# Fluoroscopy guided Foraminal Nerve Root Steroid Injections

**Descriptor:**

The success and complication rate of fluoroscopy guided foraminal nerve root steroid injections performed on outpatients for referred nerve root pain.

**Background:**

Fluoroscopy guided foraminal epidural steroid injection is a targeted steroid injection at a suspect neural foramen with the aim of improving symptoms caused by specific nerve root compression. As this procedure has associated risks of pain, bleeding, infection and nerve damage, it is essential to check practice is meeting an adequate standard.

## The Cycle

**The standard:**

• Primary standard: a proportional improvement in symptom scores, comparing pre-treatment score with score 1 month after treatment

• Secondary standard: reporting of complications after the procedure

   - Minor complications include bleeding, pain at injection site, transient increased pain and numbness

   - Major complications that have been reported include infection and nerve root/ vascular injury

**Target:**

• 50% improvement in symptom score in 31% of treated patients after treatment [1]

• Secondary standard is 2 % minor complication rate [2]

• Major complications are rarely reported therefore a nominal rate of 1 case per audit cohort is used

## Assess local practice

**Indicators:**

• Primary standard indicator is based on a standard 0-10 pain score. Patients asked to fill out the pain score before the procedure and 1 month afterwards

• Secondary standard indicator is the patient reporting positive for complications

**Data items to be collected:**

• Anonymised coded questionnaires to be distributed to patients before the procedure and returned after having filled out the pain score 1 month afterwards - the questionnaire also includes questions about post procedural complications

• RIS database to be checked for any formal reporting of major complications occurring at the time of the procedure

**Suggested number:**

50 completed questionnaires.

**Suggestions for change if target not met:**

• Review fluoroscopy/ CT images on PACS for the sample patients with the Radiologists performing this procedure to check technique retrospectively

• Standardised or altered technique should be discussed based on the patients who showed the most improvement

• Check the RIS record of the procedure for any cause of complications

• Major complications are likely to result in further secondary level treatment and therefore, patient notes should be reviewed to identify any specific problems

• Safety checklists should be instituted in order to ensure that safety procedures and aseptic technique are being followed

• Check if strict referral criteria being met by reviewing previous imaging on PACS and the request on RIS system

• If certain patients are less likely to benefit or more likely to get complications, then discuss refining referral criteria with referring clinicians

[**fesi\_pain\_form\_for\_upload\_latest\_format.docx**](https://www.rcr.ac.uk/sites/default/files/audit_template/fesi_pain_form_for_upload_latest_format.docx)DOC - 19.44 KB

**References:**

1. McCormick Z, Margolis S, Temme K, Rivers E et al, Concordant pain provocation during transforaminal epidural steroid injection for lumbosacral radiculopathy: effect on pain outcome and predictive factors, Pain Physician, 2015 Jan-Feb;18(1):E19-26 <https://www.ncbi.nlm.nih.gov/pubmed/25675066>
2. McGrath JM, Schaefer MP, Malkamaki DM. Incidence and characteristics of complications from epidural steroid injections. Pain Med, 2011; 12:726-731.  <https://www.ncbi.nlm.nih.gov/pubmed/21392252>

**Submitted by:**

Dr S E T Leach

**Co-authors:**

Dr S E T Leach

Dr G Lloyd-Jones

Dr S Kar

**Published Date:**

Thursday 27 April 2017

**Last Reviewed:**

Thursday 27 April 2017