

SUMMARY OF A RECOMMENDATION BY COHERE FINLAND ON TREATING CHRONIC SYMPTOMS IN THE LUMBAR SPINE WITH SPINAL FUSION SURGERY AND POST-OPERATIVE REHABILITATION

Recommendation approved at the meeting of the Council for Choices in Health Care in Finland (COHERE Finland) on 24 March 2021

The COHERE recommendation applies to lumbar spinal fusion when the reason for surgery is spondylolysis (M43.0) and spondylolisthesis (M43.1) related to it, intervertebral disk degeneration (M51.3) or a sequela of spinal disk herniation surgery (M51.1) (including recurrent spinal disc herniation and post-operative pain after surgery for spinal disc herniation). The recommendation applies to patients aged over 15.

Spondylolysis is a defect of the pars interarticularis that typically develops in the L5 vertebra during the child or young person's growth. It is a kind of fake joint which may be caused by strain during growth or by hereditary reasons. Approximately six per cent of adult Finns have spondylolysis that can be detected in imaging examinations and approximately one half of them have spondylolisthesis, which develops when spondylolysis progresses. Intervertebral disc degeneration is usually a phenomenon that is related to normal ageing and weakens the stability of the intervertebral area. The degeneration results from the changes taking place in the proteins of the connective tissue and the extracellular matrix surrounding them when the person ages.

Typical symptoms include a sensation that the back fails or breaks, a stabbing local back pain and, especially in spondylolisthesis, a pain radiating to a lower limb as a result of irritation of the nerve roots. It may be difficult to assess the symptoms reliably when examining the patient. The pain symptoms often vary and last long, but their prognosis is mainly favourable. Only a small proportion of back pains caused by spondylolysis or intervertebral disc degeneration are so difficult and long-lasting that it is necessary to consider fusion surgery.

The examination and treatment of chronic back pain primarily takes place in primary health care or occupational health care. In the treatment of chronic back pain caused by spondylolysis or spinal disc herniation, rehabilitation is always the primary treatment option in relation to fusion surgery. The main objective is to prevent the pain from becoming chronic by applying an approach that supports active treatment and by removing the patient's concerns.

When investigating the causes for prolonged back pain and the treatment options, a sufficiently detailed history of the symptoms (anamnesis) based on a careful interview and a clinical examination of the back lay the basis for the diagnostics and treatment. Magnetic resonance imaging and a standing X-ray are also included in the examinations before surgery is considered. Other examinations may also be included if deemed necessary. It is not possible to define individual clinically significant millimetric limits for spondylolisthesis on the basis of imaging examinations.

Referral to specialised medical care should be considered if the patient experiences severe prolonged pain that causes a significant decline in functional capacity in spite of active conservative treatment. The findings from the imaging must support the overall assessment issued by the party providing the treatment, according to which spondylolysis and spondylolisthesis related to it or the mechanical pain related to intervertebral disc degeneration is the cause of the symptoms.

The decision on lumbar spinal fusion surgery must be made on an individual basis, carefully weighing the advantages and disadvantages together with the patient. Matters such as the patient's age, the cause, severity and duration of the symptoms, the realistic possibilities to improve work ability and functional capacity, and other treatment options should be taken into account. When selecting the unit performing the surgery, the requirements laid down in the Government Decree on the Division of Work in Specialist Medical Care and the Centralising of Certain Tasks must be taken into account.

When the patient is discharged after surgery, the physiotherapist must give the patient written instructions for independent rehabilitation. In addition, possible individual functional restrictions for a limited period of time must be determined for the patient and also be recorded in the patient records to ensure the flow of information.

A post-surgery follow-up visit to ensure recovery should be implemented approximately three months from surgery. The situation will then be also controlled with an X-ray. To ensure progress in recovery, even an earlier appointment with a physiotherapist may be justified. The timing and content of possible later follow-up appointments are determined according to local practices.

If necessary at the time of discharge, a medical certificate is written for 1–3 months, depending on the extent of the surgery and the patient's job description. The need for further sick leave and the continuation of the possible restrictions must be assessed in occupational health care or primary health care.

If the patient does not make appropriate progress in recovery, they should be directed to rehabilitation. The aim of post-operative rehabilitation is to find methods for managing the patient's pain and to improve their functional capacity. The most effective rehabilitation methods are gradually increased guided therapeutic exercise and cognitive-behavioural therapy. In most cases, the rehabilitation is provided by a multidisciplinary team. It is important that the biopsychosocial factors affecting work ability and functional capacity are taken into account comprehensively and according to individual needs in rehabilitation.

This is a summary of a recommendation adopted by the Council for Choices in Health Care in Finland (COHERE Finland). The actual recommendation and the related background material are available in Finnish on the website of COHERE Finland under [Recommendations](#).

The summary of the recommendation is also available in [Swedish](#) and [Finnish](#) on the website.

The Council for Choices in Health Care in Finland (COHERE Finland) works in conjunction with the Ministry of Social Affairs and Health, and its task is to issue recommendations on services that should be included in the range of public health services. Further information about service choices in healthcare is available on [the COHERE Finland website](#).