Therapeutic Spinal Injections for Back Pain
**VERSION CONTROL**

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**VERSION HISTORY**

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2. Definitions

*Designated provider* means a provider trust which has been assessed and approved by the West Midlands Strategic Commissioning Group to provide a particular specialised service. The assessment is conducted against known capacity requirements and quality standards.

*Nominated provider* means a provider trust which has been approved by the Specialised Commissioning Team (West Midlands) to provide a particular specialised service without a formal assessment. This label implies that the service area and/or the provider is still waiting formal comprehensive assessment.

*Prior Approval* means the prior approval by the CCG for an individual patient or a group of patients to access care or treatment, including diagnostics, under a Prior Approval Scheme as set out in paragraphs 3.3 to 3.8 of Schedule 3 Part 1 of the Standard NHS Acute Services Contract 2009/10.

*An individual funding request* is a request received from a provider, or a patient with explicit support from a clinician, which seeks funding for a single identified patient for a specific treatment.

*Exceptional clinical circumstances* refers to a patient who has clinical circumstances which, taken as a whole, are outside the range of clinical circumstances presented by a patient within the normal population of patients with the same medical condition and at the same stage of progression as the patient.

*Responsible Primary Care Trust* means the Primary Care Trust which discharges the Secretary of State’s functions under the National Health Service Act 2006 for an individual patient. This responsibility will pass to Clinical Commissioning Groups from April 2013.

*Pain Management Measures*
Use of a range of advice and interventions to enable the patient to undergo manual therapy(ies) and/or physical activity aimed at supporting rehabilitation (or restoration of normal function).
3. Background: Low back pain

**Low back pain** is a common problem affecting both sexes and most ages for which approximately one in four adults seeks care in a six-month period (Price, 2005). Research indicates that most recent onset lower back pain episodes settle, but only about one in three resolves completely over a twelve-month period. Low back pain is very common in working-age adults, especially ages 40 to 60 years, with different levels of severity and represents a considerable burden to patients, families, society and the economy.

**Chronic back pain** is defined as pain that persists for more than three months and most commonly occurs in the lumbar or cervical area. Those affected can have disabling symptoms that can dramatically affect quality of life and ability to perform a variety of activities. While lumbar pain affects both sexes equally, cervical pain is more common in females. The risk of spinal pain increases with age as a result of disc disease and spinal degeneration. Other risk factors include poor posture, anxiety or depression, and accidents or occupational injuries.

**Degenerative disc disease** is a term used to describe changes that may occur as a normal part of the aging process. Degenerative changes include loss of fluid from the discs, making the discs thinner and inflexible and compressing the discs; cracks or tears in the disc may also occur and could lead to slipped or bulging discs. While some people are not affected by these changes, others experience pain as a result of spinal cord or nerve compression. DDD occurs most often in the cervical or lumbar spinal regions and in those who are obese, smokers, or perform heavy physical work.

**Herniated nucleus pulposus** also known as a herniated or slipped disc, occurs when a tear or weakening occurs in the outer portion of a disc, allowing the central portion (nucleus pulposus) to bulge out and press on the surrounding nerves. Herniated discs are more common in the lumbar region and in middle-aged and older men, especially accompanying strenuous physical activity.

**Spinal stenosis** is the narrowing of the spinal canal, causing pressure on the spinal cord or nerves and occurs most often in the lumbar region. People at higher risk for spinal stenosis include those over 50 years old, females, and those with a history of spinal injury or surgery.
Radiculopathy is any disease affecting the spinal nerve roots, predominantly in the cervical or lumbar regions. Radiculopathy is characterized by pain which seems to radiate from the spine to extend outward to cause symptoms away from the spinal nerve root. Radiculopathy can result in muscle numbness or pain and is often manifested in the arms or legs. Causes of radiculopathy include disc herniation, spinal stenosis, and osteoarthritis. Radiculopathy may be caused by radiculitis - an inflammation of a spinal nerve root.

Sciatica is a form of radiculopathy in which radicular pain radiates along the sciatic nerve from the lower spine to the lower back, gluteal muscles, back of the upper thigh, calf, and foot.

Failed back surgery syndrome, also known as post surgery syndrome, is a general term denoting persistent or recurrent chronic lower back or leg pain following what appears to have been anatomically successful spinal surgery. It is estimated to affect 10 to 40% of patients following lumbar spine surgery. Treating FBSS patients is challenging, as additional surgery and conservative therapies typically do not relieve pain.

Facet joint syndrome is pain occurring in the facet joints (known formally as zygapophysial or Z joints) and most often affects the lower back and neck. Facet joint pain occurs most often in the elderly, accompanying the degeneration of the cartilage covering the facet joints. Irritation of the facet joint nerves, trauma, inflammation, and disc degeneration are also associated with facet joint pain.

Whiplash describes an extension/flexion injury occurring as the result of a vehicle accident, most often a rear-end collision. There are a variety of resulting conditions including joint dysfunction, disc herniation, chronic pain, faulty muscle movement, and cognitive or mental function problems. Females are more frequently and more seriously affected by whiplash; advanced age and pre-existing health conditions such as arthritis can also increase the severity of the condition.

4. Treatment of low back pain

Treatment for low back pain typically begins with the identification of the underlying cause of pain, which remains challenging because the pathogenesis and mechanisms for the majority of back pain remain unknown. Depending upon the diagnosis, a variety of treatments can be administered. These treatments are collectively referred to as conventional medical management (CMM). CMM covers a range of conservative/ non-invasive interventions. For an individual patient CMM may include some (but usually not all) of the following: physical therapy and rehabilitation, pharmaceutical pain management, psychological therapy and coping
skills, exercise, education, antidepressants, cognitive behavioral therapy and supported self-management, spinal manipulation, electrical stimulation, injections outside the spine, implanted devices, alternative medicine such as acupuncture/acupressure, and modified work.

**Spinal injections (including nerve root injections)**

Patients who do not respond to non-invasive treatment may be referred for spinal injections in an attempt to provide pain relief. Spinal injections involve the injection of an anti-inflammatory agent such as a steroid, and/or an anaesthetic into the spine or space around the spinal nerves and joints. One of the theoretical advantage of spinal injections is that they deliver the treatment medication directly to the site involved in the source of pain. Fluoroscopic or computed tomography (CT) visualization is often used to improve the accuracy of medication delivery. Types of spinal injection include epidural, facet joint, intradiscal, and sacroiliac joint injections. Spinal injections can be used for diagnostic and therapeutic purposes including:

- diagnostically to identify the exact area of pain (including spinal blocks)
- therapeutically with the aim of providing long-term pain relief (including spinal blocks)
- therapeutically to provide short term pain relief enabling effective delivery of alternative treatment options.

**Facet joint injections** deliver the medications (anaesthetic with or without a corticosteroid) into the facet joints and include several approaches. An **epidural injection** can be used to administer steroidal and/or anaesthetic agents into the epidural space of the spine in order to anesthetise and block spinal pain. Epidural injections are commonly used to treat radicular pain (pain radiating down an arm or leg) caused by compression of the spinal nerve roots. Epidurals can also be given to provide short term pain relief enabling participation in conservative management programmes, including manipulation and exercise programmes.

5. The policy: commissioning position

- This policy applies to any patient for whom Arden CCGs are the responsible commissioner.

- This policy relates to therapeutic use of spinal injections for acute (<12 weeks), chronic (>12 weeks) and acute-on-chronic back (spinal) pain.
• All patients must have been treated using conservative management techniques and failed to achieve sufficient pain control before consideration for spinal injections.

• Where commissioned, spinal injections should be given alongside Pain Management Measures (see definition) with the intention of enabling participation in exercise and/or spinal manipulation.

• Spinal injections should not be used as a stand-alone procedure and should not be used as a long term intervention.

• For all patients in whom spinal injections are not commissioned, access to physiotherapy advice and pain relief should be available to shorten absence from work and difficulty with usual activities.

The commissioning position is to routinely fund limited use of spinal injections ONLY within commissioning criteria as follows:

Cervical spine indications

1. Epidural steroid injections

   a. For patients with neck pain with disc compression and radiculitis

      In patients with neck pain with disc compression and radiculitis (<12 weeks duration) or acute-on-chronic, one epidural steroid injection will be commissioned as part of a pain management programme, with the intention of enabling participation in exercise and/or spinal manipulation. Epidural injections should not be used as a stand-alone procedure for these patients and should not be used as a long term intervention.

   b. Epidural spinal injections are NOT commissioned in other cervical spine indications

2. Cervical intra-articular facet joint steroid injections are NOT commissioned for any indication due to a lack of evidence of effectiveness

3. Cervical medial branch blocks are NOT commissioned for any indication due to a lack of evidence of effectiveness.

Lumbar spine indications

1. Epidural injections (lumbar caudal or interlaminar epidural steroid injections/ lumbar transforaminal epidural steroid injections)

   In patients with acute spinal pain with radiculopathy (including sciatica) of <12 weeks duration or acute-on-chronic, one epidural steroid injection will be commissioned as part of a package of pain management measures, with the intention of enabling participation in exercise and/or spinal manipulation. Epidural injections should not be used as a stand-
alone procedure for these patients and should not be used as a long term intervention.

Epidural injections are **NOT** commissioned for the following indications (where these are known to be the cause of back pain) due to a lack of evidence of effectiveness.

- low back pain without sciatica or other radiculopathy
- spinal stenosis
- failed back surgery syndrome
- disc prolapse
- other lumbar spine indications

2. Lumbar sacroiliac joint steroid injections

*In patients with sacroiliac joint pain* one lumbar sacroiliac joint steroid injection **will be commissioned as part of a package of** pain management measures, with the intention of enabling participation in exercise and/or spinal manipulation. Lumbar sacroiliac joint steroid injections should not be used as a stand-alone procedure for these patients and should not be used as a long term intervention.

3. Facet joint injections (lumbar intra-articular facet joint steroid injections/lumbar medial branch blocks)

*Facet joint injections are **NOT** commissioned for acute, chronic or acute on chronic degenerative lumbar spinal pain with or without radiculopathy due to a lack of evidence of effectiveness.*

Lumbar intradiscal steroid injections **are NOT commissioned for any indication due to a lack of evidence of effectiveness.**

Other spinal joint injections

1. **Owing to lack of evidence the principle informing the above indications will be applied to all other spinal joint injections not specifically mentioned above (eg. costo-vertebral, sacro-coccygeal injections).** Whilst a single diagnostic injection may be provided if indicated, repeated therapeutic injections will not be commissioned.

Exceptionality

*If a consultant is able to set out exceptional clinical circumstances as to why the patient is an outlier in terms of their clinical presentation and potential to benefit then request for funding should be submitted to the CCG according to the individual funding request policy.*

6. Evidence base underpinning this policy
1. This policy has been developed by drawing on the best available evidence of both clinical and cost effectiveness. A comprehensive, high quality Health Technology Assessment of spinal injection therapies was produced by the Washington State Health Authority in 2010. The evidence assessments and conclusions reported in this HTA form the basis of this policy. A copy of the HTA can be found at [www.hta.hca.wa.gov/documents/spinal_injection_final_report.pdf](http://www.hta.hca.wa.gov/documents/spinal_injection_final_report.pdf).

2. For the majority of indications covered by the HTA the evidence base is of relatively poor quality, and showed no benefit from use of spinal injections compared to placebo or conservative pain management techniques.

This policy identifies those indications in which the review of the evidence concluded that there was no benefit from spinal injections as those which will NOT be funded.

Where the HTA evidence review concluded that the evidence showed a benefit from spinal injections, this policy sets out commissioning criteria based on the evidence review and which supports use of spinal injections only within a pain management programme aimed at enabling exercise.

4. In addition to the 2010 HTA the following sources have been used to formulate this policy:

6. **Facet Joint Injections for Low Back Pain:**

A review of evidence undertaken for an American Pain Society clinical practice guideline identified four systematic reviews and eight RCTs on the use of facet joint injection or medial branch block. The review concluded that there was good or fair evidence that, facet joint injections, are not effective in the treatment of low back pain (of any duration). (Chou et al, 2009)

An updated Cochrane Review on Injection Therapy for Subacute (>6 weeks) and Chronic (>12 weeks) low back pain (excluding radiculopathy) identified that there were no clear benefits associated with facet joint steroid versus placebo injection. (Staal et al, 2009)

Guidelines from the American Association of Neurological Surgeons state: Facet injections are not recommended as long-term treatment for chronic low-back pain (Resnick et al, 2005).
Guidelines from the American College of Occupational and Environmental Medicine (2007) state that therapeutic facet joint injections for acute, subacute, chronic low back pain or radicular pain syndrome are not recommended (American College of occupational and Environmental Medicine, 2004).

The NICE guideline development group agreed that there was a lack of evidence to recommend the use of facet joint injections and agreed by consensus injections were of no benefit for patients with persistent (>6 weeks and <12 months) back pain (Nice Clinical Guideline 88, 2009).

**Spinal Epidural Steroid Injections:**

*Low Back Pain (without radiculopathy)*

A review of evidence undertaken for an American Pain Society clinical practice guideline concluded that although the data was sparse and inconclusive, it showed no clear evidence of benefit for the use of epidural steroid injections for low back pain (of any duration) without radiculopathy (Abdi et al, 2007).

The NICE guideline development group agreed that there was a lack of evidence to recommend the use of spinal epidural injections and agreed by consensus, injections were of no benefit for patients with persistent (>6 weeks and <12 months) back pain.

An updated Cochrane Review on Injection Therapy for Subacute (>6 weeks) and Chronic (>12 weeks) low-back pain (excluding radiculopathy) reported that although the evidence was limited, it indicated that corticosteroid epidural injections were not significantly more effective than placebo or alternative treatments.

*Radiculopathy*

The American Pain Society Review found fair evidence of moderate benefit of epidural steroid injection compared with placebo injection for short-term pain relief in patients with radiculopathy. There was no evidence of long term benefits but few studies had measured long-term outcomes.

A systematic review of conservative treatment for lumbosacral radicular syndrome found that there was no evidence in favour of corticosteroid injections for long-term
pain relief when compared to placebo, no treatment or NSAID or anaesthetic injection, apart from conflicting evidence for short-term pain relief (Luijterburg et al, 2007)

A systematic review of epidural steroid use in the management of chronic spinal pain concluded that for lumbar radicular pain there was strong evidence for short term pain relief and limited to moderate evidence for long term pain relief. (Abdi et al, 2007)

A health technology assessment of the use of epidural steroids in the treatment of sciatica reported that although epidural steroid injections appear relatively safe, it was found that they confer only transient benefit in symptoms and self-reported function in a small group of patients with sciatica at substantial costs. The calculated cost per Quality Adjusted Life Year (QALY) under the trial protocol of up to three injections was £354,000 and £167,000 if only one injection was provided (Price et al, 2005).

7. Monitoring application of this policy

The CCG will only fund activity coded within the following parameters and which meet the policy criteria:

OPCS codes A521, A577, V544 either with
- an OCD10 diagnosis code of radiculopathy in the primary position; M541, M5410, M5412, M5414, M415, M5416, M5417, M5418, M5419 or
- an OCD10 diagnosis code of sacroilitis in the primary position; M461, M4615, M4617, M4618.

The CCG will undertake a monthly review of SUS data to identify activity carried out that does not meet with these parameters and will review these exceptions in relation to application of this policy.

CCGs have been given an indicative annual number of spinal injections that would be expected to meet the funding criteria based on data for 09/10. Should the number actually funded vary significantly from this indicative figure CCGs will undertake a detailed audit with Providers to explore the reasons for this.
8. Documents which have informed this policy

- West Midlands Strategic Commissioning Group
  Review of Spinal Services in the West Midlands
  December 2010

- West Midlands Strategic Group Commissioning Policy 1: Ethical Framework
to support priority setting and resource allocation within collaborative
commissioning arrangements

- West Midlands Strategic Group Commissioning Policy 9: Individual funding
requests

- The National Health Service Act 2006, The National Health Service (Wales)
Act 2006 and The National Health Service (Consequential Provisions) Act
2006, Department of Health - Publications

- Department of Health, World Class Commissioning Competencies, December
  licyAndGuidance/DH_080958

- Department of Health, The NHS Constitution for England, July 2009,
  http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPo-
  licyAndGuidance/DH_093419

- The National Prescribing Centre, Supporting rational local decision-making
  about medicines (and treatments), February 2009,
  http://www.npc.co.uk/policy/resources/handbook_complete.pdf

- NHS Confederation Priority Setting Series, 2008,
  http://www.nhsconfed.org/publications/prioritysetting/Pages/Prioritysetting.asp

9. References

Washington State Health Care Authority
Spinal Injections Health technology assessment  November 2010

Chou R, Atlas SJ, Stanos SP, Rosenquist RW. Nonsurgical interventional therapies
for low back pain: a review of the evidence for an American Pain Society clinical


NICE clinical guideline 88: Low back pain: Early management of persistent non-specific low back pain, 2009


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