



National Clinical Pathway for Spinal Cord Stimulation

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2 DISCLOSURES







31 / 7 / 2007

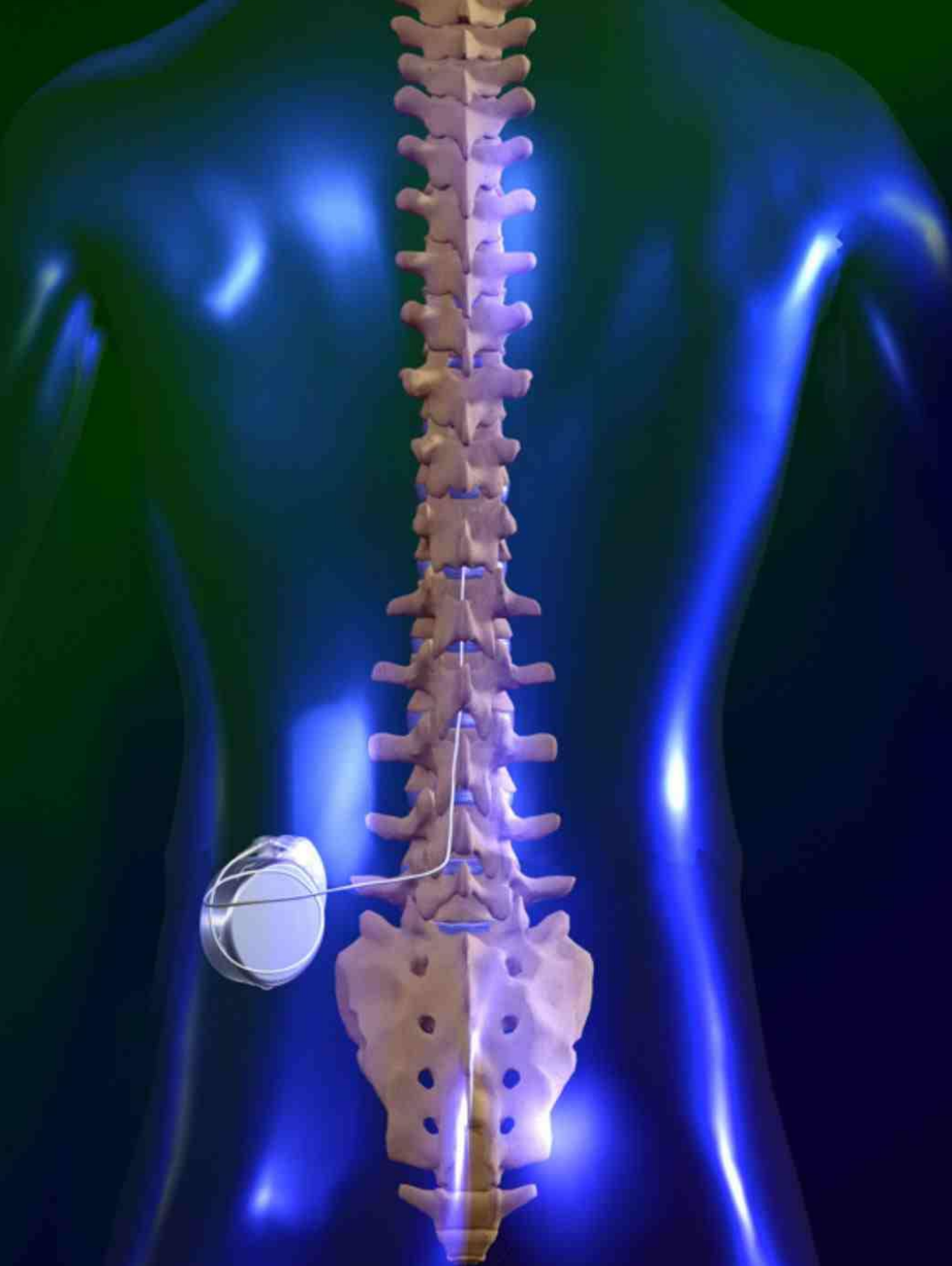




Second disclosure

World champion 2018!?





Failed Back Surgery Syndrome

Failed back surgery syndrome, also known as FBSS, is characterized by patients who have not experienced success but instead still experience pain following back surgery.

Back surgery is most commonly performed in order to stabilize a joint or decompress a nerve root.

REASONS

- The source of original pain is not accurately discovered
- Failed fusion
- Scar tissue around the nerve root

TYPES OF BACK SURGERY MOST LIKELY TO FAIL

- Spinal fusion for multi-level degenerative disc disease
- Discectomy for lumbar disc herniation causing lower back pain

TREATMENTS

- Pain relief injections
- Physical therapy
- Chiropractic care
- Other alternative methods

Usually, pain is considered to be due to failed back surgery syndrome if the patient does not experience improvement within one to two weeks following back surgery.

SCS in Belgium pre 2018

- Only approved for FBSS(FNSS)
- After “multidisciplinary evaluation” including psychiatry
- Trial period of minimum 4 weeks (cave infection)
- If >50% pain reduction during trial, implantation of pulse generator is allowed.



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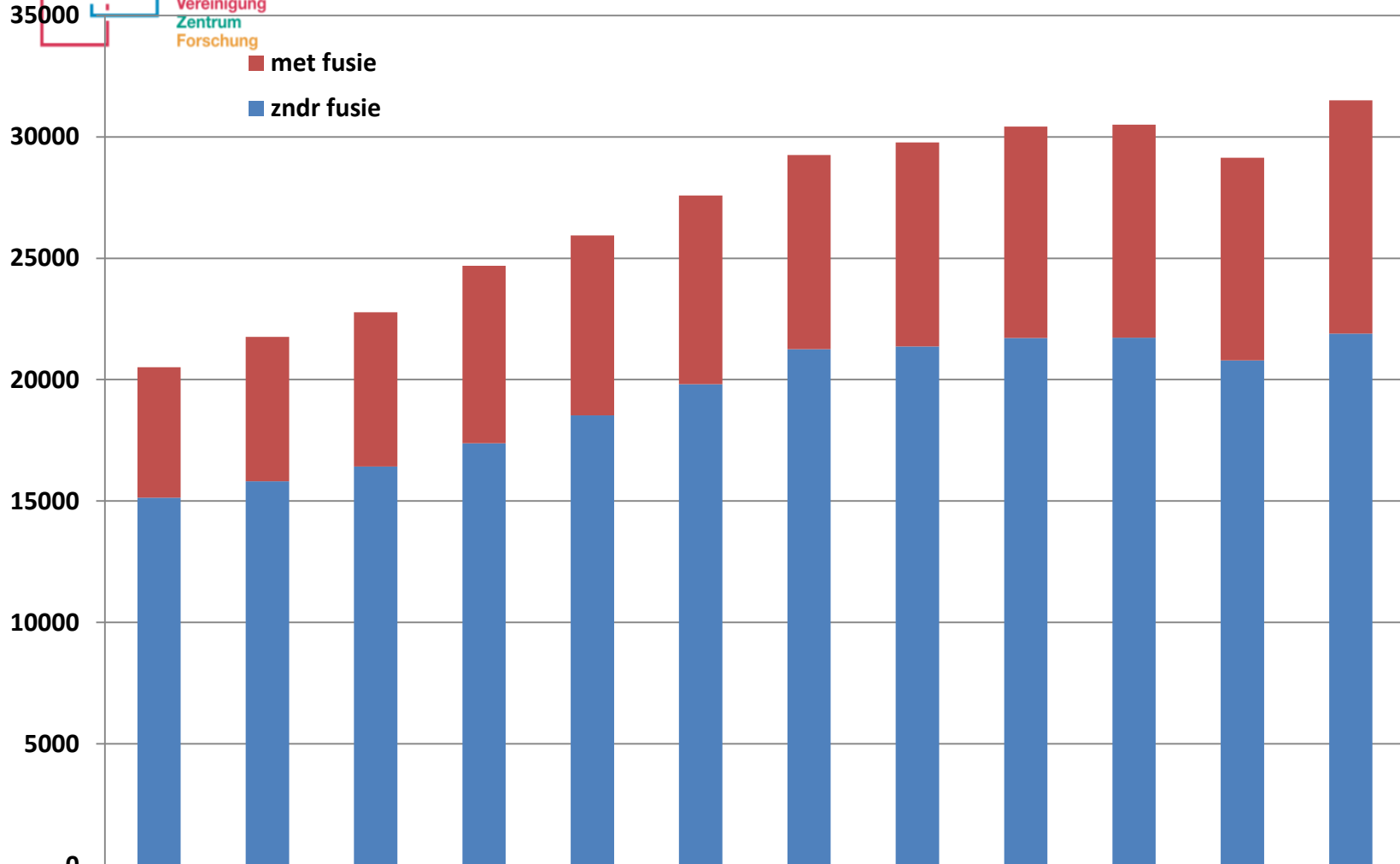
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Spine Surgery (RIZIV-data)



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met fusie
zndr fusie

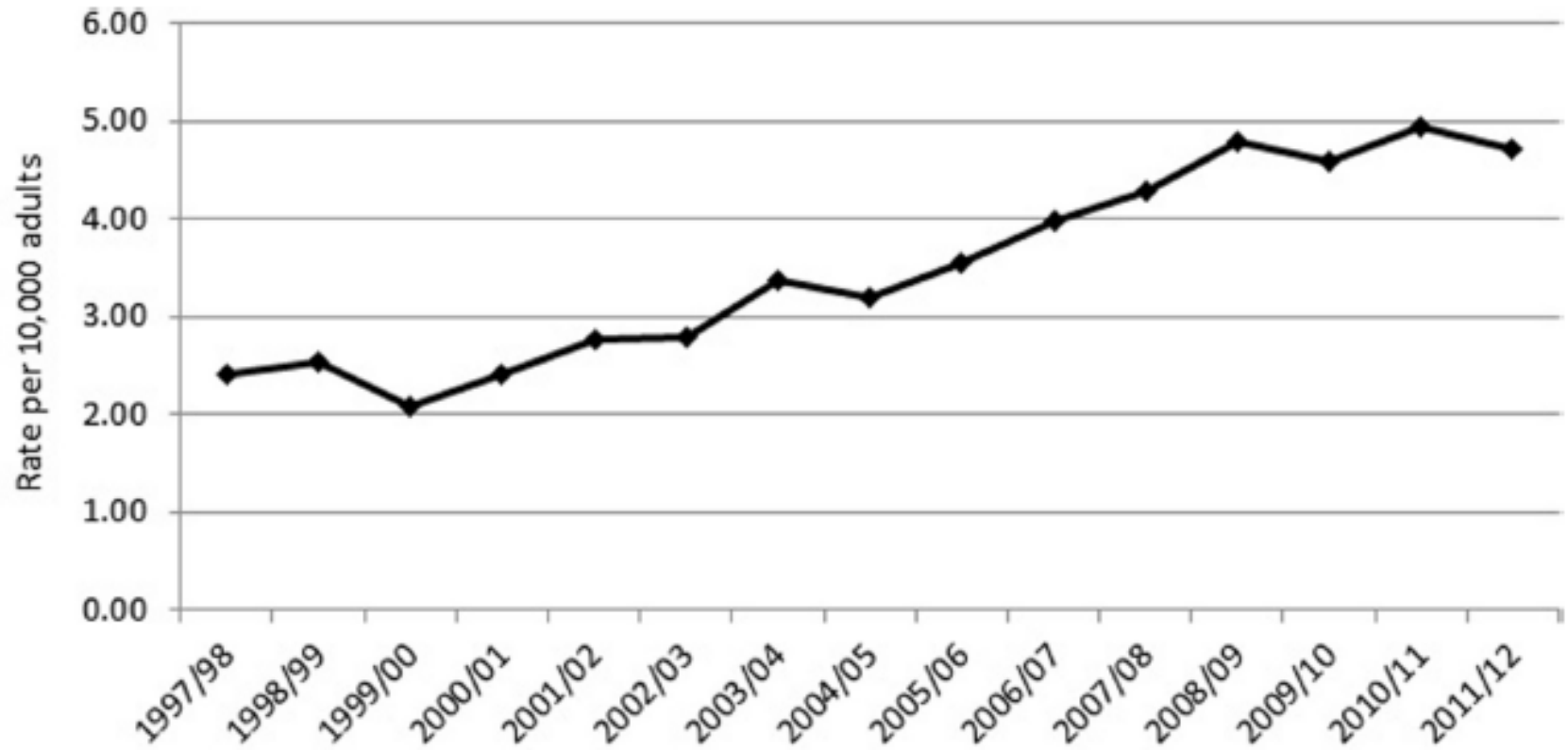
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
met fusie	5380	5950	6349	7309	7409	7774	8007	8399	8702	8771	8350	9614
zndr fusie	15135	15817	16424	17377	18535	19814	21250	21372	21717	21729	20789	21896

17. Febr. 2018

BMJ Open The incidence and healthcare costs of persistent postoperative pain following lumbar spine surgery in the UK: a cohort study using the Clinical Practice Research Datalink (CPRD) and Hospital Episode Statistics (HES)

Sharada Weir,^{1,2} Mihail Samnaliev,^{1,3} Tzu-Chun Kuo,¹ Caitriona Ni Choitir,⁴ Travis S Tierney,⁵ David Cumming,⁶ Julie Bruce,⁷ Andrea Manca,⁸ Rod S Taylor,⁹ Sam Eldabe¹⁰

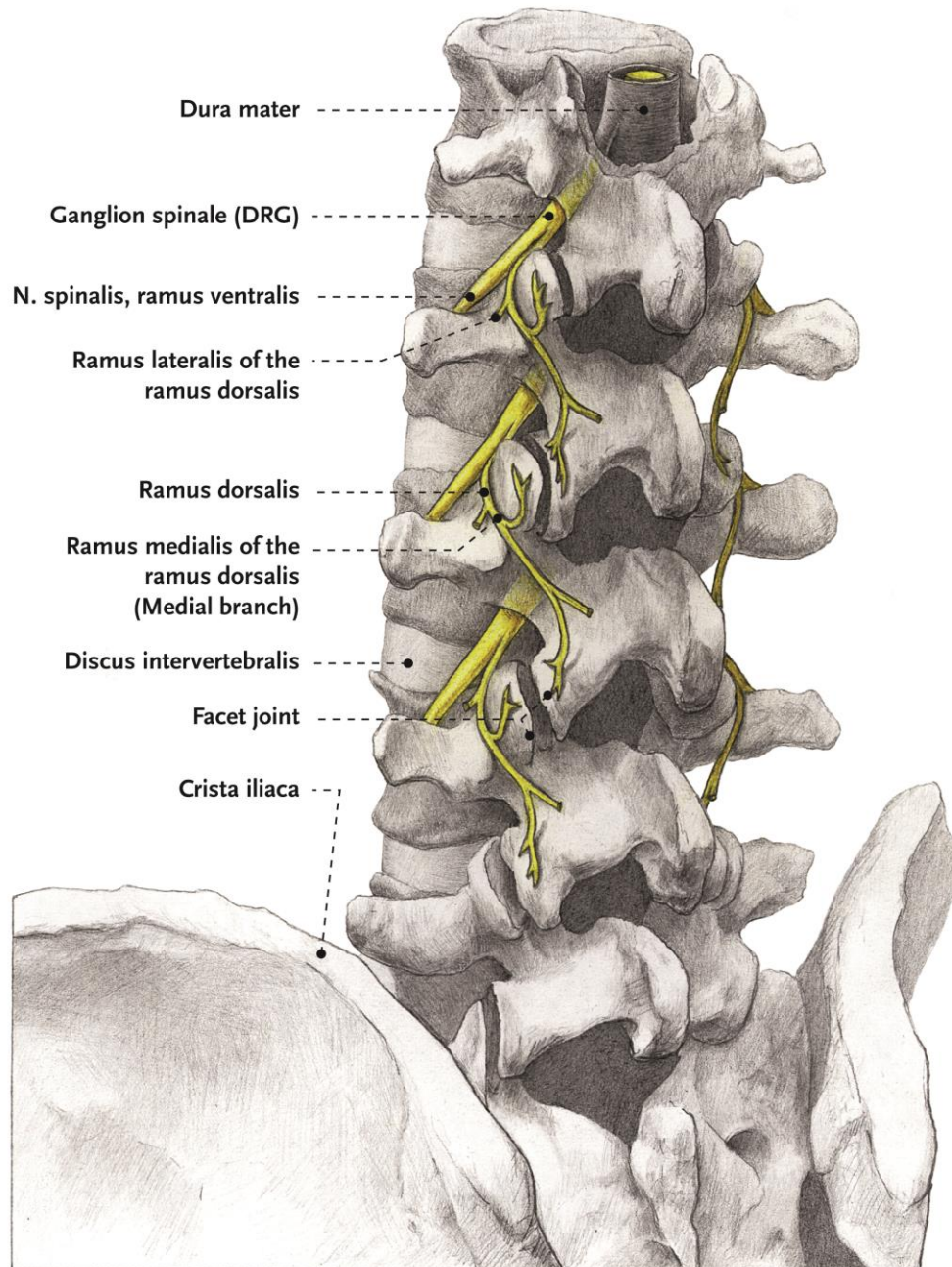
Incidence of lumbar surgery



Weir BMJ 2017

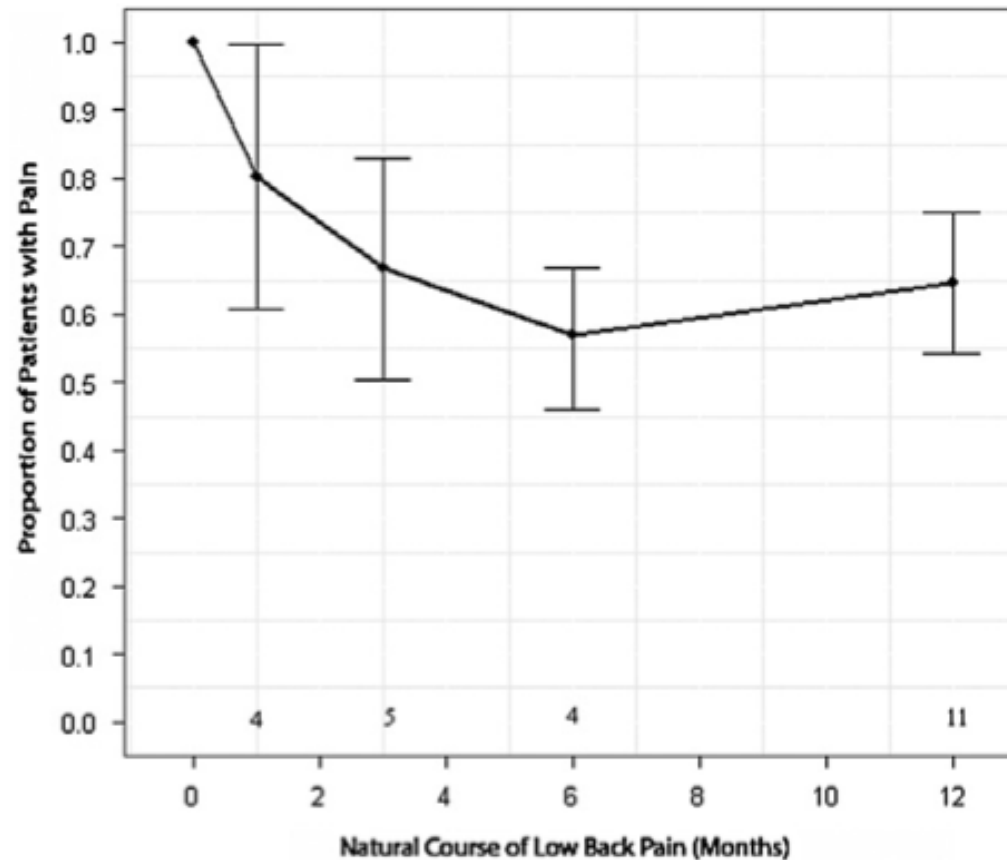


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Clinical course of non-specific low back pain: A systematic review of prospective cohort studies set in primary care

C.J. Itz¹, J.W. Geurts², M. van Kleef², P. Nelemans³





Global, regional, and national incidence, prevalence, and years lived with disability for 301 acute and chronic diseases and injuries in 188 countries, 1990–2013: a systematic analysis for the Global Burden of Disease Study 2013

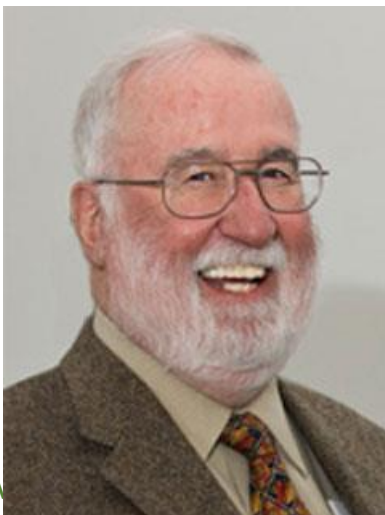
*Global Burden of Disease Study 2013 Collaborators**

Lancet 2015; 386: 743–800

Mean YLDs ×1000	Mean rank (95% UI)	1990 leading causes	2013 leading causes	Mean rank (95% UI)	Mean YLDs (×1000)	Median percentage change
46068	1.3 (1-2)	1 Low back pain	1 Low back pain	1.0 (1-1)	72318	57% (53 to 61)
40079	2.0 (1-3)	2 Iron-deficiency anaemia	2 Major depression	2.1 (2-4)	51784	53% (49 to 59)
33711	2.8 (1-4)	3 Major depression	3 Iron-deficiency anaemia	3.6 (2-6)	36663	-9% (-10 to -7)
22294	4.7 (4-6)	4 Neck pain	4 Neck pain	4.3 (3-6)	34348	54% (49 to 60)
21633	5.1 (3-7)	5 Other hearing loss	5 Other hearing loss	5.3 (3-9)	32580	51% (45 to 55)
19805	5.8 (4-8)	6 Migraine	6 Migraine	6.6 (3-10)	28898	46% (41 to 50)
17180	6.9 (4-9)	7 Anxiety disorders	7 Diabetes	6.7 (5-9)	29518	136% (127 to 144)
15151	7.9 (6-10)	8 COPD	8 COPD	7.8 (4-10)	26131	72% (67 to 79)
12672	9.5 (7-12)	9 Other musculoskeletal	9 Anxiety disorders	8.5 (5-10)	24356	42% (36 to 47)
12533	9.5 (8-11)	10 Diabetes	10 Other musculoskeletal	9.2 (7-10)	22644	79% (75 to 83)
10337	11.6 (10-13)	11 Falls	11 Schizophrenia	11.5 (11-15)	15204	52% (50 to 54)
9995	12.0 (9-16)	12 Schizophrenia	12 Falls	12.7 (12-14)	12818	23% (14 to 35)
8048	14.7 (12-19)	13 Asthma	13 Osteoarthritis	12.8 (11-15)	12811	75% (73 to 78)
7831	15.5 (10-23)	14 Refraction and accommodation	14 Refraction and accommodation	15.5 (11-22)	11257	44% (40 to 47)

Evidence Based Medicine

*“The conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients. The practice of EBM means **integrating** individual **clinical expertise** with the **best available external clinical evidence** from systematic research”*





Attack and defense



RESEARCH
EDUCATION
TREATMENT
ADVOCACY



The Journal of Pain, Vol 12, No 8 (August), 2011: pp 833-839
Available online at www.sciencedirect.com

Focus Article

Guideline Warfare Over Interventional Therapies for Low Back Pain: Can We Raise the Level of Discourse?

Roger Chou,^{*} Steven J. Atlas,[†] John D. Loeser,[‡] Richard W. Rosenquist,[§]
and Steven P. Stanos[¶]





PRACTICE



GUIDELINES

Low back pain and sciatica: summary of NICE guidance

Ian A Bernstein *musculoskeletal physician and general practitioner*¹, Qudsia Malik *senior research fellow*², Serena Carville *associate director*², Stephen Ward *guideline development group chair, consultant pain physician*³



GUIDELINES

Low back pain and sciatica: summary of NICE guidance

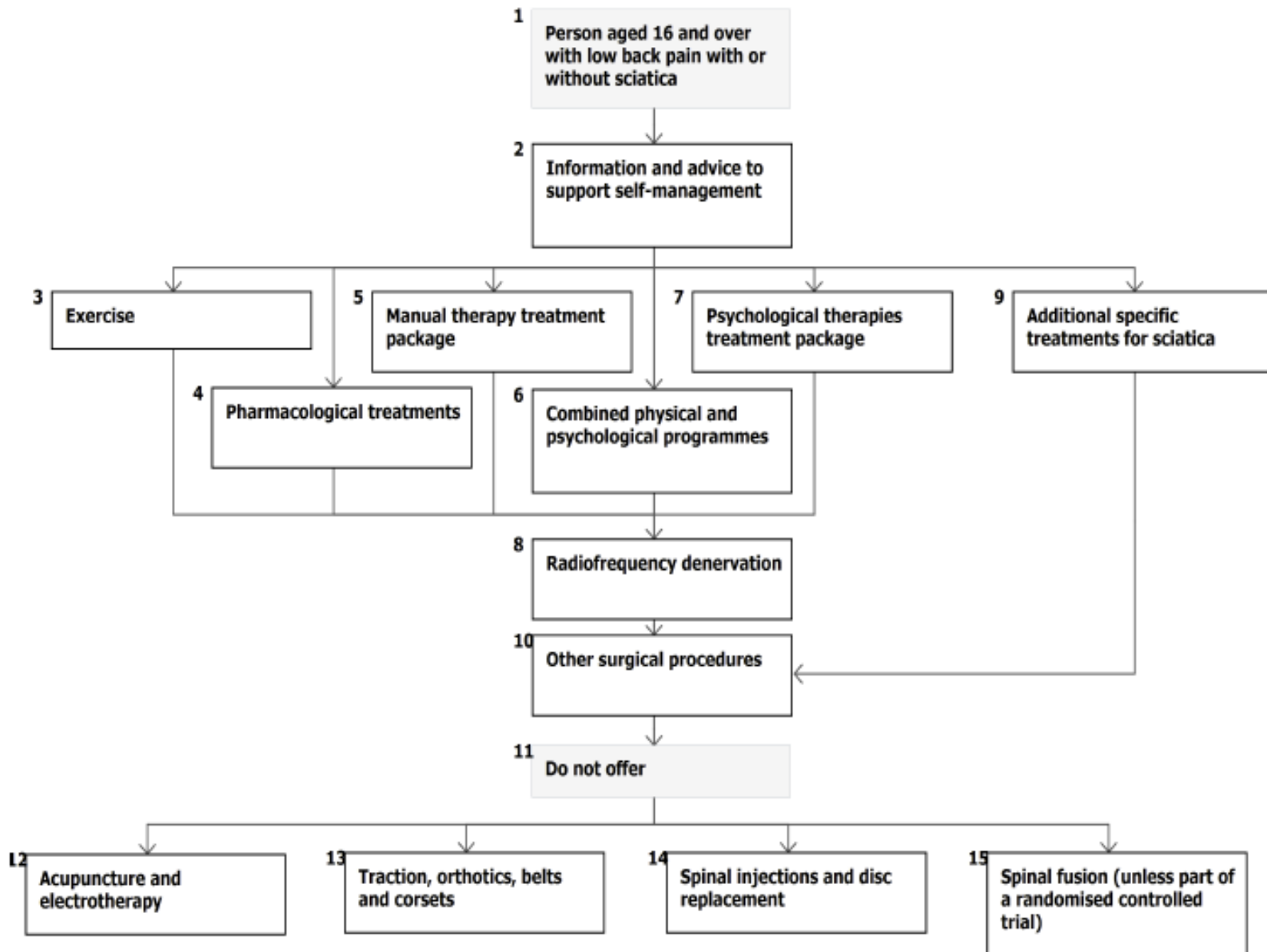
Ian A Bernstein *musculoskeletal physician and general practitioner*¹, Qudsia Malik *senior research fellow*², Serena Carville *associate director*², Stephen Ward *guideline development group chair, consultant pain physician*³

BMJ 2017;356:i6748 doi: 10.1136/bmj.i6748 (Published 2017 January 05)

- Replaces previous guideline on early management of low back pain in adults (2009)
- Based on systematic reviews of best available evidence and explicit consideration of cost effectiveness.
- When minimal evidence is available, recommendations are based on the Guideline Development Group's experience and opinion of what constitutes good practice.

1 Guideline Development Group members

Name	Role
Babak Arvin	Consultant Neurosurgeon, Queens Hospital
Ian Bernstein	Musculoskeletal Physician and General Practitioner, London North West Healthcare NHS Trust and Gordon House Surgery
Suzanne Blowey	Consultant Nurse Chronic Pain, Derriford Hospital, Plymouth (from November 2014)
Patrick Hill	Honorary Consultant Psychologist, Pain Services Royal United Hospitals Bath NHS Foundation Trust and Taunton and Somerset NHS Foundation Trust
Mark Mason	Patient representative
Wendy Menon	Patient representative (until January 2015)
Gary MacFarlane	Chair (clinical) in Epidemiology, University of Aberdeen
Neil O'Connell	Senior Lecturer, Department of Clinical Sciences, College of Health and Life Sciences; Institute of Environment, Health and Societies, Brunel University London
Diana Robinson	Patient representative (from February 2015)
Philip Sell	Consultant Orthopaedic Surgeon, University Hospitals of Leicester NHS Trust and Nottingham University Hospitals NHS Trust
Simon Somerville	General Practitioner with Special Interest in Musculoskeletal Medicine, Park Medical Centre, Leek, Staffordshire
Helen Taylor	Nurse Specialist, Pain Management Solutions (until September 2014)
Steven Vogel	Vice Principal (Research), British School of Osteopathy
David Walsh	Honorary Consultant Rheumatologist, Sherwood Forest Hospitals NHS Foundation Trust
Stephen Ward (Chair)	Consultant in Pain Medicine, Brighton and Sussex University Hospitals NHS Trust
Chris Wells	Consultant in Pain Medicine, Liverpool and President, European Pain Federation (EFIC)





Less is more



Belgian situation Pre 2016

- 95 % of the indication for SCS in Belgium are FBSS/FNSS
- No new indications for SCS reimbursed because of increasing budgets: approx 8 fold (800 %) increase in 10 years.
- Long time discussions on too many Spine Surgery and related FBSS vs too much SCS for FBSS: Backsurgeons ask the budget of SCS to be reallocated for better reimbursement of spine surgery
- In 2015/2016 crash in the system: no more national negotiations between health care authorities/insurers and doctors representatives.

- Medation phase ...
- Need to reform the healthcare in Belgium related to Spine:
 - National Spine Guidelines and Pathway (NICE, KCE)
 - National implementation via Spine Unit's
 - National Clinical Pathway for Spinal Cord Stimulation for FBSS
- Consensus between all Belgian healthcare providers and stake holders: 31 different (non-)medical specialities, health care authorities, insurance payers, preventive medicine, patient representatives, ...

- Direct linear savings and cut in the SCS budget (30 – 50 %)
- Or ...
- Reform to reach higher quality after SCS implant and less unnecessary consumption/costs:
 - Better medical AND bio-psycho-social patient selection
 - Paperless (application via E-health)
 - Mandatory national central registration and long term follow-up (patient responsibilities)

A new on-line platform for the registration of SCS in 2018

Indications

- Spinal Cord Stimulation can only be performed in patients suffering from **therapy-resistant failed (back/neck) spine surgery syndrome (FB(N)SS) with clear neuropathic pain conditions**

Screening/selection procedure

- Medical screening
- Psychological evaluation and screening

Medical screening

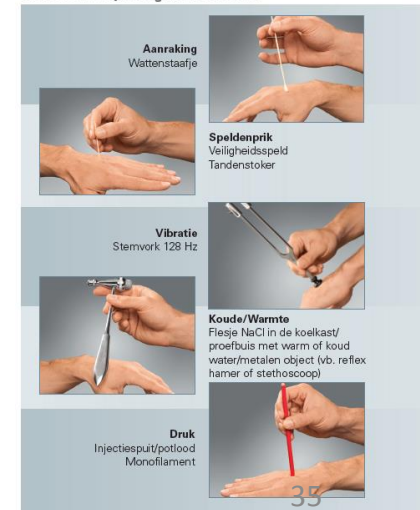
- Medical and surgical history
- Anatomical distribution of complaints
- Nociceptive evaluation
 - Quality of neuropathic pain*
 - (clinical) sensory testing*
 - Pain resistant to maximal conservative treatment
 - (mean) NRS $\geq 5/10$
 - Current treatment induces unbearable side effects and/or insufficient analgesia

Nociceptive evaluation

- Quality of neuropathic pain
 - Tingling sensations, pricking sensations in the dermatome?
 - Pain described as severe heat?
 - Presence of hypo-esthesia or an-esthesia in the skin region?
 - Pain induced by light touch to the skin of the painful area
- Sensory testing
 - Less sensation or increased sensitivity to light touch and pin prick stimulation?

3. SENSORIEEL ONDERZOEK

Duidt het neurologisch onderzoek op de aanwezigheid van de vermoedelijk aangetaste zenuw?



Psychological assessment/evaluation

- **At least 2 psychological consults as part of the pathway (and more if necessary)**
 - Psychiatric co-morbidities
 - Yellow Flags Evaluation (questionnaire to be added)
 - Symptom checklist (SCL-90-R)
 - Pain Coping Inventory (PCI)
 - Illness attitude scale (IAS)
 - Evaluation of functional status of the patient
 - Pain intensity (Numeric Rating Scale – dagelijkse meting)
 - Quality of sleep (NRS)
 - Attitude against medications and medication use (MQS-III)

Psychiatric evaluation ?



- Psychiatric evaluation only necessary if psychological screening indicates the presence of an underlying psychiatric pathology or co-morbidity or if psychiatric evaluation is deemed necessary in order to obtain a full clinical perspective

Multidisciplinary consultation

- **Multidisciplinary Algologic Consult (MAC)**
- Report has to be made and included into the platform
 - When date and time is fixed automated invitation is sent out
- **Minimum attendance of the MAC:**
 - **pain specialist, psychologist and surgeon**
 - All other can be invited and participate in this consultation

Uitnodiging MAO-vergadering

BI **BeWell Innovations <noreply@bewellinnovations.com>**
ghans@skynet.be
donderdag 22 februari 2018 om 07:01
[Details weergeven](#)



U bent uitgenodigd voor een MAO-vergadering

Een nieuwe MAO-vergadering is gepland voor patiënt uz1kzypjmd1z4xn in Neuro-Pain. Je ontvangt dit bericht omdat je de huisarts van deze patiënt bent.

U kan uw medische hub (zoals CoZo, RSW, VZN_KUL of Abrumet) gebruiken om toegang te krijgen tot informatie over de MAO-vergadering of de patiënt. Zoek resultaten van Neuro-Pain om toegang tot het beveiligde webplatform te krijgen.

Deze MAO-vergadering werd gepland door de volgende MPC: UZA test MPC (of een samenwerkende MAT). De contactgegevens van deze MPC is:

- E-mail: neuro-pain@uza.be
- Telefoonnummer: [+3238213586](tel:+3238213586)

This is a mandatory notification notifying you of an important update to one of your patients.

Delivered by
BeWell Innovations NV
Lievevrouwestraat 10
2520 Ranst, Belgium

Technical support
support@bewellinnovations.com
+32 (0)3 870 46 31

SCS trial period

- Minimal duration of three weeks (21 days)

Following trial therapy

- Evaluation of mean intensity of pain during treatment
 - 50% decrease in pain intensity versus pre-trial state
- Neuropathic Pain Symptom Inventory (NPSI)
- Global Perceived Effect (GPE-DV)
- SCL-90-R
- PCI
- IAS
- Quality of sleep (NRS)
- MQS-III
- Attitude against re-activation and regaining normal life

SCS Implant

- After Second MAC: evaluation of the trial period
- Report uploaded into digital platform
 - Automated notification to insurance physician
 - Automated notification to primary care physician

Chronic follow-up

- Patient needs to establish and maintain a **therapeutic relationship** with the multidisciplinary pain centers
 - Follow-up at least twice a year
 - Continuing support for active participation by the patient
 - Coping with life stressors
 - Socio-economic re-integration
 - Control of medical shopping after entering into the platform

Other steps and procedures

- National Advisory Board for Neurostimulation
 - Multidisciplinary representation (different scientific organisations, physicians and non-physicians, health care authorities, insurance payers)
 - Gathering at least 6 times a year
 - Peer review process
 - Discussion of individual cases who already have an implant but outside the current indications
 - Maintaining overview of scientific evidence



Failed Back Surgery Syndrome

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Back surgery is most commonly performed in order to stabilize a joint or decompress a nerve root.

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Reform of the health care in Belgium related to Spine:

- National Spine Guidelines and Pathway (NICE, KCE)
- National implementation via Spine Unit's
- National Clinical Pathway for Spinal Cord Stimulation for FBSS

LOW BACK PAIN AND RADICULAR PAIN: ASSESSMENT AND MANAGEMENT



HISTORY TAKING AND CLINICAL EXAMINATION

Always take into account possible differential diagnoses and exclude signs suggestive of possible serious underlying pathology



Presence of red flags



EXIT

Out-of-scope of this guideline

EVALUATION OF THE RISK ON CHRONICITY

LOW RISK

Simple management at low intensity

Perceptive & amblyopia

Psychiatric symptoms

Perception about work

Contextual obstacles

HIGH RISK

More complex management at higher intensity

SELF-MANAGEMENT

For all patients, provide information and personalised advice, tailored to their needs and capabilities, at all steps of their treatment pathway:

- Inform them on the benign nature of the low back pain/radicular pain
- Encourage them to continue their regular activities (as best as the can)

NON-INVASIVE INTERVENTIONS

Exercise programme (following the specific needs, preferences and capabilities of the patient)



Manipulation, mobilisation or soft-tissue techniques

Psychological intervention (cognitive behavioural therapy)

Multidisciplinary rehabilitation programme with physical and psychological component

- if significant psychosocial obstacles or
- after failure of previous evidence-based treatments

PROMOTE AND FACILITATE RETURN TO WORK OR RESUMPTION OF DAILY ACTIVITIES AS SOON AS POSSIBLE

INVASIVE INTERVENTIONS

CHRONIC LOW BACK PAIN

Radiofrequent denervation (only after a diagnostic medial branch block) when:

- suspected facet joint pain
- after failure of non-surgical management
- moderate to severe low back pain

Lumbal arthrodesis: Do NOT offer unless:

- after failure of non-surgical management
- after evaluation in a multidisciplinary consultation
- preferably with data registration in a registry

RADICULAIRE PIJN

Epidural infiltrations (local anaesthetics en steroids):

- For (sub)acute and severe pain

Spinal decompression after at least 6 to 12 weeks when:

- After failure of non-surgical management
- Imaging findings are consistent with current clinical symptoms



IMAGING
NOT routinely
Explain to the patient that medical imaging is not necessary

FARMACOLOGICAL INTERVENTIONS only if required

NSAIDs

- With ongoing monitoring of the risk factors and use of gastro-protective treatment if needed
- At the lowest effective dose for the shortest possible period of time

Opioids:

- weak (with or without paracetamol) for acute low back pain, for the shortest period possible, only if NSAIDs are contraindicated, not tolerated or have been ineffective
- NOT routinely for chronic low back pain

Paracetamol : NOT routinely as the only medication

Antidepressants

- Tricyclic or SNRI : NOT routinely for chronic low back pain
- SSRI : Never

Anticonvulsants : NOT in absence of a neuropathic pain component

Muscle relaxants: Never

DO NOT

- Electrotherapy
- Manual traction
- Belts, corsets, foot orthotics
- Non-epidural spinal injections
- Disc prosthesis

Regarding other interventions, such as for example andulation therapy, no recommendation could be formulated because evidence was lacking.

LOW BACK PAIN AND RADICULAR PAIN: DEVELOPMENT OF A CLINICAL PATHWAY



Week 1

Week 2

Weken 3-5

Weken 6-11

Week 12 en verder (Chronische fase)

Lage rugpijn

Radiculaire pijn

Eerstelijns zorg

Tweedelijns zorg

Zorgpad



Vlaggen



Toolkit

MRC-score voor spierkracht

NRS-pijnschaal

Oswestry Disability Index (ODI)

COMI vragenlijst

Pain Detect vragenlijst

Zorgpad Radiculaire Pijn-Overzicht

Week 12 en volgende (Chronische fase)

Aanpak

- ▶ Basisaanpak
- ▶ Specifieke aanpak van neuropathische pijn
- ▶ Profiel A: Chirurgische decompressie bij laag tot matig risico op aanhoudende functionele beperking
- ▶ Profiel B: Chirurgische decompressie bij een zeer hoog risico op aanhoudende functionele beperking (of bij tweede operatie)
- ▶ Profiel C: Multidisciplinair programma gecoördineerd door FGR-specialisten
- ▶ Profiel D: Multidisciplinair pijncentrum
- ▶ Verlaten van het zorgpad

WERKGERELATEERDE ASPECTEN ▶

Conclusions

- Better outcome for spine patients in Belgium by better multidisciplinary collaboration between all involved medical and non-medical health care providers
- National level: SCS Pathway, Spine Unit and Multidisciplinary Pain Center
- Less is more!



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31/7/2007



JVZ Febr 2018



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Lanaken/Genk, Belgium	EBM guidelines WIP/Pain Practice	Maastricht, the Netherlands
<p>Martine Puylaert Pascal Vanelderden Pieter De Vooght Roel Mestrum Klaas Buyse Thibaut Vanneste Astrid Van Lantschoot Koen Van Boxem Rene Heylen</p>	<p>Frank Huygen Jos Kleijnen Maurits van Tulder Jan Willem Kallewaard Kris Vissers Craig Hartrick Nagy Mekhail Peter Staats Nicole Van den Hecke</p>	<p>Maarten van Kleef Bert Joosten Fons Kessels Jaap Patijn Arno Lataster Rogier Trompert Sander van Kuijk Wolfgang Buhre</p>
<p>Multidisciplinary team</p>	<p>VAVP and NVA section Pain Medicine</p>	



9TH WORLD CONGRESS OF THE WORLD INSTITUTE OF PAIN (WIP)

MAY 9-12 2018, DUBLIN, IRELAND



Radiofrequency denervation

- 1.3.2 Consider referral for assessment for radiofrequency denervation for people with chronic low back pain when:
- non-surgical treatment has not worked for them **and**
 - the main source of pain is thought to come from structures supplied by the medial branch nerve **and**
 - they have moderate or severe levels of localised back pain (rated as 5 or more on a visual analogue scale, or equivalent) at the time of referral.
- 1.3.3 Only perform radiofrequency denervation in people with chronic low back pain after a positive response to a diagnostic medial branch block.
- 1.3.4 Do not offer imaging for people with low back pain with specific facet joint pain as a prerequisite for radiofrequency denervation.

-
33. Consider epidural injections of local anaesthetic and steroid in people with acute sciatica.
 34. Do not use epidural injections for neurogenic claudication in people who have central spinal canal stenosis.