

SCHEDULE 2 – THE SERVICES

A. Service Specifications

Service Specification No:	URN 1738
Service	Complex Spinal Surgery Services (All ages)
Commissioner Lead	<i>For local completion</i>
Provider Lead	<i>For local completion</i>

1. Scope

1.1 Prescribed Specialised Service

This service specification covers the provision of complex spinal surgery services (adults and children).

1.2 Description

This service encompasses elements of care provided by spinal surgeons from both orthopaedic and neurosurgery disciplines.

For adults:

Complex spinal surgery services include a number of specified procedures that should only be performed in a commissioned Specialist Spinal Surgery Centre as detailed in the specification.

For children and young people:

Complex spinal surgery services include a number of specified procedures that should only be performed in Specialist Spinal Surgery Centres.

1.3 How the Service is Differentiated from Services Falling within the Responsibilities of Other Commissioners

NHS England commissions complex spinal surgery services for adults from Specialist Spinal Surgery Centres, including services delivered on an outreach basis as part of a formalised provider network. NHS England commissions complex spinal surgery services for children from Specialist Paediatric Spinal Surgery Centres.

NHS England commissions:

- All spinal deformity surgery (adults and children).
- All spinal reconstruction surgery including tumour, trauma & infection (adults and children).
- Palliative or curative spinal oncology surgery (adults and children).
- All anterior, lateral and posterior thoracic surgery.
- All anterior lumbar surgery.
- All anterior cervical surgery greater than two levels.
- All corpectomy surgery at any level of the spine.
- Posterior cervical decompression surgery using instrumentation.
- Posterior lumbar instrumented surgery greater than two levels.

CCGs commission:

- Posterior cervical decompression surgery without instrumentation.

- Anterior cervical decompression surgery two levels or less.
- Primary lumbar decompression/discectomy.
- Posterior lumbar fusion surgery two levels or less
- Spinal injections
- Cement augmentation procedures

2. Care Pathway and Clinical Dependencies

2.1 Care Pathway

The Elective Care Pathway

The three main pathways for referral to elective care are listed below:

- All primary care referrals should be referred through a locally agreed triage service based on the “National Low Back & Radicular Pain Pathway,” published November 2016 and endorsed by NICE as a care pathway that supports the implementation of recommendations in the NICE guideline on low back pain and sciatica: <https://www.nice.org.uk/guidance/ng59/resources/endorsed-resource-national-pathway-of-care-for-low-back-and-radicular-pain-4486348909>
- Patients may be referred from other specialties such as oncology, pain management services, rheumatology and orthopaedics
- Patients can also be referred from the Regional Spinal Network centres for more specialist input within the specialised centres.

Emergency Care

The majority of spinal surgical emergency patients are admitted from the local emergency department or from non-specialised units as defined in the Regional Spinal Network model. An electronic referral system is essential to ensure clear documentation is in place between units.

Patients may also be referred from within the local hospital, or surrounding hospitals from other specialties such as oncology and acute medicine.

All hospitals involved in spinal surgery must fully engage with their relevant Regional Spinal Network to agree emergency spinal pathways including protocols for referral guidelines, emergency imaging, repatriation, the care of cauda equina and spinal cord injury.

Regional Spinal Networks

Spinal surgery is coordinated through 14 Regional Spinal Networks (RSNs) that coordinate all levels of care from referring centres into a Specialist Spinal Surgery Centre (hub). The overarching aim of each network is to help define standards, pathways and standard operating procedures (SOPs) aimed at improving access and care for patients presenting with spinal conditions via an elective or emergency care pathway.

General requirements

All specialised spinal surgical procedures are performed by neurosurgical and orthopaedic ‘hub’ centres, of which there are between 1 and 5 in each Regional Spinal Network. Access to treatment will be guided by any applicable NHS England national clinical commissioning policies.

All activity falling under the remit of this service specification should be coded to Treatment Function Code 108 Spinal Surgery Services. Activity is determined by the OPCS4 procedure codes set out in Appendix 1.

All necessary resources must be available to allow for the assessment, pre-operative assessment, admission, investigation, treatment, on-going care and rehabilitation of spinal surgical patients in line with agreed and commissioned national standards and within timescales appropriate to the clinical needs of patients. Access to emergency consultation and treatment will be available at all times at a hub centre as defined by the Regional Spinal Networks. Spinal surgical services will be consultant-led. Other staff contributing to the delivery of services including non-consultant-grade clinical staff, such as medical staff, nurses and allied health professionals (AHPs) are essential to support spinal surgical services. The vast majority of specialised centres must be able to offer all aspects of specialised spinal surgery, taking into account the general requirements set out in section 2.2 and the additional specific points relating to the provision of deformity surgery as detailed below.

Paediatric Spinal Deformity

A centre can provide this service if it meets the following specific requirements:

- There must be a sufficient number of consultant spinal surgeons trained in paediatric spinal deformity surgery to provide case discussion and joint operating where necessary.
- Each surgeon must regularly perform scoliosis surgery.
- To maintain high quality decision making, each patient must be reviewed by the consultant paediatric spinal deformity surgeon at a minimum of alternate clinic visits, or on a 6-monthly basis.

Adult & Degenerative Spinal Deformity

Adult deformity surgery covers the correction of scoliosis, kyphosis and grade 3 or more spondylolisthesis in patients over the age of 18 years involving fusion of more than 2 levels of the spine.

Patients over the age of 55 years of age would be defined as having degenerative spinal deformity.

This service should be provided by a limited number of centres as agreed within each Regional Spinal Network, and must fulfil the following specific requirements:

- There must be access to at least two spinal surgeons with an interest in adult deformity in every unit and at least one must be available when inpatients are present within the hospital.
- All cases should be discussed and agreed at the regional MDT.

2.2 Interdependence with other Services

A spinal service is delivered by a multi-disciplinary team, which includes spinal surgeons, registered nurses, physiotherapists, occupational therapists, orthotists, pharmacists, radiologists, radiographers, anaesthetists and others as required.

Key Requirements

For Adult and Paediatric services, all specialised units must have:

- 24/7 MRI and CT imaging;
- Pre-operative assessment facilities, including respiratory function, echocardiography, bone mineral density measurement, physiotherapy and occupational therapy support;
- 24/7 spinal surgical on call rota with surgeons trained in spinal reconstruction;
- 24/7 access to a spinal surgical theatre with appropriate staffing;
- 24/7 on-site access to specialist consultant anaesthetists (for paediatrics/adults) with experience of the complications associated with this surgery;
- Sterile spinal implants, including removal instruments for all implants (this is particularly important if sterilisation takes place off-site);
- 24/7 Emergency Consultant Spinal Surgeon on call rota (Category A);
- Spinal cord monitoring supported by neurophysiology or medical physics;
- Access to orthotic services as defined by the local Spinal MDT depending on the scope of specialised spinal services;
- Immediate access to blood products including cell salvage during and after surgical procedures;
- Weekly multidisciplinary team (MDT) meetings to discuss all specialised procedures with at least 4 surgeons and a radiologist present;
- Access to picture archiving and communication system (PACS) for pre-operative planning. Measurement tools must be integrated into the PACS. All imaging must be stored long-term for these patients, as further surgery may be required;
- Evidence of demonstrable active and ongoing engagement with a Regional Spinal Network.

The following services must be available to support the management of complex spinal surgery patients:

Co-located services (available on the same site)

- Level 3 Critical Care for all adult spinal deformity and children under 10 years of age, or non-idiopathic deformity surgery,
OR
- Level 2 Critical Care with the following additions:
 - consultant anaesthetist review of all patients to assess suitability for surgery in that hospital. This may involve MDT review if the exact details of surgery are considered important. Risk stratification scores must be considered, at the very least, to guide shared decision making.
 - Early mechanical ventilatory support after surgery must be available if required.
 - There must be a documented escalation policy in place for patient transfer to a level 3 critical care facility if prolonged ventilation or other organ support is required. Any transfers must be documented for the purposes of mandatory Trust audit.
- Acute pain management services

- Physiotherapy / Rehabilitation Services
- On site vascular services for revision anterior lumbar spinal surgery and documented vascular policy to access on-call vascular services if required for all other anterior lumbar surgery.
- On site paediatric services with staff competent in paediatric advanced life support and a named paediatric consultant* available on call 24/7 for attendance within 20-30 minutes. (*or equivalent individual deemed to be competent for a consultant on call rota)
- Interventional radiology

Interdependent Services

- Haematology
- Neurology
- Microbiology
- Oncology
- Neurosurgery
- Spinal Cord Injury Centre
- A local wheelchair service in the geographical catchment area for those patients requiring seating adjustments or post-operative assessments.

2.3

Staffing

As a minimum, a spinal surgery service multidisciplinary team (MDT) meeting, held weekly, must comprise at least four spinal consultants and a consultant radiologist.

Other members of the MDT will vary, but will include representation from Anaesthetics, Microbiology, Infectious Diseases, Pathology, Oncology, Pain Management and other specialities depending on the specifics of the condition being treated. Attendance is mandatory for all spinal consultants, unless they are on leave. The MDT must be recorded and submitted as part of Quality Assurance.

All specialised units must have nursing skills and staffing numbers to maintain the standard of care required for spinal patients, including those with spinal cord injury (maintaining in line immobilisation as required, 2 to 4 hourly turns, bladder and bowel care, skin care, managing orthotics etc).

Clinical nurse specialist and/or physiotherapist input is required to support communication with patients and their families, provide information, co-ordinate pre-operative assessment and help reduce avoidable surgical cancellations and facilitate outcome data collection. These roles should be a key part of the Multidisciplinary Team (MDT).

A mentoring system must be in place for newly appointed consultants, including joint operating and case monitoring until it is agreed by both sides that this is no longer required.

When surgery necessitates the presence of 2 spinal consultants, then they should be available together on rota.

All units must have:

- A designated, competent, experienced senior nurse lead in possession of a completed portfolio of specialist competencies actively engaged in their local regional spinal network;
- A registered nursing team on the ward who can facilitate safe, effective practice in spinal care which is underpinned by the *National Major Trauma Nursing Group Adult Ward Nursing Competencies* (spinal section; V1.1. April 2018; <http://www.nmtng.co.uk/adult-trauma-wards.html>)
- At least 50% of the nursing team should be in possession of the relevant competency set, with the remainder working towards completion;
- Consultant anaesthetists experienced with the problems associated with specialised spinal surgery.

The following service specifications are relevant to complex spinal surgery (adults and children) and should be read in conjunction with this document:

- Spinal Cord Injury Services (all ages): <https://www.england.nhs.uk/publication/spinal-cord-injury-services-all-ages/>
- Adult Critical Care: <https://www.england.nhs.uk/publication/adult-critical-care-services/>
- Adult Highly Specialist Pain Management Services: <https://www.england.nhs.uk/publication/adult-highly-specialist-pain-management-services/>
- Major Trauma (all ages):

- <https://www.england.nhs.uk/wp-content/uploads/2018/08/Major-trauma-all-ages.pdf>
- Neurosurgery (Adults):
<https://www.england.nhs.uk/publication/neurosurgery-adults/>
- Neurosciences Specialised Neurology (Adult):
<https://www.england.nhs.uk/wp-content/uploads/2018/08/Neurosciences-specialised-neurology-adult.pdf>
- Paediatric Intensive Care:
<https://www.england.nhs.uk/wp-content/uploads/2018/08/Paediatric-intensive-care.pdf>
- Paediatric Neurosciences Neurology:
https://www.england.nhs.uk/wp-content/uploads/2018/09/E09-S-b-Paediatric-Neurosciences-Neurology.pro_2013.04.v2.pdf
- Paediatric Neurosciences Neurosurgery:
https://www.england.nhs.uk/wp-content/uploads/2018/09/Paediatric-neurosciences_Neurosurgery.pdf
- Specialised Rheumatology Services (Adult):
<https://www.england.nhs.uk/wp-content/uploads/2013/06/a13-spec-rheumatology.pdf>

3. Population Covered and Population Needs

3.1 Population Covered by this Specification

This service specification covers adults and children falling under the direct commissioning responsibilities of NHS England in relation to the provision of complex spinal surgery. This service encompasses elements of care provided by spinal surgeons from both orthopaedic and neurosurgery.

3.2 Population Needs

The majority of the population will experience back pain at some point in their lifetime. Most people will, however, not require the input of a consultant spinal surgeon and can be managed appropriately through an appropriate triage service (National Back & Radicular Pain Pathway). The number of patients requiring a surgical procedure represents a small proportion of the total number of procedures performed in spinal surgery.

3.3 Expected Significant Future Demographic Changes

It is expected that the number of patients with spinal problems will continue to rise in years to come. The volume of specialised spinal surgical procedures is likely to rise with patient demand for surgical intervention for complex issues such as deformity, as well as increasing numbers of metastatic disease, trauma, tumour and infection. This increase is likely as a result of advances in medical care, particularly in the elderly and in oncology.

3.4 Evidence Base

This specification has been developed taking into account the GIRFT national report on spinal surgery (<https://gettingitrightfirsttime.co.uk/wp-content/uploads/2019/01/Spinal-Services-Report-Mar19-L1.pdf>) and its recommendations, published January 2019.

4. Outcomes and Applicable Quality Standards

4.1 Quality Statement – Aim of Service

The aims of spinal services are to improve the quality of life of patients with complex spinal conditions by:

- improving access to spinal surgical departments in a timely manner by reducing inappropriate referrals with the implementation of the “National Back & Radicular Pain Pathway;”
- improving governance and reducing variation in surgical practice via the Regional Spinal Networks;
- improving timely emergency access across the country with agreed pathways through the Regional Spinal Networks;
- improving outcome data for all surgical procedures by using the British Spine Registry;
- collaborating with other specialties including specialised neurosciences and pain management service to improve the overall care of patients;
- complying with the requirements of the best practice tariff in relation to submission of data to the British Spine Registry (BSR) to collect diagnosis, surgical procedure, complications and Patient Reported Outcome and Experience Measures (PROMS & PREMS)

NHS Outcomes Framework Domains

Domain 1	Preventing people from dying prematurely	✓
Domain 2	Enhancing quality of life for people with long-term conditions	✓
Domain 3	Helping people to recover from episodes of ill-health or following injury	✓
Domain 4	Ensuring people have a positive experience of care	✓
Domain 5	Treating and caring for people in safe environment and protecting them from avoidable harm	✓

4.2 Indicators Include:

Number	Indicator	Data Source	O.F Domain	CQC Key question
Clinical Outcomes				
101	Proportion of patients having spinal surgical procedures (excluding spinal injections) being entered onto the BSR	BSR/HES	2, 4	safe, effective, caring
102	Proportion of patients re-admitted within 30 days of discharge after spinal surgery	HES	3, 4	effective, caring, responsive
103	proportion of patients who die within 30 days of spinal surgery	HES		
104	Proportion of patients returning to theatre within 30 days of a spinal surgery procedure (exclude planned 2 stage surgery)	HES	3, 4	effective, caring, responsive
105	For primary lumbar decompression / discectomy the proportion of emergency re-admissions within 30 days	Provider	3, 4	effective, caring, responsive
106	For posterior lumbar instrumented fusion, the proportion of emergency re-admission within 30 days	Provider	3, 4	effective, caring, responsive
107	For adults (age 55+) spinal deformity correction the proportion of emergency re-admission within 30 days	Provider	3, 4	safe, effective
108	For adults (age 55+) spinal deformity correction the proportion returned to theatre for further surgery on same body site within 30 days	Provider	3, 4	effective, caring, responsive

109	For paediatric spinal deformity correction, the proportion of emergency re-admission within 30 days	Provider	3, 4	safe, effective
110	Proportion of cases returned to theatre due to infection following adult spinal surgery	Provider	3, 4	safe, effective
111	For paediatric spinal deformity correction, the proportion returning to theatre for further surgery on same body site within 2 years	Provider	3, 4	effective, caring, responsive
112	Proportion of patients who die within 30 days of spinal surgery for MSCC	HES	1, 3, 4	safe, effective
113	Proportion of paediatric spinal deformity patients cancelled on day of admission or following admission	Provider	3, 4	safe, effective
114	Proportion of cases returned to theatre due to infection following paediatric spinal deformity surgery	Provider	3, 4	safe, effective
115	% improvement in Scoliosis Research Society -22 Questionnaire in patients with adolescent idiopathic scoliosis	BSR	3, 4	safe, effective, caring
Patient Experience				
201	Patients and carers are provided with Information	Self-declaration	4	caring
202	The service undertakes a patient experience exercise at least annually.	Self-declaration	4	caring and responsive
Structure and Process				
001	There is a multidisciplinary specialist team for paediatric patients as per the service specification.	Self-declaration.	1,2,5	effective safe
002	There is a multidisciplinary specialist team for adult patients as per the service specification.	Self-declaration.	1,2,5	effective safe
003	There is an MDT meeting for treatment planning.	Self-declaration.	1,2,5	effective, safe
004	The consultant paediatric spinal surgeons in the MDT undertake at least 10 instrumented scoliosis corrections per annum.	Self-declaration.	1,2,5	effective, safe
005	Paediatric patients are reviewed by the Consultant Paediatric Spinal Deformity Surgeon on a minimum of alternate clinic visits or on a 6-monthly basis.	Self-declaration.	1,2,5	effective, safe
006	There is a 24/7 rota in place.	Self-declaration.	1,2,5	effective, safe
007	There is a seven-day clinical standards policy	Self-declaration	1,2,5,	effective, safe

008	Where emergency surgery is required there is a theatre team with experience in spinal implants available 24/7.	Self-declaration.	1,2,5	effective, safe
009	There is an on-site 24/7 MRI facility 365 days a year	Self-declaration.	1,2,5	effective, safe
010	There is an electronic emergency referral system for spinal referrals	Self-declaration	1,2,5	effective, safe
011	The provider has clinical policies in place.	Self-declaration	1,2,5	effective, safe
012	The provider reviews annually its' contribution to research, trials and other well-designed studies.	Self-declaration	2, 4	Safe, effective
013	Surgical team members attend the regional spinal network MDT.	Self-declaration	2, 4	Safe, effective

4.3 Commissioned providers are required to participate in annual quality assurance and collect and submit data to support the assessment of compliance with the service specification as set out in Schedule 4A-C

4.4 Applicable CQUIN goals are set out in Schedule 4D

5. Applicable Service Standards

5.1 Applicable Obligatory National Standards

- NICE NG59: Low back pain and sciatica in over 16s: assessment and management: <https://www.nice.org.uk/guidance/ng59>
- NICE CG75: Metastatic Spinal Cord Compression in adults: risk assessment, diagnosis and Management: <https://www.nice.org.uk/guidance/cg75>
- NICE TA279: Percutaneous vertebroplasty and percutaneous balloon kyphoplasty for treating osteoporotic vertebral compression fractures <https://www.nice.org.uk/guidance/ta279>

5.2 Other Applicable National Standards to be met by Commissioned Providers

All providers must comply with the spinal surgery best practice tariff.

All providers must comply with the standards of care for referral of patients with a diagnosed spinal cord injury (SCI) as per the SCI service specification.

Compliance with the following NICE Interventional Procedures Guidance:

- NICE IPG146: Direct C1 Lateral Mass screw for cervical stabilisation: <https://www.nice.org.uk/guidance/ipg146>
- NICE IPG306: Prosthetic intervertebral disc replacement in the lumbar spine: <https://www.nice.org.uk/guidance/ipg306>
- NICE IPG574: Lateral Interbody Fusion in the lumbar spine for low backpain: <https://www.nice.org.uk/guidance/ipg574>
- NICE IPG620: Transaxial interbody lumbrosacral fusion for severe chronic low back pain: <https://www.nice.org.uk/guidance/ipg620>
- NICE IPG366: Non-rigid stabilisation techniques for the treatment of low back pain: <https://www.nice.org.uk/guidance/ipg366>
- NICE IPG543: Percutaneous coblation of the intervertebral disc for low back pain and sciatica: <https://www.nice.org.uk/guidance/ipg543>
- NICE IPG544: Percutaneous electrothermal treatment of the intervertebral disc annulus for low back pain and sciatica: <https://www.nice.org.uk/guidance/ipg544>

Compliance with the following NICE Quality Standards

- NICE QS155: Low back pain and sciatica in over 16s <https://www.nice.org.uk/guidance/qs155>
- NICE QS56: Metastatic Spinal Cord Compression in adults: <https://www.nice.org.uk/guidance/qs56>

5.3 Other Applicable Local Standards

All centres providing complex spinal surgery services must engage with the Regional Spinal Networks. This must include mandatory attendance at all Network clinical and business meetings

6. Designated Providers & Procedures

N/A

7. Abbreviation and Acronyms Explained

The following abbreviations and acronyms have been used in this document:

AHP	Allied Health Professional
BSR	British Spinal Registry
CT	Computed Tomography
EQ-5D	EuroQuol Five Dimension – a generic measurement of quality of life
HES	Hospital Episode Statistics
MDT	Multidisciplinary Team Meeting
MRI	Magnetic Resonance Imaging
MSSC	Metastatic Spinal Cord Compression
PACS	Picture Archiving & Communication Systems
RSN	Regional Spinal Network

Appendix 1: OPCS4 Procedure Codes

Complex Spinal Procedures:

The following OPCS codes in any position in the patient record:

V224	Primary anterior corpectomy of cervical spine with reconstruction HFQ
V225	Primary decompression of posterior fossa and upper cervical spinal cord and instrumentation
V226	Primary decompression of posterior fossa and upper cervical spinal cord NEC
V227	Primary laminoplasty of cervical spine (<i>added to original list</i>)
V234	Revisional anterior corpectomy of cervical spine with reconstruction HFQ
V235	Revisional decompression of posterior fossa and upper cervical spinal cord and instrumentation
V236	Revisional decompression of posterior fossa and upper cervical spinal cord NEC
V237	Revisional laminoplasty of cervical spine (<i>added to original list</i>)
V241	Primary decompression of thoracic spinal cord and fusion of joint of thoracic spine
V242	Primary decompression of thoracic spinal cord NEC
V243	Revisional decompression of thoracic spinal cord NEC
V244	Primary anterior corpectomy of thoracic spine and reconstruction HFQ
V245	Revisional anterior corpectomy of thoracic spine and reconstruction HFQ
V246	Primary posterior laminectomy decompression of thoracic spine
V247	Revisional posterior laminectomy decompression of thoracic spine
V248	Other specified decompression operations on thoracic spine
V249	Unspecified decompression operations on thoracic spine
V257	Primary anterior corpectomy of lumbar spine and reconstruction HFQ
V267	Revisional anterior corpectomy of lumbar spine and reconstruction HFQ
V271	Primary decompression of spinal cord and fusion of joint of spine NEC
V272	Primary decompression of spinal cord NEC
V273	Revisional decompression of spinal cord NEC
V278	Other specified decompression operations on unspecified spine
V279	Unspecified decompression operations on unspecified spine
V311	Primary anterolateral excision of thoracic intervertebral disc and graft HFQ
V312	Primary anterolateral excision of thoracic intervertebral disc NEC
V313	Primary costotransversectomy of thoracic intervertebral disc
V314	Primary percutaneous endoscopic excision of thoracic intervertebral disc
V318	Other specified primary excision of thoracic intervertebral disc
V319	Unspecified primary excision of thoracic intervertebral disc
V321	Revisional anterolateral excision of thoracic intervertebral disc and graft HFQ
V322	Revisional anterolateral excision of thoracic intervertebral disc NEC
V323	Revisional costotransversectomy of thoracic intervertebral disc
V324	Revisional percutaneous endoscopic excision of thoracic intervertebral disc
V328	Other specified revisional excision of thoracic intervertebral disc
V329	Unspecified revisional excision of thoracic intervertebral disc
V333	Primary anterior excision of lumbar intervertebral disc and interbody fusion of joint of lumbar spine
V334	Primary anterior excision of lumbar intervertebral disc NEC
V335	Primary anterior excision of lumbar intervertebral disc and posterior graft fusion of joint of lumbar spine
V336	Primary anterior excision of lumbar intervertebral disc and posterior instrumentation of lumbar spine
V343	Revisional anterior excision of lumbar intervertebral disc and interbody fusion of joint of lumbar spine
V344	Revisional anterior excision of lumbar intervertebral disc NEC
V345	Revisional anterior excision of lumbar intervertebral disc and posterior graft fusion of joint of lumbar spine
V346	Revisional anterior excision of lumbar intervertebral disc and posterior instrumentation of lumbar spine
V362	Prosthetic replacement of thoracic intervertebral disc

V363	Prosthetic replacement of lumbar intervertebral disc
V368	Other specified prosthetic replacement of intervertebral disc
V369	Unspecified prosthetic replacement of intervertebral disc
V371	Posterior fusion of atlantoaxial joint NEC
V372	Posterior fusion of joint of cervical spine NEC
V373	Transoral fusion of atlantoaxial joint
V374	Fusion of atlanto-occipital joint
V375	Posterior fusion of atlantoaxial joint using transarticular screw
V376	Posterior fusion of atlantoaxial joint using pedicle screw
V377	Fusion of occipitocervical junction NEC
V378	Other specified primary fusion of joint of cervical spine
V379	Unspecified primary fusion of joint of cervical spine
V381	Primary fusion of joint of thoracic spine
V388	Other specified primary fusion of other joint of spine
V389	Unspecified primary fusion of other joint of spine
V391	Revisional fusion of joint of cervical spine NEC
V392	Revisional fusion of joint of thoracic spine
V398	Other specified revisional fusion of joint of spine
V399	Unspecified revisional fusion of joint of spine
V402	Posterior instrumented fusion of cervical spine NEC
V403	Posterior instrumented fusion of thoracic spine NEC
V408	Other specified stabilisation of spine
V409	Unspecified stabilisation of spine
V411	Posterior attachment of correctional instrument to spine
V412	Anterior attachment of correctional instrument to spine
V413	Removal of correctional instrument from spine
V414	Anterior and posterior attachment of correctional instrument to spine
V415	Posterior attachment of spinal growing system
V416	Attention to spinal growing system <i>(added to original list)</i>
V417	Surgical distraction of spinal growing system <i>(added to original list)</i>
V418	Other specified instrumental correction of deformity of spine
V419	Unspecified instrumental correction of deformity of spine
V421	Excision of rib hump
V422	Epiphysiodesis of spinal apophyseal joint for correction of deformity
V423	Anterolateral release of spine for correction of deformity and graft HFQ
V424	Anterior and posterior epiphysiodesis of spine for correction of deformity
V425	Anterior epiphysiodesis of spine for correction of deformity NEC
V426	Posterior epiphysiodesis of spine for correction of deformity NEC
V428	Other specified other correction of deformity of spine
V429	Unspecified other correction of deformity of spine
V431	Excision of lesion of cervical vertebra
V432	Excision of lesion of thoracic vertebra
V433	Excision of lesion of lumbar vertebra
V438	Other specified extirpation of lesion of spine
V439	Unspecified extirpation of lesion of spine

V441	Complex decompression of fracture of spine
V442	Anterior decompression of fracture of spine
V443	Posterior decompression of fracture of spine NEC
V448	Other specified decompression of fracture of spine
V449	Unspecified decompression of fracture of spine
V451	Open reduction of fracture of spine and excision of facet of spine
V452	Open reduction of fracture of spine NEC
V458	Other specified other reduction of fracture of spine
V459	Unspecified other reduction of fracture of spine
V461	Fixation of fracture of spine using plate
V462	Fixation of fracture of spine using Harrington rod
V463	Fixation of fracture of spine using wire
V464	Fixation of fracture of spine and skull traction HFQ
V468	Other specified fixation of fracture of spine
V469	Unspecified fixation of fracture of spine
V492	Exploratory thoracic laminectomy
V494	Exploratory laminectomy NEC
V495	Transthoracic exploration of spine
V496	Transperitoneal exploration of spine
V498	Other specified exploration of spine
V499	Unspecified exploration of spine
V511	Primary direct lateral excision of lumbar intervertebral disc and interbody fusion of joint of lumbar spine <i>(added to original list)</i>
V518	Other specified other primary excision of lumbar intervertebral disc <i>(added to original list)</i>
V519	Unspecified other primary excision of lumbar intervertebral disc <i>(added to original list)</i>
V541	Transoral excision of odontoid process of axis
V542	Graft of bone to spine NEC
V543	Osteotomy of spine NEC
V548	Other specified other operations on spine
V549	Unspecified other operations on spine
V561	Primary laser foraminoplasty of cervical spine
V562	Primary laser foraminoplasty of thoracic spine
V564	Primary laser foraminoplasty of spine NEC
V568	Other specified primary foraminoplasty of spine
V569	Unspecified primary foraminoplasty of spine
V571	Revisional laser foraminoplasty of cervical spine
V572	Revisional laser foraminoplasty of thoracic spine
V574	Revisional laser foraminoplasty of spine NEC
V578	Other specified revisional foraminoplasty of spine
V579	Unspecified revisional foraminoplasty of spine
V581	Primary automated percutaneous mechanical excision of cervical intervertebral disc
V582	Primary automated percutaneous mechanical excision of thoracic intervertebral disc <i>(added to original list)</i>
V588	Other specified primary automated percutaneous mechanical excision of intervertebral disc
V589	Unspecified primary automated percutaneous mechanical excision of intervertebral disc
V591	Revisional automated percutaneous mechanical excision of cervical intervertebral disc
V592	Revisional automated percutaneous mechanical excision of thoracic intervertebral disc

V598	Other specified revisional automated percutaneous mechanical excision of intervertebral disc
V599	Unspecified revisional automated percutaneous mechanical excision of intervertebral disc
V601	Primary percutaneous decompression using coblation to cervical intervertebral disc
V602	Primary percutaneous decompression using coblation to thoracic intervertebral disc
V608	Other specified primary percutaneous decompression using coblation to intervertebral disc
V609	Unspecified primary percutaneous decompression using coblation to intervertebral disc
V611	Revisional percutaneous decompression using coblation to cervical intervertebral disc
V612	Revisional percutaneous decompression using coblation to thoracic intervertebral disc
V618	Other specified revisional percutaneous decompression using coblation to intervertebral disc
V619	Unspecified revisional percutaneous decompression using coblation to intervertebral disc
V621	Primary percutaneous intradiscal radiofrequency thermocoagulation to cervical intervertebral disc
V622	Primary percutaneous intradiscal radiofrequency thermocoagulation to thoracic intervertebral disc
V628	Other specified primary percutaneous intradiscal radiofrequency thermocoagulation to intervertebral disc
V629	Unspecified primary percutaneous intradiscal radiofrequency thermocoagulation to intervertebral disc
V631	Revisional percutaneous intradiscal radiofrequency thermocoagulation to cervical intervertebral disc
V632	Revisional percutaneous intradiscal radiofrequency thermocoagulation to thoracic intervertebral disc
V638	Other specified revisional percutaneous intradiscal radiofrequency thermocoagulation to intervertebral disc
V639	Unspecified revisional percutaneous intradiscal radiofrequency thermocoagulation to intervertebral disc
V661	Revisional fusion of occipitocervical junction
V662	Revisional posterior fusion of atlantoaxial joint using transarticular screw
V663	Revisional posterior fusion of atlantoaxial joint using pedicle screw
V664	Revisional posterior fusion of atlantoaxial joint NEC
V668	Other specified other revisional fusion of joint of spine
V669	Unspecified other revisional fusion of joint of spine

The following OPCS4 codes where OPCS4 code V553: Greater than two levels of spine is also present in the patient record

V385	Primary posterior interbody fusion of joint of lumbar spine
V386	Primary transforaminal interbody fusion of joint of lumbar spine
V396	Revisional posterior interbody fusion of joint of lumbar spine
V397	Revisional transforaminal interbody fusion of joint of lumbar spine
V401	Non-rigid stabilisation of spine
V404	Posterior instrumented fusion of lumbar spine NEC