NICE National Institute for Health and Care Excellence

Appendix A: Summary of evidence from surveillance

Exceptional surveillance review of Low back pain and sciatica in over 16s: assessment and management (2016) NICE guideline NG59

Summary of evidence from surveillance

Studies identified in searches are summarised from the information presented in their abstracts.

Feedback from topic experts who advised us on the approach to this surveillance review, was considered alongside the evidence to reach a final decision on the need to update the guideline.

Spinal fusion

1.3.9 Do not offer spinal fusion for people with low back pain unless as part of a randomised controlled trial.

Surveillance decision

This recommendation should not be updated.

Spinal fusion

2018 Exceptional surveillance summary

From the evidence considered in this exceptional surveillance review, we did not find any new studies directly assessing the effectiveness of transaxial interbody lumbosacral fusion (TILF) or lateral interbody fusion for low back pain or sciatica. Therefore, we focused on studies considering spinal fusion techniques.

A Cochrane review(1) and a meta-analysis(2) compared different surgical procedures in people with lumbar spinal stenosis. Types of spinal fusion were not specified and were only assessed when used in combination with decompression surgery. The reviews found that the addition of spinal fusion to decompression was not clinically superior to decompression alone. Whilst a systematic review and meta-analysis(3) found that in people with spinal stenosis, lumbar fusion increased the risks of reoperation and

complications compared with decompression surgery alone.

Two further meta-analyses(4)(5) compared interbody fusion with discectomy in people with lumbar disc herniation. One analysis(4) found efficacy to be comparable between procedures when considering patient reported outcomes for pain and disability scores, as well as for rates of reoperations. The second meta-analysis(5), however, found mixed results with interbody fusion improving back pain and disability scores but finding no differences between procedures for scores of leg pain or functional capacity.

A meta-analysis(6) compared spinal fusion with total disc replacement in people with degenerative disc disease. Whilst no difference was found between procedures for back pain scores, total disc replacement was associated with greater improvements in disability scores, patient satisfaction, and lower risk of reoperations.

Intelligence gathering

Since the guideline was updated in 2016, NICE have produced an updated interventional procedures guidance on Transaxial interbody lumbosacral fusion for severe chronic low back pain (IPG620). IPG620 state that the evidence on efficacy is adequate in quality and quantity and this procedure may be used provided that standard arrangements are in place for clinical governance, consent and audit. Additionally, an update to IPG574 Lateral interbody fusion in the lumbar spine for low back pain recommends that this procedure may be used provided that standard arrangements are in place for clinical governance, consent and audit.

Feedback from topic experts indicated that the recommendation on spinal fusion in NICE guideline NG59 did not need to be updated and no further relevant new evidence was highlighted.

Impact statement

To develop the interventional procedure recommendation on transaxial interbody lumbosacral fusion, the committee considered 2 systematic reviews, 1 non-randomised comparative study, 3 case series and 2 case reports. Most studies were retrospective, none were UK based and there was a lack of long term data. The scope of the interventional procedure focused on severe chronic low back pain. In terms of lateral interbody fusion, the interventional procedures recommendation was based on 3 systematic reviews, 1 RCT, 2 non-RCTs, 3 case series and 6 case reports.

As interventional procedures focus on safety and efficacy of an intervention, we considered new evidence to determine the clinical and cost effectiveness of the procedure. No evidence directly assessing the effectiveness of transaxial interbody lumbosacral fusion or lateral interbody fusion for low back pain were identified, therefore studies focusing on spinal fusion were considered. The effectiveness of spinal fusion appears inconclusive from the results of the new evidence. There is some indication that spinal fusion shows similar clinical outcomes to other surgical procedures for patient reported pain and disability. However, the studies also highlight increased risks of safety and complications associated with spinal fusion. There is also a lack of data in the new evidence on the effectiveness of individual types of spinal fusion and there

is a limited number of comparisons with other types of intervention. The new evidence is unlikely to affect the recommendation in NICE guideline NG59 which advises not to offer spinal fusion for people with low back pain unless as part of a randomised controlled trial.

After taking into account the evidence base and views of topic experts, we acknowledge that this is an area of research showing promising results for some outcomes. However, the findings from this exceptional review have demonstrated that a lack of data on the clinical and cost effectiveness of transaxial interbody lumbosacral fusion or lateral interbody fusion whilst the effectiveness of spinal fusion remains inconclusive and there is still uncertainty around the safety and risk of complications in this population. For this reason, we will not update the guideline at this time.

New evidence is unlikely to impact on the guideline.

References

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