

## North East Quality Observatory Service

# **Back Pain Report**

# **Newcastle North & East**

June 2016



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# BetterKnowledgeBetterCareBetterOutcomes

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## **NEQOS Back Pain Report**

This back pain report contains health intelligence produced by NEQOS to support the implementation of the national pathfinder project to provide better pathways of care for people with low back and radicular pain. The NHS England Pathfinder Projects were established to address high value care pathways which cross commissioning and health care boundaries. Many conditions require a pathway of care which moves from the general practitioner through primary care and community services and into secondary care and sometimes specialised services. Difficulties in commissioning across boundaries, however, can cause artificial interruptions in what should be a seamless care pathway. The Pathfinder Projects are designed for all Stakeholders to work collaboratively to examine in depth these health care interfaces and to develop commissioning structures to commission care across the whole pathway. The Trauma Programme of Care Board selected low back pain and radicular pain as the Pathfinder Project as this is a high value care pathway in view of the very large number of patients involved.

The future of the pathway is that it is designed to be run in primary care (general practice and community physiotherapy) and referral into secondary specialist care is only at the end of the pathway. Key to the success of the pathway are the Triage and Treat practitioners; the highly trained practitioners, either extended scope physiotherapists or nurse specialists who essentially run the pathway and have access to bookable slots for the core therapies, nerve root blocks, spinal surgical clinic appointments or pain clinic appointments. This reduces very significantly the delays in the previous system and also reduces the "pinball" management that is a feature of so many health care systems. Quality care is less expensive by reducing ineffective or repetitive treatment and by reducing conversion into chronic disability

In this profile, the current utilisation of secondary care services for back and radicular pain are shown by CCG and providers, including both NHS Trusts and Independent Sector providers to demonstrate variation in activity regionally and across England. This report is based on the population of patients under the care of CCGs in the Cumbria & North East Region and provides important information about patient flows from these CCGs across all providers within this region.

Information on hospital admissions is presented by admission method (elective vs. emergency) and type of procedure (surgery, injections, pain management etc.) undertaken. The aim of this report is to assist both clinicians and commissioners in comparing treatment activity rates between regional providers and against national data to reduce variation and develop evidence based care pathways to improve patient outcomes.

Ongoing monitoring of this secondary care activity will evidence where changes implemented through the national pathfinder project for acute low back and radicular pain to provide timely access to evidence based treatments can improve the quality of patient care, provide community based alternatives to secondary care admissions for back pain and reduce secondary care expenditure.

It is important to note that this report is based on the cohort of patients with back and/or radicular pain but does not include patients who have back pain due to specific diagnosis such as cancer, infection, spinal trauma, inflammatory arthritis, cauda equine syndrome as these patients have very different treatment pathways of care.

## Acknowledgements

This work has been funded through the Getting It Right First Time (GIRFT) project that is part of the Department of Health funded Clinically-Led Quality and Efficiency Programme.

Acknowledgements to the Health & Social Care Information Centre (HSCIC) as the source of data used in this report and to Professor Greenough and Mr Ashley Cole for their expert clinical guidance and advice.

## Introduction and background

Low back pain is extremely common and is the largest single cause of loss of disability adjusted life years, and the largest single cause of years lived with disability in England (Global Burden of Disease, 2013). In terms of disability adjusted life years lost per 100,000, low back pain is responsible for 2,313. By contrast the remainder of musculo-skeletal complaints counts for 911, depression 704 and diabetes 337. It should be borne in mind that this is principally occurring in people of working age, or with families. UK specific data shows that LBP was top cause of years lived with disability in both 1990 and 2010 – with a 12% increase over this time. Back pain accounts for 11% of the entire disability burden from all diseases in the UK; furthermore the burden is increasing both absolutely (3.7% increase) and proportionally (7% to 8.5%).

NEQOS have produced CCG and hospital Trust level activity profiles to understand the current position in terms of secondary care activity for back and radicular pain and have worked with a range of key stakeholders from both provider and commissioner organisations to develop the profiles to ensure that the indicators shown are appropriate and relevant to the project. This information needs to be viewed in conjunction with data soon to become available from Arthritis Research UK about the prevalence of back pain and associated risk factors and where possible with locally available data from general practice, including prescribing rates, and onward referrals from primary care (e.g. physiotherapy and radiology).

## Technical specification

Following a data discovery exercise supported by Professor Charles Greenough (National Clinical Director for Spinal Disorders, South Tees NHS Foundation Trust), definitions for low back and radicular pain were developed based on a combination of diagnosis codes (ICD-10) and relevant secondary care procedures were identified using OPCS 4.7 codes. These codes have been supported by Mr Ashley Cole, Chair of Specialised Spinal Surgery Clinical Reference Group (Consultant Orthopaedic Surgeon, Northern General Hospital and Sheffield Children's Hospital).

## **Data definitions**

Data Source: Hospital Episode Statistics (Health & Social Care Information Centre via HDIS). Please note that 2014/15 data is currently classed as provisional.

CCG populations: Health & Social Care Information Centre (Ages 15 & over as at April 2015) (Data was provided in 5 year ages bands, therefore we were unable to use exact figures for Ages 16 & over)

A summary of the data definitions used is shown below:

Time period: April 2011 - March 2015 Primary diagnosis = back pain (specific ICD10 codes) Limited to episode 1 Age 16 years and over Private patients are included unless specified Admission costs are based on the national tariff Directly Age & Sex Standardised Rates use the European Standard Populations

The NHS Trusts included for the Cumbria & North East Region are:

- The Newcastle Upon Tyne Hospitals NHS Foundation Trust
- Northumbria Healthcare NHS Foundation Trust
- South Tyneside NHS Foundation Trust (emergency admissions only)
- Gateshead Health NHS Foundation Trust
- City Hospitals Sunderland NHS Foundation Trust
- North Tees & Hartlepool NHS Foundation Trust
- South Tees Hospitals NHS Foundation Trust
- County Durham & Darlington NHS Foundation Trust
- North Cumbria University Hospitals NHS Trust

The Independent Sector Providers included for the Cumbria & North East Region are:

- Tyneside Surgical Services
- Spire Washington Hospital

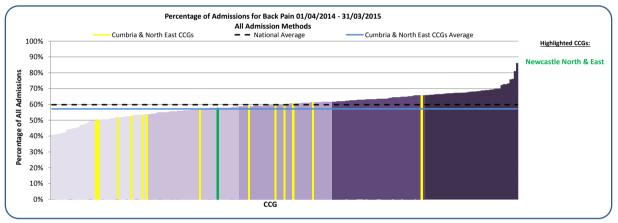
#### Clinical Commissioning Group (CCG) activity summary

1. Hospital admissions for low back and radicular pain in people aged 16 years and over (April 2014 - March 2015), summary a. Hospital admissions at national level, indicating back pain type and admission method

England	Back	Radicular	Total	% Back	% Radicular
Elective	134,448	102,808	237,256	56.7%	43.3%
Emergency	39,331	14,309	53,640	73.3%	26.7%
Other	771	951	1,722	44.8%	55.2%
Total	174,550	118,068	292,618	59.7%	40.3%
Cumbria &					
North East	Back	Radicular	Total	% Back	% Radicular
Elective	9,010	7,887	16,897	53.3%	46.7%
Emergency	2,956	1,057	4,013	73.7%	26.3%
Other	69	85	154	44.8%	55.2%
			21,064		42.9%

#### b. Hospital admissions at CCG level, indicating proportion of admissions for back pain

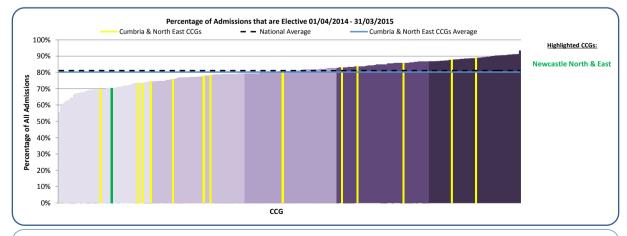
Cumbria & North East CCGs	57.1%	England	59.8%
Sunderland	56.9%	Hartlepool & Stockton-On-Tees	65.8%
North Durham	53.8%	Durham Dales, Easington & Sedgefield	61.4%
South Tyneside	53.5%	South Tees	60.7%
North Tyneside	52.8%	Cumbria	60.1%
Gateshead	51.8%	Darlington	59.8%
Hambleton, Richmondshire & Whitby	50.0%	Newcastle West	58.9%
Northumberland	50.0%	Newcastle North & East	57.8%



c. Hospital admissions at CCG level, by admission method

Table indicates the proportion of admissions for back and radicular pain that is recorded as elective

Newcastle West	69.9%	North Durham	78.4%
Newcastle North & East	70.5%	South Tyneside	80.8%
Hambleton, Richmondshire & Whitby	73.5%	Sunderland	83.0%
North Tyneside	73.7%	Cumbria	83.5%
Gateshead	74.3%	Hartlepool & Stockton-On-Tees	85.8%
South Tees	75.9%	Durham Dales, Easington & Sedgefield	87.8%
Northumberland	78.0%	Darlington	88.9%
Cumbria & North East CCGs	80.2%	England	81.1%



#### What is the data telling us?

In the latest 12 month period there were almost 300,000 admissions for back and radicular pain in England, with 21,064 (7.2%) of these from patients registered within the North East and Cumbria.

At a national level the proportional split for hospital admissions is 60% for back pain and 40% for radicular pain, and at CCG level in the North East and Cumbria the proportion of admissions for back pain ranges from 50.0% to 65.8%.

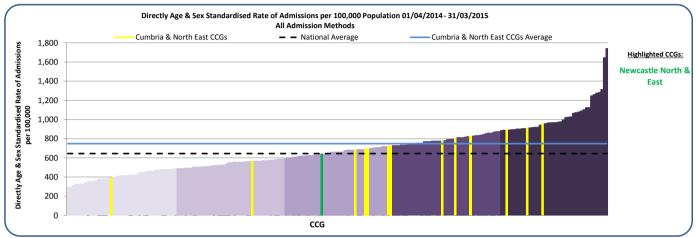
Approximately 81% of back and radicular pain admissions are elective, with the North East and Cumbria mirroring the national rate. At CCG level in the North East the proportion of elective admissions across CCGs ranges from 69.9% in Newcastle West to 88.9% in Darlington.

## **Clinical Commissioning Group (CCG) activity**

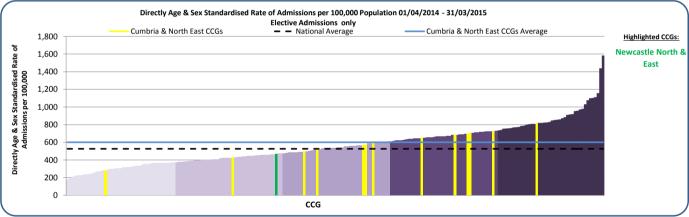
#### 2. Hospital admissions for low back and radicular pain in people aged 16 years and over (April 2014 - March 2015)

CCG name	All	Elective	Emergency	CCG name	All	Elective	Emergency
North Tyneside	954.1	705.2	243.5	North Durham	725.7	570.4	149.6
Darlington	912.8	811.0	97.3	Newcastle West	697.4	493.4	204.0
Northumberland	894.7	695.3	190.8	Gateshead	695.3	516.1	169.1
Durham Dales, Easington & Sedgefield	828.1	724.6	97.2	Sunderland	686.6	567.7	113.6
Hartlepool & Stockton-On-Tees	799.3	685.1	113.5	Newcastle North & East	642.7	466.2	175.1
Cumbria	779.2	647.3	120.9	South Tees	564.0	427.9	135.7
South Tyneside	728.6	589.5	136.0	Hambleton, Richmondshire & Whitby	394.8	282.6	109.7
Cumbria & North East CCGs	748.6	600.2	142.9	England	645.6	526.5	115.4

b. Hospital admissions for back and radicular pain (all admission methods), Directly Age & Sex Standardised Admission rate per 100,000 population



c. Elective hospital admissions for back and radicular pain, Directly Age & Sex Standardised Admission rate per 100,000 population



d. Emergency hospital admissions for back and radicular pain, Directly Age & Sex Standardised Admission rate per 100,000 population Directly Age & Sex Standardised Rate of Admissions per 100,000 Population 01/04/2014 - 31/03/2015 Emergency Admissions only Cumbria & North East CCGs Cumbr

#### What is the data telling us?

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CCG level admissions are presented here as directly age and sex standardised rates (DSR) to enable comparisons between organisations to be made. Nationally, the hospital admission rate (DSR) for back and radicular pain (all admission methods) by CCG ranges from 292 to 1,746 admissions per 100,000 population. The rate for the North East and Cumbria CCGs is varied and 11 of the 14 CCGs highlighted have admission rates higher than the national average, with three CCGs in the top quintile.

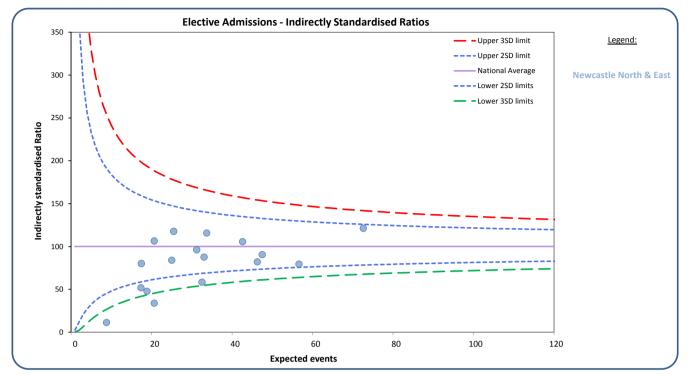
CCG

# Clinical Commissioning Group (CCG) activity - GP practice level

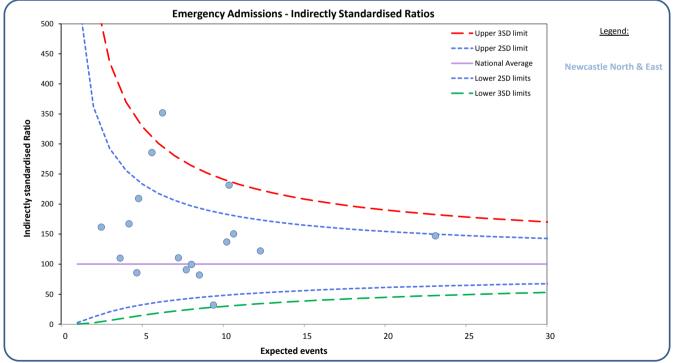
3. Hospital admissions for low back and radicular pain in people aged 16 years and over (April 2014 - March 2015)

Each symbol represents one GP practice

a. Hospital admissions for back pain (Elective admissions), Indirectly Standardised Ratio Newcastle North & East







### What is the data telling us?

The admission rates for elective and emergency admissions for each GP practice within the CCG are expressed as Indirectly Standardised Ratios with 100 representing the national average. This adjustment has been made due to small numbers and in order that comparisons can be made between practices.

The upper and lower confidence limits on the funnel charts above are based on national data. Each circle represents the constituent GP Practices for the selected CCG(s). All GP practices within the funnel have admission rates that are not significantly different that the national rates with those above the upper blue funnel having significantly higher rates than the national average.

# 4. Indirectly Standardised Ratios for Elective & Emergency Admissions for Back & Radicular Pain, by GP Practice *Newcastle North & East*

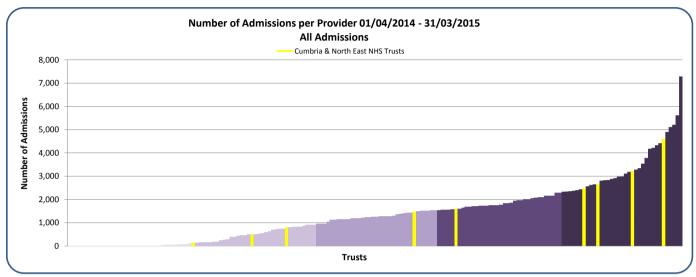
Indirectly Standardised Ratios that are coloured Red are higher than 3 standard deviations from the mean. Those coloured Yellow are between 2 and 3 higher standard deviations from the mean.

					Elective			Emergency	
Practice Code	Practice Name	CCG	Population 15+	Observed	Expected	Ratio	Observed	Expected	Ratio
A86003	Saville Medical Group	00G	28,334	88	72.60	121.21	34	23.11	147.13
A86007	Avenue Medical Practice	00G	2,809	<6	8.81	11.36	<6	2.48	161.57
A86008	Park Medical Group	00G	9,667	43	47.49	90.54	16	10.65	150.29
A86009	Falcon Medical Group	00G	5,273	21	25.02	83.94	16	5.60	285.71
A86010	Biddlestone Health Group	00G	8,267	39	33.71	115.68	7	8.53	82.02
A86011	Walker Medical Group	00G	9,380	38	46.27	82.13	14	10.23	136.92
A86015	Holly Medical Group	00G	8,138	19	32.54	58.39	8	8.04	99.47
A86018	The Grove Medical Group	00G	10,553	45	56.63	79.46	15	12.30	121.98
A86020	The Surgery-Osborne Road	00G	4,544	9	18.88	47.68	<6	4.67	85.60
A86023	Benfield Park Medical Group	00G	7,311	30	31.23	96.06	8	7.24	110.51
A86024	Heaton Road Surgery	00G	6,299	30	25.50	117.67	22	6.26	351.71
A86027	Newcastle Medical Centre	00G	13,214	7	20.67	33.86	<6	9.40	31.91
A86028	Regent Medical Centre	00G	3,250	14	17.47	80.15	<6	3.64	110.00
A86029	Thornfield Medical Group	00G	10,286	45	42.63	105.57	24	10.37	231.51
A86033	Brunton Park	00G	3,461	9	17.36	51.83	7	4.19	167.13
A86036	Gosforth Memorial Med.Ctr	00G	7,063	29	33.06	87.71	7	7.72	90.65
A86040	St.Anthony's Health Centre	00G	4,763	22	20.67	106.45	10	4.78	209.25

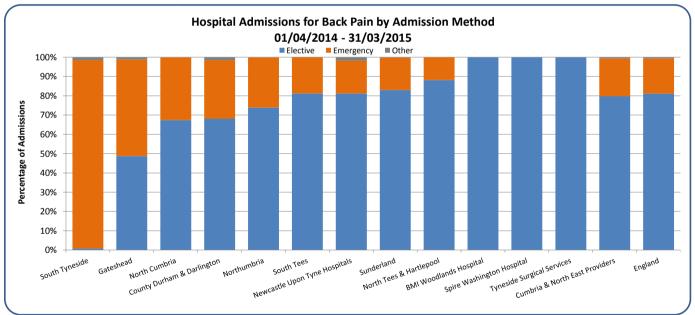
5. Hospital admissions for low back and radicular pain in people aged 16 years and over (April 2014 - March 2015)

a. Number of hospital admissions for back pain (all admission methods, NHS Trusts only)





b. Number of admissions per hospital Trust, by admission method (Cumbria & North East Providers only)



### What is the data telling us?

The total number of admissions for back pain is presented due to the absence of a relevant denominator at hospital Trust level. Activity for the 9 NHS Trusts is to some degree proportional to the size of the Trust and is spread across the quintile chart. South Tyneside only has emergency admissions and is therefore not included in the charts reporting elective activity.

The proportion of hospital activity for back pain which is classed as elective care is similar to the England rate for the North East and Cumbria providers overall, however at NHS Trust level the proportion (excluding South Tyneside) this varies between 48.7% at Gateshead to 88.2% at North Tees and Hartlepool. All NHS activity at independent sector providers is classed as elective.

## 5. Hospital admissions for low back and radicular pain in people aged 16 years and over (April 2014 - March 2015) c. Elective admissions for back and radicular pain, by treatment specialty (*Cumbria & North East Providers only*)

Pain Management & Trauma & Spinal Surgery Interventional Provider Name Anaesthetics Orthopaedics Service Radiology Neurosurgery Other Functions Total Newcastle Upon Tyne Hospitals 529 <6 1,783 1,258 70 89 3,729 787 1,574 15 2,376 Northumbria South Tyneside <6 Gateshead 225 <6 15 240 Sunderland 489 823 \_ \_ 16 1,328 North Tees & Hartlepool 771 1,413 14 2,198 429 South Tees 891 765 32 12 24 2.153 County Durham & Darlington 70 1,001 931 <6 North Cumbria 535 <6 8 543 Tyneside Surgical Services 188 103 60 <6 351 Spire Washington Hospital 784 <6 56 840 BMI Woodlands Hospital 302 265 <6 567 Total 5,648 5,727 1,875 1,270 555 251 15,326

### d. Elective admissions for injections for back and radicular pain, by injection type and treatment specialty (national data)

Treatment Function Title	Other Back Pain Injection	Epidural (not specified)	Epidural Lumbar	Epidural Sacral	Injection Facet Joint	Spinal Nerve Root Injection	Total
Pain Management & Anaesthetics	11,485	1,572	19,926	12,780	46,506	12,482	104,751
Trauma & Orthopaedics	1,286	175	4,190	15,658	10,080	11,518	42,907
Spinal Surgery Service	200	60	590	1,430	2,338	3,571	8,189
Neurosurgery	191	123	1,074	600	1,270	1,303	4,561
Interventional Radiology	14	1	18	3	656	2,961	3,653
Rheumatology	38	12	138	2,428	390	32	3,038
Other Treatment Functions	24	10	81	278	223	591	1,207
Total	13,238	1,953	26,017	33,177	61,463	32,458	168,306

## What is the data telling us?

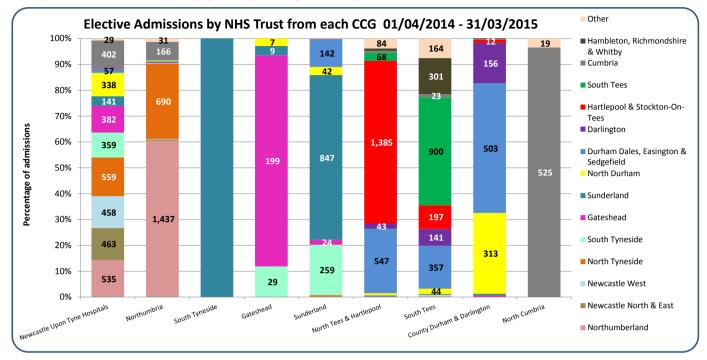
For elective activity the treatment specialty code indicated within the hospital data varies by hospital trust. Overall the most common specialties are trauma and orthopaedics and pain management, however for Newcastle Hospitals the highest volume of activity is recorded within spinal surgery and interventional radiology.

The second table shows the different types of injections being undertaken within each of the treatment function codes and demonstrates that nationally over 62% (104,751) of injections take place within Pain Management/Anaesthetics and 25% of injections are undertaken within Trauma and Orthopaedics.

The most common injection type is facet joint injections, which mainly take place within Pain Management/Anaesthetics treatment function, but are also being used in Trauma and Orthopaedics, Spinal Surgery Service and Neurosurgery.

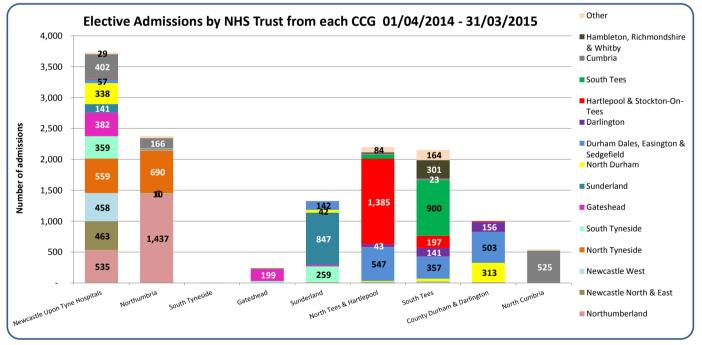
# Hospital Trust activity from CCGs

6. Patient flows from CCG to Hospital Trust for back and radicular pain in people aged 16 years and over (April 2014 - March 2015)



a. Hospital elective admissions by CCG population (percentage of activity)

b. Hospital elective admissions by CCG population (actual activity)



### What is the data telling us?

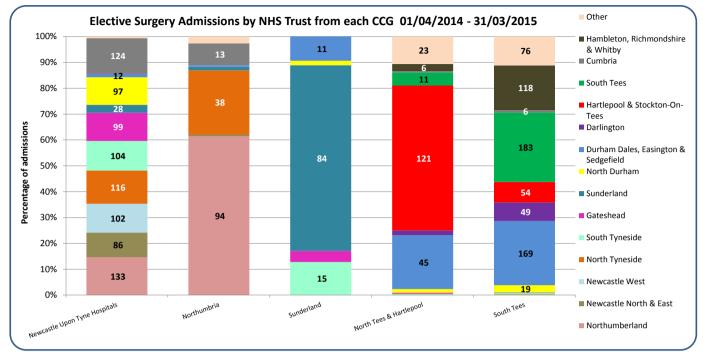
There is variation between hospital trusts in terms of the number of patients from each of the CCGs that are admitted for back and radicular pain.

Newcastle upon Tyne hospitals has activity from at least ten of the north east CCGs, whereas with North Cumbria, Gateshead and South Tyneside trusts the majority of activity comes from one main CCG.

The data is shown in two ways, indicating both the proportion and amount of activity relating to each CCG.

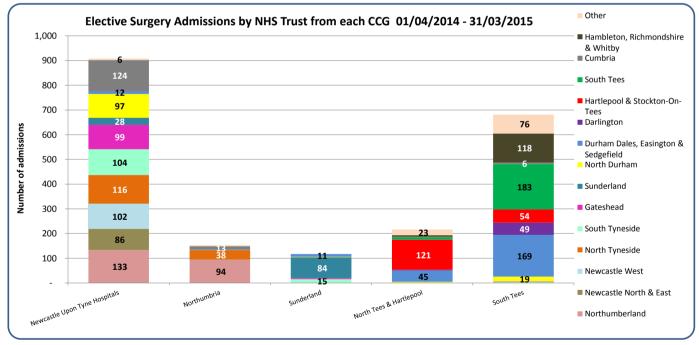
# Hospital Trust activity from CCGs

6. Patient flows from CCG to Hospital Trust for back and radicular pain in people aged 16 years and over (April 2014 - March 2015)



c. Hospital elective admissions for surgery by CCG population (percentage of activity)

d. Hospital elective admissions for surgery by CCG population (actual activity)



### What is the data telling us?

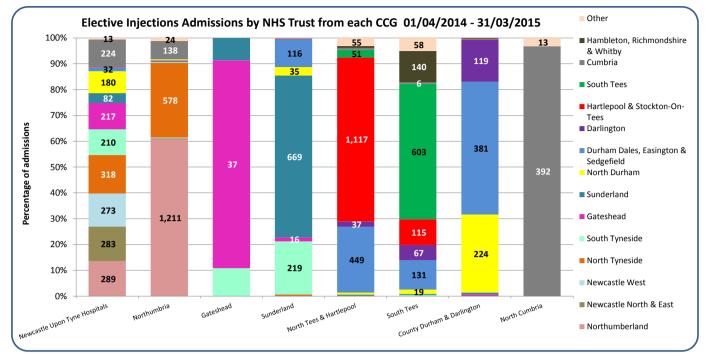
There is variation between hospital trusts in terms of the number of patients from each of the CCGs that are admitted for sur gery for back and radicular pain. In the North East and Cumbria, Newcastle and South Tees do the highest volume of spinal surgery.

Newcastle Hospitals and South Tees providers are more likely to take patients from several different CCGs across the region c ompared to the other Trusts which predominantly admit patients from the CCG(s) where they are located.

The data is shown in two ways, indicating both the proportion and number of admissions relating to each CCG.

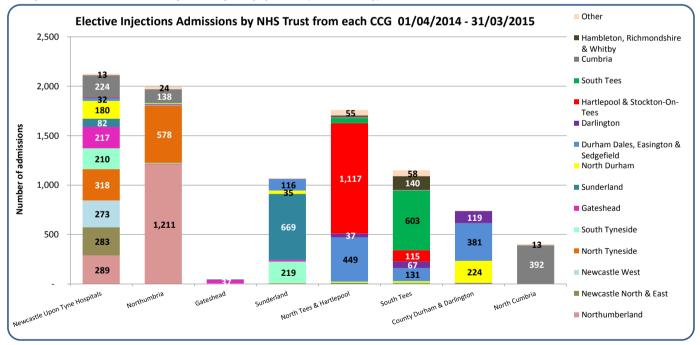
# Hospital Trust activity from CCGs

6. Patient flows from CCG to Hospital Trust for back and radicular pain in people aged 16 years and over (April 2014 - March 2015)



e. Hospital elective admissions for injections by CCG population (percentage of activity)

f. Hospital elective admissions for injections by CCG population (actual activity)



### What is the data telling us?

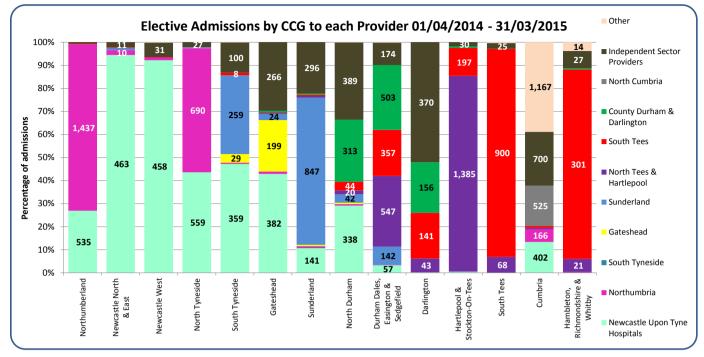
There is variation between hospital trusts in terms of the number of patients from each of the CCGs that are admitted for injections for back and radicular pain. Newcastle, Northumbria and North Tees & Hartlepool have the highest volume of activity for injections.

Newcastle Hospitals and South Tees providers are more likely to take patients from several different CCGs across the region compared to the other Trusts which predominantly admit patients from the CCG(s) where they are located.

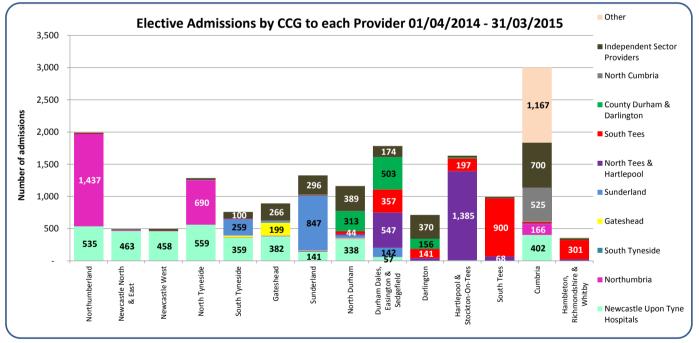
The data is shown in two ways, indicating both the proportion and number of admissions relating to each CCG.

# CCG activity to Hospital Trust

7. Patient flows to Hospital Trusts from CCGs for back pain in people aged 16 years and over (April 2014 - March 2015) a. Hospital elective admissions by CCG population (percentage of activity)



b. Hospital elective admissions from each CCG (actual activity)



### What is the data telling us?

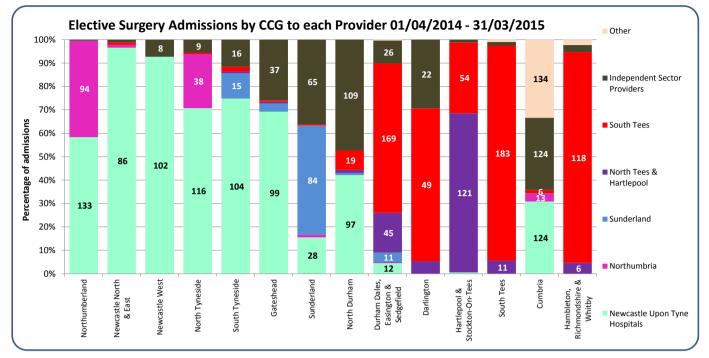
There is variation between CCGs in terms of the number of the number of hospital trusts that their patients are admitted to. DDES CCG patients attend five of the acute hospital trusts as well as using an Independent Sector Provider, Darlington CCG use three acute hospital trusts and in contrast the Newcastle CCGs almost solely use Newcastle Hospitals.

Activity is highest for Cumbria CCG and is spread across several hospital trusts, including Trusts outside of North East and Cumbria region. Over 85% of activity for Hartlepool & Stockton on Tees CCG is at North Tees & Hartlepool FT and over 91% of South Tees CCG activity is at South Tees FT. Darlington CCG has the highest proportion of Independent Sector activity.

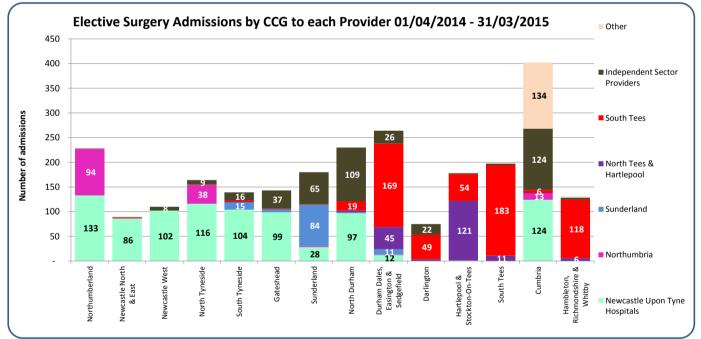
The data is shown in two ways, indicating both the proportion and amount of activity relating to each hospital trust.

# CCG activity to Hospital Trust

7. Patient flows to Hospital Trusts from CCGs for back pain in people aged 16 years and over (April 2014 - March 2015) c. Hospital elective admissions for surgery by CCG population (percentage of activity)



d. Hospital elective admissions for surgery from each CCG (actual activity)



### What is the data telling us?

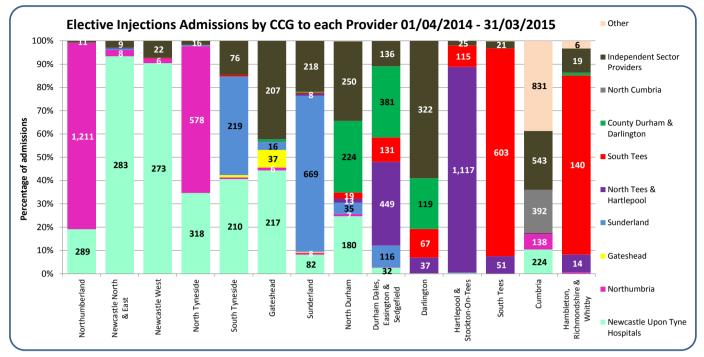
There is variation between CCGs in terms of the number of hospital trusts to which their patients are admitted.

Activity is highest for Cumbria, DDES, North Durham and Northumberland CCGs. These CCGs use multiple NHS and independent sector providers.

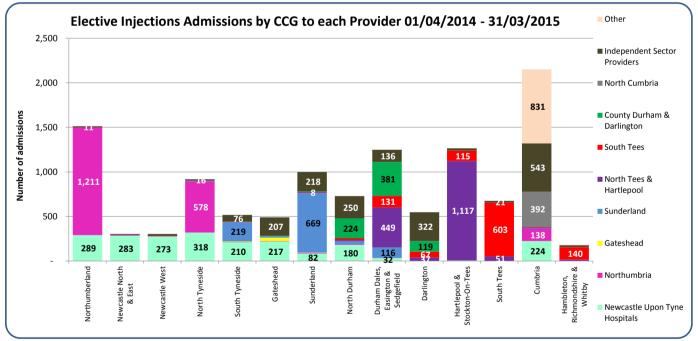
Cumbria, North Durham and Sunderland CCGs are the highest users of Independent Sector activity in the North East and Cumbria. The data is shown in two ways, indicating both the proportion and amount of activity relating to each hospital trust.

# CCG activity to Hospital Trust

7. Patient flows to Hospital Trusts from CCGs for back pain in people aged 16 years and over (April 2014 - March 2015) e. Hospital elective admissions for injections by CCG population (percentage of activity)



f. Hospital elective admissions for injections from each CCG (actual activity)



### What is the data telling us?

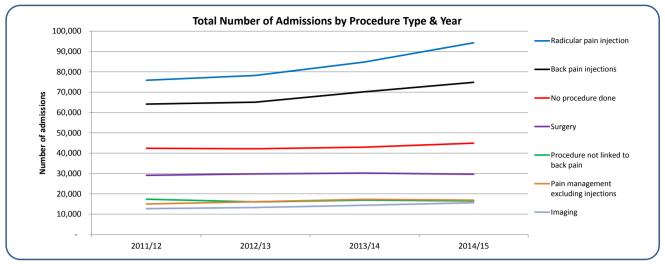
There is variation between CCGs in terms of the number of hospital trusts to which their patients are admitted for injections.

Activity is highest for Cumbria and Northumberland CCGs. Cumbria CCG uses at least 5 providers for injections compared to Northumberland CCG who uses only two providers with the majority of admissions (80%) to Northumbria Healthcare.

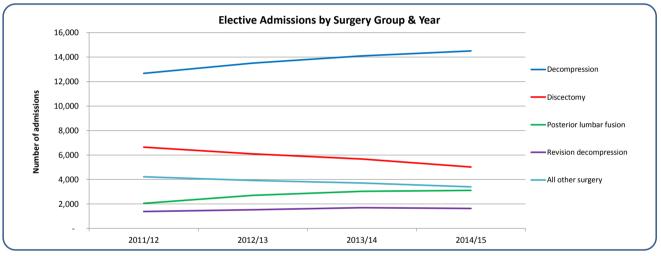
Darlington, North Durham and Cumbria CCGs are the highest users of Independent Sector activity in the North East and Cumbria for injections. The data is shown in two ways, indicating both the proportion and amount of activity relating to each hospital trust.

## Hospital Trust activity (national level)

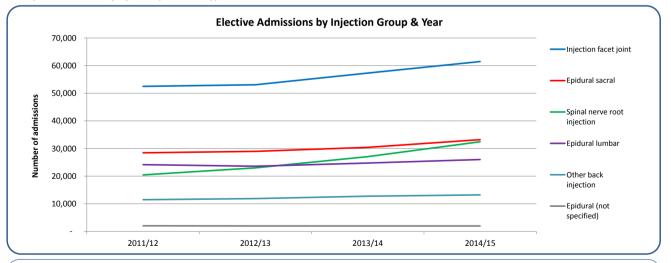
8. Hospital admissions for low back and radicular pain in people aged 16 years and over (1st April 2011 - 31st March 2015) a. Hospital admissions by procedure type over time (all admission types)



b. Elective hospital admissions by surgery procedure type over time



c. Hospital admissions by injection procedure type over time



#### What is the data telling us?

These charts show national trends in the types of procedures undertaken during elective admissions including a group where no procedure was undertaken during their admission. There is also a category listed as 'procedure not linked to back pain' which reports admission activity where there is a primary diagnosis of back pain but with a procedure not linked to back pain.

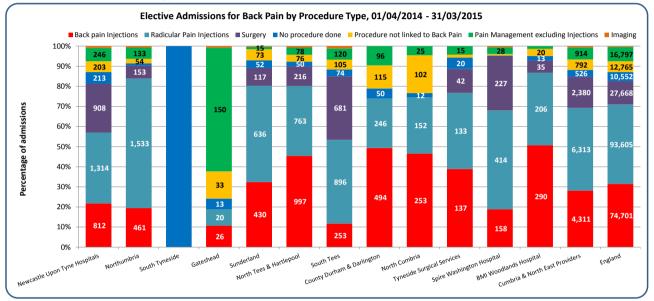
The main procedure type relating to elective admissions are for back and radicular pain injections which has increased from a combined total of just under 140,000 to 170,000 episodes over the four year period. This is in stark contrast to number of admissions related to surgery which has remained relatively constant at 30,000 admissions per year. The proportion of admissions with no procedure reported has remained at approximately 15-16% of all activity.

The charts in sections b and c show the elective admissions over time specifically for different groups of surgery procedures and injections.

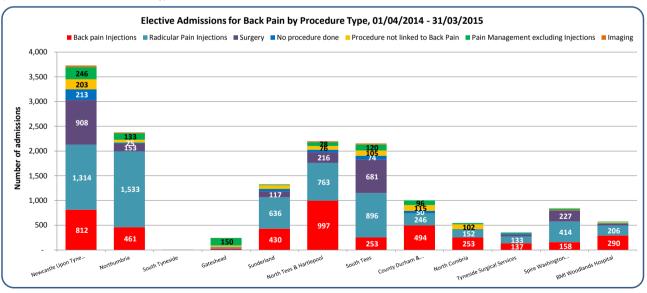
9. Elective hospital admissions for low back and radicular pain in people aged 16 years and over (April 2014 - March 2015) a. Elective hospital admissions by procedure type (national level including all providers)

Procedure type	Back	Radicular	Total	%
Radicular Pain Injections	40,034	53,571	93,605	39.5%
Back Pain Injections	62,317	12,384	74,701	31.5%
Surgery	3,925	23,743	27,668	11.7%
Pain Management excluding Injections	13,150	3,647	16,797	7.1%
Procedure not linked to Back Pain	8,197	4,568	12,765	5.4%
No procedure done	6,060	4,492	10,552	4.4%
Imaging	712	373	1,085	0.5%
Other Non-Surgical	53	30	83	0.0%
Total	134,448	102,808	237,256	100%

b. Number of elective admissions per hospital Trust, by procedure type (percentage of activity) (Cumbria & North East Providers only)



c. Number of elective admissions per hospital Trust, by procedure type (actual activity) (Cumbria & North East Providers only)



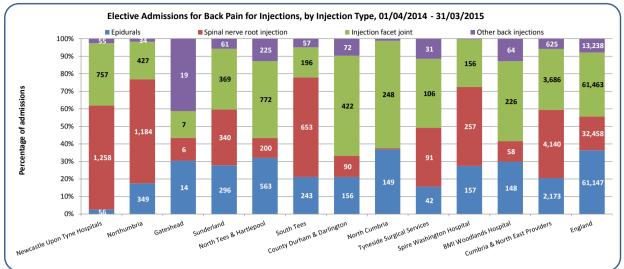
#### What is the data telling us?

The table shows the number of procedures done in the latest 12 month period, by procedure type, with injections being the most common elective procedure. Nationally only 4.4% of elective admissions have no procedure recorded (compared to 15-16% of all admission types - see previous sheet).

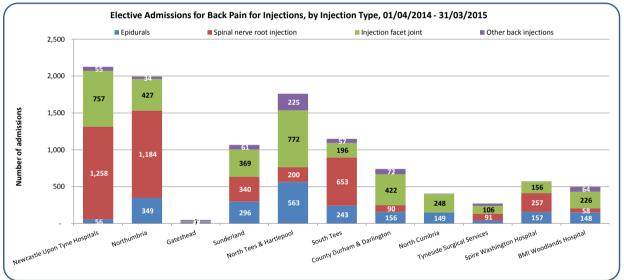
Eight of the North East Trusts have a higher proportion of elective activity for injections than the England rate and it is possible that the variation is due to differences in the point of delivery of care across hospital Trusts (for example it is possible that activity may also take place as outpatient procedures).

The data is shown in two ways, indicating both the proportion and amount of activity relating to each procedure.

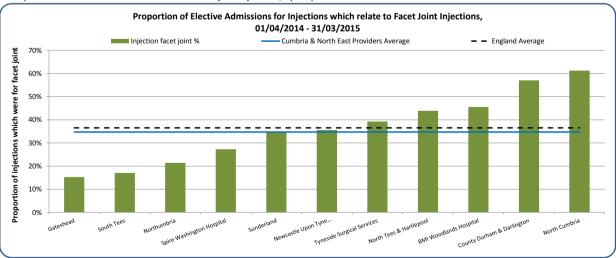
9. Elective hospital admissions for low back and radicular pain in people aged 16 years and over (April 2014 - March 2015) d. Number of elective admissions for injections per hospital Trust, by injection type (percentage of activity) (Cumbria & North East Providers only)



e. Number of elective admissions for injections per hospital Trust, by injection type (actual activity) (Cumbria & North East Providers only)





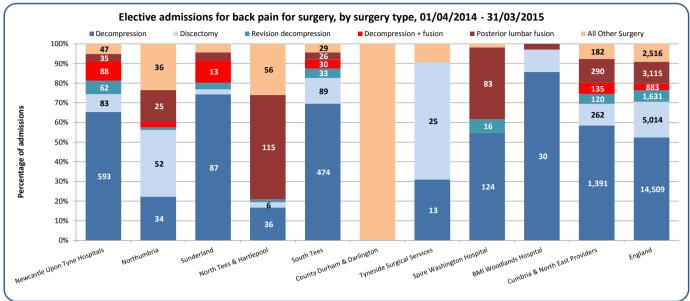


#### What is the data telling us?

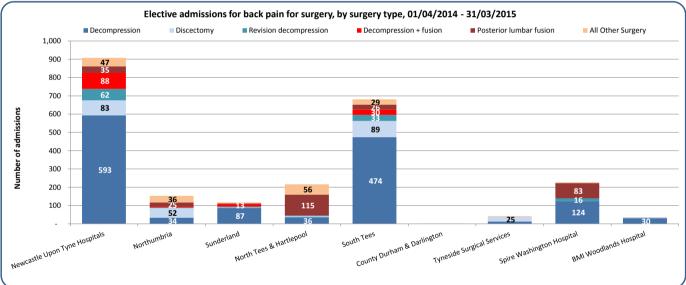
Spinal nerve root and facet joint injections are those most frequently done within the North East and Cumbria, constituting almost 75% of injection activity compared to 55% across England as a whole. The data is shown in two ways, indicating both the proportion and amount of activity relating to each CCG.

The proportion of facet joint injections done at Trust level ranges from 15% to 61% compared to the England figure of 37%.

9. Elective hospital admissions for low back and radicular pain in people aged 16 years and over (April 2014 - March 2015) g. Number of elective admissions for surgery per hospital Trust, by surgery type (percentage of activity) (Cumbria & North East Providers only)



h. Number of elective admissions for surgery per hospital Trust, by surgery type (actual activity) (Cumbria & North East Providers only)



### What is the data telling us?

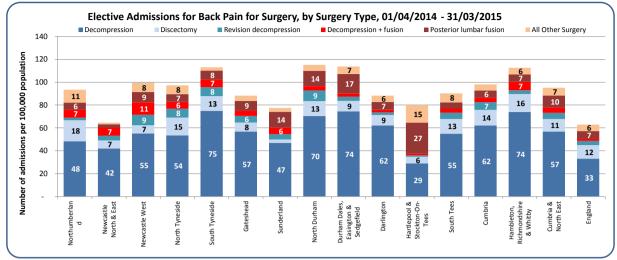
The charts above show the range in activity relating specifically to elective admissions for surgery, by type of surgery, for the North East and Cumbria Providers. Although the profile for the region overall is relatively similar to the England profile, there are wide variations at provider level.

Decompression is the most common surgical procedure for back pain in five providers and the number of fusions at North Tees & Hartlepool is notably higher than the other providers in the region.

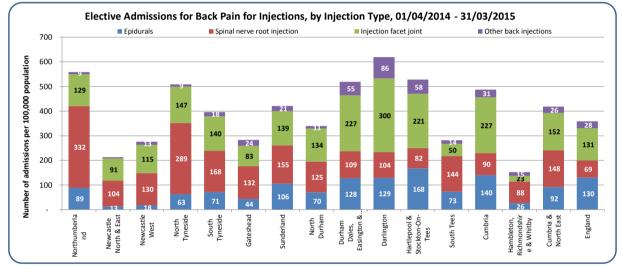
The data is shown in two ways, indicating both the proportion and amount of activity relating to each surgery type.

#### CCG activity by back pain procedure group

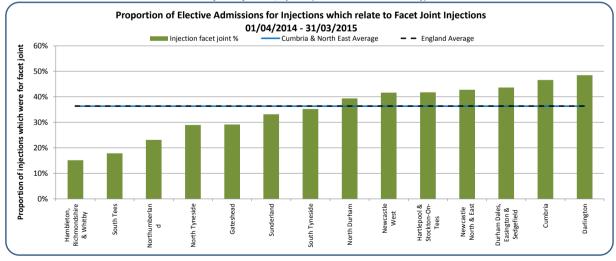
10. Elective hospital admissions for low back and radicular pain in people aged 16 years and over (April 2014 - March 2015) a. Number of elective admissions for surgery per CCG, by surgery type (Cumbria & North East only)



b. Number of elective admissions for injections per CCG, by injection type (Cumbria & North East only)







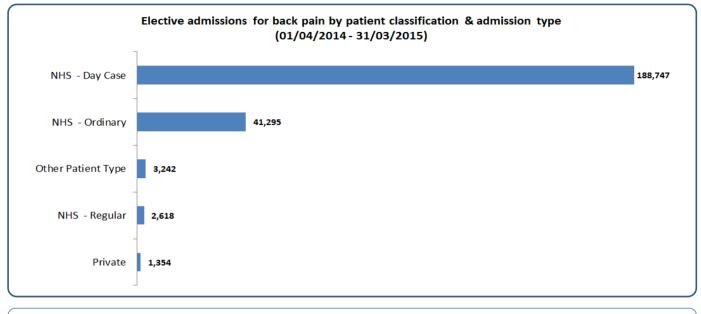
#### What is the data telling us?

Chart 10a shows the range in the activity rate per 100,000 relating specifically to elective admissions for surgery, by type of surgery, for the North East and Cumbria CCGs, with chart 9b showing the same for injections.

Hartlepool & Stockton-on-Tees CCG have a notably higher rate of posterior lumbar fusions compared to the England rates (27 vs. 7 per 100,000).

Eight CCGs have higher rates for all types of injections compared to England rates. Proportion of lumbar facet joint injections vary from 15% at Hambleton, Richmondshire and Whitby CCG to 48% at Darlington CCG.

11. Hospital admissions for low back and radicular pain in people aged 16 years and over (April 2014 - March 2015) a. Elective admissions for back pain by patient classification and type, all providers

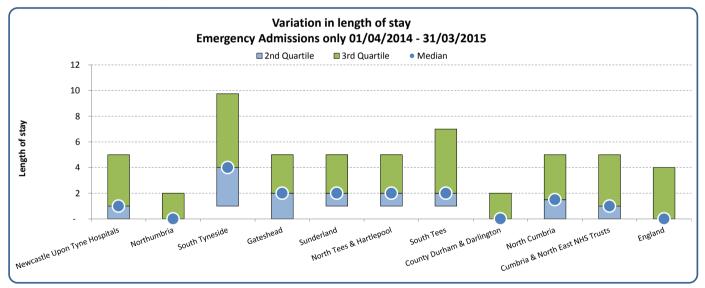


Other Patient Types are Amenity patients and Category II patients, and where the Administrative Category is unknown.

### b. Elective admissions for back pain, average length of stay by provider

67% of elective admissions for back pain are day cases, therefore the range in length of stay has not been calculated.

c. Emergency admissions for back pain, average length of stay by provider (*Cumbria & North East Trusts only*)



### What is the data telling us?

Over 98% of elective admissions for back pain in the current data extraction relate to NHS patients, with just over 0.5% relating to private patients.

The boxplot indicates the variation in length of stay for emergency admissions to the North East and Cumbria Trusts and shows that seven Trusts have a higher median length of stay (ranging from 1 to 4 days), compared to the England rate of zero days.

## Hospital Trust Activity Total Costs

12. Total costs to the commissioner for hospital admissions for low back and radicular pain in people aged 16 years and over (April 2014 - March 2015)

a. Total Costs by Admission Method Type (Cumbria & North East FTs only)

Provider Name	Ele	ctive	Eme	ergency	Othe	r	Tot	tal
Newcastle Upon Tyne Hospitals	£	6,220,132	£	1,412,718	£	217,194	£	7,850,044
South Tees	£	4,370,371	£	801,954	£	4,563	£	5,176,888
North Tees & Hartlepool	£	2,931,321	£	393,156	£	-	£	3,324,477
Northumbria	£	2,203,012	£	599,914	£	23,449	£	2,826,375
Sunderland	£	1,641,556	£	417,074	£	3,523	£	2,062,153
County Durham & Darlington	£	568,684	£	436,351	£	56,665	£	1,061,699
North Cumbria	£	307,429	£	284,656	£	1,447	£	593,532
Gateshead	£	57,364	£	297,599	£	3,413	£	358,376
South Tyneside	£	6,084	£	229,491	£	2,435	£	238,009
Total	£	18,305,954	£	4,872,912	£	312,689	£	23,491,555

#### b. Total Costs by Procedure Type (Cumbria & North East FTs only)

													Pain					
								Procedure not				Management						
			Radi	icular pain	Bacl	k pain	No procedure		linked to back				excluding		Other Non-			
Provider Name	Sur	gery	Injeo	ctions	Inje	ctions	don	e	pain		Ima	ging	Injec	tions	Surgica	ıl	Tot	al
Newcastle Upon Tyne Hospitals	£	4,323,686	£	821,266	£	490,017	£	745,465	£	825,783	£	337,394	£	306,433	£	-	£	7,850,044
South Tees	£	3,120,368	£	559,358	£	143,915	£	390,246	£	434,835	£	255,056	£	273,110	£	-	£	5,176,888
North Tees & Hartlepool	£	1,616,066	£	542,640	£	681,303	£	202,875	£	169,132	£	69,619	£	40,508	£	2,334	£	3,324,477
Northumbria	£	825,379	£	955,024	£	281,732	£	411,875	£	195,406	£	90,783	£	66,175	£	-	£	2,826,375
Sunderland	£	724,910	£	418,936	£	259,676	£	276,265	£	275,273	£	99,420	£	7,674	£	-	£	2,062,153
County Durham & Darlington	£	2,403	£	152,909	£	288,974	£	317,711	£	136,010	£	111,533	£	52,159	£	-	£	1,061,699
North Cumbria	£	-	£	100,727	£	155,451	£	158,157	£	76,058	£	90,536	£	12,602	£	-	£	593,532
Gateshead	£	-	£	5,741	£	6,802	£	216,012	£	30,112	£	66,356	£	33,353	£	-	£	358,376
South Tyneside	£	-	£	-	£	-	£	158,704	£	20,635	£	58,671	£	-	£	-	£	238,009
Total	£	10,612,811	£	3,556,600	£	2,307,871	£	2,877,309	£	2,163,245	£	1,179,369	£	792,015	£	2,334	£	23,491,555

#### What is the data telling us?

Across all North East and Cumbria FTs in 2014/15 the total cost to commissioners for back and radicular pain admissions was almost £23.5 million, with 80% of the costs attributed to elective activity. Note that these costs are by provider Trust and will include activity for CCGs outside of the North East and Cumbria region.

Activity at Newcastle Hospitals accounts for one third of the total spend for the North East and Cumbria, followed by South Tees FT.

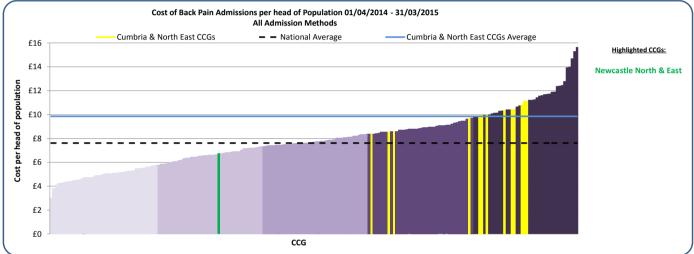
The surgery procedures group accounts for almost 45% of the total cost of all procedures, and the cost of injections is an additional 25% of the total.

## **CCG Activity Total Costs**

13. Hospital admissions Total Cost for low back and radicular pain in people aged 16 years and over (April 2014 - March 2015) a. All Admission Methods - Table

		All Adr	niss	ions		Elective A	۱dm	issions		Emergency			
													Registered
	Cost per head				Cost per head				Cost per head				Population
Responsible CCG Name	of Population		Total Cost		of Population		Total Cost		of Population		Total Cost		(Ages 15+)
Newcastle North & East	£	6.74	£	961,710	£	4.73	£	674,624	£	1.97	£	281,418	142,612
South Tees	£	8.41	£	2,022,050	£	6.26	£	1,504,876	£	2.15	£	516,264	240,445
Hambleton, Richmondshire & Whitby	£	8.59	£	1,044,238	£	6.89	£	837,629	£	1.70	£	206,609	121,613
Gateshead	£	8.60	£	1,501,199	£	6.25	£	1,091,330	£	2.11	£	368,597	174,491
Newcastle West	£	9.72	£	1,074,797	£	7.27	£	804,234	£	2.45	£	270,563	110,581
North Durham	£	9.91	£	2,126,282	£	8.23	£	1,766,457	£	1.50	£	322,760	214,562
Sunderland	£	9.97	£	2,380,042	£	8.15	£	1,946,588	£	1.75	£	416,744	238,749
Cumbria	£	10.00	£	4,436,619	£	7.95	£	3,527,176	£	1.72	£	762,705	443,515
South Tyneside	£	10.37	£	1,357,033	£	7.82	£	1,023,108	£	2.50	£	326,940	130,885
Darlington	£	10.45	£	923,584	£	8.89	£	785,462	£	1.47	£	129,690	88,357
Hartlepool & Stockton-On-Tees	£	10.46	£	2,528,917	£	9.06	£	2,190,538	£	1.39	£	336,325	241,687
Northumberland	£	10.84	£	2,956,132	£	8.42	£	2,298,014	£	2.13	£	581,961	272,766
Durham Dales, Easington & Sedgefield	£	11.17	£	2,699,379	£	9.76	£	2,359,792	£	1.26	£	304,004	241,753
North Tyneside	£	11.17	£	2,022,362	£	8.58	£	1,553,566	£	2.44	£	441,180	181,117
Cumbria & North East Total	£	9.86	£	28,034,343	£	7.87	£	22,363,392	£	1.85	£	5,265,761	2,843,133

#### b. All Admission Methods - Quintile Chart



#### c. Elective Admissions only, by Procedure Type

													Pair					
									Proce	edure not			Management				1	Total Cost
			Radi	cular pain	Back	Back pain No procedure li		linked to back				excluding		Other Non-			iotal cost	
Responsible CCG Name	Sur	gery	Injec	tions	Inje	ctions	done		pain		Imag	ging	Inje	ctions	Surgical			
Cumbria	£	1,748,388	£	622,151	£	669,491	£	45,700	£	312,224	£	8,218	£	121,004	£	-	£	3,527,176
Durham Dales, Easington & Sedgefield	£	1,271,887	£	368,835	£	442,008	£	1,765	£	157,770	£	18,246	£	99,282	£	-	£	2,359,792
Northumberland	£	1,036,642	£	692,865	£	228,770	£	9,244	£	229,918	£	10,673	£	89,901	£	-	£	2,298,014
Hartlepool & Stockton-On-Tees	£	1,092,222	£	388,127	£	446,826	£	3,048	£	186,908	£	9,377	£	61,697	£	2,334	£	2,190,538
Sunderland	£	1,033,005	£	387,531	£	226,364	£	16,723	£	245,755	£	6,497	£	30,713	£	-	£	1,946,588
North Durham	£	1,109,325	£	253,897	£	179,176	£	12,288	£	134,230	£	4,878	£	72,663	£	-	£	1,766,457
North Tyneside	£	740,368	£	385,744	£	167,195	£	3,042	£	179,743	£	7,318	£	70,156	£	-	£	1,553,566
South Tees	£	896,868	£	322,658	£	93,625	£	8,265	£	96,342	£	6,497	£	80,621	£	-	£	1,504,876
Gateshead	£	647,585	£	176,883	£	112,100	£	10,504	£	89,429	£	3,243	£	51,586	£	-	£	1,091,330
South Tyneside	£	611,921	£	194,315	£	115,081	£	2,832	£	71,080	£	4,529	£	23,349	£	-	£	1,023,108
Hambleton, Richmondshire & Whitby	£	620,894	£	83,870	£	30,494	£	2,630	£	71,086	£	2,878	£	25,777	£	-	£	837,629
Newcastle West	£	519,895	£	97,337	£	79,083	£	1,413	£	81,450	£	1,776	£	23,280	£	-	£	804,234
Darlington	£	341,060	£	131,838	£	217,978	£	-	£	69,282	£	2,838	£	22,466	£	-	£	785,462
Newcastle North & East	£	364,375	£	102,436	£	85,022	£	706	£	76,947	£	5,697	£	39,441	£	-	£	674,624

#### What is the data telling us?

Nine of the north east CCGs are in the highest quintile for spend per head of population on admissions for back and radicular pain and North Tyneside and DDES CCG have the highest spend per head of population (£11.17) in the North East and Cumbria. Newcastle North and East CCG is the only CCG with a spend per head which is below the national average.

For emergency admissions only, South Tyneside CCG has the highest spend per head (£2.50) and DDES CCG has the lowest (£1.26).

The final table shows the total spend for elective admissions for each CCG for 2014/15 (based on national tariff) and indicates the spend by procedure type. Surgery generally accounts for the majority of spend, and this is consistently seen across all CCGs where there is greater spend on admissions for surgery with the exception of Darlington CCG where more is spent on injections than surgery.

# 14. Back & Radicular Pain Admissions Breakdown for the Cumbria & North East Region Highlighted Provider Data is included in this report (Red=Complex Spinal Provider, Blue=NHS Trust & Green=Independent Sector Provider)

			ive Admissi		Emergency	Other Admission	
Code	Provider Name		Injections	Other	Admissions	Types	Total
RTD RTF	THE NEWCASTLE UPON TYNE HOSPITALS NHS FOUNDATION TRUST	902 149	2,113 1,970	686 226	773 822	82 <6	4,55
RTR	NORTHUMBRIA HEALTHCARE NHS FOUNDATION TRUST SOUTH TEES HOSPITALS NHS FOUNDATION TRUST	605	1,970	220	469	<0	3,17 2,45
vw	NORTH TEES AND HARTLEPOOL NHS FOUNDATION TRUST	193	1,705	200	289		2,40
LN	CITY HOSPITALS SUNDERLAND NHS FOUNDATION TRUST	133	1,065	145	269	<6	1,59
XP	COUNTY DURHAM AND DARLINGTON NHS FOUNDATION TRUST	<6	740	261	440	23	1,46
TX	UNIVERSITY HOSPITALS OF MORECAMBE BAY NHS FOUNDATION TRUST	13	689	81	187	6	97
IT333	SPIRE WASHINGTON HOSPITAL	226	571	42	-	-	83
NL	NORTH CUMBRIA UNIVERSITY HOSPITALS NHS TRUST	-	392	133	254	<6	78
IT457	BMI WOODLANDS HOSPITAL	34	492	41	-	-	56
R7	GATESHEAD HEALTH NHS FOUNDATION TRUST	-	46	198	251	6	50
N401	TYNESIDE SURGICAL SERVICES AT THE NORTH EAST NHS SURGERY CENTRE	42	270	40	-	-	35
T449	BMI THE LANCASTER HOSPITAL	-	329	7	-	-	33
XN	LANCASHIRE TEACHING HOSPITALS NHS FOUNDATION TRUST	116	121	63	22	6	32
IT347 E9	SPIRE FYLDE COAST HOSPITAL	85	175	8	-	-	26
IVC07	SOUTH TYNESIDE NHS FOUNDATION TRUST FULWOOD HALL HOSPITAL	31	- 24	<6 18	125	<6	12 7
ET	THE WALTON CENTRE NHS FOUNDATION TRUST	<6	<6	55		-	5
NN	CUMBRIA PARTNERSHIP NHS FOUNDATION TRUST	-	-	<6	36	16	5
СВ	YORK TEACHING HOSPITAL NHS FOUNDATION TRUST	-	<6	<6	20	<6	2
M3	SALFORD ROYAL NHS FOUNDATION TRUST	<6	10	-	<6	-	1
T497	BMI GISBURNE PARK HOSPITAL	6	<6	-	-	-	1
AN	ROYAL NATIONAL ORTHOPAEDIC HOSPITAL NHS TRUST	<6	<6	<6	-	-	_
XL	BLACKPOOL TEACHING HOSPITALS NHS FOUNDATION TRUST				<6	-	~
WA	HULL AND EAST YORKSHIRE HOSPITALS NHS TRUST				<6	-	
WY	CALDERDALE AND HUDDERSFIELD NHS FOUNDATION TRUST	-	<6	-	<6	-	
T403	BMI - THE BEARDWOOD HOSPITAL	<6	<6	-	-	-	
CD	HARROGATE AND DISTRICT NHS FOUNDATION TRUST				<6	-	
88	LEEDS TEACHING HOSPITALS NHS TRUST	<6	<6	<6	-	-	
W3	CENTRAL MANCHESTER UNIVERSITY HOSPITALS NHS FOUNDATION TRUST	-	<6	-	<6	<6	
ww	WARRINGTON AND HALTON HOSPITALS NHS FOUNDATION TRUST	<6	<6	<6	-	-	
X1	NOTTINGHAM UNIVERSITY HOSPITALS NHS TRUST	<6	-	<6	<6	-	•
VC20	THE YORKSHIRE CLINIC	-	<6	-	-	-	•
S	CHESTERFIELD ROYAL HOSPITAL NHS FOUNDATION TRUST		_		<6	-	
HQ	SHEFFIELD TEACHING HOSPITALS NHS FOUNDATION TRUST	-	<6	-	-	-	
11	GUY'S AND ST THOMAS' NHS FOUNDATION TRUST	-	<6	-	<6	-	
Q6	ROYAL LIVERPOOL AND BROADGREEN UNIVERSITY HOSPITALS NHS TRUST				<6	-	•
RF	WRIGHTINGTON, WIGAN AND LEIGH NHS FOUNDATION TRUST	-	<6	-	-	-	
RV	UNIVERSITY COLLEGE LONDON HOSPITALS NHS FOUNDATION TRUST	-	<6	<6	-	-	
WE	UNIVERSITY HOSPITALS OF LEICESTER NHS TRUST				<6	-	•
YJ 1T350	IMPERIAL COLLEGE HEALTHCARE NHS TRUST				<6	-	•
11350 1F	SPIRE METHLEY PARK HOSPITAL ISLE OF WIGHT NHS TRUST	-	<6	-	- <6	-	•
A2	ROYAL SURREY COUNTY HOSPITAL NHS FOUNDATION TRUST				<6	-	
A3	WESTON AREA HEALTH NHS TRUST				<6		
A7	UNIVERSITY HOSPITALS BRISTOL NHS FOUNDATION TRUST				<6	_	
AE	BRADFORD TEACHING HOSPITALS NHS FOUNDATION TRUST				<6	-	
AL	ROYAL FREE LONDON NHS FOUNDATION TRUST				<6	-	
BL	WIRRAL UNIVERSITY TEACHING HOSPITAL NHS FOUNDATION TRUST				<6	-	
C1	BEDFORD HOSPITAL NHS TRUST				<6	-	
СХ	THE QUEEN ELIZABETH HOSPITAL, KING'S LYNN, NHS FOUNDATION TRUST				<6	-	
D8	MILTON KEYNES HOSPITAL NHS FOUNDATION TRUST				<6	-	
DU	FRIMLEY HEALTH NHS FOUNDATION TRUST				<6	-	
DZ	THE ROYAL BOURNEMOUTH AND CHRISTCHURCH HOSPITALS NHS FOUNDATION TRUST				<6	-	
EM	AINTREE UNIVERSITY HOSPITAL NHS FOUNDATION TRUST				<6	-	
FF	BARNSLEY HOSPITAL NHS FOUNDATION TRUST				<6	-	
GN	PETERBOROUGH AND STAMFORD HOSPITALS NHS FOUNDATION TRUST				<6	-	
GQ	IPSWICH HOSPITAL NHS TRUST				<6	-	
HW	ROYAL BERKSHIRE NHS FOUNDATION TRUST	-	-	<6	-	-	
L	NORTHERN LINCOLNSHIRE AND GOOLE NHS FOUNDATION TRUST				<6	-	
R	COUNTESS OF CHESTER HOSPITAL NHS FOUNDATION TRUST				<6	-	
(9	PLYMOUTH HOSPITALS NHS TRUST				<6	-	
KB	UNIVERSITY HOSPITALS COVENTRY AND WARWICKSHIRE NHS TRUST				<6	-	
13	GREAT WESTERN HOSPITALS NHS FOUNDATION TRUST				<6	-	
17	DARTFORD AND GRAVESHAM NHS TRUST				<6	-	
25 21	DONCASTER AND BASSETLAW HOSPITALS NHS FOUNDATION TRUST				<6	-	
1	HEART OF ENGLAND NHS FOUNDATION TRUST				<6	-	
ข rg	THE ROYAL ORTHOPAEDIC HOSPITAL NHS FOUNDATION TRUST	<6	-	-	-	-	
G TP	DERBY TEACHING HOSPITALS NHS FOUNDATION TRUST	<6	-	-	- <6	-	
VR	SURREY AND SUSSEX HEALTHCARE NHS TRUST				<6 <6	-	
VK VV	EPSOM AND ST HELIER UNIVERSITY HOSPITALS NHS TRUST EAST KENT HOSPITALS UNIVERSITY NHS FOUNDATION TRUST	<6			<0	-	
V V VY	SOUTHPORT AND ORMSKIRK HOSPITAL NHS TRUST	<0	-	-	- <6	-	
W6	PENNINE ACUTE HOSPITALS NHS TRUST				<6	-	
WH	EAST AND NORTH HERTFORDSHIRE NHS TRUST		<6		<0	-	
WJ WJ	STOCKPORT NHS FOUNDATION TRUST	-	<в <6	-	-	-	
XF	MID YORKSHIRE HOSPITALS NHS TRUST	-	<0	-	- <6	-	
AF ITPH1	SHEPTON MALLET NHS TREATMENT CENTRE	-	<6	_	<0 -	_	
ITX01	ONE HEALTH GROUP LTD	- <6	-	-	-	-	
IVC09	NEW HALL HOSPITAL	<6	-	-	-	_	
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0.1	First Draft	10/03/2016		Adam Fearing,				
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0.2	Draft V2	15/03/2016	Amendments & Final QA	Adam Fearing,				
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0.6	Draft V6	13/06/2016	Narrative & formatting	Liz Lingard				

CONFIDENTIALITY CHECKLIST – FOR	COMPLETION PRIOR TO ANY DRAFTS SENT TO CLIENTS
Does the report include any small numbers?	Yes
If yes, can we produce a meaningful suppressed version?	Yes, the small numbers in this report have been suppressed. Observed events less than 6 have been replaced by "<6". Rates where the numerator or denominator are less than 6 have been shown, although to calculate that small number would not be possible from the data shown here.
If not, the Epidemiologist AND Director must justify why not here, highlight, and agree the need for an NDA	
Have Lightfoot/HSCIC approved use of NDA in order to disclose small numbers?	
Has the recipient of the report signed the NDA?	