at start	
Gender	Nominal: female; male	

Legend:

# Classification of Physiotherapy Modalities (Heerkens Y, Heuvel J van den, Klaveren T van, Ravensberg D van, Heuvel C van den, Meeteren N van. Classification Allied Health Care – version Physiotherapy. Amersfoort: Nederlands Paramedisch Instituut; 1995):

- 1. History taking
- 2. Inspection and observation
- 3. Palpation
- 4. Active exercise therapy
- 5. Passive exercise therapy (including manual therapy)
- 6. Massage therapy
- 7. Modalities of physical therapy (i.e. low- and high frequency electrotherapy)
- 8. Coaching
- 9. Education (including pain education)

### Supplementary file 2.

# Variables per context indicator in patients with Whiplash-Associated Disorders (WAD)

Description of contact indicator	Total
Description of context indicator	N=810
	n (%) / mean (SD)
Indicator 1: Patient's information	
Year of referral 1996 – 2011	810 (100)
Referral	
- General physician	549 (67.8)
- Medical specialist	164 (20.2)
- Self-referral (since 2005)	97 (12.0)
Indicator 2: Request for care	
Patient's request for care	
- Reducing pain	759 (93.7)
<ul> <li>+ Explaining consequences of whiplash</li> </ul>	12 (1.5)
<ul> <li>+ Improving functions</li> </ul>	38 (4.7)
<ul> <li>+ Increasing activities and participation</li> </ul>	1 (0.1)
Indicator 3: Patient's sociodemographic characteristics	
Age (year) (mean; SD)	43.5 (12.5)
Gender (female)	586 (72.3)
Educational level	
- Low	450 (55.6)
- Intermediate	237 (29.3)
- High	123 (15.2)
Employment status	
- Not employed	214 (26.4)
- Employed	510 (62.0)
- Retired	86 (10.6)
Indicator 4: Accident-related information	
Direction of impact (back)	513 (63.3)

Anticipated collision (no)	583 (72.0)
Type of trauma	
<ul> <li>Neck trauma without head trauma</li> </ul>	572 (70.6)
<ul> <li>Neck trauma with head trauma</li> </ul>	198 (24.4)
- Other trauma	40 (4.9)
- Unknown	-
Time of onset whiplash-related complaints	
- Immediately	145 (17.9)
- ≤ 2 days	556 (68.9)
- 3-7 days	109 (13.5)
- >1 week	-
Indicator 5: Pre-existent functioning	
Pre-existent functioning problems	
<ul> <li>Pre-existent activity limitation (yes)</li> </ul>	125 (15.4)
<ul> <li>Pre-existent participation problems (yes)</li> </ul>	109 (13.5)
<ul> <li>Pre-existent Job-related problems (yes)</li> </ul>	93 (11.5)
Indicator 6: Pre-existent health status before injury	
Relevant medication use (yes)	107 (13.2)
Previous history of neck injury (yes)	81 (10.0)
Previous neck pain and stiffness (yes)	144 (17.8)
Pain else (yes)	150 (15.8)
Indicator 7: Previous diagnostics and treatment	
Medical imaging neck diagnostics (yes)	178 (22.0)
Cervical soft collar (yes)	515 (63.6)
- Weeks (mean; SD)	3.9 (2.0)
Pain medication (yes)	369 (45.6)
(Manual) physiotherapy (yes)	332 (40.0)
Recovery after previous treatment	
- Fully recovered	-
- Partially recovered	43 (5.3)
- Stabilization	263 (32.5)
- Deterioration	314 (38.8)

- Inestimable	190 (23.5)
Indicator 8: Current health status	
Current functioning problems	
- Activity limitation (yes)	688 (84.9)
<ul> <li>Participation problems (yes)</li> </ul>	712 (87.9)
<ul> <li>Job-related problems (yes)</li> </ul>	312 (38.5)
Current pain medication (yes)	242 (29.9)
Current type and number of complaints	
<ul> <li>≤ 3: neck pain, stiffness, decreased ROM<sup>#</sup></li> </ul>	6 (0.7)
<ul> <li>4-6: + dizziness, headache and tinnitus</li> </ul>	374 (46.2)
- 7-9: + cognitive impairments	424 (52.3)
- > 9: + rest	6 (0.7)
Current type of signs and symptoms	
<ul> <li>Neck symptoms (pain, stiffness and tenderness)</li> </ul>	114 (14.1)
<ul> <li>Neck symptoms + decreased ROM<sup>#</sup></li> </ul>	559 (69.0)
<ul> <li>Neck symptoms + decreased ROM<sup>#</sup> + neurological signs</li> </ul>	137 (16.9)
Indicator 9: Recovery since accident and previous prognostic factors	
Estimation of coping	
- Active	329 (40.7)
- Inestimable	38 (3.7)
- Passive	443 (54.7)
Estimation fear avoidance	
- No	146 (18.2)
- Inestimable	197 (24.3)
- Yes	467 (57.7)

Classification WAD <sup>##</sup>	
- WAD 0	-
- WAD 1	123 (15.2)
- WAD 2	555 (68.5)
- WAD 3	132 (16.3)
- WAD 4	-
Time phase since accident	
- > 7 days	19 (2.3)
- 1 – 3 weeks	140 (17.3)
- 4 – 6 weeks	192 (23.7)
- 7 -12 weeks	183 (22.6)
- 3 – 6 months	155 (19.1)
- > 6 months	121 (14.9)
Recovery rate since accident	
- Normal	-
- Inestimable	369 (45.6)
- Delayed	441 (54.4)
Determination of health profile <sup>###</sup>	
- Profile A	184 (22.7)
- Profile B	350 (43.2)
- Profile C	276 (34.1)

Legend:

SD = standard deviation

# ROM: Range of Motion

## Classification WAD: Whiplash-Associated Disorders:

- WAD 0: no neck symptoms, no physical sign(s);
- WAD 1: neck pain, stiffness or tenderness only, no physical sign(s);
- WAD 2: neck symptoms and musculoskeletal sign(s);
- WAD 3: neck symptoms and neurological sign(s);
- WAD 4: neck symptoms and fracture or dislocation;

### Health Profile:

- Profile A: normal recovery, low intensity of pain, decreasing pain, increasing activities, active coping, no fear avoidance
- Profile B: inestimable recovery, middle intensity of pain, persistent pain, persistent activity limitations, inestimable coping, inestimable fear avoidance
- Profile C: delayed recovery, high intensity of pain, increasing pain, decreasing activities, passive coping, fear avoidance

# Supplementary file 3.

# Variables per process indicator in patients with Whiplash-Associated Disorders (WAD)

Description of process indicators	Total
	N=810
Indicator 10: Objectives of examination	n (%) / mean (SD)
	040 (400)
Objectives musculoskeletal examination (yes)	810 (100)
Objectives neurological examination (yes)	136 (16.8)
Objectives oto-neurological examination (since 2000; n=621) (yes)	377 (60.7)
Objectives psychological examination (since 2000; n=621) (yes)	577 (92.9)
Indicator 11: Musculoskeletal examination	
Observation of posture (yes)	810 (100)
Active examination of neck function (yes)	810 (100)
Passive examination of neck function (yes)	810 (100)
Palpation of tender points (yes)	810 (100)
Indicator 12: Neurological examination	
Sensory testing and pain (yes)	136 (16.8)
Motor testing (yes)	130 (16.0)
Reflex testing (yes)	130 (16.0)
Coordination testing (yes)	91 (11.2)
Indicator 13: Oto-neurological examination (since 2000; n=621)	
Standing tests (yes)	346 (55.7)
Walking tests (yes)	366 (58.9)
Dizziness tests (yes)	376 (60.5)
Nystagmus tests (yes)	376 (60.5)
Indicator 14: Psychological examination	
Observation of pain behavior (since 2000; n=621) (yes)	577 (92.9)
Questionnaire: Pain Coping Inventory (PCI) <sup>#</sup> (since 2002; n=523)	
- Active coping	

- Score 12-48 (mean: 95% CI)	27.1 (26.6-27.6)
- Cutoff point: $\geq 24$	396 (75.7)
- Passive coping	
- Score 21-84 (mean; 95   % CI)	54.2 (53.1-55.3)
- Cutoff point: $\geq$ 42)	416 (79.5)
Questionnaire: Fear Avoidance Beliefs Questionnaire (FABQ-DV) <sup>##</sup> (since 2002; n=523)	
- FABQ-DV-Activities (n=523)	
- Score: 0-24 (mean; 95% CI)	16.0 (15.7-16.3)
<ul> <li>Cutoff point &gt; 15)</li> </ul>	346 (66.2)
- FABQ-DV-Work (n=354)	
- Score: 0-42 (mean; 95% CI)	29.3 (28.5-30.1)
- Cut off point > 34)	135 (38.1)
Indicator 15: Conclusion diagnostic process	
Consultation with physician about physiotherapy indication (yes)	247 (30.5)
Indication physiotherapy (yes)	810 (100)
Indicator 16: Treatment goals per phase after accident	
. Phase 1 (n=19): <7 days: reducing pain; providing information and explaining the functioning consequences and	11 (57.9)
underlying pain mechanisms (yes)	
. Phase 2 (n=140): 1-3 weeks: see Phase 1 + improving functions (yes)	82 (58.6)
. Phase 3a (inestimable recovery) (n=17): 4 – 6 weeks: see Phase 2 + increasing activities and participation (yes)	12 (70.6)
. Phase 3b (delayed recovery) (n=175): 4 – 6 weeks: explaining underlying pain mechanisms, improving active coping,	96 (54.9)
decreasing fear avoidance, increasing physical capacity, increasing activities and participation (yes)	
. Phase 4a (inestimable recovery) (n=8): 7 – 12 weeks: see Phase 3a + minimizing delay in work participation (yes)	5 (62.5)
. Phase 4b (delayed recovery) (n=175): 7 – 12 weeks: see Phase 3b (n=175) (yes)	124 (70.9)
. Phase 5 (chronic) (n=155): 3 – 6 months: see Phase 3b (n=155) (yes)	128 (82.6)
. Phase 6 (chronic) (n=121): > 6 months: see Phase 3b (n=121) (yes)	71 (58.7)
Estimation duration of treatment period	
- inestimable	64 (7.9)
- <1 month	1 (0.1)
- 2-3 months	230 (28.4)
- 4-6 months	516 (63.7)
- > 6 months	-
Estimation number of treatment sessions	

77 (.9.5)		
1 (0.1)		
1 (0.1)		
252 (31.1)		
313 (38.6)		
166 (20.5)		
810 (100)		
Indicator 17: Treatment physiotherapy modalities per phase in agreement with treatment goals		
9 (81.8)		
67 (81.7)		
10 (83.3)		
80 (83.3)		
3 (60.0)		
107 (86.3)		
110 (85.9)		
56 (78.9)		
810 (100)		

#### Legend:

# Pain Coping Inventory (PCI): 33-items questionnaire measuring active coping (PCI-Active: 12 items [score: 12-48]; ≥ 24 active coping) and passive coping (PCI-P: 21 items [score: 21-84]; ≥ 42 passive coping). Items are scored om a 4-point Likert scale ranging from 1 (hardly ever) to 4 (very often);

<sup>##</sup> Fear Avoidance Beliefs Questionnaire- Dutch Version (FABQ-DV: 16-items questionnaire measuring fear avoidance beliefs about physical activities (FABQ-DV-Activities: 4 items [range score: 0-24]; > 15 at risk for pain avoiding behavior); work-related activities (FABQ-DV-Work: 7 items [range score: 0-42]; > 34 at risk for no return to work). Items are scored on a 7-point Likert scale ranging from 0 (completely disagree) to 6 (completely agree).

### Supplementary file 4.

# Variables per outcome indicator in patients with Whiplash-Associated Disorders (WAD)

Description of outcome indicators	Total
	N=810
	n (%) / mean (95% CI)
Indicator 19: Intermediate evaluation	
Frequency	
- Weekly	790 (97.5)
- Monthly	20 (2.5)
Type of evaluation	
- By asking	625 (77.2)
<ul> <li>By asking + treatment goals</li> </ul>	185 (22.8)
If necessary, adjustment of treatment goals and modalities (yes)	185 (22.8)
Contact physician if insufficient treatment result (yes)	247 (30.5)
Indicator 20: Subjective final evaluation	
Subjective evaluation	
- By asking	315 (38.9)
<ul> <li>By asking + treatment goals</li> </ul>	495 (61.1)
Returned to work participation	
- Not employed	228 (28.1)
<ul> <li>Employed with adjustments</li> </ul>	313 (38.6)
<ul> <li>Employed without adjustments</li> </ul>	184 (22.7)
- Retired	85 (10.5)
Indicator 21: Objective final evaluation	
Pain intensity - Visual Analogue Scale Pain (VAS-P) (since 2002; n=523)	
- Score 0-100 (mean; 95% CI)	29.6 (28.4-30.7)
- ≤ 30: functionally recovered	310 (59.3)
Functioning - Neck Disability Index (NDI) (since 2002; n=523)	
- Score 0-50 (mean; 95% CI)	15.9 (15.1-16.6)
<ul> <li>≤ 14: functionally recovered</li> </ul>	191 (36.5)

Indicator 22: Global Perceived Effect	
Evaluation by Global Perceived Effect (GPE: 0-6) (since 2002; n=523)	
- 1 + 2: Complete / much recovered and improved	241 (46.1)
- 3 + 4 + 5: Slightly improved / worse	282 (53.9)
Indicator 23: Treatment duration and number of sessions	
Duration of treatment period	
- <1 month	-
- 2-3 months	280 (34.6)
- 4-6 months	501 (61.9)
- > 6 months	29 (3.6)
Number of treatment sessions	
- <5	2 (0.2)
- 5-10	10 (1.2)
- 11-15	329 (40.6)
- 16-20	405 (50.0)
- >20	64 (7.9)
Indicator 24: Discharge	
Reason for discharge (since 2002; n=523)	
- Maximal result	34 (4.5)
- Optimal result	207 (39.6)
- Minimal result	199 (38.0)
- No result	83 (15.9)
Written report (yes)	810 (100)
Indicator 25: Aftercare	
Arrangement of aftercare (since 2003; n=457) (yes)	151 (33.0)