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Protecting and improving the nation's health

## **Travel times and cancer**

**Pilot study of the impact of travel times on  
cancer outcomes**

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## Key messages

- travel time to hospital had no association with survival for lung and prostate cancers
- there is some evidence of a weak inverse relationship for breast and colorectal cancers ie longer travel times had better survival
- these differences are not significant when the population is stratified by deprivation

## Background

Previous research suggested that living further away from cancer services may be associated with reduced cancer survival<sup>1,2</sup>. These findings were not consistent<sup>3</sup> and studies varied in terms of geography (country and region), level of data analysed (aggregated to health care provider vs. patient level) and inclusion of earlier diagnostic years.

Survival rates of cancer patients were investigated by travel time to their nearest hospital with a relevant multidisciplinary team (MDT) for breast, prostate, lung and colorectal cancer.

## Methodology

All people, aged 15 to 99 years, resident in England, diagnosed with invasive breast (females only) (ICD10 code C50), lung (C33, C34), colorectal (C18, C19, C20) and prostate (C61) cancers between 2004 and 2015 were identified using the cancer registration database held by the National Cancer Registration and Analysis Service. Where a person had more than one primary tumour, only the first was included. Cancer registration data were linked to travel times data using the person's postcode of residence at diagnosis.

As detailed in the methodology paper<sup>4</sup> accompanying this briefing, different approaches can be taken to measure travel times. We used travel times (by private transport) computed using ArcGIS by Norwich Medical School<sup>2</sup>. Road speeds were taken from Jones et al (2010)<sup>5</sup> and adjustments for walking speed were made for off road locations using the methodology set out in Bateman et al (2011)<sup>6</sup>. Full details are described in Sen et al (2014)<sup>7</sup>.

Hospital travel times were calculated from all postcodes in England to all hospitals identified by the NHS Quality Surveillance Team<sup>8</sup> as providing management by a cancer MDT specific to the types of cancer studied (Appendix 1). Categories of travel time were set at <15mins, 15 to 30mins and >30 min to give sufficient sensitivity for the analyses.

The primary outcome reported is net cancer survival, which is the probability of surviving cancer in the absence of other causes of death (background mortality). Background mortality was derived from population life tables supplied by the London School of Hygiene and Tropical Medicine. Using these life tables, the mortality of cancer patients was compared to the general population matched by age, sex, geographic region and population-weighted quintile of index of deprivation (income domain). This allows for comparison between different population groups. One- and 5-year net cancer survival was calculated using the complete approach and the Pohar-Perme estimator<sup>9</sup>, implemented with the stns program in Stata version 14<sup>10</sup>. People were followed up to 31 December 2016.

## Results

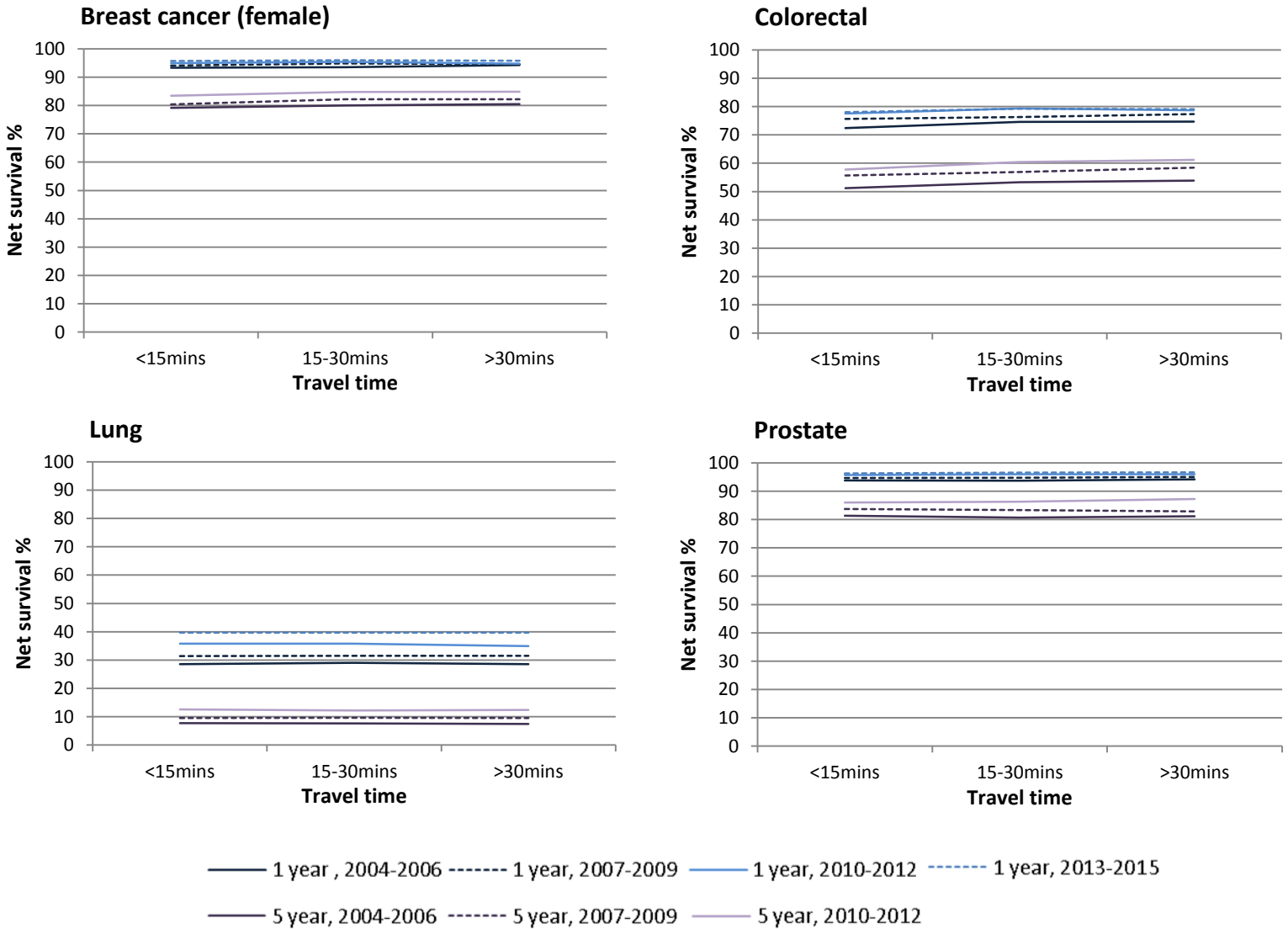
Figure 1 shows one- and 5-year net survival by travel time, for a number of 3-year cohorts. Both one- and 5-year survival have increased in recent years. There appears to be no definite indication of trend in survival with increasing travel time to a hospital with an MDT. This is investigated further in Figures 2 and 3.

Figure 2 shows one- and 5-year net survival by diagnosis year for travel times of <15 minutes (dark lines), 15 to 30 minutes (light lines) and >30mins (dashed lines). Significant differences in survival by travel time are identified by confidence intervals which do not overlap and are circled in the graphs (exact figures are reported in Table 1).

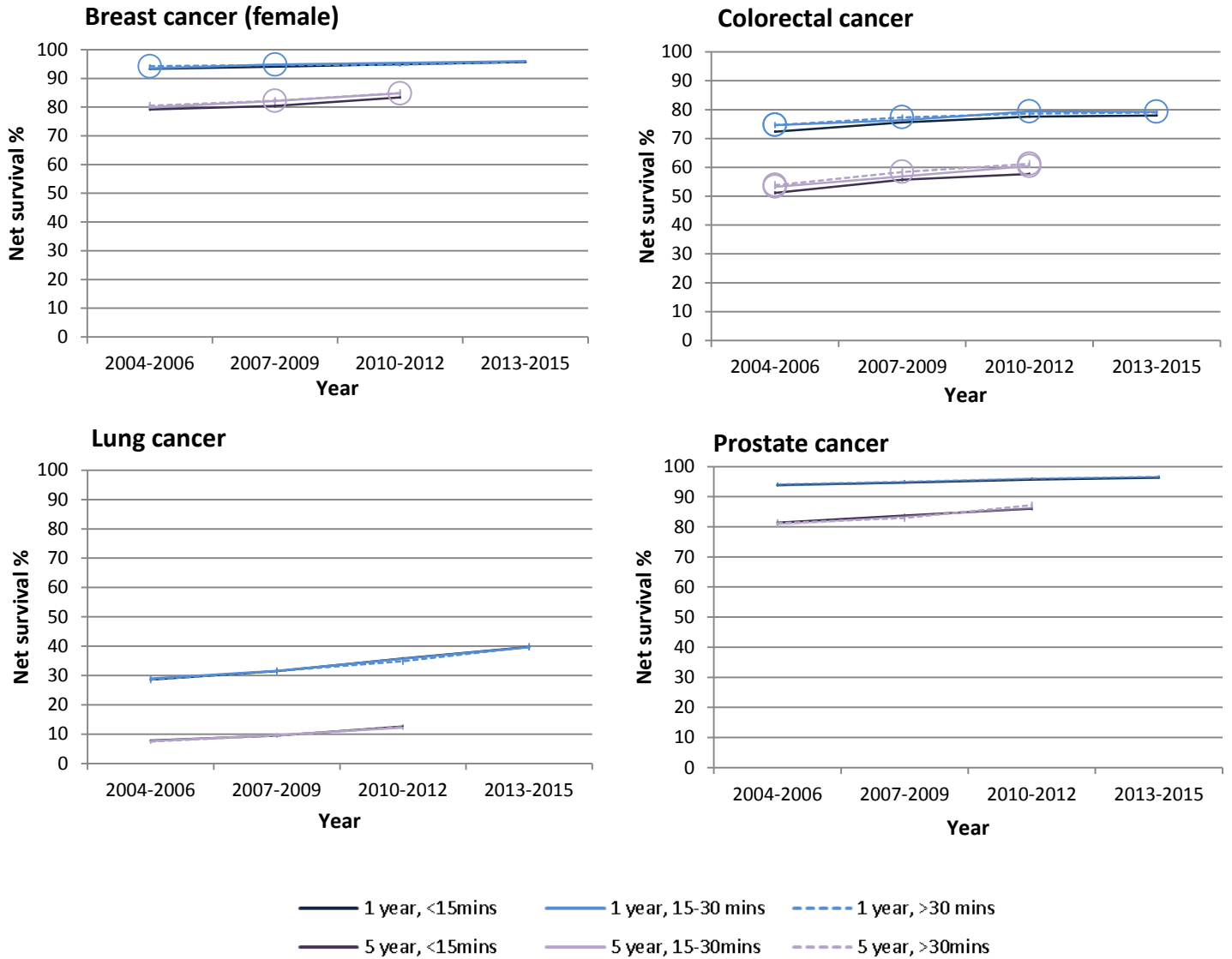
No significant differences in survival by travel time were found for lung and prostate cancer (Figure 2). The differences observed in colorectal and breast cancer survival by travel time are all inverse to previous studies ie patients who travelled longer distances had better survival. However, the differences are small with the maximum difference (3.5%) being observed for 5-year survival for colorectal cancer patients diagnosed in 2010 to 2012: 57.7% for travel time of <15 minutes (95% CI: 57.2 to 58.2) vs. 61.2% for >30mins (95% CI: 59.9 to 62.5).

Survival rates decrease with increasing deprivation (Figure 3). Within each deprivation quintile no significant difference in survival by travel time was observed for any of the 4 cancers investigated.

**Figure 1: One- and 5-year age-standardised net survival by travel time, stratified by diagnosis year (2004-06, 2007-09, 2010-12, 2013-15), for the most common cancer types**



**Figure 2: One- and 5-year age-standardised net survival by diagnosis year, stratified by travel time (<15mins, 15 to 30mins and >30mins), for the most common cancer types**



95% Confidence Intervals shown.

Circles indicate 95% Confidence Intervals which do not overlap between travel times: exact values reported in Table 1.

Diagnosis years as indicated on horizontal axis.

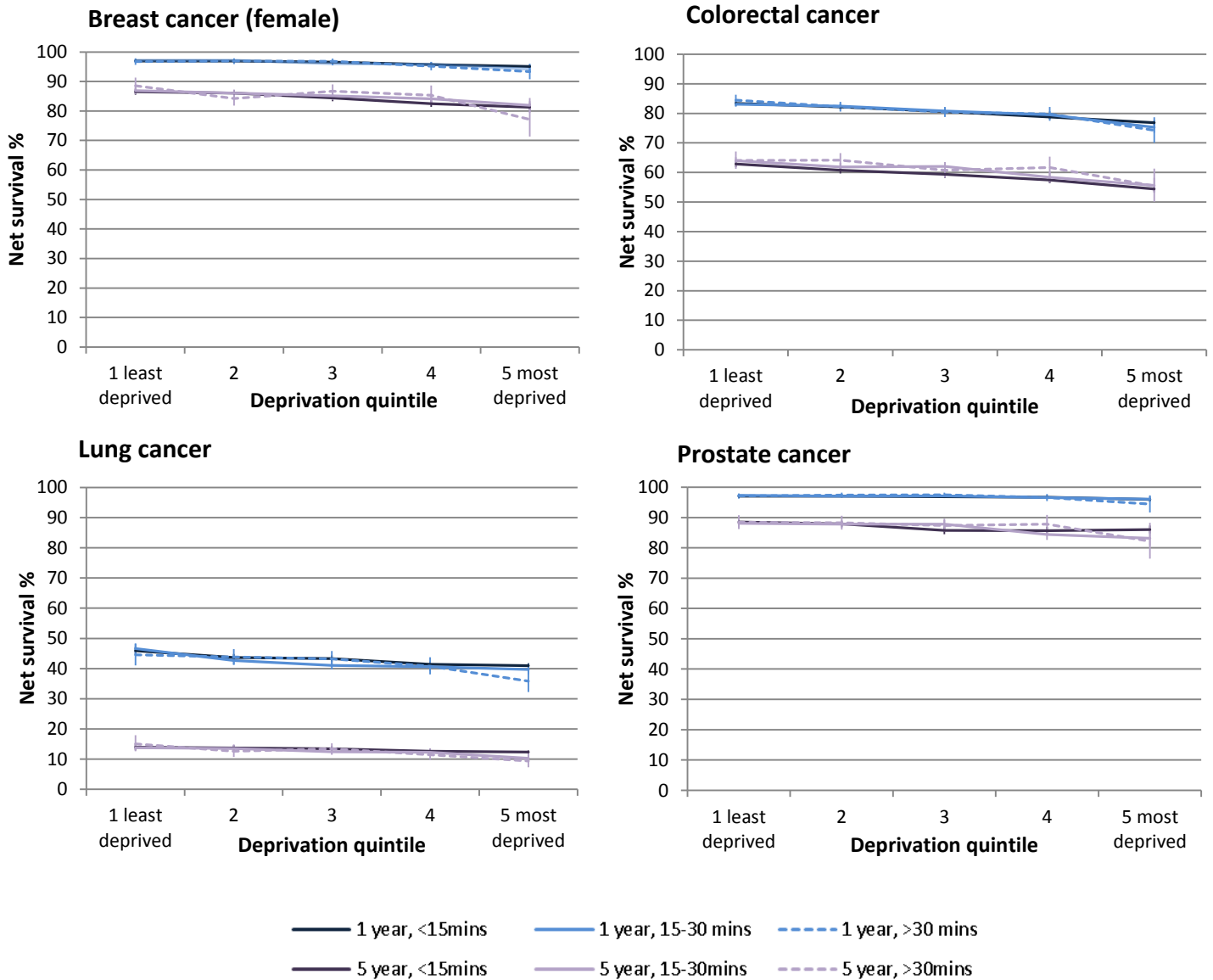
**Table 1: One- and five-year survival by travel times and diagnosis year**

		<b>Breast cancer (female)</b>					
<b>Diagnosis year</b>	<b>Travel time</b>	<b>1 year survival %</b>	<b>LCI</b>	<b>UCI</b>	<b>5 year survival %</b>	<b>LCI</b>	<b>UCI</b>
2004-2006	<15 mins	93.3	93.0	93.5	79.2	78.7	79.7
	15-30 mins	93.5	93.1	93.8	80.0	79.3	80.7
	>30 mins	94.3	93.6	94.9	80.5	79.1	81.9
2007-2009	<15 mins	94.1	93.9	94.4	80.4	79.9	80.9
	15-30 mins	94.9	94.6	95.2	82.2	81.5	82.9
	>30 mins	94.6	94.0	95.2	82.2	80.9	83.5
2010-2012	<15 mins	95.0	94.7	95.2	83.4	82.9	83.9
	15-30 mins	95.4	95.1	95.7	84.8	84.1	85.4
	>30 mins	94.7	94.1	95.3	84.9	83.6	86.2
2013-2015	<15 mins	95.7	95.5	95.9	-	-	-
	15-30 mins	96.0	95.7	96.3	-	-	-
	>30 mins	95.8	95.3	96.4	-	-	-
		<b>Colorectal cancer</b>					
<b>Diagnosis year</b>	<b>Travel time</b>	<b>1 year survival %</b>	<b>LCI</b>	<b>UCI</b>	<b>5 year survival %</b>	<b>LCI</b>	<b>UCI</b>
2004-2006	<15 mins	72.4	72.0	72.8	51.2	50.6	51.7
	15-30 mins	74.6	74.1	75.2	53.3	52.5	54.0
	>30 mins	74.7	73.6	75.7	53.8	52.5	55.3
2007-2009	<15 mins	75.6	75.2	76.0	55.7	55.2	56.2
	15-30 mins	76.4	75.8	76.9	56.9	56.2	57.6
	>30 mins	77.3	76.3	78.3	58.4	57.1	59.7
2010-2012	<15 mins	77.5	77.2	77.9	57.7	57.2	58.2
	15-30 mins	79.4	78.9	79.8	60.4	59.8	61.1
	>30 mins	78.7	77.7	79.6	61.2	59.9	62.5
2013-2015	<15 mins	78.0	77.6	78.3	-	-	-
	15-30 mins	79.2	78.7	79.7	-	-	-
	>30 mins	79.0	78.1	80.0	-	-	-

*Cancers with survival associated with travel time. Shaded cells indicate non-overlapping 95% confidence intervals.*



**Figure 3: One- and 5-year net survival by travel time to hospital (<15mins, 15 to 30mins and >30mins) and deprivation quintile, for the most common cancer types**



95% Confidence Intervals shown.

All 95% Confidence Intervals overlap between travel times.

Based on the most recent diagnosis years ie 2013 to 2015 for one-year survival and 2010 to 2012 for 5-year survival.

## Discussion

In this pilot study of differences in cancer survival by travel time to hospital we found either no, or weak inverse, relationships i.e. better survival for longer travel times. Jones et al (2008)<sup>3</sup> found similar results for cancer patients in Northern England, adjusting for differences in age, sex and deprivation. The net survival estimates we report use lifetables which have mortality rates stratified by age, sex, region of residence and deprivation to adjust for these sociodemographic factors. However, these may not fully account for the potential confounding effects of some of these factors. Murage et al (2016) identified a similar inverse effect of travel time on survival but found that this reversed once the potential confounding effect of deprivation was adjusted for<sup>2</sup>. We therefore stratified by deprivation and found that the inverse effect was no longer significant. The inverse effect is likely to be due to higher deprivation in urban areas where hospitals are more likely to be located. Further adjustment via regression modelling for deprivation and other potentially confounding variables (eg urban/rural, treatment and tumour stage) could also be investigated.

This pilot study is subject to other limitations as outlined in the methodology paper<sup>4</sup>. Specifically travel is from residential postcode at diagnosis to the nearest hospital with a specific cancer MDT. This is the nearest hospital with a team set up to manage the cancer and likely to be the first point of contact on the cancer patient pathway ie place of diagnosis and primary surgery as well as longer term follow-up. However, patients may have received some treatments such as radiotherapy and chemotherapy elsewhere. Further studies are needed which focus on specific treatments received, such as the pilot study of radiotherapy for prostate cancer<sup>11</sup> published alongside this briefing.

## Acknowledgements

We thank Dr Peninah Murage, from the University of East Anglia, for use of her travel times calculations and the NCRAS survival team for the production of the survival data for this release. Data for this report is based on patient-level information collected by the NHS, as part of the care and support of cancer patients. The data is collated, maintained and quality assured by the National Cancer Registration and Analysis Service, which is part of Public Health England (PHE).

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### Find out more:

What cancer statistics are available and where can I find them?

[www.ncin.org.uk/publications/reports/](http://www.ncin.org.uk/publications/reports/)

# Appendix 1: Hospitals providing MDT for breast, colorectal, lung and urological cancers

Hospital Code	Hospital Name	Postcode	Breast	Colorectal	Lung	Urology
REM21	University Hospital Aintree	L9 7AL	1	1	1	1
RCF22	Airedale General Hospital	BD20 6TD	1	1	1	1
RTK01	St Peter's Hospital	KT16 0PZ	1	1	1	1
RF4DG	King George Hospital	IG3 8YB	1	0	1	1
RF4QH	Queen's Hospital	RM7 0AG	0	1	1	0
RAL26	Barnet Hospital	EN5 3DJ	1	1	1	1
RALC7	Chase Farm Hospital	EN2 8JL	1	1	1	1
RFFAA	Barnsley Hospital NHS Foundation	S75 2EP	1	1	1	1
R1H12	The Royal London Hospital	E1 1BB	1	1	1	1
RQXM1	Homerton University Hospital	E9 6SR	1	1	1	0
R1HKH	Whipps Cross University Hospital	E11 1NR	1	1	1	1
R1HNN	Newham General Hospital	E13 8SL	1	1	1	0
RDDH0	Basildon University Hospital	SS16 5NL	1	1	1	0
RC112	Bedford Hospital	MK42 9DJ	1	1	1	1
RXL01	Blackpool Victoria Hospital	FY3 8NR	1	1	1	1
RAE01	Bradford Royal Infirmary	BD9 6RJ	1	1	1	1
RXH01	Royal Sussex County Hospital	BN2 5BE	1	1	1	1
RXH09	Princess Royal Hospital	RH16 4EX	0	0	1	0
RXQ50	Wycombe Hospital	HP11 2TT	1	1	1	1
RJF02	Burton Hospital	DE13 0RB	1	1	1	1
RWY02	Calderdale Royal Hospital	HX3 0PW	1	1	1	1
RWY01	Huddersfield Royal Infirmary	HD3 3EA	1	1	1	1
RGT01	Addenbrooke's Hospital	CB2 0QQ	1	1	0	1
RW3TR	Trafford General Hospital	M41 5SL	0	1	1	0
RW3SM	St Mary's Hospital (Manchester)	M13 0JH	0	1	1	1
RW3MR	Manchester Royal Infirmary	M139WL	0	1	1	1
RQM01	Chelsea And Westminster Hospital	SW10 9NH	0	1	1	1
RFSDA	Chesterfield Royal Hospital	S44 5BL	1	1	1	1
RLNGL	Sunderland Royal Hospital	SR4 7TP	1	1	1	1
RDEE4	Colchester General Hospital	CO4 5JL	1	1	1	1
RJR05	Countess Of Chester Hospital	CH2 1UL	1	1	1	1
RJ611	Croydon University Hospital	CR7 7YE	1	1	1	1
RN707	Darent Valley Hospital	DA2 8DA	1	1	1	1
RTGFG	Royal Derby Hospital	DE22 3NE	1	1	1	1
RP5DR	Doncaster Royal Infirmary	DN2 5LT	1	1	1	1
RP5BA	Bassetlaw Hospital	S81 0BD	1	1	1	1
RBD01	Dorset County Hospital	DT1 2JY	1	1	1	1
RXPCP	University Hospital Of North Durham	DH1 5TW	1	1	1	0
RXPDA	Darlington Memorial Hospital	DL3 6HX	1	1	1	1
R1K04	Ealing Hospital	UB1 3HW	1	1	1	0
RWH01	Lister Hospital	SG1 4AB	0	1	1	1
RWH20	Queen Elizabeth 2 Hospital	AL7 4HQ	1	1	0	0
RJN71	Macclesfield District General Hospital	SK10 3BL	1	1	1	0
RVV01	William Harvey Hospital	TN24 0LZ	1	1	1	0
RVVKC	Kent & Canterbury Hospital	CT1 3NG	1	0	1	1
RVV09	Queen Elizabeth The Queen Mother Hospital	CT9 4AN	1	1	0	0
RXR20	Royal Blackburn Hospital	BB2 3HH	1	1	1	1
RXR10	Burnley General Hospital	BB10 2PQ	1	1	1	1

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Hospital Code	Hospital Name	Postcode	Breast	Colorectal	Lung	Urology
RXC02	Eastbourne District General Hospital	BN21 2UD	1	1	1	1
RXC01	Conquest Hospital	TN37 7RD	1	1	1	1
RVR50	Epsom Hospital	KT18 7EG	0	1	1	1
RVR05	St Helier Hospital	SM5 1AA	0	1	1	1
RDU01	Frimley Park Hospital	GU16 7UJ	1	1	1	1
RR7EN	Queen Elizabeth Hospital	NE9 6SX	1	1	1	0
RLT01	George Eliot Hospital	CV10 7DJ	1	1	1	1
RTE03	Gloucestershire Royal Hospital	GL1 3NN	1	1	1	1
RTE01	Cheltenham General Hospital	GL53 7AN	1	1	1	1
RN325	The Great Western Hospital	SN3 6BB	1	1	1	1
RJ122	St Thomas Hospital	SE1 7EH	1	1	1	1
RJ121	Guy's Hospital	SE1 9RT	1	1	1	1
RN541	Royal Hampshire County Hospital	SO22 5DG	1	1	1	1
RN506	Basingstoke And North Hampshire Hospital	RG24 9NA	1	1	1	1
RCD01	Harrogate District Hospital	HG2 7SX	1	1	1	1
RR101	Heartlands Hospital	B9 5SS	1	1	1	1
RR105	Good Hope Hospital	B75 7RR	1	0	0	0
RR109	Solihull Hospital	B91 2JL	1	1	1	1
RDU52	Heatherwood Hospital	SL5 8AA	1	1	1	1
RDU50	Wexham Park Hospital	SL2 4HL	1	1	1	1
RQQ31	Hinchingbrooke Hospital	PE29 6NT	1	1	0	1
RWA16	Castle Hill Hospital	HU16 5JQ	1	1	1	1
RWA01	Hull Royal Infirmary	HU3 2JZ	1	1	1	1
RYJ02	Charing Cross Hospital	W6 8RF	1	1	1	1
RYJ01	St Mary's Hospital (Paddington)	W2 1NY	0	1	1	0
RGQ02	Ipswich Hospital	IP4 5PD	1	1	1	1
RGP75	James Paget University Hospital	NR31 6LA	1	1	1	1
RNQ51	Kettering General Hospital	NN16 8UZ	1	1	1	1
RJZ01	Kings College Hospital	SE5 9RS	1	1	1	1
RJZ30	Princess Royal University Hospital	BR6 8ND	1	1	1	1
RAX01	Kingston Hospital	KT2 7QB	1	1	1	1
RXN02	Royal Preston Hospital	PR2 9HT	1	1	1	1
RXN01	Chorley And South Ribble Hospital	PR7 1PP	1	0	0	0
RR801	Leeds General Infirmary	LS1 3EX	1	1	1	1
RR813	St James's University Hospital	LS9 7TF	1	1	1	1
RJ224	Lewisham Hospital	SE13 6LH	1	1	1	0
RJ231	Queen Elizabeth Hospital Woolwich	SE18 4QH	1	1	1	0
RBQ	Liverpool Heart And Chest Hospital	L14 3PE	0	0	1	0
RC971	Luton & Dunstable Hospital	LU4 0DZ	1	1	1	1
RWFTW	Tunbridge Wells Hospital	TN2 4QJ	1	0	0	0
RWF03	Maidstone District General Hospital	ME16 9QQ	1	1	1	1
RPA02	Medway Maritime Hospital	ME7 5NY	1	1	1	1
RBT20	Leighton Hospital	CW1 4QJ	1	1	1	0
RQ8L0	Broomfield Hospital	CM1 7ET	1	1	1	1
RJE09	Stafford Hospital	ST16 3SA	1	1	1	1
RXF10	Dewsbury & District Hospital	WF13 4HS	1	1	1	1
RXF05	Pinderfields General Hospital	WF1 4DG	1	1	1	1
RXF03	Pontefract General Infirmary	WF8 1PL	1	1	1	1
RD816	Milton Keynes Hospital	MK6 5LD	1	1	1	1
RM102	Norfolk & Norwich University Hospital	NR4 7UY	1	1	1	1
RVJ01	Southmead Hospital	BS10 5NB	1	1	1	1
RVJ20	Frenchay Hospital	BS16 1LE	0	1	0	0
RNLBX	West Cumberland Hospital	CA28 8JG	1	1	1	1
RNLAY	Cumberland Infirmary	CA2 7HY	1	1	1	1
RAPNM	North Middlesex Hospital	N18 1QX	1	1	1	1
RVWAE	University Hospital Of North Tees	TS19 8PE	1	1	1	1
RVWAA	University Hospital Of Hartlepool	TS24 9AH	1	1	1	1
R1K01	Northwick Park Hospital	HA1 3UJ	1	1	1	1

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Hospital Code	Hospital Name	Postcode	Breast	Colorectal	Lung	Urology
RNS01	Northampton General Hospital	NN1 5BD	1	1	1	1
RBZ12	North Devon District Hospital	EX31 4JB	1	1	1	1
RJL32	Scunthorpe General Hospital	DN15 7BH	1	1	1	1
RJL30	Diana Princess Of Wales Hospital	DN33 2BA	1	1	1	1
RTFDR	Hexham General Hospital	NE46 1QJ	1	0	0	0
RTFED	Wansbeck Hospital	NE63 9JJ	1	0	1	0
RTFFS	North Tyneside General Hospital	NE29 8NH	1	1	1	0
RX1RA	Queen's Medical Medical Centre Campus	NG7 2UH	1	1	1	1
RX1CC	Nottingham City Hospital	NG5 1PB	1	1	1	1
RTH02	Churchill Hospital	OX3 7LE	1	1	1	1
RN7QM	Queen Mary's Hospital (Sidcup)	DA14 6LT	1	0	0	0
RGM21	Papworth Hospital	CB23 3RE	0	0	1	0
RW601	Fairfield General Hospital	BL9 7TD	1	1	0	1
RW602	North Manchester General Hospital	M8 5RB	1	1	1	1
RW604	Rochdale Infirmary	OL12 0NB	0	1	0	1
RW603	Royal Oldham Hospital	OL1 2JH	1	1	1	1
RGN80	Peterborough City Hospital	PE3 9GZ	1	1	1	1
RK950	Derriford Hospital	PL6 8DH	1	1	1	1
RD300	Poole General Hospital	BH15 2JB	1	1	1	0
RHU03	Queen Alexandra Hospital	PO6 3LY	1	1	1	1
RHW01	Royal Berkshire Hospital	RG1 5AN	1	1	1	1
RMC01	Royal Bolton Hospital	BL4 0JR	1	1	1	1
RT301	Harefield Hospital	UB9 6JH	0	0	1	0
RT302	Royal Brompton Hospital	SW3 6NP	0	0	1	0
REF12	Royal Cornwall Hospital	TR1 3LJ	1	1	1	1
RH801	Royal Devon & Exeter Hospital (Wonford)	EX2 5DW	1	1	1	1
RAL01	Royal Free Hospital	NW3 2QG	1	1	1	1
RQ617	Royal Liverpool University Hospital	L7 8XP	1	1	0	1
RQ601	Broadgreen Hospital	L14 3LB	1	1	0	1
RA201	Royal Surrey County Hospital	GU2 7XX	1	1	1	1
RD130	Royal United Hospital	BA1 3NG	1	1	1	1
RM301	Salford Royal	M6 8HD	1	1	1	1
RNZ02	Salisbury District Hospital	SP2 8BJ	1	1	1	1
RXK02	City Hospital	B18 7QH	1	1	1	1
RHQHH	Royal Hallamshire Hospital	S10 2JF	1	0	0	1
RHQNG	Northern General Hospital	S5 7AU	0	1	1	0
RK5BC	King's Mill Hospital	NG17 4JL	1	1	1	1
RXWAS	Royal Shrewsbury Hospital	SY3 8XQ	1	1	1	1
RXWAT	The Princess Royal Hospital	TF1 6TF	1	1	1	1
RA901	Torbay Hospital	TQ2 7AA	1	1	1	1
RTR45	Friarage Hospital	DL6 1JG	1	1	1	1
RTRAT	James Cook University Hospital	TS4 3BW	1	1	1	1
RE9GA	South Tyneside District Hospital	NE34 0PL	0	1	1	0
RJC02	Warwick Hospital	CV34 5BW	1	1	1	1
RHM01	Southampton General Hospital	SO16 6YD	1	1	1	1
RAJ01	Southend Hospital	SS0 0RY	1	1	0	1
RVY01	Southport & Formby District General Hospital	PR8 6PN	1	1	1	1
RJ701	St George's Hospital (Tooting)	SW17 0QT	1	1	1	1
RBN01	Whiston Hospital	L35 5DR	1	1	1	1
RWJ01	Stockport NHS Foundation Trust	SK2 7JE	1	1	1	1
RTP02	Crawley Hospital	RH11 7DH	1	1	1	1
RTP04	East Surrey Hospital	RH1 5RH	1	1	1	1
RMP01	Tameside General Hospital	OL6 9RW	1	1	1	0
RBA11	Musgrove Park Hospital	TA1 5DA	1	1	1	1
RBV01	The Christie (Manchester)	M20 4BX	0	1	0	0
RNA01	Russells Hall Hospital	DY1 2HQ	1	1	1	1
RAS01	Hillingdon Hospital	UB8 3NN	1	1	1	1
RTD02	Royal Victoria Infirmary	NE1 4LP	1	1	1	1

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Hospital Code	Hospital Name	Postcode	Breast	Colorectal	Lung	Urology
RTD01	Freeman Hospital	NE7 7DN	1	1	1	1
RQWG0	Princess Alexandra Hospital	CM20 1QX	1	1	1	1
RCX70	The Queen Elizabeth Hospital (Kings Lynn)	PE30 4ET	1	1	1	1
RFRPA	Rotherham District General Hospital	S60 2UD	1	1	1	1
RDZ20	Royal Bournemouth General Hospital	BH7 7DW	1	1	1	1
RPY02	Royal Marsden Hospital (Sutton)	SM2 5PT	1	1	0	0
RPY01	Royal Marsden Hospital (Chelsea)	SW3 6JJ	1	1	1	1
RL403	New Cross Hospital	WV10 0QP	1	1	1	1
RKEQ4	The Whittington Hospital	N19 5NF	1	1	1	1
RWDLP	Grantham & District Hospital	NG31 8DG	1	1	1	1
RWDDA	Lincoln County Hospital	LN2 5QY	1	1	1	1
RWDLA	Pilgrim Hospital	PE21 9QS	1	1	1	1
RRV03	University College London Hospital	NW1 2BU	1	1	1	1
RRK02	Queen Elizabeth Hospital (Birmingham)	B15 2TH	1	1	1	1
RJE01	Royal Stoke University Hospital	ST4 6QG	1	1	1	1
RM202	Wythenshawe Hospital	M23 9LT	1	1	1	1
RA701	Bristol Royal Infirmary	BS2 8HW	0	1	1	0
RKB01	University Hospital (Coventry)	CV2 2DX	1	1	1	1
RWEAE	Glenfield Hospital	LE3 9QP	1	0	1	0
RWEAA	Leicester Royal Infirmary	LE1 5WW	0	1	1	0
RWEAK	Leicester General Hospital	LE5 4PW	0	1	0	1
RTXBU	Furness General Hospital	LA14 4LF	1	1	1	1
RTX02	Royal Lancaster Infirmary	LA1 4RP	1	1	1	1
RBK02	Manor Hospital	WS2 9PS	1	1	1	1
RWWWH	Warrington Hospital	WA5 1QG	1	1	1	1
RWG02	Watford General Hospital	WD18 0HB	0	1	1	1
RWG03	St Albans City Hospital	AL3 5PN	1	0	0	0
RQM91	West Middlesex University Hospital	TW7 6AF	1	1	1	1
RGR50	West Suffolk Hospital	IP33 2QZ	1	1	1	1
RYR16	St Richard's Hospital	PO19 6SE	1	1	1	1
RYR18	Worthing Hospital	BN11 2DH	1	1	1	1
RA301	Weston General Hospital	BS23 4TQ	1	1	1	1
RBL14	Arrowe Park Hospital	CH49 5PE	1	1	1	1
RWP50	Worcestershire Royal Hospital	WR5 1DD	1	1	1	1
RWP01	Alexandra Hospital	B98 7UB	1	1	1	0
RRF02	Royal Albert Edward Infirmary	WN1 2NN	1	1	1	1
RLQ01	Hereford County Hospital	HR1 2ER	1	1	1	1
RA430	Yeovil District Hospital	BA21 4AT	1	1	1	1
RCB55	York Hospital	YO31 8HE	1	1	1	1
RCBCA	Scarborough General Hospital	YO12 6QL	0	1	1	1
RXH10	Hurstwood Park Neurosciences Centre	RH16 4EX	0	0	0	1
RXR60	Sandwell General Hospital	B71 4HJ	1	1	1	1
RXQ51	St Bartholomew's Hospital	EC1A 7BE	1	1	1	1
RHAFJ	St Helens Hospital	WA9 3DA	1	1	1	1
RF4BK	Tunbridge Wells Hospital (Kent & Sussex Hospital)	TN2 4QJ	1	0	0	0