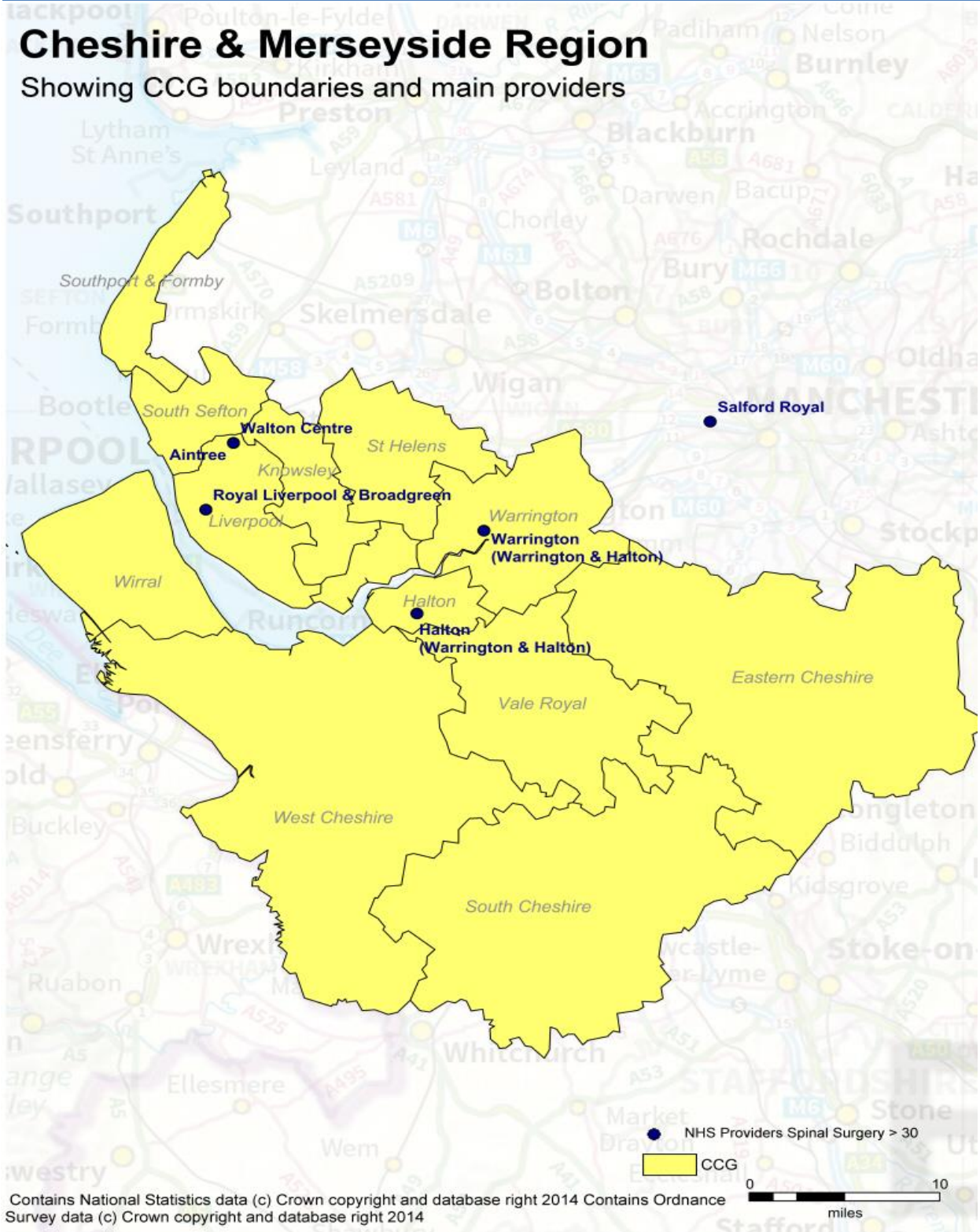


Back Pain Report

Vale Royal
June 2016

Cheshire & Merseyside Region

Showing CCG boundaries and main providers



Contains National Statistics data (c) Crown copyright and database right 2014 Contains Ordnance Survey data (c) Crown copyright and database right 2014

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)

BetterKnowledge**Better**Care**Better**Outcomes

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 Cheshire & Merseyside 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 Cheshire & Merseyside Region are:

- Southport & Ormskirk Hospital NHS Trust
- The Walton Centre NHS Foundation Trust
- Aintree University Hospital NHS Foundation Trust
- Royal Liverpool & Broadgreen University Hospitals
- NHS Trust Wirral University Teaching Hospital NHS Foundation Trust
- St Helens & Knowsley Hospitals NHS Trust
- Warrington & Halton Hospitals NHS Foundation Trust
- Salford Royal NHS Foundation Trust
- Countess Of Chester Hospital NHS Foundation Trust
- Mid Cheshire Hospitals NHS Foundation Trust

The Independent Sector Providers included for the Cheshire & Merseyside Region are:

- Spire Liverpool 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

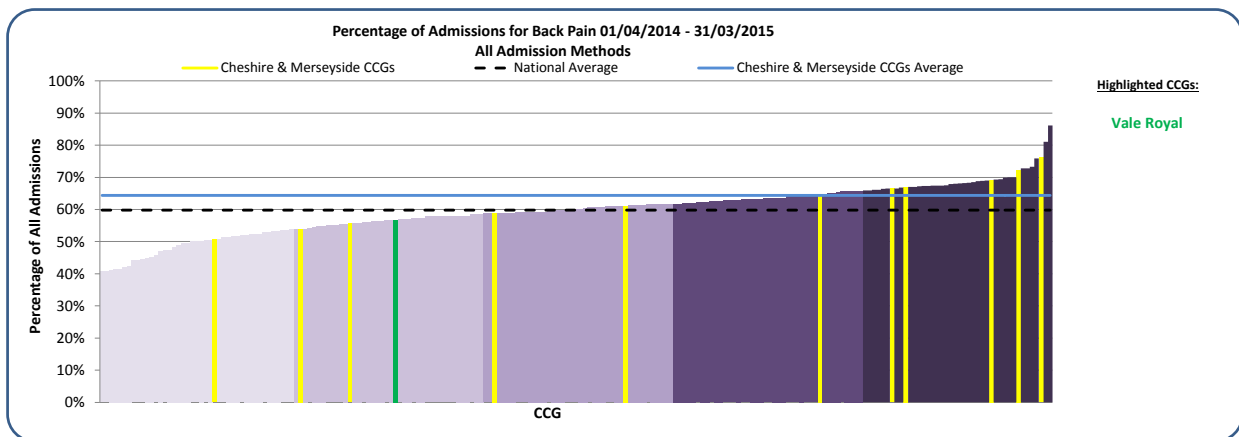
England	Back	Radicular	Total	% Back	% Radicular
Elective	134,448	102,808	237,256	56.7%	43.3%
Emergency	39,331	14,309	53,640	73.3%	26.7%
Other	771	951	1,722	44.8%	55.2%
Total	174,550	118,068	292,618	59.7%	40.3%

Merseyside CCGs	Back	Radicular	Total	% Back	% Radicular
Elective	7,270	4,904	12,174	59.7%	40.3%
Emergency	3,180	892	4,072	78.1%	21.9%
Other	22	10	32	68.8%	31.3%
Total	10,472	5,806	16,278	64.3%	35.7%

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)

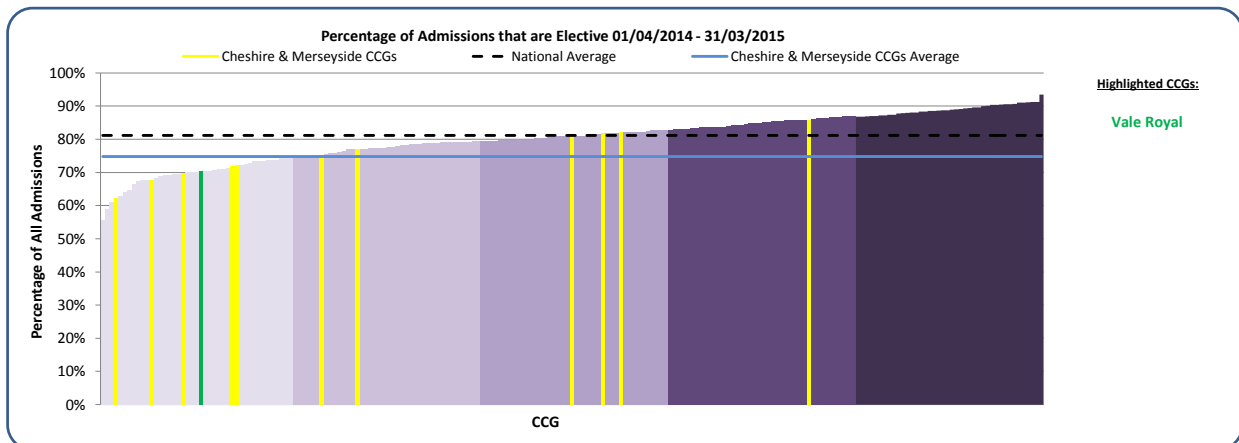
Eastern Cheshire	50.7%	Southport & Formby	64.8%
Halton	53.9%	South Sefton	66.5%
Warrington	55.6%	Knowsley	67.0%
Vale Royal	56.7%	Liverpool	69.1%
St Helens	58.8%	Wirral	72.2%
South Cheshire	61.2%	West Cheshire	76.2%
Cheshire & Merseyside CCGs	64.3%	England	59.8%



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

Liverpool	62.3%	Eastern Cheshire	75.3%
Knowsley	67.8%	South Sefton	76.9%
South Cheshire	69.7%	Southport & Formby	80.9%
Vale Royal	70.4%	West Cheshire	81.7%
St Helens	71.7%	Halton	81.9%
Wirral	72.0%	Warrington	85.8%
Cheshire & Merseyside CCGs	74.8%	England	81.1%



What is the data telling us?

In the latest 12 month period there were almost 300,000 admissions for back and radicular pain in England, with 16,278 (5.6%) of these from patients registered within Cheshire & Merseyside 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 Cheshire & Merseyside the proportion of admissions for back pain ranges from 50% to 76%.

Approximately 81% of back and radicular pain admissions are elective, with Cheshire & Merseyside much lower than the national rate at 75%. At CCG level in Cheshire & Merseyside the proportion of elective admissions across CCGs ranges from 62% in Liverpool to 86% in Warrington.

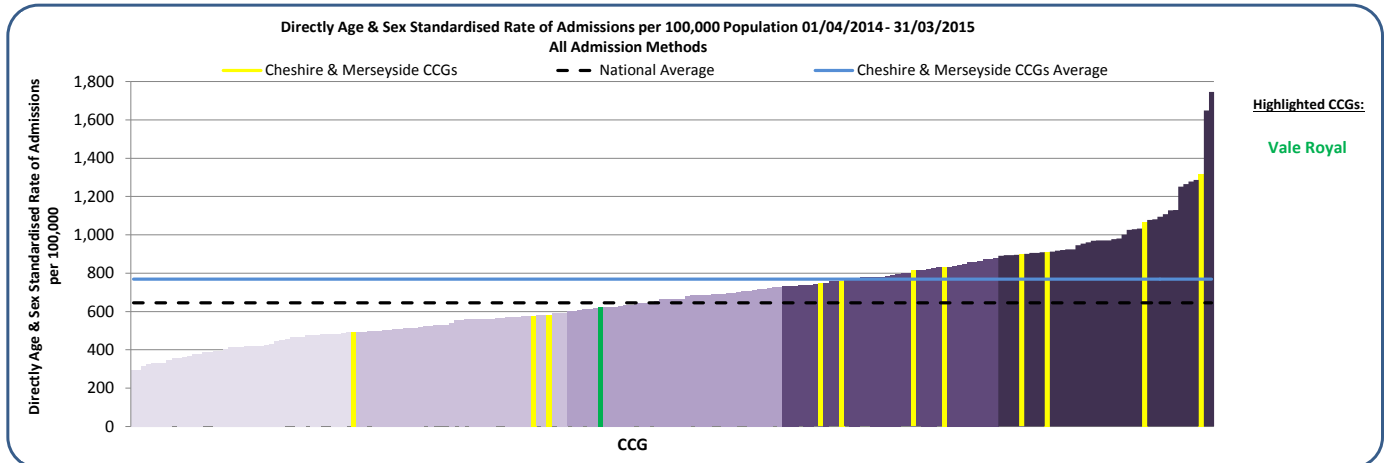
Clinical Commissioning Group (CCG) activity

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

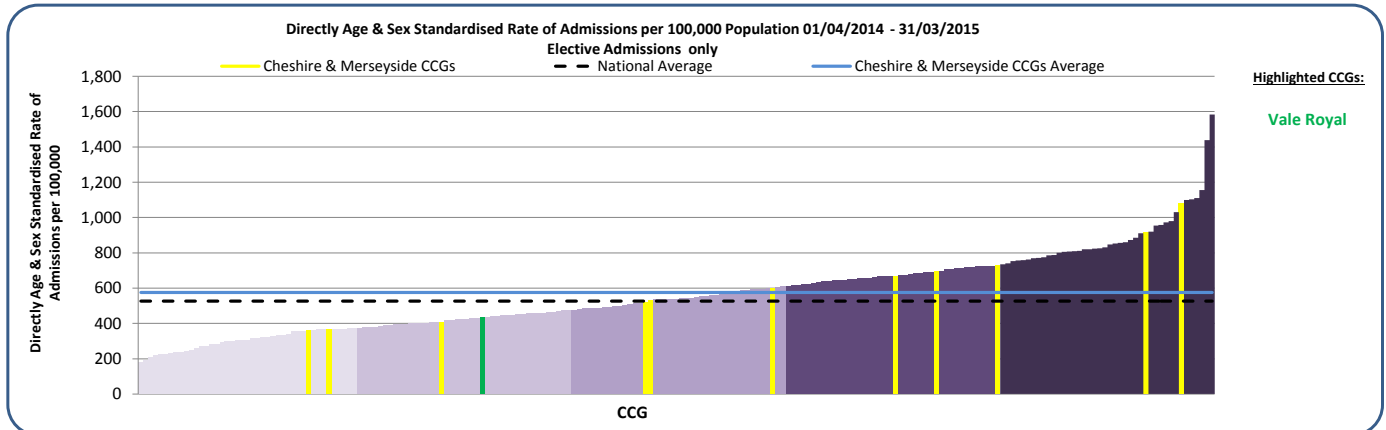
a. Hospital admissions for back pain by CCG (all admission methods), Directly Age & Sex Standardised Admission rate per 100,000 population

CCG name	All	Elective	Emergency	CCG name	All	Elective	Emergency
Halton	1316.2	1076.9	239.3	Knowsley	759.7	518.3	239.1
Warrington	1068.3	916.6	151.7	St Helens	745.7	530.8	214.8
Southport & Formby	910.2	727.3	182.9	Vale Royal	622.0	434.3	184.5
South Sefton	898.0	692.6	204.0	South Cheshire	582.8	405.7	175.2
Wirral	829.8	600.0	229.4	Liverpool	577.0	360.8	215.3
West Cheshire	814.4	668.4	144.4	Eastern Cheshire	490.8	366.0	116.3
Cheshire & Merseyside CCGs	769.1	576.4	191.2	England	645.6	526.5	115.4

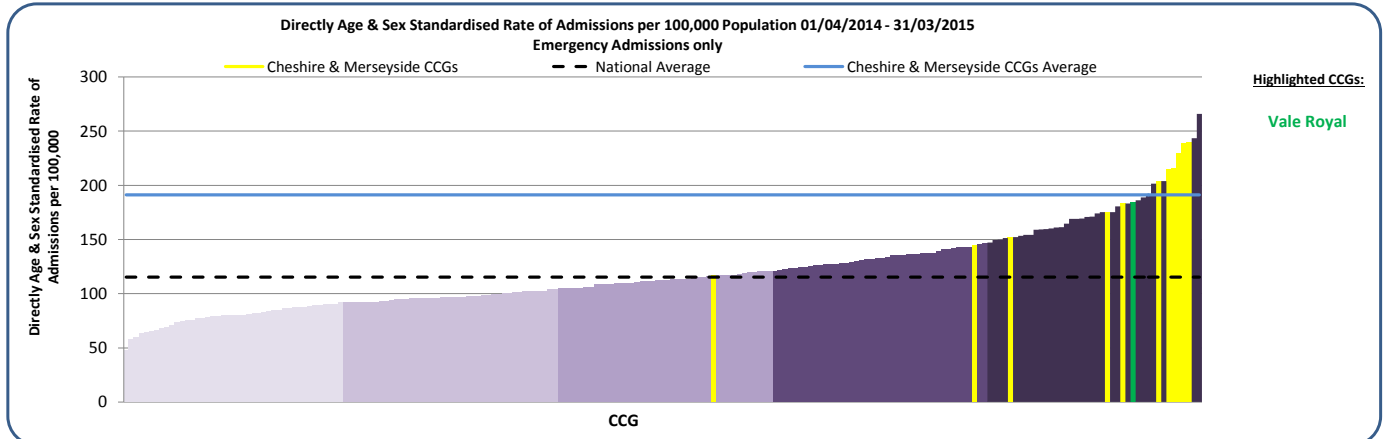
b. Hospital admissions for back and radicular pain (all admission methods), Directly Age & Sex Standardised Admission rate per 100,000 population



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 Cheshire and Merseyside with almost a 3-fold difference between the regional lowest (Liverpool CCG) and the highest (Halton CCG).

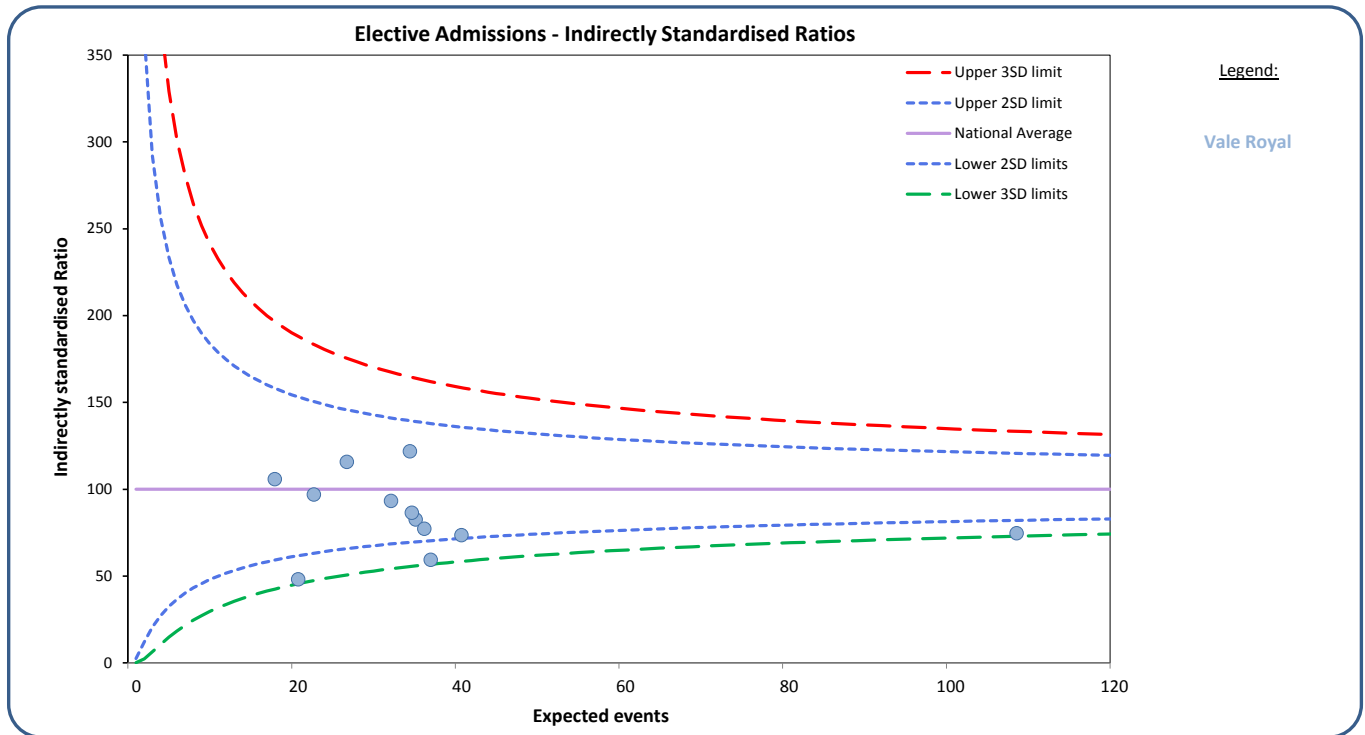
In contrast, all CCGs in the region, except Eastern Cheshire CCG, have very high rates of emergency admissions with 10 of the 12 CCGs in the highest quintile.

Clinical Commissioning Group (CCG) activity - GP practice level

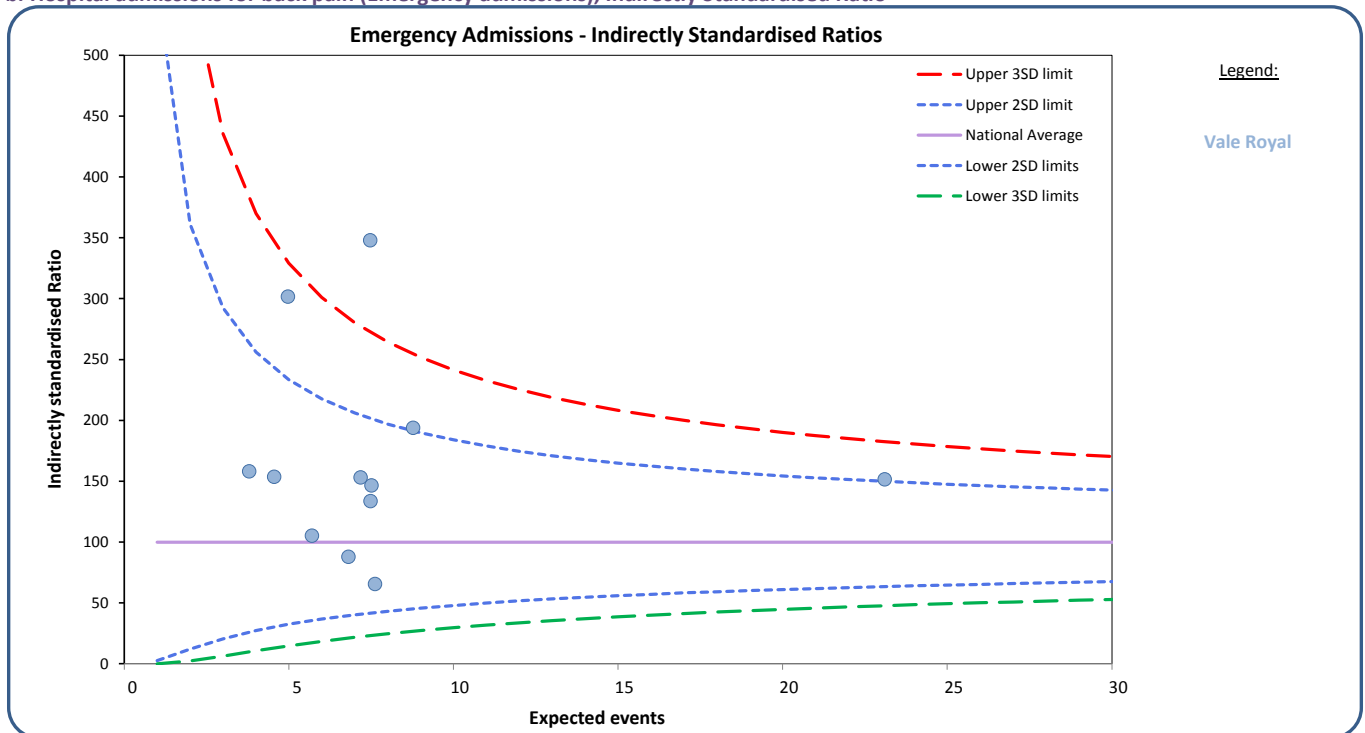
3. Hospital admissions for low back and radicular pain in people aged 16 years and over (April 2014 - March 2015)

Each symbol represents one GP practice

a. Hospital admissions for back pain (Elective admissions), Indirectly Standardised Ratio Vale Royal



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 Vale Royal

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.

Practice Code	Practice Name	CCG	Population 15+	Elective			Emergency		
				Observed	Expected	Ratio	Observed	Expected	Ratio
N81024	Swanlow Medical Centre	02D	7,995	30	40.76	73.60	17	8.77	193.80
N81025	Firdale Medical Centre	02D	6,725	29	35.14	82.53	11	7.51	146.54
N81040	High Street Practice Winsford	02D	4,349	10	20.78	48.11	7	4.56	153.59
N81051	The Weaverham Surgery	02D	6,419	28	36.21	77.33	10	7.48	133.71
N81055	Watling Street Surgery	02D	6,358	42	34.47	121.85	11	7.18	153.15
N81061	Witton Street Surgery	02D	6,044	30	32.14	93.35	6	6.81	88.05
N81067	Oakwood Medical Centre	02D	6,873	22	37.01	59.44	<6	7.61	65.68
N81074	Launceston Close Surgery	02D	3,686	19	17.95	105.87	6	3.79	158.23
N81087	Danebridge Medical Centre	02D	19,774	81	108.60	74.58	35	23.10	151.51
N81113	Middlewich Road Surgery	02D	5,397	31	26.76	115.85	6	5.70	105.28
N81123	Willow Wood Surgery	02D	4,950	22	22.71	96.88	15	4.97	301.78
N81127	The Weaver Vale Surgery	02D	6,665	30	34.69	86.48	26	7.47	348.06

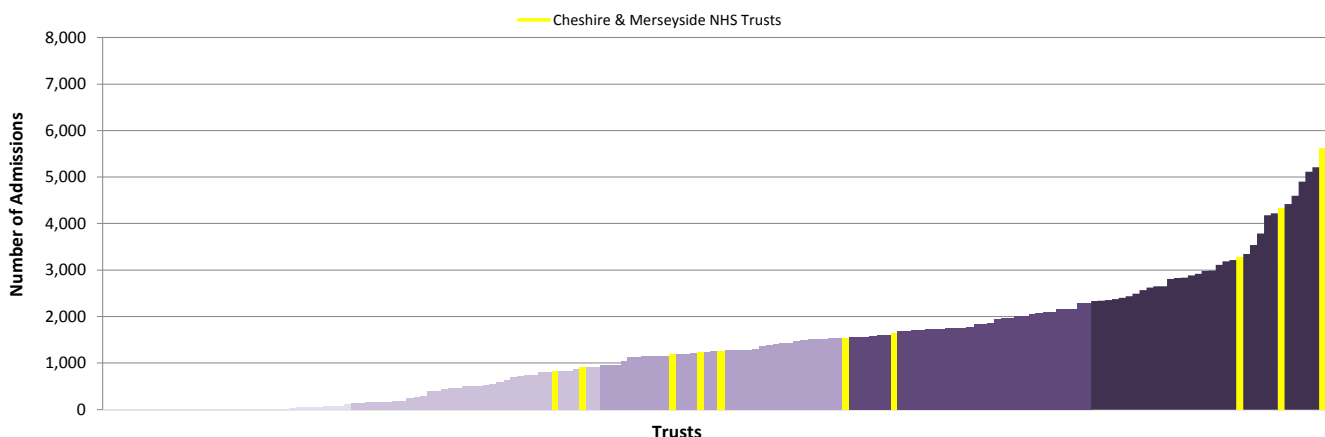
Hospital Trust activity

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)

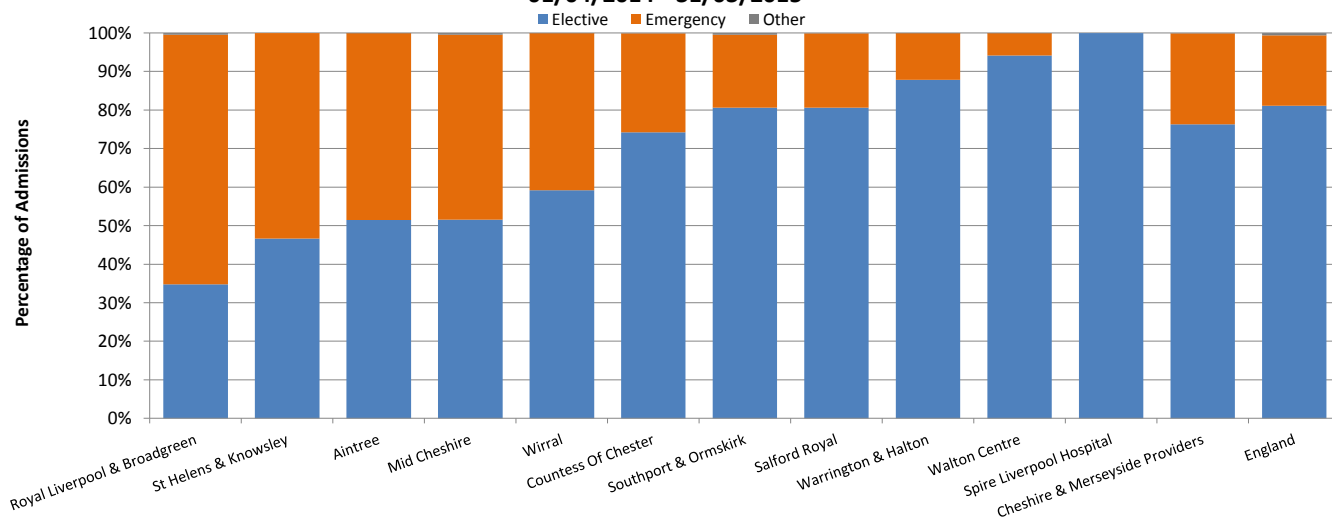
Salford Royal	5,615	Aintree	1,261
Walton Centre	4,332	Countess Of Chester	1,230
Warrington & Halton	3,283	St Helens & Knowsley	1,185
Southport & Ormskirk	1,639	Royal Liverpool & Broadgreen	908
Wirral	1,545	Mid Cheshire	819
Cheshire & Merseyside NHS Trusts	21,817	England	251,444

Number of Admissions per Provider 01/04/2014 - 31/03/2015
All Admissions



b. Number of admissions per hospital Trust, by admission method (Cheshire & Merseyside Providers only)

Hospital Admissions for Back Pain by Admission Method
01/04/2014 - 31/03/2015



What is the data telling us?

The total number of admissions for back pain is presented due to the absence of a relevant denominator at hospital Trust level. Activity for the 10 NHS Trusts is to some degree proportional to the size of the Trust and is spread across the quintile chart.

The proportion of hospital activity for back pain which is classed as elective care is lower than the England for the Cheshire & Merseyside providers overall, however at NHS Trust level the proportion varies between 35% at Royal Liverpool & Broadgreen to 94% at the Walton Centre. All NHS activity at Independent Sector Providers is classed as elective.

Hospital Trust activity

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 (Cheshire & Merseyside Providers only)

Provider Name	Pain Management & Anaesthetics	Trauma & Orthopaedics	Spinal Surgery Service	Interventional Radiology	Neurosurgery	Other Functions	Total
Southport & Ormskirk	1,317	-	-	-	-	<6	1,317
Walton Centre	2,710	-	-	-	1,341	26	4,077
Aintree	-	639	-	<6	-	7	646
Royal Liverpool & Broadgreen	200	107	-	-	-	9	316
Wirral	909	<6	-	-	-	<6	909
St Helens & Knowsley	544	<6	-	-	-	7	551
Warrington & Halton	608	2,271	-	-	-	<6	2,879
Salford Royal	1,286	901	-	<6	2,314	25	4,526
Countess Of Chester	884	<6	-	-	-	27	911
Mid Cheshire	420	-	-	-	-	<6	420
Spire Liverpool Hospital	283	<6	-	-	-	-	283
Total	9,161	3,918	-	-	3,655	101	16,835

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. The Walton Centre records high Neurosurgery activity with no Trauma and Orthopaedic activity and the Salford Royal reports high levels of Neurosurgery activity as well as Trauma and Orthopaedic activity.

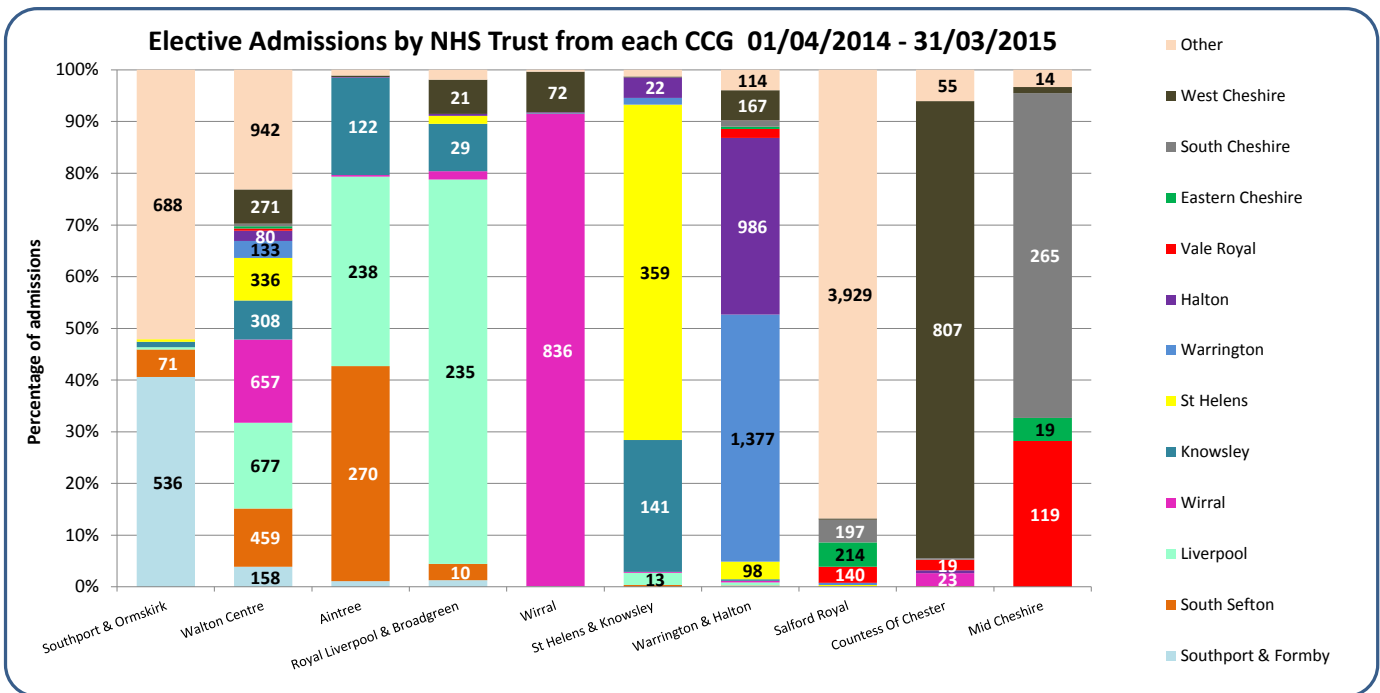
The second table shows the different types of injections being undertaken within each of the treatment function codes and demonstrates that nationally over 62% (104,751) of injections take place within Pain Management/Anaesthetics and 25% of injections are undertaken within Trauma and Orthopaedics.

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.

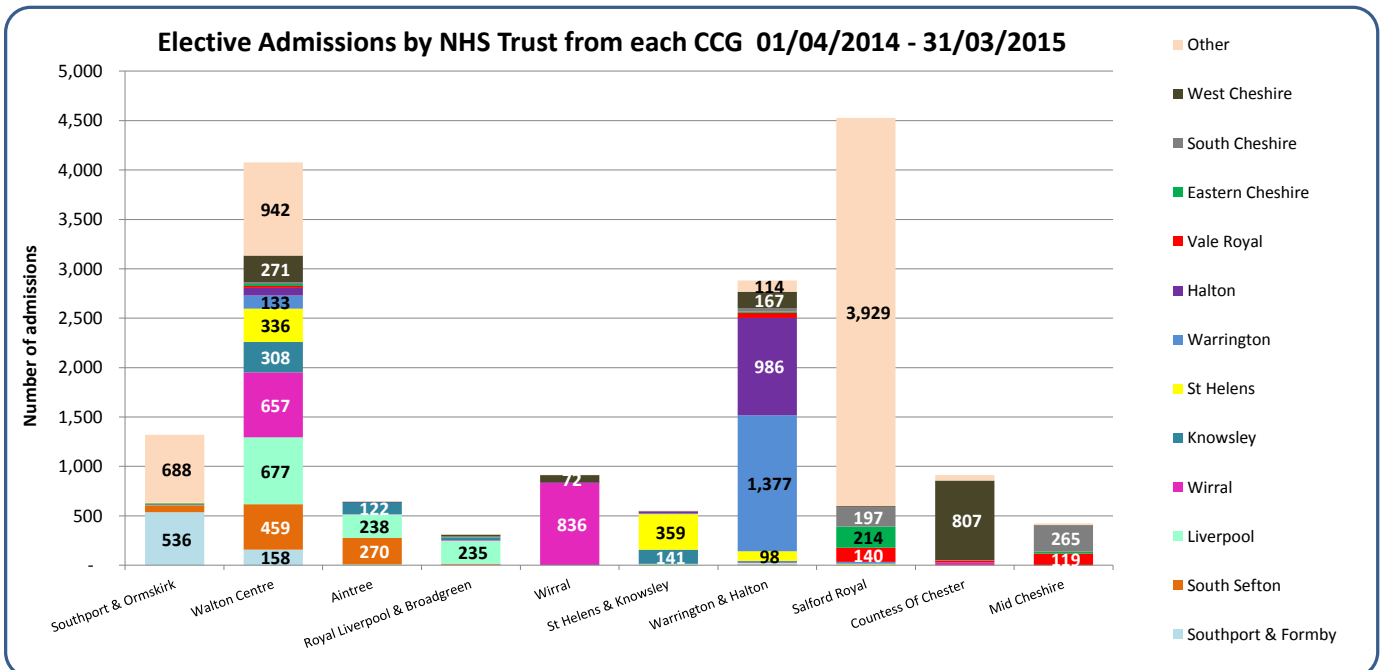
Hospital Trust activity from CCGs

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.

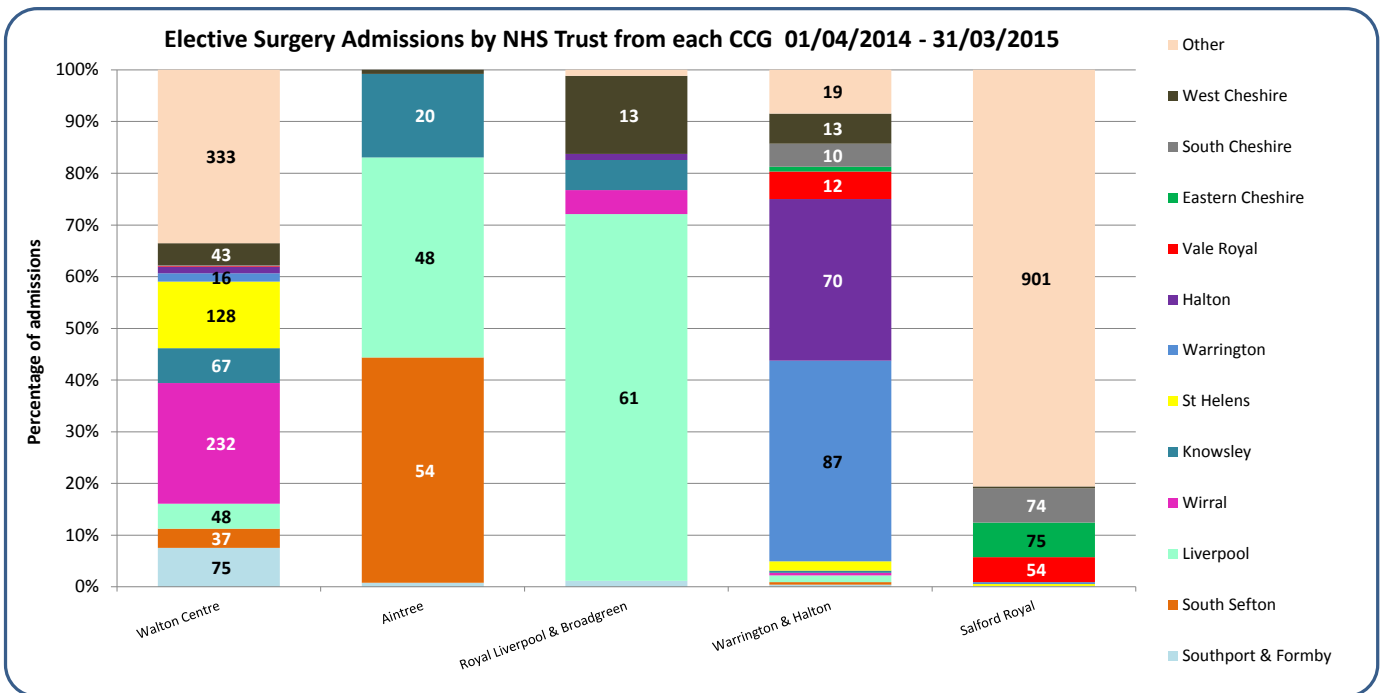
The Walton Centre has activity from at least ten of the Cheshire & Merseyside CCGs, whereas with Wirral and the Countess of Chester Trusts the majority of activity comes from one main CCG.

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

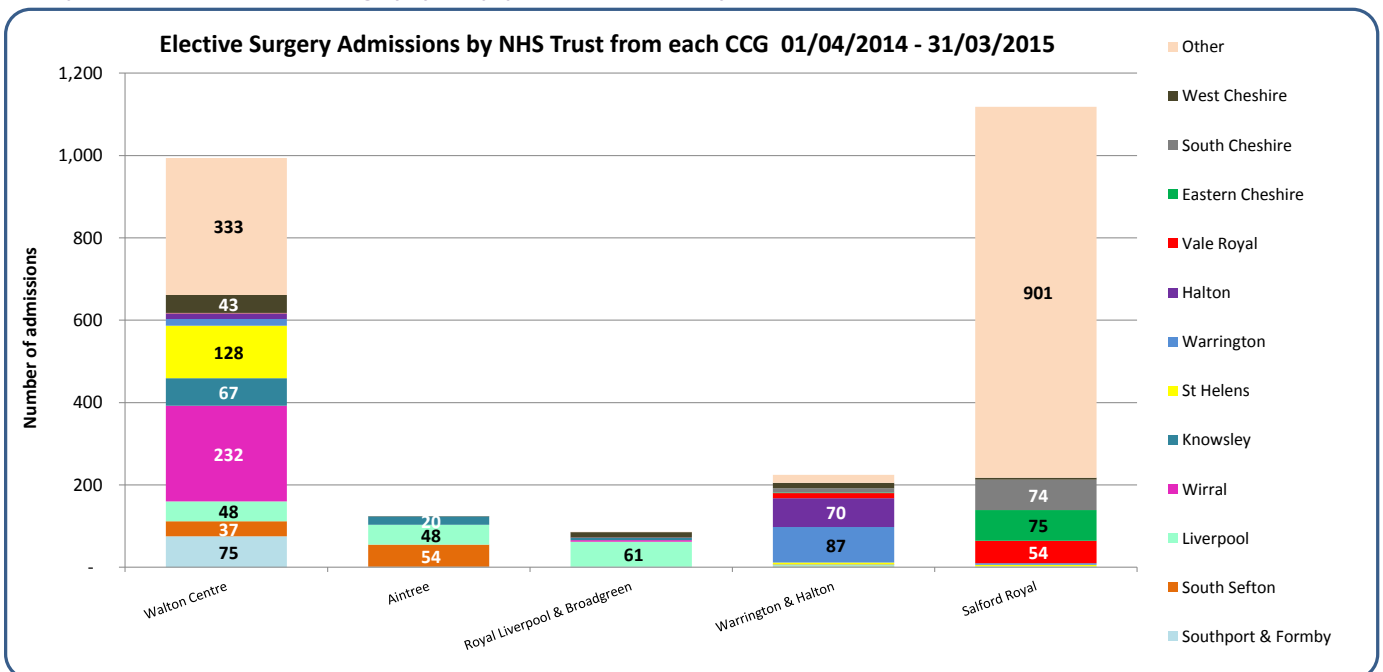
Hospital Trust activity from CCGs

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

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



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



What is the data telling us?

There is variation between hospital trusts in terms of the number of patients from each of the CCGs that are admitted for surgery for back and radicular pain. In the Cheshire & Merseyside, the Walton Centre does the highest volume of spinal surgery.

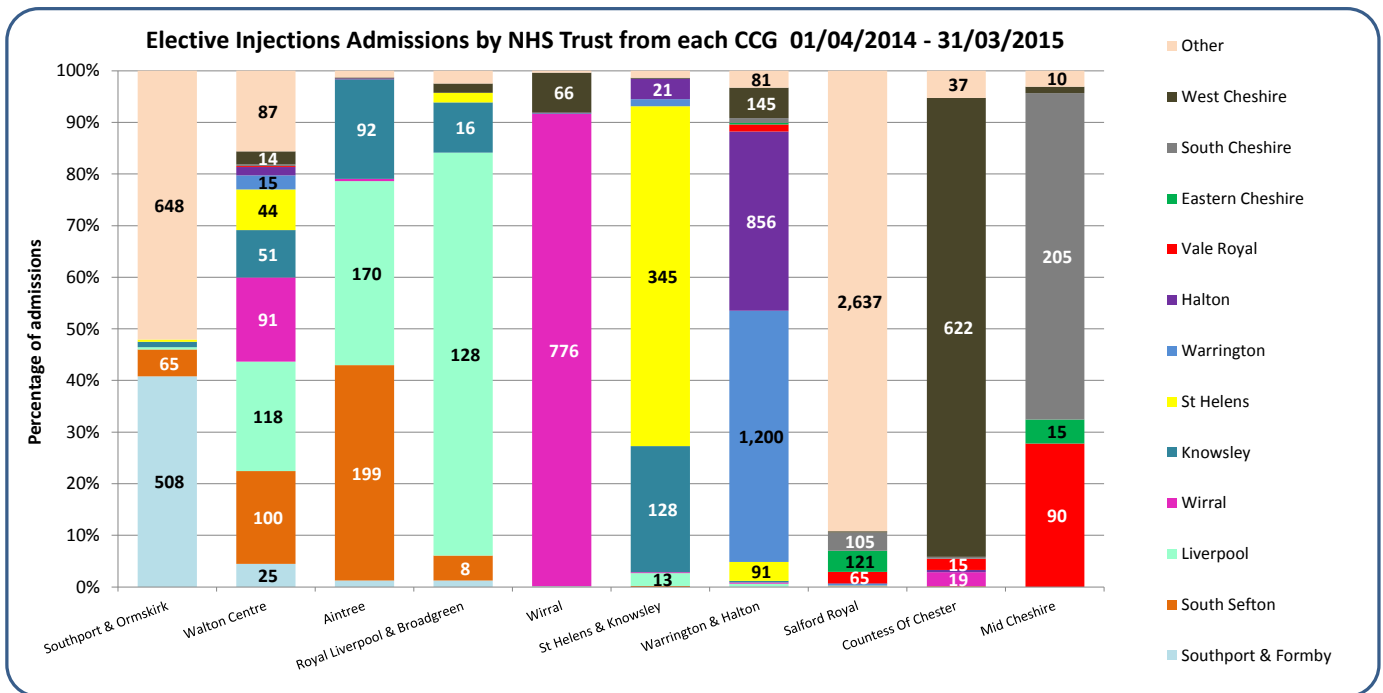
The Walton Centre is also more likely to take patients from several different CCGs across the region compared to Warrington & Halton Trust which predominantly admits patients from the CCGs where their sites are located.

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

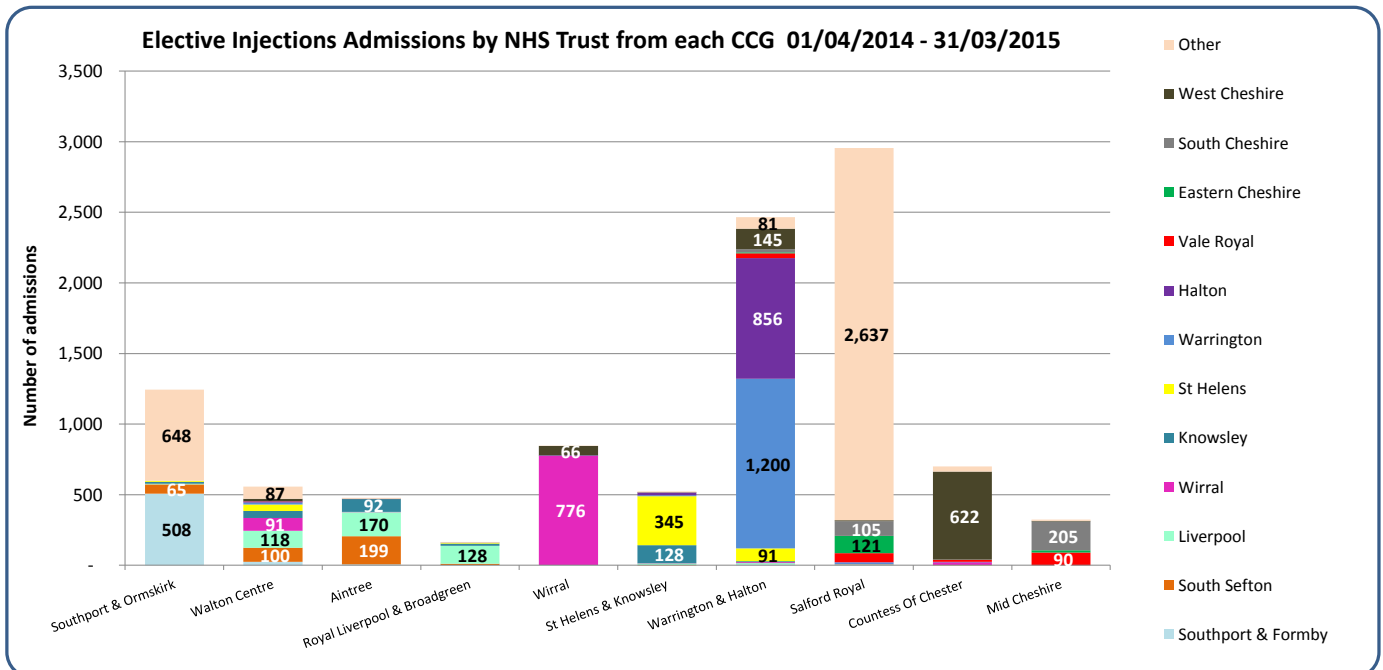
Hospital Trust activity from CCGs

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

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



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



What is the data telling us?

There is variation between hospital trusts in terms of the number of patients from each of the CCGs that are admitted for injections for back and radicular pain. Salford Royal and Warrington & Halton Trusts have considerably higher volumes of activity for injections.

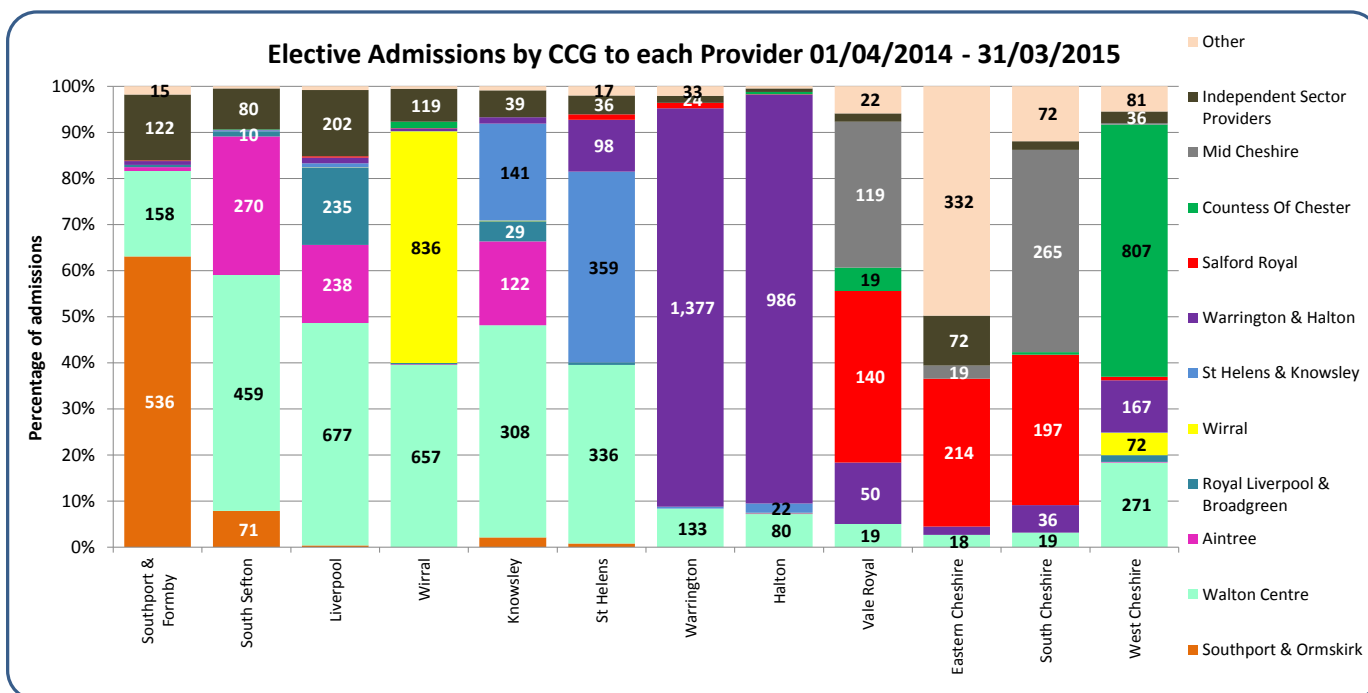
The Walton Centre take patients from several different CCGs across the region compared to the Wirral and Countess of Cheshire Trusts which predominantly admit patients from the CCGs where they are located.

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

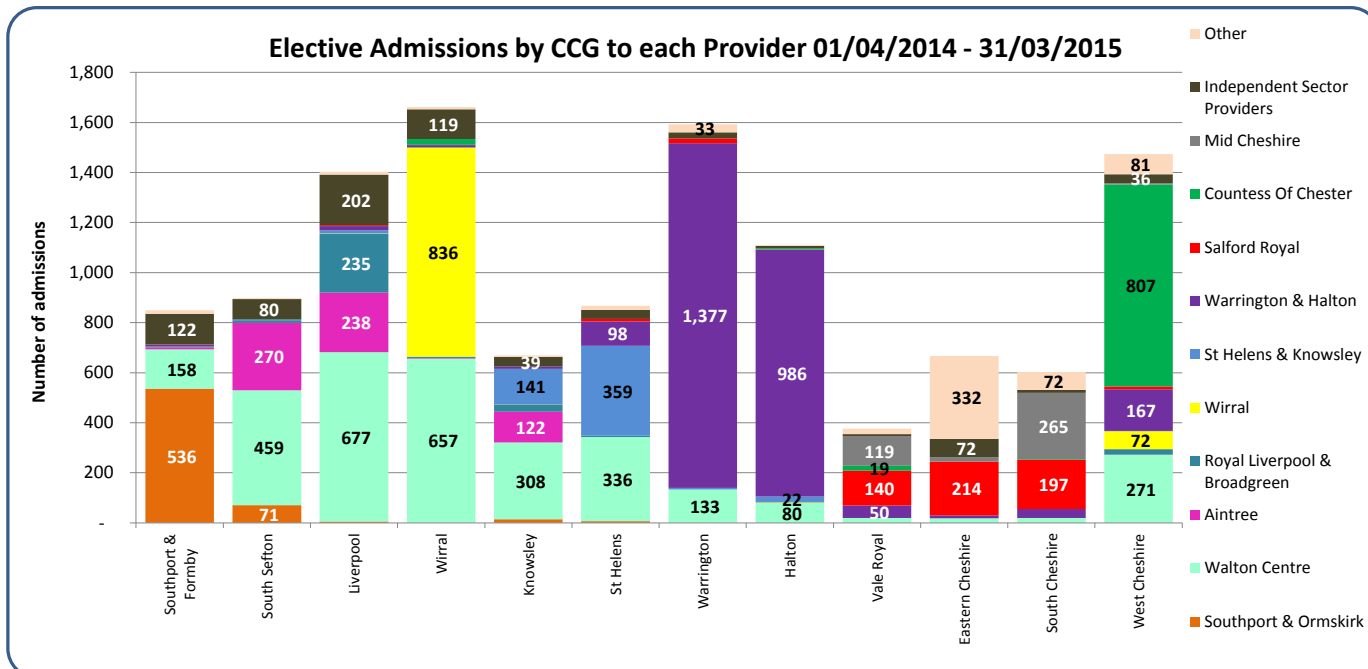
CCG activity to Hospital Trust

7. Patient flows to Hospital Trusts from CCGs for back pain in people aged 16 years and over (April 2014 - March 2015)

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



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



What is the data telling us?

There is variation between CCGs in terms of the number of the number of hospital trusts that their patients are admitted to. West Cheshire CCG patients attend five of the NHS Trusts as well as using Independent Sector Providers in contrast Warrington and Halton CCGs that predominantly use Warrington & Halton Trust and the Walton Centre.

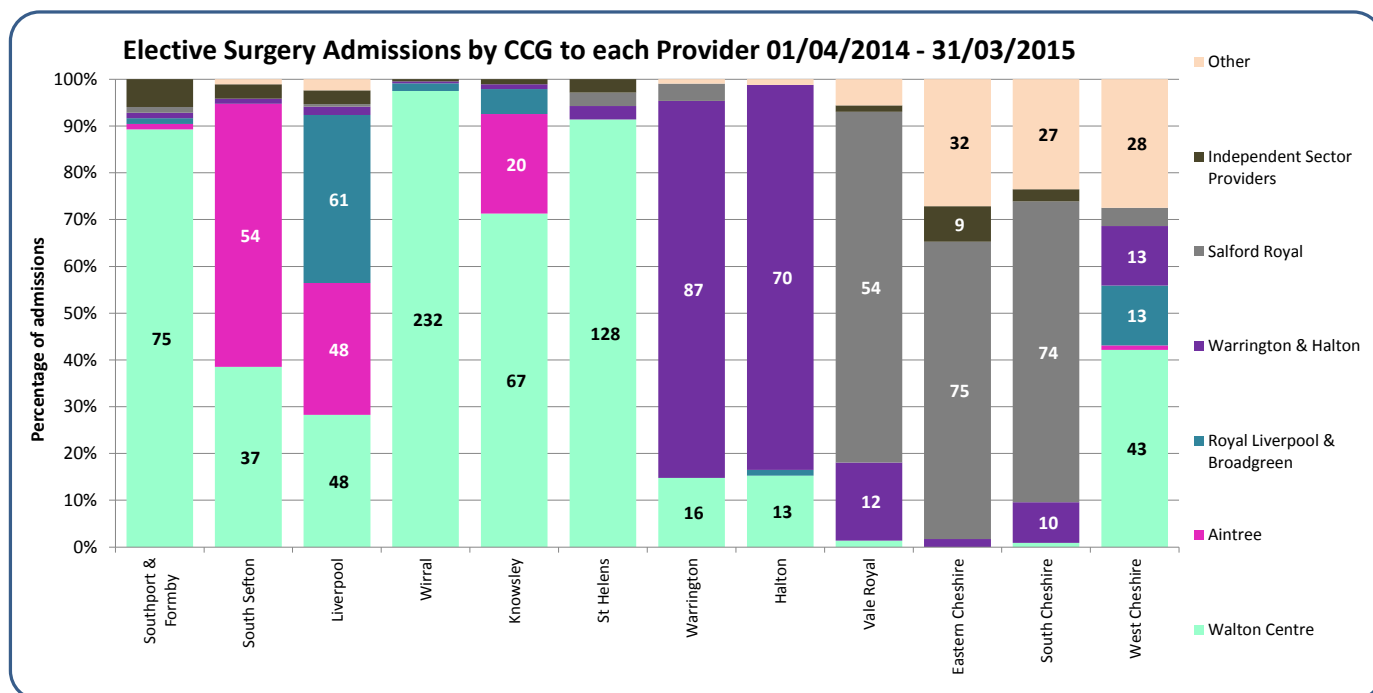
Activity is highest for the Wirral CCG and is spread across the Wirral Trust and the Walton Centre as well as Independent Sector Providers. Southport & Formby CCG and Liverpool CCG have the highest proportions of Independent Sector activity.

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

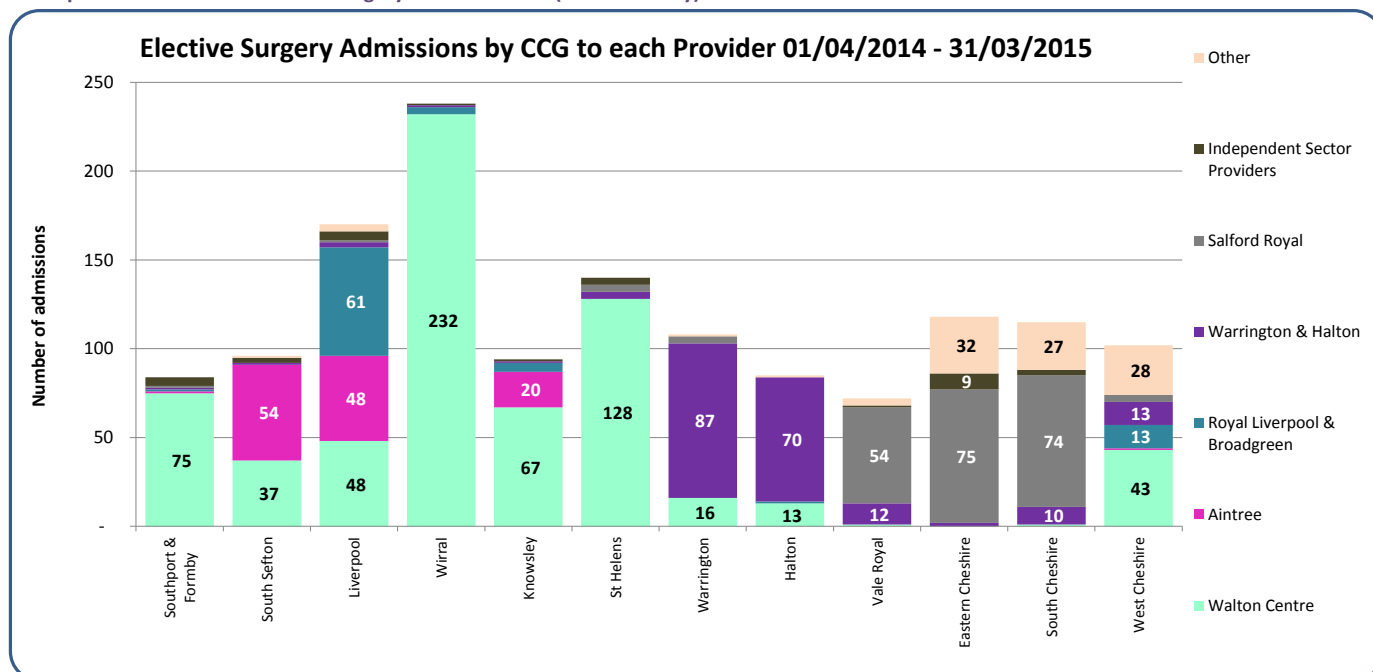
CCG activity to Hospital Trust

7. Patient flows to Hospital Trusts from CCGs for back pain in people aged 16 years and over (April 2014 - March 2015)

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



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



What is the data telling us?

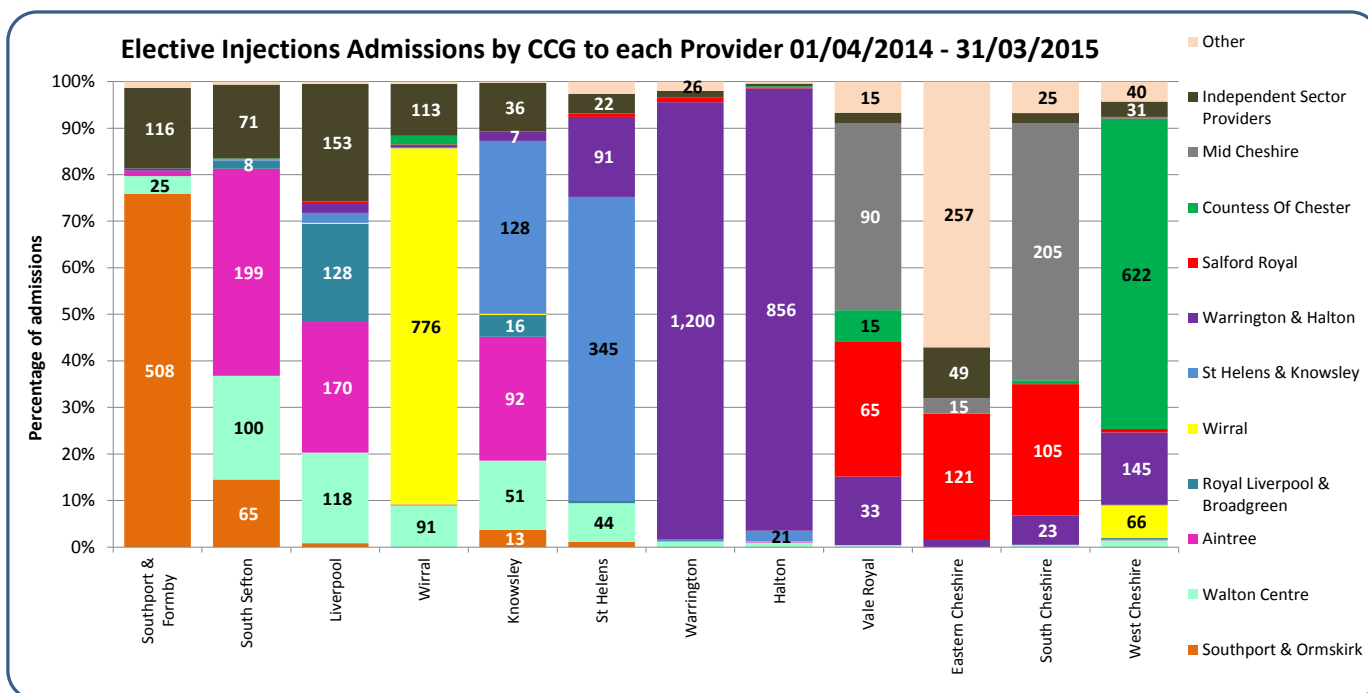
There is variation between CCGs in terms of the number of the number of hospital trusts that their patients are admitted for spinal surgery. Activity is highest for the Wirral CCG who almost exclusively use the Walton Centre. Cheshire and Merseyside CCGs do not have high spinal surgery activity with Independent Sector Providers.

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

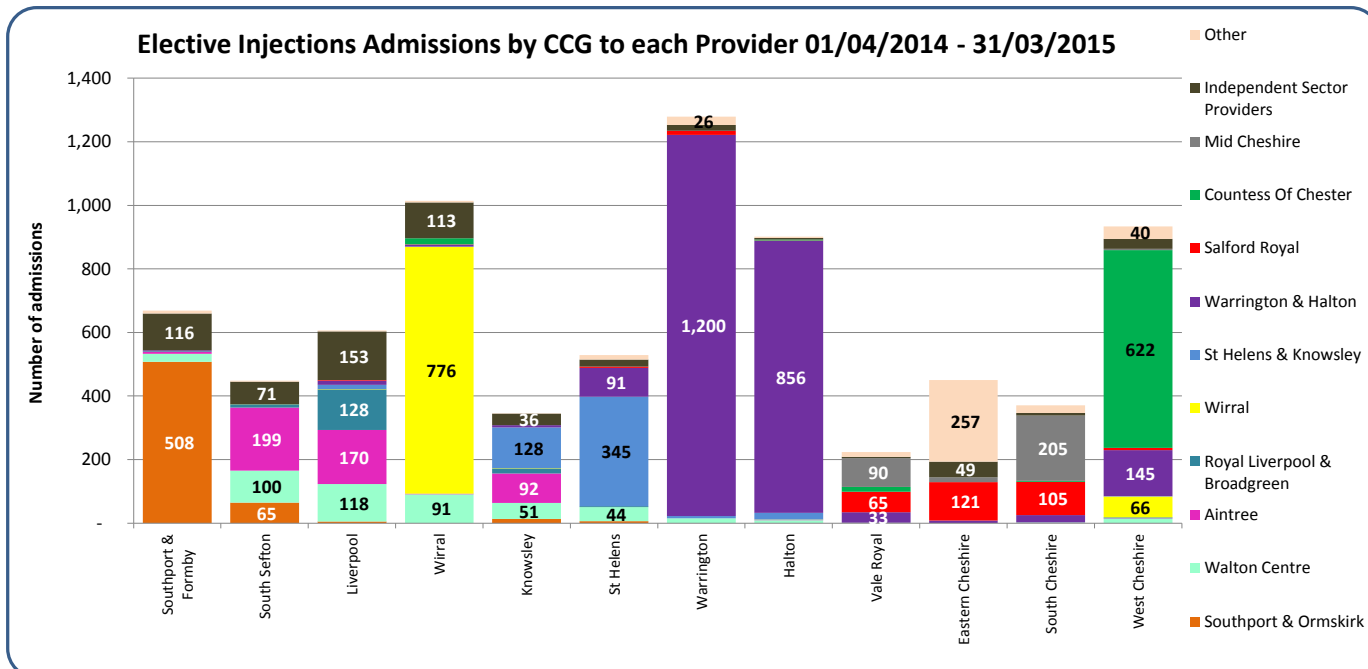
CCG activity to Hospital Trust

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 the number of hospital trusts that their patients are admitted for injections for back or radicular pain.

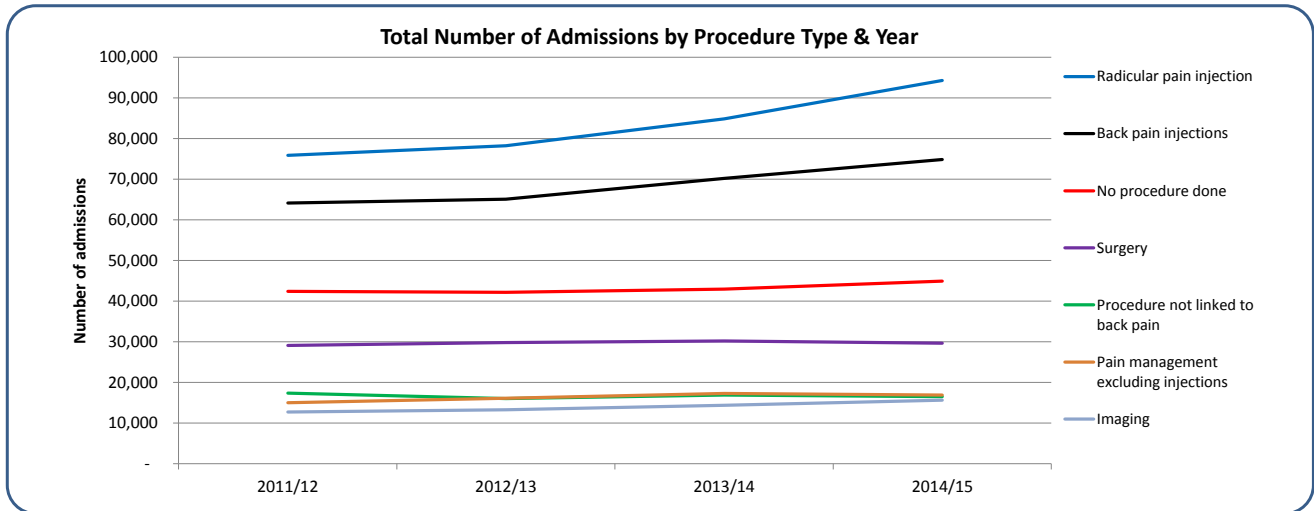
Activity is highest for the Warrington CCG and similar to Halton CCG these admissions are to the local Trust which has hospital sites in both CCGs. Southport & Formby CCG and Liverpool CCG have the highest proportions of Independent Sector activity.

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

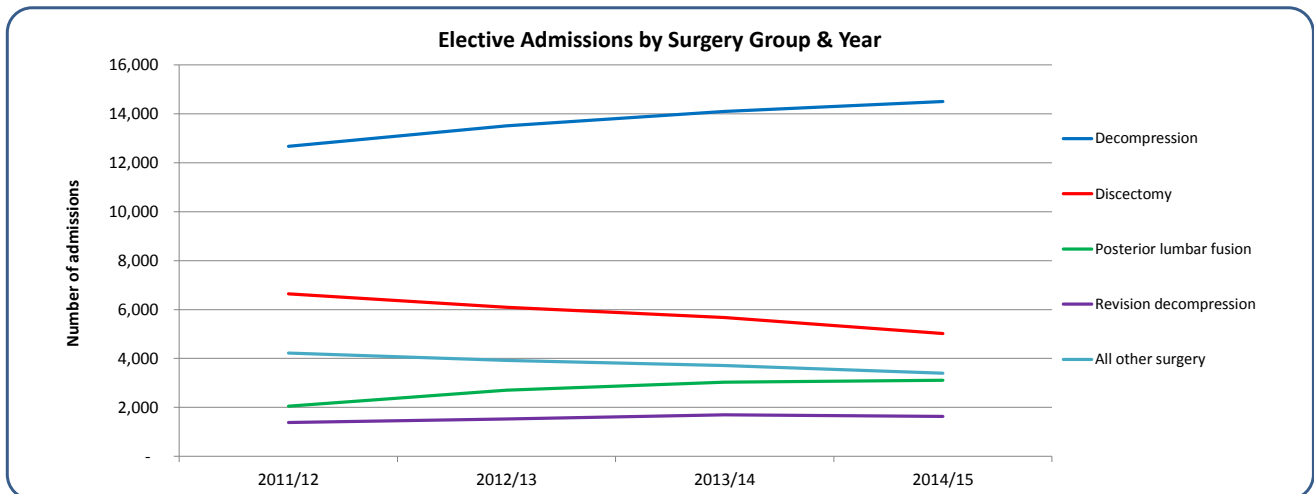
Hospital Trust activity (national level)

8. Hospital admissions for low back and radicular pain in people aged 16 years and over (1st April 2011 - 31st March 2015)

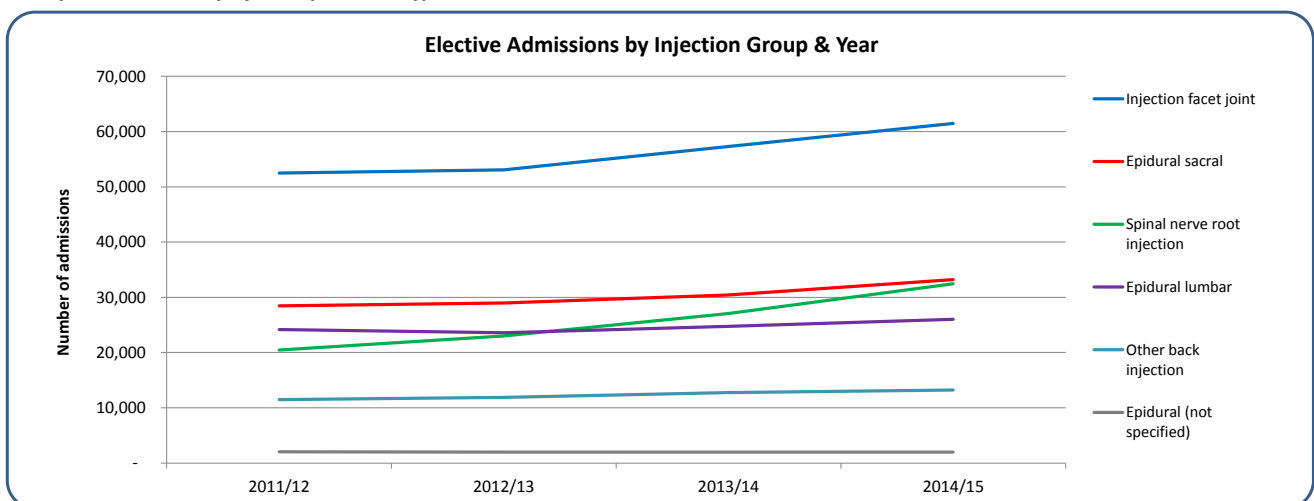
a. Hospital admissions by procedure type over time (all admission types)



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.

Hospital Trust activity

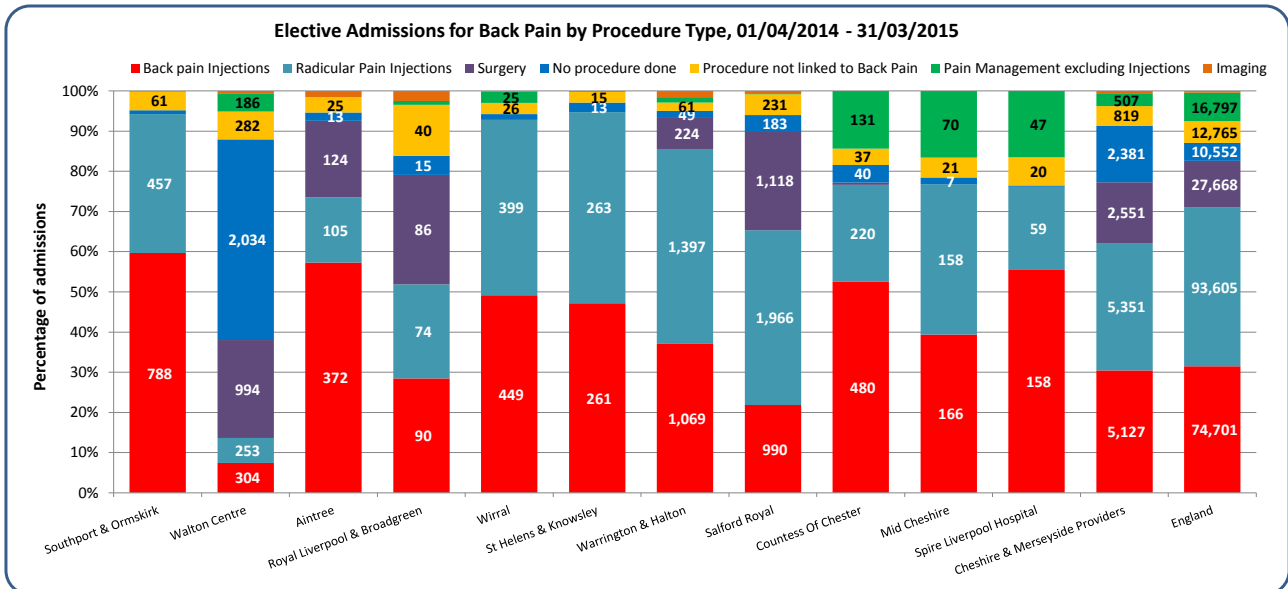
9. Elective hospital admissions for low back and radicular pain in people aged 16 years and over (April 2014 - March 2015)

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%

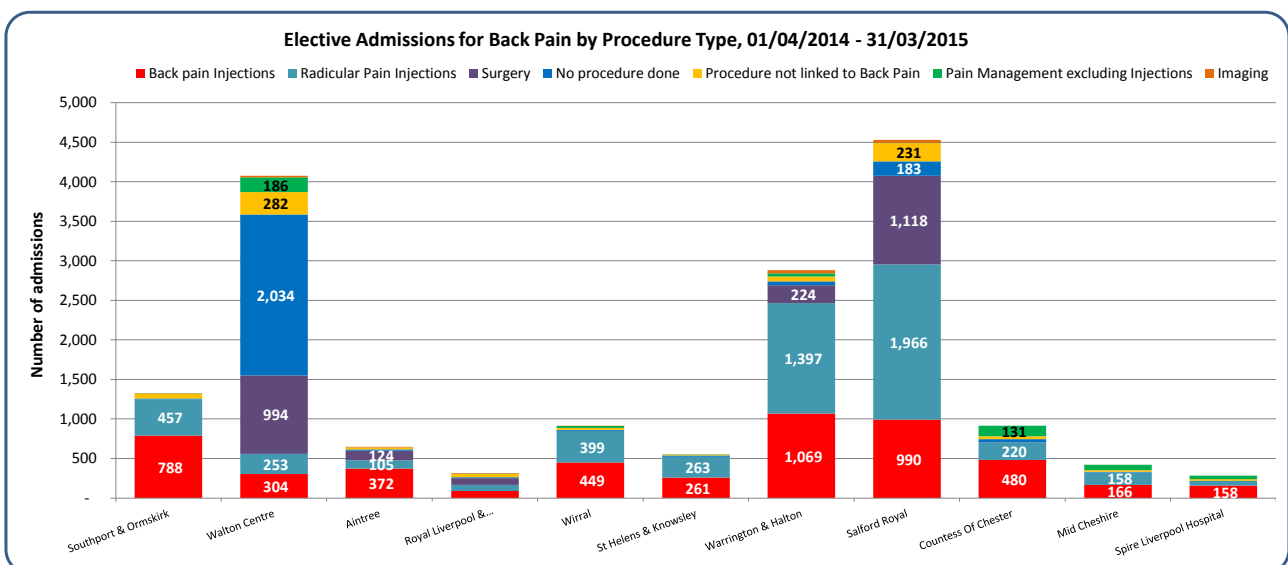
b. Number of elective admissions per hospital Trust, by procedure type (percentage of activity)

(Cheshire & Merseyside Providers only)



c. Number of elective admissions per hospital Trust, by procedure type (actual activity)

(Cheshire & Merseyside Providers only)



What is the data telling us?

The table shows the number of procedures done in the latest 12 month period, by procedure type, with injections being the most common elective procedure. Nationally only 4.4% of elective admissions have no procedure recorded (compared to 15-16% of all admission types - see previous sheet). In the Walton Centre, approximately 50% of their admissions have no procedure recorded.

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

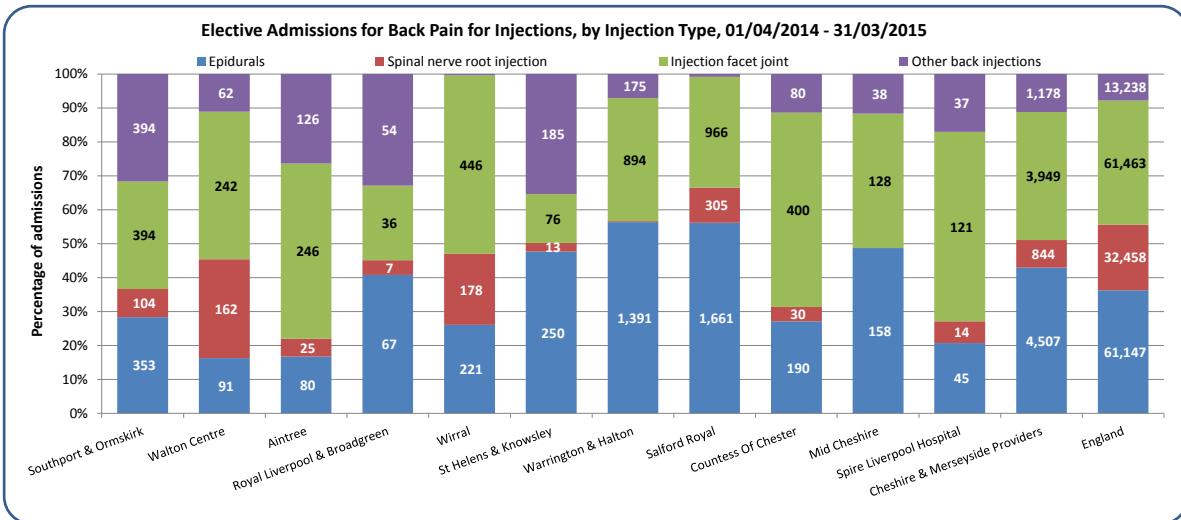
The data is shown in two ways, indicating both the proportion and amount of activity relating to each procedure.

Hospital Trust activity

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

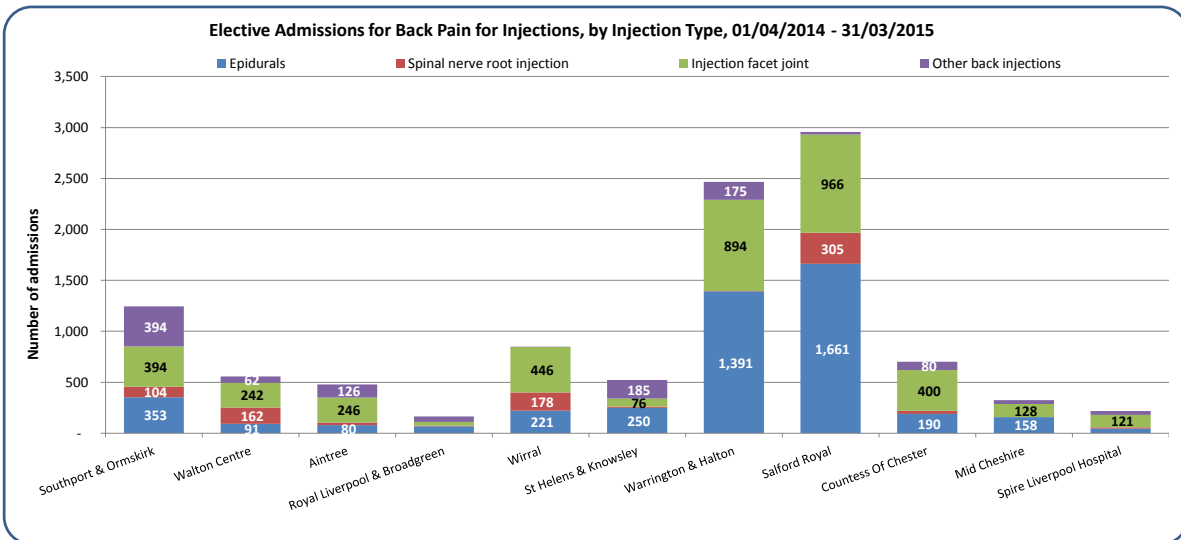
d. Number of elective admissions for injections per hospital Trust, by injection type (percentage of activity)

(Cheshire & Merseyside Providers only)

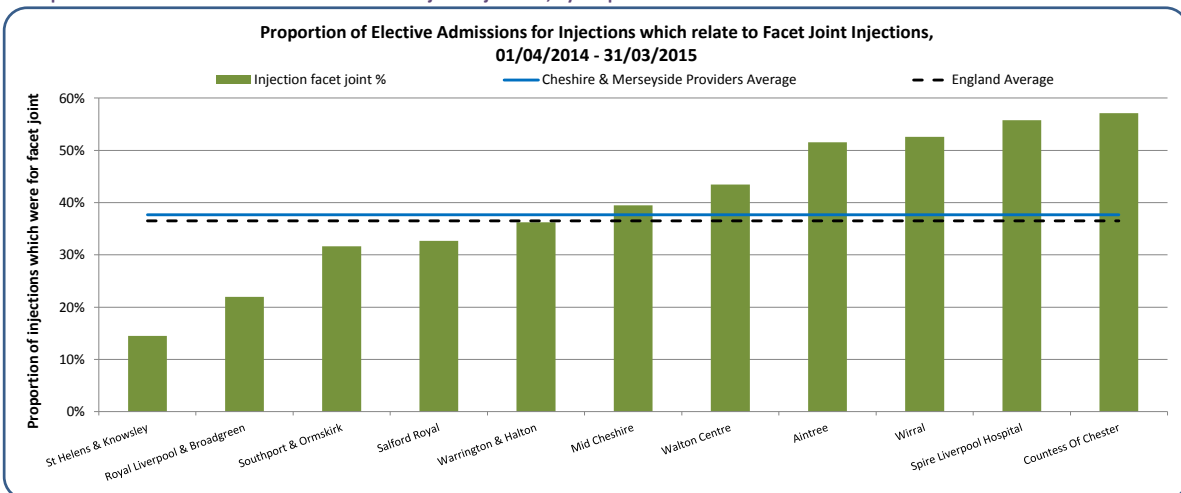


e. Number of elective admissions for injections per hospital Trust, by injection type (actual activity)

(Cheshire & Merseyside Providers only)



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



What is the data telling us?

Epidurals and facet joint injections are those most frequently done within the Cheshire and Merseyside providers, constituting almost 81% of injection activity compared to 73% across England as a whole. Overall in the region there is a lower proportion of spinal nerve root injections (8%) compared to England (19%). Salford Royal and Warrington & Halton Trusts have notably higher activity than the other providers in this region.

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

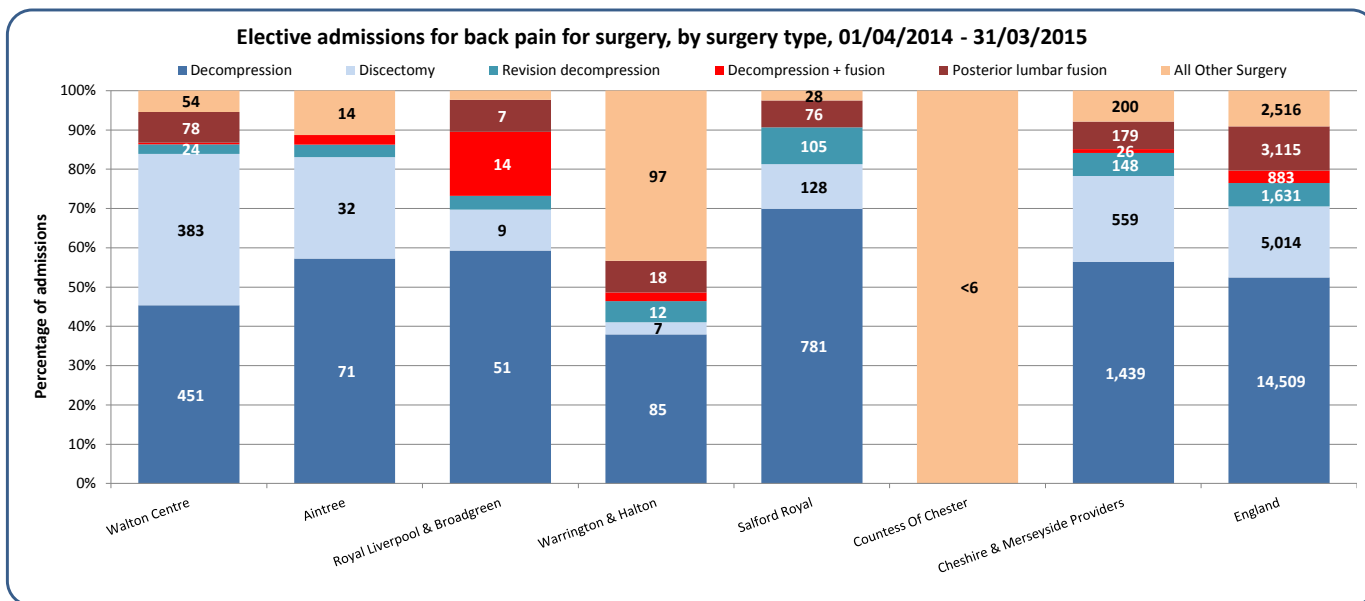
The proportion of facet joint injections done at Trust level ranges from 15% to 57% compared to the England figure of 37%.

Hospital Trust activity

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

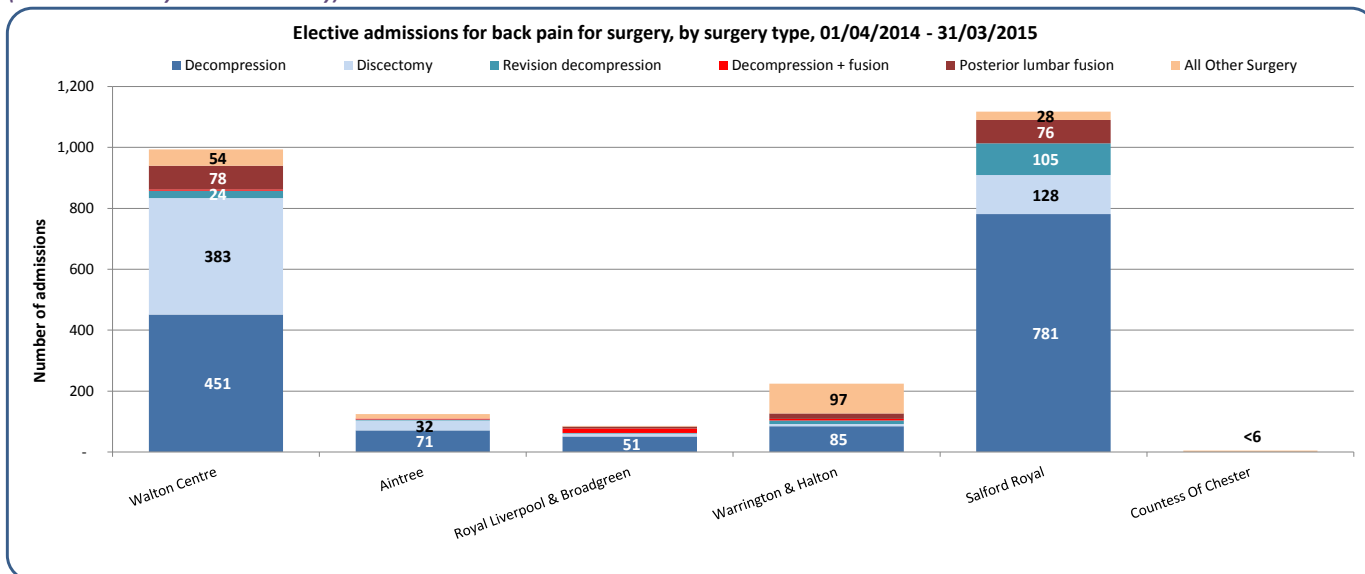
g. Number of elective admissions for surgery per hospital Trust, by surgery type (percentage of activity)

(Cheshire & Merseyside Providers only)



h. Number of elective admissions for surgery per hospital Trust, by surgery type (actual activity)

(Cheshire & Merseyside 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 Cheshire and Merseyside Providers. Overall the region does a lower proportion of spinal fusions compared to the England profile and there are wide variations in the mix or procedures undertaken at provider level.

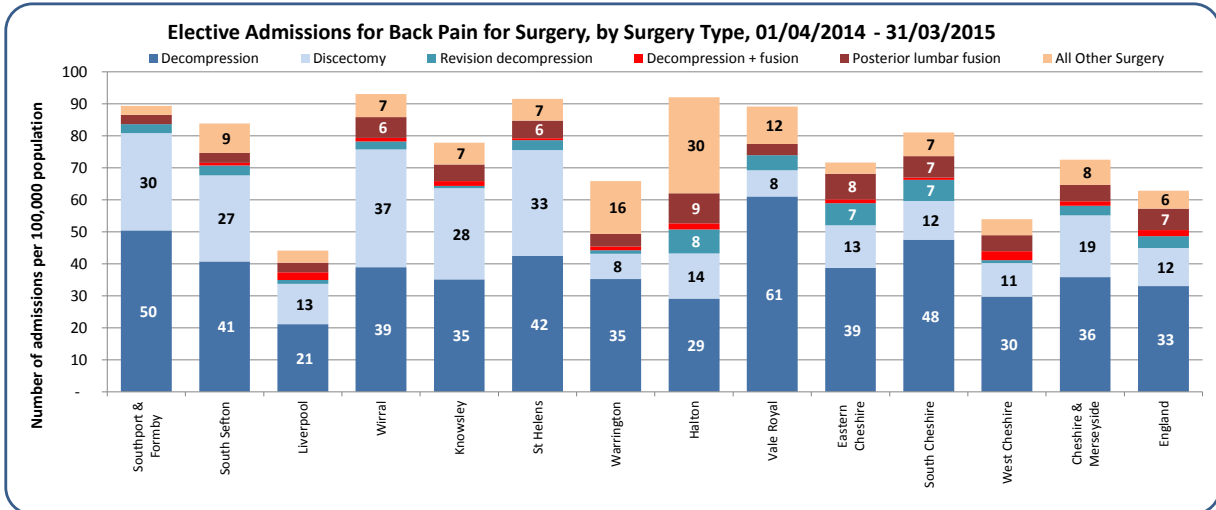
The Walton Centre and Salford Royal have the highest spinal surgery activity for this region with the Walton undertaking a higher proportion of discectomy.

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

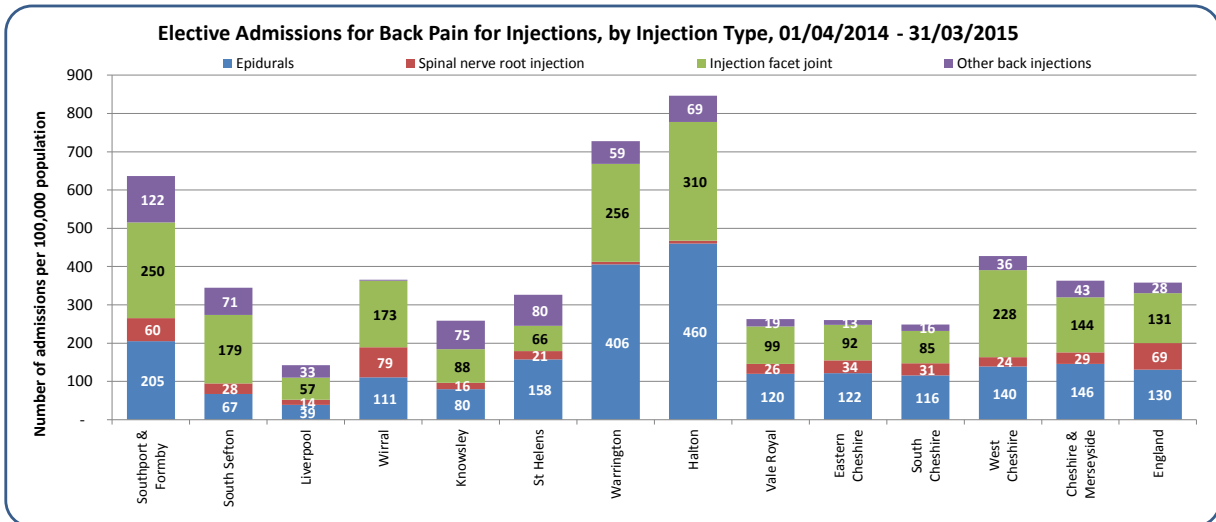
CCG activity by back pain procedure group

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

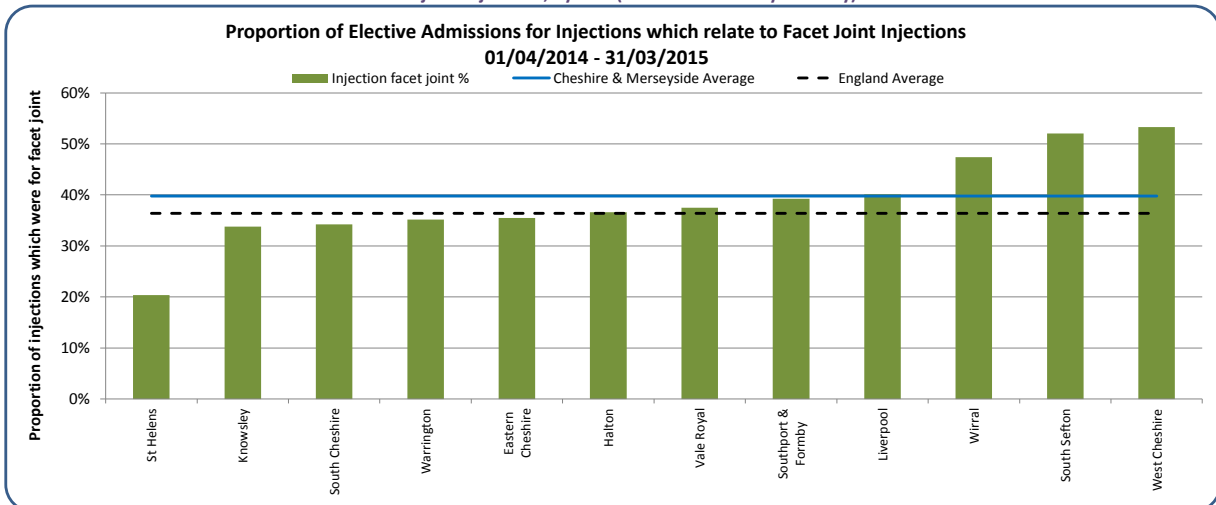
a. Number of elective admissions for surgery per CCG, by surgery type (Cheshire & Merseyside only)



b. Number of elective admissions for injections per CCG, by injection type (Cheshire & Merseyside only)



c. Number of elective admissions for lumbar facet joint injections, by CCG (Cheshire & Merseyside only)



What is the data telling us?

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

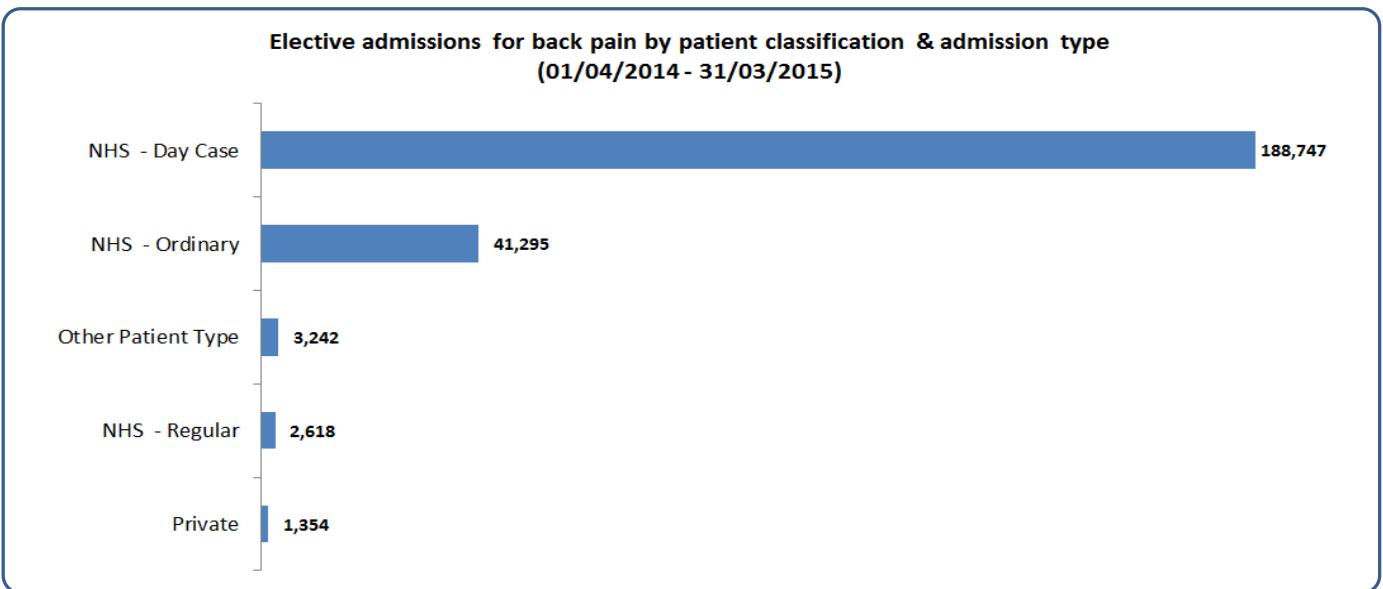
Halton CCG have a notably higher rate of 'all other surgery' (category including procedures with limited clinical effectiveness evidence) compared to the England rates (30 vs. 6 per 100,000).

Halton and Warrington CCGs have notably higher rates for injections overall compared to England rates despite their extremely low rates of spinal nerve root injections. Proportion of lumbar facet joint injections varies from 20% at St Helen's CCG to 53% at West Cheshire CCG.

Hospital Trust activity

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

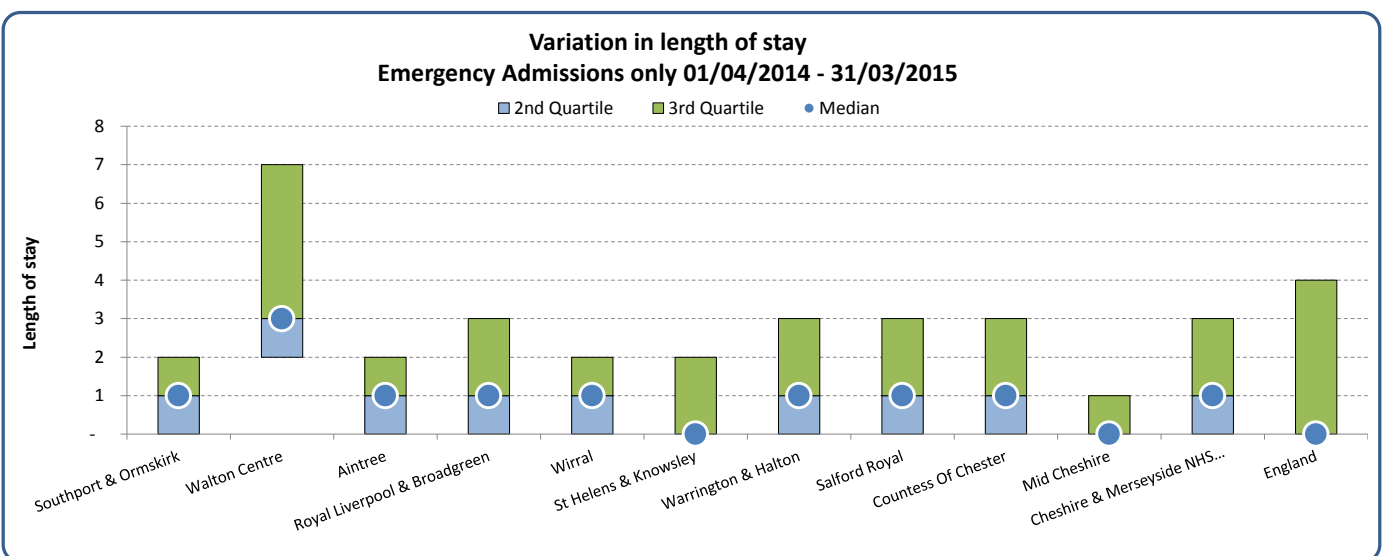


Other Patient Types are Amenity patients and Category II patients, and where the Administrative Category is unknown.

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 (Cheshire & Merseyside 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 Cheshire and Merseyside Trusts and shows that all except two Trusts have a higher median length of stay (ranging from 1 to 3 days), compared to the England rate of zero days.

Hospital Trust Activity Total Costs

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

a. Total Costs by Admission Method Type (Cheshire & Merseyside FTs only)

Provider Name	Elective	Emergency	Other	Total
Salford Royal	£ 8,494,749	£ 1,716,990	£ 7,696	£ 10,219,434
Walton Centre	£ 7,426,010	£ 870,753	£ 22,441	£ 8,319,204
Warrington & Halton	£ 3,234,809	£ 451,811	£ 1,959	£ 3,688,579
Southport & Ormskirk	£ 1,102,958	£ 271,189	£ 4,982	£ 1,379,130
Aintree	£ 781,384	£ 554,068	£ 1,252	£ 1,336,704
Royal Liverpool & Broadgreen	£ 604,427	£ 686,751	£ 945	£ 1,292,123
Wirral	£ 574,187	£ 646,252	£ 1,124	£ 1,221,563
St Helens & Knowsley	£ 346,953	£ 614,969	£ -	£ 961,922
Countess Of Chester	£ 500,193	£ 342,731	£ -	£ 842,924
Mid Cheshire	£ 245,896	£ 312,599	£ 3,388	£ 561,883
Total	£ 23,311,566	£ 6,468,114	£ 43,787	£ 29,823,466

b. Total Costs by Procedure Type (Cheshire & Merseyside FTs only)

Provider Name	Surgery	Radicular pain Injections	Back pain Injections	No procedure done	Procedure not linked to back pain	Imaging	Pain Management excluding Injections	Other Non-Surgical	Total
Salford Royal	£ 5,529,604	£ 1,417,305	£ 605,953	£ 646,873	£ 1,453,088	£ 558,080	£ 8,530	£ -	£ 10,219,434
Walton Centre	£ 5,101,683	£ 163,732	£ 161,719	£ 1,270,055	£ 1,114,512	£ 99,721	£ 407,783	£ -	£ 8,319,204
Warrington & Halton	£ 1,239,029	£ 1,035,260	£ 791,236	£ 252,447	£ 207,903	£ 136,752	£ 25,953	£ -	£ 3,688,579
Southport & Ormskirk	£ -	£ 301,345	£ 757,386	£ 165,043	£ 54,177	£ 99,161	£ 2,017	£ -	£ 1,379,130
Aintree	£ 472,164	£ 70,366	£ 211,091	£ 357,466	£ 55,297	£ 170,320	£ -	£ -	£ 1,336,704
Royal Liverpool & Broadgreen	£ 508,661	£ 47,571	£ 37,543	£ 497,426	£ 98,583	£ 97,411	£ 4,928	£ -	£ 1,292,123
Wirral	£ -	£ 242,350	£ 272,560	£ 470,834	£ 57,450	£ 134,962	£ 43,407	£ -	£ 1,221,563
St Helens & Knowsley	£ -	£ 176,536	£ 156,335	£ 492,140	£ 55,164	£ 81,203	£ 543	£ -	£ 961,922
Countess Of Chester	£ 5,094	£ 133,736	£ 271,178	£ 212,948	£ 71,944	£ 82,076	£ 65,949	£ -	£ 842,924
Mid Cheshire	£ -	£ 103,592	£ 94,013	£ 207,788	£ 29,373	£ 87,912	£ 39,206	£ -	£ 561,883
Total	£ 12,856,235	£ 3,691,793	£ 3,359,014	£ 4,573,021	£ 3,197,490	£ 1,547,599	£ 598,316	£ -	£ 29,823,466

What is the data telling us?

Across all Cheshire and Merseyside Trusts in 2014/15 the total cost to commissioners for back and radicular pain admissions was almost £29.8 million, with 78% of the costs attributed to elective activity. Note that these costs are by provider Trust and will include activity for CCGs outside of the Cheshire and Merseyside region.

The surgery procedures group accounts for almost 43% of the total cost of all procedures, and the cost of injections is an additional 24% of the total.

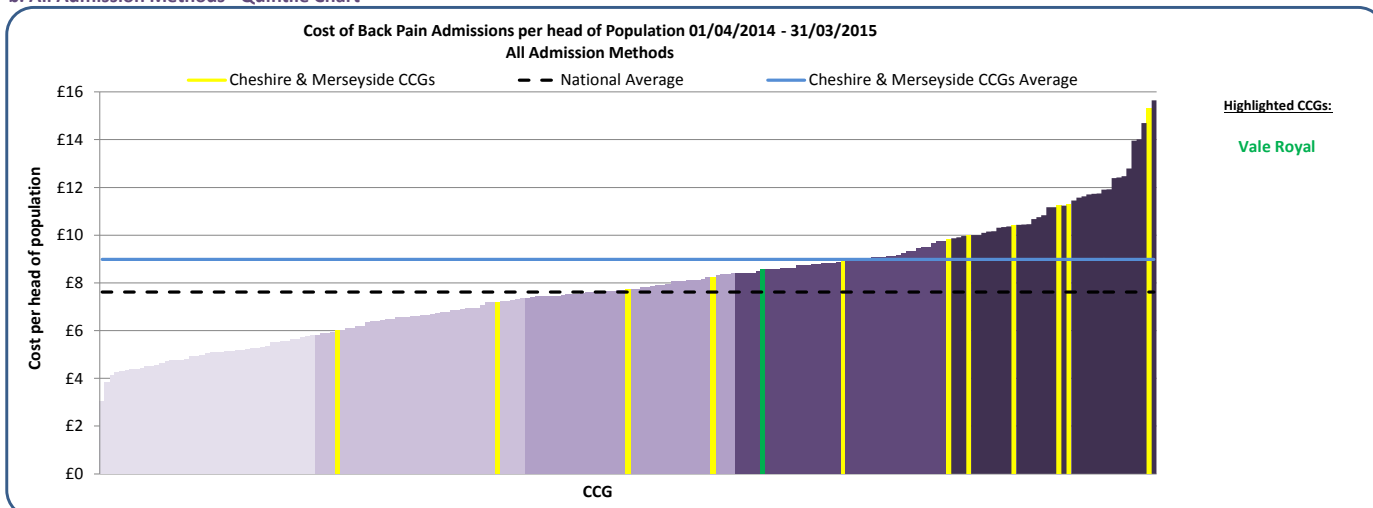
CCG Activity Total Costs

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

Responsible CCG Name	All Admissions		Elective Admissions		Emergency Admissions		Registered Population (Ages 15+)
	Cost per head of Population	Total Cost	Cost per head of Population	Total Cost	Cost per head of Population	Total Cost	
Liverpool	£ 6.00	£ 2,559,465	£ 3.78	£ 1,613,809	£ 2.21	£ 942,895	426,390
Eastern Cheshire	£ 7.21	£ 1,247,468	£ 5.51	£ 954,487	£ 1.51	£ 262,049	173,088
South Cheshire	£ 7.73	£ 1,153,897	£ 6.14	£ 917,847	£ 1.55	£ 232,201	149,368
West Cheshire	£ 8.23	£ 1,798,162	£ 6.31	£ 1,379,907	£ 1.91	£ 417,432	218,615
Vale Royal	£ 8.56	£ 729,376	£ 6.57	£ 559,801	£ 1.95	£ 166,188	85,235
Knowsley	£ 8.90	£ 1,188,880	£ 6.36	£ 850,062	£ 2.47	£ 330,272	133,655
St Helens	£ 9.84	£ 1,602,562	£ 7.39	£ 1,202,614	£ 2.46	£ 399,948	162,810
South Sefton	£ 9.98	£ 1,297,981	£ 7.43	£ 966,760	£ 2.53	£ 329,593	130,047
Wirral	£ 10.43	£ 2,891,123	£ 7.75	£ 2,147,666	£ 2.68	£ 742,333	277,297
Southport & Formby	£ 11.24	£ 1,182,164	£ 9.16	£ 963,110	£ 2.08	£ 219,054	105,191
Warrington	£ 11.27	£ 1,987,032	£ 9.54	£ 1,680,465	£ 1.74	£ 306,567	176,240
Halton	£ 15.31	£ 1,629,987	£ 12.33	£ 1,312,939	£ 2.98	£ 317,048	106,473
Cheshire & Merseyside Total	£ 8.99	£ 19,268,096	£ 6.78	£ 14,549,466	£ 2.18	£ 4,665,579	2,144,409

b. All Admission Methods - Quintile Chart



c. Elective Admissions only, by Procedure Type

Responsible CCG Name	Surgery	Radicular pain Injections	Back pain Injections	No procedure done	Procedure not linked to back pain	Imaging	Pain Management excluding Injections	Other Non-Surgical	Total Cost
Wirral	£ 1,114,268	£ 327,417	£ 292,392	£ 164,306	£ 128,862	£ 4,883	£ 115,538	£ -	£ 2,147,666
Warrington	£ 526,020	£ 530,489	£ 419,744	£ 54,020	£ 100,346	£ 11,387	£ 38,458	£ -	£ 1,680,465
Liverpool	£ 757,371	£ 139,121	£ 203,918	£ 262,549	£ 167,635	£ 9,728	£ 73,486	£ -	£ 1,613,809
West Cheshire	£ 502,512	£ 230,573	£ 331,003	£ 108,131	£ 99,913	£ 8,014	£ 99,760	£ -	£ 1,379,907
Halton	£ 459,929	£ 362,873	£ 294,540	£ 21,375	£ 149,705	£ 7,340	£ 17,178	£ -	£ 1,312,939
St Helens	£ 623,981	£ 196,229	£ 141,996	£ 61,590	£ 147,284	£ 5,926	£ 25,607	£ -	£ 1,202,614
South Sefton	£ 397,942	£ 77,566	£ 198,373	£ 162,918	£ 98,254	£ 6,183	£ 25,525	£ -	£ 966,760
Southport & Formby	£ 372,499	£ 182,079	£ 300,037	£ 16,150	£ 67,940	£ 619	£ 23,787	£ -	£ 963,110
Eastern Cheshire	£ 561,286	£ 183,278	£ 108,465	£ 12,154	£ 54,997	£ 1,619	£ 30,279	£ 2,409	£ 954,487
South Cheshire	£ 569,826	£ 146,119	£ 85,384	£ 15,439	£ 71,346	£ 3,128	£ 26,605	£ -	£ 917,847
Knowsley	£ 426,512	£ 83,886	£ 135,168	£ 84,576	£ 88,818	£ 5,134	£ 25,968	£ -	£ 850,062
Vale Royal	£ 314,230	£ 83,314	£ 62,562	£ 11,352	£ 69,349	£ 1,584	£ 17,409	£ -	£ 559,801

What is the data telling us?

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

Halton CCG has the highest spend per head of population nationally (£15.31) and has consistently high costs for both elective (£12.33) and emergency (£2.98) admissions which are a reflection of the very high admission rates. In contrast, Warrington CCG has relatively low costs per head for emergency admissions (£1.74), but very high costs for elective admissions (£9.54) putting it alongside Southport & Formby CCG which has high costs for all admissions.

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 the spend but in Halton CCG, Southport & Formby CCG and in particular Warrington CCG considerably more is spent on admissions for injections compared to what is spent on surgery.

14. Back & Radicular Pain Admissions Breakdown for the Cheshire & Merseyside Region

Highlighted Provider Data is included in this report

(Blue=NHS Trust & Green=Independent Sector Provider)

Code	Provider Name	Elective Admissions			Emergency Admissions	Other Admission Types	Total
		Surgery	Injections	Other			
RET	THE WALTON CENTRE NHS FOUNDATION TRUST	661	470	2,004	178	<6	3,315
RWW	WARRINGTON AND HALTON HOSPITALS NHS FOUNDATION TRUST	205	2,385	179	377	<6	3,148
RBL	WIRRAL UNIVERSITY TEACHING HOSPITAL NHS FOUNDATION TRUST	-	845	66	625	<6	1,537
REM	AINTREE UNIVERSITY HOSPITAL NHS FOUNDATION TRUST	124	471	47	582	<6	1,225
RBN	ST HELENS AND KNOWSLEY HOSPITALS NHS TRUST	-	517	29	624	-	1,170
RJR	COUNTESS OF CHESTER HOSPITAL NHS FOUNDATION TRUST	<6	663	190	263	<6	1,123
RQ6	ROYAL LIVERPOOL AND BROADGREEN UNIVERSITY HOSPITALS NHS TRUST	85	160	65	564	<6	878
RVY	SOUTHPORT AND ORMSKIRK HOSPITAL NHS TRUST	-	597	36	186	-	819
RBT	MID CHESHIRE HOSPITALS NHS FOUNDATION TRUST	-	314	94	372	<6	784
RM3	SALFORD ROYAL NHS FOUNDATION TRUST	217	319	62	57	<6	656
NT337	SPIRE LIVERPOOL HOSPITAL	-	202	61	-	-	263
NVC16	RENACRES HOSPITAL	14	224	<6	-	-	243
RWJ	STOCKPORT NHS FOUNDATION TRUST	29	142	20	29	6	226
RM2	UNIVERSITY HOSPITAL OF SOUTH MANCHESTER NHS FOUNDATION TRUST	-	117	19	17	-	153
RJN	EAST CHESHIRE NHS TRUST	-	-	<6	125	8	134
NT325	SPIRE MURRAYFIELD HOSPITAL	-	126	6	-	-	132
RL1	THE ROBERT JONES AND AGNES HUNT ORTHOPAEDIC HOSPITAL NHS FOUNDATION TRUST	36	46	13	<6	-	96
RJE	UNIVERSITY HOSPITALS OF NORTH MIDLANDS NHS TRUST	27	23	23	17	<6	91
NT403	BMI - THE BEARDWOOD HOSPITAL	-	24	10	-	-	34
NT401	BMI - THE ALEXANDRA HOSPITAL	7	21	<6	-	-	32
RRF	WRIGHTINGTON, WIGAN AND LEIGH NHS FOUNDATION TRUST	-	19	<6	8	-	30
RW3	CENTRAL MANCHESTER UNIVERSITY HOSPITALS NHS FOUNDATION TRUST	-	19	<6	<6	-	25
RXN	LANCASHIRE TEACHING HOSPITALS NHS FOUNDATION TRUST	<6	11	7	-	-	20
NT339	SPIRE REGENCY HOSPITAL	<6	12	<6	-	-	16
RW6	PENNINE ACUTE HOSPITALS NHS TRUST	-	10	<6	<6	-	13
NT404	BMI - THE BEAUMONT HOSPITAL	-	9	<6	-	-	11
NT230	NUFFIELD HEALTH, NORTH STAFFORDSHIRE HOSPITAL	<6	6	-	-	-	10
RBS	ALDER HEY CHILDREN'S NHS FOUNDATION TRUST	<6	<6	<6	<6	-	7
RRV	UNIVERSITY COLLEGE LONDON HOSPITALS NHS FOUNDATION TRUST	-	<6	<6	-	-	7
NVC07	FULWOOD HALL HOSPITAL	<6	<6	<6	-	-	6
RTD	THE NEWCASTLE UPON TYNE HOSPITALS NHS FOUNDATION TRUST	-	<6	<6	<6	-	<6
RXR	EAST LANCASHIRE HOSPITALS NHS TRUST	-	<6	<6	<6	-	<6
NVG01	FAIRFIELD HOSPITAL	-	-	<6	-	-	<6
RBV	THE CHRISTIE NHS FOUNDATION TRUST	-	-	-	<6	-	<6
REN	THE CLATTERBRIDGE CANCER CENTRE NHS FOUNDATION TRUST	-	-	-	<6	-	<6
RJ1	GUY'S AND ST THOMAS' NHS FOUNDATION TRUST	-	-	<6	-	-	<6
RWY	CALDERDALE AND HUDDERSFIELD NHS FOUNDATION TRUST	-	<6	-	<6	-	<6
RXW	SHREWSBURY AND TELFORD HOSPITAL NHS TRUST	-	-	-	<6	-	<6
NT324	SPIRE CHESHIRE HOSPITAL	-	-	<6	-	-	<6
RAN	ROYAL NATIONAL ORTHOPAEDIC HOSPITAL NHS TRUST	-	<6	<6	-	-	<6
RKB	UNIVERSITY HOSPITALS COVENTRY AND WARWICKSHIRE NHS TRUST	-	<6	-	<6	-	<6
RKE	THE WHITTINGTON HOSPITAL NHS TRUST	-	-	-	<6	-	<6
RR8	LEEDS TEACHING HOSPITALS NHS TRUST	<6	-	-	<6	-	<6
RWA	HULL AND EAST YORKSHIRE HOSPITALS NHS TRUST	-	-	<6	<6	-	<6
RXL	BLACKPOOL TEACHING HOSPITALS NHS FOUNDATION TRUST	-	<6	-	<6	-	<6
RXP	COUNTY DURHAM AND DARLINGTON NHS FOUNDATION TRUST	-	-	-	<6	-	<6
R1E	STAFFORDSHIRE AND STOKE ON TRENT PARTNERSHIP NHS TRUST	-	-	<6	-	-	<6
R1H	BARTS HEALTH NHS TRUST	-	-	-	<6	-	<6
RA9	SOUTH DEVON HEALTHCARE NHS FOUNDATION TRUST	-	-	-	<6	-	<6
RAL	ROYAL FREE LONDON NHS FOUNDATION TRUST	-	-	-	<6	-	<6
RBA	TAUNTON AND SOMERSET NHS FOUNDATION TRUST	-	-	-	<6	-	<6
RBQ	LIVERPOOL HEART AND CHEST HOSPITAL NHS FOUNDATION TRUST	-	-	-	<6	-	<6
RCB	YORK TEACHING HOSPITAL NHS FOUNDATION TRUST	-	-	-	<6	-	<6
REP	LIVERPOOL WOMEN'S NHS FOUNDATION TRUST	-	-	-	<6	-	<6
RGN	PETERBOROUGH AND STAMFORD HOSPITALS NHS FOUNDATION TRUST	-	-	-	<6	-	<6
RH8	ROYAL DEVON AND EXETER NHS FOUNDATION TRUST	-	<6	-	-	-	<6
RHM	UNIVERSITY HOSPITAL SOUTHAMPTON NHS FOUNDATION TRUST	-	-	-	<6	-	<6
RHQ	SHEFFIELD TEACHING HOSPITALS NHS FOUNDATION TRUST	-	-	-	<6	-	<6
RHW	ROYAL BERKSHIRE NHS FOUNDATION TRUST	<6	-	-	-	-	<6
RJC	SOUTH WARWICKSHIRE NHS FOUNDATION TRUST	-	-	-	<6	-	<6
RJF	BURTON HOSPITALS NHS FOUNDATION TRUST	-	-	-	<6	-	<6
RL4	THE ROYAL WOLVERHAMPTON NHS TRUST	-	-	-	<6	-	<6
RM1	NORFOLK AND NORWICH UNIVERSITY HOSPITALS NHS FOUNDATION TRUST	-	-	-	<6	-	<6
RMP	TAMESIDE HOSPITAL NHS FOUNDATION TRUST	-	-	-	<6	-	<6
RN3	GREAT WESTERN HOSPITALS NHS FOUNDATION TRUST	-	-	-	<6	-	<6
RP5	DONCASTER AND BASSETLAW HOSPITALS NHS FOUNDATION TRUST	-	-	-	<6	-	<6
RRK	UNIVERSITY HOSPITALS BIRMINGHAM NHS FOUNDATION TRUST	-	<6	-	-	-	<6
RTE	GLOUCESTERSHIRE HOSPITALS NHS FOUNDATION TRUST	-	-	-	<6	-	<6
RTH	OXFORD UNIVERSITY HOSPITALS NHS TRUST	-	-	-	<6	-	<6
RVR	EPSOM AND ST HELIER UNIVERSITY HOSPITALS NHS TRUST	-	-	-	<6	-	<6
RVW	NORTH TEES AND HARTLEPOOL NHS FOUNDATION TRUST	-	-	<6	-	-	<6
RYJ	IMPERIAL COLLEGE HEALTHCARE NHS TRUST	-	-	-	<6	-	<6
NT497	BMI GISBURNE PARK HOSPITAL	-	<6	-	-	-	<6
NTX01	ONE HEALTH GROUP LTD	-	-	<6	-	-	<6
NYW04	ASPEN - CLAREMONT HOSPITAL	-	<6	-	-	-	<6
Total		1,427	7,770	2,977	4,072	32	16,278

DOCUMENT GOVERNANCE	
Document name	Back Pain Report
Document type	Final
Version	0.6
Date	17/06/2016
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	neqos@nhs.net
Public file location	N/A
Internal file location	G:\Project Management\Project Mgt 15-16\Back Pain

VERSION CONTROL				
Version	Document Type	Date	Amendments	By
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	17/06/2016	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?	