NICE guidelines development
Low back pain and sciatica: Management of non-specific low back pain and sciatica

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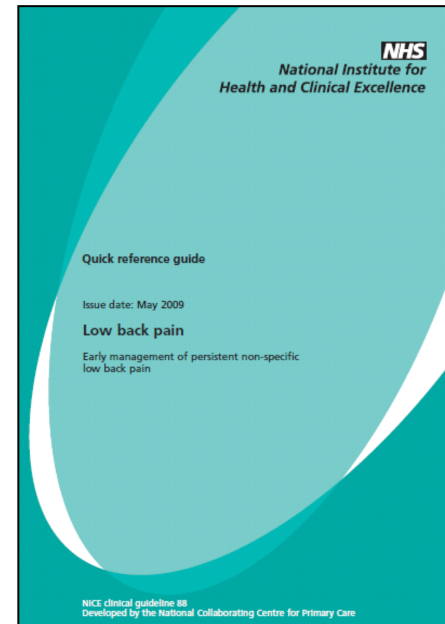
Aims of the presentation

- Brief overview of clinical guidelines
- Summary of current NICE guidelines for the management of persistent non specific low back pain
- Scope of the new guideline currently in development
- Brief description of the development process

Guidelines and back pain

- Clinical guidelines aim to improve quality of care by translating best evidence into practice
- Provide guidance for clinicians
- Provide guidance for purchasers



Clinical Guidelines for the Management of
Acute Low Back Pain

Contributing Organisations
Royal College of General Practitioners
Chartered Society of Physiotherapy
British Osteopathic Association
British Chiropractic Association
National Back Pain Association

Review Date: December 2001

February 1999

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A clinical guideline is not the same as a protocol….

An updated overview of clinical guidelines for the management of non-specific low back pain in primary care

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- Reviewed guidelines from 13 countries and 2 international guidelines

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Abstract The aim of this study was to present and compare the content of (inter)national clinical guidelines for the management of low back pain. To rationalise the management of low back pain, evidence-based clinical guidelines have been issued in many countries. Given that the available scientific evidence is the same, irrespective of the country, one would expect these guidelines to include more or less similar recommendations regarding diagnosis and treatment. We updated a previous review that included clinical guidelines published up to and including the year 2000. Guidelines were included that met the following criteria: the target group consisted mainly of primary health care professionals, and the guideline was published in English, German, Finnish, Spanish, Norwegian, or Dutch. Only one guideline per country was included: the one most recently published. This updated review includes national clinical guidelines from 13 countries and 2 international clinical guidelines from Europe published from 2000 until 2008. The content of the guidelines appeared to be quite similar regarding the diagnostic classification (diagnostic triage) and the use of diagnostic and therapeutic interventions. Consistent features for acute low back pain were the early and gradual activation of patients, the discouragement of prescribed bed rest and the recognition of psychosocial factors as risk factors for chronicity. For chronic low back pain, consistent features included supervised exercises, cognitive behavioural therapy and multidisciplinary treatment. However, there are some discrepancies for recommendations regarding spinal manipulation and drug treatment for acute and chronic low back pain. The comparison of international clinical guidelines for the management of low back pain showed that diagnostic and therapeutic recommendations are generally similar. There are also some differences which may be due to a lack of strong evidence regarding these topics or due to differences in local health care systems. The implementation of these clinical guidelines remains a challenge for clinical practice and research.

Keywords Low back pain · Clinical guidelines · Review · Diagnosis · Treatment

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Diagnosis

Summary of Common Recommendations for Diagnosis of Low back pain

* Diagnostic triage (non-specific low back pain, radicular syndrome, serious pathology).
* Screen for serious pathology using red flags.
* Physical examination for neurologic screening (including straight leg raising test).
* Consider psychosocial factors (yellow flags) if there is no improvement.
* Routine imaging not indicated for non-specific low back pain.

Treatment

Summary of Common Recommendations for Treatment of Low back pain

Acute or Subacute Pain

* Reassure patients (favourable prognosis).
* Advise to stay active.
* Prescribe medication if necessary (preferably time-contingent): first line is paracetamol; second line is nonsteroidal antiinflammatory drugs, consider muscle relaxants, opioids or antidepressant and anticonvulsive medication (as co-medication for pain relief).
* Discourage bed rest.
* Do not advise a supervised exercise programme.

Chronic Pain

* Discourage use of modalities (such as ultrasound, electrotherapy)
* Short-term use of medication/manipulation
* Supervised exercise therapy
* Cognitive behavioural therapy
* Multidisciplinary treatment

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2009 NICE guidelines persistent non specific back pain

Principles of management

Keep diagnosis under review at all times

AND

Promote self-management

AND

Offer drug treatments as appropriate

AND

Follow the care pathway

Key points for implementation

- Provide people with advice and information to promote self-management: Nature of back pain, encourages normal activities, stay physically active and to exercise

- Offer one of the following treatment options, taking patient preference into account:

  - an exercise programme
  - a course of manual therapy
  - a course of acupuncture

  If improvement is not satisfactory, consider offering another of these

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Combined physical and psychological treatment programme

CPP

- Consider referral for combined physical and psychological treatment for people who:
  - have received at least one less intensive treatment

    and
  - have high disability and/or significant psychological distress.

Do not

- Offer injections of therapeutic substances into the back for non-specific low back pain.
- Refer for intradiscal electrothermal therapy (IDET)
- Refer for radiofrequency facet jt denervation
- Refer for percutaneous intradiscal radiofrequency thermocoagulation (PIRFT)
- SSRIs, Laser, Interferential therapy, Ultrasound, TENS, Supports, Traction

Assessment and imaging

- Do not offer X-ray of the lumbar spine
- Only offer an MRI scan within the context of a referral for an opinion on spinal fusion

Referral for surgery

- Consider referral for an opinion on spinal fusion for people who:
  - have completed an optimal package of care

    and
  - would consider surgery for their low back pain.

Controversy

- Injections
- Acupuncture
- Manipulation

- Unclear to what extent the guideline has been implemented

Update in progress

Low back pain and sciatica: management of non-specific low back pain and sciatica

This is an update of Low back pain: early management of persistent non-specific low back pain (NICE clinical guideline 88).

Scope

- The scope:
- NHS England – topic selection
- Update after 3 year review (GDG and high level review)
- Identifies the key clinical issues
- Sets the boundaries of the development work
- Provides information to healthcare professionals about the expected content of the guideline
- Informs the development of the detailed review questions from the key clinical issues

Population

- Groups that will be included:
- People aged 16 or older presenting with symptoms of 'non-specific' low back pain. The pain may (or may not) radiate to the limbs and is not associated with progressive neurological deficit
- People aged 16 or older with suspected sciatica

Settings

- All settings in which NHS-funded care is received.

Groups that will not be covered

low back pain or sciatica related to specific spinal pathologies, including:

- inflammatory causes of back pain (for example, ankylosing spondylitis or diseases of the viscera)
- serious spinal pathology (for example, neoplasms, infections or osteoporotic collapse)
- neurological disorders (including cauda equina syndrome or mononeuritis)
- adolescent scoliosis.
- People aged under 16 years.

Key issues that will be covered

- Assessment to identify ‘non-specific’ low back pain and sciatica and any prognostic factors that could guide management.
- Use of pharmacological treatments for low back pain.
- Non-pharmacological interventions.
    - Manual therapies
    - CAM therapies
    - Orthotics and appliances
    - Patient education
    - Electrotherapy
- Self management

• *continued*

Key issues that will be covered

- Combined therapies
- The use of invasive procedures
- Psychological interventions
- Surgery

Key issues that will not be covered

- post-surgery care
- spinal cord stimulation
- Pharmacological treatments for sciatica.

Main outcomes

- Pain severity (for example, visual analogue scale [VAS] or numeric rating scale [NRS])
- Function measured by disability scores (for example, the Roland-Morris disability questionnaire or the Oswestry disability index)
- Health-related quality of life (for example, SF-12 or EQ-5D)
- Adverse events
- Healthcare utilisation

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Developing clinical guidelines overview

- Scoping: Identify and refine the subject area
- Convene multi disciplinary guideline development groups (GDGs)
- Develop clinical questions
- Retrieve, analyse and present the evidence to the GDG
- Translate the evidence into recommendations
- Consultation: external review of the guideline

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Guideline Development Group (GDG)

- Multidisciplinary group, including health care professionals and patient/carer members.
- Should represent the perspectives of the health care professionals involved in the care of patients affected by the condition
- Not expected to represent the views of their professional organisations
- Are required to declare conflicts of interest and follow a code of conduct

Appointment to the GDG

- Open application: statement and CV
- Interview
- Appointment
- No remuneration
- Approximately one meeting per month for 2 years

Name	Background
Dr Stephen Ward	Consultant in Pain Medicine, Chair
Prof. Gary McFarlane	Epidemiologist
Dr Ian Bernstein	General Practitioner
Dr Simon Somerville	General Practitioner
Mr Steven Vogel	Manual Therapist
Mr Babak Arvin	Neurosurgeon
Mrs Helen Taylor	Clinical Nurse Specialist
Dr Chris Wells	Pain Medicine Specialist
Dr Neil O'Connell	Physiotherapist
Dr Patrick Hill	Clinical Psychologist
Prof. David Walsh	Rheumatologist
Mr Phillip Sell	Spinal Surgeon
Mr Mark Mason	Patient Member
Ms Wendy Menon	Patient Member

GDG

- Supported by technical team
  - Research fellows
  - Health economists
  - Information scientist
  - Project manager, and
  - Guideline lead.
- Technical team are members of the group with voting rights

Clinical questions

- Each recommendation needs to relate to a question
- Each question has to be addressed with a systematic review of the evidence
- The most widely used structure is PICO
  - **Population**
  - **Intervention**
  - **Comparison**
  - **Outcome**
- This implies the minimum requirements for a clinical question

Example from the 2009 clinical guideline

Question: What is the effectiveness of manual therapies compared with usual care on functional disability, pain, or distress?

Population	Adults presenting with non specific back pain > than 6 weeks duration and < one year
Intervention	Manual therapies
Comparison	Usual care
Outcome	Disability scores Pain scores Psychological distress

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Determine type of review question

Produce review protocol

Search medical literature databases

“Sift” search results; then obtain full papers

Include /exclude full papers

Extract data

Analysis: including meta-analysis where appropriate

Assess quality by outcome (GRADE)

Present results to GDG

Interpret the evidence and apply context

Recommendations

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Assessing the quality of the evidence for interventions using GRADE

• Study design	Randomised trials are best study design for intervention reviews
• Study limitations (risk of bias)	Consider randomisation method, allocation concealment, blinding, missing data, etc
• Indirectness	Patient population and intervention do not fit directly with those of the guideline
• Inconsistency	Differences in effect size between studies and explanations by subgroup analysis
• Imprecision	Results are consistent with more than one conclusion, relative to the clinically important effect
• Publication bias	May be funding issue or only publishing studies with significant results

GRADE classifies evidence quality as:

- **High**: We are very confident that the true effect lies close to that of the estimate of the effect
- **Moderate**: We are moderately confident in the effect estimate: The true effect is likely to be close to the estimate of the effect, but there is a possibility that it is substantially different
- **Low**: Our confidence in the effect estimate is limited: The true effect may be substantially different from the estimate of the effect
- **Very low**: We have very little confidence in the effect estimate: The true effect is likely to be substantially different from the estimate of effect

What information do the GDG consider?

- Evidence report
- Exclusion list
- Forest plots (meta-analysis)
- GRADE Evidence profiles
- Evidence statements
- Evidence tables
- Health economic evidence

Paperwork

(sent out prior to each GDG meeting)

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Why consider cost-effectiveness?

- The NHS does not have enough resources to do everything
- If it spends more on one thing, it has to do less of something else
- Could we do more good by spending money differently?
- Prioritise interventions with a high health gain per £ spent (QALY)

Recommendations and NICE principles:

- Recommendations must reflect the evidence
  - ‘Offer’ vs ‘Consider’
- Clinical *and* cost effectiveness considered
- Can make recommendation for a subgroup of population if clear evidence for effectiveness
- Must consider equalities issues
- Transparency

Options when poor quality / no evidence

- Expert group discussion (informal consensus / vote)
- Extrapolate if possible (indirect evidence)
- Formal consensus decision making
- Transparency and acknowledgement
- No recommendation

Validation

- Draft guideline sent out for stakeholder consultation as part of the clinical guideline development
- Key part of the quality assurance and peer-review processes
- Important that stakeholder comments are addressed appropriately

Acknowledgements

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Thank you for your attention
Questions?

- https://www.nice.org.uk/
- http://www.ncgc.ac.uk/