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| <b>Intervention</b>           | <b>Therapeutic and diagnostic injections for the treatment of spinal pain</b>  |
| <b>For the treatment of:</b>  | Spinal pain - Cervical, Thoracic & Lumbar.   |
| <b>Background</b>             | <p>This policy sets out the commissioning position and threshold for therapeutic and diagnostic injections for the treatment of spinal pain.</p> <p>This commissioning policy is needed because the clinical and cost effectiveness of therapeutic injections for back pain is not proven.</p> <p>There is a threshold in place for diagnostic injections for back pain prior to surgery and also for patients who are on an acute back pain pathway.</p>  |
| <b>Commissioning position</b> | <p>NHS North Yorkshire CCG <b>DOES NOT</b> routinely commission therapeutic spinal injections for cervical, thoracic or Lumbar spine pain. This includes:</p> <ul style="list-style-type: none"> <li>• Spinal Epidural Injections (transforaminal/interlaminar) and nerve root blocks</li> <li>• Spinal Facet Joint Injections (FJI)/Medial branch blocks</li> <li>• Spinal Radiofrequency Nerve Denervation (rhizolysis/medial branch block/nerve root pulsed denervation)</li> <li>• Therapeutic trigger point injections for the management of spinal pain</li> </ul> <p><b>There are five exceptions which <u>are</u> commissioned:</b></p> <ol style="list-style-type: none"> <li>1. <b>During the acute episode of severe spinal pain with radicular pain</b>, as part of the acute/subacute back pain pathway, to help with mobilisation, <b>one</b> epidural <u>or</u> transforaminal <u>or</u> medial branch block injection will be commissioned within an acute back pain service.</li> <li>2. <b>For the treatment of chronic severe spinal pain with radicular pain for diagnostic purposes, to guide surgical decision making only</b>, up to two independent episodes of trans-foraminal injections are commissioned to guide surgical decision making in patients.</li> <li>3. <b>Facet joint medial branch block injections for diagnostic purposes:</b> For patients with spinal pain AND/OR radicular pain <u>up to 2</u> diagnostic facet medial branch block injections will be commissioned for diagnostic purposes to help define further management in line with the National Back Pain Pathway<sup>1</sup> (NBPP).</li> </ol> |

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|   | <p>4. <b>Facet nerve radiofrequency denervation</b> – can be offered at no less than 16 month intervals to those with chronic low back pain who have (in the opinion of the specialist pain team), engaged in an MDT approach and have a positive response to a diagnostic facet joint medial nerve block (in line with National Back and Radicular Pain Pathway).</p> <p>5. <b>Spinal injections required to treat spinal pain caused by cancer.</b></p> <p>ALL OTHER requests now must be made via an Individual Funding Request (IFR) application:</p> <ul style="list-style-type: none"> <li>• HRW/SR GP practices <a href="https://ifryh.necsu.nhs.uk/">https://ifryh.necsu.nhs.uk/</a></li> <li>• HaRD GP practices <a href="#">Referral Form</a></li> </ul> <p>All patients with low back pain and/or sciatica should be assessed and managed in line with NICE guidance NG59<sup>1</sup>. This MUST initially include:</p> <ul style="list-style-type: none"> <li>• Consider alternative diagnoses e.g. injury, malignancy</li> <li>• Risk assessment and risk stratification (e.g. <a href="#">STarTBack</a> risk assessment tool at first point of contact with a healthcare professional).</li> </ul> <p>Based on risk stratification, consider simpler support (e.g. self-management - exercise, weight loss etc.) or more complex intensive support (e.g. pain management programmes with physical and psychological elements), optimised pharmacological interventions.</p> |
| <p><b>Summary of evidence / rationale</b></p> | <p><b>History of evidence base</b></p> <p>The previous NICE clinical guideline on low back pain (CG88; May 2009<sup>2</sup>) recommended that injection therapy should not be offered for back pain lasting greater than 6 weeks and less than 1 year. It specifically states “Do not offer injections of therapeutic substances into the back for non-specific low back pain”.</p> <p><b>Current evidence base</b></p> <p>The new NICE guidance NG59<sup>3</sup> maintains the current position not to offer spinal injections for managing low back pain and to consider epidurals only in people with acute and severe sciatica.</p> <p>It does however include a new recommendation to “consider” referral for assessment for radiofrequency denervation (RFD) for people with chronic low back pain when:</p> <ul style="list-style-type: none"> <li>• non-surgical treatment has not worked for them and</li> <li>• the main source of pain is thought to come from structures supplied by the medial branch nerve and</li> <li>• they have moderate or severe levels of localised back pain (rated as 5 or more on a visual analogue scale, or</li> </ul>  |

equivalent) at the time of referral.

Only to be performed in people with chronic low back pain (i.e. over 12 weeks) and after a positive response to a diagnostic medial branch block.

The most commonly used injection for the management of sciatica is corticosteroid, with or without local anaesthetic. Although performed widely since the 1950s, the administration of steroids into the epidural space remains unlicensed. Currently there are areas of uncertainty beyond the effectiveness of epidural injections to be considered, including the ideal route of administration, the use of imaging to improve accuracy, the timing of injection and the safety profile.

The fuller NICE guideline (methods, evidence and recommendations) covers the evidence base in detail<sup>4</sup>. The quality of evidence is low to moderate in strength and comes from populations with chronic pain for more than 2 years who had failed to respond to conservative treatment<sup>5</sup>. It comments that the duration of pain relief following RFD is uncertain. Data from randomised controlled trials suggests relief is maintained for at least 6-12 months but no study has reported longer term outcomes. Some trials show adverse event (allodynia) rates higher than expected with RFD.

The economic model built for the guideline showed that RFD is “cost effective” but the results were sensitive to the duration of the intervention; it suggested that the treatment is likely to be cost effective provided the duration of effect exceeds 16 months. When this was less than 16 months, RFD was not cost effective as the ICER would go above the £20,000 per QALY threshold. This is, in itself, the upper limit of what is considered an acceptable threshold and takes no account of affordability. Given the relatively low cost of RFD (around £750 per procedure) it also suggests the impact is rather limited.

The guideline development group considered the various limitations of the model together with the main results and concluded that although RFD is a cost effective intervention, there was not enough confidence for a strong (‘offer’) recommendation for this intervention.

In addition, if RFD is repeated, there is no evidence to show whether the outcomes and duration of these outcomes are similar to the initial treatment.

**What NICE mean by the terms ‘Offer’ and ‘Consider’**

Some NICE recommendations are made with more certainty than others. NICE word their recommendations to reflect this.

For example NICE use 'offer' to reflect a strong recommendation, usually where there is clear evidence of benefit. NICE use 'consider' to reflect a recommendation for which the evidence of benefit is less certain. See Making decisions using NICE guidelines:

<https://www.nice.org.uk/about/what-we-do/our-programmes/nice-guidance/nice-guidelines/making-decisions-using-nice-guidelines>

### **Back pain injections glossary**

**Spinal injections include all of the following:**

#### **Facet joint injections (FJI).**

These involve injection of substances (local anaesthetic, steroid or other agents) into the facet joint itself. Facet joints are small stabilizing joints located between and behind adjacent vertebrae in the spine and are believed to contribute to spinal pain in some cases. Facet joint injections can be used as a diagnostic procedure intended to establish whether the pain originates entirely or largely from the facet joint and may also be used as a therapeutic procedure for short-term pain relief in patients who have such significant degenerative change it is difficult to identify the location of the medial branch nerve

#### **Facet Medial branch Blocks**

Injection of the same substances as above around the primary nerve innervating the facet joint (the medial branch of the posterior primary ramus) is termed a medial branch block. It can be used as a more specific diagnostic procedure for considering future radiofrequency and is intended to establish whether pain originates from the facet joint. It can also sometimes be used as a therapeutic procedure.

#### **Radiofrequency denervation (RFD) (requires a positive response to a diagnostic medial branch block**

For people with low back pain who experience significant but short term relief with facet joint nerve block, this can be followed by a neurodestructive procedure called radiofrequency denervation (RFD) in an attempt to achieve longer term pain relief. RFD has evolved as a treatment for spinal pain over the last 40 years and is a minimally invasive and percutaneous procedure. Radiofrequency energy is delivered along an insulated needle in contact with the target nerves and denatures them. This process may allow axons to regenerate with time requiring the repetition of the radiofrequency procedure. Radiofrequency denervation is not an appropriate treatment of people who have sciatica without back pain.

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|  | <p><b>Trans-foraminal Epidurals/ Nerve root injections/ Dorsal root ganglion block</b></p> <p>The epidural space lies within the spinal canal, outside the dura mater, and contains the spinal nerve roots. A trans-foraminal epidural injection is an injection of a therapeutic substance into this canal around a single nerve root with the aim of a more regional response.</p> <p><b>Inter-laminar Epidurals</b></p> <p>This may be a caudal injection at the base of the spine or in the midline between the vertebral laminae (NICE recommends against use of epidural injections for patients with central spinal canal stenosis). This is usually only the injection of steroid with no local anaesthetic component to prevent the chance of accidental spinal injection.</p> <p><b>Trigger point injections</b></p> <p>Trigger points are specific sites in a muscle that cause pain. In back pain this can occur either locally or refer more widely throughout the back. For the purpose of this policy Trigger point injections refers to those into painful muscles causing spinal pain.</p> |
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| <b>Author</b>              | Suzanne Savage, Service Improvement Manager |
| <b>Responsible officer</b> | Dr Christopher Ives, Governing Body GP      |

## References

1. National Back Pain and Radicular Pain Pathway (Third edition) 2017 [national back pain and radicular pain pathway](#)
2. Low back pain: Early management of persistent non-specific low back pain NICE CG88 May 2009 <https://www.nice.org.uk/guidance/cg88>
3. NICE NG59 (November 2016) Low back pain and sciatica in over 16s: assessment and management <https://www.nice.org.uk/guidance/ng59>
4. NG59 full guidance; invasive treatments: methods, evidence and recommendations <https://www.nice.org.uk/guidance/ng59/evidence/full-guideline-invasive-treatments-2726157998>
5. Bedfordshire and Hertfordshire interim priorities forum statement 55 (Nov 2016): Back injections: the elective use of epidural and facet joint injections and denervation of facet joints in management of back pain.