Arthritis Research UK | pain centre

The University of Nottingham
UNITED KINGDOM · CHINA · MALAYSIA

The NICE revised guidelines for the management of non-specific low back pain and; Implications for Practice

David Walsh

David.walsh@nottingham.ac.uk

NICE National Institute for Health and Care Excellence

National Clinical Guideline Centre
Commissioned by NICE

Declarations of Interest

- Member NICE GDGs; Low Back Pain, 2009, Low Back Pain and Sciatica NG59, November 2016
- Consultant Rheumatologist, Sherwood Forest Hospitals NHS Foundation Trust
- Professor of Rheumatology, University of Nottingham
- Director Arthritis Research UK Pain Centre, Nottingham
- MSK Lead, NIHR Nottingham BRC
- Grant income ARUK, NIHR, Pfizer
- Consultancy GSK, Pfizer

NICE Guideline
Low Back Pain & Sciatica

- 23 review questions, 22 Systematic reviews
- 43,000 records screened, 734 papers reviewed, 2,700 papers excluded
- 720 stakeholder comments, 297 internal review comments at consultation stage, further quality assurance and peer review until publication
- 3 years to produce the final guideline
- 3,600 pages
- 41 recommendations, 7 research recommendations

Causes of Low Back Pain in Primary Care

Non-specific LBP (common age 35-55)	85%
Compression fractures	4%
Tumour	1%
Prolapsed intervertebral disc	1–3%
Ankylosing spondylitis, Spinal infections	<1% each

Low Back Pain Acute, Clinical Evidence, 2004

Low back pain

- Pain in the back between the bottom of the rib cage and the buttock creases
- Unlikely to be because of a medically serious problem such as cancer, infection, fracture, bony deformity, pelvic disease, neurological disorder, or widespread inflammation
- Synonyms
  - Non-specific LBP
  - Mechanical LBP
  - Musculoskeletal LBP
  - Simple LBP

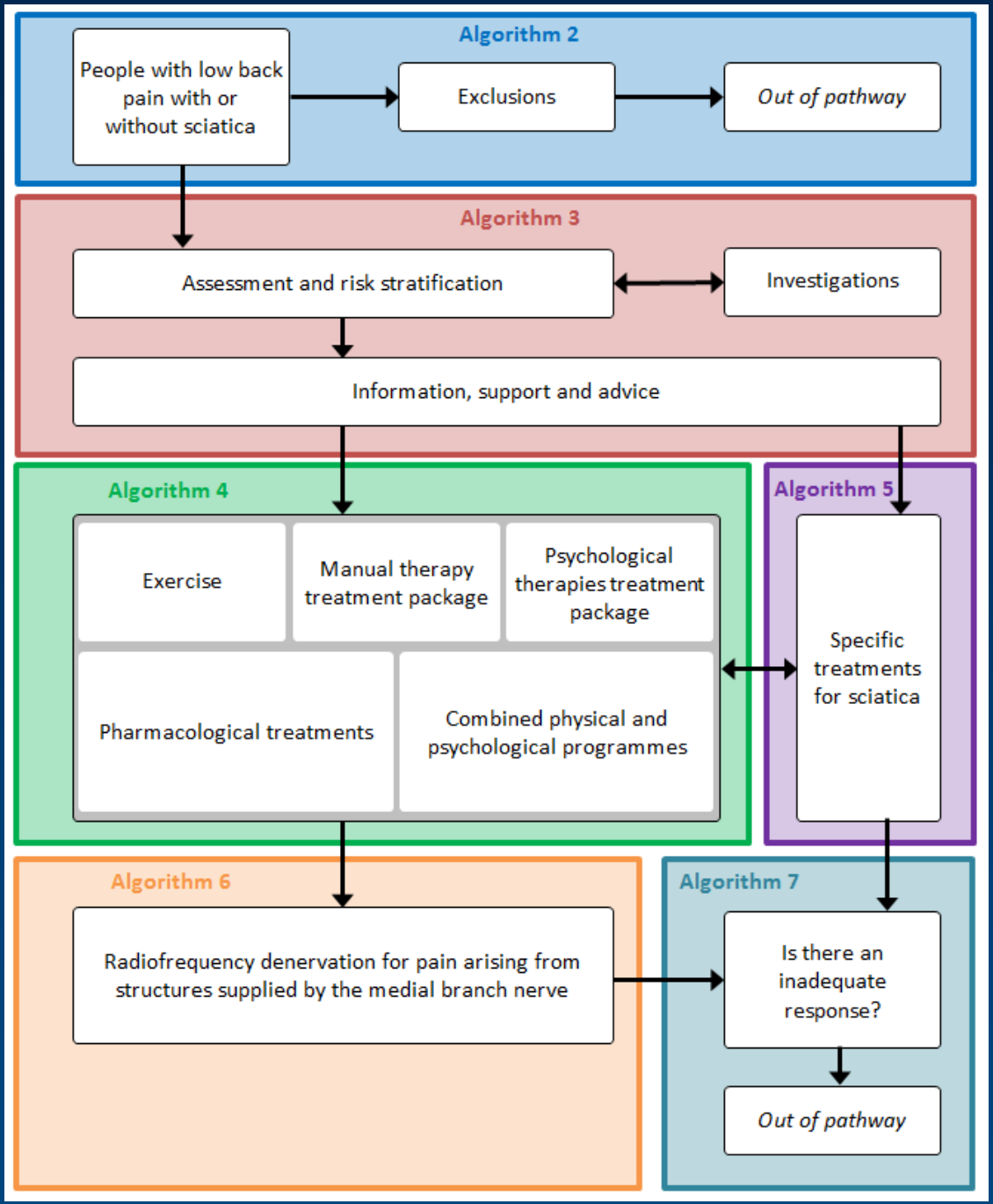
Definition of sciatica

- Leg pain secondary to lumbosacral nerve root pathology
  - Radicular pain
  - Radiculopathy
- Widely used in the literature to describe neuropathic leg pain secondary to compressive spinal pathology
- Guideline does not cover sciatica with progressive neurological deficit or cauda equina syndrome

What this guideline does not cover

- Conditions with a select and uniform pathology of a mechanical nature
  e.g. spondylolisthesis, scoliosis, vertebral fracture, congenital diseases
- Conditions of a non-mechanical nature
  e.g. ankylosing spondylitis, diseases of the viscera
- Neurological disorders (except sciatica)
  e.g. cauda equina syndrome
- Medically serious spinal pathology
  e.g. neoplasms, infections, osteoporotic collapse
- Post-surgery care
- Spinal cord stimulation
- Pharmacological treatments for sciatica

NICE

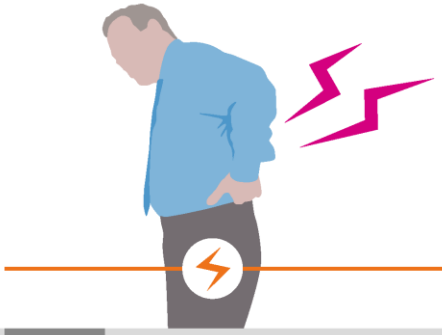

Algorithm 2
People with low back pain with or without sciatica
Exclusions
Out of pathway
Algorithm 3
Assessment and risk stratification
Investigations
Information, support and advice
Algorithm 4
Exercise
Manual therapy treatment package
Psychological therapies treatment package
Pharmacological treatments
Combined physical and psychological programmes
Algorithm 5
Specific treatments for sciatica
Algorithm 6
Radiofrequency denervation for pain arising from structures supplied by the medial branch nerve
Algorithm 7
Is there an inadequate response?
Out of pathway

BMJ

Visual summary

Managing low back pain and sciatica

A brief overview the new NICE guidelines, from the perspective of a patient presenting in primary care.



Person with low back pain

With or without sciatica

Consider alternatives

Exclude specific causes of low back pain, for example:

Cancer | Infection | Trauma | Inflammatory disease | Cauda equina

Referral

BMJ

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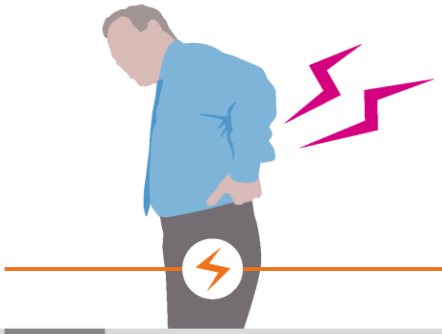


Person with low back pain

With or without sciatica

Consider alternatives

Exclude specific causes of low back pain, for example:

Cancer | Infection | Trauma | Inflammatory disease | Cauda equina

Referral

✗ Imaging

Only consider imaging:

In specialist care

and

If likely to alter management

Assess likely recovery outcomes

The complexity and intensity of treatment may vary depending on how likely it is that the patient will have a good functional outcome

Consider using risk stratification –such as the **STarT Back** risk assessment tool

Possible indicators of poor outcomes

Fear / pain avoidance ▶ | Low mood ▶ | Job dissatisfaction ▶ | Ongoing litigation ▶

◀ Good — Likely outcomes — Poor ▶

Assessment and risk stratification Low back pain ± sciatica

- Consider alternative diagnoses at each review, particularly if new or changed symptoms
- Exclude specific causes
- Consider using risk stratification (e.g. STarT Back) at first point of contact with a healthcare professional for each new episode of low back pain ± sciatica, to inform shared decision-making about stratified management
- Based on risk stratification, consider:
  - simpler and less intensive support for people likely to have a good outcome (e.g. reassurance, advice to keep active, guidance on self-management)
  - more complex / intensive support if higher risk of poor outcome (e.g. exercise programmes +/- manual therapy or psychological approach)

STarT Back Screening Tool

	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 (0), Slightly, (0), Moderately (0), Very much (1), Extremely (1)		

Imaging
Low back pain ± sciatica

- Do not routinely offer imaging in a non-specialist setting for people with low back pain ± sciatica
- Explain to people with low back pain ± sciatica that if they are being referred for specialist opinion, they may not need imaging
- Consider imaging in specialist settings of care (for example, a musculoskeletal interface clinic or hospital) for people with low back pain ± sciatica only if the result is likely to change management

Self management
Low back pain ± sciatica

- Provide people with advice and information, tailored to their needs and capabilities, to help them self-manage their low back pain ± sciatica, at all steps of the treatment pathway
  - Information on the nature of low back pain and sciatica
  - Encouragement to continue with normal activities

Non-invasive treatments
Low back pain ± sciatica

- Exercise in group programme: biomechanical, aerobic, mind-body, or combination, for episode or flare-up LBP ± sciatica
- Manual therapy only as part of a treatment package including exercise, with or without psychological therapy
- Psychological therapies using a cognitive behavioural (CBT) approach only as part of a treatment package including exercise, with or without manual therapy
- Combined physical and psychological group programmes including a CBT approach where psychosocial obstacles to recovery or previous treatments not effective
- **Promote and facilitate return to work** or normal activities of daily living

NICE 2016

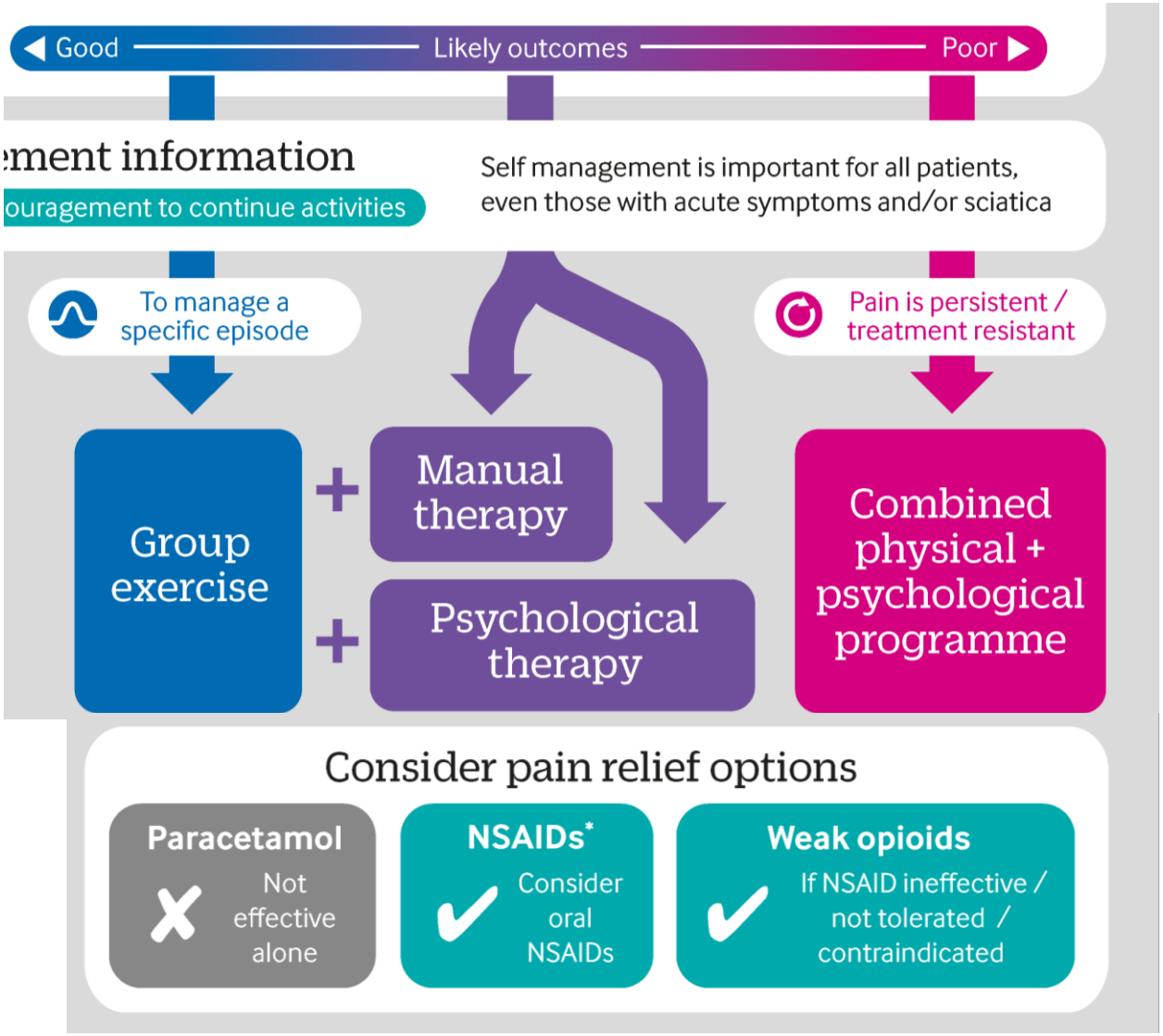
Pharmacological management

BMJ

- Consider a short course of oral NSAID +/- gastroprotection
- Consider a weak opioid only where an NSAID is ineffective or poorly tolerated
- Do not offer paracetamol alone for low back pain
- Consider neuropathic drugs such as gabapentin, and epidural steroids for sciatica

NICE 2016, Bernstein BMJ 2017

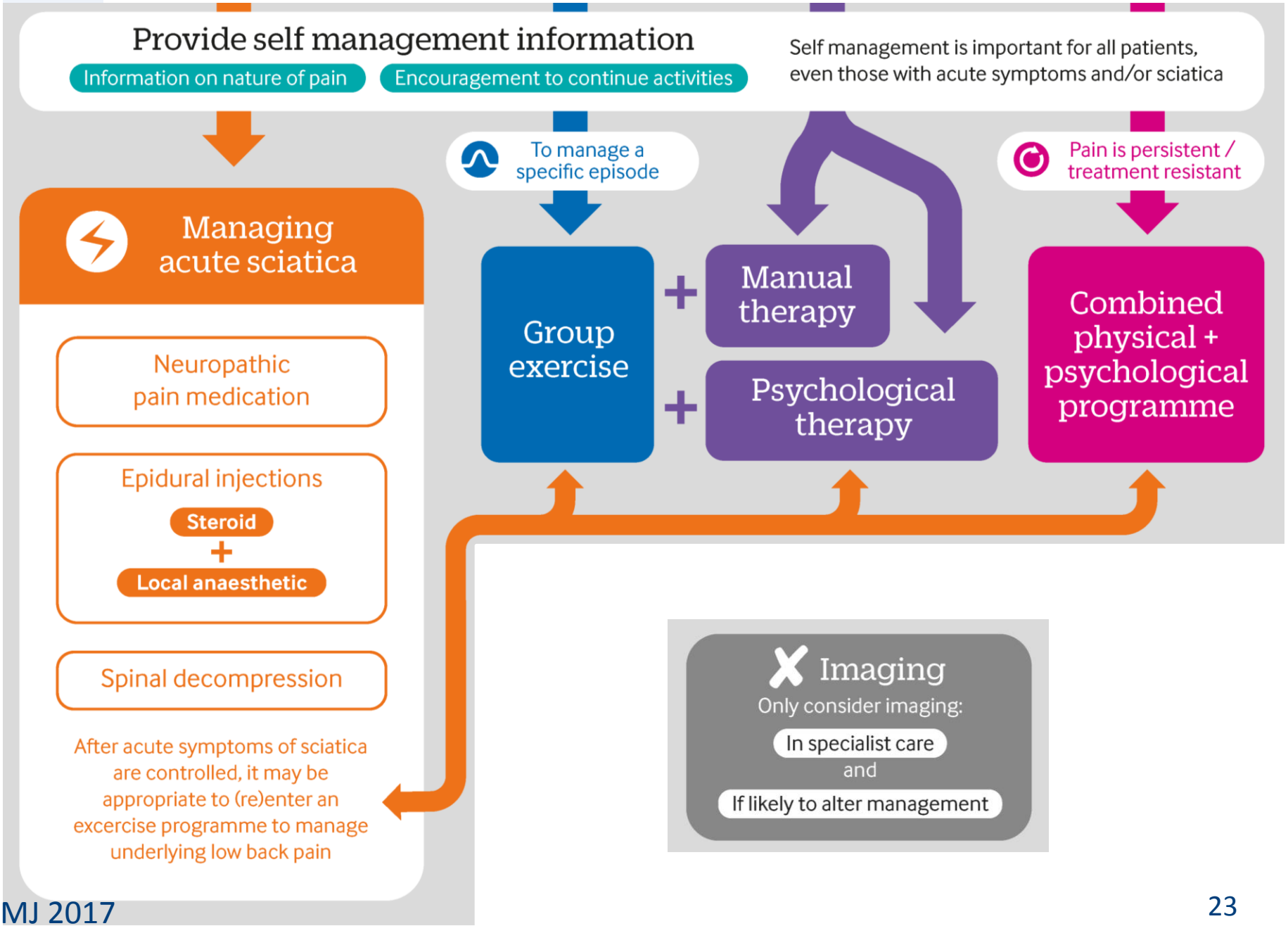
BMJ


Good
Likely outcomes
Poor
ement information
ouragement to continue activities
Self management is important for all patients, even those with acute symptoms and/or sciatica
To manage a specific episode
Pain is persistent / treatment resistant
Group exercise
+
Manual therapy
+
Psychological therapy
Combined physical + psychological programme
Consider pain relief options
Paracetamol
Not effective alone
NSAIDs*
Consider oral NSAIDs
Weak opioids
If NSAID ineffective / not tolerated / contraindicated

Not recommended for LBP

- **Acupuncture**
- **Manual therapy** *without* exercise
- **Psychological treatments** *without* exercise
- **Paracetamol** alone
- **Opioids** except weak opioids ± paracetamol
- **Antidepressants**: amitriptyline, SSRIs, SNRIs
- **Orthotics, belts, corsets, rocker sole shoes**
- **Traction**
- **Electrotherapies**
- **PENS, Interferential**
- **TENS**
- **Therapeutic ultrasound**
- **Spinal injections** for low back pain (without sciatica) (facet joint injections, medial branch blocks, intradiscal therapy, prolotherapy, trigger point injections, Botulinum toxin, epidural steroid
- **Spinal fusion** for low back pain, except as part of RCT
- **Lumbar disc replacement**

NICE 2016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Information on nature of pain
Encouragement to continue activities
Self management is important for all patients, even those with acute symptoms and/or sciatica
To manage a specific episode
Pain is persistent / treatment resistant
Managing acute sciatica
Neuropathic pain medication
Epidural injections
Steroid
+
Local anaesthetic
Spinal decompression
After acute symptoms of sciatica are controlled, it may be appropriate to (re)enter an excercise programme to manage underlying low back pain
Group exercise
+
Manual therapy
+
Psychological therapy
Combined physical + psychological programme
Imaging
Only consider imaging:
In specialist care
and
If likely to alter management

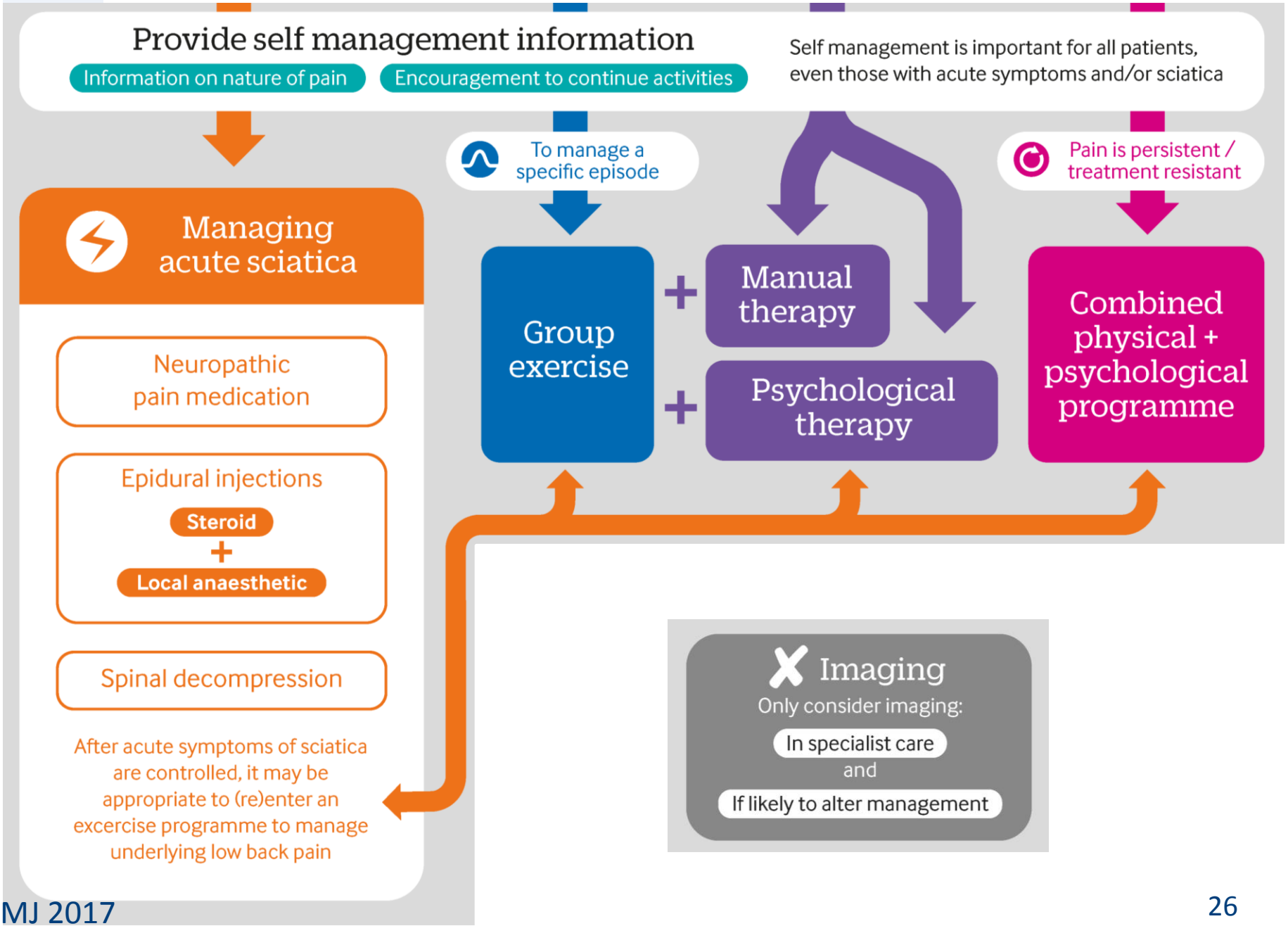
Sciatica pathway

- *Non-invasive treatments, as per low back pain*
- *The timing of the additional management options in the sciatica pathway depends on the clinical circumstances*
- Neuropathic medication (CG173)
- Epidural steroid + local anaesthetic
  - acute and severe sciatica <3 months duration, for people who would be considered for surgery
  - Do not use for claudicant leg pain due to central spinal canal stenosis
- Surgical decompression
  - Do not allow a person's BMI, smoking status or psychological distress to influence the decision to refer them for a surgical opinion for sciatica

Pharmacological Management of Sciatica

- Amitriptyline (10 mg to 75 mg daily), Duloxetine, Gabapentin or Pregabalin
- Switch if the drugs tried are not effective or not tolerated
- Tramadol only if acute rescue therapy is needed

NICE CG173 2013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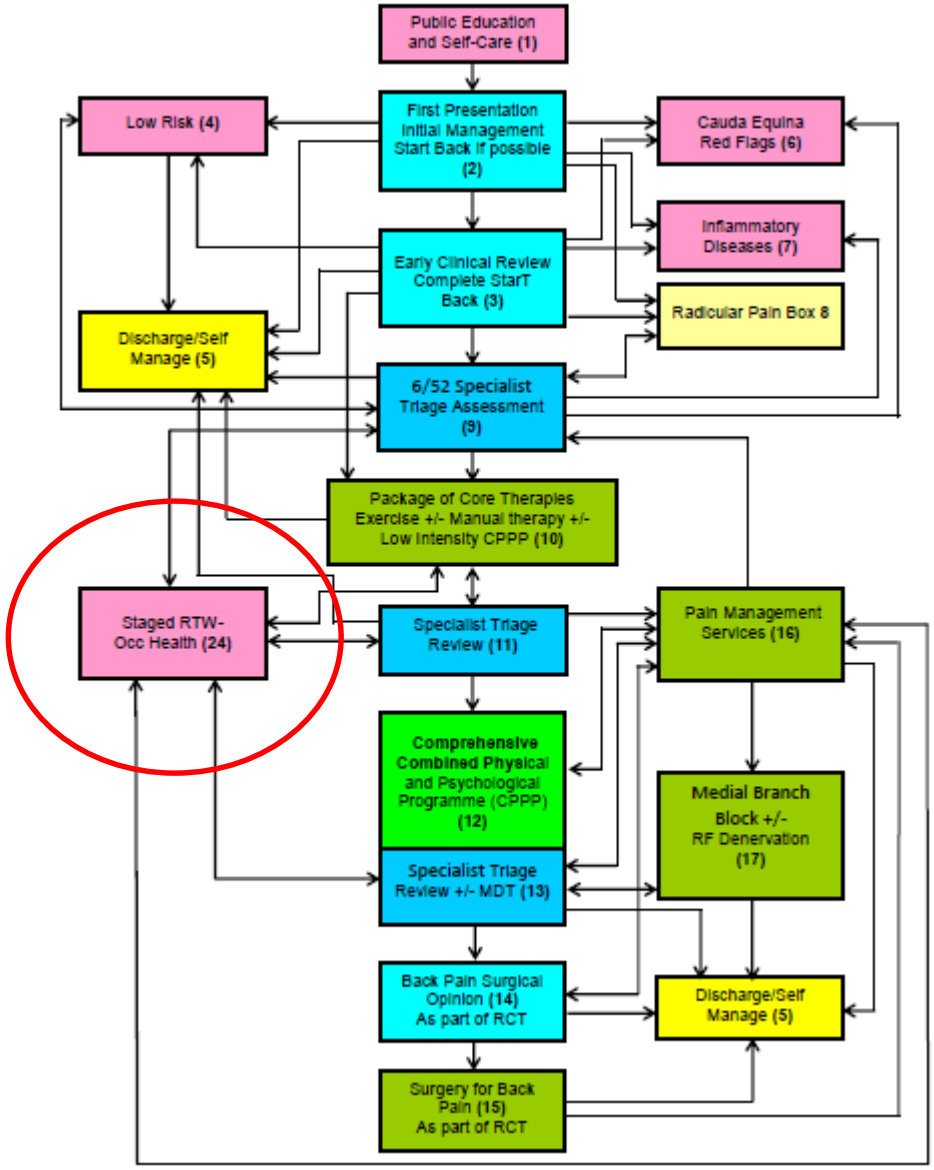
Is there an inadequate response?

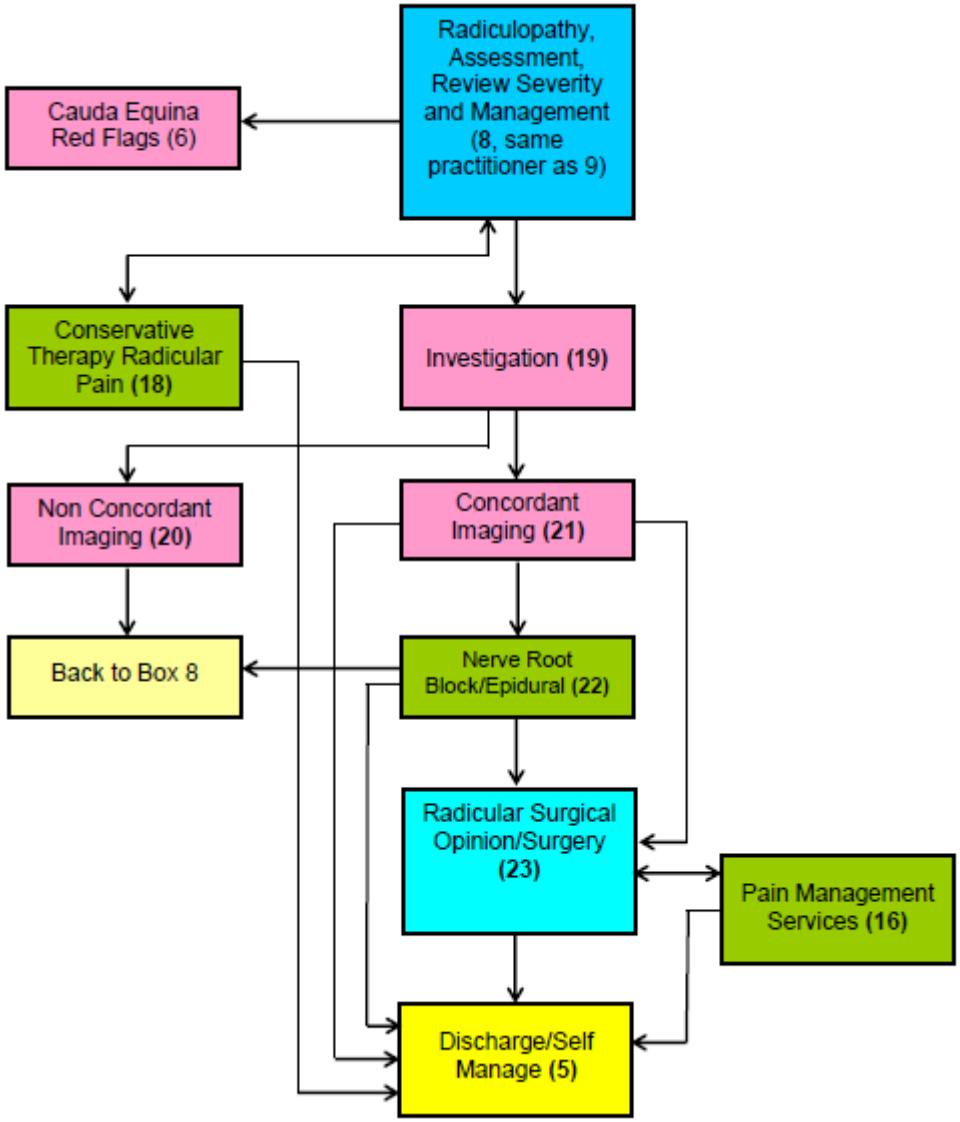
- Consider referral for assessment for RF denervation for people with chronic low back pain when
  - non-surgical treatment not worked
  - main pain from structures supplied by medial branch nerve *and*
  - moderate or severe localised back pain (≥ 5/10)
- Consider TA159 *Spinal cord stimulation for chronic pain of neuropathic or ischaemic origin*
- If troublesome symptoms despite following current guideline, it is *unlikely* that additional treatment modalities will be of benefit

NHS England Trauma Programme of Care Board
National Back Pain Pathway



http://www.ukssb.com/pages/Improving-Spinal-Care-Project/National-Backpain-Pathway.html

NHS England Trauma Programme of Care Board
National Back Pain Pathway; radicular pain



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References

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- https://www.nice.org.uk/guidance/ng59 (low back pain and sciatica)
- https://www.nice.org.uk/guidance/cg173 (neuropathic pain)
- http://www.ukssb.com/pages/Improving-Spinal-Care-Project/National-Backpain-Pathway.html