

**Appendix 1 (a-b). NHS hospitals providing cancer treatment classified as London hospitals (i.e. those located within the London Strategic Health Authority); Hospitals classified as 'teaching' hospitals in England**

**a. London hospitals**

Barking, Havering and Redbridge  
Barnet and Chase Farm Hospitals  
Barts and The London  
Chelsea and Westminster Hospital  
Ealing Hospital  
Epsom and St Helier University Hospital  
Guy's and St Thomas'  
Hillingdon Hospital  
Homerton University Hospital  
Imperial College Healthcare  
King's College Hospital  
Kingston Hospital  
Lewisham Hospital  
Mayday Healthcare  
Newham University Hospital  
North Middlesex University Hospital  
North West London Hospitals  
Royal Brompton and Harefield  
Royal Free Hampstead  
The Royal Marsden Hospital  
Royal National Orthopaedic Hospital  
South London Healthcare  
St George's Healthcare  
University College London Hospitals  
West Middlesex University Hospital  
The Whittington Hospital  
Whipps Cross University Hospital

**b. NHS Teaching hospitals in England**

*London teaching hospitals*

Barts and The London  
Chelsea and Westminster Hospital  
Guy's and St Thomas'  
Imperial College Healthcare  
King's College Hospital  
Royal Free Hampstead  
St George's Healthcare  
University College London Hospitals

*Teaching hospitals in other parts of England*

Brighton and Sussex University Hospitals  
Cambridge University Hospitals  
Central Manchester University Hospitals  
Leeds Teaching Hospitals  
The Newcastle Upon Tyne Hospitals  
Norfolk and Norwich University Hospital  
Nottingham University Hospitals  
Oxford Radcliffe Hospitals  
Royal Devon and Exeter  
Royal Liverpool and Broadgreen University Hospitals

Salford Royal  
Sheffield Teaching Hospitals  
Southampton University Hospitals  
University Hospital Birmingham  
University Hospital of South Manchester  
University Hospitals Bristol  
University Hospitals Coventry and Warwick  
University Hospitals of Leicester

**Appendix table 2. Cancer International Classification of Diseases 10 codes and diagnosis groups**

Breast	C50	Malignant neoplasm of breast
Ductal carcinoma in situ (DCIS)	D05	Carcinoma in situ of breast
Ovarian	C56	Malignant neoplasm of ovary
Endometrial	C54, C55	Malignant neoplasm of corpus uteri (C54) and of uterus, part unspecified (C55)
Cervical	C53	Malignant neoplasm of cervix uteri
Vulval / vaginal	C51, C52	Malignant neoplasm of vulva (C51) and vagina (C52)
Other gynaecological cancer	C57	Malignant neoplasm of other and unspecified female genital organs (C57)
Thyroid	C73	Malignant neoplasm of thyroid gland
Laryngeal	C32	Malignant neoplasm of larynx
Other head and neck cancers	C00 - C14, C30, C31	Malignant neoplasm of lip (C00), base of tongue (C01), other and unspecified parts of tongue (C02), gum (C03), floor of mouth (C04), palate (C05), other/unspecified parts of mouth (C06), parotid gland (C07), other/unspecified major salivary gland (C08), tonsil (C09), oropharynx (C10), nasopharynx (C11), pyriform sinus (C12), hypopharynx (C13), other and ill-defined sites in the lip, oral cavity and pharynx (C14), nasal cavity and middle ear (C30) and accessory sinuses (C31)
Non-Hodgkin lymphoma	C82, C83, C85, C84	Follicular [nodular] non-Hodgkin's lymphoma (C82), diffuse non-Hodgkin's lymphoma (C83), Mycosis Fungoides (C84) other and unspecified types of non-Hodgkin's lymphoma (C85)
Multiple myeloma	C90	Multiple myeloma and malignant plasma cell neoplasms
Leukaemia	C91, C92, C93, C94, C95	Lymphoid (C91), myeloid (C92), monocytic (C93), and other leukemia of specified cell type (C94) and unspecified cell type (C95)
Hodgkin's lymphoma	C81	Hodgkin's disease
Rectal	C19, C20	Malignant neoplasm of recto-sigmoid junction (C19), and of rectum (C20)
Colon	C18	Malignant neoplasm of colon
Anal	C21	Malignant neoplasm of anus and anal canal (C21)
Other LGI	C17, C26	Malignant neoplasm of small intestine (C17), and of other and ill-defined digestive organs (C26)
Lung	C34, C33	Malignant neoplasm of bronchus and lung (C34) Malignant neoplasm of trachea (C33)
Mesothelioma	C45	Mesothelioma
Brain	C71	Malignant neoplasm of brain
Other central nervous system cancers	C47, C69, C70, C72	Malignant neoplasm of peripheral nerves and autonomic nervous system (C47), eye and adnexa (C69), meninges (C70), and spinal cord, cranial nerves and other parts of central nervous system (C72)
Oesophageal	C15	Malignant neoplasm of oesophagus
Stomach	C16	Malignant neoplasm of stomach
Pancreatic	C25	Malignant neoplasm of pancreas
Hepato-biliary gallbladder	C22, C23, C24	Malignant neoplasm of liver and intrahepatic bile ducts (C22) and of gallbladder (C23) Malignant neoplasm of other and unspecified parts of biliary tract (C24)
Bladder	C67	Malignant neoplasm of bladder
Prostate	C61	Malignant neoplasm of prostate
Renal	C64	Malignant neoplasm of kidney, except renal pelvis
Other urological cancers	C60, C63, C65, C66, C68	Malignant neoplasm of penis (C60), other/unspecified male genital organs (C63), renal pelvis (C65), ureter (C66) and other/unspecified urinary organs (C68)
Testicular	C62	Malignant neoplasm of testis
Secondary	C77, C78, C79	Secondary and unspecified malignant neoplasm of lymph nodes (C77) Secondary malignant neoplasm of respiratory and digestive organs (C78) Secondary malignant neoplasm of other and unspecified sites (C79)
Melanoma	C43	Malignant melanoma of skin
Soft Tissue Sarcoma	C48, C49, C46	Kaposi's sarcoma (C46) Malignant neoplasm of retroperitoneum and peritoneum (C48) and other connective and soft tissue (C49)
Bone Sarcoma	C40, C41	Malignant neoplasm of bone and articular cartilage of limbs (C40) and of bone and articular cartilage of other and unspecified sites (C41)
General Other	C37, C38, C39, C74, C75, C76, C80, C97, C58, C88, C96	Malignant immunoproliferative diseases (C88) Thymus (C37), heart, mediastinum and pleura (C38) and of other and ill-defined sites in the respiratory system and intrathoracic organs (C39)

### Appendix table 3

Regional differences in cancer patient experience scores. This table describes crude absolute difference in percentage of positive responses by region, compared with London. Negative number London=better, positive number London=worse. We see in this table that across most questions all non-London regions have average cancer patient experience scores that are several percent higher than London.

Question number	West Midlands	East Midlands	EDE	London	North East	North West	South Central	South East	East of England	South West	Yorkshire and the Humber
1	4	5	4	0	6	6	4	7	5	6	6
2	4	4	3	0	7	5	3	5	4	5	5
3	3	3	3	0	4	4	4	3	4	4	4
4	4	5	5	0	5	6	3	5	5	4	4
6	2	2	3	0	5	3	2	3	3	4	4
7	3	2	3	0	5	3	3	4	3	4	4
8	3	3	3	0	5	1	3	3	4	3	3
9	4	3	4	0	7	4	4	4	4	5	5
11	7	6	3	0	10	6	4	4	7	5	5
12	3	2	1	0	4	2	2	3	2	1	1
13	2	2	3	0	4	2	2	4	2	2	2
14	4	5	4	0	7	2	3	7	3	3	3
15	0	2	1	0	4	3	1	1	1	4	4
16	3	3	3	0	6	4	1	3	4	4	4
17	3	2	1	0	7	1	2	2	2	4	4
18	4	4	2	0	4	0	1	2	2	4	4
19	2	2	2	0	6	3	3	3	4	5	5
20	-2	-4	0	0	2	-1	-1	-2	-2	1	1
21	6	6	5	0	13	7	2	5	8	8	8
22	2	0	2	0	4	2	2	1	3	3	3
23	2	0	2	0	4	2	3	2	3	3	3
24	0	-1	3	0	0	-1	1	4	3	4	4
25	1	-3	1	0	8	1	1	0	5	8	8
26	3	-1	1	0	2	1	-1	1	1	4	4
27	-15	-16	-11	0	-15	-15	-9	-17	-13	-7	-7
29	-2	0	-1	0	-3	-3	0	-2	-2	-2	-2
31	3	3	4	0	5	3	3	4	4	4	4
32	2	1	2	0	4	1	3	2	3	2	2
33	5	8	5	0	5	3	4	5	5	4	4
34	1	-1	2	0	5	1	2	2	2	2	2
36	0	1	0	0	4	1	2	2	3	2	2
37	2	1	2	0	6	3	3	4	4	3	3
38	4	3	4	0	5	5	4	3	5	4	4
39	-1	-2	-1	0	4	1	-2	-1	1	1	1
40	3	4	4	0	8	6	4	5	8	6	6
41	5	5	6	0	11	9	5	7	9	8	8
42	4	4	3	0	6	7	6	6	6	6	6
43	-4	-3	-4	0	3	0	0	2	0	-3	-3
44	2	1	3	0	5	3	3	3	4	3	3
45	3	2	2	0	7	6	3	5	5	2	2
46	16	23	12	0	25	14	20	14	21	19	19
47	2	3	3	0	3	3	4	2	2	2	2
48	1	1	1	0	1	1	1	1	0	1	1
49	5	6	4	0	9	7	6	7	8	7	7
50	0	1	2	0	3	2	2	1	4	2	2
51	3	3	3	0	6	4	3	3	5	4	4
52	4	3	3	0	4	3	3	4	3	3	3
53	3	1	2	0	3	1	2	2	3	3	3
54	1	0	0	0	3	0	0	0	3	1	1
55	8	4	8	0	13	11	3	8	8	11	11
56	4	4	4	0	8	5	2	2	4	9	9
57	6	1	6	0	9	4	4	4	5	7	7
58	3	3	5	0	7	3	2	3	5	7	7
59	6	3	6	0	10	8	4	6	6	10	10

61	Waited no longer than 30 minutes for OPD appointment to start	6	8	7	0	19	8	9	11	12	9
62	Patient thought doctor spent about the right amount of time with them	1	1	1	0	2	1	2	2	2	3
63	Doctor had the right notes and other documentation with them	1	1	1	0	2	1	1	1	1	1
64	GP given enough information about patient's condition and treatment	0	0	1	0	2	-1	-1	2	0	1
65	Practice staff definitely did everything they could to support patient	6	5	7	0	10	6	9	7	9	7
66	Hospital and community staff always worked well together	8	6	8	0	12	9	6	9	9	9
67	Given the right amount of information about condition and treatment	0	0	1	0	4	0	1	2	1	2
68	Patient was offered a written care plan	3	-2	0	0	6	0	-6	0	-3	3
69	Patient did not feel that they were treated as a set of cancer symptoms	2	1	4	0	5	4	4	5	4	6
70	Overall rating of care	1	0	2	0	3	2	3	2	3	3

**Appendix table 4a presents London vs. rest-of-England comparisons in absolute percentage scores.**

Question	All responses		"Rest of England"		London	
	N	% positive	N	% positive	N	% positive
1 Saw GP once/twice before being told had to go to hospital	52808	74.4	46286	75.1	6522	69.7
2 Patient thought they were seen as soon as necessary	66716	83.4	58328	84.0	8388	79.4
3 % saw a hospital doctor in less than 3 months	64558	80.9	56464	81.4	8094	77.7
4 Patient's health got better or remained about the same while waiting	66644	79.5	58268	80.1	8376	75.6
6 Staff gave complete explanation of purpose of test(s)	55125	83.0	48334	83.4	6791	80.4
7 Staff explained completely what would be done during test	56574	86.6	49631	87.0	6943	83.8
8 Given easy to understand written information about test	43832	86.7	38426	87.1	5406	84.2
9 Given complete explanation of test results in understandable way	57658	77.7	50529	78.2	7129	73.9
11 Patient told they could bring a friend when first told they had cancer	54834	71.9	48075	72.6	6759	66.9
12 Patient felt they were told sensitively that they had cancer	67651	83.1	59130	83.4	8521	81.2
13 Patient completely understood the explanation of what was wrong	67675	73.0	59155	73.3	8520	70.8
14 Patient given written information about the type of cancer they had	58460	68.9	51027	69.4	7433	65.4
15 Patient given a choice of different types of treatment	23869	84.0	20588	84.2	3281	82.5
16 Patient thinks that their views were taken into account when discussing treatment	57815	69.6	50430	70.0	7385	66.6
17 Possible side effects explained in an understandable way	64025	74.8	55850	75.1	8175	72.7
18 Patient given written information about side effects	62784	81.5	54825	81.8	7959	79.2
19 Patient definitely involved in decisions about which treatment	65333	71.9	57090	72.3	8243	69.1
20 Patient given the name of the CNS in charge of their care	64459	87.0	56343	86.9	8116	87.9
21 Patient finds it easy to contact their CNS	50171	74.8	43661	75.7	6510	69.0
22 CNS definitely listened carefully the last time spoken to	53905	91.3	47035	91.6	6870	89.4
23 Get understandable answers to important questions all/most of the time (CNS)	49270	91.1	42893	91.4	6377	89.2
24 Hospital staff gave information about support groups	50148	81.6	43759	81.8	6389	80.1
25 Hospital staff gave information on getting financial help	38488	52.2	33488	52.5	5000	49.9
26 Hospital staff told patient they could get free prescriptions	31595	72.9	27095	73.1	4500	71.7
27 Patient asked if they would like to take part in cancer research	64235	32.7	56128	31.1	8107	44.0
29 Patient would have liked to have been asked	40257	53.1	36034	52.9	4223	54.5
31 Admission date not changed by hospital	37807	90.4	33238	90.8	4569	87.2
32 Staff gave complete explanation of what would be done	37074	86.7	32592	86.9	4482	84.9
33 Patient given written information about the operation	34377	73.5	30229	74.1	4148	69.2
34 Staff explained how operation had gone in understandable way	36723	74.7	32261	74.9	4462	73.2
36 Got understandable answers to important questions all/most of the time (doctor)	42426	82.3	37088	82.5	5338	81.0
37 Patient had confidence and trust in all doctors treating them	45724	84.8	40048	85.2	5676	82.3
38 Doctors did not talk in front of patient as if they were not there	45658	83.0	39989	83.5	5669	79.4
39 Patient's family definitely had opportunity to talk to doctor	38414	64.9	33677	64.9	4737	64.9
40 Got understandable answers to important questions all/most of the time (ward nurse)	40180	75.1	35093	75.8	5087	70.4
41 Patient had confidence and trust in all ward nurses	45500	69.4	39853	70.3	5647	63.1
42 Nurses did not talk in front of patient as if they were not there	45507	84.7	39861	85.4	5646	80.1
43 Always / nearly always enough nurses on duty	45261	61.0	39630	60.8	5631	62.1
44 Patient did not think hospital staff deliberately misinformed them	45570	87.5	39912	87.9	5658	84.9
45 Patient never thought they were given conflicting information	45476	79.0	39832	79.5	5644	75.5
46 Hospital staff asked what name the patient preferred to be called by	45308	56.0	39704	58.2	5604	40.6
47 Always given enough privacy when discussing condition/treatment	45578	84.0	39922	84.3	5656	81.8
48 Always given enough privacy when being examined or treated	45712	94.1	40032	94.2	5680	93.4
49 Patient was able to discuss worries and fears with staff	39253	63.8	34355	64.6	4898	58.2
50 Hospital staff did everything to help control pain all of the time	38902	84.6	34049	84.9	4853	82.7
51 Always treated with respect and dignity by staff	45206	82.7	39617	83.2	5589	79.5
52 Given clear written information about what should / should not do post discharge	43020	84.1	37753	84.5	5267	81.3
53 Staff told patient who to contact if worried post discharge	43894	92.9	38489	93.2	5405	91.0
54 Family definitely given all information needed to help care at home	37254	59.9	32756	60.0	4498	59.0
55 Patient definitely given enough care from health or social services	25356	61.1	22248	62.1	3108	53.6
56 Staff definitely did everything to control side effects of radiotherapy	22552	79.2	19505	79.8	3047	75.1
57 Staff definitely did everything to control side effects of chemotherapy	39073	81.3	33827	82.0	5246	76.8
58 Staff definitely did everything they could to help control pain	38130	81.0	32954	81.6	5176	77.4
59 Hospital staff definitely gave patient enough emotional support	45884	70.5	39989	71.4	5895	64.7
61 Waited no longer than 30 minutes for OPD appointment to start	59989	69.8	52385	71.0	7604	61.5
62 Patient thought doctor spent about the right amount of time with them	62104	93.8	54227	94.0	7877	92.4
63 Doctor had the right notes and other documentation with them	59844	95.2	52282	95.3	7562	94.3
64 GP given enough information about patient's condition and treatment	55920	94.2	48534	94.2	7386	93.9
65 Practice staff definitely did everything they could to support patient	47116	67.1	41312	68.0	5804	60.7
66 Hospital and community staff always worked well together	65561	62.4	57289	63.4	8272	55.2
67 Given the right amount of information about condition and treatment	67842	88.7	59256	88.8	8586	87.7
68 Patient was offered a written care plan	57441	24.2	50203	24.2	7238	24.0
69 Patient did not feel that they were treated as a set of cancer symptoms	67371	79.8	58845	80.3	8526	76.3
70 Overall rating of care	67863	87.9	59272	88.2	8591	86.0

**Appendix table 4b: Odds Ratios (95% Confidence Intervals) and p-values for cancer patients treated by London hospitals reporting poorer patient experience compared with patients treated by hospitals elsewhere in England.** Results from three logistic regression models are presented: crude associations with only adjustment for hospital; results from a model adjusting for patient case-mix; and from a model which additionally accounted for whether a patient was treated at a teaching hospital or not. Synoptic forms of questions are given in Appendix table 4a

Question	Unadjusted		Adjusted for clinical and socio-demographic variables		Additionally adjusted for teaching hospital status	
	OR (95% CI)	p-value	OR (95% CI)	p-value	OR (95% CI)	p-value
1	1.27 (1.16 - 1.39)	<0.0001	1.11 (1.03 - 1.20)	0.010	1.10 (1.01 - 1.19)	0.026
2	1.37 (1.24 - 1.51)	<0.0001	1.21 (1.11 - 1.32)	<0.0001	1.19 (1.09 - 1.31)	<0.0001
3	1.26 (1.17 - 1.35)	<0.0001	1.16 (1.09 - 1.24)	<0.0001	1.16 (1.08 - 1.24)	<0.0001
4	1.28 (1.17 - 1.41)	<0.0001	1.13 (1.05 - 1.22)	0.002	1.13 (1.04 - 1.22)	0.002
6	1.26 (1.15 - 1.38)	<0.0001	1.17 (1.06 - 1.28)	0.002	1.17 (1.06 - 1.29)	0.002
7	1.30 (1.18 - 1.44)	<0.0001	1.20 (1.08 - 1.33)	0.001	1.20 (1.08 - 1.33)	0.001
8	1.38 (1.19 - 1.59)	<0.0001	1.21 (1.05 - 1.40)	0.010	1.21 (1.04 - 1.40)	0.011
9	1.27 (1.17 - 1.39)	<0.0001	1.14 (1.05 - 1.24)	0.003	1.14 (1.05 - 1.24)	0.003
11	1.31 (1.17 - 1.46)	<0.0001	1.29 (1.16 - 1.44)	<0.0001	1.29 (1.15 - 1.44)	<0.0001
12	1.14 (1.04 - 1.24)	0.006	1.11 (1.01 - 1.21)	0.025	1.10 (1.01 - 1.21)	0.033
13	1.13 (1.05 - 1.21)	0.001	1.00 (0.93 - 1.07)	0.986	1.00 (0.93 - 1.07)	0.929
14	1.20 (1.08 - 1.33)	0.001	1.10 (1.00 - 1.22)	0.049	1.10 (0.99 - 1.21)	0.073
15	1.14 (0.99 - 1.31)	0.075	1.03 (0.89 - 1.20)	0.657	1.07 (0.92 - 1.24)	0.381
16	1.19 (1.10 - 1.30)	<0.0001	1.13 (1.04 - 1.23)	0.005	1.14 (1.04 - 1.24)	0.004
17	1.16 (1.06 - 1.27)	0.001	1.10 (1.01 - 1.20)	0.028	1.10 (1.00 - 1.20)	0.039
18	1.27 (1.13 - 1.44)	<0.0001	1.19 (1.06 - 1.33)	0.002	1.20 (1.07 - 1.35)	0.002
19	1.21 (1.11 - 1.32)	<0.0001	1.11 (1.02 - 1.21)	0.015	1.12 (1.03 - 1.23)	0.010
20	0.99 (0.85 - 1.16)	0.893	0.96 (0.81 - 1.13)	0.614	0.98 (0.83 - 1.16)	0.854
21	1.39 (1.22 - 1.59)	<0.0001	1.35 (1.19 - 1.54)	<0.0001	1.32 (1.15 - 1.50)	<0.0001
22	1.31 (1.17 - 1.46)	<0.0001	1.23 (1.09 - 1.38)	<0.0001	1.19 (1.06 - 1.34)	0.003
23	1.32 (1.17 - 1.49)	<0.0001	1.18 (1.05 - 1.33)	0.006	1.15 (1.02 - 1.30)	0.020
24	1.10 (0.94 - 1.28)	0.243	1.04 (0.89 - 1.21)	0.663	1.04 (0.89 - 1.22)	0.638
25	1.17 (1.01 - 1.36)	0.043	1.20 (1.03 - 1.40)	0.018	1.17 (1.00 - 1.36)	0.051
26	1.12 (0.97 - 1.29)	0.115	1.15 (0.99 - 1.34)	0.063	1.14 (0.98 - 1.33)	0.101
27	0.67 (0.56 - 0.79)	<0.0001	0.66 (0.56 - 0.79)	<0.0001	0.73 (0.62 - 0.85)	<0.0001
29	0.96 (0.87 - 1.05)	0.374	0.98 (0.90 - 1.06)	0.563	0.99 (0.91 - 1.08)	0.795
31	1.52 (1.30 - 1.78)	<0.0001	1.42 (1.22 - 1.64)	<0.0001	1.37 (1.19 - 1.59)	<0.0001
32	1.18 (1.06 - 1.32)	0.003	1.13 (1.01 - 1.27)	0.029	1.14 (1.02 - 1.28)	0.024
33	1.32 (1.15 - 1.52)	<0.0001	1.31 (1.15 - 1.49)	<0.0001	1.30 (1.14 - 1.49)	<0.0001
34	1.10 (0.99 - 1.21)	0.066	1.03 (0.93 - 1.13)	0.618	1.03 (0.93 - 1.14)	0.566
36	1.14 (1.02 - 1.27)	0.022	1.01 (0.90 - 1.13)	0.841	1.04 (0.93 - 1.16)	0.518
37	1.25 (1.11 - 1.41)	<0.0001	1.12 (0.99 - 1.27)	0.062	1.14 (1.01 - 1.29)	0.037
38	1.37 (1.24 - 1.52)	<0.0001	1.23 (1.10 - 1.36)	<0.0001	1.22 (1.10 - 1.36)	<0.0001
39	1.03 (0.93 - 1.13)	0.593	1.02 (0.92 - 1.12)	0.749	1.02 (0.92 - 1.13)	0.728
40	1.45 (1.29 - 1.63)	<0.0001	1.33 (1.18 - 1.50)	<0.0001	1.33 (1.18 - 1.51)	<0.0001
41	1.46 (1.32 - 1.62)	<0.0001	1.40 (1.26 - 1.55)	<0.0001	1.40 (1.25 - 1.55)	<0.0001
42	1.50 (1.34 - 1.68)	<0.0001	1.30 (1.16 - 1.46)	<0.0001	1.30 (1.16 - 1.46)	<0.0001
43	1.04 (0.91 - 1.17)	0.576	0.99 (0.87 - 1.12)	0.869	0.99 (0.87 - 1.13)	0.872
44	1.31 (1.17 - 1.46)	<0.0001	1.05 (0.94 - 1.17)	0.399	1.05 (0.93 - 1.17)	0.433
45	1.30 (1.17 - 1.44)	<0.0001	1.22 (1.11 - 1.35)	<0.0001	1.20 (1.09 - 1.32)	<0.0001
46	2.05 (1.75 - 2.41)	<0.0001	2.05 (1.75 - 2.41)	<0.0001	2.07 (1.76 - 2.44)	<0.0001
47	1.24 (1.10 - 1.38)	<0.0001	1.17 (1.04 - 1.32)	0.008	1.18 (1.05 - 1.33)	0.007
48	1.17 (1.02 - 1.35)	0.030	1.10 (0.95 - 1.28)	0.193	1.12 (0.96 - 1.29)	0.151
49	1.36 (1.23 - 1.50)	<0.0001	1.26 (1.14 - 1.39)	<0.0001	1.26 (1.14 - 1.39)	<0.0001
50	1.22 (1.09 - 1.36)	0.001	1.11 (0.99 - 1.24)	0.075	1.11 (0.99 - 1.25)	0.068
51	1.32 (1.18 - 1.47)	<0.0001	1.24 (1.11 - 1.40)	<0.0001	1.26 (1.12 - 1.41)	<0.0001
52	1.25 (1.09 - 1.44)	0.002	1.22 (1.06 - 1.41)	0.006	1.22 (1.05 - 1.41)	0.008
53	1.41 (1.19 - 1.67)	<0.0001	1.41 (1.19 - 1.67)	<0.0001	1.41 (1.18 - 1.68)	<0.0001
54	1.06 (0.97 - 1.16)	0.191	1.08 (0.98 - 1.18)	0.120	1.08 (0.98 - 1.18)	0.114
55	1.44 (1.25 - 1.66)	<0.0001	1.33 (1.16 - 1.53)	<0.0001	1.29 (1.13 - 1.49)	<0.0001
56	1.31 (1.16 - 1.47)	<0.0001	1.19 (1.05 - 1.35)	0.006	1.18 (1.04 - 1.34)	0.012
57	1.43 (1.27 - 1.62)	<0.0001	1.29 (1.13 - 1.46)	<0.0001	1.27 (1.12 - 1.45)	<0.0001
58	1.32 (1.19 - 1.47)	<0.0001	1.21 (1.08 - 1.35)	0.001	1.20 (1.07 - 1.34)	0.001
59	1.38 (1.24 - 1.53)	<0.0001	1.29 (1.16 - 1.43)	<0.0001	1.25 (1.12 - 1.38)	<0.0001
61	1.47 (1.23 - 1.77)	<0.0001	1.43 (1.19 - 1.71)	<0.0001	1.36 (1.14 - 1.63)	0.001
62	1.31 (1.12 - 1.52)	0.001	1.19 (1.02 - 1.38)	0.026	1.17 (1.00 - 1.37)	0.045
63	1.26 (1.07 - 1.47)	0.004	1.27 (1.08 - 1.49)	0.004	1.27 (1.08 - 1.49)	0.005
64	1.15 (0.96 - 1.37)	0.129	0.98 (0.82 - 1.17)	0.837	0.99 (0.82 - 1.18)	0.889
65	1.35 (1.24 - 1.47)	<0.0001	1.26 (1.16 - 1.37)	<0.0001	1.25 (1.14 - 1.36)	<0.0001
66	1.42 (1.31 - 1.53)	<0.0001	1.33 (1.23 - 1.43)	<0.0001	1.31 (1.21 - 1.41)	<0.0001
67	1.13 (1.03 - 1.25)	0.013	1.05 (0.94 - 1.16)	0.393	1.06 (0.95 - 1.17)	0.307
68	1.01 (0.88 - 1.15)	0.918	1.09 (0.95 - 1.25)	0.201	1.08 (0.94 - 1.25)	0.258
69	1.27 (1.15 - 1.40)	<0.0001	1.15 (1.05 - 1.26)	0.003	1.13 (1.03 - 1.24)	0.011
70	1.32 (1.17 - 1.49)	<0.0001	1.11 (0.98 - 1.26)	0.098	1.12 (0.99 - 1.27)	0.080

**Appendix table 5. Interaction odds ratios for the association between being treated at a London hospital and reporting poorer patient experience, by ethnicity.** The first column of this table presents the case-mix adjusted odds ratio and 95% CI (column duplicated from appendix table 4b); the middle column shows the same association presented for both White and non-White responders separately. The final column (interaction OR) presents the interaction odds ratio. Interaction odds ratio values > 1 denote that the association between poorer patient experience and being treated at a London hospital is stronger among White respondents, and values < 1 that associations are stronger among ethnic minority groups. For only 5 questions is there evidence (p<0.05) that the association varies by ethnic group, and out of 63 hypothesis tests (63 survey questions) these are more likely to have occurred by chance than to reflect true heterogeneity. This is further supported by noting that about half the interaction odds ratios (whether or not they are significant) are greater than, and about half are less than 1.

Question	OR London (95% CI) adjusted for clinical and socio-demographic variables *	OR London among White, Non-White respondents (adjusted for clinical and socio-demographic variables)	Interaction OR, 95%CI, p-value
1	1.11 (1.03 - 1.20)	1.11, 1.10	0.99 (0.80 - 1.22), p=0.90
2	1.21 (1.11 - 1.32)	1.20, 1.24	1.03 (0.84 - 1.25), p=0.79
3	1.16 (1.09 - 1.24)	1.16, 1.16	1.00 (0.82 - 1.23), p=0.99
4	1.13 (1.05 - 1.22)	1.13, 1.09	0.96 (0.79 - 1.18), p=0.72
6	1.17 (1.06 - 1.28)	1.15, 1.35	1.18 (0.93 - 1.48), p=0.17
7	1.20 (1.08 - 1.33)	1.18, 1.37	1.16 (0.91 - 1.47), p=0.24
8	1.21 (1.05 - 1.40)	1.22, 1.14	0.94 (0.72 - 1.21), p=0.61
9	1.14 (1.05 - 1.24)	1.11, 1.41	1.27 (1.04 - 1.56), p=0.02
11	1.29 (1.16 - 1.44)	1.29, 1.33	1.03 (0.84 - 1.27), p=0.77
12	1.11 (1.01 - 1.21)	1.11, 1.05	0.94 (0.76 - 1.16), p=0.57
13	1.00 (0.93 - 1.07)	0.99, 1.09	1.10 (0.92 - 1.32), p=0.29
14	1.10 (1.00 - 1.22)	1.13, 0.92	0.82 (0.68 - 0.98), p=0.03
15	1.03 (0.89 - 1.20)	1.02, 1.11	1.08 (0.80 - 1.47), p=0.60
16	1.13 (1.04 - 1.23)	1.12, 1.24	1.11 (0.92 - 1.34), p=0.28
17	1.10 (1.01 - 1.20)	1.10, 1.12	1.02 (0.85 - 1.23), p=0.81
18	1.19 (1.06 - 1.33)	1.20, 1.10	0.91 (0.73 - 1.13), p=0.40
19	1.11 (1.02 - 1.21)	1.09, 1.34	1.23 (1.03 - 1.47), p=0.02
20	0.96 (0.81 - 1.13)	0.97, 0.88	0.91 (0.70 - 1.20), p=0.51
21	1.35 (1.19 - 1.54)	1.35, 1.34	0.99 (0.81 - 1.22), p=0.92
22	1.23 (1.09 - 1.38)	1.24, 1.12	0.90 (0.68 - 1.19), p=0.47
23	1.18 (1.05 - 1.33)	1.19, 1.13	0.95 (0.73 - 1.25), p=0.74
24	1.04 (0.89 - 1.21)	1.05, 0.94	0.90 (0.71 - 1.14), p=0.39
25	1.20 (1.03 - 1.40)	1.24, 0.99	0.80 (0.66 - 0.98), p=0.03
26	1.15 (0.99 - 1.34)	1.18, 1.03	0.87 (0.69 - 1.10), p=0.25
27	0.66 (0.56 - 0.79)	0.67, 0.63	0.95 (0.79 - 1.14), p=0.57
29	0.98 (0.90 - 1.06)	0.98, 0.94	0.96 (0.75 - 1.22), p=0.72
31	1.42 (1.22 - 1.64)	1.38, 1.84	1.33 (0.94 - 1.89), p=0.11
32	1.13 (1.01 - 1.27)	1.12, 1.26	1.12 (0.82 - 1.55), p=0.47
33	1.31 (1.15 - 1.49)	1.30, 1.36	1.05 (0.79 - 1.38), p=0.75
34	1.03 (0.93 - 1.13)	1.02, 1.12	1.10 (0.86 - 1.41), p=0.45
36	1.01 (0.90 - 1.13)	**	**
37	1.12 (0.99 - 1.27)	1.14, 1.04	0.91 (0.71 - 1.17), p=0.46
38	1.23 (1.10 - 1.36)	1.22, 1.23	1.01 (0.79 - 1.28), p=0.95
39	1.02 (0.92 - 1.12)	1.01, 1.11	1.10 (0.87 - 1.39), p=0.41
40	1.33 (1.18 - 1.50)	1.36, 1.12	0.83 (0.66 - 1.03), p=0.09
41	1.40 (1.26 - 1.55)	1.41, 1.29	0.91 (0.74 - 1.13), p=0.39
42	1.30 (1.16 - 1.46)	1.32, 1.14	0.86 (0.68 - 1.08), p=0.20
43	0.99 (0.87 - 1.12)	0.97, 1.18	1.21 (0.99 - 1.50), p=0.07
44	1.05 (0.94 - 1.17)	1.06, 1.01	0.95 (0.75 - 1.21), p=0.69
45	1.22 (1.11 - 1.35)	1.25, 1.02	0.82 (0.65 - 1.04), p=0.10
46	2.05 (1.75 - 2.41)	2.09, 1.73	0.83 (0.67 - 1.02), p=0.08
47	1.17 (1.04 - 1.32)	1.20, 0.98	0.81 (0.63 - 1.05), p=0.12
48	1.10 (0.95 - 1.28)	1.14, 0.83	0.73 (0.50 - 1.08), p=0.12
49	1.26 (1.14 - 1.39)	1.26, 1.26	1.00 (0.80 - 1.24), p=1.00
50	1.11 (0.99 - 1.24)	1.08, 1.39	1.29 (0.99 - 1.68), p=0.06
51	1.24 (1.11 - 1.40)	1.28, 0.97	0.76 (0.60 - 0.97), p=0.03
52	1.22 (1.06 - 1.41)	1.22, 1.29	1.06 (0.79 - 1.42), p=0.71
53	1.41 (1.19 - 1.67)	1.39, 1.72	1.24 (0.81 - 1.90), p=0.32
54	1.08 (0.98 - 1.18)	1.06, 1.28	1.22 (0.97 - 1.53), p=0.09
55	1.33 (1.16 - 1.53)	1.30, 1.60	1.23 (0.95 - 1.59), p=0.11
56	1.19 (1.05 - 1.35)	1.22, 1.06	0.88 (0.66 - 1.16), p=0.36
57	1.29 (1.13 - 1.46)	1.28, 1.33	1.04 (0.83 - 1.31), p=0.73
58	1.21 (1.08 - 1.35)	1.18, 1.42	1.21 (0.96 - 1.51), p=0.10
59	1.29 (1.16 - 1.43)	1.28, 1.29	1.00 (0.82 - 1.22), p=0.99
61	1.43 (1.19 - 1.71)	1.43, 1.42	0.99 (0.82 - 1.20), p=0.95



62	1.19 (1.02 - 1.38)	1.03, 1.19	1.16 (0.92 - 1.46), p=0.22
63	1.27 (1.08 - 1.49)	1.28, 1.16	0.91 (0.61 - 1.37), p=0.65
64	0.98 (0.82 - 1.17)	0.94, 1.25	1.34 (0.99 - 1.81), p=0.06
65	1.26 (1.16 - 1.37)	1.26, 1.22	0.96 (0.80 - 1.17), p=0.71
66	1.33 (1.23 - 1.43)	1.32, 1.34	1.01 (0.85 - 1.21), p=0.87
67	1.05 (0.94 - 1.16)	1.03, 1.19	1.16 (0.92 - 1.46), p=0.22
68	1.09 (0.95 - 1.25)	1.11, 0.97	0.88 (0.72 - 1.07), p=0.20
69	1.15 (1.05 - 1.26)	1.13, 1.28	1.13 (0.94 - 1.35), p=0.21
70	1.11 (0.98 - 1.26)	1.10, 1.16	1.05 (0.86 - 1.29), p=0.61

\*Results also presented in appendix table 4b; \*\*The full interaction model for this question did not maximise