

Guidelines and Pathways in management of Low Back Pain and Radicular Pain

A joint effort

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Guidelines and Pathways in management of Low Back Pain

- Aim of the effort:
 - Helping first line care givers in decision making
 - Avoiding less than optimal referral to second line care
 - Avoiding evolution towards chronicity
 - Avoiding complications
 - Avoiding unnecessary costs of spine care
 - Avoiding unnecessary technical examinations

Ct and MRI imaging

Prevalence of abnormal imaging findings in subjects without history of sciatica

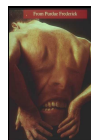
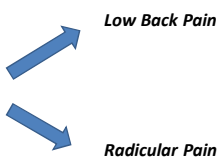
CT results							
Study	Age	% herniated discs	% protruded discs	% extruded discs	% bulging discs	% facet abnormality	% spinal stenosis
Wissel et al Spine 1984; 9:549	<60 -60	20 27	NR NR	NR NR	NR NR	10 10	0 3
MRI Results							
Jarvik, et al Spine 2005; 33:1343	52 (mean)		33	6	44	NR	12
Weishaupt et al 35 (mean) Radiology 1998; 209:361			40	18	24	72	NR
Jensen et al 42 (mean) N Engl J Med 1996; 335:599		28	27	1	52	NR	7
Boden et al J Bone Joint Surg Am 1990; 72:403	<50 -60	22 36	NR NR	NR NR	54 79	46 93	1 21
Werner et al Radiology 1985; 170:125	19-49	10	NR	NR	44	NR	NR

Guidelines in management of Low Back Pain and Radicular Pain

- Based on the **NICE** Guidelines: The **National Institute for Care Excellence**
- Adapted to the Belgian situation (health insurance system and availability of care)
- In concurrence with the current literature
- With input from all the spine professionals concerned (spine surgeons, physiotherapists, pain specialists, chyropractors, psychologists, health insurance...)

Guidelines in management of Low Back Pain and Radicular Pain

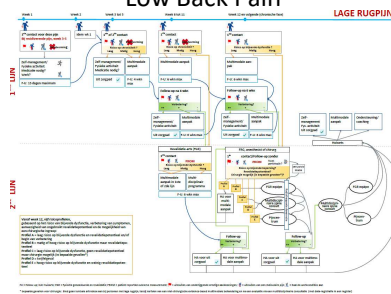
- Two different algorithms



Guidelines in management of Low Back Pain and Radicular Pain

- Algorithms were developed based on:
 - Duration of complaint
 - Patient specific factors
 - Socio-Professional situation
 - Concurrent medical problems
 - Psychology, ...
 - First time or recurring complaint
 - Presence of alarming symptoms
 - Risk of chronicity

Guidelines in management of Low Back Pain



Low Back Pain: first two weeks

- Check for radicular symptoms:
 - Irradiation
 - Sensory or motor symptoms
- Check for red flags: urgent, semi-urgent, less urgent (cfr infra)
- Check occupational status of patient

Red flags !!

- | | |
|----------------------------|---------------------|
| • Urgent: | <i>referral to</i> |
| – Neurological emergencies | Emergency dep |
| – Traumatic fractures | Emergency dep |
| – Vascular emergencies | Vascular surgeon |
| • Semi-urgent: | Spinal Consultation |
| – Pathologic fractures | Spinal consultation |
| – Infectious disease | |
| • Non-urgent: | Spinal Consultation |
| – Tumours | Rheumatologist |
| – Inflammatory disease | Spinal Surgeon |
| – Postoperative conditions | |

Low Back Pain: first two weeks

- Management:
 - No Radiology necessary
 - Self-management:
 - Reassure the patient
 - Motivate patient to remain active
 - Medication to ease pain:
 - Anti-inflammatory combined with Paracetamol
 - No opioids, anti-depressants, muscle relaxants
 - If possible, let the patient continue to work, if not possible inactivate for as brief a period as possible
 - Check up at 2 weeks

Low Back Pain: 3-5 to 6-11 weeks

- Exclude Radicular pain and Red Flags
- Evaluate the risk factors for chronicity:
 - Yellow flags: negative perception, emotional,...
 - Black flags: system- or contextual objects
 - Blue flags: perception of link between complaint and occupational situation
 - Orange flags: psychiatric problems

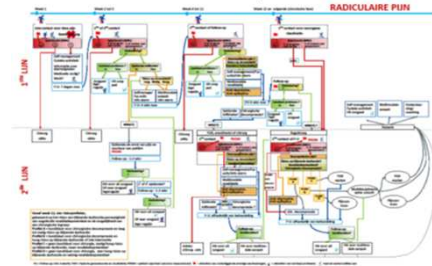
Low Back Pain: 3-5 to 6-11 weeks

- Management:
 - No radiology necessary
 - When low risk for chronicity:
 - Self-management and medication if necessary.
 - Stimulate active lifestyle
 - When moderate or high risk for chronicity:
 - Multi-modal approach:
 - Self-management and medication if necessary
 - Referral for supervised exercises, manual therapy, cognitive behavioural therapy,...
 - Inactivate for as brief a period as possible
 - Check up after 4 weeks

Low Back Pain: more than 12 weeks

- Exclude radicular symptoms and Red Flags
- Refer to multi-modal approach, even when low risk for chronicity
- Refer to 2nd line care in moderate or high risk for chronicity
- Radiology can be helpful if no improvement after six weeks of treatment
- If after six weeks no improvement occurs: refer to 2nd line care.

Guidelines in management of radicular pain



Guidelines in management of radicular pain: 1-3 weeks

- Exclude red flags
- If back pain is dominant, treat as LBP
- **CHECK THE MUSCLE STRENGTH:**
 - ≤ 3 is emergency referral to Surgeon
 - 4 referral to surgeon preferably within 48h
 - 5 same treatment protocol as in Low Back Pain
- **CHECK UP AFTER 1 WEEK**
- Inform the patient to be alert for evolving symptoms and signs
- No radiology required if muscle force is OK

Evaluating muscle Strength MRC criteria

- MRC grades:
 - 0 = complete paralysis **U**
 - 1 = only a trace or flicker of muscle spasm is seen or felt **R**
 - 2 = muscle movement is possible with gravity eliminated **G**
 - 3 = muscle movement is possible against gravity **E**
 - 4 = reduced strength **N**
 - 5 = normal strength **T**
- ≤ 48 HOUR REFERRAL TREAT AS LBP**

Guidelines in management of radicular pain: between 2-5 to 6-11 w

- Exclude red flags and evaluate muscle strength
- If muscle strength is 5/5:
 - Check if patient is suitable for epidural steroid injections or nerve root blocks.
 - If suitable: order MRI/Ctscan and refer to 2nd line care
 - If not suitable: assess risk for chronicity:
 - If risk is low: self-management and medication
 - If risk is medium or high: multimodal approach
- Professional inactivity as short as possible
- Check up after maximum of 4 weeks

Guidelines in management of radicular pain: 6-12 weeks

- Check muscle strength:
 - Refer to 2nd line care urgent, semi-urgent or within a normal time frame depending on muscle strength
 - If non-urgent, primary referral for MRI/Ct is preferred
- If patient improves on 4 week check up, treat as low back pain protocol

Guidelines in management of radicular pain: ≥ 12 weeks

- Referral to 2nd line is always necessary:
 - Urgent MRC ≤ 3
 - Within 48 h MRC 4
 - At earliest possible MRC 5
- Medical imaging can be considered

Guidelines and Pathways in management of Low Back Pain and Radicular Pain

- Also for Second line care givers
- Easy access on internet
- Guideline is not obligatory, but based on scientific evidence on treatment accuracy
- Can be used as an aid towards overdemanding patients

Pathways in Spine Care

- <http://www.lagerugpijn.kce.be>
- <http://www.lombalgie.kce.be>



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