

## World Congress on Osteoporosis, Osteoarthritis and Musculoskeletal Diseases (WCO-IOF-ESCEO 2021): ESPRM-ESCEO-IOF Symposium Abstracts

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### ESPRM-ESCEO-IOF1

#### THE APPROACH OF PHYSIATRISTS TO LOW BACK PAIN ACROSS EUROPE

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**Background:** Low back pain (LBP) is the most common type of musculoskeletal disorders. The physicians who are primarily responsible for the nonsurgical management of LBP are physiatrists. Thus it is one of the most commonly encountered conditions in Physical and Rehabilitation Medicine.

**Objective:** The present study aimed to investigate the approaches of physiatrists to low back pain across Europe. Preferences, tendencies, and priorities in the diagnosis, management, and treatment of LBP, as well as the epidemiological data pertaining to LBP in PRM practice were evaluated in this Europe-wide study.

**Methods:** The study was conducted under the control of the European Society of Physical and Rehabilitation Medicine (ESPRM) Musculoskeletal Disorders Research Committee. 576 physiatrists from most of the European countries took part in this survey.

**Results:** The results show that physiatrists frequently deal with patients with LBP in their daily practice. Most patients are not referred to other departments and are treated with various conservative methods. Less than one-fifth of patients are primarily referred for surgery. The physiatrists believe that a clear diagnosis to account for cases of low back pain is rarely established. The most common diagnosis is discopathy. History and physical examination remain the most valuable clinical evaluation tools for low back pain according to physiatrists. Less than half the patients require a magnetic resonance imaging. Non-steroidal anti-inflammatory drugs are the most commonly prescribed drugs for low back pain. Exercise, back care information, and physical therapy are the preferred conservative treatments. More than half of the physiatrists offer interventional treatments to patients with low back pain.

**Conclusion:** The present study is a preliminary report that presents the attitudes of European physiatrists in the management of low back pain. Further researches are warranted to standardize the conservative management of LBP.

**Keywords:** Low back pain; conservative management; physiatrist; rehabilitation.

### ESPRM-ESCEO-IOF2

#### UPDATE IN THE PHARMACOLOGICAL AND NON-PHARMACOLOGICAL MANAGEMENT OF LOW BACK PAIN

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Management of low back pain (LBP) consists of non-pharmacological interventions followed by pharmacologic treatment if pain continues. Self-management is advised as initial approach, for one to two weeks for LBP.

**Nonpharmacologic treatment:** Recent Guidelines strongly support: reassurance; advice and education for physical activity, exercises and work; manual therapy combined with active treatment; exercise interventions; group exercise programmes including back schools; psychological therapies also cognitive behavioural interventions or combination with exercise; work-based rehabilitation programmes.

Psychological therapies are recommended for subgroups with psychosocial risks, mood problems, or chronic back pain.

All updated clinical Guidelines recommend strongly against more than a couple of days bedrest. Second step options for acute low back pain include physical therapies like massage and heat-wrap therapy. Exercise programmes tailored specific for each patient are recommended. Exercises for subacute and chronic LBP, improve pain and function and include: Walking, aerobic exercises, stretching, yoga, core exercise/spinal stabilization, graded activities or a combination.

**Pharmacological management:** Pharmacological management of LBP is the next step, following nonpharmacologic management. For acute LBP or acute exacerbation of chronic LBP, oral NSAIDs are the first choice for treatment. Close following for gastrointestinal, liver and cardio-renal adverse events, and personal risk factors, including age and comedication are of critical importance. Gastroprotective treatment should be used if indicated. There is strong recommendation for oral NSAIDs to be prescribed at the lowest effective dose, for the shortest possible period of time, according to all clinical LBP guidelines. A short-term (two to four weeks) treatment with a NSAID is adequate for most patients. If pain continues, addition of a nonbenzodiazepine muscle relaxant is recommended. Combining NSAIDs and acetaminophen is another option.

Weak opioids (with or without paracetamol) can be used if NSAIDs are contraindicated, not tolerated or ineffective and only for short duration. Paracetamol, alone is not effective and not indicated for management of LBP.

Opioids are not indicated for managing chronic LBP.

Antidepressants (SSRIs, SNRIs or TCAs), are not indicated for treatment of acute LBP.

Gabapentinoids or antiepileptics are not indicated for treatment of acute LBP.

Systemic glucocorticoids are not indicated for treatment of acute LBP.

LBP patients who do not improve after four weeks of pharmacotherapy should be carefully reassessed. Some patients with acute LBP will develop chronic LBP. Chronic LBP presents a far more complicated problem in most patients and warrants a multidisciplinary approach.

**Conclusion:** Self-management followed by nonpharmacologic management is the first and sustainable step for approach and management in all stages of LBP. Updated guidelines strongly recommend starting nonpharmacologic before pharmacologic treatment. Evidence based guidelines of high quality have to be followed for management of LBP. Care of LBP without medication is preferred. If pain medication is needed, begin with a NSAID drug at the lowest effective dose for the shortest time (recommended by all guidelines).

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## ESPRM-ESCEO-IOF3

### INTERVENTIONAL TREATMENT IN LOW BACK PAIN

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Low back pain (LBP) and neck pain still continue to be a serious problem because of their quite high frequencies and significant financial burdens. Although a large proportion of spinal pain improve within one month, 10–15% of them become chronic. Approximately 75% of whole effort and money are spent for these chronic patients<sup>1</sup>. Current knowledge shows that the analgesic effects of many treatments for non-specific LBP are small and surgery does not provide better improvement in long term in spinal pain<sup>2</sup>.

In classical approach, interventions are applied in subacute or chronic period in contrary to the evidence that their effects seem to be less in prolonged clinical pictures. There is sufficient evidence supporting that repetitive somatic stimuli may cause central plasticity<sup>3</sup>. Therefore, perhaps we should revise the intervention timing. Some authors believe that the pain generator cannot be determined in chronic LBP. Conversely some other physicians suggest that the pain generator can be located in most of the cases with mechanical pain characteristics by using interventional technique<sup>4</sup>. It is likely that we should keep investigating pain source(s) even if in cases whom central changes and related clinical signs have started.

An interventional treatment method must be kept simple and safe (KISS (keep it simple and safe) principle). Because this is a target specific treatment, we must have a specific diagnosis before the procedure. Scientific evidence should be cared in every step.

Interventional treatment is not a standalone option; it is rather a component of functional rehabilitation program. Patients should be informed about the other treatment options and written informed consent must be obtained before each procedure.

**Diagnostic blocks:** In spinal pain, magnetic resonance imaging (MRI) can provide very good detail of soft tissue structures and about the spinal column, however, 24–80% of asymptomatic adults exhibit abnormalities of lumbar discs. If not correlated with the clinical signs, MRI is an important reason for overdiagnosis<sup>5</sup>. Selective diagnostic blocks may be helpful when clinical signs and symptoms cannot be explained by abnormality of only one anatomic structure or when an imaging study indicates that pain may be originating from more than one source. Selective diagnostic injections may provide the pain generator(s) in 80–85% of the patients with mechanical spinal pain<sup>6</sup>.

**Epidural steroid injections (ESIs):** This treatment method is most widely used in pain centers all over the world. In many centers, corticosteroid and local anesthetic medications are delivered together. The exact mechanism of action of these drugs is unknown. The proposed mechanisms for local anesthetics are conduction block (sensory, motor, sympathetic) and wind-down theory. It is shown that corticosteroids act on various processes like inflammation, neural membrane stabilization, nociceptive ectopic discharge, conduction block due to compression, edema and scar formation<sup>6</sup>. Its final action may be the summation of these.

There are mainly three routes of ESIs: Caudal, interlaminar and transforaminal.

**Other treatment methods frequently used in spinal pain can be listed as follows:**

- Zygapophyseal joint (Z-joint) injection
- Medial branch blocks
- Sacroiliac joint (SIJ) injection
- Intradiscal injections
- Chemoneurolysis
- Ozone injection
- Intradiscal electrothermal treatment (IDET)
- Radiofrequency (RF)
- Spinal cord stimulation (SCS)

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