

## North East Quality Observatory Service



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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 North East London 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 East London Region are:

- Royal National Orthopaedic Hospital NHS Trust
- North Middlesex University Hospital NHS Trust
- The Whittington Hospital NHS Trust
- Royal Free London NHS Foundation Trust
- University College London Hospitals NHS Foundation Trust
- Homerton University Hospital NHS Foundation Trust
- Barts Health NHS Trust
- Barking, Havering & Redbridge University Hospitals NHS Trust

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

- BMI The Kings Oak
- Hospital Spire Roding Hospital
- BMI The London Independent Hospital

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

Total

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 East					
North East London CCGs	Back	Radicular	Total	% Back	% Radicular
	Back 7,517	Radicular 5,255	Total 12,772	% Back 58.9%	% Radicular 41.1%
London CCGs					

6.084

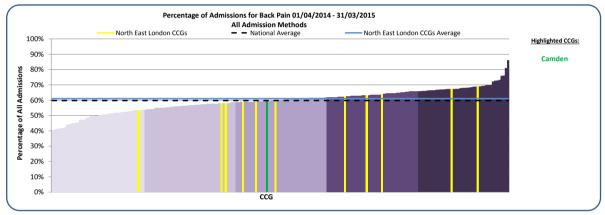
#### b. Hospital admissions at CCG level, indicating proportion of admissions for back pain Table indicates the proportion of admissions for back pain only (and not radicular pain)

9.514

Haringey	53.5%	Enfield	60.0%
Waltham Forest	57.9%	Havering	62.6%
Redbridge	58.0%	Barking & Dagenham	63.3%
Barnet	58.9%	Tower Hamlets	64.0%
Islington	59.1%	City & Hackney	67.4%
Camden	59.4%	Newham	69.0%
North East London CCGs	61.0%	England	59.8%

15.598

61.0%

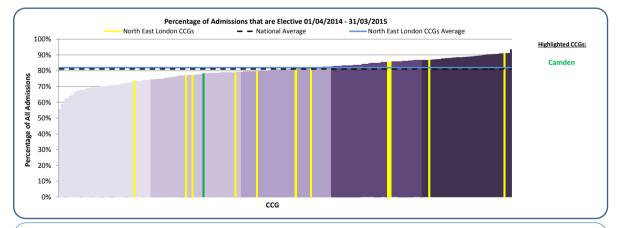


39.0%

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

City & Hackney	73.4%	Tower Hamlets	81.3%
Newham	77.1%	Barnet	82.0%
Waltham Forest	77.3%	Redbridge	85.6%
Camden	78.1%	Enfield	85.6%
Islington	79.2%	Barking & Dagenham	86.9%
Haringey	79.7%	Havering	91.2%
North East London CCGs	81.9%	England	81.1%



#### 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 15,598 (5.3%) of these for patients registered within the North East London 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 North east London the proportion of admissions for back pain ranges from 53% to 69%.

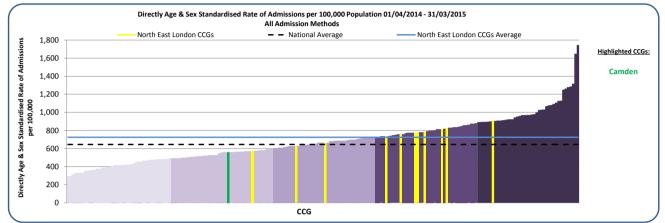
Nationally, approximately 81% of back and radicular pain admissions are elective, and the North East London CCGs have a slightly higher proportion (82%). At a CCG level in North East London, the proportion of elective admissions for these populations ranges from 73% in City & Hackney to 91% in Havering.

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

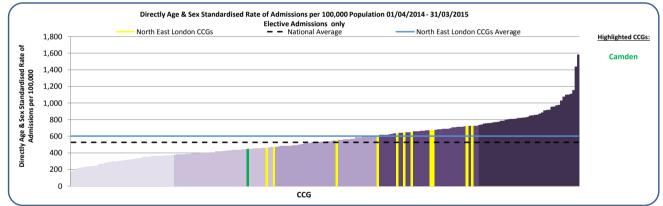
a. Hospital admissions for back pain	by CCG (all admission methods), Direc	ctly Age & Sex Standardised Admission	rate per 100,000 population
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CCG name	All	Elective	Emergency	CCG name	All	Elective	Emergency
Islington	905.3	720.4	180.6	Redbridge	757.0	655.6	99.7
Barking & Dagenham	825.0	722.7	101.4	Havering	736.6	672.8	63.3
Waltham Forest	815.9	637.7	174.2	Barnet	664.0	552.7	108.9
Newham	785.7	612.1	170.8	City & Hackney	625.1	473.9	149.7
Tower Hamlets	778.0	645.7	127.5	Haringey	574.9	461.7	112.9
Enfield	777.6	669.5	105.0	Camden	560.1	446.2	111.0
North East London CCGs	724.9	601.9	120.8	England	645.6	526.5	115.4

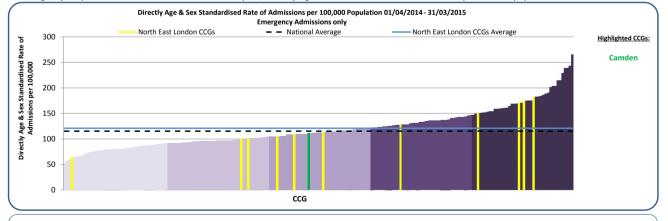
b. Hospital admissions for back and radicular pain (all admission methods), Directly Age & Sex Standardised Admission rate per 100,000 population



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?

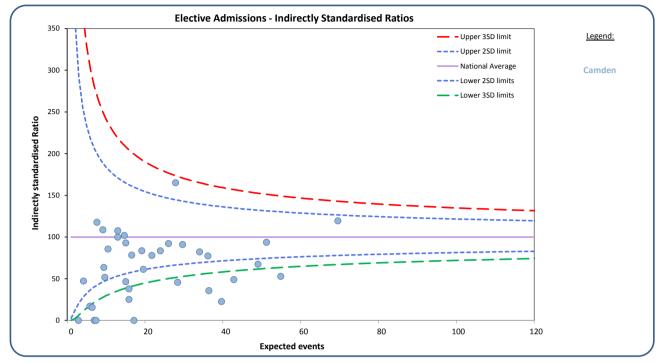
There is variation in elective admission rates across the CCGs within North East London between the regional lowest (Camden CCG) and the highest CCG for the region (Barking & Dagenham CCG).

For emergency admissions there is much wider variation across the CCGs in the region, ranging from the regional lowest (Havering CCG) to the highest in the region (Islington CCG).

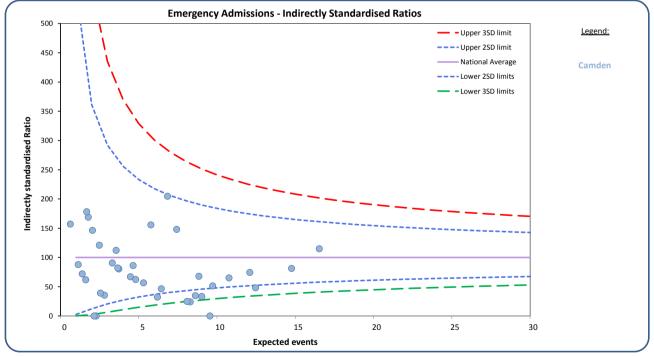
## Clinical Commissioning Group (CCG) activity - GP practice level

**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 Camden



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.

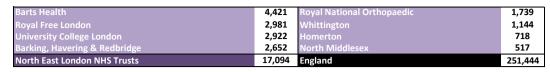
The upper and lower confidence limits on the funnel charts above are based on national data. Each circle represents the constituent GP Practices for the selected CCG(s). All GP practices within the funnel have admission rates that are not significantly different that the national rates with those above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

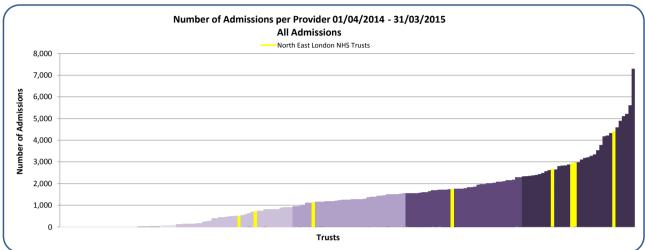
# 4. Indirectly Standardised Ratios for Elective & Emergency Admissions for Back & Radicular Pain, by GP Practice *Camden*

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.

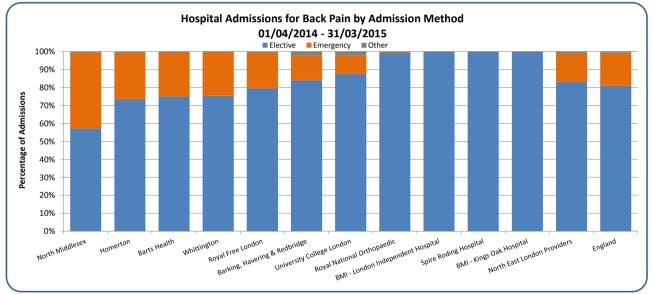
·					Elective		Emergency				
Practice Code	Practice Name	CCG	Population 15+	Observed	Expected	Ratio	Observed	Expected	Ratio		
F83003	Park End Surgery	07R	5,257	13	28.41	45.76	<6	6.20	32.28		
F83005	Gower Street Practice	07R	8,687	6	15.87	37.81	<6	6.45	46.53		
F83006	Ampthill Practice	07R	7,336	27	29.66	91.03	11	7.43	148.12		
F83011	Primrose Hill Surgery	07R	5,209	24	26.04	92.16	9	5.78	155.80		
F83017	Hampstead Group Practice	07R	11,856	33	49.03	67.31	6	12.47	48.11		
F83018	Prince Of Wales Group Surgery	07R	6,685	46	27.86	165.11	14	6.84	204.73		
F83019	Abbey Medical Centre	07R	8,279	28	36.19	77.38	6	8.85	67.81		
F83020	Adelaide Medical Centre	07R	10,055	21	42.83	49.03	7	10.77	65.00		
F83022	Caversham Group Practice	07R	11,995	48	51.21	93.73	9	12.10	74.37		
F83023	James Wigg Practice	07R	16,565	83	69.55	119.34	19	16.53	114.91		
F83025	The Regents Park Practice	07R	4,416	16	19.16	83.49	<6	4.64	86.18		
F83030	Four Trees Surgery	07R	1,720	9	7.64	117.76	<6	1.78	168.76		
F83040	Bedford Square Medical Centre	07R	327	7	1.72	407.60	<6	0.39	515.19		
F83042	Gray's Inn Road Medical Centre	07R	3,409	14	13.02	107.54	<6	3.31	90.53		
F83043	Gower Place Practice	07R	15,150	<6	15.91	25.15		9.55			
F83044	The Bloomsbury Surgery	07R	3,714	15	14.70	102.02	<6	3.73	80.44		
F83048	Brunswick Medical Centre Uhpc	07R	4,765	13	16.58	78.42	<6	4.47	67.14		
F83049	West End Lane Medical Practice	07R	1,235	<6	5.84	17.12	<6	1.39	71.92		
F83050	Fortune Green Road Surgery	07R	2,214	<6	9.67	51.69		2.28			
F83052	Brookfield Park Surgery	07R	2,612	13	13.01	99.90	<6	2.81	35.58		
F83055	West Hampstead Medical Centre	07R	8,590	28	34.04	82.26	<6	8.62	34.82		
F83057	Parliament Hill Surgery	07R	5,298	17	21.79	78.02	<6	5.31	56.53		
F83058	Holborn Medical Centre	07R	10,372	20	23.95	83.52	<6	8.29	24.13		
F83059	Brondesbury Medical Centre	07R	15,181	29	54.89	52.83	12	14.77	81.27		
F83061	Museum Practice	07R	3,581	7	15.07	46.46	<6	3.66	81.94		
F83602	Westfield Medical Centre	07R	1,183	<6	4.23	47.32	<6	1.14	87.75		
F83615	Chomley Gardens Surgery	07R	4,513	12	19.58	61.27	<6	4.81	62.37		
F83623	Keats Group Practice	07R	8,088	9	39.67	22.69	<6	9.03	33.23		
F83632	Queens Crescent Practice	07R	2,764	10	9.20	108.66	<6	2.55	39.14		
F83633	Daleham Gardens Health Centre	07R	1,914	6	9.44	63.53		2.15			
F83635	Kings Cross Road Practice	07R	2,297		6.98		<6	2.05	146.38		
F83658	Belsize Priory Medical Practice (Group)	07R	3,442	14	15.06	92.99	<6	3.56	112.24		
F83665	Swiss Cottage Surgery	07R	9,832	13	36.40	35.71	<6	9.73	51.40		
F83672	St Philips Medical Centre	07R	10,806		17.16		<6	8.09	24.73		
F83677	Prince Of Wales Road Practice (Single)	07R	1,664	<6	6.44	15.52	<6	1.68	178.23		
F83682	Rosslyn Hill Surgery	07R	1,552		7.42		<6	1.62	61.87		
F83683	Somers Town Medical Centre	07R	2,515	9	10.50	85.69	<6	2.48	120.84		
Y02674	Camden Health Improvement Practice	07R	631		2.88		<6	0.64	157.09		

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 East London Providers only)



## 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. Four of the eight NHS Trusts are in the highest quintile nationally with Barts Health Trust having the highest activity in this region.

The proportion of hospital activity for back pain which is classed as elective care for North East London is slightly higher than the England proportion. However at NHS Trust level the proportion varies between 57% at North Middlesex Trust to 99% at Royal National Orthopaedic 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 East London Providers only)

	Pain						
	Management &	Trauma &	Spinal Surgery	Interventional			
Provider Name	Anaesthetics	Orthopaedics	Service	Radiology	Neurosurgery	Other Functions	Total
Royal National Orthopaedic	604	24	1,037	-	-	63	1,728
North Middlesex	247	<6	-	-	-	44	291
Whittington	370	488	-	-	-	6	864
Royal Free London	1,196	1,002	-	-	-	176	2,374
University College London	828	<6	-	787	891	55	2,561
Homerton	521	-	-	-	-	7	528
Barts Health	1,742	1,289	-	8	258	21	3,318
Barking, Havering & Redbridge	1,967	<6	-	-	246	16	2,229
BMI - Kings Oak Hospital	464	95	-	-	-	<6	559
Spire Roding Hospital	415	65	-	-	175	-	655
BMI - London Independent Hospital	157	335	-	-	297	<6	789
Total	8,511	3,298	1,037	795	1,867	388	15,896

## 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?

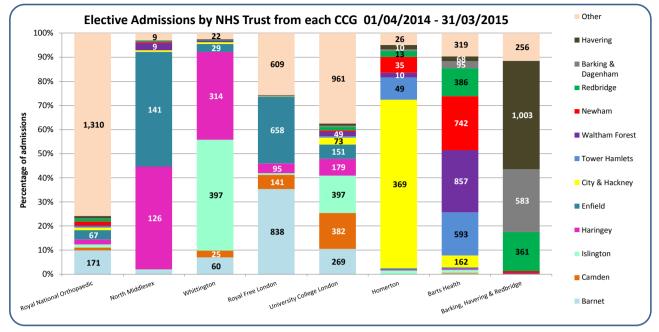
For elective activity the treatment specialty code indicated within the hospital data varies by hospital trust. Overall the most common specialties are Trauma and Orthopaedics and Pain Management/Anaesthetics, however for Royal National Orthopaedic Trust the highest volume of activity is recorded within Spinal Surgery Service. University College London Trust has the highest activity for Neurosurgery with very few admissions to Trauma & Orthopaedics.

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.

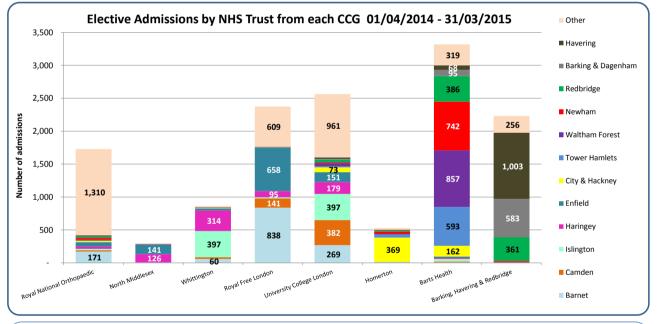
## Hospital Trust activity from CCGs

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?

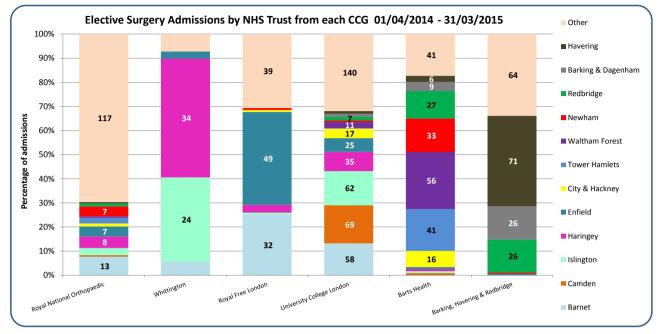
There is variation between hospital trusts in terms of the number of patients from each of the CCGs that are admitted for back and radicular pain.

Most providers admits patients from several different CCGs across the region compared to the Homerton Trust which predominantly admit patients from City & Hackney CCG where it is located. Royal National Orthopaedic Trust is located just outside of the North East London region and therefore the majority of their patients are admitted from CCGs outside of this region.

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

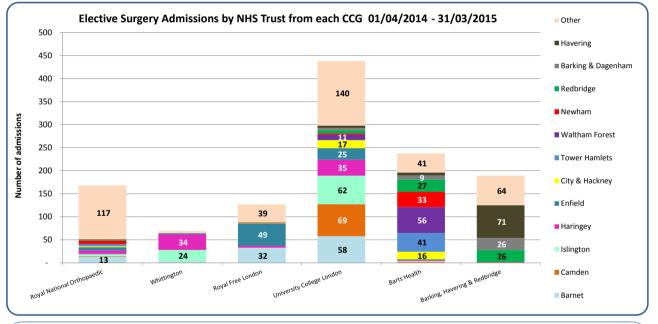
## Hospital Trust activity from CCGs

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?

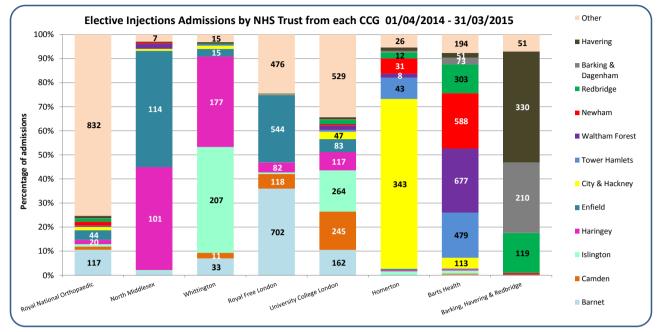
There is variation between hospital trusts in terms of the number of patients from each of the CCGs that are admitted for spinal surgery for back and radicular pain.

Most providers admits patients from several different CCGs across the region as well as from CCGs outside of the North East London region compared to the Whittington Trust which predominantly admit patients from Islington and Haringey CCGs. University College London has the highest number of admissions. Royal National Orthopaedic Trust is located just outside of the North East London region and therefore the majority of their patients are admitted from CCGs outside of this region.

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

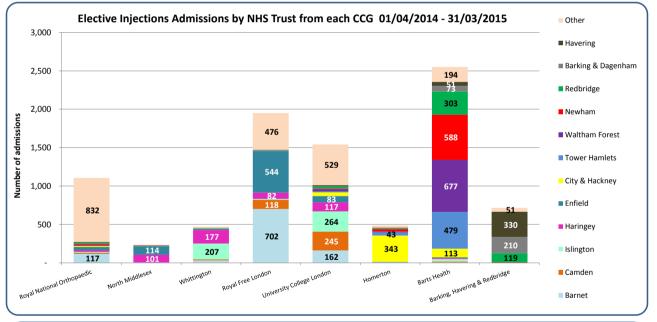
## Hospital Trust activity from CCGs

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)



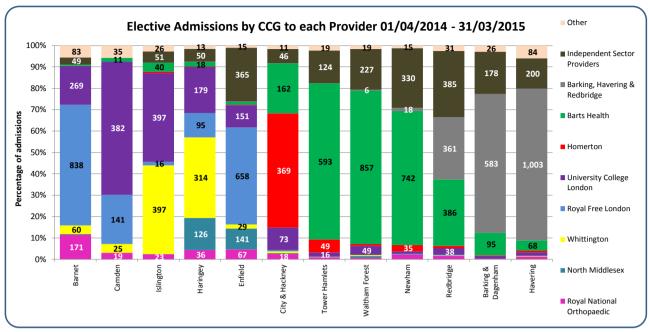
#### What is the data telling us?

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.

Most providers admit patients from several different CCGs across the region compared to the Homerton Trust which predominantly admit patients from City & Hackney CCG where it is located. Barts Health has the highest number of admissions for injections in the region. Royal National Orthopaedic Trust is located just outside of the North East London region and therefore the majority of their patients are admitted from CCGs outside of this region.

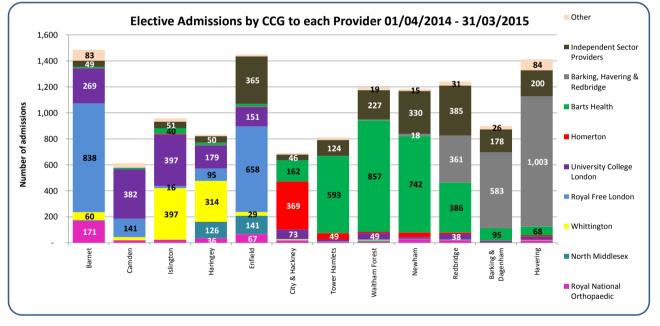
The data is shown in two ways, indicating both the proportion and number of admissions relating to each CCG.

## **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?

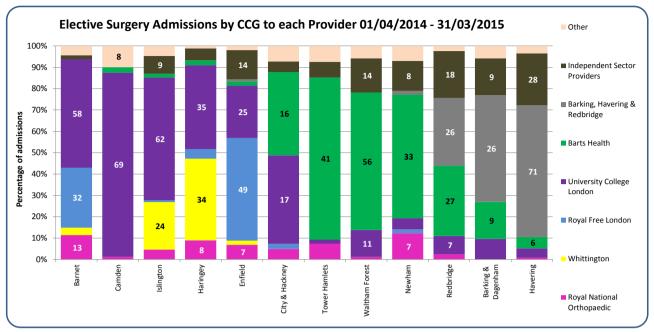
There is variation between CCGs in terms of the number of hospital trusts to which their patients are admitted.

Activity is highest for Barnet, Enfield and Havering CCGs. Patients from these CCGs were admitted to at least three NHS Trusts and also used Independent Sector Providers (particularly Enfield).

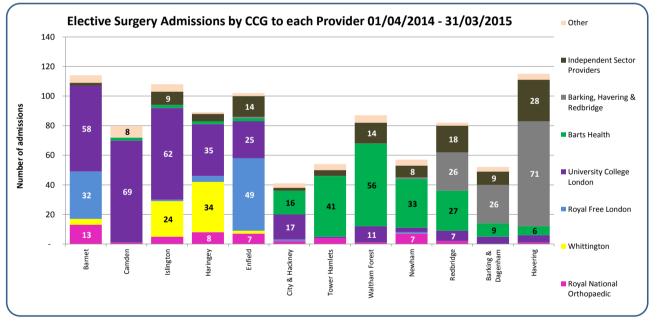
Redbridge and Newham CCGs had the highest proportion of admissions to Independent Sector Providers in North East London. The data is shown in two ways, indicating both the proportion and amount of activity relating to each hospital trust.

## **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?

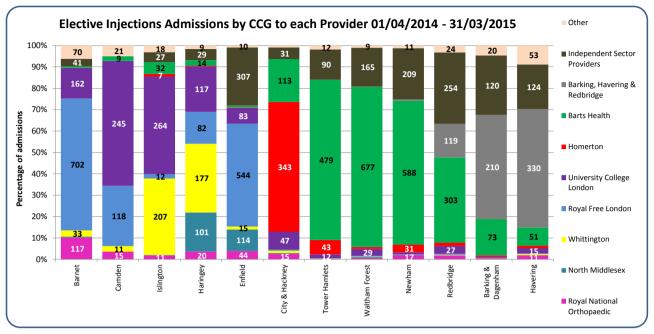
There is variation between CCGs in terms of the number of hospital trusts to which their patients are admitted for spinal surgery. Activity is highest for Barnet, Enfield and Havering CCGs. Patients from these CCGs were admitted to at least three NHS Trusts and also used

Independent Sector Providers.

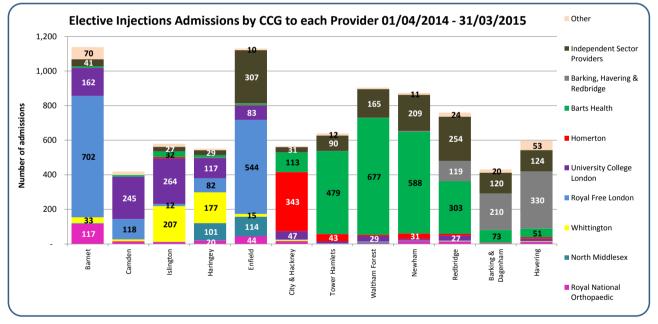
Redbridge and Havering CCGs had the highest proportion of admissions to Independent Sector Providers in North East London. The data is shown in two ways, indicating both the proportion and amount of activity relating to each hospital trust.

## **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?

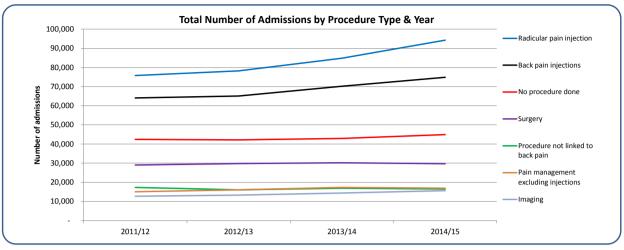
There is variation between CCGs in terms of the number of hospital trusts to which their patients are admitted for injections.

Activity is highest for Barnet and Enfield CCGs. Patients from these CCGs were admitted to at least four NHS Trusts and also used Independent Sector Providers (particularly Enfield).

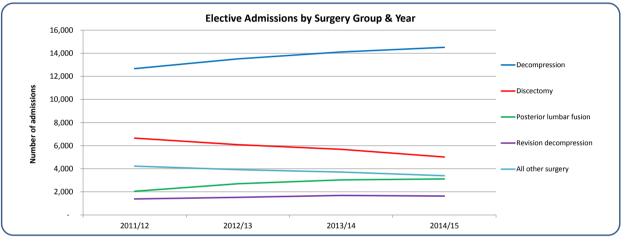
Redbridge CCG had the highest proportion of admissions to Independent Sector Providers in North East London region. The data is shown in two ways, indicating both the proportion and amount of activity relating to each hospital trust.

#### Hospital Trust activity (national level)

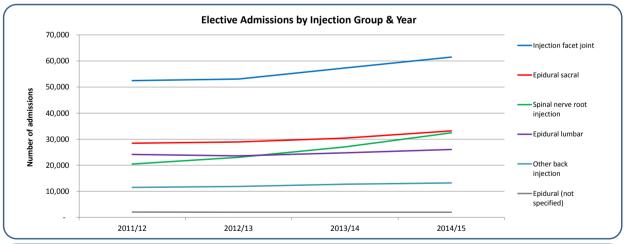
8. Hospital admissions for low back and radicular pain in people aged 16 years and over (1st April 2011 - 31st March 2015) a. Hospital admissions by procedure type over time (all admission types)



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.

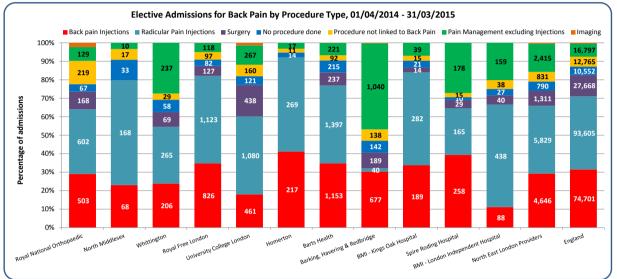
The main procedure type relating to elective admissions are for back and radicular pain injections which has increased from a combined total of just under 140,000 to 170,000 episodes over the four year period. This is in stark contrast to number of admissions related to surgery which has remained relatively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

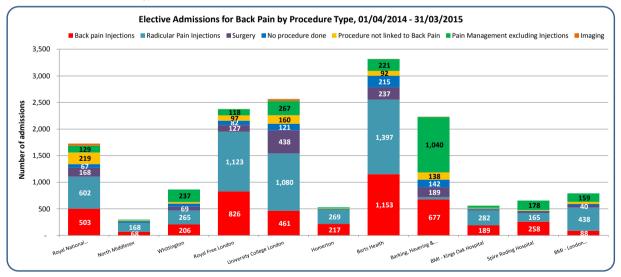
9. Elective hospital admissions for low back and radicular pain in people aged 16 years and over (April 2014 - March 2015) a. Elective hospital admissions by procedure type (national level including all providers)

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	7.1%
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) (North East London Providers only)



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



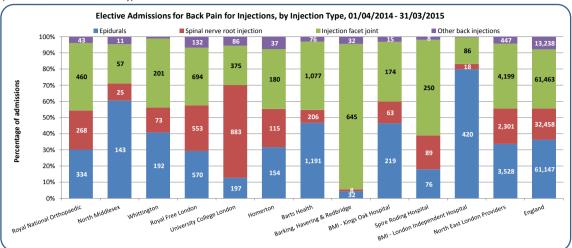
#### What is the data telling us?

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. Barking, Havering & Redbridge Trust also have a notably high proportion (47%) of admissions for pain management procedures other than injections.

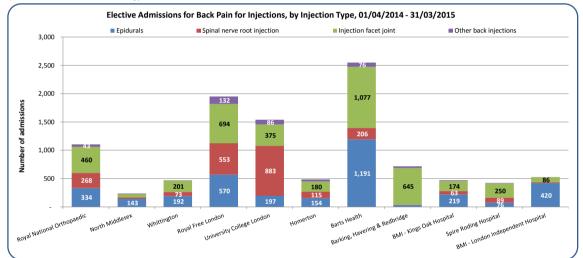
Four of the North East London NHS Trusts have a higher proportion of elective activity for injections than the England rate (approx. 70%) and it is possible that the variation may be even greater due to differences in the point of delivery of care across hospital Trusts (for example it is possible that 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.

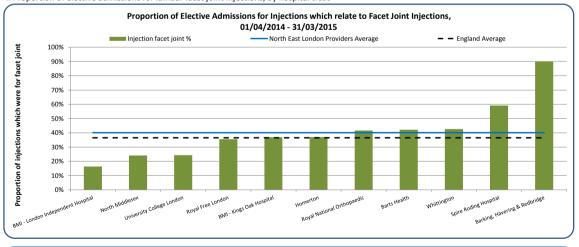
9. Elective hospital admissions for low back and radicular pain in people aged 16 years and over (April 2014 - March 2015) d. Number of elective admissions for injections per hospital Trust, by injection type (percentage of activity) (North East London Providers only)



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



f. Proportion of elective admissions for lumbar facet joint injections, by hospital trust

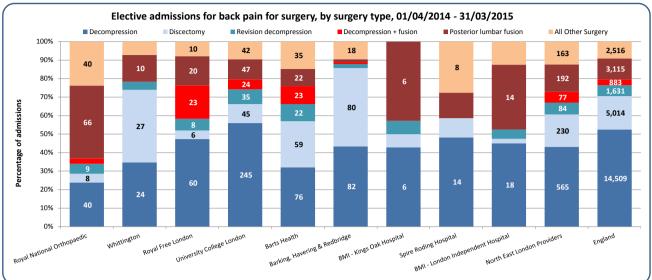


#### What is the data telling us?

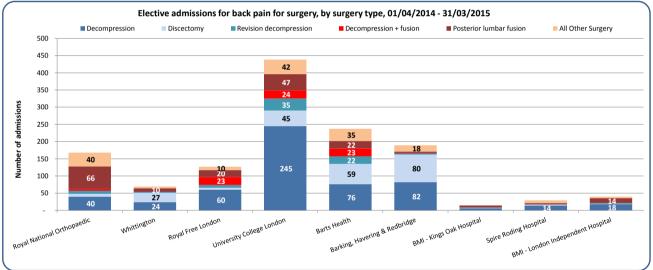
Facet joint injections are those most frequently done within North East London, constituting over 40% of injection activity which is higher than the England proportion (37%). North East London providers overall also do higher rates of spinal nerve root injections (22%) compared to the England proportion (19%). The data is shown in two ways, indicating both the proportion of overall activity and number of episodes for each provider.

Barts Health Trust does a markedly higher number of injections (mostly facet joint injections and epidurals) compared to all of the other providers. The proportion of facet joint injections done at NHS Trust level ranges from 24% (North Middlesex Trust) to 90% (Barking, Havering & Redbridge) 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 East London Providers only)



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



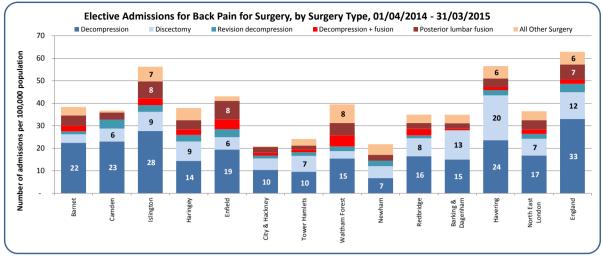
#### What is the data telling us?

The charts above show the range in activity relating specifically to elective admissions for surgery, by type of surgery, for the North East London Providers. These providers overall do a lower proportion of decompressions and higher proportion of fusions compared to the England profile. There are variations at Trust with the highest proportion of fusions at Royal National Orthopaedic Hospital compared to Barking, Havering & Redbridge Trust were few fusions are undertaken and almost equal numbers of discectomies and decompressions are done.

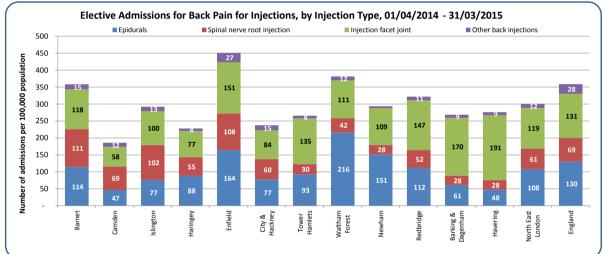
The data is shown in two ways, indicating both the proportion and amount of activity relating to each surgery type.

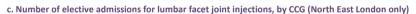
#### CCG activity by back pain procedure group

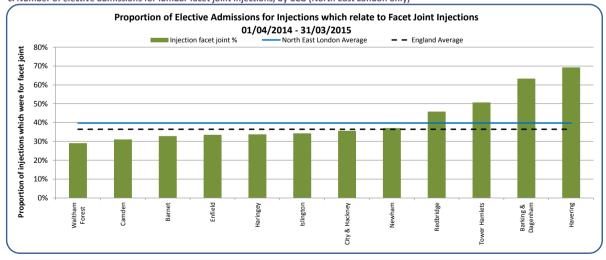
10. Elective hospital admissions for low back and radicular pain in people aged 16 years and over (April 2014 - March 2015) a. Number of elective admissions for surgery per CCG, by surgery type (North East London only)



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







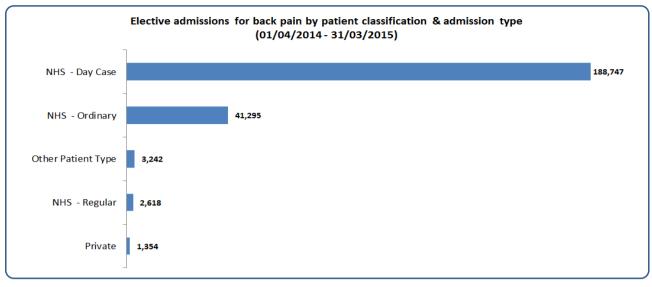
#### What is the data telling us?

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

Overall North East London CCGs have lower rates per 100,000 of both spinal surgery and injections compare to the England rates. Islington and Havering CCGs have the highest rates of surgery and Enfield CCG has the highest rates of injections.

The proportion of facet joint injections done at CCG level ranges from 29% (Waltham Forest) to 69% (Havering) 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

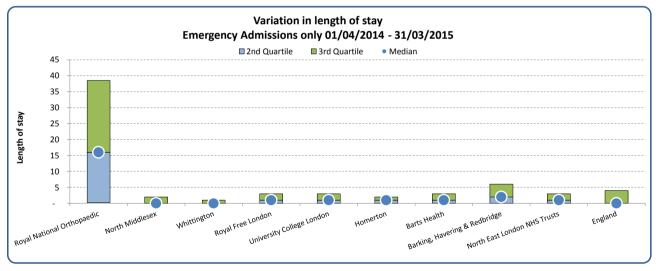


Other Patient Types are Amenity patients and Category II patients, and where the Administrative Category is unknown.

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 East London 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 London Trusts and shows that the Royal National Orthopaedic Trusts has a significantly higher median length of stay (16 days), compared to the other North East London Trusts and 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 East London FTs only)

Provider Name	Ele	ctive	Em	ergency	Othe	r	Tot	al
Barts Health	£	3,963,687	£	1,392,167	£	67,321	£	5,423,176
University College London	£	3,635,863	£	344,613	£	223,569	£	4,204,046
Royal National Orthopaedic	£	3,766,055	£	59,977	£	-	£	3,826,032
Barking, Havering & Redbridge	£	2,313,775	£	614,920	£	153,931	£	3,082,626
Royal Free London	£	2,021,281	£	763,347	£	15,272	£	2,799,899
Whittington	£	860,494	£	272,791	£	-	£	1,133,284
Homerton	£	371,318	£	194,186	£	2,608	£	568,112
North Middlesex	£	207,464	£	268,241	£	2,796	£	478,501
Total	£	17,139,936	£	3,910,241	£	465,497	£	21,515,675

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

													Pain	1				
									Procedure not				Management					
			Rad	icular pain	Back	k pain	Nop	rocedure	link	ed to back			excl	uding	Other N	on-		
Provider Name	Sur	gery	Inje	ctions	Inje	ctions	don	e	pai	n	Ima	ging	Inje	ctions	Surgical		Tot	al
Barts Health	£	1,620,193	£	1,136,519	£	855,912	£	687,773	£	420,737	£	379,851	£	322,190	£	-	£	5,423,176
University College London	£	1,931,273	£	827,455	£	322,327	£	151,486	£	533,246	£	221,754	£	216,504	£	-	£	4,204,046
Royal National Orthopaedic	£	1,387,032	£	467,106	£	350,889	£	7,943	£	1,473,977	£	38,358	£	96,872	£	3,855	£	3,826,032
Barking, Havering & Redbridge	£	1,036,938	£	35,086	£	470,209	£	276,539	£	432,458	£	218,990	£	612,406	£	-	£	3,082,626
Royal Free London	£	668,955	£	757,761	£	489,819	£	346,433	£	234,198	£	225,858	£	76,874	£	-	£	2,799,899
Whittington	£	406,969	£	206,659	£	145,503	£	145,739	£	74,946	£	90,301	£	63,167	£	-	£	1,133,284
Homerton	£	-	£	197,138	£	136,921	£	159,327	£	15,738	£	46,612	£	12,376	£	-	£	568,112
North Middlesex	£	-	£	133,496	£	54,901	£	199,766	£	34,446	£	49,878	£	6,013	£	-	£	478,501
Total	£	7,051,361	£	3,761,220	£	2,826,482	£	1,975,005	£	3,219,746	£	1,271,603	£	1,406,402	£	3,855	£	21,515,675

#### What is the data telling us?

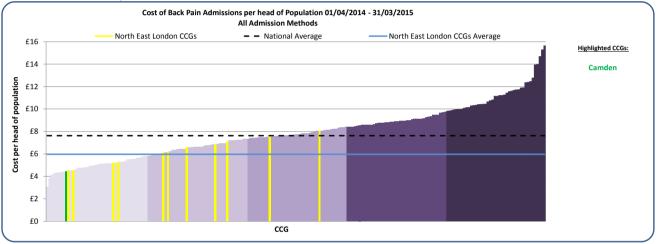
Across all North East London Trusts in 2014/15 the total cost to commissioners for back and radicular pain admissions was approximately £21.5 million, with 80% of the costs attributed to elective activity. Note that these costs are by provider Trust and will include activity for CCGs outside of the North East London region. The surgery procedures group accounts for almost 33% of the total cost of all procedures, and the cost of injections is an additional 31% 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 Admissions			sions	Elective Admissions					Emergency			
													Registered
	Cost p	er head			Cos	t per head			Со	st per head			Population
Responsible CCG Name	of Pop	ulation	Tot	tal Cost	of P	opulation	Tot	al Cost	of	Population	Tota	al Cost	(Ages 15+)
Camden	£	4.43	£	1,000,030	£	3.55	£	801,924	£	0.75	£	168,160	225,709
City & Hackney	£	4.52	£	1,080,982	£	3.24	£	773,781	£	1.27	£	303,101	239,119
Tower Hamlets	£	4.54	£	1,092,822	£	3.42	£	823,660	£	1.00	£	241,036	240,771
Haringey	£	5.17	£	1,256,601	£	4.23	£	1,027,479	£	0.94	£	227,558	243,013
Newham	£	5.27	£	1,570,207	£	3.95	£	1,174,487	£	1.28	£	379,775	297,705
Barnet	£	6.11	£	1,958,000	£	4.85	£	1,554,138	£	1.18	£	378,551	320,406
Redbridge	£	6.18	£	1,466,738	£	5.15	£	1,222,173	£	1.01	£	239,478	237,291
Barking & Dagenham	£	6.57	£	1,054,909	£	5.22	£	838,258	£	1.34	£	215,217	160,625
Enfield	£	6.86	£	1,735,768	£	5.51	£	1,392,979	£	1.28	£	322,838	252,952
Islington	£	7.05	£	1,402,635	£	5.51	£	1,095,599	£	1.45	£	289,554	199,012
Waltham Forest	£	7.53	£	1,810,669	£	5.72	£	1,375,821	£	1.71	£	411,795	240,417
Havering	£	8.05	£	1,738,953	£	6.94	£	1,497,929	£	1.11	£	239,571	215,915
North East London Total	£	5.98	£	17,168,315	£	4.73	£	13,578,230	£	1.19	£	3,416,633	2,872,935

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



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

													Pain					
									Proc	edure not			Man	agement			-	otal Cost
			Radic	ular pain	Back	pain	No pro	ocedure	linked to back				excluding		Other Non-			otal Cost
Responsible CCG Name	Surg	ery	Inject	ions	Injed	tions	done		pain		Imaging		Injec	ctions	Surgical			
Barnet	£	563,107	£	487,845	£	267,061	£	7,672	£	153,725	£	5,884	£	68,845	£		£	1,554,138
Havering	£	557,754	£	115,270	£	300,373	£	4,408	£	156,762	£	1,777	£	361,584	£	-	£	1,497,929
Enfield	£	496,657	£	446,178	£	278,801	£	10,826	£	100,928	£	4,972	£	54,617	£	-	£	1,392,979
Waltham Forest	£	539,635	£	478,127	£	204,858	£	12,774	£	54,200	£	-	£	86,228	£	-	£	1,375,821
Redbridge	£	422,991	£	281,909	£	263,394	£	2,292	£	71,564	£	1,030	£	178,100	£	893	£	1,222,173
Newham	£	316,392	£	402,456	£	231,491	£	1,426	£	112,458	£	1,760	£	108,503	£	-	£	1,174,487
Islington	£	493,772	£	269,912	£	151,135	£	6,278	£	90,555	£	4,539	£	79,407	£	-	£	1,095,599
Haringey	£	412,648	£	260,166	£	137,361	£	9,417	£	159,238	£	-	£	48,649	£	-	£	1,027,479
Barking & Dagenham	£	272,167	£	101,071	£	194,576	£	1,975	£	56,376	£	1,210	£	210,883	£	-	£	838,258
Tower Hamlets	£	275,199	£	215,577	£	242,480	£	3,309	£	44,100	£	-	£	42,995	£	-	£	823,660
Camden	£	371,858	£	199,987	£	110,025	£	13,232	£	66,068	£	5,735	£	35,020	£	-	£	801,924
City & Hackney	£	250,596	£	237,217	£	158,191	£	17,487	£	64,387	£	3,672	£	42,232	£	-	£	773,781

#### What is the data telling us?

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

Havering CCG has the highest spend per head of population regionally ( $\pounds$ 8.05) driven mainly by high costs for elective admissions. Camden CCG has the lowest costs per head for both emergency and elective admissions ( $\pounds$ 4.43) in the region as well as being the lowest quintile nationally.

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, but for several CCGs in North East London more is spent on admissions for injections compared to what is spent on surgery. Additionally, in Havering CCG and Barking and Dagenham CCG there is a high spend for pain management admissions which were not for injections.

## 14. Back & Radicular Pain Admissions Breakdown for the North East London Region

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

	IHS Trust & Green=Independent Sector Provider)	Els et			F	Others Administration	
Code	Provider Name		ve Admission Injections	ns Other	Emergency Admissions	Other Admission Types	Total
R1H	BARTS HEALTH NHS TRUST	196	2,356	447	979	16	3,994
RF4	BARKING, HAVERING AND REDBRIDGE UNIVERSITY HOSPITALS NHS TRUST	125	666	1,184	332	<6	2,310
RAL	ROYAL FREE LONDON NHS FOUNDATION TRUST	88	1,473	204	448	<6	2,217
RRV	UNIVERSITY COLLEGE LONDON HOSPITALS NHS FOUNDATION TRUST	298	1,012	292	223	20	1,845
RKE	THE WHITTINGTON HOSPITAL NHS TRUST	64	456	322	267	-	1,109
RQX	HOMERTON UNIVERSITY HOSPITAL NHS FOUNDATION TRUST	-	460	42	185	<6	689
NT422 NT314	BMI - THE LONDON INDEPENDENT HOSPITAL	32 25	404	193 197	-	-	629
RAP	SPIRE RODING HOSPITAL NORTH MIDDLESEX UNIVERSITY HOSPITAL NHS TRUST	25	405 229	58	- 205	- <6	627 493
RAN	ROYAL NATIONAL ORTHOPAEDIC HOSPITAL MIS TRUST	51	273	94	<6	-	433
NT421	BMI - THE KINGS OAK HOSPITAL	9	317	44	-	-	370
NYW01	ASPEN - HOLLY HOUSE HOSPITAL	10	189	28	-	-	227
RJ1	GUY'S AND ST THOMAS' NHS FOUNDATION TRUST	7	81	19	18	-	125
RYJ	IMPERIAL COLLEGE HEALTHCARE NHS TRUST	18	54	7	17	-	96
NYW03		7	41	22	-	-	70
RDD	BASILDON AND THURROCK UNIVERSITY HOSPITALS NHS FOUNDATION TRUST	<6	32	13	<6	-	52
RQM	CHELSEA AND WESTMINSTER HOSPITAL NHS FOUNDATION TRUST	-	28	7	6	-	41
RQW	THE PRINCESS ALEXANDRA HOSPITAL NHS TRUST	<6	16	<6	10	-	31
NT416 RQ8	BMI - HENDON HOSPITAL MID ESSEX HOSPITAL SERVICES NHS TRUST	<6	21 12	7 6	- <6	-	29 22
RJZ	KING'S COLLEGE HOSPITAL NHS FOUNDATION TRUST	<6	<6	<6	8		18
R1K	LONDON NORTH WEST HEALTHCARE NHS TRUST	-	<6	-	14	-	15
RWG	WEST HERTFORDSHIRE HOSPITALS NHS TRUST	-	12	<6	<6	-	14
RJ2	LEWISHAM AND GREENWICH NHS TRUST	-	6	-	7	-	13
NT204	NUFFIELD HEALTH, BRENTWOOD HOSPITAL	11	-	<6	-	-	13
RJ7	ST GEORGE'S UNIVERSITY HOSPITALS NHS FOUNDATION TRUST	7	-	-	<6	-	11
NT451	BMI THE CAVELL HOSPITAL	<6	<6	<6	-	-	9
RN7	DARTFORD AND GRAVESHAM NHS TRUST	-	<6	-	<6	-	7
NVC18	SPRINGFIELD HOSPITAL	6	<6	-	-	-	7
RAJ	SOUTHEND UNIVERSITY HOSPITAL NHS FOUNDATION TRUST	-	-	<6	<6	-	6
NT406	BMI - THE BLACKHEATH HOSPITAL	<6	<6	-	-	-	6
NT411	BMI - THE CLEMENTINE CHURCHILL HOSPITAL EPSOM AND ST HELIER UNIVERSITY HOSPITALS NHS TRUST	<6	<6	<6	-	-	6
RVR RAS	THE HILLINGDON HOSPITALS NHS FOUNDATION TRUST	-	<6 <6	<6 <6	<6 <6	-	<6 <6
RWH	EAST AND NORTH HERTFORDSHIRE NHS TRUST		<0	-	-		<6
RPA	MEDWAY NHS FOUNDATION TRUST	-	<0 <6	<6	<6	_	<6
RVV	EAST KENT HOSPITALS UNIVERSITY NHS FOUNDATION TRUST	<6		-	<6	-	<6
NT315	SPIRE BUSHEY HOSPITAL	-	<6	-	-	-	<6
RDE	COLCHESTER HOSPITAL UNIVERSITY NHS FOUNDATION TRUST				<6	-	<6
RH8	ROYAL DEVON AND EXETER NHS FOUNDATION TRUST				<6	-	<6
RJ6	CROYDON HEALTH SERVICES NHS TRUST				<6	-	<6
RRP	BARNET, ENFIELD AND HARINGEY MENTAL HEALTH NHS TRUST				<6	-	<6
RTK	ASHFORD AND ST PETER'S HOSPITALS NHS FOUNDATION TRUST	-	<6	<6	-	-	<6
RTP	SURREY AND SUSSEX HEALTHCARE NHS TRUST				<6	-	<6
RTR	SOUTH TEES HOSPITALS NHS FOUNDATION TRUST	-	-	<6	-	-	<6
RVJ RWD	NORTH BRISTOL NHS TRUST UNITED LINCOLNSHIRE HOSPITALS NHS TRUST	<6	-	-	<6 <6	-	<6 <6
RXQ	BUCKINGHAMSHIRE HEALTHCARE NHS TRUST		<6	_	<6		<6
NT209	NUFFIELD HEALTH, CAMBRIDGE HOSPITAL	<6	-	_	-	_	<6
NVC01	ASHTEAD HOSPITAL	<6	<6	-	-	-	<6
NWF01	BENENDEN HOSPITAL	-	<6	-	-	-	<6
RA7	UNIVERSITY HOSPITALS BRISTOL NHS FOUNDATION TRUST				<6	-	<6
RAX	KINGSTON HOSPITAL NHS FOUNDATION TRUST	-	<6	-	-	-	<6
RDZ	THE ROYAL BOURNEMOUTH AND CHRISTCHURCH HOSPITALS NHS FOUNDATION TRUST	1			<6	-	<6
REM	AINTREE UNIVERSITY HOSPITAL NHS FOUNDATION TRUST	1			<6	-	<6
RGQ	IPSWICH HOSPITAL NHS TRUST				<6	-	<6
RGR	WEST SUFFOLK NHS FOUNDATION TRUST	1	-		<6	-	<6
RGT	CAMBRIDGE UNIVERSITY HOSPITALS NHS FOUNDATION TRUST	-	<6	-		-	<6
RJL	NORTHERN LINCOLNSHIRE AND GOOLE NHS FOUNDATION TRUST	-			<6	-	<6
RKB RL1	UNIVERSITY HOSPITALS COVENTRY AND WARWICKSHIRE NHS TRUST	<6	-	-	-	-	<6 <6
RM3	THE ROBERT JONES AND AGNES HUNT ORTHOPAEDIC HOSPITAL NHS FOUNDATION TRUST SALFORD ROYAL NHS FOUNDATION TRUST	<6	-	-	- <6	-	<ь <6
RP5	DONCASTER AND BASSETLAW HOSPITALS NHS FOUNDATION TRUST				<6		<6
RQ6	ROYAL LIVERPOOL AND BROADGREEN UNIVERSITY HOSPITALS NHS TRUST	1			<6	_	<6
RR8	LEEDS TEACHING HOSPITALS NHS TRUST	-	-	<6	-	-	<6
RV3	CENTRAL AND NORTH WEST LONDON NHS FOUNDATION TRUST				<6	-	<6
RW6	PENNINE ACUTE HOSPITALS NHS TRUST	1			<6	-	<6
RWF	MAIDSTONE AND TUNBRIDGE WELLS NHS TRUST				<6	-	<6
RWJ	STOCKPORT NHS FOUNDATION TRUST	<6	-	-	-	-	<6
RX1	NOTTINGHAM UNIVERSITY HOSPITALS NHS TRUST				-	<6	<6
RXC	EAST SUSSEX HEALTHCARE NHS TRUST	-	<6	-	-	-	<6
RXH	BRIGHTON AND SUSSEX UNIVERSITY HOSPITALS NHS TRUST				<6	-	<6
RXK	SANDWELL AND WEST BIRMINGHAM HOSPITALS NHS TRUST	1			<6	-	<6
RXL	BLACKPOOL TEACHING HOSPITALS NHS FOUNDATION TRUST				<6	-	<6
RXN RXP	LANCASHIRE TEACHING HOSPITALS NHS FOUNDATION TRUST	-	<6	-	-	-	<6
NLL01	COUNTY DURHAM AND DARLINGTON NHS FOUNDATION TRUST PENINSULA COMMUNITY HEALTH C.I.C				<6 <6	-	<6 <6
NT405	BMI - BISHOPS WOOD		<6		< D -	-	<ь <6
NT405	BMI - THE SLOANE HOSPITAL	-	<6	-	-	_	<6
		1					
NVC09	NEW HALL HOSPITAL	-	<6		-	-	<6

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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?	