Das Keele STarT Back Screening Tool – ein Instrument zur abgestuften Therapiezuweisung bei Kreuzschmerzen

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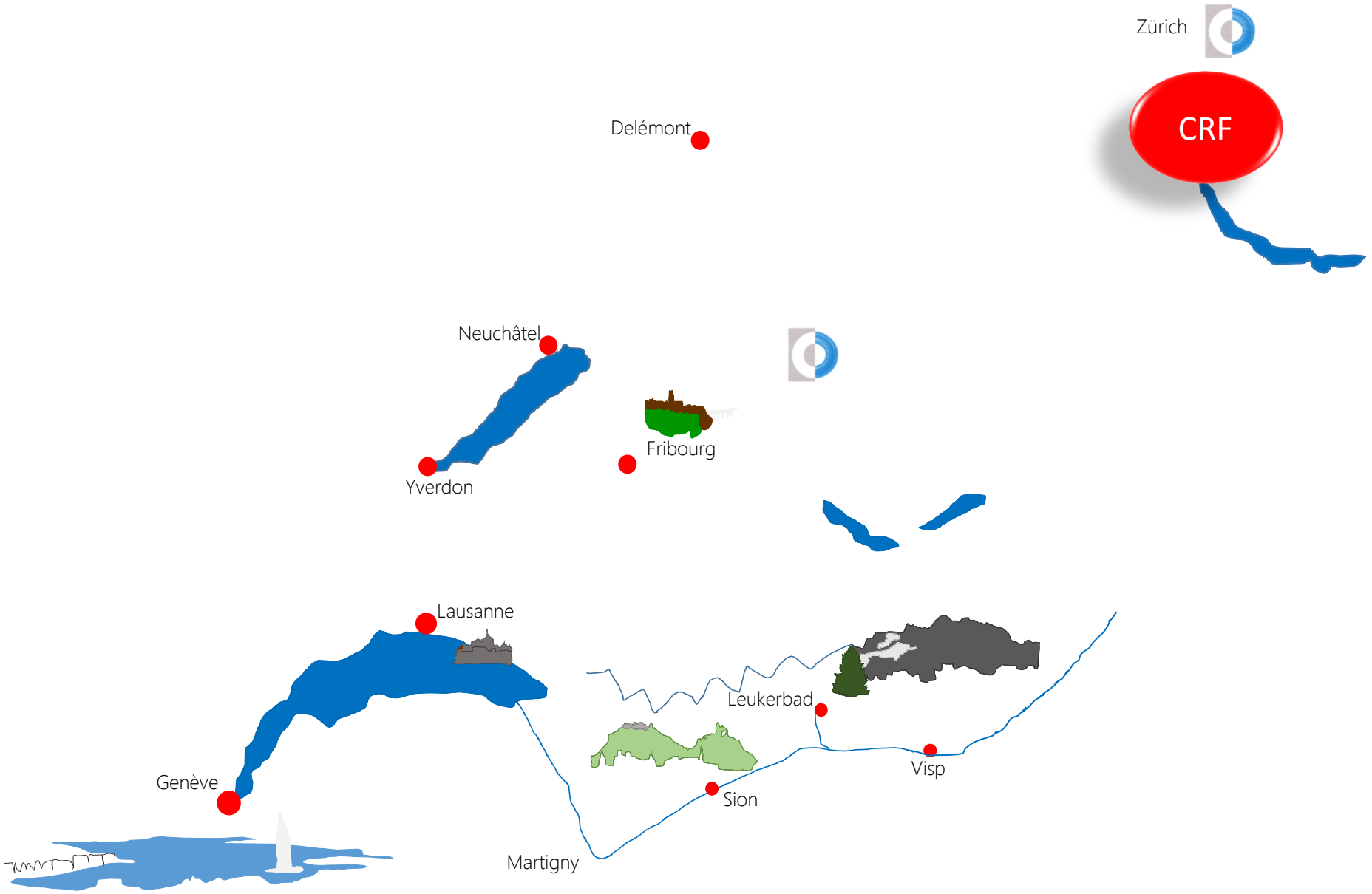
11. Clinical Research Forum 29. Oktober 2016



Hes·so
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Fachhochschule Westschweiz
University of Applied Sciences and Arts
Western Switzerland

Hes·so VALAIS WALLIS

Hes·so VALAIS WALLIS
Haute Ecole de Santé
Hochschule für Gesundheit

Interessenskonflikt

Ich liebe den **Örebro Musculoskeletal Pain Screening Questionnaire** und ich **hasse Cut-Offs**.

Also gebt acht: Wenn ich etwas negatives über den STarT Back sagt, wisst ihr warum…

Dieser Vortrag ist mit Vorsicht zu geniessen
Etwa so, wie wenn ein Mercedes Händler über BMW spricht

Hilfiker, R., Knutti, I. A., Raval-Roland, B., Rivier, G., Crombez, G., & Opsommer, E. (2016). Validity and responsiveness of the French version of the **Örebro Musculoskeletal Pain Screening Questionnaire** in chronic low back pain. *European Spine Journal*, 1-9.

Opsommer, E., **Hilfiker, R.,** Raval-Roland, B., Crombez, G., & Rivier, G. (2013). Test-retest reliability of the **Örebro Musculoskeletal Pain Screening Questionnaire** and the Situational Pain Scale in patients with chronic low back pain. *Pain*, *4*(1), 3.

Sattelmayer, M., Lorenz, T., Röder, C., & **Hilfiker, R.** (2012). Predictive value of the acute low back pain screening questionnaire and the **Örebro musculoskeletal pain screening questionnaire** for persisting problems. *European Spine Journal*, *21*(6), 773-784.

R.I.P. Prescriptive Clinical Prediction Rules

SEPTEMBER 6, 201

in ple concepts
suc nds, restricting
unne re from those who don't need it,
and crowdsourcing in research have helped

Chad Cook: "As the self-appointed medical examiner of this blog, I'm taking this opportunity to pronounce that pCPRs are dead."

" ...but it is my hope that we can distance ourselves from pCPRs. Prescriptive CPRs lived a wild, short and controversial life, and wish them well on the other side. But we won't miss them."

Search...

PEOPLE WITH PERSISTENT PAIN NEEDED FOR A 15 MINUTE SURVEY

Dr Manasi Gaikwad, from the Body in Mind Research Group is doing a PhD on the experiences of people with persistent pain. Her work so far has focussed on the use of Vitamin D

University of South Australia
Neuroscience Research Australia Discover. Conquer. Cure.
PAIN adelaide

BIM EDITORS

STarT = Subgroups for Targeted Treatment

8 bekannte Risikofaktoren: Schmerzen die ins Bein ausstrahlen, Schmerzen ausserhalb Rücken, Einschränkungen im Alltag, beunruhigende Gedanken, Katastrophisierung, Selbst-eingeschätzte Prognose, Angst-Vermeidungsverhalten, Depressive Gedanken

Drei Gruppen, basierend auf der Prognose:

Niedriges Risiko

Mittleres Risiko

Hohes Risiko

Three subgroups based on their prognosis (low, medium and high-risk)

Thinking about the **last 2 weeks** tick your response to the following questions:

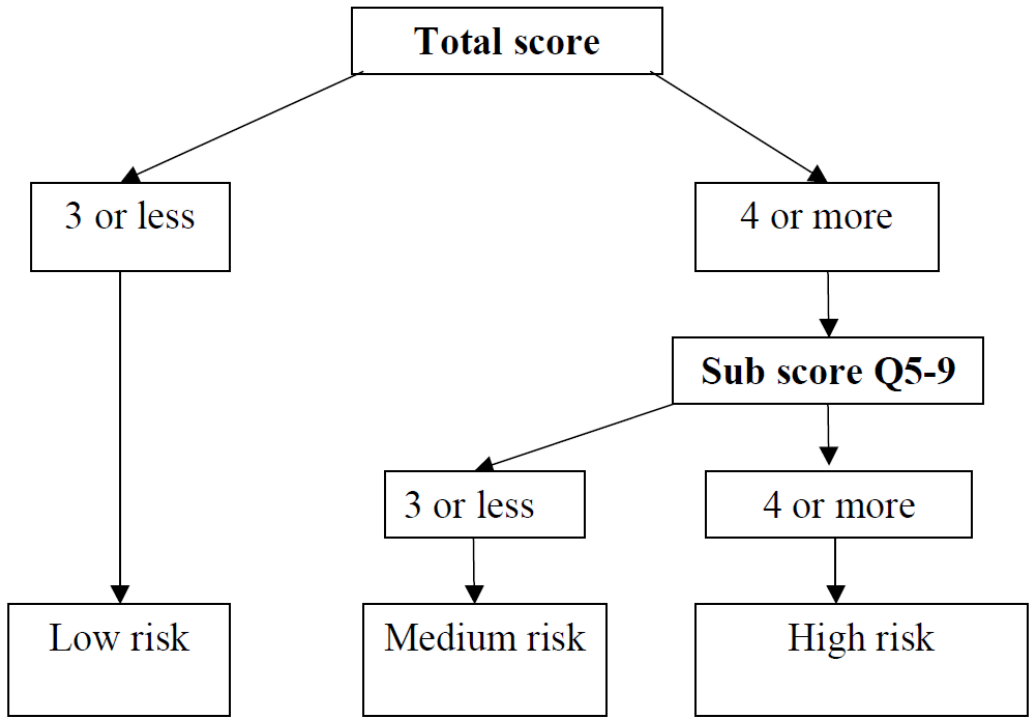
		Disagree 0	Agree 1
1	My back pain has **spread down my leg(s)** at some time in the last 2 weeks	☐	☐
2	I have had pain in the **shoulder** or **neck** at some time in the last 2 weeks	☐	☐
3	I have only **walked short distances** because of my back pain	☐	☐
4	In the last 2 weeks, I have **dressed more slowly** than usual because of back pain	☐	☐
5	It's not really safe for a person with a condition like mine to be physically active	☐	☐
6	**Worrying thoughts** have been going through my mind a lot of the time	☐	☐
7	I feel that **my back pain is terrible** and **it's never going to get any better**	☐	☐
8	In general I have **not enjoyed** all the things I used to enjoy	☐	☐

9. Overall, how **bothersome** has your back pain been in the **last 2 weeks**?

Not at all	Slightly	Moderately	Very much	Extremely
☐	☐	☐	☐	☐
0	0	0	1	1

Total score (all 9): _____ **Sub Score (Q5-9):**_____

The STarT Back Tool Scoring System



https://www.keele.ac.uk/media/keeleuniversity/group/startback/Keele_STarT_Back9_item-7.pdf

Funded by Arthritis Research UK

STarT-G-Fragebogen

*Denken Sie bitte an **die vergangenen zwei Wochen** beim Beantworten der folgenden Fragen:*

		Trifft nicht zu	Trifft zu
1.	Im Verlauf der vergangenen zwei Wochen haben meine Rückenschmerzen zeitweise **in ein Bein (oder in beide Beine)** ausgestrahlt.	☐	☐
2.	Im Verlauf der vergangenen zwei Wochen hatte ich zeitweise **Schulter**- oder **Nackenschmerzen**.	☐	☐
3.	Wegen meiner Rückenschmerzen bin ich nur **kurze Strecken gegangen**.	☐	☐
4.	Während der vergangenen zwei Wochen habe ich mich wegen der Rückenschmerzen **langsamer als üblich angezogen**.	☐	☐
5.	Für eine Person in meinem Zustand ist es wirklich nicht ratsam, körperlich aktiv zu sein.	☐	☐
6.	Ich mache mir häufig **Sorgen**.	☐	☐
7.	Ich fühle, dass ich **schreckliche Rückenschmerzen** habe und **dass sie nicht mehr besser werden**.	☐	☐
8.	Im Allgemeinen hatte ich **keine Freude** an den Dingen, die ich sonst gerne mache.	☐	☐

9. Insgesamt, wie **störend** waren Ihre Rückenschmerzen **in den vergangenen zwei Wochen**?

überhaupt nicht	wenig	mäßig	stark	äußerst stark
☐	☐	☐	☐	☐

Übersetzt und validiert von Bernard Aebischer & Sven Karstens

Aebischer, B., Hill, J. C., Hilfiker, R., & Karstens, S. (2015). German translation and cross-cultural adaptation of the STarT back screening tool. *PloS one*, *10*(7), e0132068.

Karstens, S., Krug, K., Hill, J. C., Stock, C., Steinhaeuser, J., Szecsenyi, J., & Joos, S. (2015). Validation of the German version of the STarT-Back Tool (STarT-G): a cohort study with patients from primary care practices. *BMC musculoskeletal disorders*, *16*(1), 1.

STarT-G-Fragebogen

*Denken Sie bitte an **die vergangenen zwei Wochen** beim Beantworten der folgenden Fragen:*

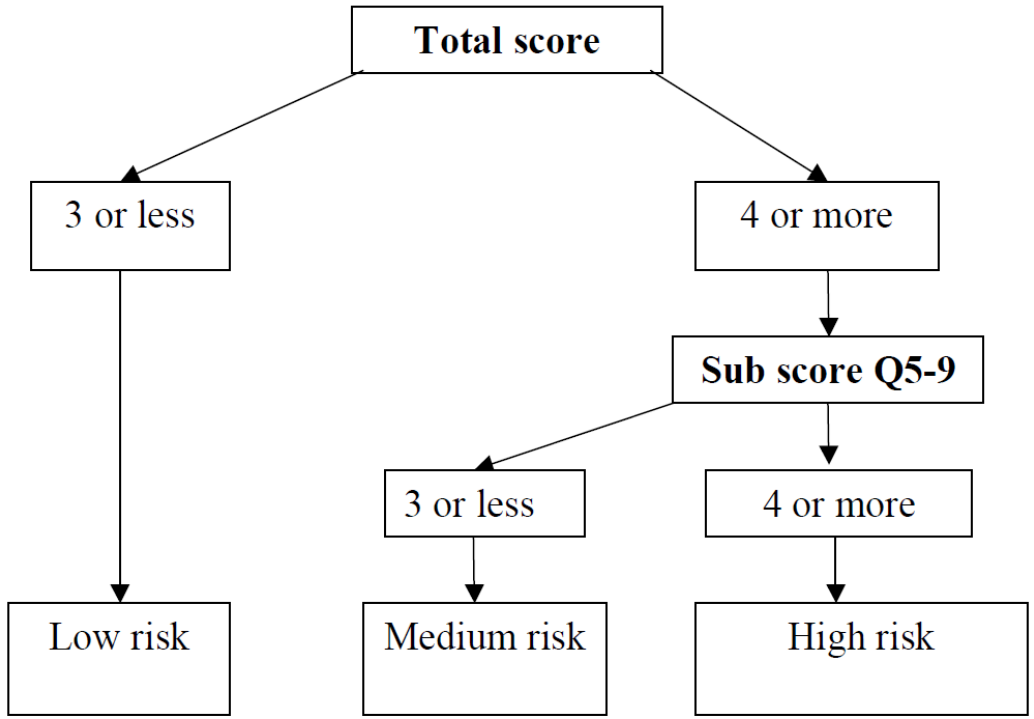
		Trifft nicht zu	Trifft zu
1.	Im Verlauf der vergangenen zwei Wochen haben meine Rückenschmerzen zeitweise **in ein Bein (oder in beide Beine)** ausgestrahlt.	☐	☐
2.	Im Verlauf der vergangenen zwei Wochen hatte ich zeitweise **Schulter**- oder **Nackenschmerzen**.	☐	☐
3.	Wegen meiner Rückenschmerzen bin ich nur **kurze Strecken gegangen**.	☐	☐
4.	Während der vergangenen zwei Wochen habe ich mich wegen der Rückenschmerzen **langsamer als üblich angezogen**.	☐	☐
5.	Für eine Person in meinem Zustand ist es wirklich nicht ratsam, körperlich aktiv zu sein.	☐	☐
6.	Ich mache mir häufig **Sorgen**.	☐	☐
7.	Ich fühle, dass ich **schreckliche Rückenschmerzen** habe und **dass sie nicht mehr besser werden**.	☐	☐
8.	Im Allgemeinen hatte ich **keine Freude** an den Dingen, die ich sonst gerne mache.	☐	☐
9.	Insgesamt, wie **störend** waren Ihre Rückenschmerzen **in den vergangenen zwei Wochen**?		

überhaupt nicht	wenig	mäßig	stark	äußerst stark
☐	☐	☐	☐	☐

Total (alle 9): _____ Sub Score (Item 5 – 9): _____

https://www.keele.ac.uk/sbst/startbacktool/translations/

The STarT Back Tool Scoring System



	Psychometrics	/pubmed/21296465
M van Hooff, W van Lankveld, P Anderson, A Apeldoorn, F van Hartingsveld, R Ostelo m.vanhooff@maartenskliniek.nl	Formal translation, Patient face validity	Dutch translation (Psychometric testing in progress)
So Teele Kaarma-Tonne Tartu University Hospital teele.kaarma@gmail.com	Formal translation	Estonian Translation
Christophe Demoulin and Olivier Bruyere Christophe.Demoulin@ulg.ac.be	Formal translation, Patient face validity	French translation http://www.archpublichealth.com/content/70/1/12 (Psychometric testing in progress)
Bernhard Aebischer and Sven Karstens Sven Karstens s.karstens@hochschule-trier.de	Informal translation, Patient face validity, Psychometrics	German translation Validation of the German Translation
Azimi Parisa parisa.azimi@gmail.com	Patient face validity	http://link.springer.com/article/10.1007%2Fs00776-013-0506-y
Luca Scascighini luca.scascighini@supsi.ch	Informal translation	Italian translation
Mika Kawaguchi, Ko Matsudaira Department of Medical Research & Management for Musculoskeletal Pain, 22nd Century Medical and Research Center, the University of Tokyo mika_kawaguchi@jp-css.com	Formal translation, Patient face validity, Psychometrics	Japanese translation Japanese generic condition tool (A formal validated version is due early 2016, article on psychometric validation is under preparation.)
Shuo Luan, Chao Ma and Shaoling Wu Sun Yat-sen Memorial Hospital (Primary sponsor), Boji Affiliated Hospital of Sun Yat-sen University and Central Hospital of Guangzhou Panyu District, China	Formal translation, Patient face validity	Mandarin translation (A psychometric tested version is due late 2013)

Keele STarT Back Screening Tool	No	Yes
Has your back pain spread down your leg(s) at some time in the last 2 weeks	◉	○
Have you had pain in the shoulder or neck at some time in the last 2 weeks	◉	○
Have you only walked short distances because of your back pain	◉	○
In the last 2 weeks, have you dressed more slowly than usual because of back pain	○	◉
Do you think it's not really safe for a person with a condition like yours to be physically active	◉	○
Have worrying thoughts been going through your mind a lot of the time	○	◉
Do you feel that your back pain is terrible and it's never going to get any better	○	◉
In general have you stopped enjoying all the things you usually enjoy?	◉	○

Overall, how bothersome has your back pain been in the last 2 weeks?

Not at all	Slightly	Moderately	Very much	Extremely
○	○	◉	○	○

Get score

Low Risk. Recommended action - support self-management

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Keele STarT Back Screening Tool	**No**	**Yes**
Has your back pain spread down your leg(s) at some time in the last 2 weeks	◉	○
Have you had pain in the shoulder or neck at some time in the last 2 weeks	◉	○
Have you only walked short distances because of your back pain	○	◉
In the last 2 weeks, have you dressed more slowly than usual because of back pain	◉	○
Do you think it's not really safe for a person with a condition like yours to be physically active	○	◉
Have worrying thoughts been going through your mind a lot of the time	◉	○
Do you feel that your back pain is terrible and it's never going to get any better	○	◉
In general have you stopped enjoying all the things you usually enjoy?	○	◉

Overall, how bothersome has your back pain been in the last 2 weeks?

Not at all	**Slightly**	**Moderately**	**Very much**	**Extremely**
○	○	○	○	◉

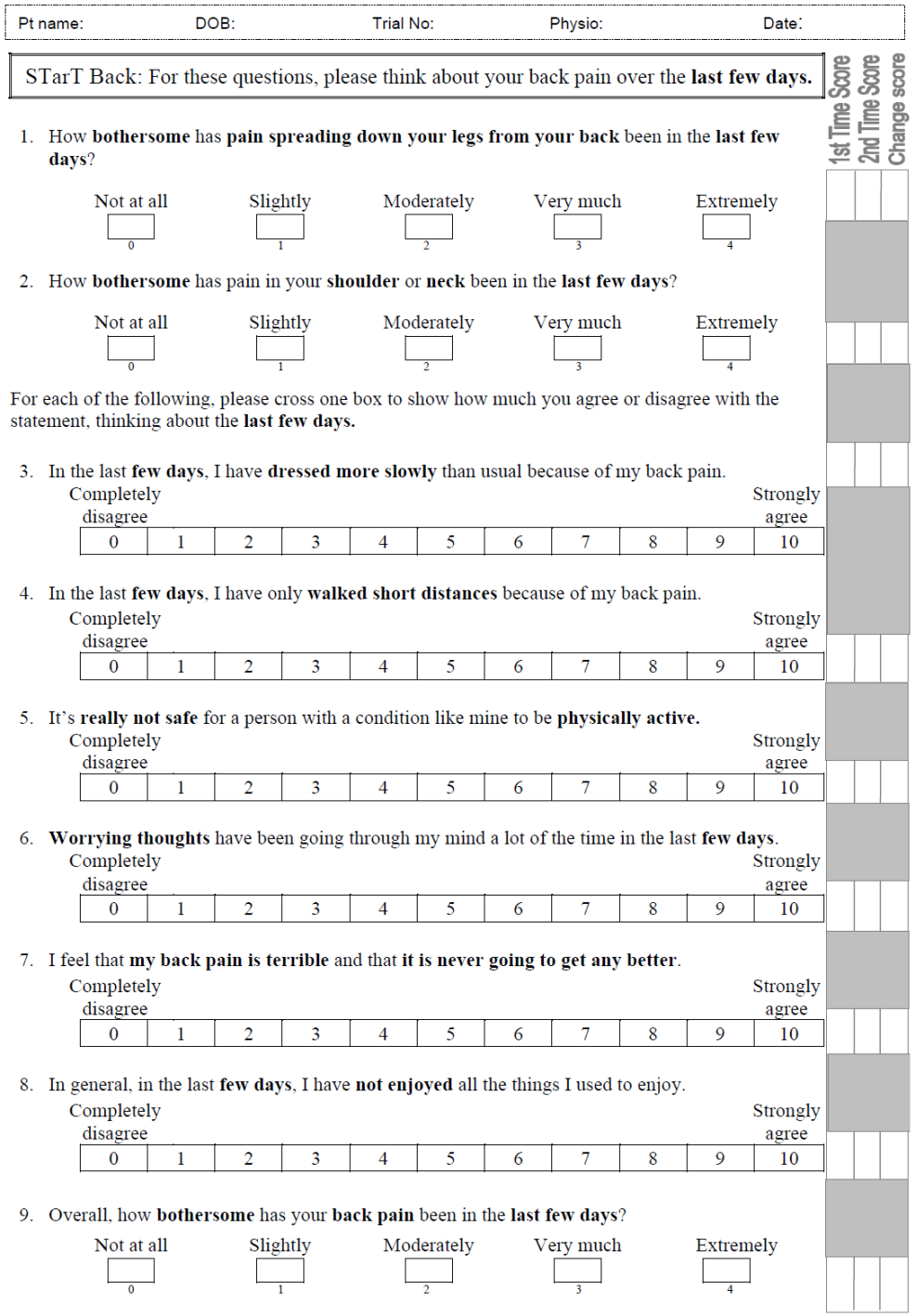
Get score

High Risk. Recommended action - consider referral to augmented Physiotherapy.

Tool für Verlaufsmessungen.

Mit diesen Schwellenwerten kann auch damit eine Einteilung gemacht werden:

- Leg pain - 'moderately' or more
- Shoulder/neck - slightly or more
- Dressing - 5 or more
- Walking - 5 or more
- Fear - 7 or more
- Worry - 3 or more
- Catastrophising - 6 or more
- Mood - 7 or more
- Bothersomeness - 'very' or more



Pt name: DOB: Trial No: Physio: Date:

STarT Back: For these questions, please think about your back pain over the **last few days.**

1st Time Score | 2nd Time Score | Change score

1. How **bothersome** has **pain spreading down your legs from your back** been in the **last few days**?

Not at all (0) | Slightly (1) | Moderately (2) | Very much (3) | Extremely (4)

2. How **bothersome** has pain in your **shoulder** or **neck** been in the **last few days**?

Not at all (0) | Slightly (1) | Moderately (2) | Very much (3) | Extremely (4)

For each of the following, please cross one box to show how much you agree or disagree with the statement, thinking about the **last few days.**

3. In the last **few days**, I have **dressed more slowly** than usual because of my back pain.

Completely disagree — Strongly agree

0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10

4. In the last **few days**, I have only **walked short distances** because of my back pain.

Completely disagree — Strongly agree

0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10

5. It's **really not safe** for a person with a condition like mine to be **physically active.**

Completely disagree — Strongly agree

0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10

6. **Worrying thoughts** have been going through my mind a lot of the time in the last **few days**.

Completely disagree — Strongly agree

0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10

7. I feel that **my back pain is terrible** and that **it is never going to get any better**.

Completely disagree — Strongly agree

0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10

8. In general, in the last **few days**, I have **not enjoyed** all the things I used to enjoy.

Completely disagree — Strongly agree

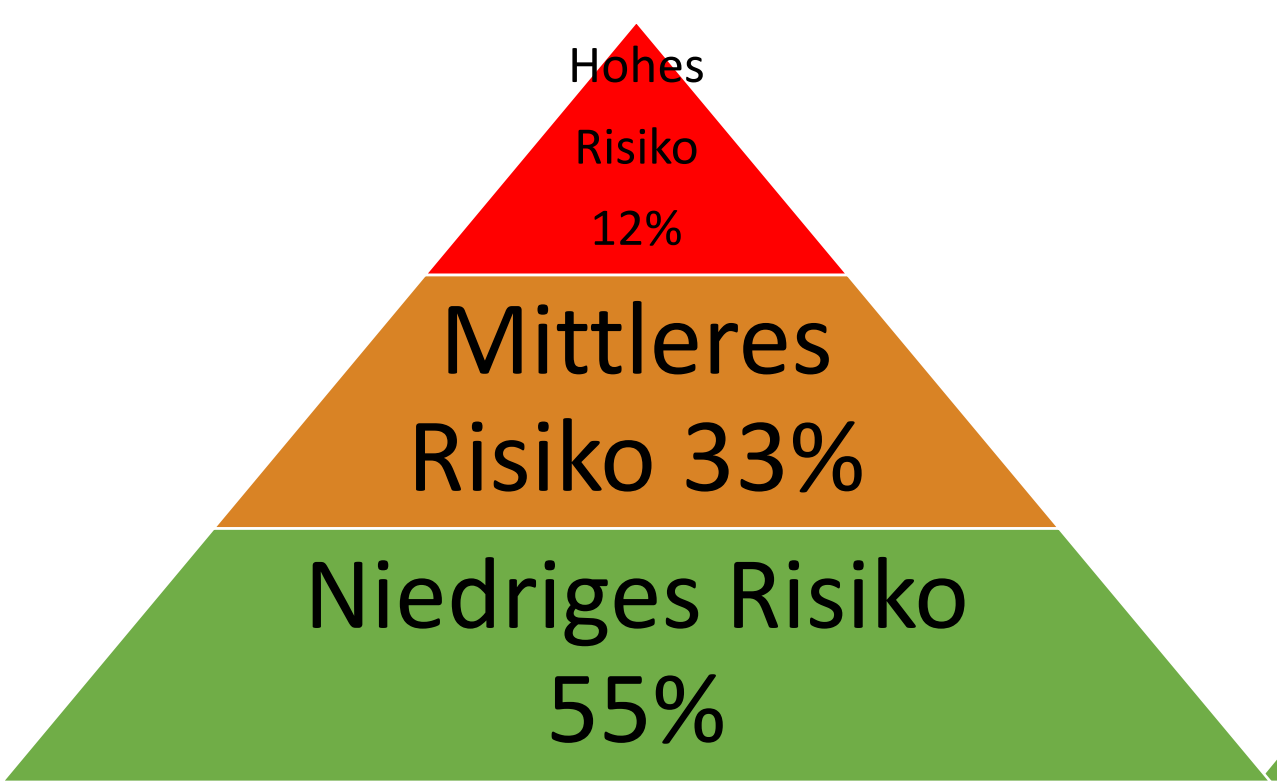
0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10

9. Overall, how **bothersome** has your **back pain** been in the **last few days**?

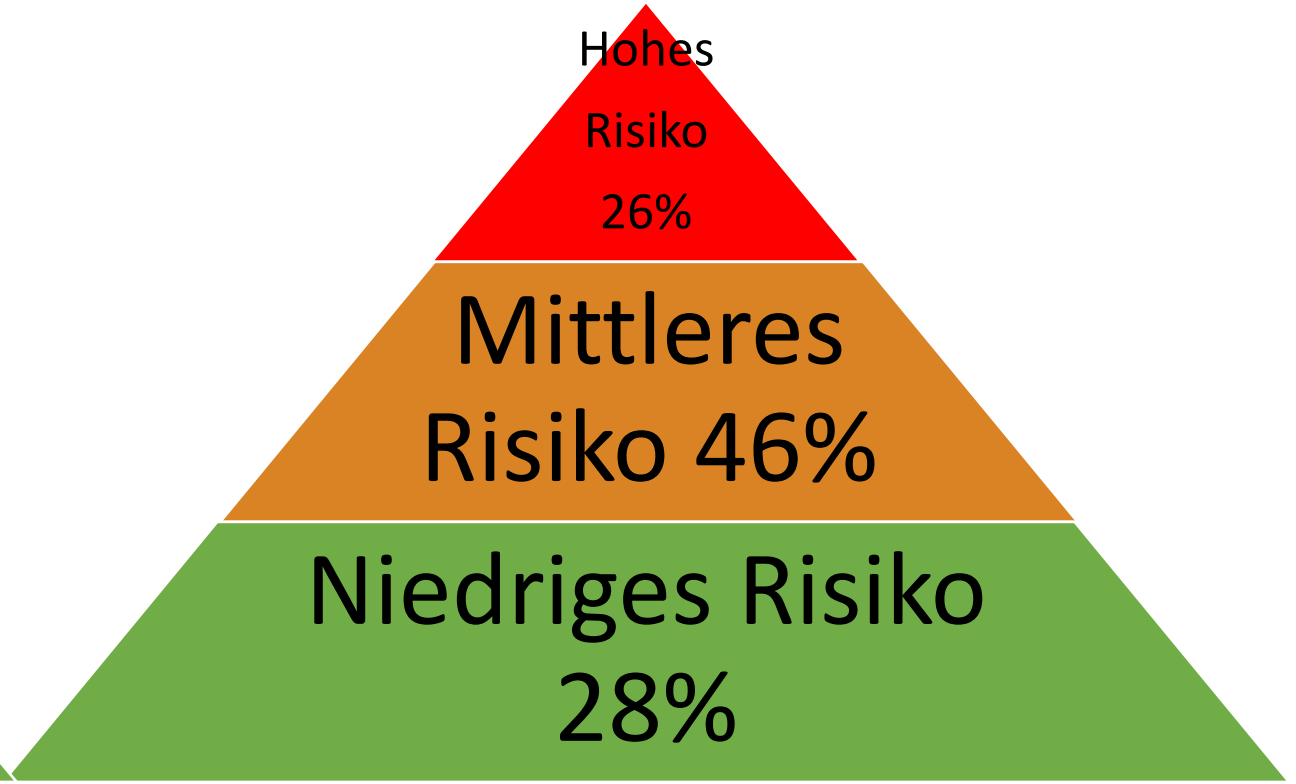
Not at all (0) | Slightly (1) | Moderately (2) | Very much (3) | Extremely (4)

Verteilung Risikogruppen

Primary Care Data



RCT Hill 2010



Normwerte

Baseline

Subgroups as classified by the Screening Tool			TSK score	HADS - Anxiety subscale score	HADS - Depression subscale score	RMDQ score	PCS score	EUROQOL-5D SCORES	Pain intensity	Gender	AGE
High risk group	N	Valid	16	16	16	16	16	16	16	16	16
26.6%		Missing	0	0	0	0	0	0	0	0	0
	Mean		45.2500	10.8750	10.3750	15.0000	29.4375	.2863	6.2917	1.50	51.56
	Std. Error of Mean		1.39194	.85574	.84101	1.00416	2.54127	.08432	.37128	.129	4.791
Medium risk group	N	Valid	24	24	24	24	24	24	23	24	24
40.0%		Missing	0	0	0	0	0	0	1	0	0
	Mean		39.1667	6.7917	6.7500	10.0833	16.2500	.5109	5.1528	1.33	53.38
	Std. Error of Mean		.94728	.69673	.70261	.89060	2.21838	.06265	.38593	.098	3.419
Low risk group	N	Valid	18	20	20	20	20	20	20	20	20
33.3%		Missing	2	0	0	0	0	0	0	0	0
	Mean		37.5556	5.4000	3.1000	3.5500	9.4000	.7445	3.4167	1.35	41.05
	Std. Error of Mean		.92962	.67823	.61087	.67072	1.25110	.02697	.43788	.109	3.169

https://www.keele.ac.uk/media/keeleuniversity/group/startback/normative.pdf

Werbung

RePHerence

Reference values for **Ph**ysiotherapy

Nationales Projekt zur Erstellung einer Cloud-basierten Datenbank für Normwerte

Age group (years)	Number of STS repetitions									
	Men					Women				
	p2.5	p25	p50	p75	p97.5	p2.5	p25	p50	p75	p97.5
20–24	27	41	50	57	72	31	39	47	55	70
25–29	29	40	48	56	74	30	40	47	54	68
30–34	28	40	47	56	72	27	37	45	51	68
35–39	27	38	47	58	72	25	37	42	50	63
40–44	25	37	45	53	69	26	35	41	48	65
45–49	25	35	44	52	70	25	35	41	50	63
50–54	24	35	42	53	67	23	33	39	47	60
55–59	22	33	41	48	63	21	30	36	43	61
60–64	20	31	37	46	63	20	28	34	40	55
65–69	20	29	35	44	60	19	27	33	40	53
70–74	19	27	32	40	59	17	25	30	36	51
75–79	16	25	30	37	56	13	22	27	30	43

Beispiel aus: Strassmann, A., Steurer-Stey, C., Dalla Lana, K., Zoller, M., Turk, A. J., Suter, P., & Puhan, M. A. (2013). Population-based reference values for the 1-min sit-to-stand test. *International journal of public health*, *58*(6), 949-953.

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STarT Back

Der Fragebogen ist nur der Startpunkt!!

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Matched treatments

The STarT Back approach uses the STarT Back tool to stratify patients with back pain into low, medium and high risk groups for ongoing disability. For each group there is a different treatment package matched to their level of risk.

Low risk package

Medium risk package

High risk package

6 Sitzungen zu 45 bis 60 Minuten in 6 Monaten

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Low Risk

- Gute Prognose
- Hilfe zur Selbsthilfe
- Sorgen, Ängste etc. des Patienten ansprechen und informieren
- Eine Sitzung moistens genug (?)
- Assessment um medizinische Probleme, aber auch Sorgen, Ängste, und soziale Aspekte zu untersuchen
- Kurze körperliche Untersuchung, auch um Vertrauen zu gewinnen
- Medikamente anschauen und Beratung
- Befunde ansprechen
- Aktivität und Sebsthilfe empfehlen
- Vermeiden von nicht hilfreichen “Diagnosen” und Medikamenten
- Mündliche und schriftliche Information abgeben
- Erklären, dass Prognose gut ist, dass aber jederzeit wieder ein Termin abgemacht werden kann.

Medium Risk

- Aufbauend auf Assessment der Low Risk Intervention
- Ziel: Funktion verbessern, inclusive Rückkehr zur Arbeit
- Einfluss des Schmerzes auf Aktivität und Partizipation vermindern, auch wenn Schmerz unverändert bleibt.
- Angepasst Selbsthilfe
- Sorgen und Ängste angehen, auch adequate körperliche Untersuchung
- Massgeschneiderte Therapie entsprechend der körperlichen Untersuchung und den Sorgen, Ängsten etc des Patienten
- Physiotherapie, meist nur wenige Sitzungen
- Spezifische Physiotherapie wenn klare Befunde aus der körperlichen Untersuchung (z.B. Manuelle Therapie, spezifische Übungen)
- Allgemeine flarunktionelle körperliche Aktivität wenn keine klaren Zusammenhänge zwischen körperlichen Untersuchung und Rückenschmerzen
- Klaree determinierte Therapieziele auf Aktivität und Partizipationsebene
- Manche Patienten werden zum Spezialisten überwiesen (Orthopäden, Schmerzklinik, etc.).

High Risk

High risk-group

In addition to the first clinic session described above, all high-risk patients were recommended for referral to ongoing physiotherapy treatment with one of four physiotherapists who attended a total of nine days training. The training was designed to standardise the pathway for high-risk patients as follows:

- Individualised 45-minute physiotherapy sessions focussed on restoring function using combined physical and psychological approaches and targeting physical and psychological obstacles to recovery.
- Treatments were held in NHS community outpatient premises with guidance that patients should receive up to 6 sessions over a 3-month period.
- The first session re-assessed/examined the patient and included a differential diagnosis particularly for patients with referred leg pain/radiculopathy, and biopsychosocial assessment to explore patient concerns, adopting cognitive behavioural principles to address unhelpful beliefs and behaviours.
- Therapists were trained to use 'stem & leaf' questions to identify unhelpful beliefs and behaviours.
- Physical treatment modalities (exercise and manual therapy) were integrated with psychologically informed techniques to provide a credible explanation for symptoms, reassurance, education, collaborative goal setting, problem solving, pacing, graded activity, and relaxation.
- There was a specific focus on the prognostic psychological indicators identified by the STarT Back Tool such as low mood, anxiety, pain-related fear and catastrophising.
- Reasons for psychological distress were addressed using enhanced communication skills with a focus on promoting appropriate levels of activity, return to normal activities and the management of future back pain recurrences.
- Patient expectations about prognosis and implications for function were addressed and the role of active self-management emphasised. Advice about sleep and work was provided and if necessary a return to work plan implemented.
- Patients were encouraged to put management plans into practice between treatment sessions and help was given to problem solve any difficulties that arose.
- Monthly group mentoring sessions were held for physiotherapists to discuss individual cases and consolidate the training throughout the trial, with supervision provided from a Consultant Physiotherapist (pain management expertise) and a Professor of Clinical Psychology.
- Therapists were advised to refer non-responders on for further investigations or secondary care interventions.

Bringts das?

- Es genügt nicht, nur die Frage zu beantworten, ob wir eine genügend gute Triage oder Prognose machen können.

Kohortenstudie: Prädiktive Werte

- Es muss auch untersucht werden, ob der Einsatz des Tools und der stratifizierten (angepassten) Therapie etwas bringt.

RCT: Mit Tool besser als ohne Tool

No STarT Back Screening Tool

283 (33%) control group
- 73 low risk (36 [49%] referred for physiotherapy)
- 131 medium risk (78 [60%] referred for physiotherapy)
- 79 high risk (51 [65%] referred for physiotherapy)

No STarT Back Screening Tool
30 Minuten Assessment und initiale Behandlung (Information)

Niedriges Risiko

Keine Physiotherapie zusätzlich

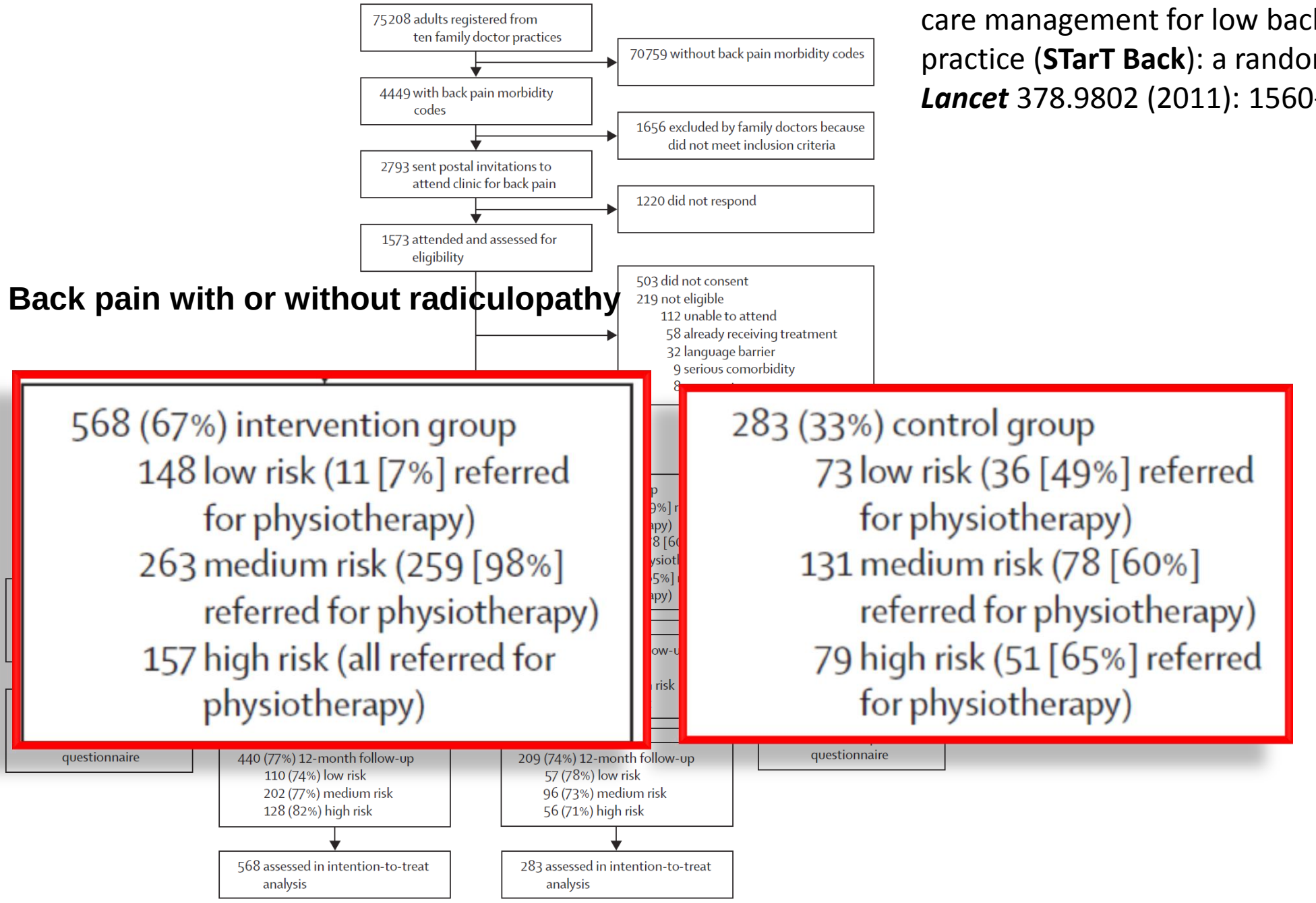
Mittleres Risiko

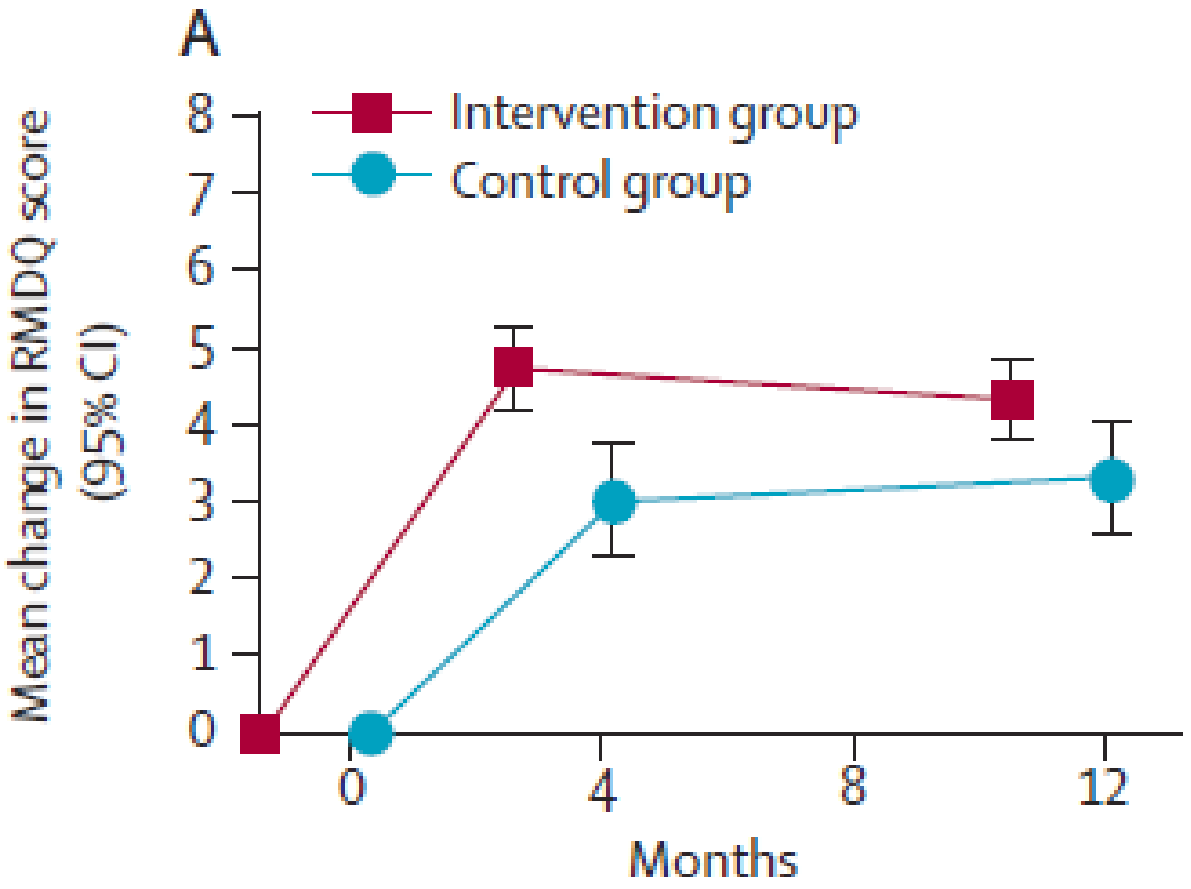
Hohes Risiko

Zusätzliche Physiotherapie

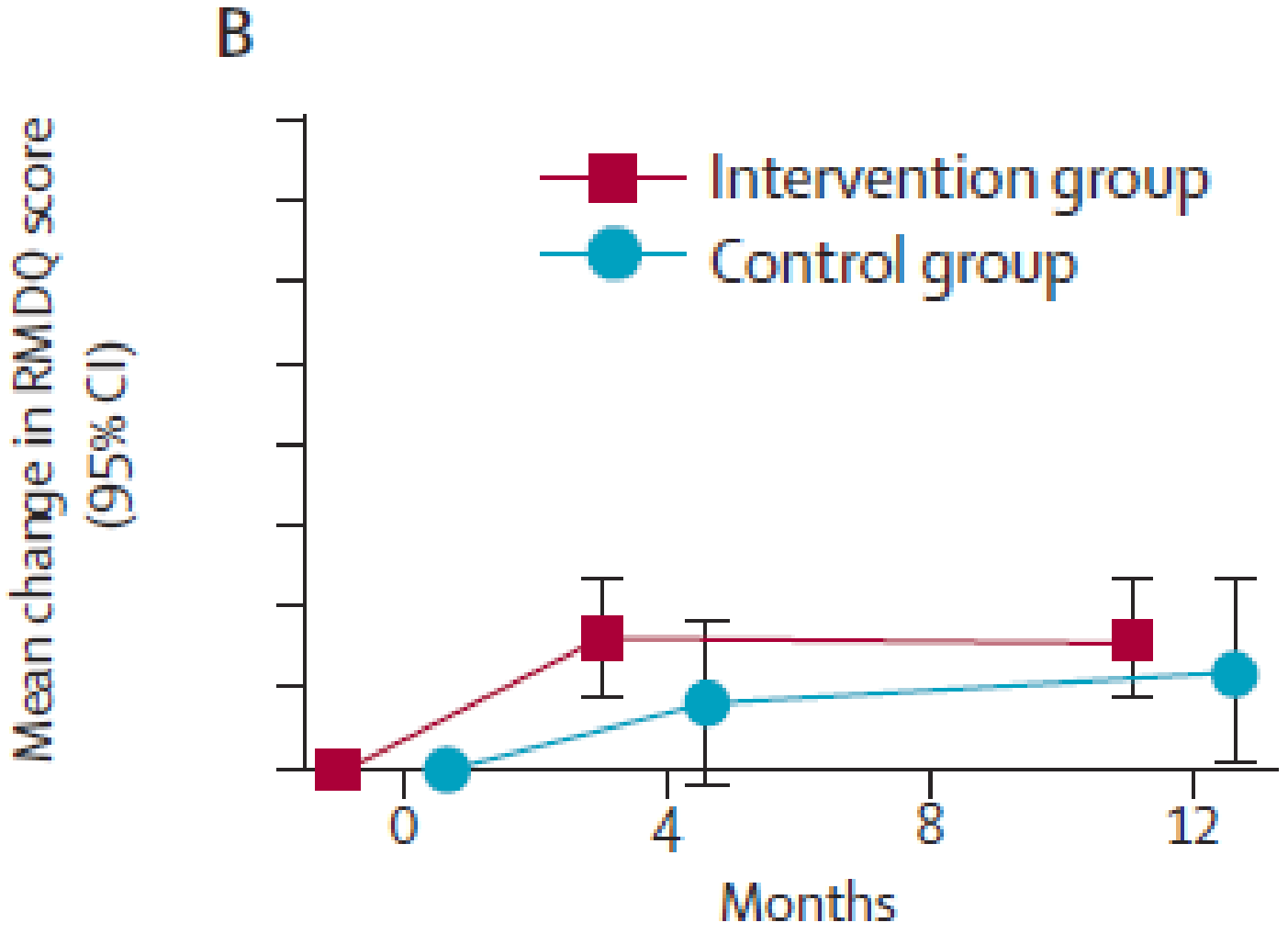
Hill, Jonathan C., et al. "Comparison of stratified primary care management for low back pain with current best practice (**STarT Back**): a randomised controlled trial." ***The Lancet*** 378.9802 (2011): 1560-1571.

Back pain with or without radiculopathy

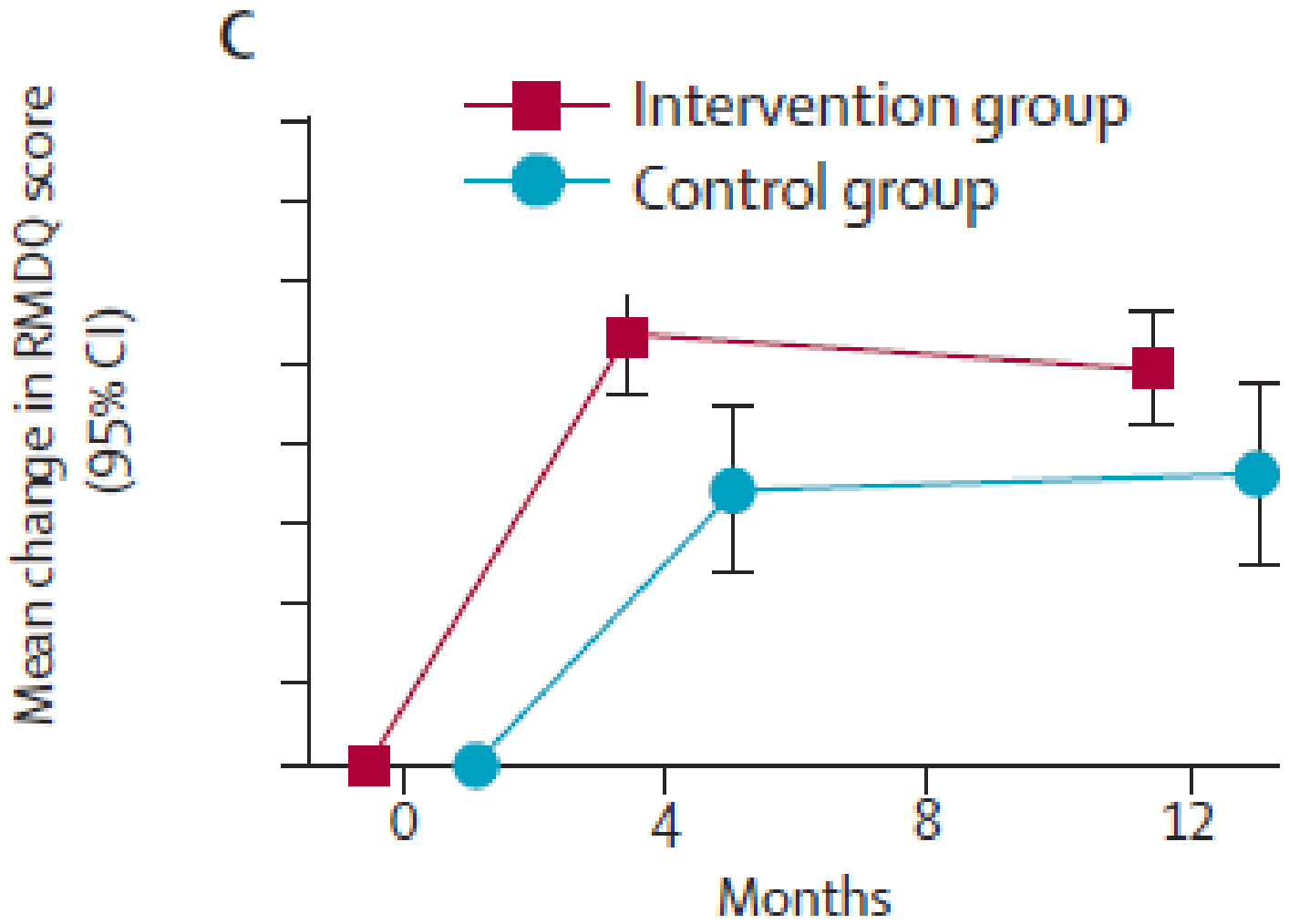




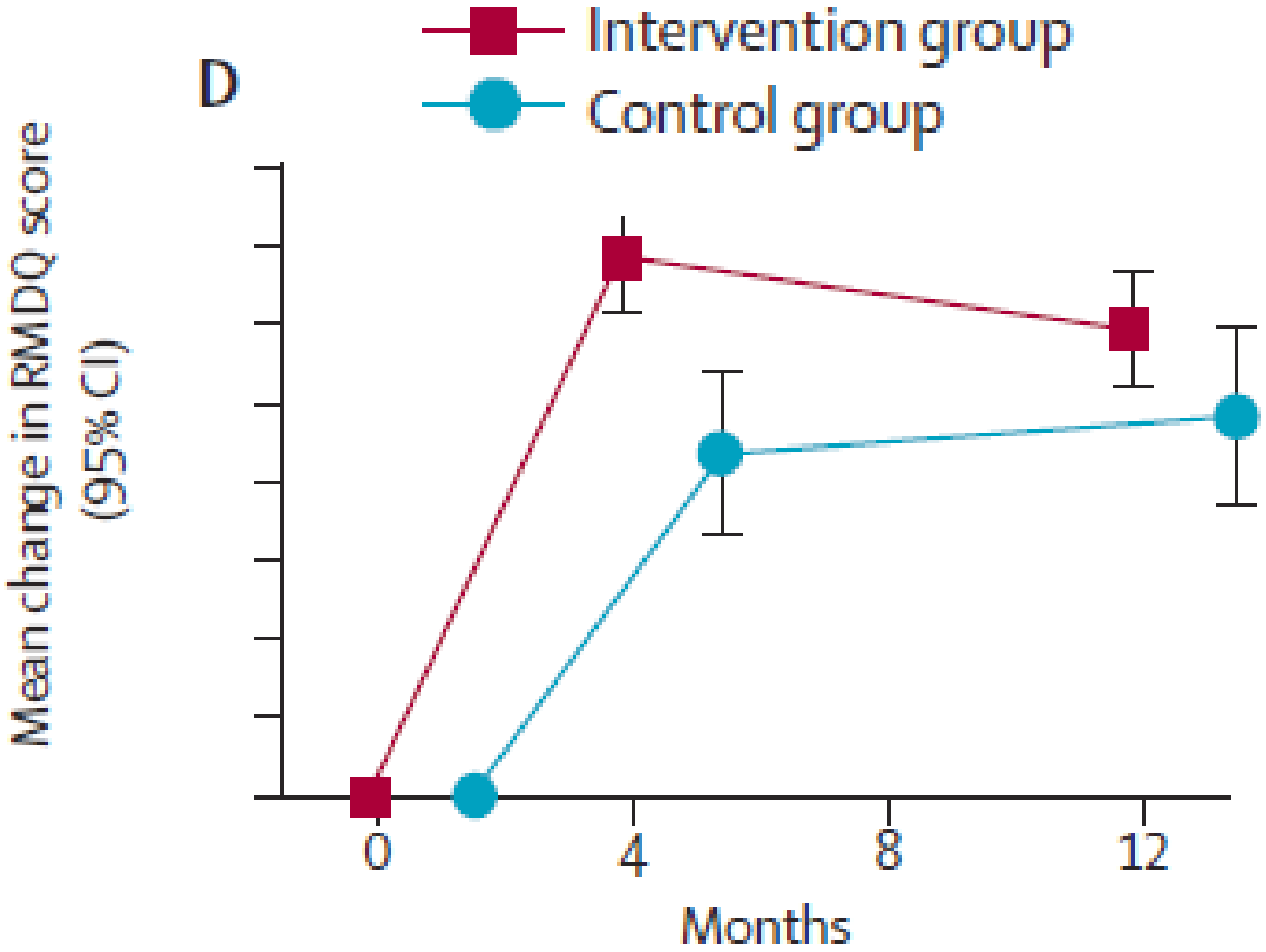
Alle Patienten



Low risk Patienten



Medium Risk Patienten

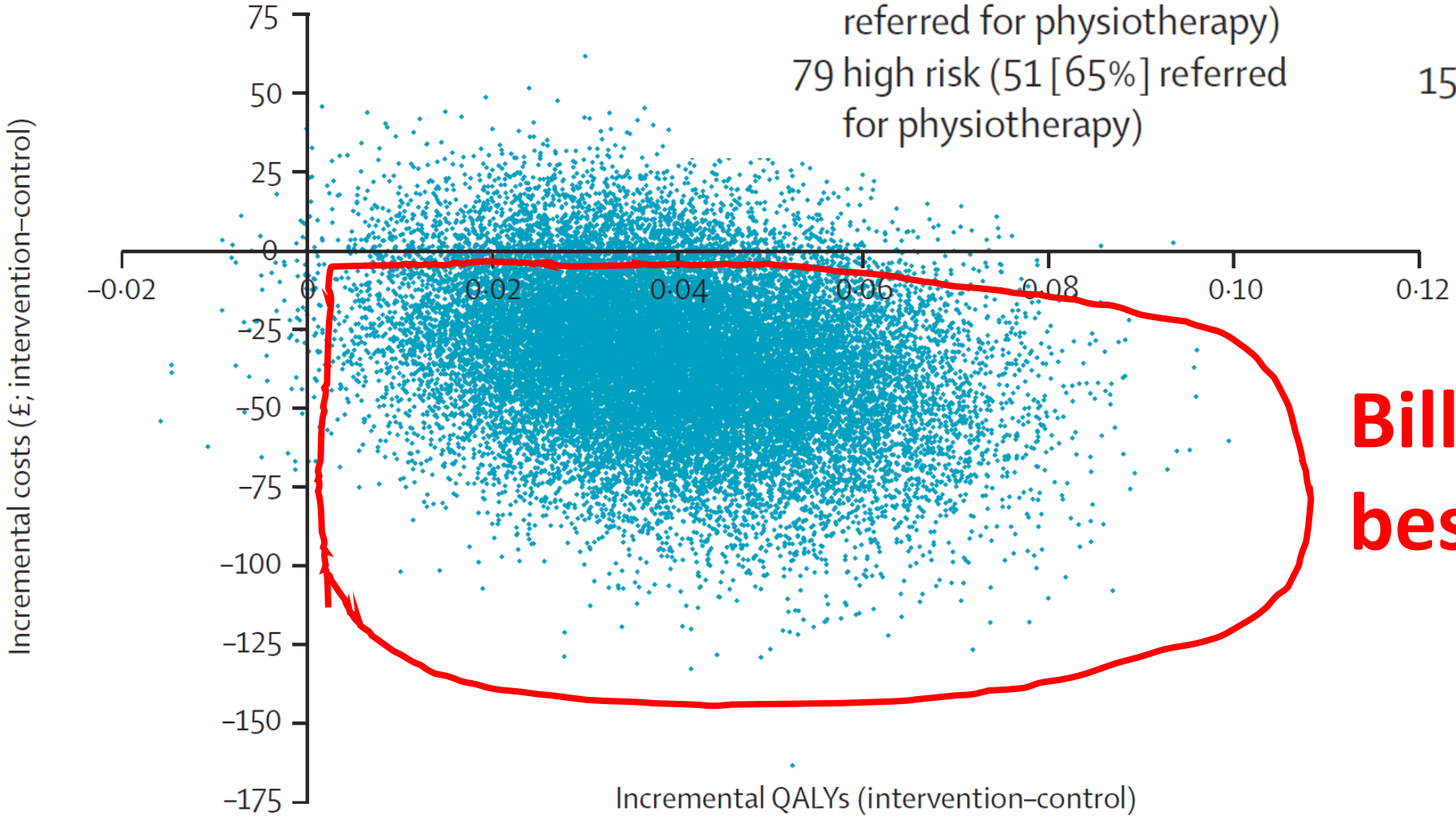


High Risk Patienten

Kosten-Nutzen Analyse

283 (33%) control group
73 low risk (36 [49%] referred for physiotherapy)
131 medium risk (78 [60%] referred for physiotherapy)
79 high risk (51 [65%] referred for physiotherapy)

568 (67%) intervention group
148 low risk (11 [7%] referred for physiotherapy)
263 medium risk (259 [98%] referred for physiotherapy)
157 high risk (all referred for physiotherapy)



Billiger und besser

283 (33%) control group
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131 medium risk (78 [60%] referred for physiotherapy)
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148 low risk (11 [7%] referred for physiotherapy)
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157 high risk (all referred for physiotherapy)

Nehmen wir 1000 Patienten mit unspezifischen Rückenschmerzen (mit oder ohne Radikulopathie)

→ ~250 werden in der low risk Gruppe sein.
→ ~123 werden behandelt, wenn STarT Back Strategie nicht angewandt wird.
→ ~18 werden behandelt, wenn STarT Back Strategie angewandt wird.

105 Patienten werden mit Startback **nicht** behandelt

Nehmen wir 1000 Patienten mit unspezifischen Rückenschmerzen (mit oder ohne Radikulopathie)

→ ~463 werden in der medium risk Gruppe sein
→ ~278 werden behandelt, wenn STarT Back Strategie nicht angewandt wird.
→ ~463 werden behandelt, wenn STarT Back Strategie angewandt wird.

185 Patienten werden mit Startback mehr behandelt

Nehmen wir 1000 Patienten mit unspezifischen Rückenschmerzen (mit oder ohne Radikulopathie)

→ ~276 werden in der medium risk Gruppe sein
→ ~180 werden behandelt, wenn STarT Back Strategie nicht angewandt wird.
→ ~276 werden behandelt, wenn STarT Back Strategie angewandt wird.

96 Patienten werden mit Startback mehr behandelt

2.7 Mal mehr… und trotzdem billiger

Webappendix 4a: Cost components analysed in the economic evaluation of the STarT Back trial. Values are mean (sd) back pain-related resource use and costs (£) per patient, by treatment group, for patients providing health care utilisation data at 12 months (n=567), unless stated otherwise.

Resource/cost component	Resource use (units)		Cost (£)	
	Intervention (n = 386)	Control group (n = 181)	Intervention (n = 386)	Control group (n = 181)
Study back pain clinic and physiotherapy	4·02 (2·6)	4·04 (3·7)	107·50 (92·8)	92·77 (83·2)
Primary care contacts:				
General Practitioner	1·08 (2·1)	1·30 (2·1)	33·54 (63·6)	40·27 (63·9)
Practice Nurse	0·12 (0·9)	0·12 (0·5)	1·33 (9·8)	1·27 (6·0)
Hospital-based care:				
NHS Consultant	0·22 (0·8)	0·24 (0·7)	25·15 (86·5)	27·63 (79·7)
Private Consultant	0·04 (0·3)	0·04 (0·3)	4·82 (36·1)	4·72 (30·5)
NHS x-ray	0·05 (0·2)	0·10 (0·4)	1·66 (7·5)	3·18 (11·2)
NHS CT scan	0·01 (0·1)	0·01 (0·1)	1·04 (12·4)	1·10 (10·5)
NHS MRI scan	0·07 (0·3)	0·08 (0·3)	12·06 (48·5)	14·83 (53·0)
NHS blood tests	0·02 (0·1)	0·03 (0·2)	0·27 (2·1)	0·48 (3·8)
NHS epidural injections	0·01 (0·1)	0·01 (0·1)	2·72 (23·2)	2·31 (21·4)
Private diagnostic tests (combined)	0·01 (0·1)	0·01 (0·1)	0·93 (12·9)	0·99 (13·3)
Private epidural injections	0·00 (0·1)[a]	0·01 (0·1)	0·55 (10·4)	1·14 (15·2)
Other health care professionals:				
Additional (non-study) NHS physiotherapy	0·59 (2·0)	1·14 (2·7)	17·25 (57·5)	33·13 (75·6)
Private physiotherapy	0·06 (0·6)	0·22 (1·2)	1·86 (17·2)	6·42 (35·5)
NHS 'other'	0·04 (0·5)	0·12 (0·9)	1·45 (17·0)	3·53 (26·8)
Private 'other'	0·30 (1·6)	0·14 (0·9)	8·52 (44·6)	4·38 (27·2)
Out-of-pocket treatments:[b]				
Non-opioid analgesics	87 (23)	36 (19)	1·23 (4·7)	1·14 (3·9)
Weak opioid analgesics	33 (9)	19 (10)	0·68 (8·0)	0·27 (0·8)

Noch einmal weil es so schön ist…

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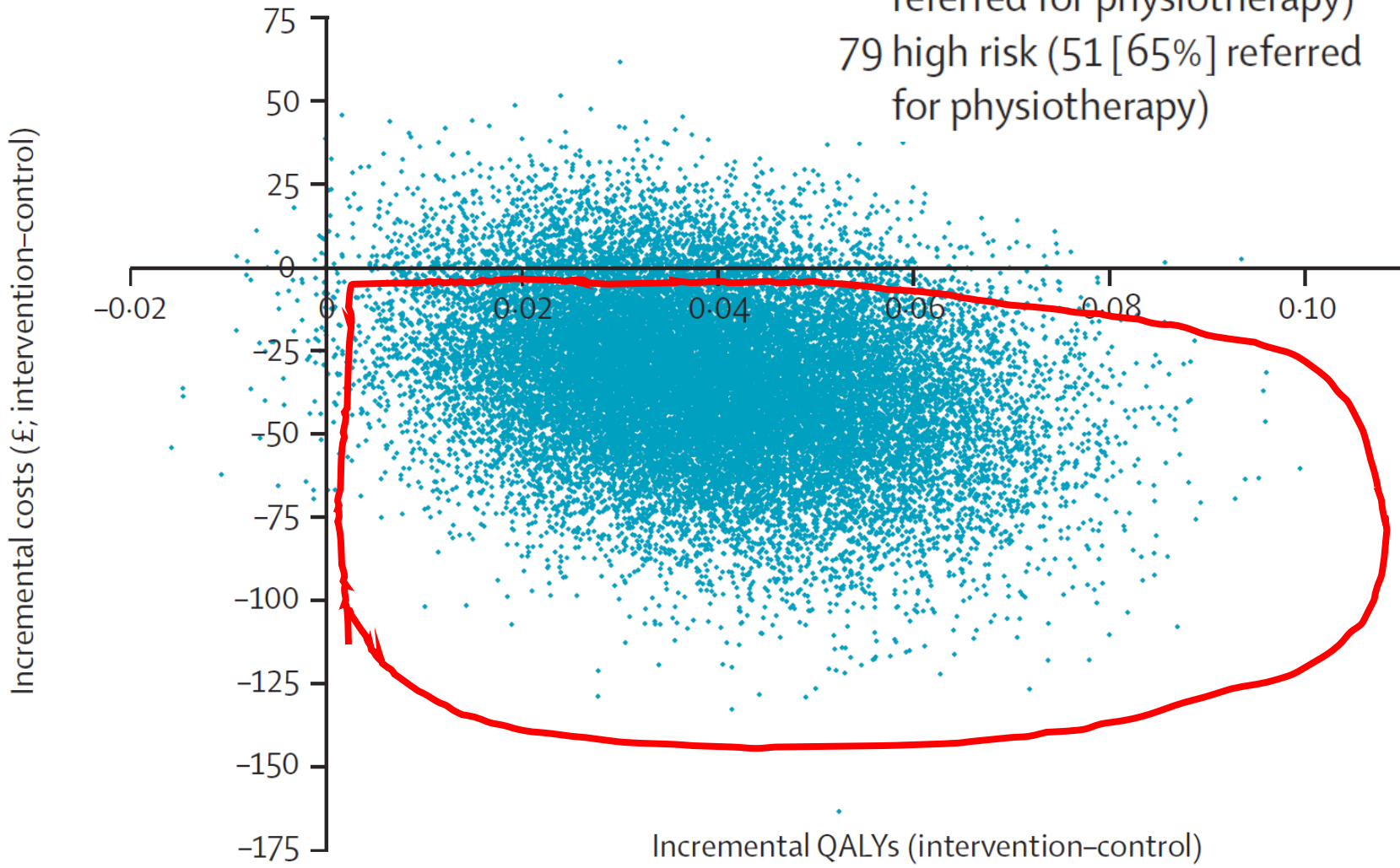


Mehr Physio und trotzdem billiger und besser

Modified STarT Back für andere Problemregionen

- Prognostische Validität gleich gut für andere Regionen
- Die Schwellenwerte des originalen STarT Back Tool (4 oder mehr Punkte von 9) können nicht direct auf die anderen Regionen umgesetzt werden.
- Man muss also weitere Forschung abwarten, bevor man es in der Praxis einsetzen kann.

Table 1 Identifying optimal modified STarT Back Tool cut-points for each pain region using (1) Youden's J statistic and (2) a clinically defined maximum specificity of 0.7

		PhysioDirect trial data			SAMBA study data		
Pain region	Modified STarT Back Tool cut-point	Sens	Spec	Youden's	Sens	Spec	Youden's
Neck	3	0.967	0.451	0.418	1	0.556	0.556
Neck	4	0.833	0.668	0.501	1	0.644	0.644
Neck	5	0.767	0.777*	0.544	0.769	0.756*	0.525
Neck	6	0.467	0.87*	0.337	0.615	0.867*	0.482
Neck	7	0.3	0.959*	0.259	0.538	0.911*	0.449
Neck	8	0.067	0.99*	0.057	0.462	0.956*	0.418
Back	3	0.903	0.329	0.232	0.987	0.333	0.32
Back	4	0.832	0.491	0.323	0.935	0.454	0.389
Back	5	0.708	0.652	0.36	0.857	0.546	0.403
Back	6	0.442	0.818*	0.26	0.792	0.686	0.478
Back	7	0.23	0.921*	0.151	0.558	0.821*	0.379
Back	8	0.088	0.979*	0.067	0.273	0.913*	0.186
Upper limb	3	0.882	0.538	0.42	0.907	0.576	0.483
Upper limb	4	0.711	0.72*	0.431	0.86	0.681	0.541
Upper limb	5	0.513	0.853*	0.366	0.791	0.79*	0.581
Upper limb	6	0.303	0.929*	0.232	0.674	0.848*	0.522
Upper limb	7	0.158	0.973*	0.131	0.581	0.933*	0.514
Upper limb	8	0.039	0.989*	0.028	0.163	0.976*	0.139
Lower limb	3	0.9	0.47	0.37	0.904	0.505	0.409
Lower limb	4	0.77	0.618	0.388	0.851	0.664	0.515
Lower limb	5	0.57	0.789*	0.359	0.754	0.771*	0.525
Lower limb	6	0.36	0.895*	0.255	0.64	0.86*	0.5
Lower limb	7	0.21	0.971*	0.181	0.43	0.93*	0.36
Lower limb	8	0.05	0.996*	0.046	0.237	0.972*	0.209
Multisite pain	3	0.933	0.443	0.376	0.946	0.434	0.38
Multisite pain	4	0.833	0.656	0.489	0.946	0.566	0.512
Multisite pain	5	0.733	0.787*	0.52	0.911	0.663	0.574
Multisite pain	6	0.567	0.902*	0.469	0.857	0.711*	0.568
Multisite pain	7	0.333	0.934*	0.267	0.643	0.771*	0.414
Multisite pain	8	0.1	0.984*	0.084	0.357	0.94*	0.297

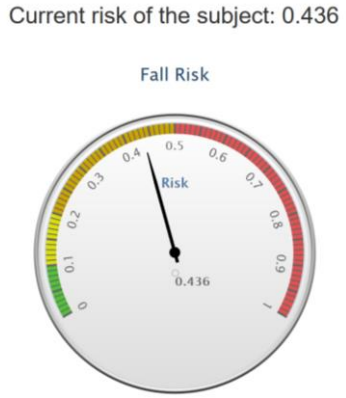
Grey shaded row indicates Youden's optimal score cut-point for predicting 6-month outcome.
*Specificity was >0.7 according to predefined clinical criteria.

Cut-Offs versus Wahrscheinlichkeiten
Subgruppen versus Profile

Von der offiziellen STarT Back Webseite:

“The STarT Back tool was always intended for, and has been used in the context of a consultation with a health care professional to aid clinical decision-making (not as a stand alone tool) and to support the targeting of appropriate intervention.”

- ≤ 3 → low risk
- ≥ 4 & psych score ≤ 3 → medium risk
- ≥ 4 & psych score ≥ 4 → high risk



Cut off: Einfach und Klar

Wahrscheinlichkeiten: nicht klar, ermöglicht aber die Berücksichtigung von anderen Faktoren und dem Bauchgefühl

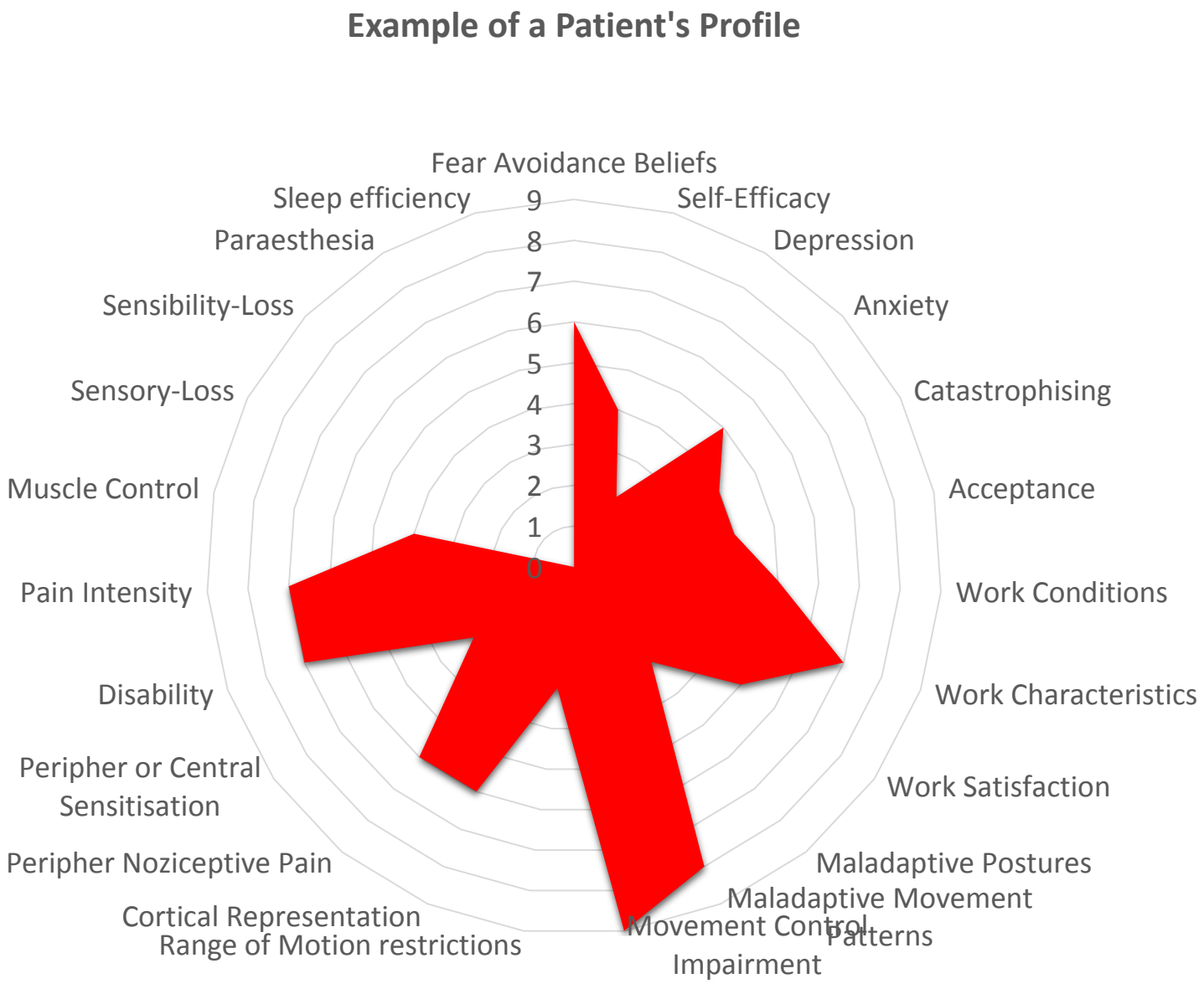
Current risk of the subject: 0.436

Health profile of the subject:

Does the subject use a walking aid?	○ Yes	◉ No	○ Use prevalence
Dizziness or unsteadiness last year?	◉ Yes	○ No	○ Use prevalence
Does the subject suffer Parkinson?	◉ Yes	○ No	○ Use prevalence
Urinary incontinence last year?	○ Yes	◉ No	○ Use prevalence
Fear of falling (Deshpande)?	○ Yes	○ No	◉ Use prevalence
Does the subject suffer rheumatic disease?	○ Yes	○ No	◉ Use prevalence
History of previous strokes?	○ Yes	○ No	◉ Use prevalence
Is the subject female?	◉ Yes	○ No	○ Use prevalence
Does the subject use antiepileptics?	◉ Yes	○ No	○ Use prevalence
Does the subject suffer any pain?	○ Yes	◉ No	○ Use prevalence
Does the subject use antihypertensives?	○ Yes	◉ No	○ Use prevalence
Does the subject use sedatives?	○ Yes	○ No	◉ Use prevalence
History of previous falls?	○ Yes	◉ No	○ Use prevalence

Visual stereognosis:		☑ Use prevalence
Age:		☑ Use prevalence
CESD:		☑ Use prevalence
MMSE score:		☑ Use prevalence
physical activity level:		☑ Use prevalence
Hearing impairment?:		☑ Use prevalence
Visual acuity (3 meter):		☑ Use prevalence
Contrast sensitivity?:		☑ Use prevalence
Subject's number of IADL:		☑ Use prevalence

Profil


Example of a Patient's Profile
Fear Avoidance Beliefs
Self-Efficacy
Depression
Anxiety
Catastrophising
Acceptance
Work Conditions
Work Characteristics
Work Satisfaction
Maladaptive Postures
Maladaptive Movement Patterns
Movement Control Impairment
Range of Motion restrictions
Cortical Representation
Peripher Noziceptive Pain
Peripher or Central Sensitisation
Disability
Pain Intensity
Muscle Control
Sensory-Loss
Sensibility-Loss
Paraesthesia
Sleep efficiency
9
8
7
6
5
4
3
2
1
0

Schlussfolgerung

- Stratifizierte Therapiezuteilung bringts
- STarT Back ist nur der Start, Therapie muss angepasst werden

- Brachte der STarT Back die Verbesserung oder die umfassende Therapiestrategie?

Diskussion

Wie setzen wir das in der Schweiz um?

Herzlichen Dank für Ihre Aufmerksamkeit

Low risk-group

Patients allocated to the 'low risk-group' received the one-off clinic appointment described above, were reassured that further treatment was unlikely to be beneficial or necessary and were encouraged not to seek further treatment. They were, however, advised that if their symptoms deteriorated they should re-visit their GP. They were therefore discharged from further physiotherapy care at the end of the clinic consultation. Physiotherapists were responsible for providing good clinical governance to their patients and were allowed to over-rule the stratified tool if they believed the pathway being recommended for a patient was inappropriate.

Medium risk-group

In addition to the first clinic session described above, all medium-risk patients were recommended for referral to ongoing physiotherapy treatment with one of five physiotherapists who attended three days training. The training was designed to standardise the pathway for medium-risk patients as follows:

- Individualised 30-minute physiotherapy sessions focussed on restoring function and targeting physical characteristics (disabling back pain, referred leg pain and co-morbid pain).
- Treatments were held in NHS local community physiotherapy outpatient premises staffed with guidance that patients should receive up to 6 sessions over a 3-month period.
- The first session re-assessed/examined the patient and included making a differential diagnosis particularly for patients with referred leg pain/radiculopathy.
- The main focus of treatment was to reduce back-related disability. A tailored management plan was negotiated using evidence-based treatments, including advice and explanation, reassurance, education, exercise, manual therapy and acupuncture.
- Consistent with evidence based guidelines, [10] bed rest, traction, massage and electrotherapy were not included in the treatment protocol.
- Moderate levels of psychological prognostic indicators were addressed, but specific training on techniques to target psychological factors was not provided for physiotherapists treating the medium risk-group of patients.
- Therapists were advised to refer non-responders on for further investigations or secondary care interventions, with supervision provided if required from a spinal specialist physiotherapist.

High risk-group

In addition to the first clinic session described above, all high-risk patients were recommended for referral to ongoing physiotherapy treatment with one of four physiotherapists who attended a total of nine days training. The training was designed to standardise the pathway for high-risk patients as follows:

- Individualised 45-minute physiotherapy sessions focussed on restoring function using combined physical and psychological approaches and targeting physical and psychological obstacles to recovery.
- Treatments were held in NHS community outpatient premises with guidance that patients should receive up to 6 sessions over a 3-month period.
- The first session re-assessed/examined the patient and included a differential diagnosis particularly for patients with referred leg pain/radiculopathy, and biopsychosocial assessment to explore patient concerns, adopting cognitive behavioural principles to address unhelpful beliefs and behaviours.
- Therapists were trained to use 'stem & leaf' questions to identify unhelpful beliefs and behaviours.
- Physical treatment modalities (exercise and manual therapy) were integrated with psychologically informed techniques to provide a credible explanation for symptoms, reassurance, education, collaborative goal setting, problem solving, pacing, graded activity, and relaxation.
- There was a specific focus on the prognostic psychological indicators identified by the STarT Back Tool such as low mood, anxiety, pain-related fear and catastrophising.
- Reasons for psychological distress were addressed using enhanced communication skills with a focus on promoting appropriate levels of activity, return to normal activities and the management of future back pain recurrences.
- Patient expectations about prognosis and implications for function were addressed and the role of active self-management emphasised. Advice about sleep and work was provided and if necessary a return to work plan implemented.
- Patients were encouraged to put management plans into practice between treatment sessions and help was given to problem solve any difficulties that arose.
- Monthly group mentoring sessions were held for physiotherapists to discuss individual cases and consolidate the training throughout the trial, with supervision provided from a Consultant Physiotherapist (pain management expertise) and a Professor of Clinical Psychology.
- Therapists were advised to refer non-responders on for further investigations or secondary care interventions.

Vergleich zum Örebro Musculoskeletal Pain Screening Questionnaire

- OMPSQ:
  - Fear-Avoidance: 2 items from Fear Avoidance Beliefs Questionnaire; 1 item from Pain and Impairment Relationship Scale
  - Coping : 1 question from the Coping Strategies questionnaire
  - Tense/Relaxed: 1 item
  - Anxiety: 1 item
  - Depression: 1 item
  - Patient's own perception of likeliness to recover: developed for OMPSQ
  - ADL: 5 items from Activities of Daily Living for Patients with Chronic Pain scale
  - Experience of pain: 1 item pain location; 1 item for duration of current episode; 2 items pain intensity (now and 3 months), 1 item frequency of pain
  - Sick days: 1 item days off work during the past 12 months because of pain

Ein paar interessante Links zum Thema

- https://www.keele.ac.uk/sbst/startbacktool/sbtoolonline/

- http://www.keele.ac.uk/media/keeleuniversity/group/startback/STarT%20Back%20implementation%20presentation.pptx