|  |
| --- |
| **2Y — Fusion surgery for mechanical axial low back pain** |
| **Summary of Intervention** |
| Spinal fusion is when two individual spinal vertebrae become joined together by bone formed as a result of surgery. This may involve the use of bone graft and/or surgical implants. The aim of the surgery is to stop motion at that joint in order to stabilise the joint. Spinal fusion is not recommended for patients with non-specific, mechanical back pain.  **This guidance applies to adults aged 19 years and over.** |
| **Number of interventions in 18/19** |
| **41** |
| **Proposal** |
| Spinal fusion is not indicated for the treatment of non-specific, mechanical back pain. The NICE exclusion criteria are:  — Conditions of a non-mechanical nature, 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)  — scoliosis  — Pregnancy-related back pain  — Sacroiliac joint dysfunction  — Adjacent-segment disease  — Failed back surgery syndrome  — Spondylolisthesis.  Instead, spinal fusion is usually reserved for,  — Patients with a symptomatic spinal deformity (e.g. scoliosis)  — Instability (e.g. spondylolisthesis; trauma)  — An adjunct during spinal decompression surgery, where a more extensive exposure of the affected neurological structures is required and would otherwise render the spine unstable.  Primary care management typically includes reassurance, advice on continuation of activity with modification, weight-loss, analgesia, manual therapy and screening patients who are high risk of developing chronic pain (i.e. STaRT Back). Use combined physical and psychological programme for management of sub-acute and chronic low back pain e.g. Back Skills Training (BeST). |
| **Rationale for Recommendation** |
| Mechanical low-back pain is common, often multifactorial and amenable to multimodal non-operative treatment (e.g. lifestyle modifications, weight loss, analgesia, manual therapy, exercise).  Imaging (e.g. plain film radiographs, MRI) in the absence of focal neurology (e.g. sciatica) or ‘red-flags’ may identify incidental, if not trivial, findings of age-related ‘wear and tear’ which can unnecessarily create a health-anxiety for some patients, where simple reassurance would otherwise usually suffice.  By the nature of the description ‘non-specific low back pain,’ a focal site of pathology is usually never found. In many cases, symptoms may be underpinned by a centralised pain disorder that exists outside the spine.  In the absence of a focal structural pathology (see above) and concordant mechanical or neurological symptoms, there remains a distinct lack of high quality evidence to support fusion of the spine as a treatment of mechanical  axial back pain.  NICE Guideline NG59 established formal, multi-disciplinary consensus on the management of back pain, with which is implemented through the National Back Pain Pathway. This NICE-endorsed pathway offers all patients timely, evidence-based care for back pain. |
| **References** |
| 1. NICE Low back pain and sciatica in over 16s: assessment and management (November 2016): https://www.nice.org.uk/guidance/ng59.  2. National Low Back and Radicular Pain Pathway 2017: https://www.ukssb.com/improving-spinal-care-project.  3. Surgery for low back pain: a review of the evidence for an American Pain Society Clinical Practice Guideline. Chau R et al. Spine (Phila Pa 1976). 2009 May 1;34(10):1094-109. doi: 10.1097/BRS.0b013e3181a105fc.  4. STarT Back: https://www.nice.org.uk/guidance/ng59/resources/endorsed-resource-start-back-screening-tool-with-matched-treatmentoptions-4906309933.  5. Back Skills Training (BeST): Group cognitive behavioural treatment for low-back pain in primary care: a randomised controlled trial and cost effectiveness analysis. Prof Sarah E Lamb DPhil et al on behalf of the Back Skills Training Trial investigators: https://doi.org/10.1016/S0140-6736(09)62164-  6. Evidence for surgery in degenerative lumbar spine disorders. Jacobs WC et al. Best Pract Res Clin Rheumatol. 2013 Oct;27(5):673-84. doi: 10.1016/j.berh.2013.09.009. Epub 2013 Oct 5.  7. https://choosingwiselycanada.org/spine/.  8. NICE CG173 Neuropathic pain in adults: pharmacological management in non-specialist settings (2014): https://www.nice.org.uk/guidance/cg173.  9. Transaxial interbody lumbosacral fusion IPG 387: https://www.nice.org.uk/guidance/ipg387. |