

## **North East Quality Observatory Service**



Copyright © 2016 Northumberland Tyne and Wear NHS Foundation Trust and South Tees NHS Foundation Trust (on behalf of the North East Quality Observatory Service, NEQOS)

## BetterKnowledgeBetterCareBetterOutcomes

## **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 North Yorkshire & Humber 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 North Yorkshire & Humber Region are:

- South Tees Hospitals NHS Foundation Trust
- Harrogate & District NHS Foundation Trust
- York Teaching Hospital NHS Foundation Trust
- Leeds Teaching Hospitals NHS Trust
- Hull & East Yorkshire Hospitals
- NHS Trust Northern Lincolnshire & Goole NHS Foundation Trust

The Independent Sector Providers included for the North Yorkshire & Humber Region are:

- BMI The Duchy Hospital
- Spire Hull & East Riding Hospital
- St Hugh's Hospital

## Clinical Commissioning Group (CCG) activity summary

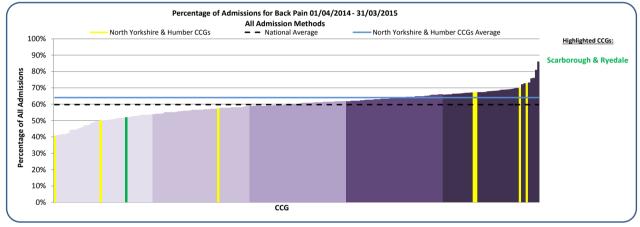
1. Hospital admissions for low back and radicular pain in people aged 16 years and over (April 2014 - March 2015), summary

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%
North Yorkshi & Humber	Back	Radicular	Total	% Back	% Radicular
Elective	5.235	3.093	8,328	62.9%	37.1%
Emergency	1,086	422	1,508	72.0%	28.0%
Other	20	42	62	32.3%	67.7%
Total	6,341	3,557	9,898	64.1%	35.9%

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

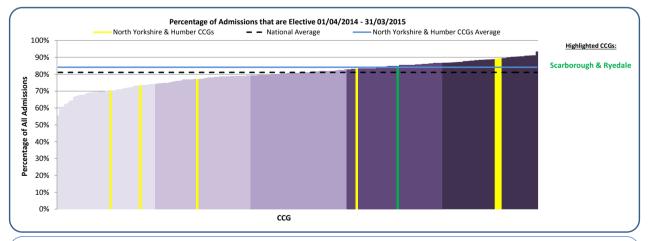
Table indicates the proportion of admissions for ba	ack pair only (a		
Harrogate & Rural District	40.7%	North East Lincolnshire	67.3%
Hambleton, Richmondshire & Whitby	50.0%	East Riding Of Yorkshire	67.3%
Scarborough & Ryedale	51.8%	Hull	70.0%
Vale Of York	57.4%	North Lincolnshire	72.8%
North Yorkshire & Humber CCGs	64.1%	England	59.8%



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

Hambleton, Richmondshire & Whitby	77.2%	North Lincolnshire	89.1%
Vale Of York		East Riding Of Yorkshire	89.3%
Hull	83.1%	North East Lincolnshire	89.4%



#### What is the data telling us?

In the 2014/15 financial year period there were almost 300,000 admissions for back and radicular pain in England, with 9,898 (3.4%) of these for patients registered within the North Yorkshire & Humber CCGs.

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 North Yorkshire & Humber the proportion of admissions for back pain ranges from 41% to 73%.

Nationally, approximately 81% of back and radicular pain admissions are elective, with North Yorkshire & Humber having a lower proportion (84%). At a CCG level in North Yorkshire & Humber, the proportion of elective admissions for these populations ranges from 71% in Harrogate & Rural District to 89% in North East Lincolnshire.

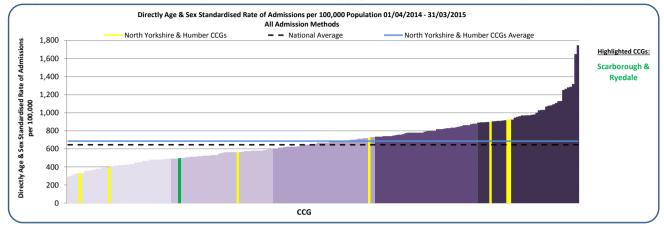
## **Clinical Commissioning Group (CCG) activity**

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

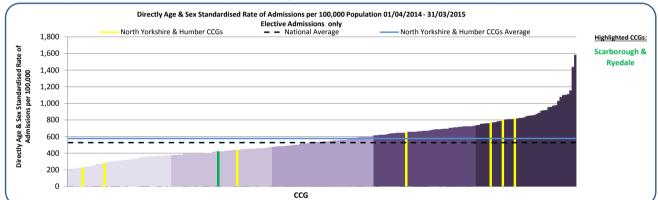
a. Hospital admissions for back pain by CCG (all admission methods), Directly Age & Sex Standardised Admission rate per 100,000 population

CCG name	All	Elective	Emergency	CCG name	All	Elective	Emergency
North Lincolnshire	923.8	819.7	97.2	Vale Of York	562.3	438.1	116.1
Hull	921.3	769.4	151.3	Scarborough & Ryedale	494.2	420.8	66.2
East Riding Of Yorkshire	900.1	799.8	99.7	Hambleton, Richmondshire & Whitby	394.8	282.6	109.7
North East Lincolnshire	724.0	648.7	67.8	Harrogate & Rural District	331.2	231.9	95.5
North Yorkshire & Humber CCGs	686.4	577.3	104.8	England	645.6	526.5	115.4

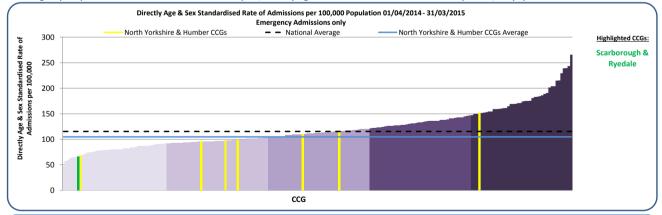
b. Hospital admissions for back and radicular pain (all admission methods), Directly Age & Sex Standardised Admission rate per 100,000 population



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



#### What is the data telling us?

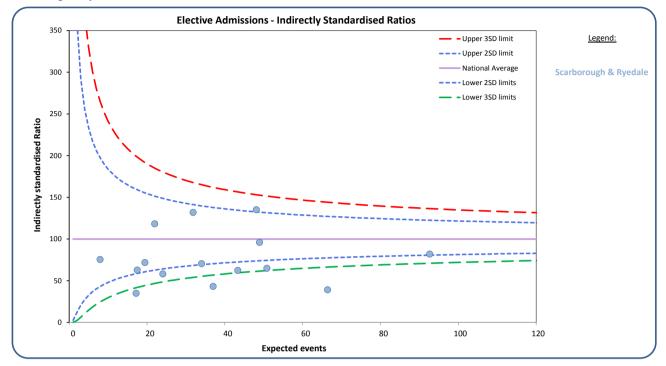
There is considerable variation in elective admission rates across the CCGs within North Yorkshire and Humber with a 3.5-fold difference between the regional lowest (Harrogate & Rural District CCG) and the highest CCG for the region (North Lincolnshire CCG). Similarly, there is wide variation for emergency admissions across the CCGs in the region, with a 2.3-fold difference between the regional lowest (Scarborough & Ryedale CCG) and the highest CCG for the region (Hull CCG).

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

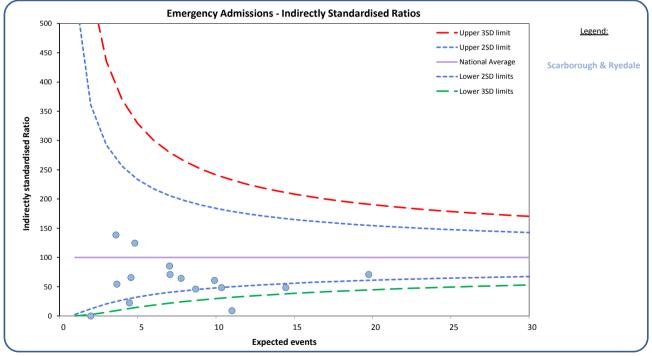
3. Hospital admissions for low back and radicular pain in people aged 16 years and over (April 2014 - March 2015)

Each symbol represents one GP practice

a. Hospital admissions for back pain (Elective admissions), Indirectly Standardised Ratio Scarborough & Ryedale



b. Hospital admissions for back pain (Emergency admissions), Indirectly Standardised Ratio



#### 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 Scarborough & Ryedale

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.

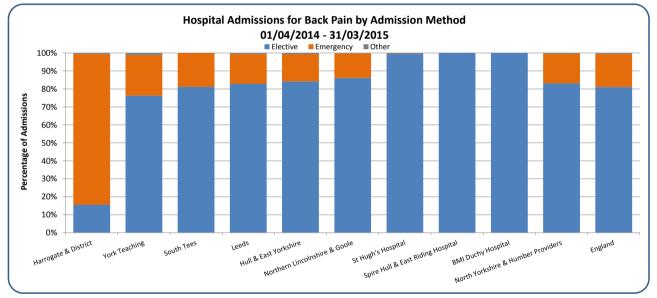
					Elective			Emergency	
Practice Code	Practice Name	CCG	Population 15+	Observed	Expected	Ratio	Observed	Expected	Ratio
B82001	Falsgrave Surgery	03M	8,827	47	48.93	96.05	<6	10.36	48.26
B82011	Sherburn Surgery	03M	4,279	14	24.07	58.16	6	4.82	124.57
B82024	Eastfield Medical Centre	03M	6,264	24	34.02	70.55	<6	7.07	70.71
B82025	Derwent Practice	03M	16,852	76	92.64	82.04	14	19.76	70.85
B82037	Filey Surgery	03M	7,776	65	48.11	135.09	6	9.91	60.57
B82038	Prospect Road Surgery	03M	6,179	42	31.84	131.90	6	7.04	85.28
B82054	Scarborough Medical Group	03M	11,092	26	66.41	39.15	7	14.46	48.41
B82063	West Ayton Surgery	03M	6,991	27	43.31	62.34	<6	8.71	45.94
B82088	Brook Square Surgery	03M	9,691	33	50.80	64.96	<6	11.03	9.07
B82092	Belgrave Surgery	03M	4,262	14	19.47	71.90	<6	4.57	65.63
B82106	Hackness Road Surgery	03M	2,875	6	17.19	34.90	<6	3.67	54.49
B82609	Ampleforth Surgery	03M	3,303	11	17.50	62.85	<6	3.61	138.36
B82611	Peasholm Surgery	03M	6,985	16	36.99	43.25	<6	7.78	64.29
B82628	Hunmanby Surgery	03M	3,519	26	21.97	118.36	<6	4.47	22.40
Y02669	Castle Health Centre	03M	2,222	6	7.95	75.45		2.01	

0

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 (North Yorkshire & Humber Providers only)



Trusts

## What is the data telling us?

The total number of admissions for back pain, rather than a rate, is presented due to the absence of a relevant denominator at hospital Trust level. Activity for three of the six NHS Trusts where patients from North Yorkshire & Humber CCGs are admitted are in the highest quintile nationally. James Cook Hospital (South Tees Trust) and Leeds Trust are located outside of this CCG region.

The proportion of hospital activity for back pain which is classed as elective care for North Yorkshire & Humber is slightly higher than the England proportion. However at NHS Trust level the proportion varies between 16% at Harrogate & District Trust to 86% at Northern Lincolnshire & Goole Trust. All NHS activity at the 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

(North Yorkshire & Humber Providers only)

	Pain						
	Management &	Trauma &	Spinal Surgery	Interventional			
Provider Name	Anaesthetics	Orthopaedics	Service	Radiology	Neurosurgery	Other Functions	Total
South Tees	891	765	32	12	429	24	2,153
Harrogate & District	18	-	-	-	-	7	25
York Teaching	1,451	9	-	-	-	32	1,492
Leeds	1,743	<6	1,082	-	52	52	2,929
Hull & East Yorkshire	960	551	-	1,282	717	8	3,518
Northern Lincolnshire & Goole	1,275	-	-	-	-	46	1,321
BMI Duchy Hospital	-	132	-	-	63	-	195
Spire Hull & East Riding Hospital	922	12	-	-	-	-	934
St Hugh's Hospital	150	<6	-	-	-	-	150
Total	7,410	1,469	1,114	1,294	1,261	169	12,717

## 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?

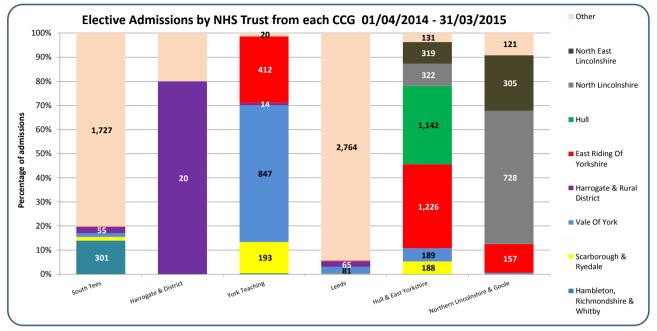
For elective activity the treatment specialty code indicated within the hospital data varies by hospital trust. Overall the most common specialties are Trauma and Orthopaedics and Pain Management/Anaesthetics, however for Leeds Trust the highest volume of activity is recorded within Spinal Surgery Service. Hull & East Yorkshire Trust also have over 1,000 admissions recorded within 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.

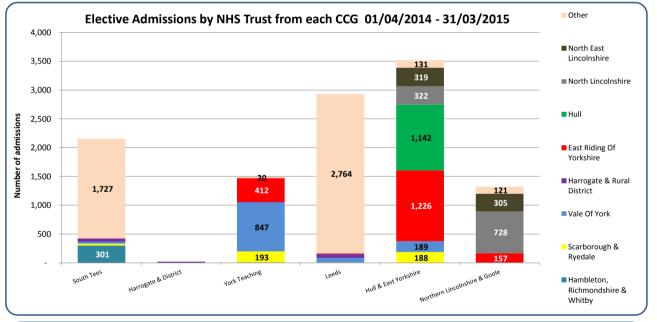
## Hospital Trust activity from CCGs

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?

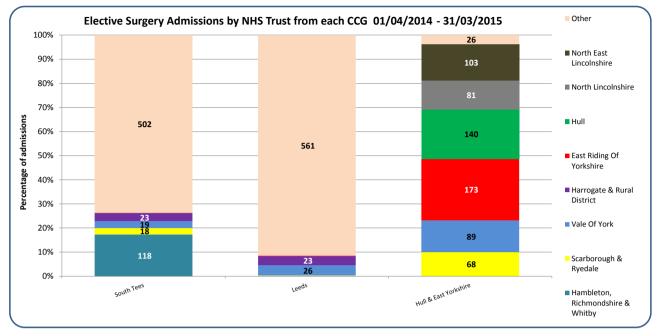
There is variation between hospital trusts in terms of the number of patients from each of the CCGs that are admitted for back and radicular pain.

Hull & East Yorkshire Trust is the highest volume provider and admits patients from all of the North Yorkshire & Humber CCGs except Hambleton, Richmondshire & Whitby CCG who mainly use South Tees Trust. Some of the large volume providers (notably Leeds and South Tees Trusts) are located outside of the North Yorkshire & Humber CCGs and have higher levels of activity coming from CCGs outside of the region.

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

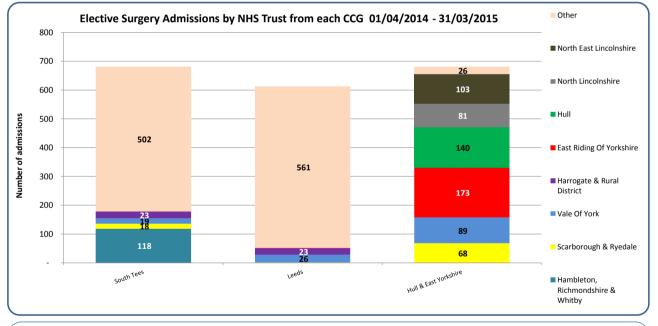
## Hospital Trust activity from CCGs

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



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?

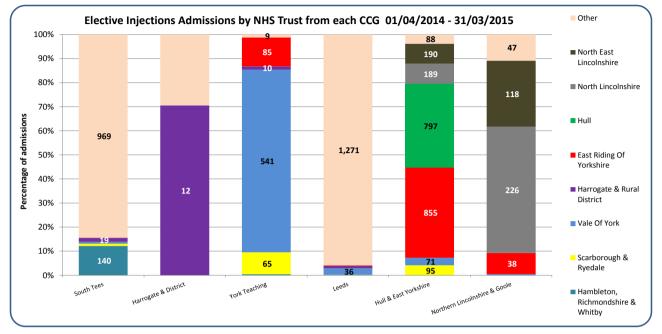
There is variation between hospital trusts in terms of the number of patients from each of the CCGs that are admitted for spinal surgery back and radicular pain.

The three NHS Trust providers of spinal surgery have similar overall levels of activity but Hull & East Yorkshire Trust are the main provider for this region. Leeds and South Tees Trusts are located outside of the North Yorkshire & Humber CCGs and have higher levels of activity coming from CCGs outside of the region.

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

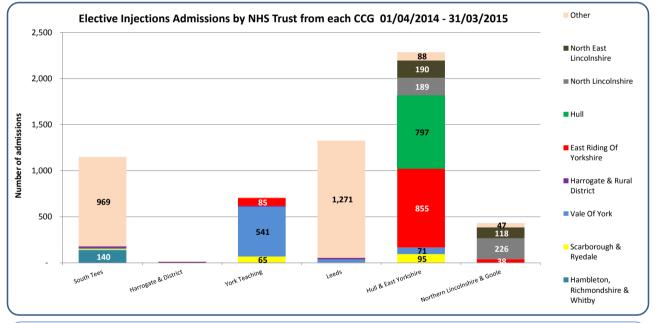
## Hospital Trust activity from CCGs

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)



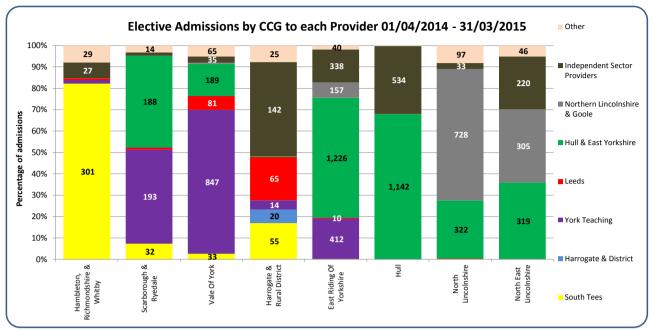
#### What is the data telling us?

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.

Hull & East Yorkshire Trust is the main provider for this region and admit patients from all CCGs except Hambleton, Richmondshire & Whitby CCG. Leeds and South Tees Trusts are located outside of the North Yorkshire & Humber CCGs and have higher levels of activity coming from CCGs outside of the region.

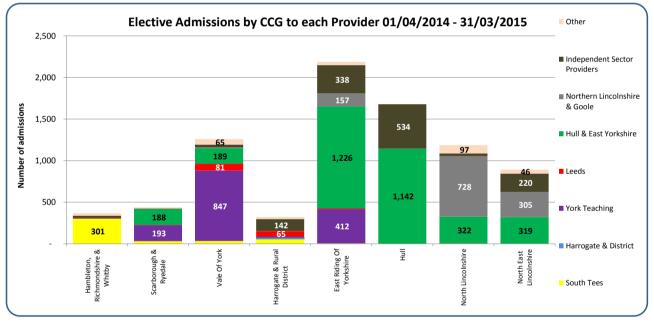
The data is shown in two ways, indicating both the proportion and number of admissions relating to each CCG.

## **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 hospital trusts to which their patients are admitted.

Activity is highest for East Riding of Yorkshire CCG. Patients from this CCG were admitted to at least three NHS Trusts and frequently used Independent Sector Providers (338 admissions).

Hull and North East Lincolnshire CCGs are also high users of Independent Sector Providers in this region.

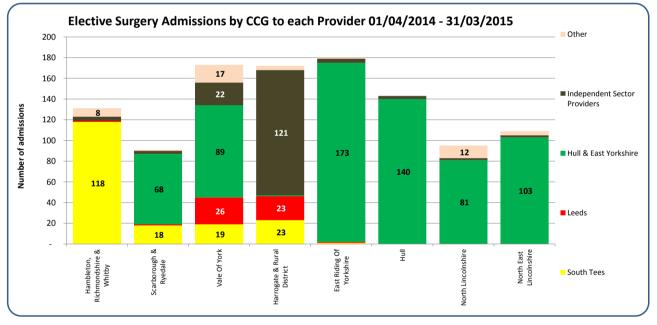
The data is shown in two ways, indicating both the proportion and amount of activity relating to each hospital trust.

## **CCG activity to Hospital Trust**

Elective Surgery Admissions by CCG to each Provider 01/04/2014 - 31/03/2015 Other 100% 8 17 12 90% 80% Independent Sector 70% . Providers Percentage of admissions 121 60% 68 89 50% 173 140 103 Hull & East Yorkshire 118 81 40% 30% 20% 23 26 Leeds 10% 18 23 19 0% Harrogate & Rural District Scarborough & Ryedale East Riding Of Yorkshire North Lincolnshire North East Lincolnshire Richmondshire & HUI Vale Of York Hambleton, Whitby South Tees

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?

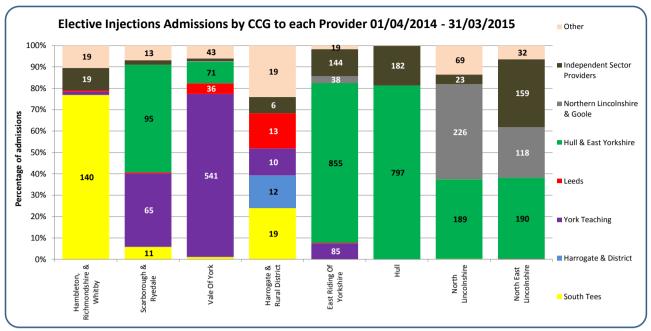
There is variation between CCGs in terms of the number of hospital trusts to which their patients are admitted for spinal surgery.

Activity is highest for Vale of York, Harrogate & Rural District and East Riding of Yorkshire CCGs. Harrogate & Rural District CCG used Independent Sector Providers for the majority of their admissions for spinal surgery (121 admissions).

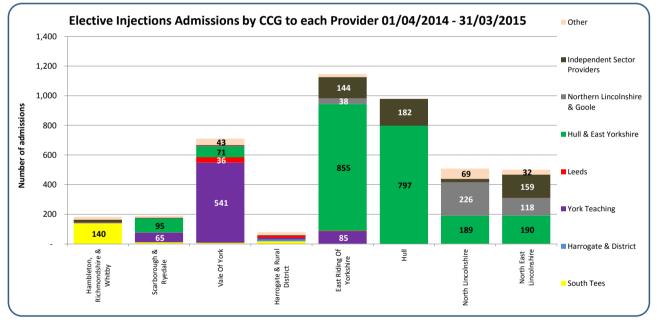
The data is shown in two ways, indicating both the proportion and amount of activity relating to each hospital trust.

## **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.

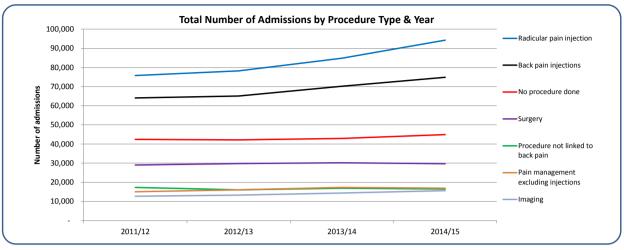
Activity is highest for East Riding of Yorkshire CCG. Patients from this CCG were admitted to at least three NHS Trusts and frequently used Independent Sector Providers (144 admissions).

Hull and North East Lincolnshire CCGs are also high users of Independent Sector Providers in this region.

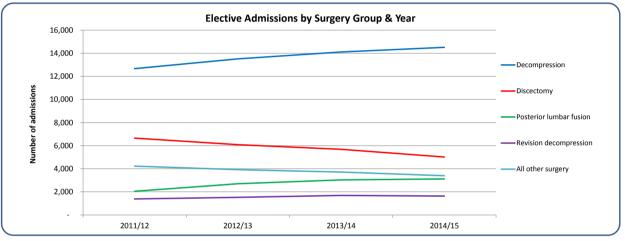
The data is shown in two ways, indicating both the proportion and amount of activity relating to each hospital trust.

## Hospital Trust activity (national level)

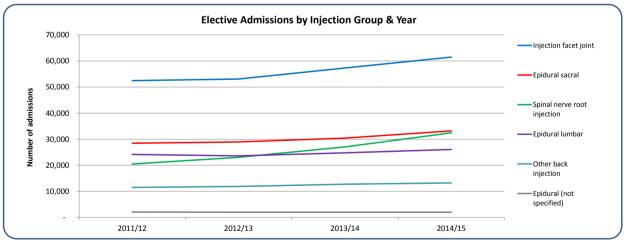
8. Hospital admissions for low back and radicular pain in people aged 16 years and over (1st April 2011 - 31st March 2015) a. Hospital admissions by procedure type over time (all admission types)



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.

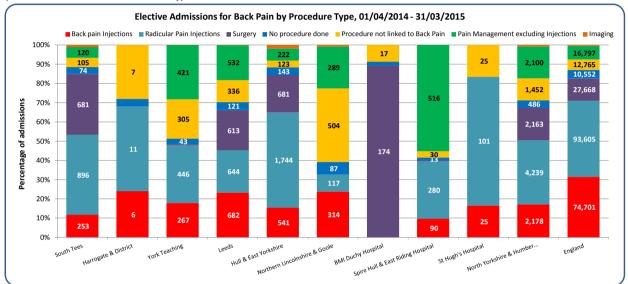
The main procedure type relating to elective admissions are for back and radicular pain injections which has increased from a combined total of just under 140,000 to 170,000 episodes over the four year period. This is in stark contrast to number of admissions related to surgery which has remained relatively 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.

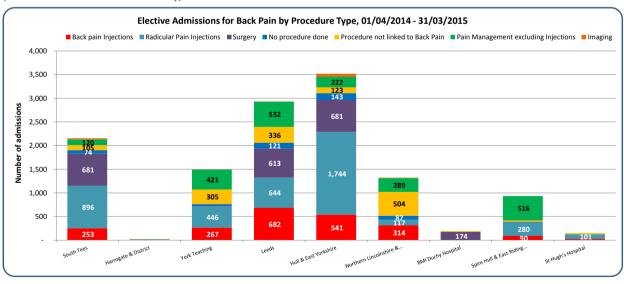
9. Elective hospital admissions for low back and radicular pain in people aged 16 years and over (April 2014 - March 2015) a. Elective hospital admissions by procedure type (national level including all providers)

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	7.19
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) (North Yorkshire & Humber Providers only)



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



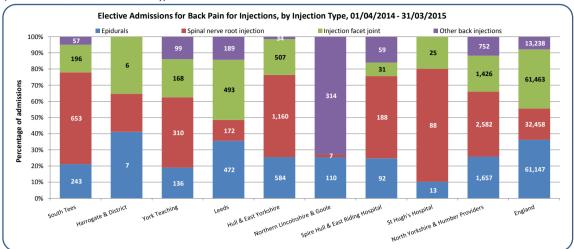
#### What is the data telling us?

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 indicating that there are relatively few elective admissions where no procedure is undertaken (compared to 15-16% of all admission types - see previous sheet).

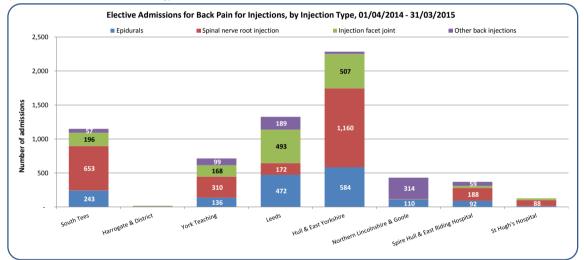
All of the NHS Trusts that admit patients from the North Yorkshire & Humber CCGs have a lower proportion of elective activity for injections than the England rate (approx. 70%) and overall these Trusts are doing a higher proportion of surgery and pain management procedures that are not injections.

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

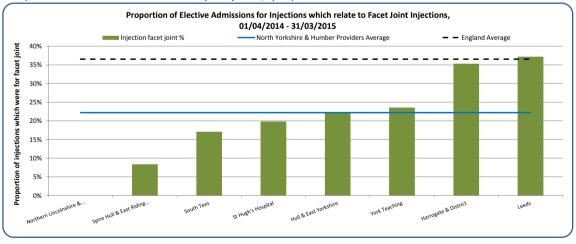
9. Elective hospital admissions for low back and radicular pain in people aged 16 years and over (April 2014 - March 2015) d. Number of elective admissions for injections per hospital Trust, by injection type (percentage of activity) (North Yorkshire & Humber Providers only)



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







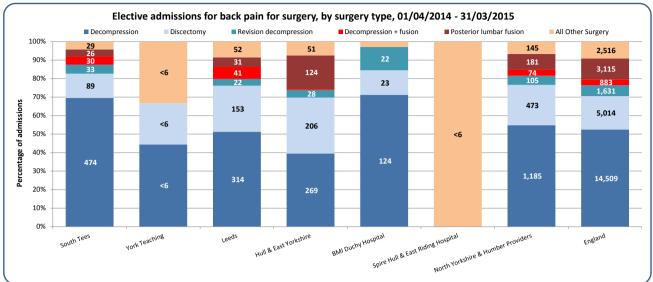
#### What is the data telling us?

Spinal nerve root are those most frequently done by the providers for the North Yorkshire & Humber CCGs, constituting 40% of injection activity which is twice the England proportions. These providers overall do a lower proportion of lumbar facet joint injections (22%) and epidurals (26%) than England proportions (37% & 36% respectively) but there is wide variation across all the providers.

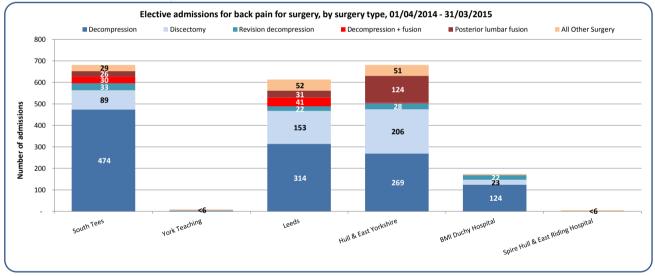
The data is shown in two ways, indicating both the proportion of overall activity and number of episodes for each Provider.

The proportion of facet joint injections done at Trust level ranges from 12% (Northern Lincolnshire & Goole Trust ) to 37% (Leeds) 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) (North Yorkshire & Humber Providers only)



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



#### What is the data telling us?

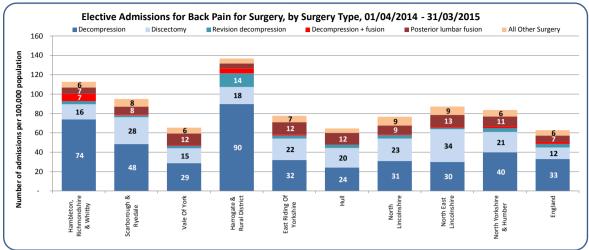
The charts above show the range in activity relating specifically to elective admissions for surgery, by type of surgery, for the providers who admit patients from the North Yorkshire & Humber CCGs.

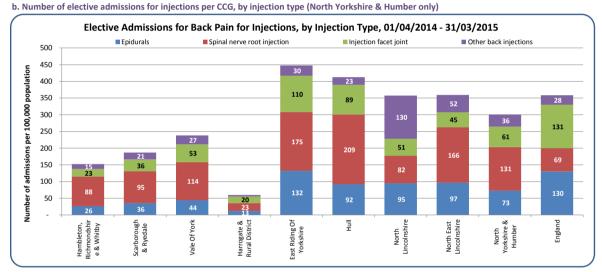
These providers combined do a slightly higher proportion of decompressions compared to England but there are wide variations at Trust level. South Tees, Leeds and Hull & East Yorkshire Trusts do similar volumes of surgery overall Hull & East Yorkshire does over four times as many fusions than the other two Trusts. .

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

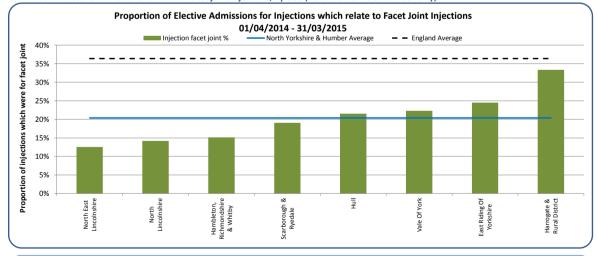
#### CCG activity by back pain procedure group

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 (North Yorkshire & Humber only)









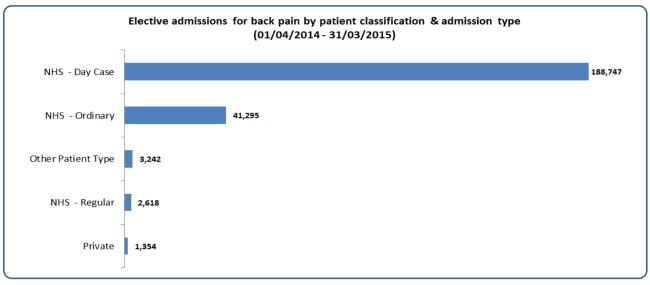
#### What is the data telling us?

Chart 9a shows the range in the activity rate relating specifically to elective admissions for surgery, by type of surgery, for the North Yorkshire & Humber CCGs, with chart 9b showing the same for injections.

Overall North Yorkshire & Humber CCGs have a slightly higher rate per 100,000 for spinal surgery with lower rates of injections compared to the England rates. It is notable that Harrogate & Rural District CCG has the highest rates of surgery and markedly lower rates of injections compared to the other CCGs in the region and England rates.

The proportion of facet joint injections done at CCG level ranges from 13% (North East Lincolnshire) to 33% (Harrogate & Rural District) compared to the England figure of 37%.

**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

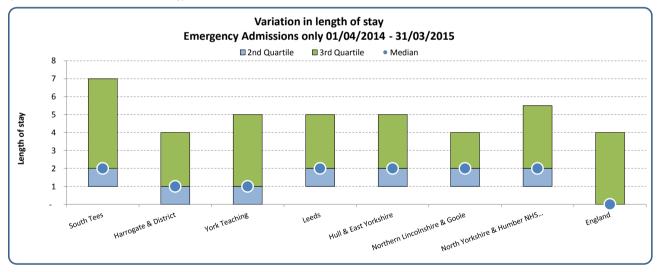


Other Patient Types are Amenity patients and Category II patients, and where the Administrative Category is unknown.

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 (North Yorkshire & Humber 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 for NHS Trust providers used by the North Yorkshire & Humber CCGs and shows that there all Trusts have a median length of stay of 1 or 2 days, compared to the England average 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 (North Yorkshire & Humber FTs only)

Provider Name	Ele	ctive	Em	ergency	Othe	r	Tot	al
Leeds	£	7,058,118	£	1,627,844	£	79,309	£	8,765,271
Hull & East Yorkshire	£	5,501,722	£	1,224,172	£	100,070	£	6,825,963
South Tees	£	4,370,371	£	801,954	£	4,563	£	5,176,888
York Teaching	£	752,710	£	556,355	£	3,311	£	1,312,376
Northern Lincolnshire & Goole	£	605,198	£	257,187	£	9,083	£	871,467
Harrogate & District	£	16,026	£	142,322	£	-	£	158,347
Total	£	18,304,144	£	4,609,833	£	196,336	£	23,110,313

#### b. Total Costs by Procedure Type (North Yorkshire & Humber FTs only)

													Pain					
							Pr		Proc	edure not	ure not P			agement				
			Rad	icular pain	Back	Back pain		No procedure		linked to back				ıding	Other Non-			
Provider Name	Surg	gery	Inje	ctions	Inje	Injections		done		pain		Imaging		tions	Surgical		Tot	al
Leeds	£	3,494,527	£	445,283	£	385,861	£	427,526	£	3,469,964	£	223,018	£	319,090	£	-	£	8,765,271
Hull & East Yorkshire	£	3,757,187	£	1,095,136	£	310,788	£	563,816	£	604,808	£	379,917	£	114,310	£	-	£	6,825,963
South Tees	£	3,120,368	£	559,358	£	143,915	£	390,246	£	434,835	£	255,056	£	273,110	£	-	£	5,176,888
York Teaching	£	34,949	£	287,295	£	153,608	£	372,311	£	206,529	£	131,407	£	126,277	£	-	£	1,312,376
Northern Lincolnshire & Goole	£	-	£	71,672	£	117,304	£	113,592	£	278,145	£	128,032	£	162,721	£	-	£	871,467
Harrogate & District	£	-	£	9,960	£	3,752	£	68,176	£	22,025	£	54,434	£	-	£	-	£	158,347
Total	£	10,407,032	£	2,468,705	£	1,115,229	£	1,935,668	£	5,016,306	£	1,171,864	£	995,509	£	-	£	23,110,313

#### What is the data telling us?

Across all NHS Trust providers used by the North Yorkshire & Humber CCGs in 2014/15 the total cost to commissioners for back and radicular pain admissions was over £23 million, with 79% of the costs attributed to elective activity. Note that these costs are by provider Trust and will include activity for CCGs outside of this region.

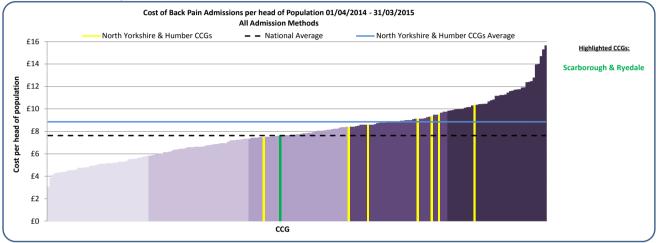
The surgery procedures group accounts for almost 45% of the total cost of all procedures, and the cost of injections is an additional 16% of the total.

## **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 Ad	miss	sions		Elective A	۱dm	nissions		Emergency	/ Adr	nissions	
													Registered
	Co	st per head			Cos	t per head			Cos	st per head			Population
Responsible CCG Name	of	of Population		Total Cost		of Population		Total Cost		Population	Tot	al Cost	(Ages 15+)
Vale Of York	£	7.46	£	2,234,390	£	5.78	£	1,730,485	£	1.60	£	479,360	299,572
Scarborough & Ryedale	£	7.61	£	769,531	£	6.31	£	638,148	£	1.09	£	110,431	101,117
North East Lincolnshire	£	8.40	£	1,173,558	£	7.07	£	987,945	£	1.12	£	156,949	139,736
Hambleton, Richmondshire & Whitby	£	8.59	£	1,044,238	£	6.89	£	837,629	£	1.70	£	206,609	121,613
Harrogate & Rural District	£	9.10	£	1,235,859	£	7.60	£	1,032,171	£	1.36	£	184,415	135,866
North Lincolnshire	£	9.34	£	1,326,912	£	7.53	£	1,070,176	£	1.58	£	224,989	142,074
Hull	£	9.49	£	2,264,813	£	7.23	£	1,725,677	£	2.19	£	521,823	238,629
East Riding Of Yorkshire	£	10.34	£	2,650,585	£	8.21	£	2,103,967	£	2.10	£	539,334	256,320
North Yorkshire & Humber Total	£	8.85	£	12,699,888	£	7.06	£	10,126,198	£	1.69	£	2,423,910	1,434,927

## b. All Admission Methods - Quintile Chart



## c. Elective Admissions only, by Procedure Type

			Radi	cular pain	Back pain No proce		Procedure not lo procedure linked to back				Pain Management excluding		Other Non-		1	Fotal Cost		
Responsible CCG Name	Surg	ery	Injec	tions	Injections		done	pain		Imaging		Inje	ctions	Surgica	ıl			
East Riding Of Yorkshire	£	876,014	£	483,175	£	201,114	£	17,534	£	295,841	£	15,610	£	214,679	£	-	£	2,103,967
Vale Of York	£	903,541	£	300,748	£	139,347	£	14,444	£	293,756	£	5,474	£	73,176	£	-	£	1,730,485
Hull	£	753,072	£	435,394	£	152,847	£	23,750	£	138,288	£	11,382	£	210,051	£	893	£	1,725,677
North Lincolnshire	£	460,046	£	154,421	£	123,545	£	7,232	£	199,141	£	9,369	£	116,424	£	-	£	1,070,176
Harrogate & Rural District	£	703,772	£	29,375	£	22,209	£	-	£	247,997	£	716	£	28,101	£	-	£	1,032,171
North East Lincolnshire	£	530,786	£	217,151	£	58,600	£	2,160	£	124,279	£	7,373	£	47,596	£	-	£	987,945
Hambleton, Richmondshire & Whitby	£	620,894	£	83,870	£	30,494	£	2,630	£	71,086	£	2,878	£	25,777	£	-	£	837,629
Scarborough & Ryedale	£	414,172	£	80,626	£	32,037	£	1,868	£	86,190	£	2,958	£	20,298	£	-	£	638,148

#### What is the data telling us?

There is wide variation across the CCGs in North Yorkshire and Humber in cost per head of population for admissions related to back and radicular pain.

East Riding of Yorkshire CCG has the highest spend per head of population regionally (£10.34) driven mainly by high costs for elective admissions which is a reflection having the second highest elective admission rates regionally. Vale of York CCG has the lowest costs per head for both emergency and elective admissions regionally (£7.46) but this is just above the national average.

The final table shows the total spend for elective admissions for each CCG for 2014/15 (based on national tariff) and includes a breakdown of this spend by procedure type. Surgery generally accounts for the majority of spend and we observe this consistently across all CCGs in the region. It is notable that Harrogate & Rural District CCG spend just over £50,000 on injections which is not only the lowest spend nationally but also the only CCG to spend less than £100,000.

## 14. Back & Radicular Pain Admissions Breakdown for the North Yorkshire & Humber Region

Highlighted Provider Data is included in this report (Blue=NHS Trust & Green=Independent Sector Provider)

C	Purcela e Manua		tive Admissi		Emergency	Other Admission	<b>-</b>
Code RWA	Provider Name HULL AND EAST YORKSHIRE HOSPITALS NHS TRUST	Surgery 655	Injections	Other 535	Admissions	Types 27	Total
RCB	YORK TEACHING HOSPITAL NHS FOUNDATION TRUST	9	2,197 704	759	615 420	27	4,029 1,914
RUL	NORTHERN LINCOLNSHIRE AND GOOLE NHS FOUNDATION TRUST	-	384	816	178	<6	1,314
NT351	SPIRE HULL AND EAST RIDING HOSPITAL	<6	356	551	-	-	911
RTR	SOUTH TEES HOSPITALS NHS FOUNDATION TRUST	179	180	67	113	-	539
RR8	LEEDS TEACHING HOSPITALS NHS TRUST	52	55	60	28	<6	199
NT447	BMI THE DUCHY HOSPITAL	140	-	17	-	-	157
RCD	HARROGATE AND DISTRICT NHS FOUNDATION TRUST	-	12	8	102	<6	123
NTE02 RVW	ST HUGH'S HOSPITAL NORTH TEES AND HARTLEPOOL NHS FOUNDATION TRUST	- 24	94 65	23 <6	- <6	-	117 97
RP5	DONCASTER AND BASSETLAW HOSPITALS NHS FOUNDATION TRUST	<6	59	15	12	_	88
NY601	PAIN MANAGEMENT SOLUTIONS - OAKS PARK PCC	-	34	28		-	62
RX1	NOTTINGHAM UNIVERSITY HOSPITALS NHS TRUST	<6	20	6	<6	<6	31
RXF	MID YORKSHIRE HOSPITALS NHS TRUST	<6	18	<6	<6	<6	28
NT457	BMI WOODLANDS HOSPITAL	<6	19	<6	-	-	28
RHQ	SHEFFIELD TEACHING HOSPITALS NHS FOUNDATION TRUST	11	<6	8	-	-	23
RWD	UNITED LINCOLNSHIRE HOSPITALS NHS TRUST	-	12	<6	-	-	15
NV313 RXP	CIRCLE - NOTTINGHAM NHS TREATMENT CENTRE COUNTY DURHAM AND DARLINGTON NHS FOUNDATION TRUST	-	12 <6	<6	- 7	-	14 9
NVC20	THE YORKSHIRE CLINIC	-	 9	-	- '	-	9
NYW04	ASPEN - CLAREMONT HOSPITAL	6	<6	-	-	-	9
RV9	HUMBER NHS FOUNDATION TRUST	-	-	8	-	-	8
NT350	SPIRE METHLEY PARK HOSPITAL	-	7	<6	-	-	8
NVC14	PARK HILL HOSPITAL	<6	<6	<6	-	-	7
RW6	PENNINE ACUTE HOSPITALS NHS TRUST	-	6	-	-	-	6
RJ1	GUY'S AND ST THOMAS' NHS FOUNDATION TRUST	<6	<6	<6	-	-	<6
RTD	THE NEWCASTLE UPON TYNE HOSPITALS NHS FOUNDATION TRUST	<6	<6	<6	<6	-	<6
RAE RNL	BRADFORD TEACHING HOSPITALS NHS FOUNDATION TRUST NORTH CUMBRIA UNIVERSITY HOSPITALS NHS TRUST	-	<6	-	-	-	<6 <6
NTX01	ONE HEALTH GROUP LTD	- <6	<6 <6	- <6	<6	-	<6
R1H	BARTS HEALTH NHS TRUST	-	<6	-	-	-	<6
RCF	AIREDALE NHS FOUNDATION TRUST				<6	-	<6
RF4	BARKING, HAVERING AND REDBRIDGE UNIVERSITY HOSPITALS NHS TRUST	-	<6	<6	-	-	<6
RFS	CHESTERFIELD ROYAL HOSPITAL NHS FOUNDATION TRUST				<6	-	<6
RK5	SHERWOOD FOREST HOSPITALS NHS FOUNDATION TRUST	-	<6	-	<6	-	<6
RMP	TAMESIDE HOSPITAL NHS FOUNDATION TRUST	-	<6	-	-	-	<6
RRV	UNIVERSITY COLLEGE LONDON HOSPITALS NHS FOUNDATION TRUST	-	-	<6	-	-	<6
RTF RTX	NORTHUMBRIA HEALTHCARE NHS FOUNDATION TRUST UNIVERSITY HOSPITALS OF MORECAMBE BAY NHS FOUNDATION TRUST	-	<6	-	<6	-	<6 <6
RVV	EAST KENT HOSPITALS OF MORECAWIBE BAT WITS FOUNDATION TRUST	- <6	- <6	<6	<6	-	<6
RWY	CALDERDALE AND HUDDERSFIELD NHS FOUNDATION TRUST	-	<0 <6	_	-	_	<6
RXK	SANDWELL AND WEST BIRMINGHAM HOSPITALS NHS TRUST	-	<6	-	-	-	<6
NEY01	PIONEER HEALTHCARE LTD - CLAREMONT HOSPITAL	<6	-	-	-	-	<6
NVC09	NEW HALL HOSPITAL	<6	<6	-	-	-	<6
AAH	#N/A	-	<6	-	-	-	<6
RA2	ROYAL SURREY COUNTY HOSPITAL NHS FOUNDATION TRUST				<6	-	<6
RAJ	SOUTHEND UNIVERSITY HOSPITAL NHS FOUNDATION TRUST				<6	-	<6
RAN RAS	ROYAL NATIONAL ORTHOPAEDIC HOSPITAL NHS TRUST THE HILLINGDON HOSPITALS NHS FOUNDATION TRUST	-	<6	-	-	-	<6 <6
RDD	BASILDON AND THURROCK UNIVERSITY HOSPITALS NHS FOUNDATION TRUST	-	<6 <6	-	-	-	<6
RDU	FRIMLEY HEALTH NHS FOUNDATION TRUST				<6	-	<6
RDZ	THE ROYAL BOURNEMOUTH AND CHRISTCHURCH HOSPITALS NHS FOUNDATION TRUST				<6	-	<6
REF	ROYAL CORNWALL HOSPITALS NHS TRUST				<6	-	<6
REM	AINTREE UNIVERSITY HOSPITAL NHS FOUNDATION TRUST				<6	-	<6
RGN	PETERBOROUGH AND STAMFORD HOSPITALS NHS FOUNDATION TRUST				<6	-	<6
RJE	UNIVERSITY HOSPITALS OF NORTH MIDLANDS NHS TRUST				<6	-	<6
RK9 RLN	PLYMOUTH HOSPITALS NHS TRUST				<6	-	<6
RLN RM2	CITY HOSPITALS SUNDERLAND NHS FOUNDATION TRUST UNIVERSITY HOSPITAL OF SOUTH MANCHESTER NHS FOUNDATION TRUST	_	<6	_	<6		<6 <6
RM3	SALFORD ROYAL NHS FOUNDATION TRUST		<0 <6	-	-	_	<6
RQ6	ROYAL LIVERPOOL AND BROADGREEN UNIVERSITY HOSPITALS NHS TRUST	-	~0	-	- <6	-	<6
RRJ	THE ROYAL ORTHOPAEDIC HOSPITAL NHS FOUNDATION TRUST	-	<6	-	-	-	<6
RRK	UNIVERSITY HOSPITALS BIRMINGHAM NHS FOUNDATION TRUST	-	-	<6	-	-	<6
RTE	GLOUCESTERSHIRE HOSPITALS NHS FOUNDATION TRUST				<6	-	<6
RTG	DERBY TEACHING HOSPITALS NHS FOUNDATION TRUST				<6	-	<6
RVJ	NORTH BRISTOL NHS TRUST	<6	-	-		-	<6
RWE RWH	UNIVERSITY HOSPITALS OF LEICESTER NHS TRUST				<6	-	<6
RWH RWW	EAST AND NORTH HERTFORDSHIRE NHS TRUST WARRINGTON AND HALTON HOSPITALS NHS FOUNDATION TRUST		<6	- <6	-		<6 <6
RXL	BLACKPOOL TEACHING HOSPITALS NHS FOUNDATION TRUST	-	-	~0	- <6	_	<6
RXN	LANCASHIRE TEACHING HOSPITALS MISTOUNDATION TRUST	<6	-	-	-	-	<6
RY8	DERBYSHIRE COMMUNITY HEALTH SERVICES NHS TRUST	.0			-	<6	<6
RYJ	IMPERIAL COLLEGE HEALTHCARE NHS TRUST	-	<6	-	-	-	<6
NT333	SPIRE WASHINGTON HOSPITAL	-	<6	-	-	-	<6
NT418	BMI - THE HAMPSHIRE CLINIC	-	<6	-	-	-	<6
NT497	BMI GISBURNE PARK HOSPITAL	-	<6	-	-	-	<6
NTP13 NVC40	BARLBOROUGH NHS TREATMENT CENTRE	-	-	<6	-	-	<6
	NOTTINGHAM WOODTHORPE HOSPITAL	<6	-	-	-	-	<6

DOCUMENT GOVERNANCE				
Document name	Back Pain Report			
Document type	Final			
Version	0.6			
Date	29/06/2016			
Document Classification	Confidential			
Prepared on behalf of	GIRFT			
Created by	Adam Fearing, Andrea Brown & Liz Lingard			
Approved by Epidemiologist	Liz Lingard			
Approved by Project Director	Helen Ridley			
Peer Reviewed by (if appropriate)				
Originating organisation	NEQOS			
Website of originating organisation	www.neqos.nhs.uk -			
	Please contact the NEQOS advisory service through this web link for further			
	information or to enquire about NEQOS undertaking similar work.			
Contact email address	negos@nhs.net			
Public file location	N/A			
Internal file location	G:\Project Management\Project Mgt 15-16\Back Pain			

	VERSION CONTROL							
Version	Document Type	e Date Amendments		Ву				
0.1	First Draft	10/03/2016		Adam Fearing, Liz Lingard				
0.2	Draft V2	15/03/2016	Amendments & Final QA	Adam Fearing, Kayoung Goffe				
0.3	Draft V3	15/04/2016	Further minor amendments	Adam Fearing, Kayoung Goffe				
0.4	Draft V4	03/05/2016	Further minor amendments	Adam Fearing				
0.5	Draft V5	11/05/2016	Further minor amendments	Adam Fearing				
0.6	Draft V6	29/06/2016	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?				