

Optimising roles within Spinal Orthopaedics: Spinal Physiotherapy Practitioner's delivering a spinal injection service

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Introduction

The orthopaedic spinal service (OSS) at Doncaster and Bassetlaw teaching hospitals NHS foundation trust (DBTH) encountered year on year increased referrals largely due to the closure of other regional spinal services. This created increased waits to treatment for patients and increased pressure on the 18 week target contributing to non compliance with this target. The static members of the OSS are orthopaedic spinal surgeons and a spinal physiotherapy practitioner (SPP). A key healthcare priority is to optimise non-medical roles such as physiotherapy practitioners.

Sciatica is a common condition referred to the DBH OSS. It is caused by the lumbar nerves being irritated or trapped by a bulging disc causing significant disability, work absence, and persistent use of prescription medication. Guidance states the need for early intervention to prevent chronicity. X-ray guided spinal epidural injection (SEI) is recommended in NICE guidance for the treatment of acute sciatica. SEI can decrease swelling and inflammation from an irritated nerve root allowing return to function and work whilst decreasing the use of prescription medication and the need for spinal surgery.

The increased demand on the OSS caused difficulty in providing timely access to appointments and to subsequent SEI.

Aims

Use skills of OSS team optimally to provide efficient and cost effective services by;

- i - Decreasing the time of the patient pathway in the OSS
- ii - Decreasing the wait for SEI for patients with sciatica
- iii - Maintain patient safety and satisfaction
- iv - Stopping spinal patients breaching the 18 week referral to treatment target

Methods

Phase 1: Train SPP to provide SEI.

Traditionally surgeons have all provided SEI. An innovative way of increasing capacity was to train the SPP at DBH to also administer SEI. A precedent of this had been set elsewhere.

The SPP undertook a rigorous training and governance process. This led to the production of the first clinical skills training package for physiotherapists to train to administer SEI.

Practice evaluated with patient satisfaction, and experience questionnaire, and audit of needle placement and contrast distribution on fluoroscopic images of SEI procedures. Waiting list average time to treatment pre and post instigation on phase 1 was also recorded.

Phase 2: Create a pathway directly from primary care for SEI.

A direct pathway was created for patients with a diagnosis of sciatica with a concordant lumbar MRI.

These patients could be referred directly for SEI by appropriately trained orthopaedic physiotherapy practitioners working in primary care.

Measured by time to treatment on patients on this pathway compared to on traditional pathway of referral to OSS the going on a waiting list.

Results

Phase 1: SPP training to provide SEI

a) Patient evaluation (6wks post injection)

On the Day of your Spinal Injection		
	Completely satisfied	Satisfied to some extent
N = 25 How satisfied were you with the instructions on your appointment letter?	80%	20%
N = 25 How satisfied were you with the clinician carrying out the procedure?	96%	4%
N = 23 How satisfied were you with the outcome of your injection?	57%	26%

b) Needle placement audit

Evaluation of 20 randomly selected injections by Orthopaedic spinal surgeon

Fully satisfied	Partially satisfied	unsatisfactory
14	6	0

c) Adverse incidents

(> 1000 injections administered)
X3 patients worse – went onto discectomy
No other significant adverse events

Phase 2: Direct referral pathway from primary care

Traditional pathway waiting time	Direct listing from primary care waiting time	Overall time to treatment saved
13 weeks 4 days	5 weeks 6 days	7 weeks 5 days

Discussion

This project has demonstrated that optimising the skills of the MDT can produce improvements in patient pathways whilst maintaining safety. Patients self report at 6 weeks post injection is favourable and seems to be comparable with orthopaedic medical colleagues. Patients are also satisfied with the SPP carrying out the procedure. Needle placement evaluation shows all procedures were fully or partially satisfactory.

SEI is recommended by NICE in the recent LBP guidelines. This has the use of SEI for acute sciatica. As a typical pathway for a patient with non-resolving sciatica is to have trials of physiotherapy and neuropathic medication and have an MRI scan, it is important that this pathway is as efficient as possible to stop chronicity occurring.

This process involved robust governance, legal and ethical considerations from the hospital trust, and chartered society of physiotherapy. This model is readily transferable, and the SPP is working with extended scope physiotherapists from other trusts to support their development if this programme.

Conclusion

Using AHP roles optimally and creating innovative pathways between existing services safely improved the service for patients with sciatica. This has also allowed surgeons to be free to do more surgery and contributed to compliance with the 18 week pathway.