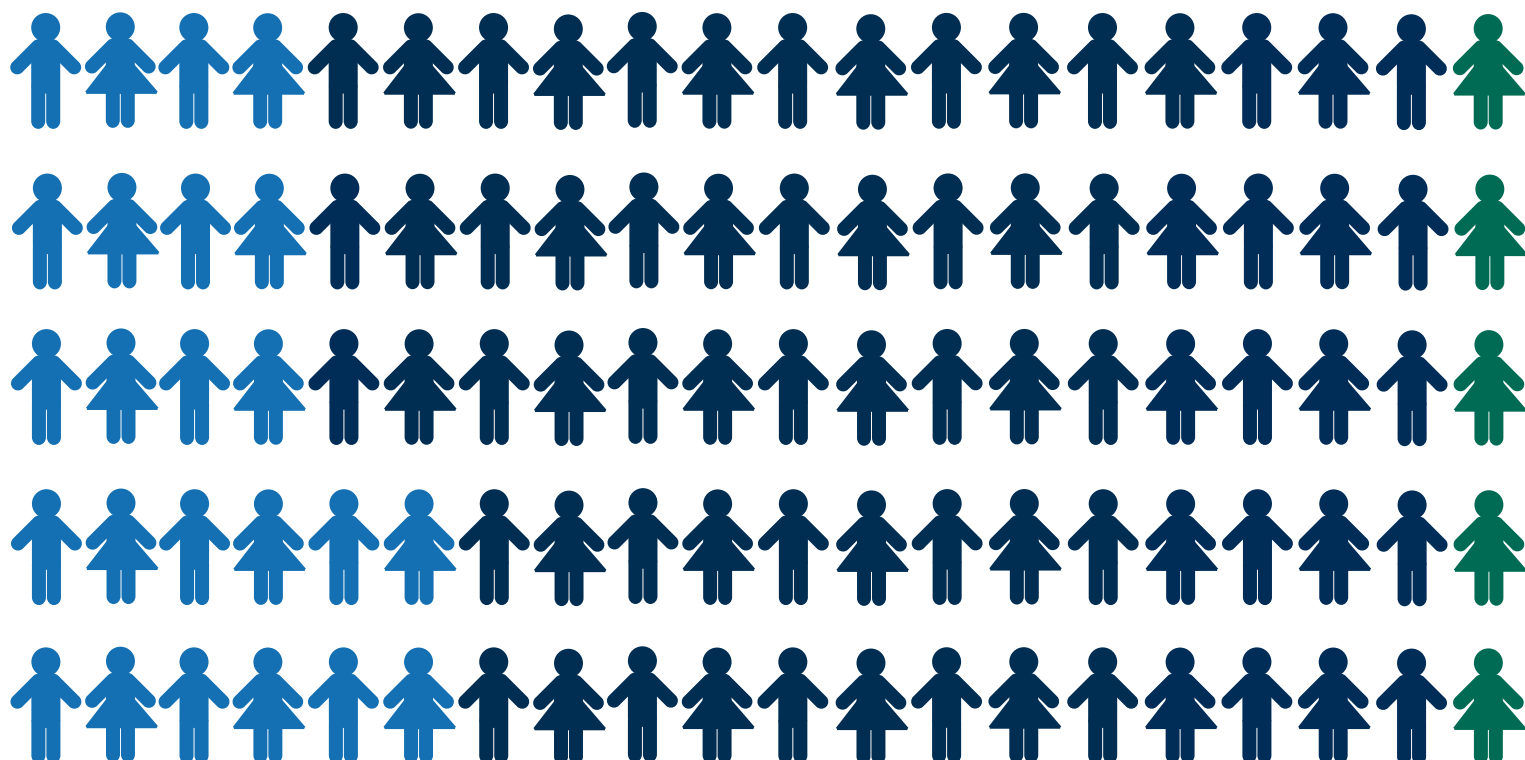


## Routes to Diagnosis, 2006-2008 NCIN information supplement





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## Routes to Diagnosis, England, 2006-2008

### Foreword

One key element of improving outcomes for many people with cancer is to diagnose cases at the earliest possible stage where the most effective treatments are a more likely option. To help inform an evidence based approach to this complex challenge, the National Awareness and Early Diagnosis Initiative commissioned the NCIN to interrogate a range of pre-existing national datasets in order to gain insight into the routes through which people are diagnosed with cancer in England. The resulting *Routes to Diagnosis* study not only delivers valuable intelligence about the variation in diagnosis route by cancer site, age and deprivation and the association with outcome, but also serves as a reminder of how powerful the linkage of data from sources such as cancer registries, screening programmes, waiting times and hospital episodes can be.



Almost 740,000 cancer cases diagnosed in England in the three years 2006-2008 were identified and records retrospectively analysed to obtain the picture of Routes to Diagnosis described in this report. The most startling findings relate to patients who present as an emergency. Overall almost a quarter of all cancer patients present this way but, as expected, there is wide variation between tumour types. Most importantly, and not surprisingly, within each cancer type one-year relative survival for patients presenting as emergencies is significantly worse than that for patients presenting through any other route.

It is our responsibility now to ensure that such intelligence is gathered efficiently on an ongoing basis and used to improve practice and ultimately improve cancer survival.

A handwritten signature in purple ink that reads "Sara Hiom".

**Sara Hiom**

**Director of Information and NAEDI Lead, Cancer Research UK**

# Introduction

## Background

Improving cancer survival is a key challenge identified in Improving Outcomes: A Strategy for Cancer. Cancer survival estimates in the UK currently fall below those in many European countries. The survival difference in the first 12 months after diagnosis has been partly attributed to later stage at diagnosis. The National Awareness and Early Diagnosis Initiative (NAEDI) aims to coordinate and provide support to activities and research that promote the earlier diagnosis of cancer and thereby improve survival rates and reduce cancer mortality. Understanding the routes taken by patients to their cancer diagnoses and the impact of different routes on patient survival will inform targeted implementation of awareness and early diagnosis initiatives and enable assessment of their success.

Routes to Diagnosis uses routinely collected data sources to work backwards through patient pathways to examine the sequence of events that led to a cancer diagnosis. The methodology categorises patients into one of eight Routes (see Table 1). This report summarises the Routes assigned for all English patients diagnosed with malignant cancers between 2006 and 2008. Results are broken down by cancer type, age group and deprivation quintile. Associated relative survival estimates are shown for 1, 3, 6, 9 and 12 month survival intervals with 12 month survival also broken down by age group.

## Methods

The Routes to Diagnosis methodology is described in detail in the British Journal of Cancer article “Routes to Diagnosis for cancer - Determining the patient journey using multiple routine datasets” (Br J Cancer, vol. 107, No. 8), a brief summary is provided below to aid interpretation of the results presented in this report.

All newly diagnosed malignant cancers excluding non-melanoma skin cancer diagnosed between 2006 and 2008 in residents of England were extracted from the National Cancer Data Repository (NCDR). These records were linked at patient level to Admitted Patient Care (Inpatient) and Outpatient Hospital Episode Statistics (HES) datasets; the National Cancer Waiting Times (CWT) Monitoring Dataset; national breast screening data; and national bowel cancer screening data. The NCDR provided screening identification for cervical cancers.

Firstly, HES data were used to categorise the Route for each cancer individually. Screening and CWT data were then examined with the Route assignment potentially changing to either a Screening or Two Week Wait (TWW) Route.

For patients with HES activity, a specific inpatient or outpatient episode was identified in HES as the end-point of the route by its proximity to the date of diagnosis. The end-point was assumed to be the clinical care event that led most immediately to diagnosis. From this episode HES data were examined to work backwards through the hospital journey to identify a start-point of the route: the initial referral into secondary care. The characteristics of this start-point enabled an initial Route to be assigned.

For cases with no HES activity in the six months prior to date of diagnosis, the Route was classified as Unknown or Death Certificate Only (DCO).

After Routes were allocated to each case from the HES data, screening and CWT data were examined. Where a case could be linked to a CWT urgent referral for suspected cancer it was classified as a TWW Route, unless the Route categorised using HES data was an Emergency Presentation with an admission date within 28 days prior to the decision to treat date. Where the case could be linked to a screening event it was classified as a Screening Route. If both screening data and CWT data were available for a patient then a Screen Detected Route took priority over a TWW Route.

### **Presentation of results**

The percentage of patients diagnosed through each Route are presented with 95% confidence intervals with results broken down by age group and deprivation quintile for all cancers combined (ICD-10 C00-C97 excluding C44) and for 29 specific cancer types. For all cancers combined, the majority were diagnosed through TWW (26%), Emergency Presentation (24%), or GP referral (21%) Routes with the other five Routes making up the remaining 29%. These percentages vary considerably with cancer type.

It should be noted that while this report presents the percentage of screen detected colorectal cases as 2% for 2006 to 2008, the percentage increased from 0% in 2006 to 5% in 2008, reflecting the staged rollout of the NHS Bowel Cancer Screening Programme. In addition the percentage of cervical cancer cases presenting via screening is known to be underreported (15% for 2006 to 2008), particularly for 2008 (10%), so these results should also be interpreted with caution.

Relative survival estimates for 1, 3, 6, 9 and 12 months are shown for each site by Route (excluding DCO). In addition, 12 month relative survival estimates are presented for three age groups: 0-64 years, 65-84 years and 85 and over. Across all cancer types, 12-month relative survival was significantly lower for cases categorised as an Emergency Presentation than for those presenting via other routes.

### **Conclusions**

A patient's Route to Diagnosis has a significant association with their 12-month relative survival. Patient Routes vary by age, deprivation and cancer type. In particular, the substantially lower relative survival in the Emergency Route compared to non-Emergency Routes indicates that this distinction is of high clinical significance. Routes to Diagnosis can be used to explore possible reasons for delayed diagnosis, direct the focus of early diagnosis initiatives and identify areas for further research.

Lucy Elliss-Brookes



**Analytical Programme Manager, National Cancer Intelligence Network**

## Project Team

The Routes to Diagnosis Project Team is led by Sean McPhail and consists of Jon Shelton, Alex Ives (South West Public Health Observatory), Matt Greenslade (South West Public Health Observatory), and Lucy Elliss-Brookes. Professor Sir Mike Richards acts as clinical advisor.

## Acknowledgements

Thanks to Paul Finan, Richard Wight, Martin Lee, Andy Nordin, Hamish Ross, Michael Lind, Peter Collins, Rob Grimer, Julia Newton-Bishop, Bill Allum and Roger Kockelbergh. Also to members of the NCIN Coordinating Team who have helped with this publication.

**Table 1: The eight Routes used to categorise all cancers**

Route	Description
Screen Detected	Detected via the breast, cervical or bowel screening programmes
Two Week Wait	Urgent GP referral with a suspicion of cancer
GP Referral	Routine and urgent referrals where the patient was not referred under the Two Week Wait referral route
Other Outpatient	An elective route starting with an outpatient appointment: either self-referral, consultant to consultant, other or unknown referral
Inpatient Elective	Where no earlier admission can be found prior to admission from a waiting list, booked or planned
Emergency Presentation	An emergency route via A&E, emergency GP referral, emergency transfer, emergency consultant outpatient referral, emergency admission or attendance
Death Certificate Only	No data available from Inpatient or Outpatient HES, CWT, Screening and with a death certificate only diagnosis flagged by the registry in the NCDR
Unknown	No data available from Inpatient or Outpatient HES, CWT, Screening



## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C00-C97 excl. C44: All cancers

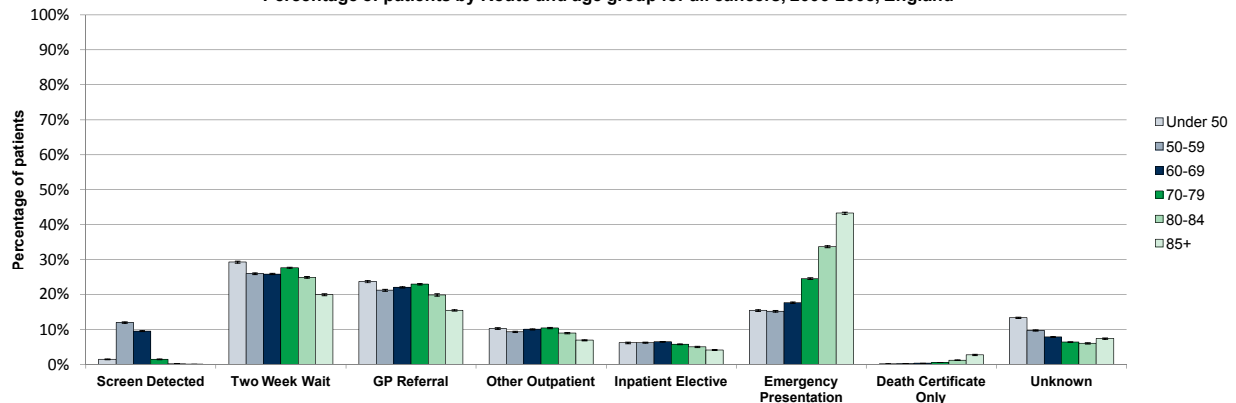
#### Introduction

The percentage of patients diagnosed through each Route is presented with 95% confidence intervals, with results broken down by age group and deprivation quintile. Relative survival estimates for 1, 3, 6, 9 and 12 months are also shown by Route with the exception of Death Certificate Only. 12 month relative survival estimates are also presented by age group. These data are a selection of the available Routes to Diagnosis data. Please see [www.ncin.org.uk](http://www.ncin.org.uk) for more information.

#### Percentage of patients by Route and age group

Age group	Screen Detected		Two Week Wait		GP Referral		Other Outpatient		Inpatient Elective		Emergency Presentation		Death Certificate Only		Unknown		Number of cases
Under 50	2%		29%		24%		10%		6%		15%		0%		13%		81,072
	1%	2%	29%	30%	23%	24%	10%	11%	6%	6%	15%	16%	0%	0%	13%	14%	
50-59	12%		26%		21%		9%		6%		15%		0%		10%		102,487
	12%	12%	26%	26%	21%	22%	9%	10%	6%	6%	15%	16%	0%	0%	10%	10%	
60-69	10%		26%		22%		10%		6%		18%		0%		8%		181,958
	9%	10%	26%	26%	22%	22%	10%	10%	6%	7%	18%	18%	0%	0%	8%	8%	
70-79	2%		28%		23%		10%		6%		25%		1%		6%		207,389
	1%	2%	27%	28%	23%	23%	10%	11%	6%	6%	24%	25%	1%	1%	6%	7%	
80-84	0%		25%		20%		9%		5%		34%		1%		6%		87,940
	0%	0%	25%	25%	20%	20%	9%	9%	5%	5%	33%	34%	1%	1%	6%	6%	
85+	0%		20%		16%		7%		4%		43%		3%		7%		78,821
	0%	0%	20%	20%	15%	16%	7%	7%	4%	4%	43%	44%	3%	3%	7%	8%	
All ages	5%		26%		21%		10%		6%		24%		1%		8%		739,667
	5%	5%	26%	26%	21%	22%	10%	10%	6%	6%	24%	24%	1%	1%	8%	8%	

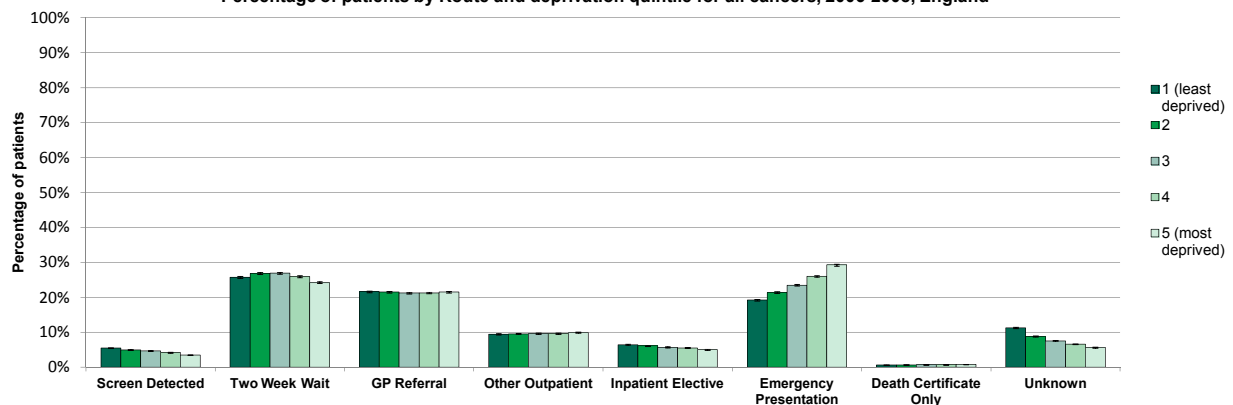
Percentage of patients by Route and age group for all cancers, 2006-2008, England



#### Percentage of patients by Route and deprivation quintile

Deprivation group	Screen Detected		Two Week Wait		GP Referral		Other Outpatient		Inpatient Elective		Emergency Presentation		Death Certificate Only		Unknown		Number of cases
1 (least deprived)	6%		26%		22%		9%		6%		19%		1%		11%		148,785
	5%	6%	26%	26%	21%	22%	9%	10%	6%	7%	19%	19%	1%	1%	11%	12%	
2	5%		27%		22%		10%		6%		21%		1%		9%		159,893
	5%	5%	27%	27%	21%	22%	10%	10%	6%	6%	21%	22%	1%	1%	9%	9%	
3	5%		27%		21%		10%		6%		24%		1%		8%		157,884
	5%	5%	27%	27%	21%	21%	10%	10%	6%	6%	23%	24%	1%	1%	7%	8%	
4	4%		26%		21%		10%		6%		26%		1%		7%		145,444
	4%	4%	26%	26%	21%	22%	10%	10%	5%	6%	26%	26%	1%	1%	7%	7%	
5 (most deprived)	3%		24%		22%		10%		5%		29%		1%		6%		127,661
	3%	4%	24%	25%	21%	22%	10%	10%	5%	5%	29%	30%	1%	1%	6%	6%	
All quintiles	5%		26%		21%		10%		6%		24%		1%		8%		739,667
	5%	5%	26%	26%	21%	22%	10%	10%	6%	6%	24%	24%	1%	1%	8%	8%	

Percentage of patients by Route and deprivation quintile for all cancers, 2006-2008, England



## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C01, C09-C10: Head and neck - Oropharynx

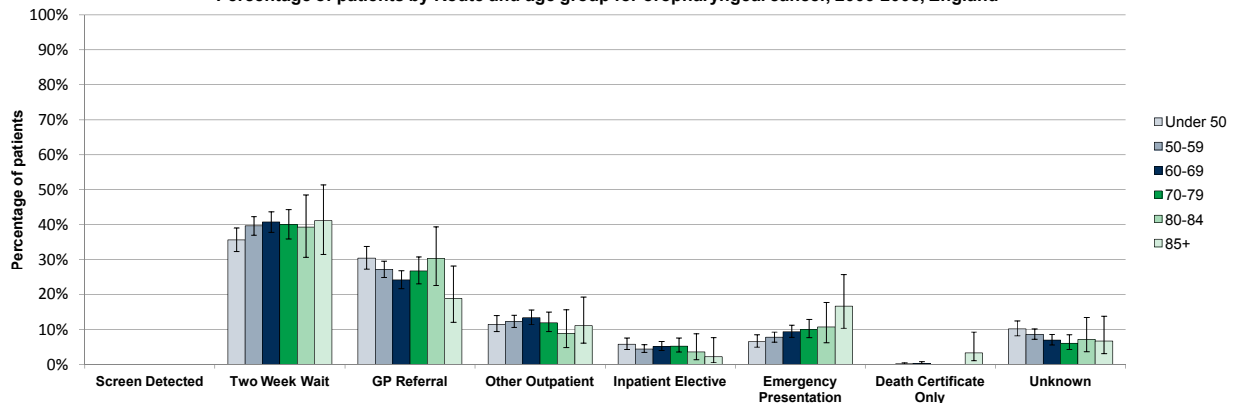
#### Introduction

The percentage of patients diagnosed through each Route is presented with 95% confidence intervals, with results broken down by age group and deprivation quintile. Relative survival estimates for 1, 3, 6, 9 and 12 months are also shown by Route with the exception of Death Certificate Only. 12 month relative survival estimates are also presented by age group. These data are a selection of the available Routes to Diagnosis data. Please see [www.ncin.org.uk](http://www.ncin.org.uk) for more information.

#### Percentage of patients by Route and age group

Age group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
Under 50		36%	30%	11%	6%	7%		10%	749
		32% 39%	27% 34%	9% 14%	4% 8%	5% 9%		8% 13%	
50-59		40%	27%	12%	4%	8%	0%	9%	1,328
		37% 42%	25% 30%	11% 14%	4% 6%	6% 9%	0% 1%	7% 10%	
60-69		41%	24%	13%	5%	9%	0%	7%	1,068
		38% 44%	22% 27%	12% 16%	4% 7%	8% 11%	0% 1%	6% 9%	
70-79		40%	27%	12%	5%	10%		6%	512
		36% 44%	23% 31%	9% 15%	4% 8%	8% 13%		4% 9%	
80-84		39%	30%	9%	4%	11%		7%	112
		31% 49%	23% 39%	5% 16%	1% 9%	6% 18%		4% 14%	
85+		41%	19%	11%	2%	17%	3%	7%	90
		32% 51%	12% 28%	6% 19%	1% 8%	10% 26%	1% 9%	3% 14%	
All ages		39%	27%	12%	5%	9%	0%	8%	3,859
		38% 41%	25% 28%	11% 13%	4% 6%	8% 10%	0% 0%	7% 9%	

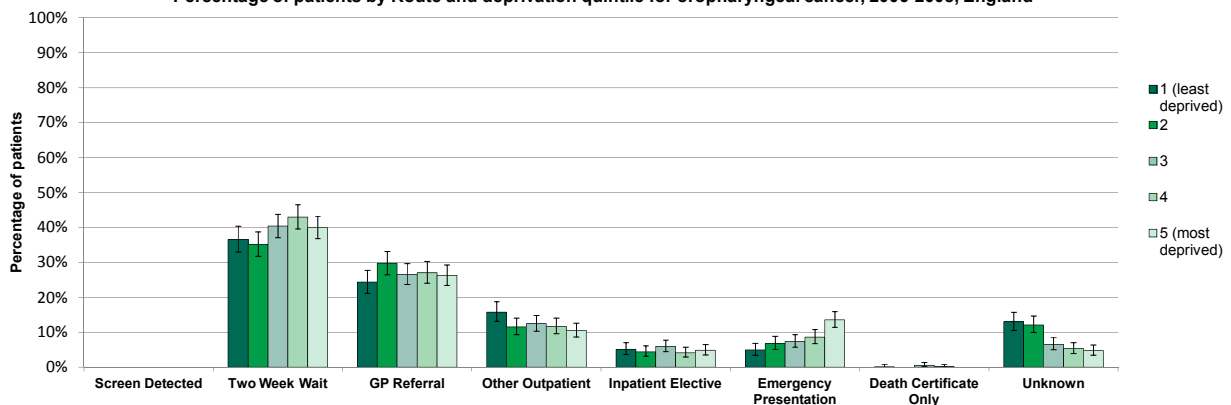
Percentage of patients by Route and age group for oropharyngeal cancer, 2006-2008, England



#### Percentage of patients by Route and deprivation quintile

Deprivation group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
1 (least deprived)		37%	24%	16%	5%	5%	0%	13%	645
		33% 40%	21% 28%	13% 19%	4% 7%	4% 7%	0% 1%	11% 16%	
2		35%	30%	12%	4%	7%		12%	716
		32% 39%	27% 33%	9% 14%	3% 6%	5% 9%		10% 15%	
3		40%	27%	13%	6%	7%	1%	7%	824
		37% 44%	24% 30%	10% 15%	5% 8%	6% 9%	0% 1%	5% 9%	
4		43%	27%	12%	4%	9%	0%	5%	791
		40% 47%	24% 30%	10% 14%	3% 6%	7% 11%	0% 1%	4% 7%	
5 (most deprived)		40%	26%	11%	5%	14%		5%	883
		37% 43%	24% 29%	9% 13%	4% 7%	12% 16%		4% 6%	
All quintiles		39%	27%	12%	5%	9%	0%	8%	3,859
		38% 41%	25% 28%	11% 13%	4% 6%	8% 10%	0% 0%	7% 9%	

Percentage of patients by Route and deprivation quintile for oropharyngeal cancer, 2006-2008, England



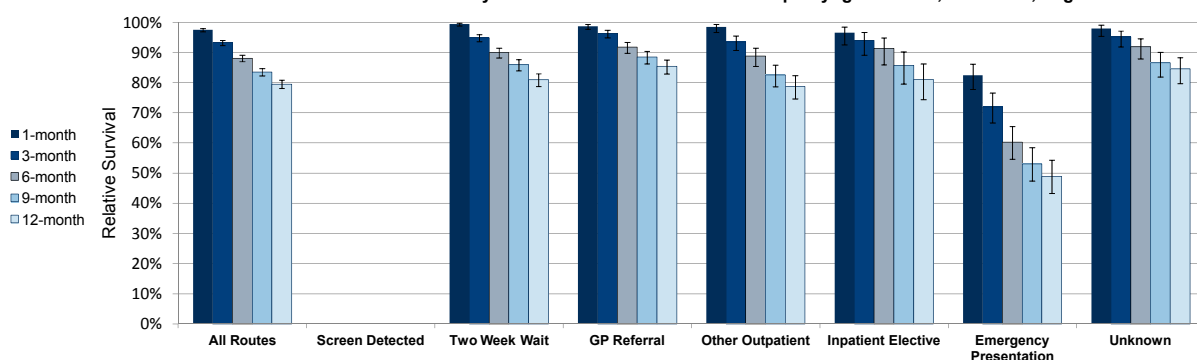
## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C01, C09-C10: Head and neck - Oropharynx

Relative survival estimates by Route and survival interval

Age group	Survival interval	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
All ages	1-month	97%		99%	99%	98%	97%	82%	98%
		97% 98%		99% 100%	98% 99%	97% 99%	93% 98%	78% 86%	95% 99%
	3-month	93%		95%	96%	94%	94%	72%	95%
		92% 94%		94% 96%	95% 97%	91% 95%	89% 97%	67% 77%	92% 97%
	6-month	88%		90%	92%	89%	91%	60%	92%
		87% 89%		88% 91%	90% 93%	85% 91%	86% 95%	55% 65%	88% 95%
	9-month	84%		86%	88%	83%	86%	53%	87%
		82% 85%		84% 88%	86% 90%	79% 86%	80% 90%	47% 58%	82% 90%
	12-month	80%		81%	85%	79%	81%	49%	85%
		78% 81%		79% 83%	83% 88%	75% 82%	74% 86%	43% 54%	80% 88%
	Number in cohort	3,842		1,514	1,033	472	190	324	309

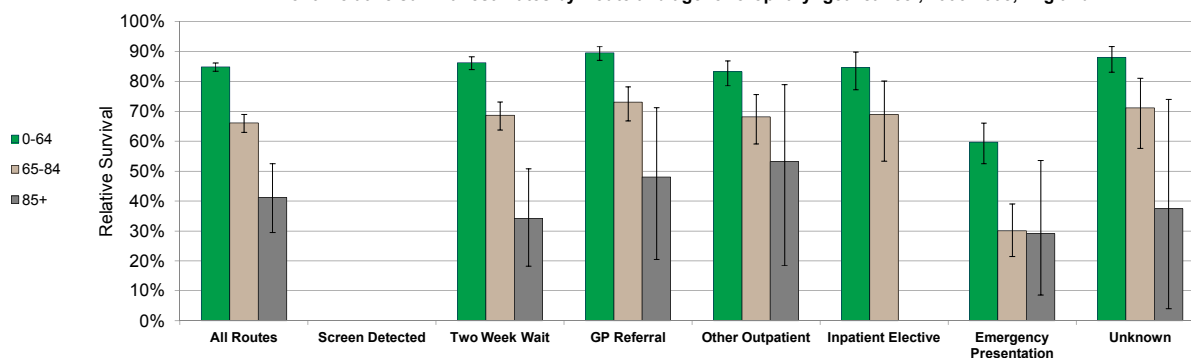
Relative survival estimates by Route and survival interval for oropharyngeal cancer, 2006-2008, England



12-month relative survival estimates by Route and age group

Survival interval	Age group	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
12-month	0-64	85%		86%	90%	83%	85%	60%	88%
		83% 86%		84% 88%	87% 92%	79% 87%	77% 90%	53% 66%	83% 92%
	Number in cohort	2,705		1,053	747	327	137	202	239
	65-84	66%		69%	73%	68%	69%	30%	71%
		63% 69%		64% 73%	67% 78%	59% 76%	53% 80%	21% 39%	58% 81%
	Number in cohort	1,050		424	269	135	51	107	64
	85+	41%		34%	48%	53%		29%	37%
		30% 53%		18% 51%	21% 71%	19% 79%		9% 54%	4% 74%
	Number in cohort	87		37	17	10		15	6

12-month relative survival estimates by Route and age for oropharyngeal cancer, 2006-2008, England



#### Comments

The most frequent sign of oropharyngeal cancer is a lump in the neck, hence the high proportion of patients who present via the GP, Two Week Wait and Other Outpatient Routes (nearly 80%). There is no significant difference of the Routes between age groups or by deprivation quintile. Aggressive treatment is required for Oropharyngeal cancer as the majority of patients present with late stage disease and regional lymph node involvement (therefore automatically stage III or IV). Principally, treatment involves radiotherapy or chemoradiotherapy. Very poor survival rates are seen in the older age groups since only a subpopulation of very fit elderly patients can tolerate treatment with curative intent.

## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C02-C04, C06: Head and neck - Oral cavity

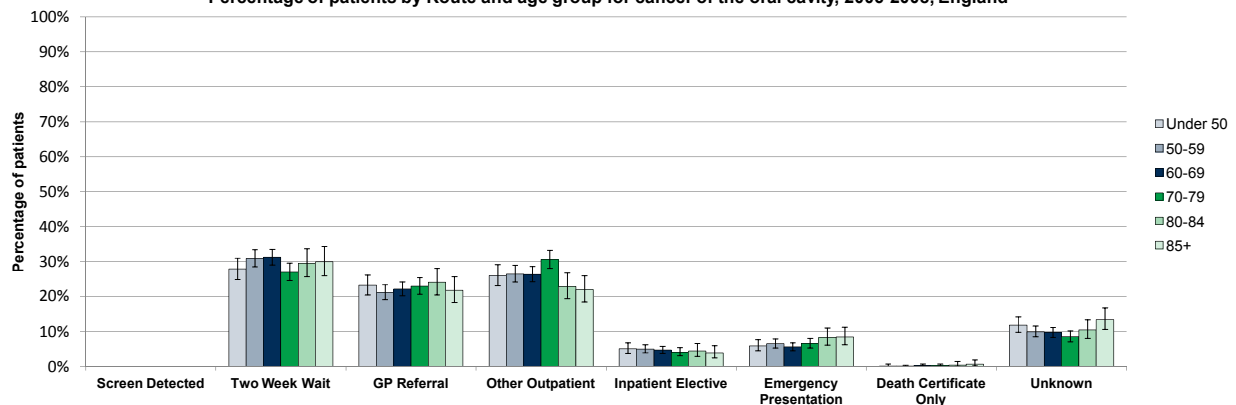
#### Introduction

The percentage of patients diagnosed through each Route is presented with 95% confidence intervals, with results broken down by age group and deprivation quintile. Relative survival estimates for 1, 3, 6, 9 and 12 months are also shown by Route with the exception of Death Certificate Only. 12 month relative survival estimates are also presented by age group. These data are a selection of the available Routes to Diagnosis data. Please see [www.ncin.org.uk](http://www.ncin.org.uk) for more information.

#### Percentage of patients by Route and age group

Age group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
Under 50		28% 25% 31%	23% 21% 26%	26% 23% 29%	5% 4% 7%	6% 5% 8%	0% 0% 1%	12% 10% 14%	830
50-59		31% 29% 33%	21% 19% 23%	26% 24% 29%	5% 4% 6%	6% 5% 8%	0% 0% 0%	10% 9% 12%	1,401
60-69		31% 29% 34%	22% 20% 24%	26% 24% 29%	5% 4% 6%	6% 5% 7%	0% 0% 1%	10% 8% 11%	1,599
70-79		27% 25% 30%	23% 21% 26%	31% 28% 33%	4% 3% 5%	7% 5% 8%	0% 0% 1%	9% 7% 10%	1,200
80-84		30% 26% 34%	24% 21% 28%	23% 19% 27%	4% 3% 7%	8% 6% 11%	0% 0% 2%	10% 8% 13%	498
85+		30% 26% 34%	22% 18% 26%	22% 19% 26%	4% 3% 6%	8% 6% 11%	1% 0% 2%	13% 11% 17%	464
All ages		30% 28% 31%	22% 21% 24%	27% 26% 28%	5% 4% 5%	6% 6% 7%	0% 0% 0%	10% 9% 11%	5,992

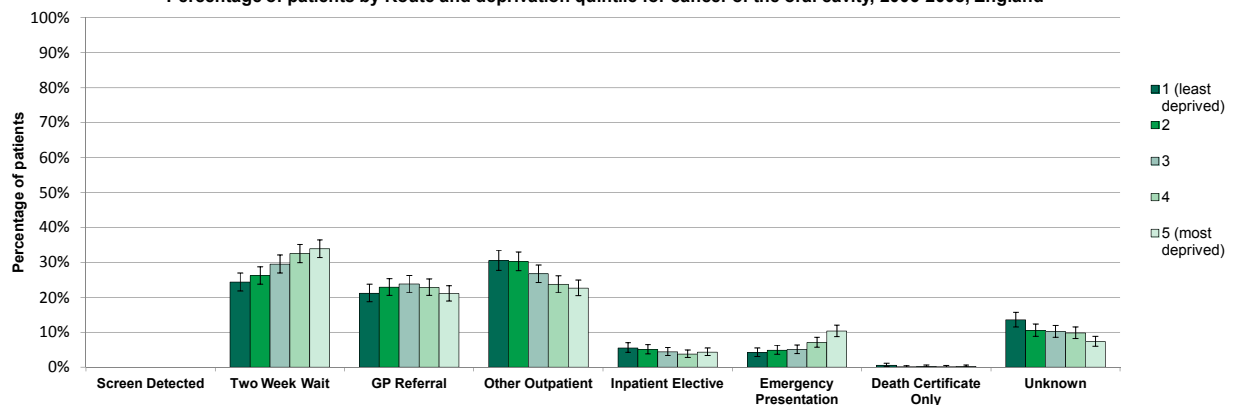
Percentage of patients by Route and age group for cancer of the oral cavity, 2006-2008, England



#### Percentage of patients by Route and deprivation quintile

Deprivation group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
1 (least deprived)		24% 22% 27%	21% 19% 24%	31% 28% 33%	6% 4% 7%	4% 3% 6%	1% 0% 1%	14% 12% 16%	1,047
2		26% 24% 29%	23% 21% 25%	30% 28% 33%	5% 4% 7%	5% 4% 6%	0% 0% 1%	11% 9% 12%	1,166
3		30% 27% 32%	24% 22% 26%	27% 24% 29%	4% 3% 6%	5% 4% 6%	0% 0% 1%	10% 9% 12%	1,205
4		33% 30% 35%	23% 21% 25%	24% 22% 26%	4% 3% 5%	7% 6% 9%	0% 0% 1%	10% 8% 12%	1,233
5 (most deprived)		34% 31% 37%	21% 19% 23%	23% 21% 25%	4% 3% 6%	10% 9% 12%	0% 0% 1%	7% 6% 9%	1,341
All quintiles		30% 28% 31%	22% 21% 24%	27% 26% 28%	5% 4% 5%	6% 6% 7%	0% 0% 0%	10% 9% 11%	5,992

Percentage of patients by Route and deprivation quintile for cancer of the oral cavity, 2006-2008, England



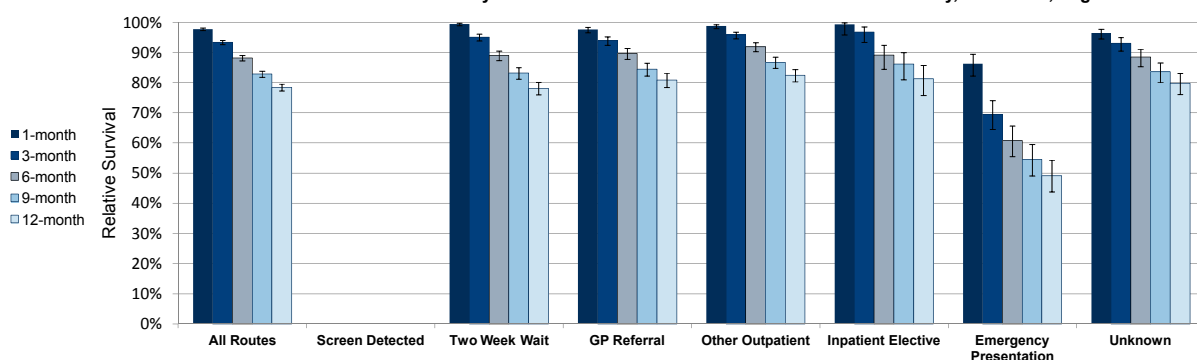
## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C02-C04, C06: Head and neck - Oral cavity

Relative survival estimates by Route and survival interval

Age group	Survival interval	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
All ages	1-month	98%		99%	98%	99%	99%	86%	96%
		97% 98%		99% 100%	97% 98%	98% 99%	96% 100%	82% 89%	95% 98%
	3-month	93%		95%	94%	96%	97%	70%	93%
		93% 94%		94% 96%	92% 95%	95% 97%	93% 98%	64% 74%	90% 95%
	6-month	88%		89%	90%	92%	89%	61%	88%
		87% 89%		87% 90%	88% 91%	90% 93%	84% 92%	55% 66%	85% 91%
	9-month	83%		83%	84%	87%	86%	54%	84%
		82% 84%		81% 85%	82% 86%	85% 88%	81% 90%	49% 60%	80% 87%
	12-month	78%		78%	81%	82%	81%	49%	80%
		77% 80%		76% 80%	78% 83%	80% 84%	76% 86%	44% 54%	76% 83%
	Number in cohort	5,938		1,772	1,335	1,581	274	370	606

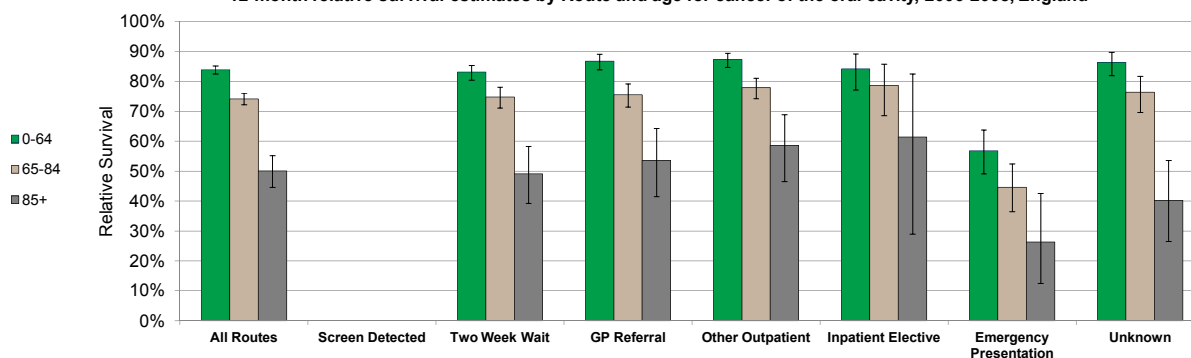
Relative survival estimates by Route and survival interval for cancer of the oral cavity, 2006-2008, England



12-month relative survival estimates by Route and age group

Survival interval	Age group	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
12-month	0-64	84%		83%	87%	87%	84%	57%	86%
		82% 85%		80% 85%	84% 89%	85% 89%	77% 89%	49% 64%	82% 90%
	Number in cohort	3,087		938	685	814	151	177	322
	65-84	74%		75%	76%	78%	79%	45%	76%
		72% 76%		71% 78%	71% 79%	74% 81%	69% 86%	36% 52%	70% 82%
	Number in cohort	2,404		696	553	667	106	159	223
	85+	50%		49%	54%	59%	61%	26%	40%
		45% 55%		39% 58%	42% 64%	47% 69%	29% 82%	12% 43%	26% 54%
	Number in cohort	447		138	97	100	17	34	61

12-month relative survival estimates by Route and age for cancer of the oral cavity, 2006-2008, England



#### Comments

GP referrals, Two Week Wait, Inpatient Elective and Other Outpatient Routes account for over 80% of patient routes into secondary care with no significant differences between age bands within each Route. Referrals via the Two Week Wait Route are more likely for patients within the most deprived quintile, with a small increase also seen for Emergency Presentations. This could reflect more advanced disease causing more red flag symptoms explaining this increased proportion of patients. The poorer survival for the small proportion of Emergency Presentations is to be expected given the symptoms of late stage disease.

## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C32: Head and neck - Larynx

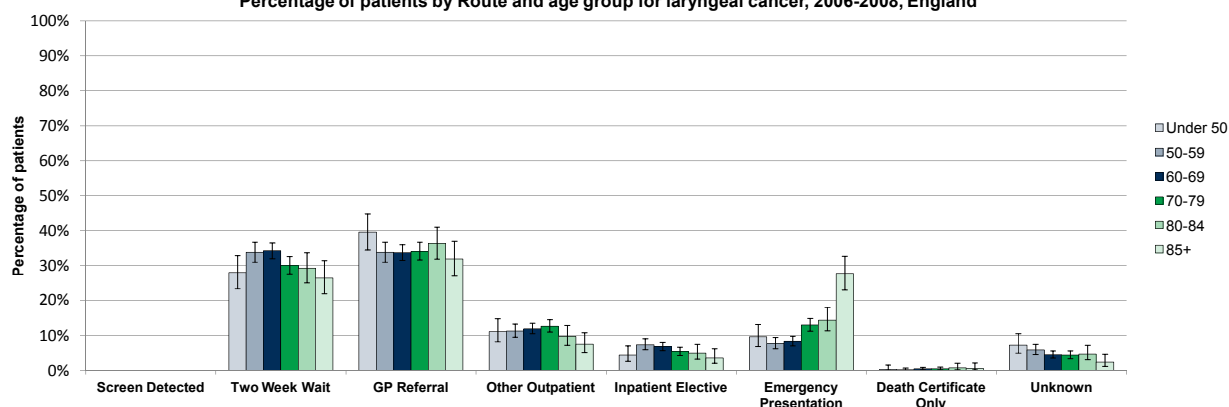
#### Introduction

The percentage of patients diagnosed through each Route is presented with 95% confidence intervals, with results broken down by age group and deprivation quintile. Relative survival estimates for 1, 3, 6, 9 and 12 months are also shown by Route with the exception of Death Certificate Only. 12 month relative survival estimates are also presented by age group. These data are a selection of the available Routes to Diagnosis data. Please see [www.ncin.org.uk](http://www.ncin.org.uk) for more information.

#### Percentage of patients by Route and age group

Age group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
Under 50		28%	40%	11%	4%	10%	0%	7%	344
		23% 33%	35% 45%	8% 15%	3% 7%	7% 13%	0% 2%	5% 11%	
50-59		34%	34%	11%	7%	8%	0%	6%	1,071
		31% 37%	31% 37%	10% 13%	6% 9%	6% 9%	0% 1%	5% 8%	
60-69		34%	34%	12%	7%	8%	0%	5%	1,710
		32% 37%	32% 36%	11% 14%	6% 8%	7% 10%	0% 1%	4% 6%	
70-79		30%	34%	13%	5%	13%	0%	4%	1,318
		28% 33%	32% 37%	11% 15%	4% 7%	11% 15%	0% 1%	3% 6%	
80-84		29%	36%	10%	5%	14%	1%	5%	424
		25% 34%	32% 41%	7% 13%	3% 8%	11% 18%	0% 2%	3% 7%	
85+		26%	32%	8%	4%	28%	1%	2%	333
		22% 31%	27% 37%	5% 11%	2% 6%	23% 33%	0% 2%	1% 5%	
All ages		32%	34%	11%	6%	11%	0%	5%	5,200
		31% 33%	33% 36%	11% 12%	5% 7%	10% 12%	0% 1%	4% 5%	

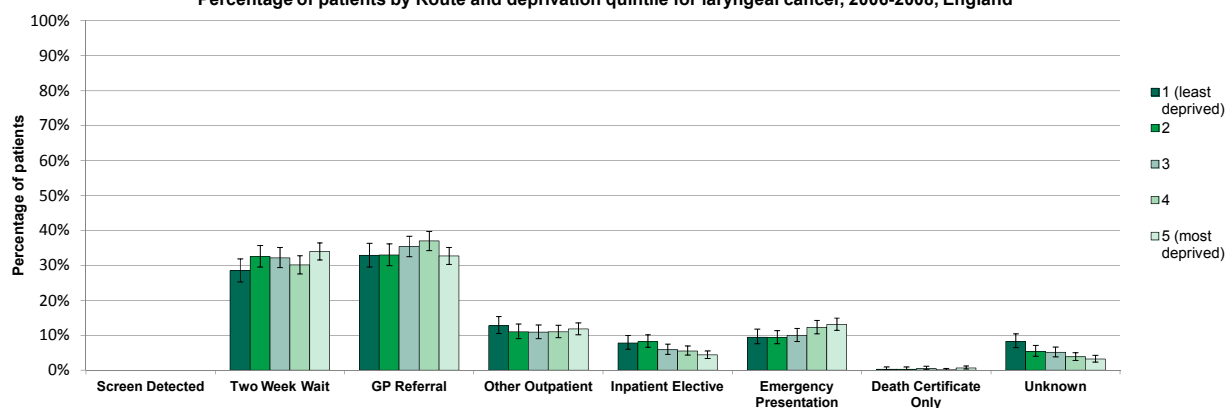
Percentage of patients by Route and age group for laryngeal cancer, 2006-2008, England



#### Percentage of patients by Route and deprivation quintile

Deprivation group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
1 (least deprived)		28%	33%	13%	8%	9%	0%	8%	727
		25% 32%	30% 36%	11% 15%	6% 10%	8% 12%	0% 1%	7% 11%	
2		33%	33%	11%	8%	9%	0%	5%	878
		30% 36%	30% 36%	9% 13%	7% 10%	8% 11%	0% 1%	4% 7%	
3		32%	35%	11%	6%	10%	1%	5%	991
		29% 35%	33% 38%	9% 13%	5% 8%	8% 12%	0% 1%	4% 7%	
4		30%	37%	11%	6%	12%	0%	4%	1,189
		28% 33%	34% 40%	9% 13%	4% 7%	11% 14%	0% 1%	3% 5%	
5 (most deprived)		34%	33%	12%	4%	13%	1%	3%	1,415
		32% 37%	30% 35%	10% 14%	3% 6%	12% 15%	0% 1%	2% 4%	
All quintiles		32%	34%	11%	6%	11%	0%	5%	5,200
		31% 33%	33% 36%	11% 12%	5% 7%	10% 12%	0% 1%	4% 5%	

Percentage of patients by Route and deprivation quintile for laryngeal cancer, 2006-2008, England



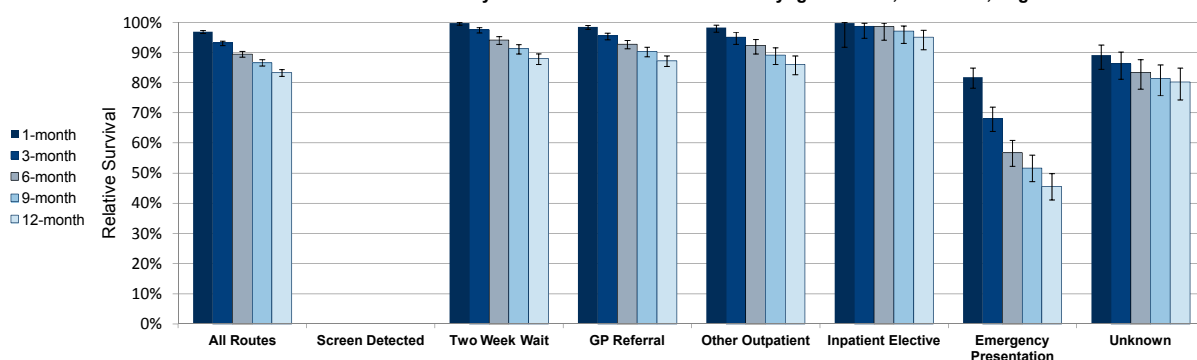
## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C32: Head and neck - Larynx

Relative survival estimates by Route and survival interval

Age group	Survival interval	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
All ages	1-month	97%		100%	98%	98%	100%	82%	89%
		96% 97%		99% 100%	98% 99%	97% 99%	92% 100%	78% 85%	84% 93%
	3-month	93%		98%	95%	95%	99%	68%	86%
		92% 94%		97% 98%	94% 96%	93% 97%	95% 100%	64% 72%	81% 90%
	6-month	89%		94%	93%	92%	99%	57%	83%
		89% 90%		93% 95%	91% 94%	90% 94%	94% 100%	52% 61%	78% 88%
	9-month	87%		91%	90%	89%	97%	52%	81%
		86% 88%		90% 93%	89% 92%	86% 92%	93% 99%	47% 56%	76% 86%
	12-month	83%		88%	87%	86%	95%	46%	80%
		82% 84%		86% 90%	85% 89%	83% 89%	91% 97%	41% 50%	74% 85%
	Number in cohort	5,126		1,650	1,781	591	315	538	251

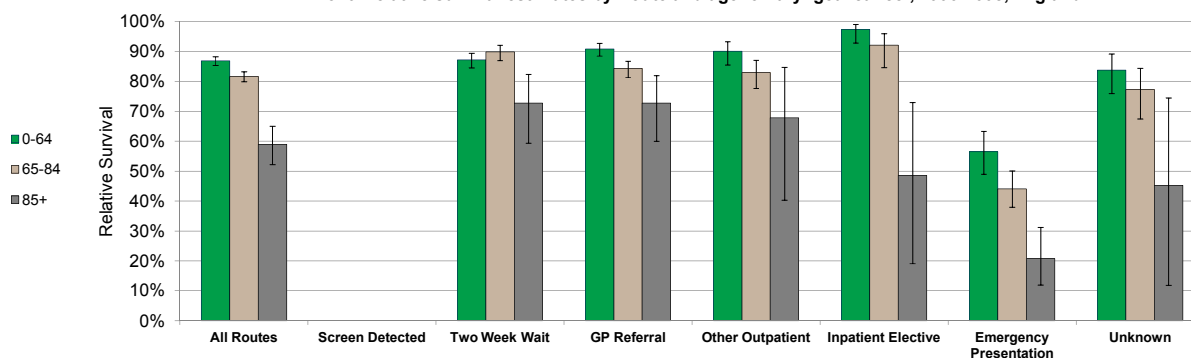
Relative survival estimates by Route and survival interval for laryngeal cancer, 2006-2008, England



12-month relative survival estimates by Route and age group

Survival interval	Age group	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
12-month	0-64	87%		87%	91%	90%	97%	56%	84%
		85% 88%		84% 89%	89% 93%	85% 93%	93% 99%	49% 63%	76% 89%
	Number in cohort	2,290		776	781	255	162	185	131
	65-84	82%		90%	84%	83%	92%	44%	77%
		80% 83%		87% 92%	81% 87%	78% 87%	85% 96%	38% 50%	67% 84%
	Number in cohort	2,524		786	896	312	141	277	112
	85+	59%		73%	73%	68%	49%	21%	45%
		52% 65%		59% 82%	60% 82%	40% 85%	19% 73%	12% 31%	12% 74%
	Number in cohort	312		88	104	24	12	76	8

12-month relative survival estimates by Route and age for laryngeal cancer, 2006-2008, England



#### Comments

GP referrals, Two Week Wait and Other Outpatients make up over 75% of routes into secondary care. There are no significant differences within Routes by age groups and deprivation quintiles, with the exception of Emergency Presentations. Elderly patients are more likely to be Emergency Presentations and are likely to present with symptoms such as acute airway obstruction or dysphagia due to advanced disease presentation. Unsurprisingly, these Emergency Presentations have significantly poorer survival given they are more likely to present as emergencies due to symptoms of later stage disease.

## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C73: Head and neck - Thyroid

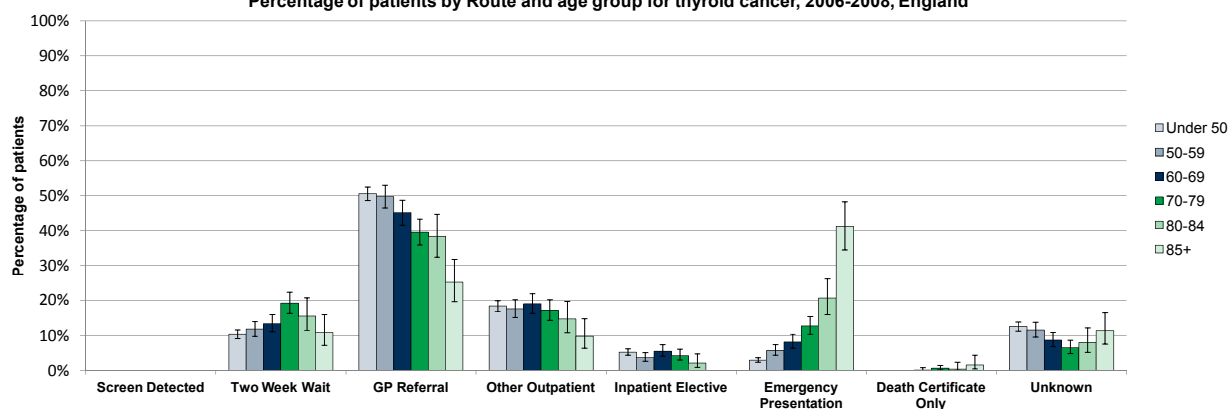
#### Introduction

The percentage of patients diagnosed through each Route is presented with 95% confidence intervals, with results broken down by age group and deprivation quintile. Relative survival estimates for 1, 3, 6, 9 and 12 months are also shown by Route with the exception of Death Certificate Only. 12 month relative survival estimates are also presented by age group. These data are a selection of the available Routes to Diagnosis data. Please see [www.ncin.org.uk](http://www.ncin.org.uk) for more information.

#### Percentage of patients by Route and age group

Age group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
Under 50		10%	51%	18%	5%	3%		13%	2,549
		9% 12%	49% 53%	17% 20%	4% 6%	2% 4%		11% 14%	
50-59		12%	50%	18%	4%	6%		12%	917
		10% 14%	47% 53%	15% 20%	3% 5%	4% 7%		10% 14%	
60-69		13%	45%	19%	5%	8%	0%	9%	747
		11% 16%	42% 49%	16% 22%	4% 7%	6% 10%	0% 1%	7% 11%	
70-79		19%	40%	17%	4%	13%	1%	7%	660
		16% 22%	36% 43%	14% 20%	3% 6%	10% 16%	0% 2%	5% 9%	
80-84		16%	38%	15%	2%	21%	0%	8%	237
		12% 21%	32% 45%	11% 20%	1% 5%	16% 26%	0% 2%	5% 12%	
85+		11%	25%	10%		41%	2%	11%	194
		7% 16%	20% 32%	6% 15%		35% 48%	1% 4%	8% 17%	
All ages		12%	47%	18%	5%	8%	0%	11%	5,304
		12% 13%	46% 48%	17% 19%	4% 5%	7% 8%	0% 0%	10% 12%	

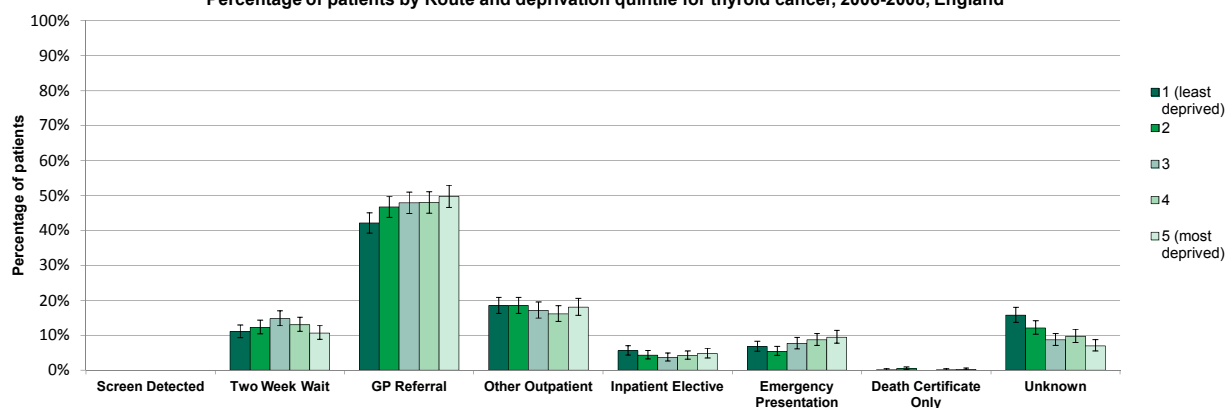
Percentage of patients by Route and age group for thyroid cancer, 2006-2008, England



#### Percentage of patients by Route and deprivation quintile

Deprivation group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
1 (least deprived)		11%	42%	18%	6%	7%	0%	16%	1,120
		9% 13%	39% 45%	16% 21%	4% 7%	6% 8%	0% 1%	14% 18%	
2		12%	47%	18%	4%	5%	0%	12%	1,119
		11% 14%	44% 50%	16% 21%	3% 6%	4% 7%	0% 1%	10% 14%	
3		15%	48%	17%	4%	8%		9%	1,041
		13% 17%	45% 51%	15% 20%	3% 5%	6% 10%		7% 11%	
4		13%	48%	16%	4%	9%	0%	10%	1,041
		11% 15%	45% 51%	14% 19%	3% 6%	7% 11%	0% 1%	8% 12%	
5 (most deprived)		11%	50%	18%	5%	9%	0%	7%	983
		9% 13%	47% 53%	16% 21%	4% 6%	8% 12%	0% 1%	6% 9%	
All quintiles		12%	47%	18%	5%	8%	0%	11%	5,304
		12% 13%	46% 48%	17% 19%	4% 5%	7% 8%	0% 0%	10% 12%	

Percentage of patients by Route and deprivation quintile for thyroid cancer, 2006-2008, England





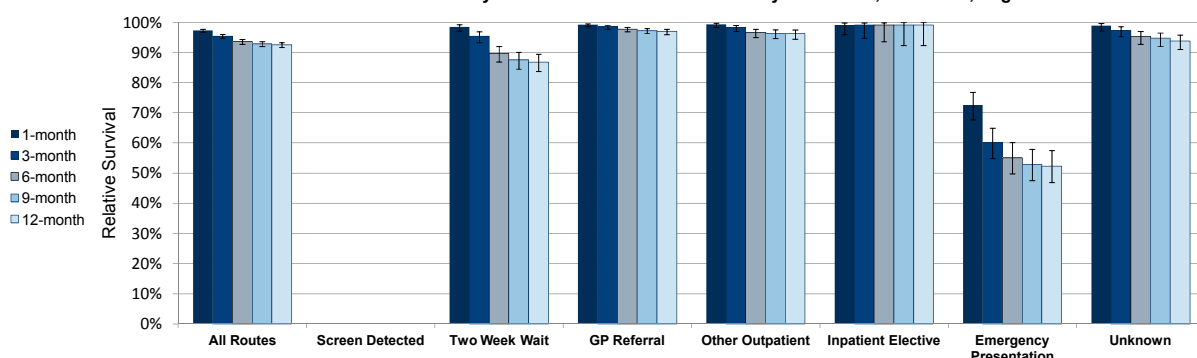
## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C73: Head and neck - Thyroid

Relative survival estimates by Route and survival interval

Age group	Survival interval	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
All ages	1-month	97%		99%	99%	99%	99%	73%	99%
		97% 98%		97% 99%	99% 100%	98% 100%	96% 100%	68% 77%	97% 100%
	3-month	95%		95%	98%	98%	99%	60%	97%
		95% 96%		93% 97%	98% 99%	97% 99%	95% 100%	55% 65%	95% 99%
	6-month	94%		90%	98%	97%	99%	55%	95%
		93% 94%		87% 92%	97% 98%	95% 98%	94% 100%	50% 60%	93% 97%
	9-month	93%		88%	97%	96%	99%	53%	95%
		92% 94%		85% 90%	96% 98%	95% 98%	92% 100%	47% 58%	92% 96%
	12-month	92%		87%	97%	96%	99%	52%	94%
		92% 93%		84% 89%	96% 98%	94% 97%	92% 100%	47% 57%	91% 96%
	Number in cohort	5,270		657	2,483	935	241	381	573

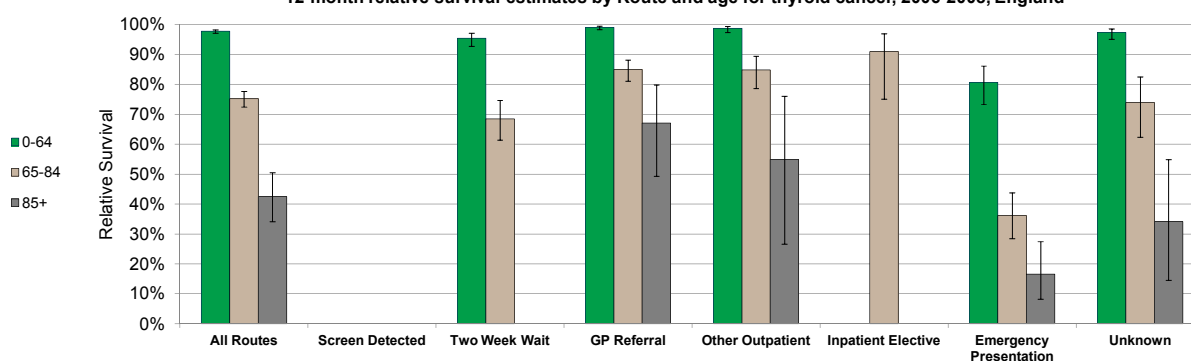
Relative survival estimates by Route and survival interval for thyroid cancer, 2006-2008, England



12-month relative survival estimates by Route and age group

Survival interval	Age group	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
12-month	0-64	98%		95%	99%	99%		81%	97%
		97% 98%		93% 97%	98% 99%	97% 99%		73% 86%	95% 99%
	Number in cohort	3,875		422	1,935	708		153	465
	65-84	75%		69%	85%	85%	91%	36%	74%
		72% 78%		61% 75%	81% 88%	79% 89%	75% 97%	28% 44%	62% 82%
	Number in cohort	1,218		214	499	209	49	161	86
	85+	42%			67%	55%		17%	34%
		34% 50%			49% 80%	27% 76%		8% 27%	15% 55%
	Number in cohort	177		21	49	18		67	22

12-month relative survival estimates by Route and age for thyroid cancer, 2006-2008, England



#### Comments

Thyroid cancers occur in two very different groups of patients with differing presentation Routes. In young people, the disease presents typically with an asymptomatic neck lump and includes a much greater proportion of patients with early/microscopic disease who have good outcomes. In older age, patients present with a large neck mass and Emergency Presentations usually have an impending airway obstruction. In addition, a subset have anaplastic disease which is resistant to treatment. This leads to a higher proportion of Two Week Wait patients in young and a higher proportion of Emergencies in elderly patients. Unsurprisingly, survival is poorer for the Emergency Route as to present as an emergency, the cancer is at advanced stage. Nearly 50% of patients present through the GP referral Route which has a very high 12-month survival estimate.

## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C15: Oesophagus

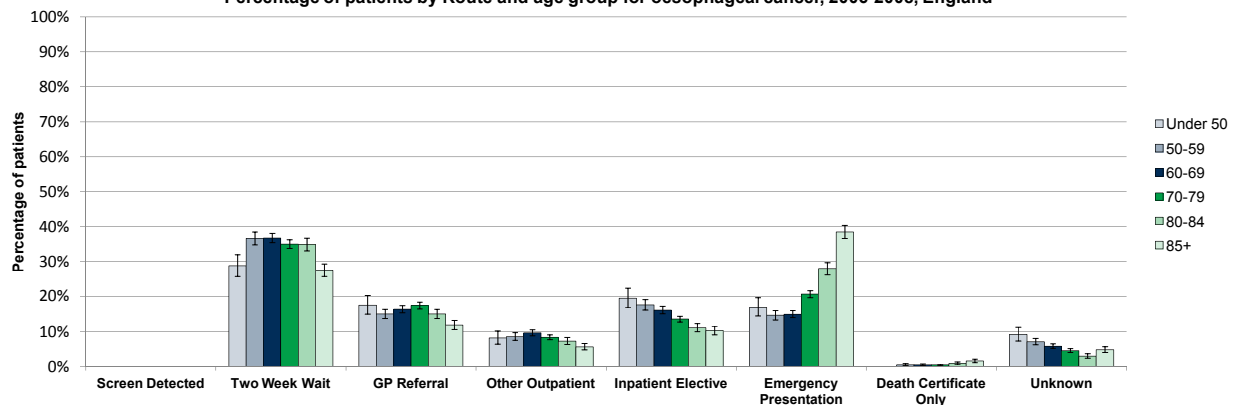
#### Introduction

The percentage of patients diagnosed through each Route is presented with 95% confidence intervals, with results broken down by age group and deprivation quintile. Relative survival estimates for 1, 3, 6, 9 and 12 months are also shown by Route with the exception of Death Certificate Only. 12 month relative survival estimates are also presented by age group. These data are a selection of the available Routes to Diagnosis data. Please see [www.ncin.org.uk](http://www.ncin.org.uk) for more information.

#### Percentage of patients by Route and age group

Age group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
Under 50		29%	18%	8%	20%	17%		9%	799
		26% 32%	15% 20%	6% 10%	17% 22%	15% 20%		7% 11%	
50-59		37%	15%	9%	18%	15%	0%	7%	2,613
		35% 39%	14% 16%	8% 10%	16% 19%	13% 16%	0% 1%	6% 8%	
60-69		37%	16%	10%	16%	15%	0%	6%	4,905
		35% 38%	15% 17%	9% 11%	15% 17%	14% 16%	0% 1%	5% 7%	
70-79		35%	17%	8%	14%	21%	0%	5%	5,907
		34% 36%	17% 18%	8% 9%	13% 14%	20% 22%	0% 1%	4% 5%	
80-84		35%	15%	7%	11%	28%	1%	3%	2,702
		33% 37%	14% 16%	6% 8%	10% 12%	26% 30%	1% 1%	2% 4%	
85+		28%	12%	6%	10%	38%	2%	5%	2,523
		26% 29%	11% 13%	5% 7%	9% 12%	37% 40%	1% 2%	4% 6%	
All ages		34%	16%	8%	14%	22%	1%	5%	19,449
		34% 35%	15% 16%	8% 9%	14% 15%	21% 22%	1% 1%	5% 6%	

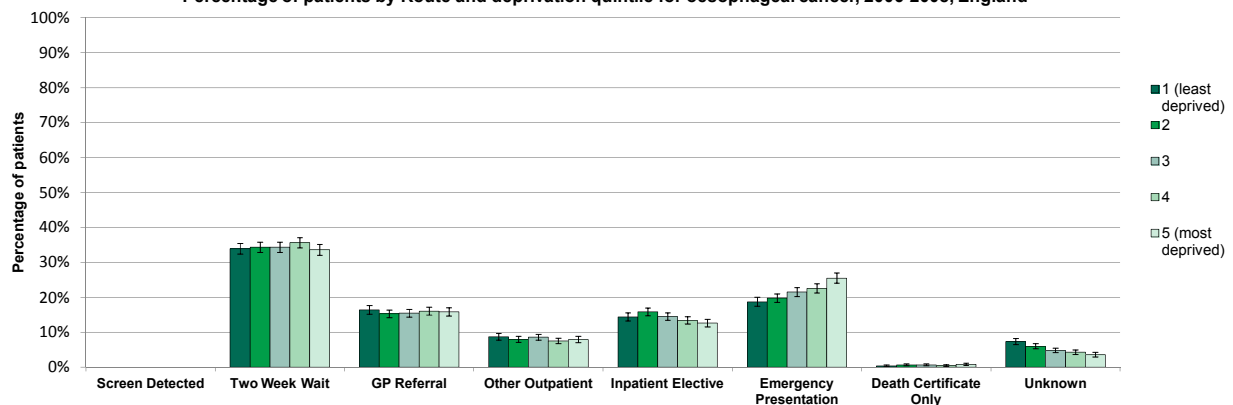
Percentage of patients by Route and age group for oesophageal cancer, 2006-2008, England



#### Percentage of patients by Route and deprivation quintile

Deprivation group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
1 (least deprived)		34%	16%	9%	14%	19%	0%	7%	3,423
		32% 36%	15% 18%	8% 10%	13% 16%	18% 20%	0% 1%	7% 8%	
2		34%	15%	8%	16%	20%	1%	6%	4,172
		33% 36%	14% 16%	7% 9%	15% 17%	19% 21%	1% 1%	5% 7%	
3		34%	15%	9%	14%	22%	1%	5%	4,326
		33% 36%	14% 17%	8% 10%	14% 16%	20% 23%	1% 1%	4% 6%	
4		36%	16%	8%	13%	23%	0%	4%	4,043
		34% 37%	15% 17%	7% 8%	12% 15%	21% 24%	0% 1%	4% 5%	
5 (most deprived)		34%	16%	8%	13%	25%	1%	4%	3,485
		32% 35%	15% 17%	7% 9%	12% 14%	24% 27%	1% 1%	3% 4%	
All quintiles		34%	16%	8%	14%	22%	1%	5%	19,449
		34% 35%	15% 16%	8% 9%	14% 15%	21% 22%	1% 1%	5% 6%	

Percentage of patients by Route and deprivation quintile for oesophageal cancer, 2006-2008, England



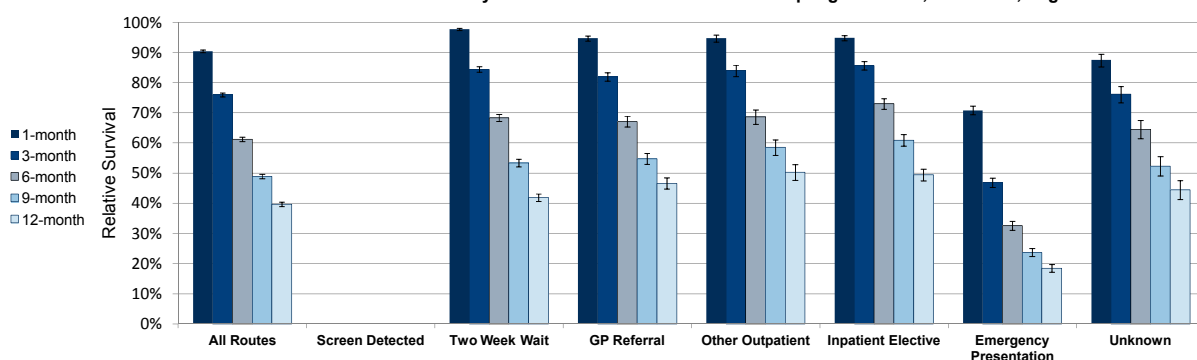
## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C15: Oesophagus

Relative survival estimates by Route and survival interval

Age group	Survival interval	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
All ages	1-month	90%		98%	95%	95%	95%	71%	87%
		90%   91%		97%   98%	94%   95%	93%   96%	94%   96%	69%   72%	85%   89%
	3-month	76%		84%	82%	84%	86%	47%	76%
		75%   77%		83%   85%	80%   83%	82%   86%	84%   87%	45%   48%	73%   79%
	6-month	61%		68%	67%	69%	73%	33%	65%
		61%   62%		67%   69%	65%   69%	66%   71%	71%   75%	31%   34%	61%   68%
	9-month	49%		53%	55%	59%	61%	24%	52%
		48%   50%		52%   55%	53%   57%	56%   61%	59%   63%	22%   25%	49%   55%
	12-month	40%		42%	47%	50%	49%	18%	44%
		39%   40%		41%   43%	45%   48%	48%   53%	47%   51%	17%   20%	41%   48%
	Number in cohort	19,089		6,690	3,039	1,564	2,751	4,036	1,009

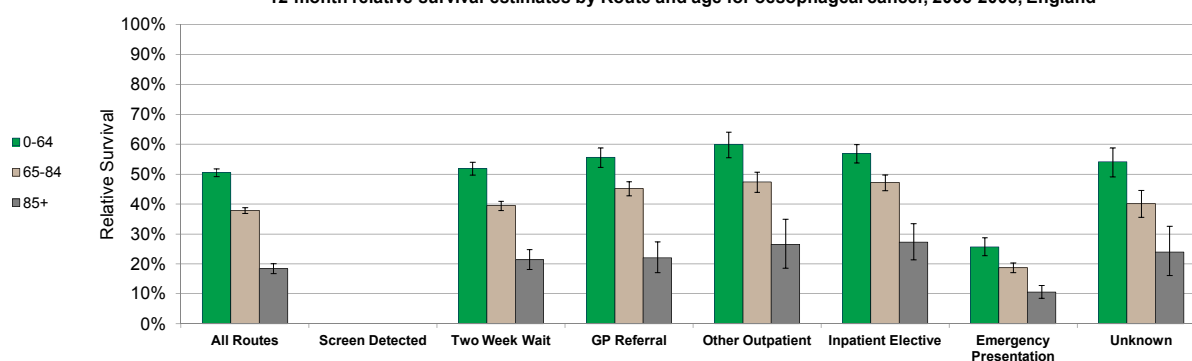
Relative survival estimates by Route and survival interval for oesophageal cancer, 2006-2008, England



12-month relative survival estimates by Route and age group

Survival interval	Age group	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
12-month	0-64	50%		52%	56%	60%	57%	26%	54%
		49%   52%		50%   54%	52%   59%	56%   64%	54%   60%	23%   29%	49%   59%
	65-84	38%		39%	45%	47%	47%	19%	40%
		37%   39%		38%   41%	43%   48%	44%   51%	45%   50%	17%   20%	36%   45%
	85+	18%		21%	22%	26%	27%	11%	24%
		17%   20%		18%   25%	17%   27%	19%   35%	21%   33%	9%   13%	16%   33%
	Number in cohort	5,737		2,062	911	517	1,005	828	414
	Number in cohort	10,959		3,937	1,839	914	1,496	2,297	476
	Number in cohort	2,393		691	289	133	250	911	119

12-month relative survival estimates by Route and age for oesophageal cancer, 2006-2008, England



#### Comments

The proportion of patients diagnosed through the Two Week Wait Route is higher for oesophagus (34%) compared to stomach (23%), with the reverse proportions seen for the Emergency Presentation Route (22% for oesophagus and 33% for stomach). This may reflect GPs referring patients with difficulty swallowing but not non-specific dyspepsia, since the Dyspepsia Guidelines recommend these patients should have a trial of medication first. One limitation of these data is that there will be some overlap with the oesophago-gastric junctional cancers as the ICD10 codes does not allow for junctional cancers. These can present with difficulty swallowing and hence probably more likely to be a Two Week Wait referral and classified as oesophageal yet may be so called type III which arose on the stomach. These data do show an increase in the proportion of emergencies with deprivation quintile. The most striking and concerning results are the poorer survival for the Two Week Wait patients compared to other "managed" Routes. Those patients with a GP referral, other outpatient or Inpatient Elective Route have a better survival at 12 months. This survival difference highlights the need for earlier diagnosis for oesophageal patients and GPs are therefore encouraged to refer before Two Week Wait symptoms present. Further evaluation of this group is required as it is the symptoms that lead to non-TWW referral, not the Two Week Wait symptoms which lead to better outcomes and should be highlighted to GPs.

## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C16: Stomach

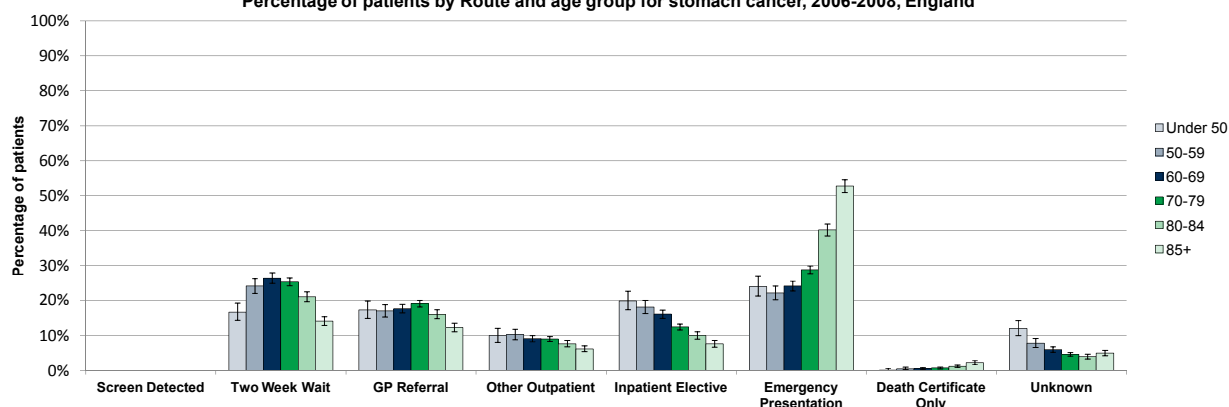
#### Introduction

The percentage of patients diagnosed through each Route is presented with 95% confidence intervals, with results broken down by age group and deprivation quintile. Relative survival estimates for 1, 3, 6, 9 and 12 months are also shown by Route with the exception of Death Certificate Only. 12 month relative survival estimates are also presented by age group. These data are a selection of the available Routes to Diagnosis data. Please see [www.ncin.org.uk](http://www.ncin.org.uk) for more information.

#### Percentage of patients by Route and age group

Age group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
Under 50		17%	17%	10%	20%	24%	0%	12%	874
		14% 19%	15% 20%	8% 12%	17% 23%	21% 27%	0% 1%	10% 14%	
50-59		24%	17%	10%	18%	22%	0%	8%	1,603
		22% 26%	15% 19%	9% 12%	16% 20%	20% 24%	0% 1%	7% 9%	
60-69		26%	18%	9%	16%	24%	1%	6%	3,690
		25% 28%	17% 19%	8% 10%	15% 17%	23% 26%	0% 1%	5% 7%	
70-79		25%	19%	9%	12%	29%	1%	5%	6,401
		24% 27%	18% 20%	8% 10%	12% 13%	28% 30%	1% 1%	4% 5%	
80-84		21%	16%	8%	10%	40%	1%	4%	3,215
		20% 23%	15% 17%	7% 9%	9% 11%	39% 42%	1% 2%	3% 5%	
85+		14%	12%	6%	8%	53%	2%	5%	2,830
		13% 15%	11% 14%	5% 7%	7% 9%	51% 55%	2% 3%	4% 6%	
All ages		23%	17%	8%	13%	33%	1%	5%	18,613
		22% 23%	17% 18%	8% 9%	12% 13%	32% 33%	1% 1%	5% 6%	

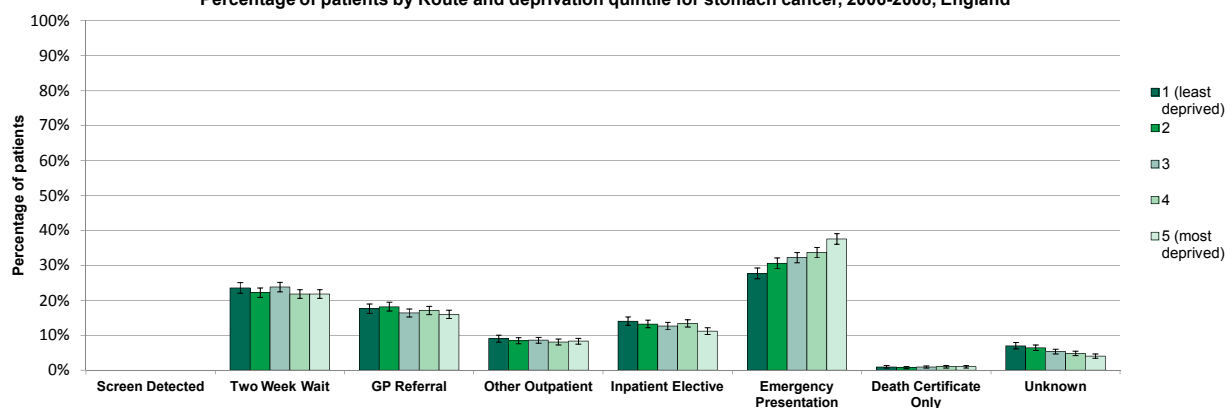
Percentage of patients by Route and age group for stomach cancer, 2006-2008, England



#### Percentage of patients by Route and deprivation quintile

Deprivation group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
1 (least deprived)		24%	18%	9%	14%	28%	1%	7%	3,055
		22% 25%	16% 19%	8% 10%	13% 15%	26% 29%	1% 1%	6% 8%	
2		22%	18%	8%	13%	31%	1%	6%	3,516
		21% 24%	17% 20%	8% 9%	12% 14%	29% 32%	1% 1%	6% 7%	
3		24%	16%	9%	13%	32%	1%	5%	3,913
		23% 25%	15% 18%	8% 10%	12% 14%	31% 34%	1% 1%	5% 6%	
4		22%	17%	8%	13%	34%	1%	5%	4,053
		21% 23%	16% 18%	7% 9%	12% 15%	32% 35%	1% 1%	4% 6%	
5 (most deprived)		22%	16%	8%	11%	38%	1%	4%	4,076
		21% 23%	15% 17%	8% 9%	10% 12%	36% 39%	1% 1%	4% 5%	
All quintiles		23%	17%	8%	13%	33%	1%	5%	18,613
		22% 23%	17% 18%	8% 9%	12% 13%	32% 33%	1% 1%	5% 6%	

Percentage of patients by Route and deprivation quintile for stomach cancer, 2006-2008, England



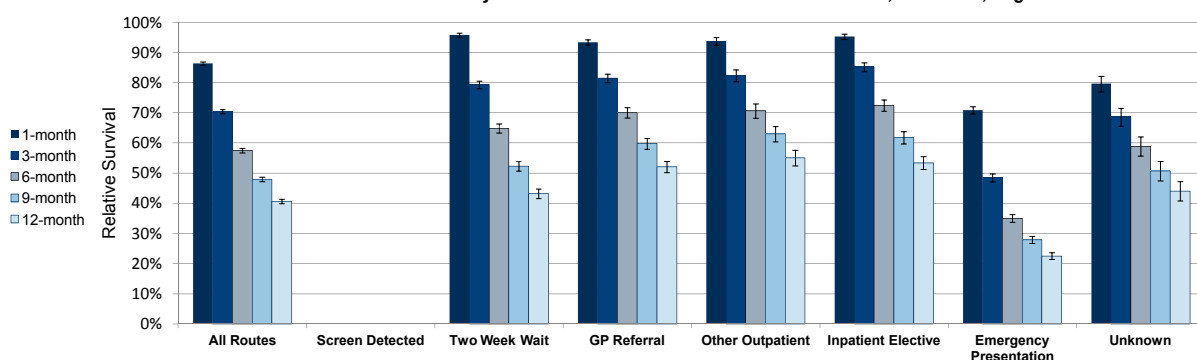
## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C16: Stomach

Relative survival estimates by Route and survival interval

Age group	Survival interval	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
All ages	1-month	86%		96%	93%	94%	95%	71%	80%
		86% 87%		95% 96%	92% 94%	92% 95%	94% 96%	70% 72%	77% 82%
	3-month	70%		79%	81%	82%	85%	48%	69%
		70% 71%		78% 81%	80% 83%	80% 84%	84% 87%	47% 50%	66% 72%
	6-month	57%		65%	70%	71%	72%	35%	59%
		57% 58%		63% 66%	68% 72%	68% 73%	71% 74%	34% 36%	56% 62%
	9-month	48%		52%	60%	63%	62%	28%	51%
		47% 49%		51% 54%	58% 62%	60% 65%	60% 64%	27% 29%	47% 54%
	12-month	41%		43%	52%	55%	53%	23%	44%
		40% 41%		42% 45%	50% 54%	52% 58%	51% 55%	21% 24%	41% 47%
	Number in cohort	18,085		4,205	3,118	1,556	2,377	5,830	999

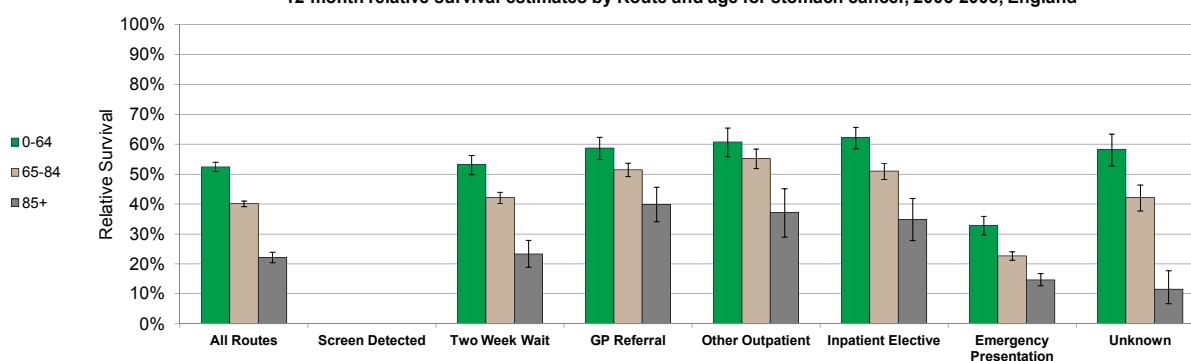
Relative survival estimates by Route and survival interval for stomach cancer, 2006-2008, England



12-month relative survival estimates by Route and age group

Survival interval	Age group	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
12-month	0-64	52%		53%	59%	61%	62%	33%	58%
		51% 54%		50% 56%	55% 62%	56% 65%	59% 66%	30% 36%	53% 63%
	Number in cohort	3,960		946	674	397	723	887	333
	65-84	40%		42%	51%	55%	51%	23%	42%
		39% 41%		40% 44%	49% 54%	52% 58%	48% 54%	21% 24%	38% 46%
	Number in cohort	11,499		2,861	2,107	993	1,442	3,562	534
	85+	22%		23%	40%	37%	35%	15%	12%
		20% 24%		19% 28%	34% 46%	29% 45%	28% 42%	13% 17%	7% 18%
	Number in cohort	2,626		398	337	166	212	1,381	132

12-month relative survival estimates by Route and age for stomach cancer, 2006-2008, England



#### Comments

The proportion of patients diagnosed through the Two Week Wait Route is higher for oesophagus (34%) compared to stomach (23%), with the reverse proportions seen for the Emergency Route (22% for oesophagus and 33% for stomach). This may reflect GPs referring patients with difficulty swallowing but not non-specific dyspepsia, since the Dyspepsia Guidelines recommend these patients should have a trial of medication first. One limitation is that there will be some overlap with the oesophago-gastric junctional cancers as the ICD10 codes do not allow for junctional cancers. These can present with difficulty swallowing and hence probably more likely to be referred under the Two Week Wait and classified as oesophageal yet may be so called type III which arose on the stomach. Stomach incidence is related to deprivation, and a higher proportion of Emergencies are seen in more deprived groups. The most striking and concerning results are the poorer 12 month survival for the Two Week Wait patients compared to the GP referral, Other Outpatient and Inpatient Elective patients in patients aged 65-84. This survival difference highlights the need for earlier diagnosis for stomach cancer patients and GPs are therefore encouraged to refer before Two Week Wait symptoms present. Further evaluation of this group is required as it is the symptoms that lead to non-TWW referral, not the Two Week Wait symptoms which lead to better outcomes and should be highlighted to GPs.

## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C18-C20: Colorectal

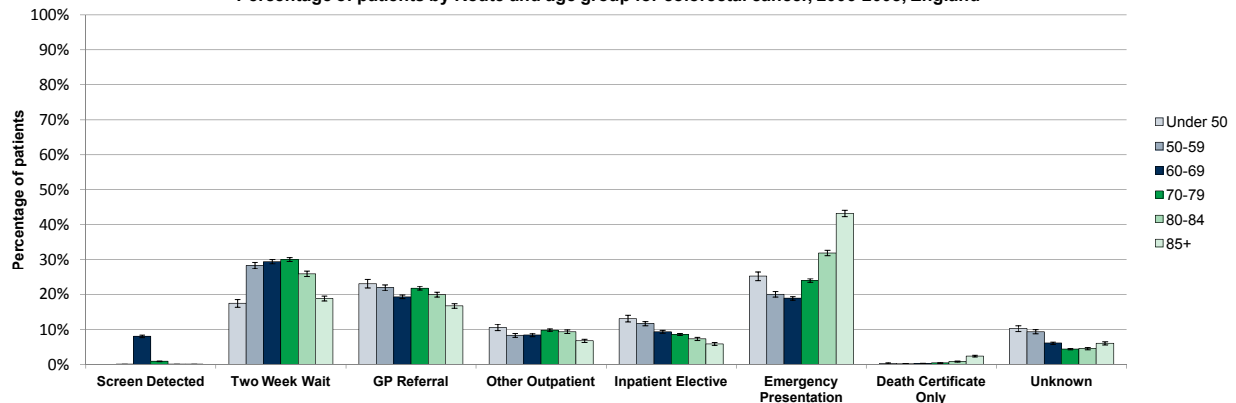
#### Introduction

The percentage of patients diagnosed through each Route is presented with 95% confidence intervals, with results broken down by age group and deprivation quintile. Relative survival estimates for 1, 3, 6, 9 and 12 months are also shown by Route with the exception of Death Certificate Only. 12 month relative survival estimates are also presented by age group. These data are a selection of the available Routes to Diagnosis data. Please see [www.ncin.org.uk](http://www.ncin.org.uk) for more information.

#### Percentage of patients by Route and age group

Age group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
Under 50		17%	23%	11%	13%	25%	0%	10%	4,579
		16% 19%	22% 24%	10% 12%	12% 14%	24% 27%	0% 1%	9% 11%	
50-59	0%	28%	22%	8%	12%	20%	0%	9%	9,912
	0% 0%	27% 29%	21% 23%	8% 9%	11% 12%	19% 21%	0% 0%	9% 10%	
60-69	8%	29%	19%	8%	9%	19%	0%	6%	22,317
	8% 8%	29% 30%	19% 20%	8% 9%	9% 10%	18% 19%	0% 0%	6% 6%	
70-79	1%	30%	22%	10%	9%	24%	0%	4%	29,295
	1% 1%	30% 31%	21% 22%	10% 10%	8% 9%	24% 25%	0% 1%	4% 5%	
80-84	0%	26%	20%	9%	7%	32%	1%	5%	13,405
	0% 0%	25% 27%	19% 21%	9% 10%	7% 8%	31% 33%	1% 1%	4% 5%	
85+	0%	19%	17%	7%	6%	43%	2%	6%	11,908
	0% 0%	18% 20%	16% 17%	6% 7%	6% 6%	42% 44%	2% 3%	6% 7%	
All ages	2%	27%	20%	9%	9%	26%	1%	6%	91,416
	2% 2%	27% 27%	20% 21%	9% 9%	9% 9%	26% 26%	1% 1%	6% 6%	

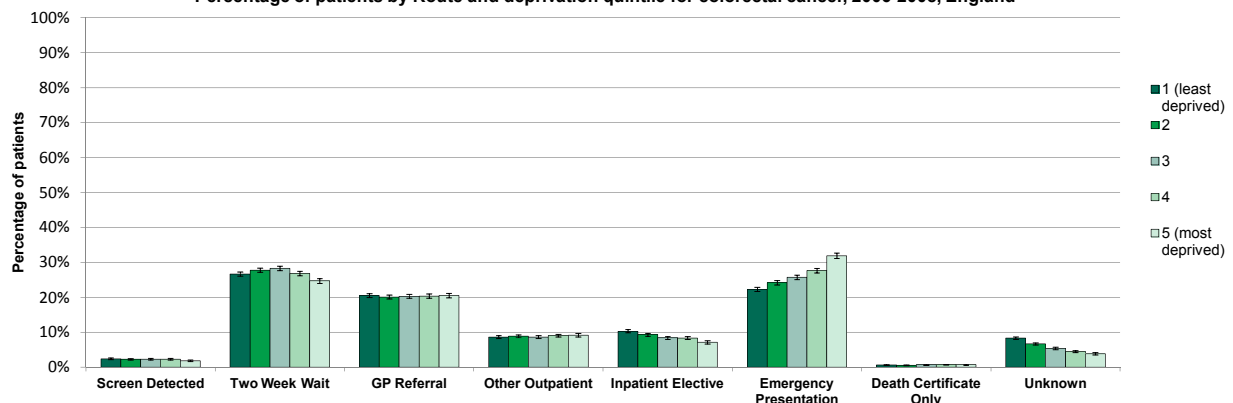
Percentage of patients by Route and age group for colorectal cancer, 2006-2008, England



#### Percentage of patients by Route and deprivation quintile

Deprivation group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
1 (least deprived)	2%	27%	21%	9%	10%	22%	1%	8%	18,672
	2% 3%	26% 27%	20% 21%	8% 9%	10% 11%	22% 23%	1% 1%	8% 9%	
2	2%	28%	20%	9%	9%	24%	1%	7%	20,481
	2% 3%	27% 28%	20% 21%	9% 9%	9% 10%	24% 25%	1% 1%	6% 7%	
3	2%	28%	20%	9%	8%	26%	1%	5%	19,817
	2% 3%	28% 29%	20% 21%	8% 9%	8% 9%	25% 26%	1% 1%	5% 6%	
4	2%	27%	20%	9%	8%	28%	1%	5%	17,868
	2% 3%	26% 28%	20% 21%	9% 10%	8% 9%	27% 28%	1% 1%	4% 5%	
5 (most deprived)	2%	25%	21%	9%	7%	32%	1%	4%	14,578
	2% 2%	24% 25%	20% 21%	9% 10%	7% 8%	31% 33%	1% 1%	4% 4%	
All quintiles	2%	27%	20%	9%	9%	26%	1%	6%	91,416
	2% 2%	27% 27%	20% 21%	9% 9%	9% 9%	26% 26%	1% 1%	6% 6%	

Percentage of patients by Route and deprivation quintile for colorectal cancer, 2006-2008, England



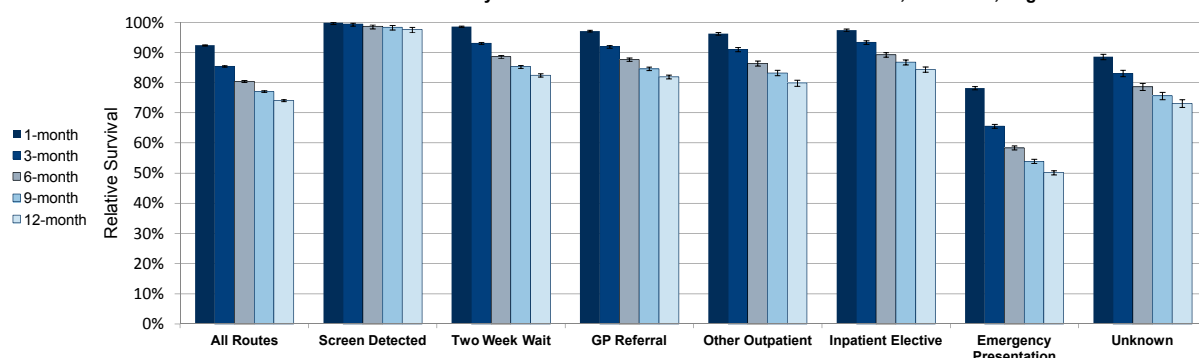
## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C18-C20: Colorectal

Relative survival estimates by Route and survival interval

Age group	Survival interval	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
All ages	1-month	92%	100%	99%	97%	96%	97%	78%	89%
		92% 93%	99% 100%	98% 99%	97% 97%	96% 97%	97% 98%	78% 79%	88% 89%
	3-month	85%	99%	93%	92%	91%	93%	66%	83%
		85% 86%	99% 100%	93% 93%	91% 92%	90% 92%	93% 94%	65% 66%	82% 84%
	6-month	80%	99%	89%	88%	86%	89%	58%	79%
		80% 81%	98% 99%	88% 89%	87% 88%	86% 87%	88% 90%	58% 59%	77% 80%
	9-month	77%	98%	85%	85%	83%	87%	54%	76%
		77% 77%	97% 99%	85% 86%	84% 85%	82% 84%	86% 88%	53% 55%	74% 77%
	12-month	74%	98%	82%	82%	80%	84%	50%	73%
		74% 74%	97% 98%	82% 83%	81% 83%	79% 81%	83% 85%	49% 51%	72% 74%
	Number in cohort	89,484	2,086	24,676	18,455	8,019	7,994	22,897	5,357

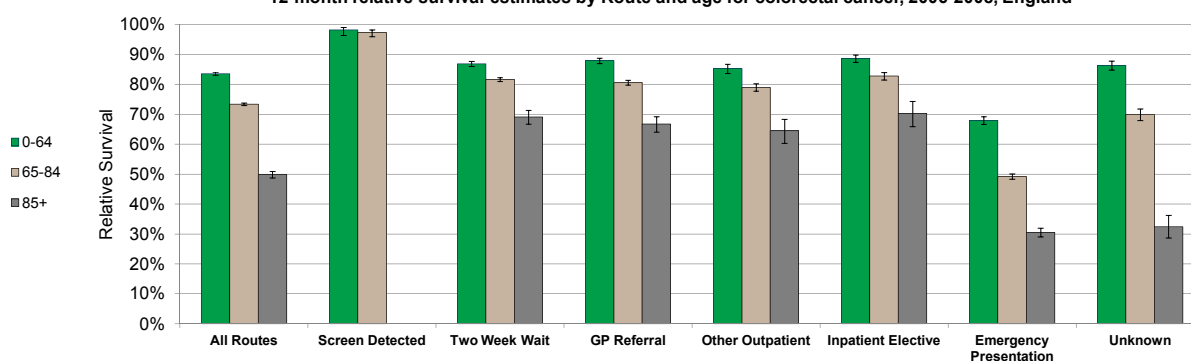
Relative survival estimates by Route and survival interval for colorectal cancer, 2006-2008, England



12-month relative survival estimates by Route and age group

Survival interval	Age group	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
12-month	0-64	84%	98%	87%	88%	85%	89%	68%	86%
		83% 84%	96% 99%	86% 88%	87% 89%	84% 87%	87% 90%	67% 69%	85% 88%
	Number in cohort	24,442	687	6,542	5,173	2,128	2,767	5,014	2,131
	65-84	73%	97%	82%	81%	79%	83%	49%	70%
		73% 74%	96% 98%	81% 82%	80% 81%	78% 80%	81% 84%	48% 50%	68% 72%
	Number in cohort	54,026	1,392	15,897	11,356	5,121	4,553	13,189	2,518
	85+	50%		69%	67%	65%	70%	31%	32%
		49% 51%		67% 71%	64% 69%	60% 68%	66% 74%	29% 32%	29% 36%
	Number in cohort	11,016	7	2,237	1,926	770	674	4,694	708

12-month relative survival estimates by Route and age for colorectal cancer, 2006-2008, England



#### Comments

These data, gathered from patients presenting with colorectal cancer between 2006-8, illustrate several points which explain, to some degree, the inferior results observed in England compared with similar countries. They also serve to demonstrate the value of recent initiatives that have been launched to try to improve outcomes and areas for future effort. The full effect of the national large bowel cancer screening programme has still to be seen but it is encouraging to see a 12-month relative survival approaching 100%. When one looks at the overall presentation of cases the obvious observation is that 26% still present as an emergency, and that this mode of presentation increases markedly with age, approaching 45% in those over 85 years of age. An increase in emergency presentation is also associated with increasing deprivation. Emergency Presentations also have an inferior one and 12-month relative survival. This is for all cases presenting over the time period and not just those undergoing a major resection. Such data reinforce the need for an increased awareness, further developments within the national screening programme and better support for those presenting as an emergency, particularly those going for a major resection (evidence from the NBOCAP audit reports 2010 and 2011).

## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C22: Liver

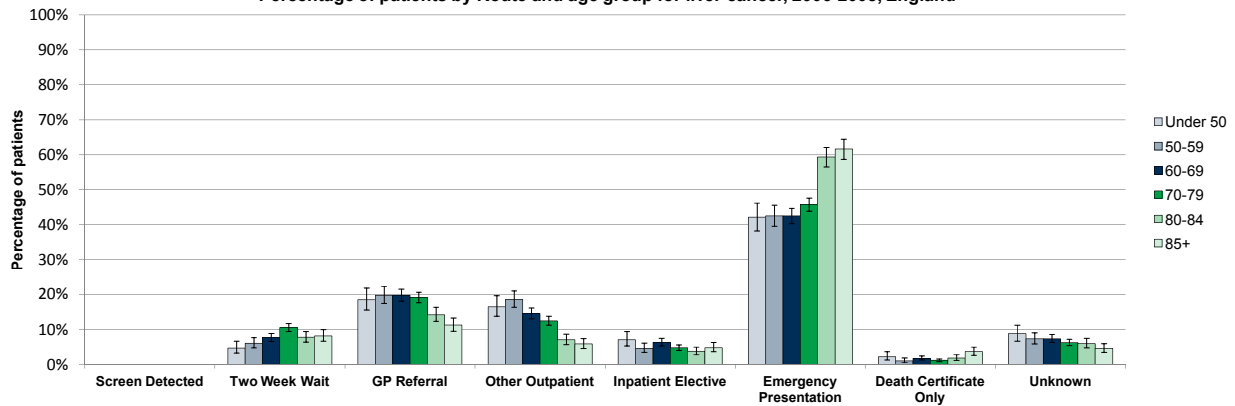
#### Introduction

The percentage of patients diagnosed through each Route is presented with 95% confidence intervals, with results broken down by age group and deprivation quintile. Relative survival estimates for 1, 3, 6, 9 and 12 months are also shown by Route with the exception of Death Certificate Only. 12 month relative survival estimates are also presented by age group. These data are a selection of the available Routes to Diagnosis data. Please see [www.ncin.org.uk](http://www.ncin.org.uk) for more information.

#### Percentage of patients by Route and age group

Age group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
Under 50		5%	19%	17%	7%	42%	2%	9%	593
		3% 7%	16% 22%	14% 20%	5% 9%	38% 46%	1% 4%	7% 11%	
50-59		6%	20%	19%	5%	43%	1%	7%	1,037
		5% 8%	18% 22%	16% 21%	4% 6%	40% 46%	1% 2%	6% 9%	
60-69		8%	20%	15%	6%	43%	2%	7%	1,967
		7% 9%	18% 22%	13% 16%	5% 8%	40% 45%	1% 3%	6% 9%	
70-79		10%	19%	12%	5%	46%	1%	6%	2,743
		9% 12%	18% 21%	11% 14%	4% 6%	44% 48%	1% 2%	5% 7%	
80-84		8%	14%	7%	4%	59%	2%	6%	1,173
		6% 9%	12% 16%	6% 9%	3% 5%	57% 62%	1% 3%	5% 8%	
85+		8%	11%	6%	5%	62%	4%	5%	1,063
		7% 10%	10% 13%	5% 7%	4% 6%	59% 65%	3% 5%	4% 6%	
All ages		8%	18%	12%	5%	48%	2%	7%	8,576
		8% 9%	17% 19%	12% 13%	5% 6%	47% 49%	2% 2%	6% 7%	

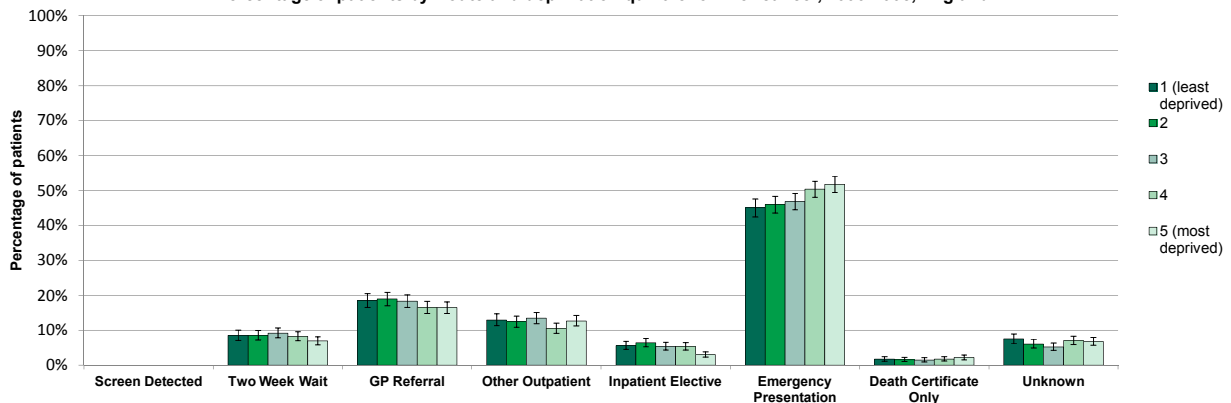
Percentage of patients by Route and age group for liver cancer, 2006-2008, England



#### Percentage of patients by Route and deprivation quintile

Deprivation group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
1 (least deprived)		9%	18%	13%	6%	45%	2%	8%	1,487
		7% 10%	17% 21%	11% 15%	5% 7%	43% 48%	1% 3%	6% 9%	
2		9%	19%	12%	6%	46%	2%	6%	1,656
		7% 10%	17% 21%	11% 14%	5% 8%	44% 48%	1% 2%	5% 7%	
3		9%	18%	13%	5%	47%	1%	5%	1,739
		8% 11%	17% 20%	12% 15%	4% 7%	45% 49%	1% 2%	4% 6%	
4		8%	17%	11%	5%	50%	2%	7%	1,797
		7% 10%	15% 18%	9% 12%	4% 7%	48% 53%	1% 3%	6% 8%	
5 (most deprived)		7%	16%	13%	3%	52%	2%	7%	1,897
		6% 8%	15% 18%	11% 14%	2% 4%	50% 54%	2% 3%	6% 8%	
All quintiles		8%	18%	12%	5%	48%	2%	7%	8,576
		8% 9%	17% 19%	12% 13%	5% 6%	47% 49%	2% 2%	6% 7%	

Percentage of patients by Route and deprivation quintile for liver cancer, 2006-2008, England





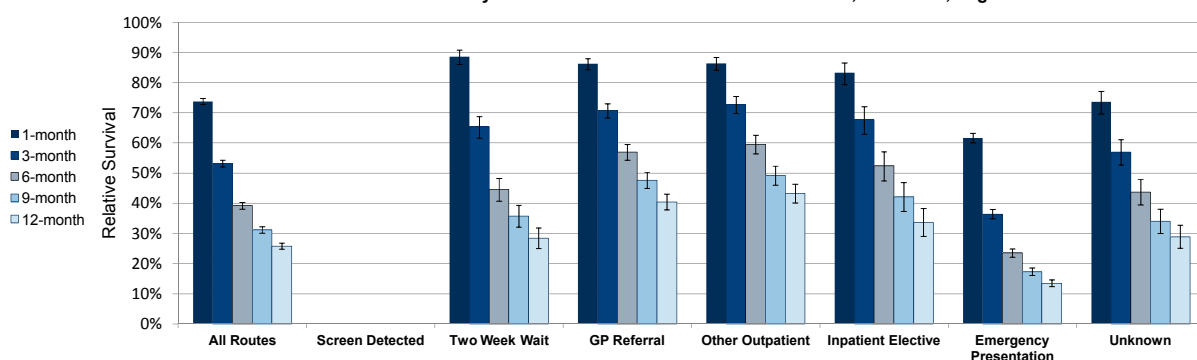
## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C22: Liver

#### Relative survival estimates by Route and survival interval

Age group	Survival interval	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
All ages	1-month	74%		89%	86%	86%	83%	62%	74%
		73% 75%		86% 91%	84% 88%	84% 88%	79% 87%	60% 63%	70% 77%
	3-month	53%		65%	71%	73%	68%	36%	57%
		52% 54%		62% 69%	68% 73%	70% 75%	63% 72%	35% 38%	53% 61%
	6-month	39%		45%	57%	60%	52%	24%	44%
		38% 40%		41% 48%	54% 59%	56% 63%	47% 57%	22% 25%	40% 48%
	9-month	31%		36%	48%	49%	42%	17%	34%
		30% 32%		32% 39%	45% 50%	46% 52%	37% 47%	16% 19%	30% 38%
	12-month	26%		28%	40%	43%	34%	13%	29%
		25% 27%		25% 32%	38% 43%	40% 46%	29% 38%	12% 15%	25% 33%
	Number in cohort	7,897		703	1,456	1,016	423	3,746	553

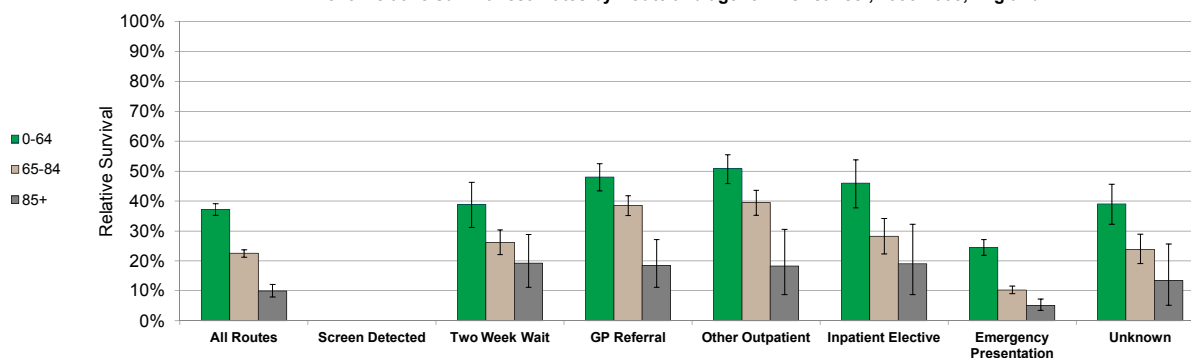
Relative survival estimates by Route and survival interval for liver cancer, 2006-2008, England



#### 12-month relative survival estimates by Route and age group

Survival interval	Age group	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
12-month	0-64	37%		39%	48%	51%	46%	25%	39%
		35% 39%		31% 46%	43% 52%	46% 55%	38% 54%	22% 27%	32% 46%
	Number in cohort	2,411		160	476	415	148	1,008	204
	65-84	23%		26%	38%	39%	28%	10%	24%
		21% 24%		22% 30%	35% 42%	35% 44%	22% 34%	9% 12%	19% 29%
	Number in cohort	4,589		457	875	547	228	2,179	303
	85+	10%		19%	18%	18%	19%	5%	13%
		8% 12%		11% 29%	11% 27%	9% 31%	9% 32%	4% 7%	5% 26%
	Number in cohort	897		86	105	54	47	559	46

12-month relative survival estimates by Route and age for liver cancer, 2006-2008, England



#### Comments

The most striking finding for liver cancer is the very low survival for patients diagnosed through the Emergency Presentation Route, which is the most common Route to Diagnosis. This reflects the lack of symptoms for liver cancer before advanced disease presents, probably with acute onset of jaundice. The poorer 12 month survival for the Two Week Wait patients compared to GP referral and Other Outpatient Routes also suggests that "Two Week Wait symptoms" are more indicative of late stage disease. However, patients referred via the Two Week Wait Route do have improved outcomes compared to patients whose Route is an Emergency Presentation. Symptoms that have led to non-TWW referrals need be evaluated so that GPs are aware of these so that patients are referred as early as possible in order to improve outcomes. These data do also show an increase in the proportion of emergencies with deprivation quintile.

## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C25: Pancreas

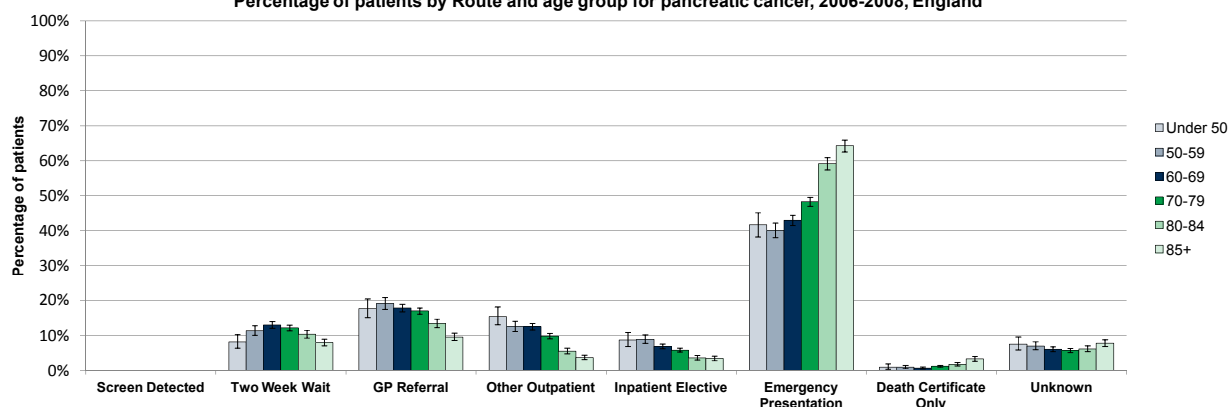
#### Introduction

The percentage of patients diagnosed through each Route is presented with 95% confidence intervals, with results broken down by age group and deprivation quintile. Relative survival estimates for 1, 3, 6, 9 and 12 months are also shown by Route with the exception of Death Certificate Only. 12 month relative survival estimates are also presented by age group. These data are a selection of the available Routes to Diagnosis data. Please see [www.ncin.org.uk](http://www.ncin.org.uk) for more information.

#### Percentage of patients by Route and age group

Age group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
Under 50		8%	18%	15%	9%	42%	1%	8%	771
		6% 10%	15% 21%	13% 18%	7% 11%	38% 45%	0% 2%	6% 10%	
50-59		11%	19%	13%	9%	40%	1%	7%	2,112
		10% 13%	18% 21%	11% 14%	8% 10%	38% 42%	1% 2%	6% 8%	
60-69		13%	18%	13%	7%	43%	1%	6%	4,637
		12% 14%	17% 19%	12% 14%	6% 8%	42% 44%	1% 1%	5% 7%	
70-79		12%	17%	10%	6%	48%	1%	6%	6,305
		11% 13%	16% 18%	9% 11%	5% 6%	47% 50%	1% 2%	5% 6%	
80-84		10%	13%	6%	4%	59%	2%	6%	3,010
		9% 12%	12% 15%	5% 6%	3% 4%	57% 61%	1% 2%	5% 7%	
85+		8%	10%	4%	3%	64%	3%	8%	3,061
		7% 9%	9% 11%	3% 4%	3% 4%	63% 66%	3% 4%	7% 9%	
All ages		11%	16%	9%	6%	50%	1%	6%	19,896
		11% 12%	15% 16%	9% 10%	6% 6%	49% 51%	1% 2%	6% 7%	

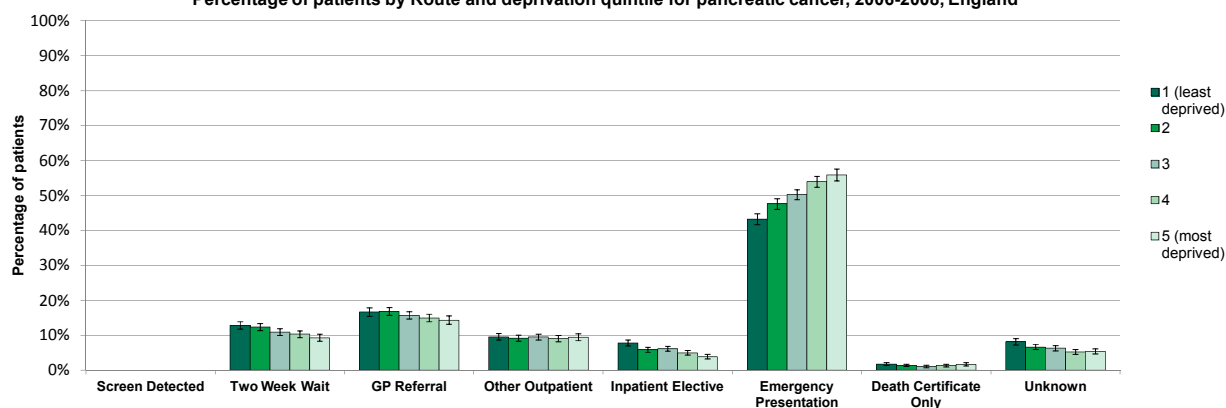
Percentage of patients by Route and age group for pancreatic cancer, 2006-2008, England



#### Percentage of patients by Route and deprivation quintile

Deprivation group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
1 (least deprived)		13%	17%	10%	8%	43%	2%	8%	3,847
		12% 14%	16% 18%	9% 11%	7% 9%	42% 45%	1% 2%	7% 9%	
2		12%	17%	9%	6%	48%	1%	7%	4,353
		11% 13%	16% 18%	8% 10%	5% 7%	46% 49%	1% 2%	6% 7%	
3		11%	16%	10%	6%	50%	1%	6%	4,373
		10% 12%	15% 17%	9% 10%	6% 7%	49% 52%	1% 2%	6% 7%	
4		10%	15%	9%	5%	54%	1%	5%	3,966
		9% 11%	14% 16%	8% 10%	4% 6%	52% 56%	1% 2%	5% 6%	
5 (most deprived)		9%	14%	9%	4%	56%	2%	5%	3,357
		8% 10%	13% 16%	9% 11%	3% 5%	54% 58%	1% 2%	5% 6%	
All quintiles		11%	16%	9%	6%	50%	1%	6%	19,896
		11% 12%	15% 16%	9% 10%	6% 6%	49% 51%	1% 2%	6% 7%	

Percentage of patients by Route and deprivation quintile for pancreatic cancer, 2006-2008, England



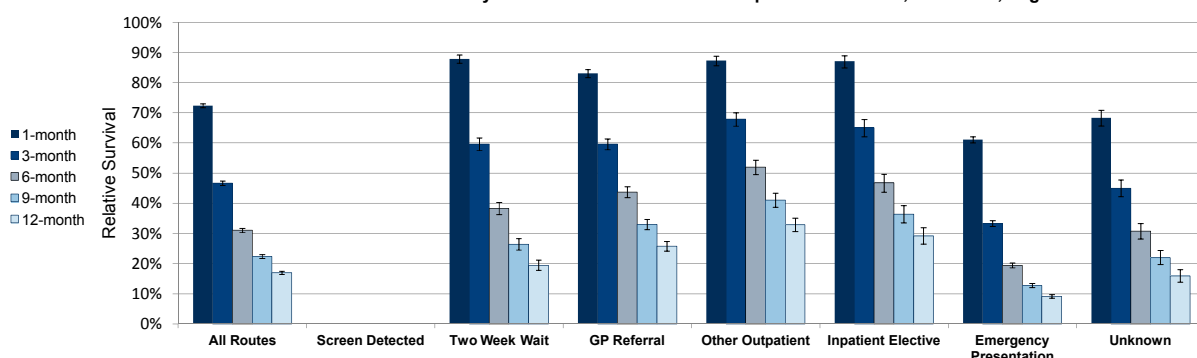
## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C25: Pancreas

#### Relative survival estimates by Route and survival interval

Age group	Survival interval	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
All ages	1-month	72%		88%	83%	87%	87%	61%	68%
		72%   73%		86%   89%	82%   84%	86%   89%	85%   89%	60%   62%	66%   71%
	3-month	47%		60%	60%	68%	65%	33%	45%
		46%   47%		58%   62%	58%   61%	66%   70%	62%   68%	32%   34%	42%   48%
	6-month	31%		38%	44%	52%	47%	19%	31%
		30%   32%		36%   40%	42%   45%	50%   54%	44%   50%	19%   20%	28%   33%
	9-month	22%		26%	33%	41%	36%	13%	22%
		22%   23%		25%   28%	31%   35%	39%   43%	34%   39%	12%   13%	20%   24%
	12-month	17%		19%	26%	33%	29%	9%	16%
		16%   17%		18%   21%	24%   27%	31%   35%	26%   32%	9%   10%	14%   18%
	Number in cohort	18,591		2,221	2,980	1,747	1,122	9,258	1,263

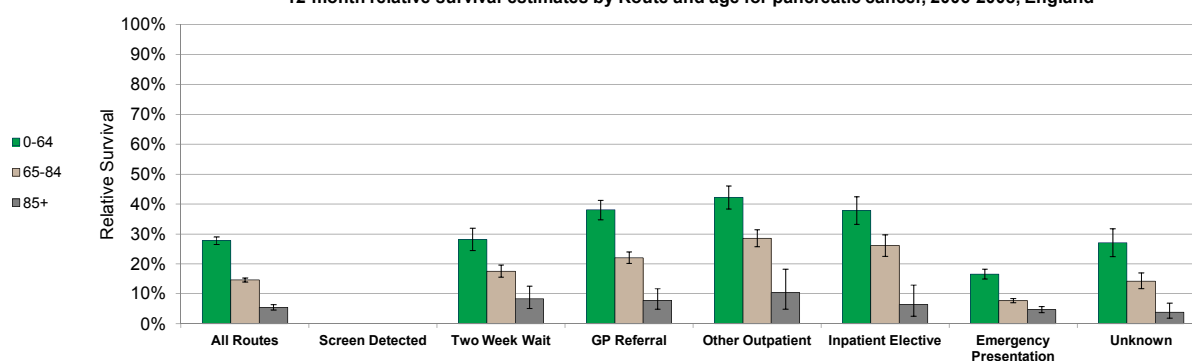
Relative survival estimates by Route and survival interval for pancreatic cancer, 2006-2008, England



#### 12-month relative survival estimates by Route and age group

Survival interval	Age group	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
12-month	0-64	28%		28%	38%	42%	38%	17%	27%
		27%   29%		25%   32%	35%   41%	38%   46%	33%   42%	15%   18%	22%   32%
	Number in cohort	4,845		563	872	642	429	2,000	339
	65-84	15%		18%	22%	29%	26%	8%	14%
		14%   15%		16%   20%	20%   24%	26%   31%	23%   30%	7%   8%	12%   17%
	Number in cohort	11,091		1,420	1,850	1,017	596	5,519	689
	85+	5%		8%	8%	10%	6%	5%	4%
		5%   6%		5%   13%	5%   12%	5%   18%	3%   13%	4%   6%	2%   7%
	Number in cohort	2,655		238	258	88	97	1,739	235

12-month relative survival estimates by Route and age for pancreatic cancer, 2006-2008, England



#### Comments

The Emergency Presentation Route is the principle route to diagnosis for patients with pancreatic cancer and also associated with a poorer 12 month survival. This reflects the lack of easily recognisable symptoms of early disease, with advanced disease often presenting with the acute onset of jaundice. The poorer 12 month survival for the Two Week Wait patients compared to GP referral and Other Outpatient Routes indicates that "Two Week Wait symptoms" are more indicative of late stage disease. However, patients referred via the Two Week Wait Route do have improved outcomes compared to patients whose Route is an Emergency Presentation. Symptoms that have led to non-TWW referrals need to be evaluated so that GPs are aware of these so that patients are referred as early as possible in order to improve outcomes. These data do also show an increase in the proportion of emergencies with deprivation quintile.

## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C33-C34: Lung

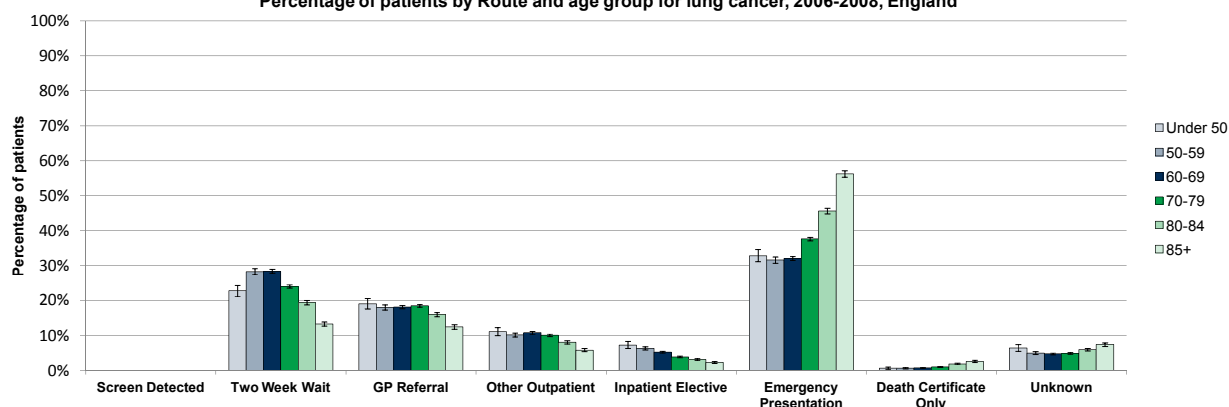
#### Introduction

The percentage of patients diagnosed through each Route is presented with 95% confidence intervals, with results broken down by age group and deprivation quintile. Relative survival estimates for 1, 3, 6, 9 and 12 months are also shown by Route with the exception of Death Certificate Only. 12 month relative survival estimates are also presented by age group. These data are a selection of the available Routes to Diagnosis data. Please see [www.ncin.org.uk](http://www.ncin.org.uk) for more information.

#### Percentage of patients by Route and age group

Age group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
Under 50		23%	19%	11%	7%	33%	1%	6%	2,771
		21% 24%	18% 21%	10% 12%	6% 8%	31% 35%	0% 1%	6% 7%	
50-59		28%	18%	10%	6%	32%	1%	5%	10,420
		27% 29%	17% 19%	10% 11%	6% 7%	31% 33%	1% 1%	5% 5%	
60-69		28%	18%	11%	5%	32%	1%	5%	24,776
		28% 29%	18% 19%	10% 11%	5% 6%	32% 33%	1% 1%	5% 5%	
70-79		24%	19%	10%	4%	38%	1%	5%	33,560
		24% 25%	18% 19%	10% 10%	4% 4%	37% 38%	1% 1%	5% 5%	
80-84		19%	16%	8%	3%	46%	2%	6%	14,578
		19% 20%	15% 17%	8% 9%	3% 3%	45% 46%	2% 2%	6% 6%	
85+		13%	12%	6%	2%	56%	3%	7%	10,630
		13% 14%	12% 13%	5% 6%	2% 3%	55% 57%	2% 3%	7% 8%	
All ages		24%	17%	10%	4%	39%	1%	5%	96,735
		23% 24%	17% 18%	9% 10%	4% 4%	38% 39%	1% 1%	5% 6%	

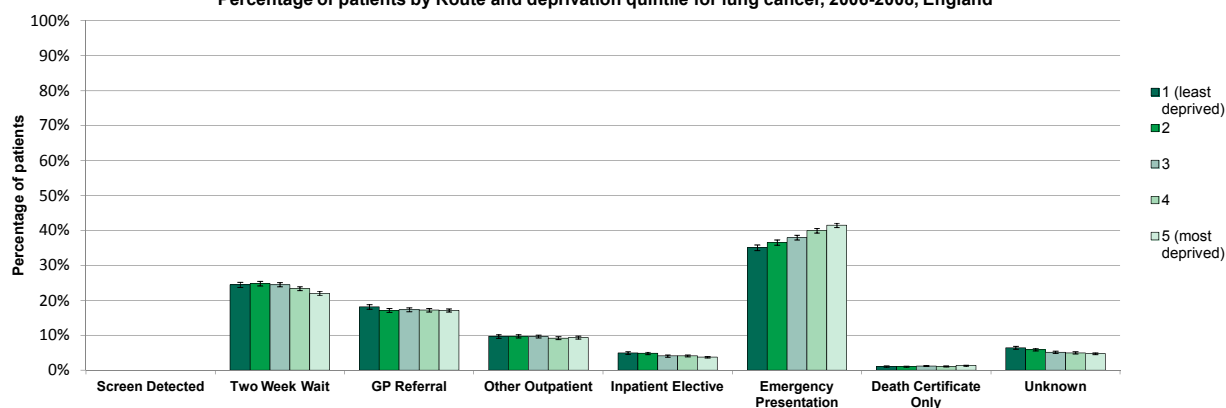
Percentage of patients by Route and age group for lung cancer, 2006-2008, England



#### Percentage of patients by Route and deprivation quintile

Deprivation group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
1 (least deprived)		24%	18%	10%	5%	35%	1%	6%	13,527
		24% 25%	18% 19%	9% 10%	5% 5%	34% 36%	1% 1%	6% 7%	
2		25%	17%	10%	5%	37%	1%	6%	17,134
		24% 26%	17% 18%	9% 10%	5% 5%	36% 37%	1% 1%	6% 6%	
3		24%	17%	10%	4%	38%	1%	5%	19,734
		24% 25%	17% 18%	9% 10%	4% 4%	37% 39%	1% 1%	5% 6%	
4		23%	17%	9%	4%	40%	1%	5%	22,176
		23% 24%	17% 18%	9% 10%	4% 4%	39% 41%	1% 1%	5% 5%	
5 (most deprived)		22%	17%	9%	4%	41%	1%	5%	24,164
		22% 23%	17% 18%	9% 10%	4% 4%	41% 42%	1% 2%	5% 5%	
All quintiles		24%	17%	10%	4%	39%	1%	5%	96,735
		23% 24%	17% 18%	9% 10%	4% 4%	38% 39%	1% 1%	5% 6%	

Percentage of patients by Route and deprivation quintile for lung cancer, 2006-2008, England



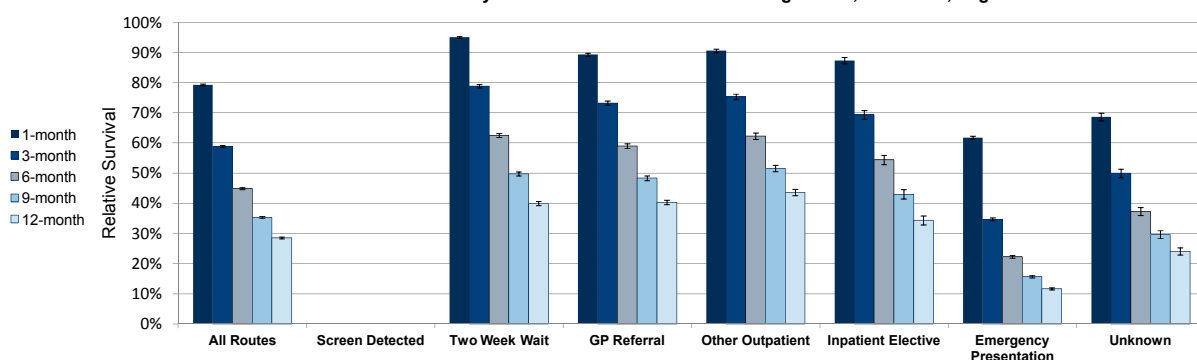
## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C33-C34: Lung

Relative survival estimates by Route and survival interval

Age group	Survival interval	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
All ages	1-month	79%		95%	89%	91%	87%	62%	69%
		79%   80%		95%   95%	89%   90%	90%   91%	86%   88%	61%   62%	67%   70%
	3-month	59%		79%	73%	75%	69%	35%	50%
		59%   59%		78%   79%	73%   74%	74%   76%	68%   71%	34%   35%	49%   51%
	6-month	45%		63%	59%	62%	54%	22%	37%
		45%   45%		62%   63%	58%   60%	61%   63%	53%   56%	22%   23%	36%   39%
	9-month	35%		50%	48%	52%	43%	16%	30%
		35%   36%		49%   50%	48%   49%	51%   53%	41%   45%	15%   16%	28%   31%
	12-month	29%		40%	40%	44%	34%	12%	24%
		28%   29%		39%   41%	40%   41%	43%   45%	33%   36%	11%   12%	23%   25%
	Number in cohort	94,786		22,859	16,395	8,943	4,064	37,381	5,144

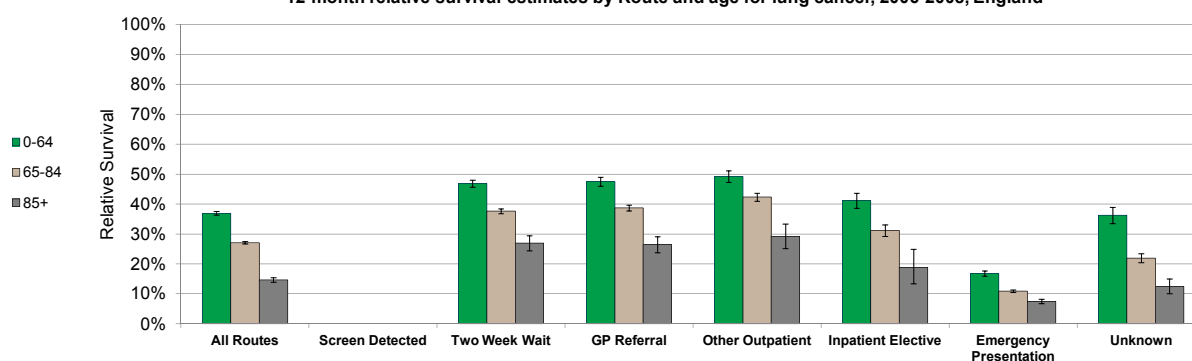
Relative survival estimates by Route and survival interval for lung cancer, 2006-2008, England



12-month relative survival estimates by Route and age group

Survival interval	Age group	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
12-month	0-64	37%		47%	47%	49%	41%	17%	36%
		36%   38%		46%   48%	46%   49%	47%   51%	39%   44%	16%   18%	34%   39%
	Number in cohort	23,866		6,835	4,354	2,519	1,476	7,465	1,217
	65-84	27%		38%	39%	42%	31%	11%	22%
		27%   27%		37%   38%	38%   40%	41%   44%	29%   33%	10%   11%	20%   23%
	Number in cohort	59,109		14,620	10,805	5,862	2,381	22,291	3,150
	85+	15%		27%	26%	29%	19%	7%	12%
		14%   15%		24%   29%	24%   29%	25%   33%	13%   25%	7%   8%	10%   15%
	Number in cohort	9,547		1,404	1,236	562	207	5,361	777

12-month relative survival estimates by Route and age for lung cancer, 2006-2008, England



#### Comments

These data highlight the high proportion of patients who present as emergencies and the poor survival associated with them. Over a third of Emergency Presentations do not survive their cancer for more than 1 month and survival at 12 months for specific age groups is significantly worse than other Routes. Further investigation is required as to what is causing these patients to present as emergencies to understand whether it is caused by the biology of the individual patient's cancer or due to delay in presenting or being referred with symptoms.

## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C40-C41, C48: Sarcoma other

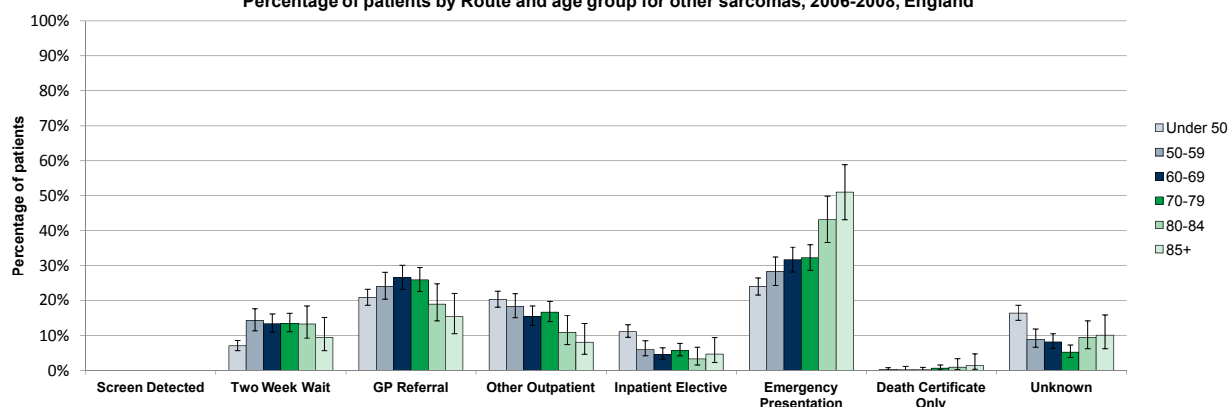
#### Introduction

The percentage of patients diagnosed through each Route is presented with 95% confidence intervals, with results broken down by age group and deprivation quintile. Relative survival estimates for 1, 3, 6, 9 and 12 months are also shown by Route with the exception of Death Certificate Only. 12 month relative survival estimates are also presented by age group. These data are a selection of the available Routes to Diagnosis data. Please see [www.ncin.org.uk](http://www.ncin.org.uk) for more information.

#### Percentage of patients by Route and age group

Age group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
Under 50		7%	21%	20%	11%	24%	0%	16%	1,168
		6% 9%	19% 23%	18% 23%	10% 13%	22% 27%	0% 1%	14% 19%	
50-59		14%	24%	18%	6%	28%	0%	9%	470
		11% 18%	20% 28%	15% 22%	4% 9%	24% 33%	0% 1%	7% 12%	
60-69		13%	27%	16%	5%	32%	0%	8%	651
		11% 16%	23% 30%	13% 19%	3% 7%	28% 35%	0% 1%	6% 11%	
70-79		14%	26%	17%	6%	32%	1%	5%	629
		11% 16%	23% 30%	14% 20%	4% 8%	29% 36%	0% 2%	4% 7%	
80-84		13%	19%	11%	3%	43%	1%	9%	211
		9% 19%	14% 25%	7% 16%	2% 7%	37% 50%	0% 3%	6% 14%	
85+		9%	15%	8%	5%	51%	1%	10%	149
		6% 15%	11% 22%	5% 14%	2% 9%	43% 59%	0% 5%	6% 16%	
All ages		11%	23%	17%	7%	30%	0%	11%	3,278
		10% 12%	22% 25%	16% 19%	6% 8%	29% 32%	0% 1%	10% 12%	

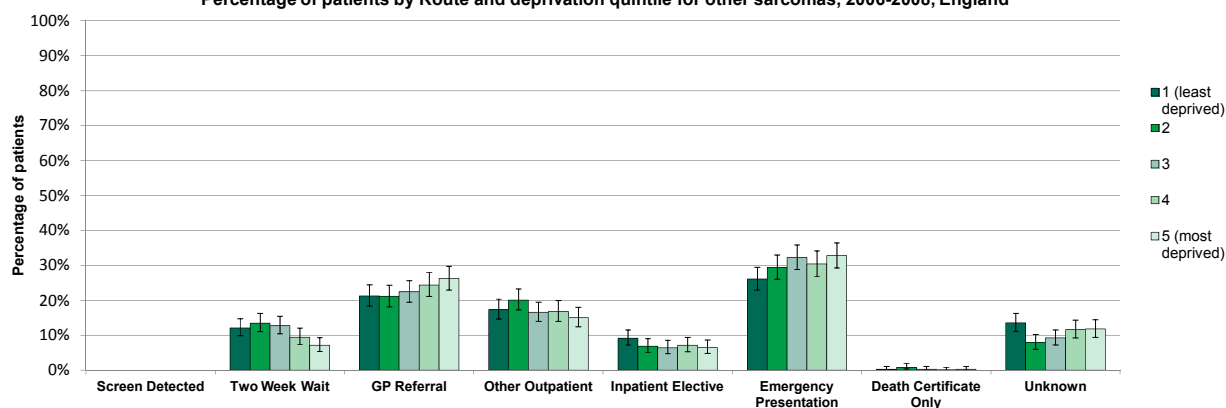
Percentage of patients by Route and age group for other sarcomas, 2006-2008, England



#### Percentage of patients by Route and deprivation quintile

Deprivation group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
1 (least deprived)		12%	21%	17%	9%	26%	0%	14%	685
		10% 15%	18% 25%	15% 20%	7% 12%	23% 30%	0% 1%	11% 16%	
2		14%	21%	20%	7%	29%	1%	8%	666
		11% 16%	18% 24%	17% 23%	5% 9%	26% 33%	0% 2%	6% 10%	
3		13%	22%	17%	6%	32%	0%	9%	682
		11% 16%	20% 26%	14% 20%	5% 9%	29% 36%	0% 1%	7% 12%	
4		9%	24%	17%	7%	30%	0%	12%	602
		7% 12%	21% 28%	14% 20%	5% 10%	27% 34%	0% 1%	9% 14%	
5 (most deprived)		7%	26%	15%	7%	33%	0%	12%	643
		5% 9%	23% 30%	13% 18%	5% 9%	29% 37%	0% 1%	10% 15%	
All quintiles		11%	23%	17%	7%	30%	0%	11%	3,278
		10% 12%	22% 25%	16% 19%	6% 8%	29% 32%	0% 1%	10% 12%	

Percentage of patients by Route and deprivation quintile for other sarcomas, 2006-2008, England



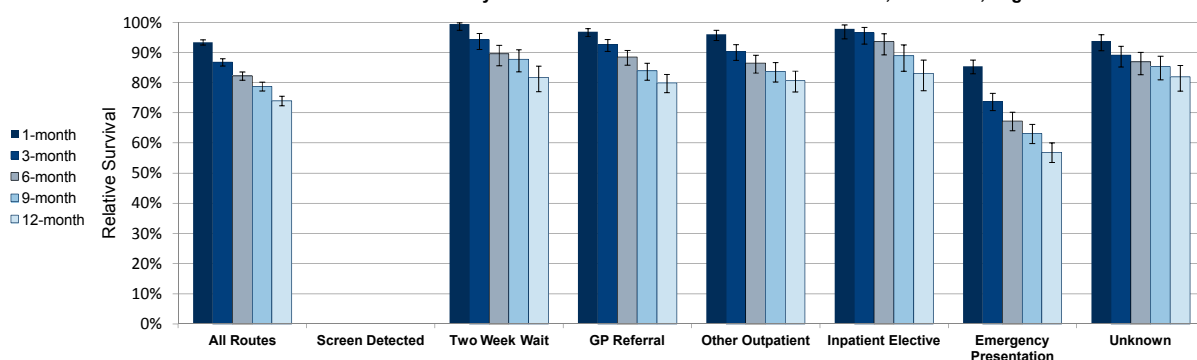
## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C40-C41, C48: Sarcoma other

Relative survival estimates by Route and survival interval

Age group	Survival interval	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
All ages	1-month	93%		99%	97%	96%	98%	85%	94%
		92% 94%		97% 100%	95% 98%	94% 97%	95% 99%	83% 88%	91% 96%
	3-month	87%		94%	93%	90%	97%	74%	89%
		86% 88%		91% 96%	90% 94%	87% 93%	93% 98%	71% 76%	85% 92%
	6-month	82%		90%	89%	86%	94%	67%	87%
		81% 84%		86% 92%	86% 91%	83% 89%	89% 96%	64% 70%	83% 90%
	9-month	79%		88%	84%	84%	89%	63%	85%
		77% 80%		84% 91%	81% 86%	80% 87%	84% 93%	60% 66%	81% 89%
	12-month	74%		82%	80%	81%	83%	57%	82%
		72% 75%		77% 85%	77% 83%	77% 84%	77% 88%	54% 60%	77% 86%
	Number in cohort	3,226		361	751	562	236	963	353

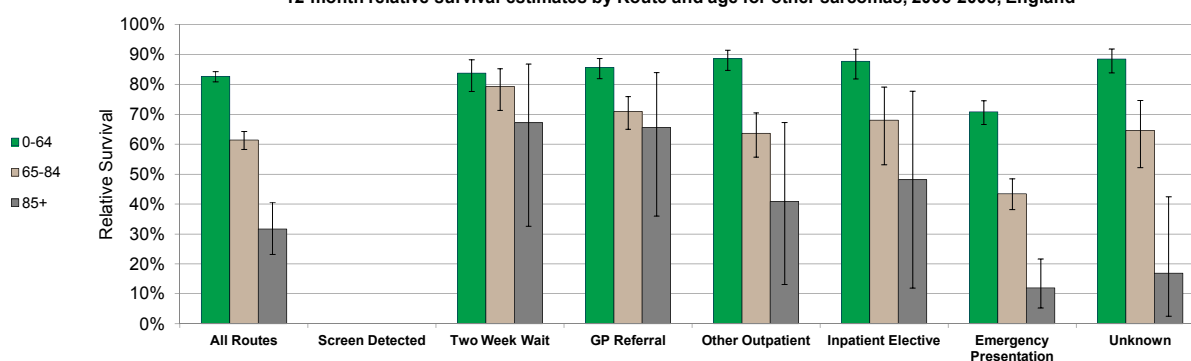
Relative survival estimates by Route and survival interval for other sarcomas, 2006-2008, England



12-month relative survival estimates by Route and age group

Survival interval	Age group	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
12-month	0-64	83%		84%	86%	89%	88%	71%	88%
		81% 84%		78% 88%	82% 89%	85% 91%	82% 92%	67% 75%	84% 92%
	Number in cohort	1,957		192	433	373	175	521	263
	65-84	61%		79%	71%	64%	68%	43%	65%
		58% 64%		71% 85%	65% 76%	56% 70%	53% 79%	38% 48%	52% 75%
	Number in cohort	1,136		156	297	177	54	375	77
	85+	32%		67%	66%	41%	48%	12%	17%
		23% 40%		33% 87%	36% 84%	13% 67%	12% 78%	5% 22%	3% 42%
	Number in cohort	133		13	21	12	7	67	13

12-month relative survival estimates by Route and age for other sarcomas, 2006-2008, England



#### Comments

These data show the disappointingly low level of patients diagnosed through the Two Week Wait Route for patients with sarcomas. They also demonstrate the very poor survival rates for Emergency Presentations, especially for the elderly. Earlier diagnosis remains a key step to improve outcomes for patients with sarcomas and it is clear that further work is needed to define the nature and predictive power of symptoms of early stage disease.

## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C49: Sarcoma connective and soft tissue

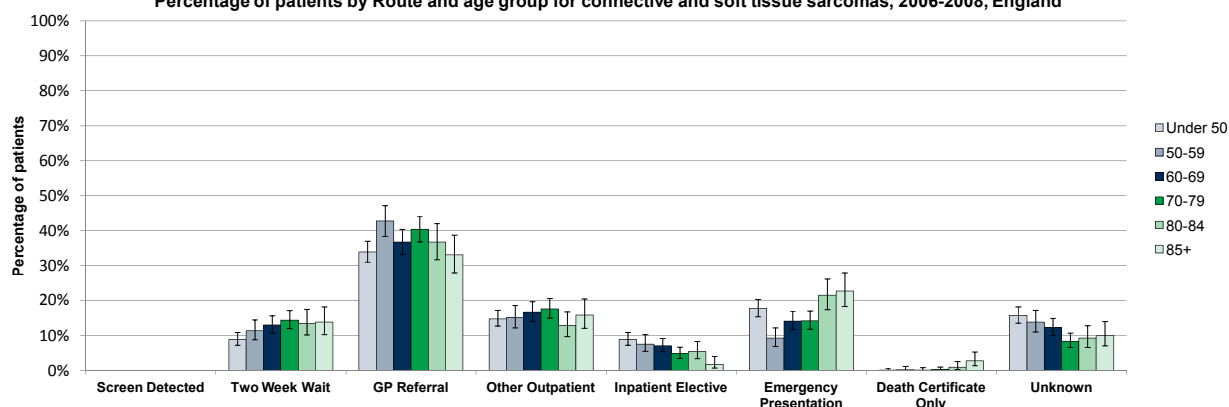
#### Introduction

The percentage of patients diagnosed through each Route is presented with 95% confidence intervals, with results broken down by age group and deprivation quintile. Relative survival estimates for 1, 3, 6, 9 and 12 months are also shown by Route with the exception of Death Certificate Only. 12 month relative survival estimates are also presented by age group. These data are a selection of the available Routes to Diagnosis data. Please see [www.ncin.org.uk](http://www.ncin.org.uk) for more information.

#### Percentage of patients by Route and age group

Age group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
Under 50		9%	34%	15%	9%	18%	0%	16%	947
		7% 11%	31% 37%	13% 17%	7% 11%	15% 20%	0% 1%	14% 18%	
50-59		11%	43%	15%	8%	9%	0%	14%	477
		9% 15%	38% 47%	12% 19%	6% 10%	7% 12%	0% 1%	11% 17%	
60-69		13%	37%	17%	7%	14%	0%	12%	694
		11% 16%	33% 40%	14% 20%	5% 9%	12% 17%	0% 1%	10% 15%	
70-79		14%	40%	18%	5%	14%	0%	8%	704
		12% 17%	37% 44%	15% 21%	4% 7%	12% 17%	0% 1%	7% 11%	
80-84		13%	37%	13%	5%	21%	1%	9%	335
		10% 18%	32% 42%	10% 17%	3% 8%	17% 26%	0% 3%	7% 13%	
85+		14%	33%	16%	2%	23%	3%	10%	290
		10% 18%	28% 39%	12% 21%	1% 4%	18% 28%	1% 5%	7% 14%	
All ages		12%	37%	16%	7%	16%	0%	12%	3,447
		11% 13%	36% 39%	15% 17%	6% 7%	15% 17%	0% 1%	11% 13%	

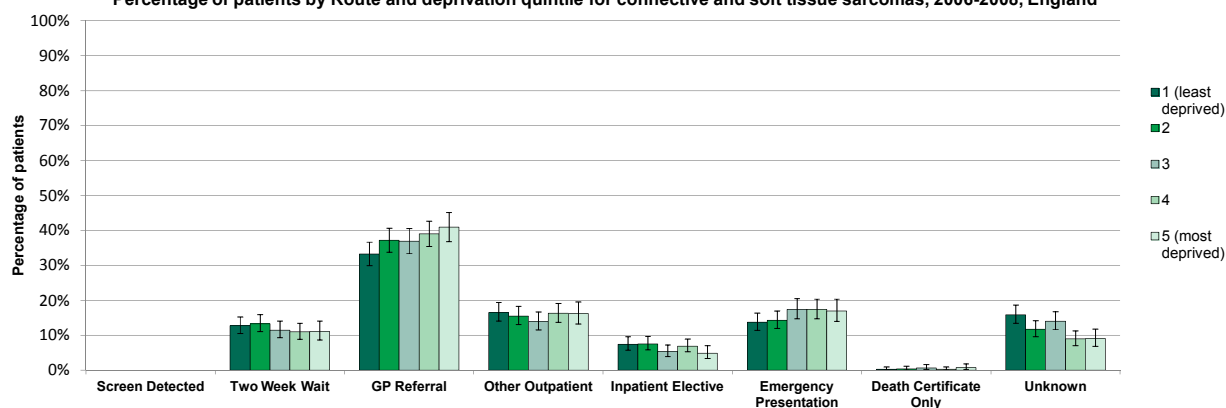
Percentage of patients by Route and age group for connective and soft tissue sarcomas, 2006-2008, England



#### Percentage of patients by Route and deprivation quintile

Deprivation group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
1 (least deprived)		13%	33%	17%	7%	14%	0%	16%	761
		11% 15%	30% 37%	14% 19%	6% 10%	12% 16%	0% 1%	14% 19%	
2		13%	37%	15%	8%	14%	0%	12%	742
		11% 16%	34% 41%	13% 18%	6% 10%	12% 17%	0% 1%	10% 14%	
3		12%	37%	14%	5%	17%	1%	14%	704
		9% 14%	33% 41%	12% 17%	4% 7%	15% 21%	0% 2%	12% 17%	
4		11%	39%	16%	7%	17%	0%	9%	710
		9% 14%	36% 43%	14% 19%	5% 9%	15% 20%	0% 1%	7% 11%	
5 (most deprived)		11%	41%	16%	5%	17%	1%	9%	530
		9% 14%	37% 45%	13% 20%	3% 7%	14% 20%	0% 2%	7% 12%	
All quintiles		12%	37%	16%	7%	16%	0%	12%	3,447
		11% 13%	36% 39%	15% 17%	6% 7%	15% 17%	0% 1%	11% 13%	

Percentage of patients by Route and deprivation quintile for connective and soft tissue sarcomas, 2006-2008, England



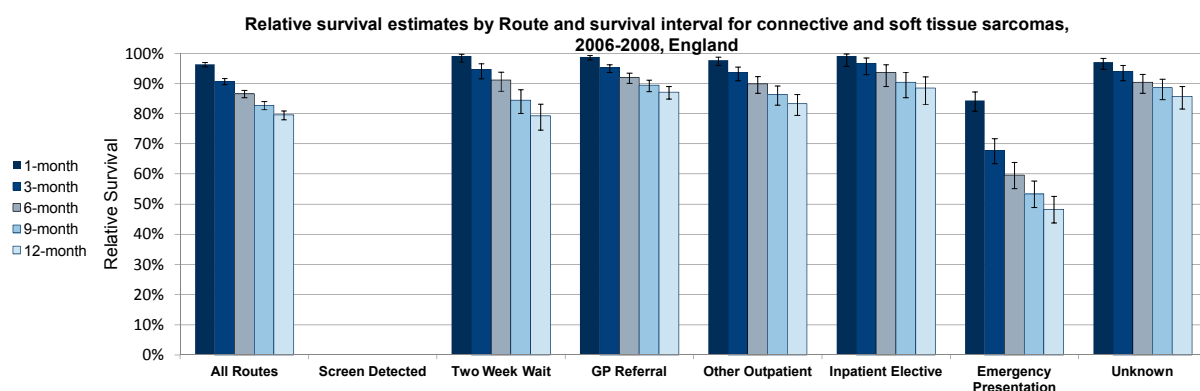


## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C49: Sarcoma connective and soft tissue

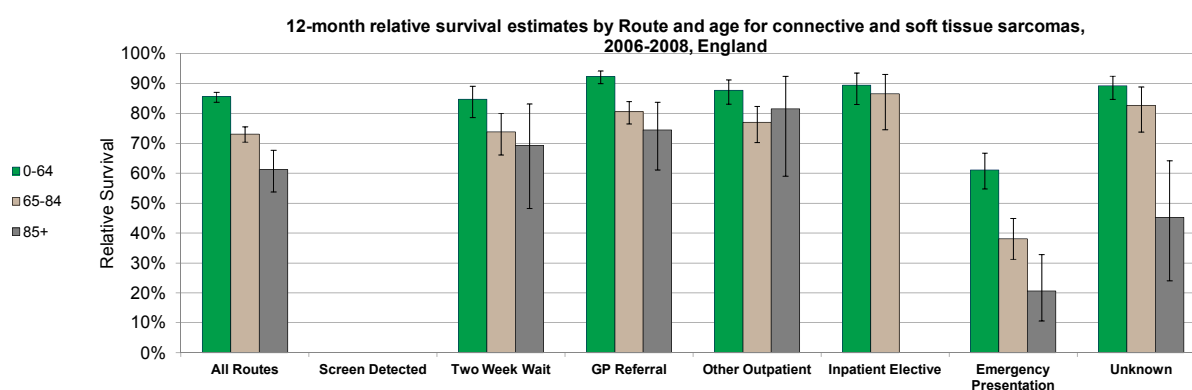
Relative survival estimates by Route and survival interval

Age group	Survival interval	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
All ages	1-month	96%		99%	99%	98%	99%	84%	97%
		96% 97%		97% 100%	98% 99%	96% 99%	96% 100%	81% 87%	95% 98%
	3-month	91%		95%	95%	94%	97%	68%	94%
		90% 92%		92% 97%	94% 96%	91% 95%	93% 98%	63% 72%	91% 96%
	6-month	87%		91%	92%	90%	94%	60%	90%
		85% 88%		87% 94%	90% 93%	87% 92%	89% 96%	55% 64%	87% 93%
	9-month	83%		84%	89%	86%	90%	53%	89%
		81% 84%		80% 88%	87% 91%	83% 89%	85% 94%	49% 58%	85% 91%
	12-month	80%		79%	87%	83%	88%	48%	86%
		78% 81%		75% 83%	85% 89%	79% 86%	83% 92%	44% 53%	82% 89%
	Number in cohort	3,391		414	1,274	537	225	523	418



12-month relative survival estimates by Route and age group

Survival interval	Age group	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
12-month	0-64	86%		85%	92%	88%	89%	61%	89%
		84% 87%		79% 89%	90% 94%	83% 91%	83% 94%	55% 67%	85% 92%
	Number in cohort	1,769		189	649	267	145	259	260
	65-84	73%		74%	81%	77%	86%	38%	83%
		70% 76%		66% 80%	76% 84%	70% 82%	75% 93%	31% 45%	74% 89%
	Number in cohort	1,355		185	533	225	75	207	130
	85+	61%		69%	74%	81%		21%	45%
		54% 68%		48% 83%	61% 84%	59% 92%		11% 33%	24% 64%
	Number in cohort	267		40	92	45		57	28



#### Comments

These data show the disappointingly low level of patients diagnosed through the Two Week Wait Route for patients with sarcomas. They also demonstrate the very poor survival rates for Emergency Presentations, especially for the elderly. Earlier diagnosis remains a key step to improve outcomes for patients with sarcomas.

## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C43: Melanoma

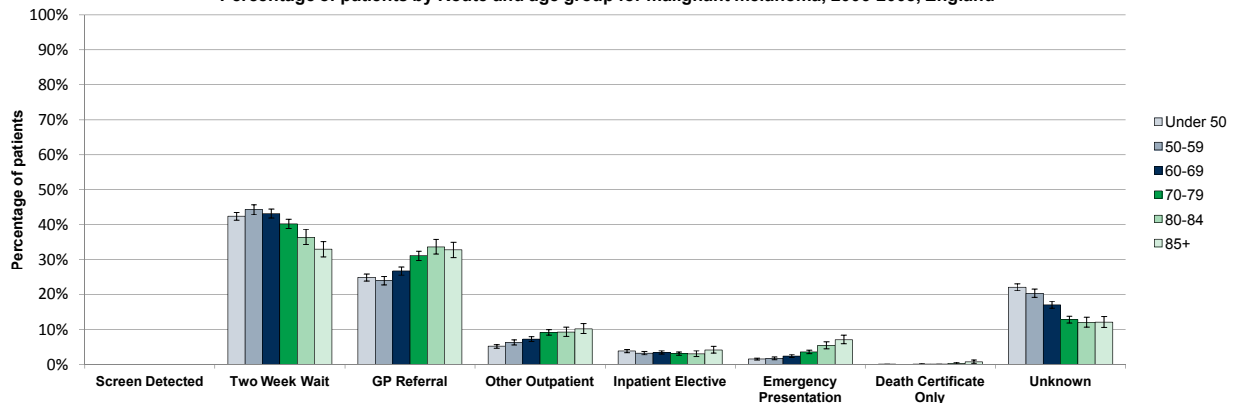
#### Introduction

The percentage of patients diagnosed through each Route is presented with 95% confidence intervals, with results broken down by age group and deprivation quintile. Relative survival estimates for 1, 3, 6, 9 and 12 months are also shown by Route with the exception of Death Certificate Only. 12 month relative survival estimates are also presented by age group. These data are a selection of the available Routes to Diagnosis data. Please see [www.ncin.org.uk](http://www.ncin.org.uk) for more information.

#### Percentage of patients by Route and age group

Age group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
Under 50		42%	25%	5%	4%	2%	0%	22%	7,710
		41% 44%	24% 26%	5% 6%	3% 4%	1% 2%	0% 0%	21% 23%	
50-59		44%	24%	6%	3%	2%		20%	4,609
		43% 46%	23% 25%	6% 7%	3% 4%	1% 2%		19% 22%	
60-69		43%	27%	7%	3%	2%	0%	17%	5,746
		42% 45%	26% 28%	7% 8%	3% 4%	2% 3%	0% 0%	16% 18%	
70-79		40%	31%	9%	3%	4%	0%	13%	4,932
		39% 42%	30% 32%	8% 10%	3% 4%	3% 4%	0% 0%	12% 14%	
80-84		36%	34%	9%	3%	5%	0%	12%	1,929
		34% 39%	32% 36%	8% 11%	2% 4%	5% 7%	0% 1%	11% 14%	
85+		33%	33%	10%	4%	7%	1%	12%	1,734
		31% 35%	31% 35%	9% 12%	3% 5%	6% 8%	0% 1%	11% 14%	
All ages		41%	27%	7%	3%	3%	0%	18%	26,660
		41% 42%	27% 28%	7% 8%	3% 4%	3% 3%	0% 0%	17% 18%	

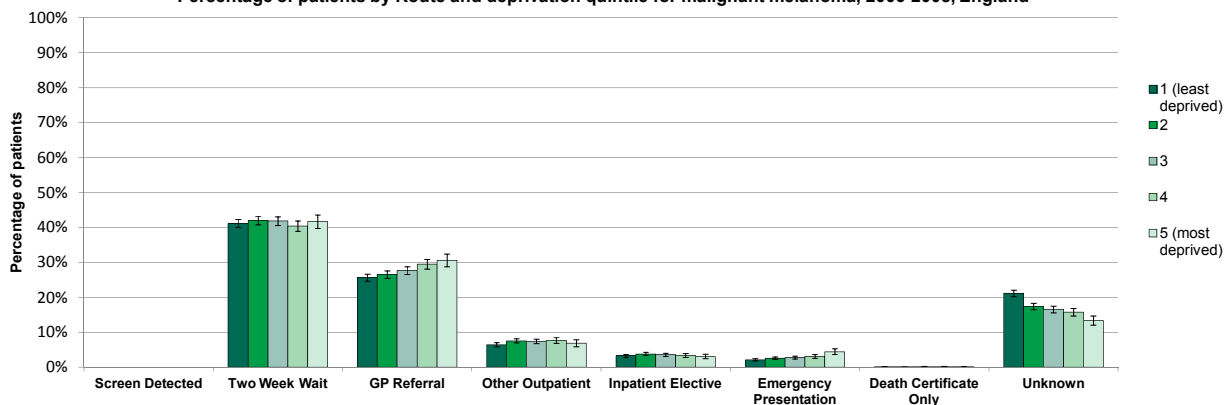
Percentage of patients by Route and age group for malignant melanoma, 2006-2008, England



#### Percentage of patients by Route and deprivation quintile

Deprivation group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
1 (least deprived)		41%	26%	6%	3%	2%	0%	21%	7,257
		40% 42%	25% 27%	6% 7%	3% 4%	2% 3%	0% 0%	20% 22%	
2		42%	27%	8%	4%	3%	0%	17%	6,710
		41% 43%	26% 28%	7% 8%	3% 4%	2% 3%	0% 0%	17% 18%	
3		42%	28%	7%	4%	3%	0%	17%	5,948
		41% 43%	27% 29%	7% 8%	3% 4%	2% 3%	0% 0%	16% 18%	
4		40%	30%	8%	3%	3%	0%	16%	4,237
		39% 42%	28% 31%	7% 9%	3% 4%	3% 4%	0% 0%	15% 17%	
5 (most deprived)		42%	31%	7%	3%	4%	0%	13%	2,508
		40% 44%	29% 32%	6% 8%	3% 4%	4% 5%	0% 0%	12% 15%	
All quintiles		41%	27%	7%	3%	3%	0%	18%	26,660
		41% 42%	27% 28%	7% 8%	3% 4%	3% 3%	0% 0%	17% 18%	

Percentage of patients by Route and deprivation quintile for malignant melanoma, 2006-2008, England



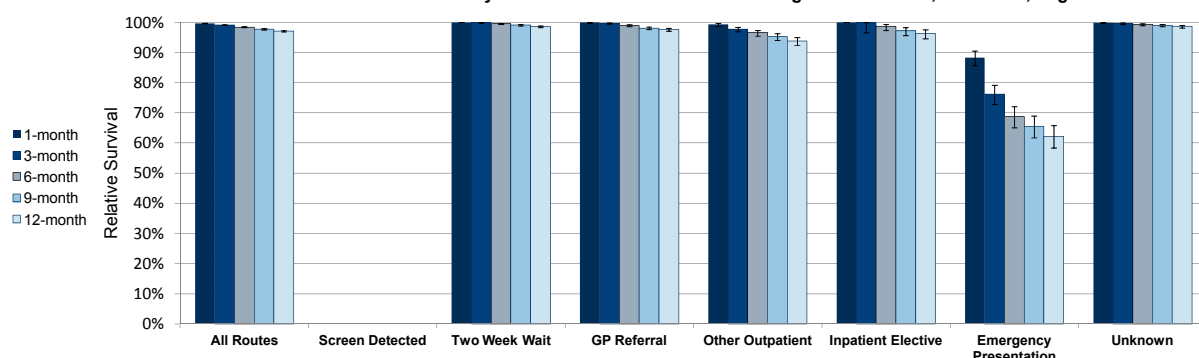
## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C43: Melanoma

#### Relative survival estimates by Route and survival interval

Age group	Survival interval	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
All ages	1-month	100%		100%	100%	99%	100%	88%	100%
		100%   100%		100%   100%	100%   100%	99%   100%	100%   100%	86%   90%	100%   100%
	3-month	99%		100%	100%	98%	100%	76%	100%
		99%   99%		100%   100%	99%   100%	97%   98%	97%   100%	73%   79%	99%   100%
	6-month	98%		100%	99%	97%	99%	69%	99%
		98%   99%		99%   100%	99%   99%	95%   97%	97%   99%	65%   72%	99%   100%
	9-month	98%		99%	98%	95%	97%	65%	99%
		97%   98%		99%   99%	98%   98%	94%   96%	96%   98%	62%   69%	99%   99%
	12-month	97%		99%	98%	94%	96%	62%	99%
		97%   97%		98%   99%	97%   98%	92%   95%	95%   98%	58%   66%	98%   99%
	Number in cohort	26,587		11,043	7,302	1,910	924	721	4,687

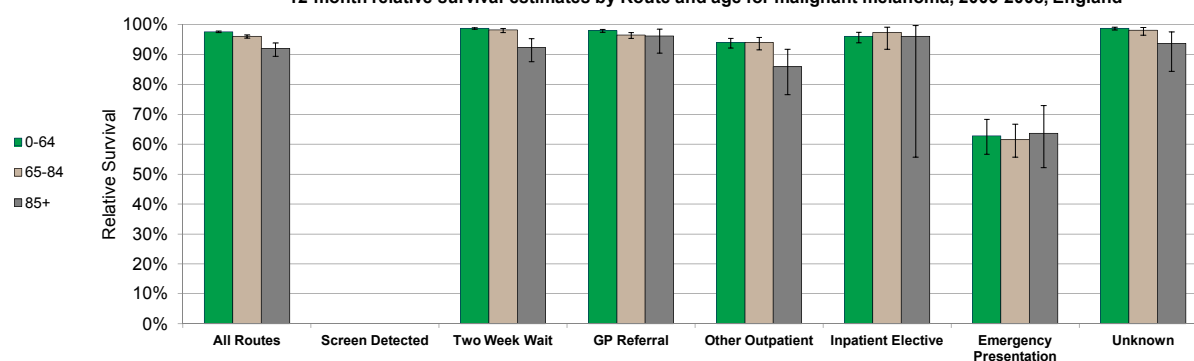
Relative survival estimates by Route and survival interval for malignant melanoma, 2006-2008, England



#### 12-month relative survival estimates by Route and age group

Survival interval	Age group	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
12-month	0-64	98%		99%	98%	94%	96%	63%	99%
		97%   98%		98%   99%	97%   98%	92%   95%	94%   97%	57%   68%	98%   99%
	Number in cohort	15,382		6,630	3,818	904	559	268	3,203
	65-84	96%		98%	96%	94%	97%	61%	98%
		95%   97%		97%   99%	95%   97%	92%   96%	92%   99%	56%   67%	96%   99%
	Number in cohort	9,509		3,846	2,921	831	294	335	1,282
	85+	92%		92%	96%	86%	96%	64%	94%
		89%   94%		88%   95%	90%   98%	77%   92%	56%   100%	52%   73%	84%   98%
	Number in cohort	1,696		567	563	175	71	118	202

12-month relative survival estimates by Route and age for malignant melanoma, 2006-2008, England



#### Comments

It is desirable that melanoma patients be referred via GPs to facilitate early diagnosis by specialist teams. The data presented here show that the majority of patients (in which this could be properly assessed), this was the case. In patients aged over 70 the incidence of basal cell carcinoma and benign lesions such as basal cell papillomas is higher. The observed higher frequency of managed referrals for older melanoma patients may reflect this greater diagnostic difficulty.

A small proportion of melanoma patients were diagnosed through the Emergency Presentation Route. We are unable to determine from the data whether the melanoma was an incidental occurrence in the course of the emergency admission or the cause of that admission. The observation that this proportion was higher in the elderly suggest that many may represent diagnosis of an incidental melanoma when elderly patients are admitted for other reasons.

Survival from Melanoma is very good with 97% of patients surviving their disease for at least 12 months from diagnosis. The only Route which appeared to be significantly associated with poorer survival was in the very small number of patients diagnosed through the Emergency Presentation Route. A higher mortality in this group is likely to represent a mixture of deaths caused by other medical conditions which provoked admission, during which an incidental diagnosis of melanoma was made (especially in the elderly) and melanoma deaths associated with a different pattern of disease. A small proportion (around 8%) of melanomas occur in the context of an occult primary: that is that a primary tumour cannot be identified and the patient presents with secondary disease and these patients are far more likely to be admitted as an emergency.

## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C45: Mesothelioma

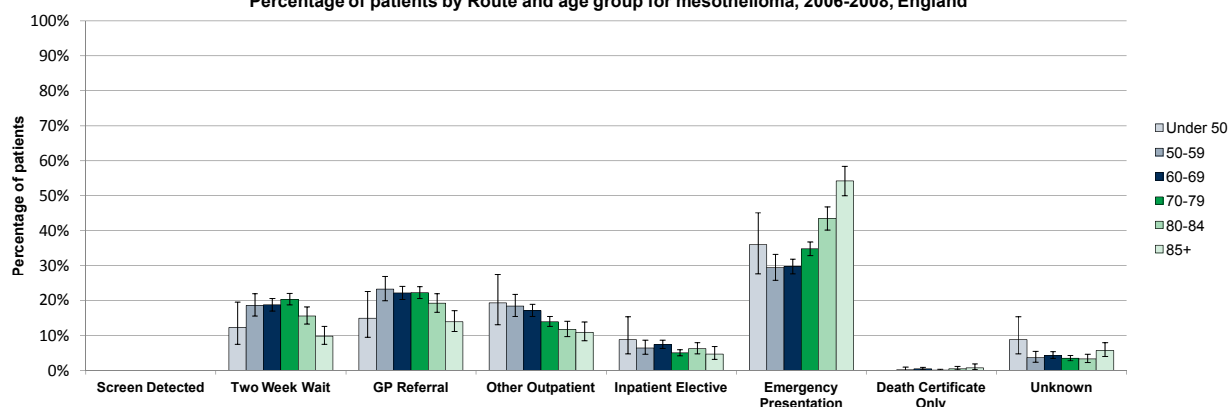
#### Introduction

The percentage of patients diagnosed through each Route is presented with 95% confidence intervals, with results broken down by age group and deprivation quintile. Relative survival estimates for 1, 3, 6, 9 and 12 months are also shown by Route with the exception of Death Certificate Only. 12 month relative survival estimates are also presented by age group. These data are a selection of the available Routes to Diagnosis data. Please see [www.ncin.org.uk](http://www.ncin.org.uk) for more information.

#### Percentage of patients by Route and age group

Age group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
Under 50		12%	15%	19%	9%	36%		9%	114
		8% 20%	10% 23%	13% 28%	5% 15%	28% 45%		5% 15%	
50-59		19%	23%	18%	6%	29%	0%	4%	575
		16% 22%	20% 27%	16% 22%	5% 9%	26% 33%	0% 1%	2% 6%	
60-69		19%	22%	17%	7%	30%	0%	4%	1,829
		17% 21%	20% 24%	16% 19%	6% 9%	28% 32%	0% 1%	4% 5%	
70-79		20%	22%	14%	5%	35%	0%	3%	2,277
		19% 22%	21% 24%	13% 16%	4% 6%	33% 37%	0% 0%	3% 4%	
80-84		16%	19%	12%	6%	43%	0%	3%	853
		13% 18%	17% 22%	10% 14%	5% 8%	40% 47%	0% 1%	2% 5%	
85+		10%	14%	11%	5%	54%	1%	6%	531
		8% 13%	11% 17%	9% 14%	3% 7%	50% 58%	0% 2%	4% 8%	
All ages		18%	21%	15%	6%	36%	0%	4%	6,179
		17% 19%	20% 22%	14% 16%	6% 7%	35% 37%	0% 1%	4% 5%	

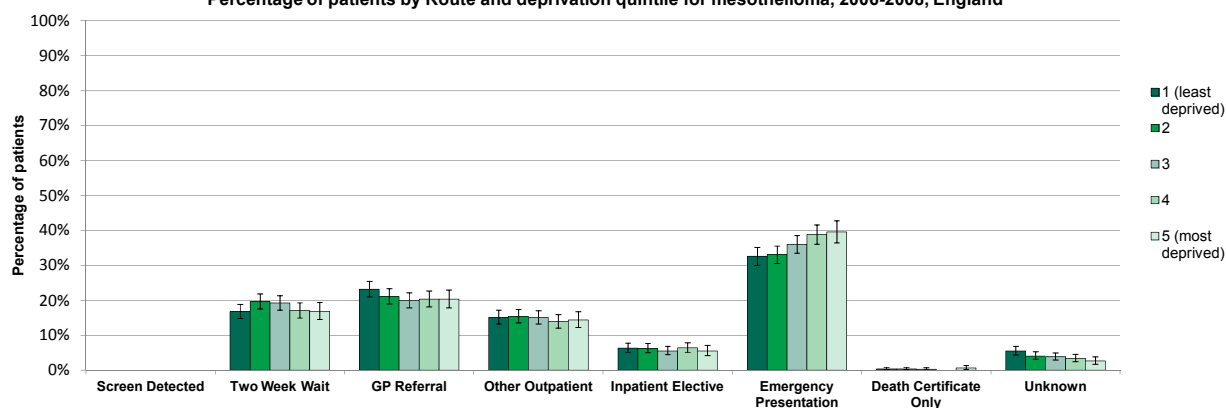
Percentage of patients by Route and age group for mesothelioma, 2006-2008, England



#### Percentage of patients by Route and deprivation quintile

Deprivation group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
1 (least deprived)		17%	23%	15%	6%	33%	0%	6%	1,316
		15% 19%	21% 26%	13% 17%	5% 8%	30% 35%	0% 1%	4% 7%	
2		20%	21%	15%	6%	33%	0%	4%	1,368
		18% 22%	19% 23%	14% 17%	5% 8%	31% 36%	0% 1%	3% 5%	
3		19%	20%	15%	6%	36%	0%	4%	1,348
		17% 21%	18% 22%	13% 17%	5% 7%	34% 39%	0% 1%	3% 5%	
4		17%	20%	14%	6%	39%		3%	1,203
		15% 19%	18% 23%	12% 16%	5% 8%	36% 42%		3% 5%	
5 (most deprived)		17%	20%	14%	6%	40%	1%	3%	944
		15% 19%	18% 23%	12% 17%	4% 7%	37% 43%	0% 1%	2% 4%	
All quintiles		18%	21%	15%	6%	36%	0%	4%	6,179
		17% 19%	20% 22%	14% 16%	6% 7%	35% 37%	0% 1%	4% 5%	

Percentage of patients by Route and deprivation quintile for mesothelioma, 2006-2008, England



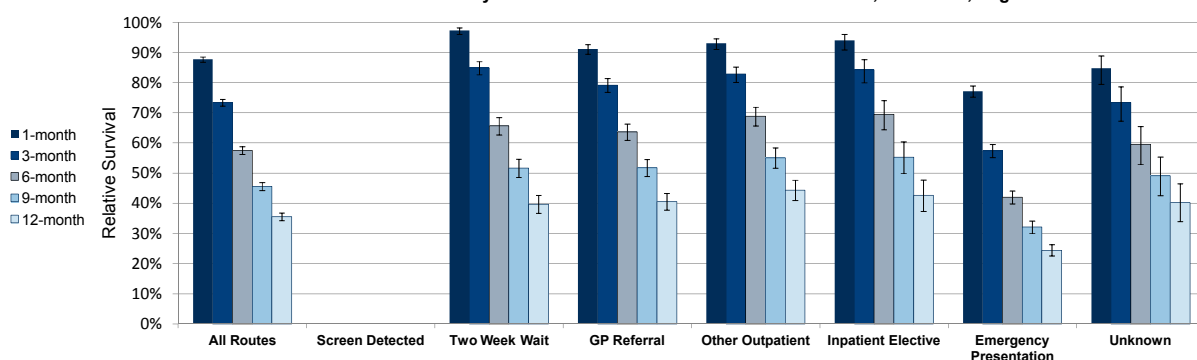
## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C45: Mesothelioma

Relative survival estimates by Route and survival interval

Age group	Survival interval	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
All ages	1-month	88%		97%	91%	93%	94%	77%	85%
		87% 89%		96% 98%	89% 93%	91% 95%	91% 96%	75% 79%	79% 89%
	3-month	73%		85%	79%	83%	84%	57%	73%
		72% 75%		83% 87%	77% 81%	80% 85%	80% 88%	55% 59%	67% 79%
	6-month	58%		66%	64%	69%	70%	42%	59%
		56% 59%		63% 68%	61% 66%	66% 72%	64% 74%	40% 44%	53% 65%
	9-month	46%		52%	52%	55%	55%	32%	49%
		44% 47%		49% 55%	49% 55%	52% 58%	50% 60%	30% 34%	43% 55%
	12-month	36%		40%	41%	44%	43%	24%	40%
		34% 37%		37% 43%	38% 43%	41% 48%	37% 48%	23% 26%	34% 46%
	Number in cohort	6,023		1,112	1,285	903	372	2,104	247

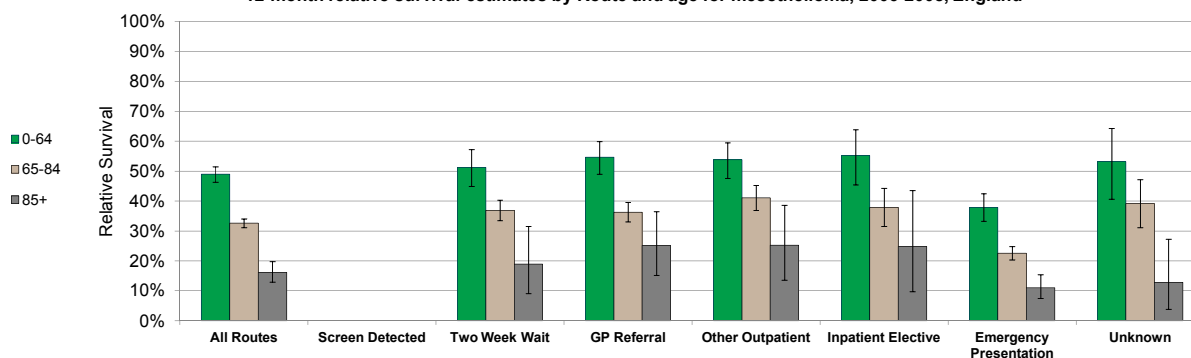
Relative survival estimates by Route and survival interval for mesothelioma, 2006-2008, England



12-month relative survival estimates by Route and age group

Survival interval	Age group	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
12-month	0-64	49%		51%	55%	54%	55%	38%	53%
		46% 51%		45% 57%	49% 60%	48% 59%	45% 64%	33% 42%	41% 64%
	Number in cohort	1,468		257	324	276	112	431	68
	65-84	33%		37%	36%	41%	38%	23%	39%
		31% 34%		33% 40%	33% 40%	37% 45%	32% 44%	20% 25%	31% 47%
	Number in cohort	4,060		804	889	576	236	1,406	149
	85+	16%		19%	25%	25%	25%	11%	13%
		13% 20%		9% 32%	15% 36%	14% 39%	10% 43%	7% 15%	4% 27%
	Number in cohort	495		51	72	51	24	267	30

12-month relative survival estimates by Route and age for mesothelioma, 2006-2008, England



#### Comments

Over a third of patients were assigned the Emergency Presentation Route, with an increased proportion of Emergency Presentations within the most deprived quintile compared to the least deprived. Most of these will be with large pleural effusions. Survival is significantly worse compared to other Routes; more than 20% of mesothelioma patients who presented through an Emergency Route do not survive their cancer for more than 1 month post diagnosis.

## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C50: Breast

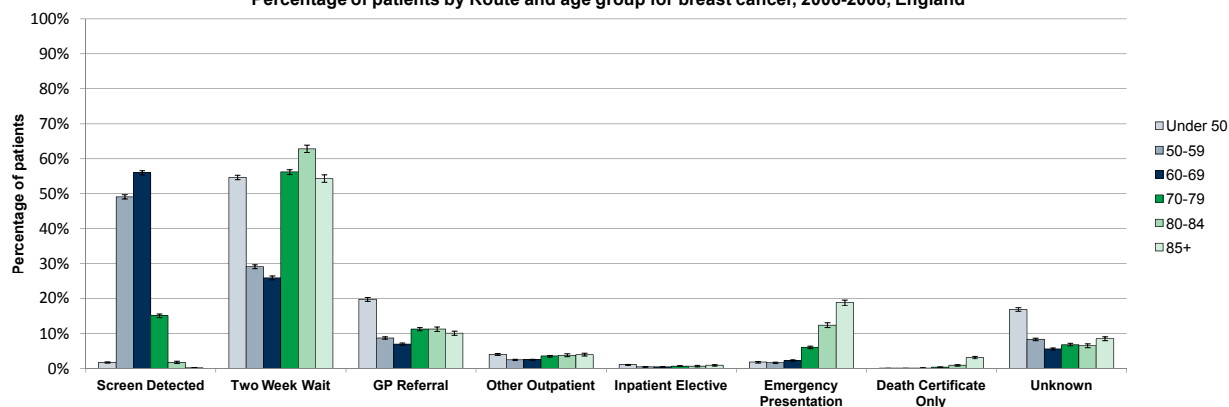
#### Introduction

The percentage of patients diagnosed through each Route is presented with 95% confidence intervals, with results broken down by age group and deprivation quintile. Relative survival estimates for 1, 3, 6, 9 and 12 months are also shown by Route with the exception of Death Certificate Only. 12 month relative survival estimates are also presented by age group. These data are a selection of the available Routes to Diagnosis data. Please see [www.ncin.org.uk](http://www.ncin.org.uk) for more information.

#### Percentage of patients by Route and age group

Age group	Screen Detected		Two Week Wait		GP Referral		Other Outpatient		Inpatient Elective		Emergency Presentation		Death Certificate Only		Unknown		Number of cases
Under 50	2%	2%	54%	55%	19%	20%	4%	4%	1%	1%	2%	2%	0%	0%	16%	17%	21,450
50-59	49%	50%	29%	30%	8%	9%	2%	3%	0%	1%	2%	2%	0%	0%	8%	9%	24,728
60-69	56%	57%	26%	27%	7%	7%	3%	3%	0%	1%	2%	3%	0%	0%	5%	6%	27,698
70-79	15%	16%	56%	57%	11%	12%	3%	4%	1%	1%	6%	6%	0%	1%	7%	7%	18,797
80-84	2%	2%	62%	64%	11%	12%	3%	4%	1%	1%	12%	13%	1%	1%	6%	7%	8,304
85+	0%	0%	53%	55%	10%	11%	4%	4%	1%	1%	18%	20%	3%	4%	8%	9%	9,196
All ages	28%	28%	42%	43%	11%	11%	3%	3%	1%	1%	5%	5%	0%	1%	9%	9%	110,173

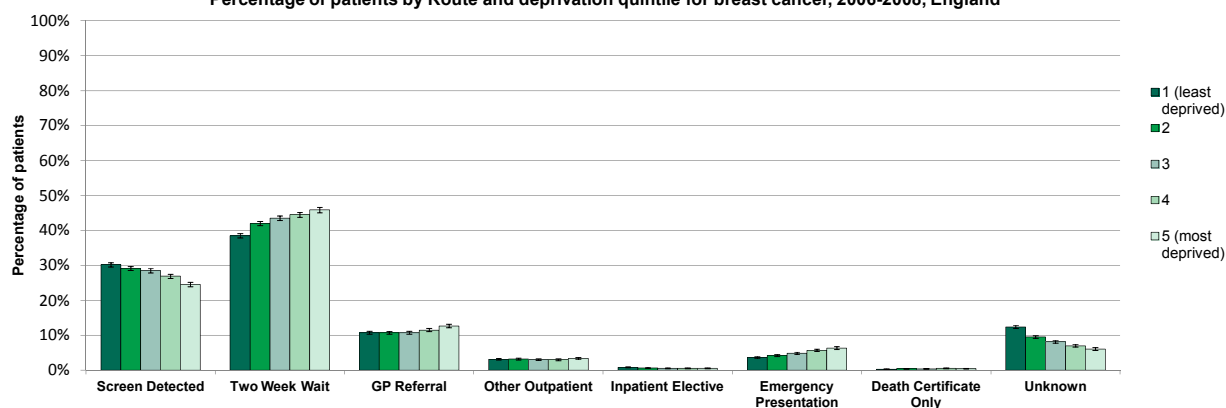
Percentage of patients by Route and age group for breast cancer, 2006-2008, England



#### Percentage of patients by Route and deprivation quintile

Deprivation group	Screen Detected		Two Week Wait		GP Referral		Other Outpatient		Inpatient Elective		Emergency Presentation		Death Certificate Only		Unknown		Number of cases
1 (least deprived)	30%	31%	38%	39%	10%	11%	3%	3%	1%	1%	4%	4%	0%	0%	12%	13%	25,023
2	29%	30%	41%	43%	10%	11%	3%	4%	1%	1%	4%	5%	0%	1%	9%	10%	25,186
3	28%	29%	43%	44%	10%	11%	3%	3%	1%	1%	5%	5%	0%	1%	8%	9%	23,604
4	27%	28%	44%	45%	11%	12%	3%	3%	1%	1%	6%	6%	1%	1%	7%	7%	20,473
5 (most deprived)	25%	25%	45%	47%	12%	13%	3%	4%	1%	1%	6%	7%	0%	1%	6%	7%	15,887
All quintiles	28%	28%	42%	43%	11%	11%	3%	3%	1%	1%	5%	5%	0%	1%	9%	9%	110,173

Percentage of patients by Route and deprivation quintile for breast cancer, 2006-2008, England

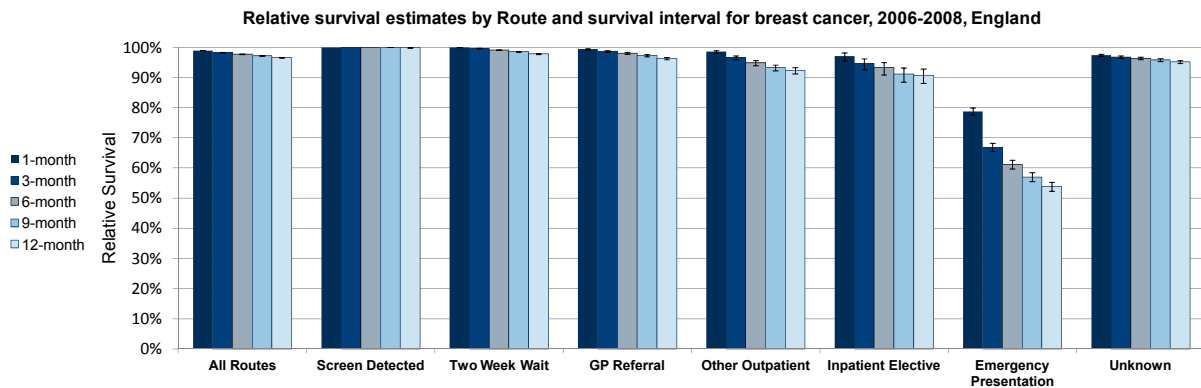


## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C50: Breast

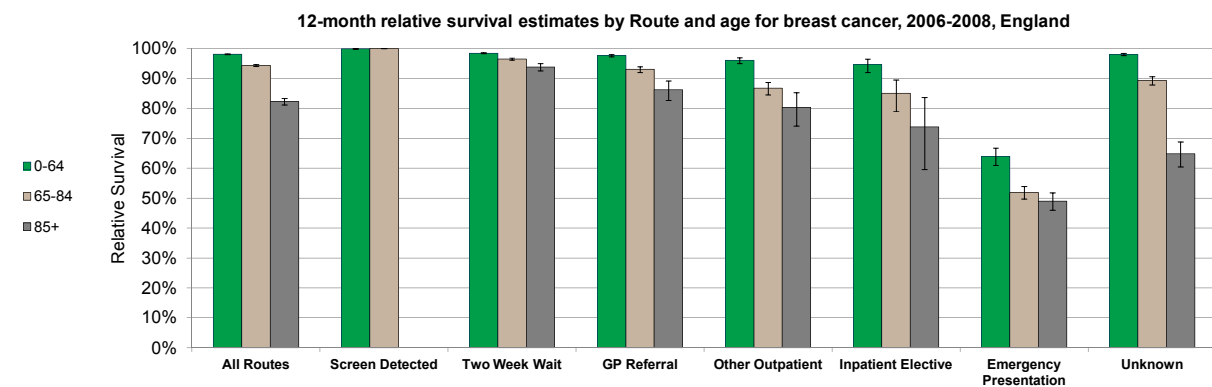
Relative survival estimates by Route and survival interval

Age group	Survival interval	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
All ages	1-month	99%	100%	100%	99%	99%	97%	79%	97%
		99%   99%		100%   100%	99%   100%	98%   99%	95%   98%	78%   80%	97%   98%
	3-month	98%	100%	100%	99%	97%	95%	67%	97%
		98%   98%		100%   100%	98%   99%	96%   97%	93%   96%	66%   68%	96%   97%
	6-month	98%	100%	99%	98%	95%	93%	61%	96%
		98%   98%		99%   99%	98%   98%	94%   96%	91%   95%	60%   63%	96%   97%
	9-month	97%	100%	99%	97%	93%	91%	57%	96%
		97%   97%	100%   100%	98%   99%	97%   98%	92%   94%	89%   93%	56%   58%	95%   96%
	12-month	97%	100%	98%	96%	92%	91%	54%	95%
		96%   97%	100%   100%	98%   98%	96%   97%	91%   93%	88%   93%	52%   55%	95%   96%
	Number in cohort	108,300	31,037	46,445	12,059	3,409	725	4,908	9,717



12-month relative survival estimates by Route and age group

Survival interval	Age group	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
12-month	0-64	98%	100%	98%	98%	96%	95%	64%	98%
		98%   98%	100%   100%	98%   99%	97%   98%	95%   97%	92%   96%	61%   67%	98%   98%
	Number in cohort	60,229	20,405	22,632	7,349	1,817	426	1,067	6,533
	65-84	94%	100%	97%	93%	87%	85%	52%	89%
		94%   95%	100%   100%	96%   97%	92%   94%	85%   89%	79%   89%	50%   54%	88%   91%
	Number in cohort	39,587	10,611	18,894	3,831	1,255	223	2,334	2,439
	85+	82%		94%	86%	80%	74%	49%	65%
		81%   83%		93%   95%	83%   89%	74%   85%	60%   84%	46%   52%	60%   69%
	Number in cohort	8,484	21	4,919	879	337	76	1,507	745



#### Comments

The majority of breast cancers present through a managed route either via screening or referral from a GP. These results show that just over 50% of breast cancer cases are diagnosed through screening in females aged between 50 and 69. For other age groups, over 50% of cases come through the Two Week Wait Route. Emergency Presentations are very low for breast cancers (5%), but do increase with age; nearly 20% of breast cancers diagnosed in women aged over 85 are through the Emergency Presentation Route. Breast cancer survival is very high, with the highest 12 month survival seen through the screening and Two Week Wait Routes. Survival estimates for emergency presentations are significantly worse across all age groups.

## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C51: Vulva

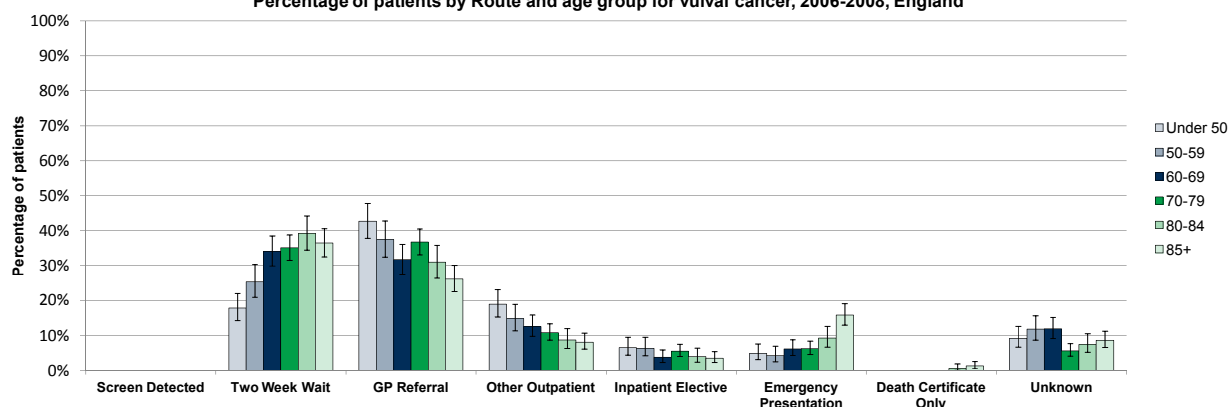
#### Introduction

The percentage of patients diagnosed through each Route is presented with 95% confidence intervals, with results broken down by age group and deprivation quintile. Relative survival estimates for 1, 3, 6, 9 and 12 months are also shown by Route with the exception of Death Certificate Only. 12 month relative survival estimates are also presented by age group. These data are a selection of the available Routes to Diagnosis data. Please see [www.ncin.org.uk](http://www.ncin.org.uk) for more information.

#### Percentage of patients by Route and age group

Age group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
Under 50		18%	43%	19%	6%	5%		9%	370
		14% 22%	38% 48%	15% 23%	4% 10%	3% 8%		7% 13%	
50-59		25%	37%	15%	6%	4%		12%	331
		21% 30%	32% 43%	11% 19%	4% 10%	3% 7%		9% 16%	
60-69		34%	32%	13%	4%	6%		12%	455
		30% 39%	28% 36%	10% 16%	2% 6%	4% 9%		9% 15%	
70-79		35%	37%	11%	5%	6%		6%	656
		32% 39%	33% 41%	9% 13%	4% 8%	5% 8%		4% 8%	
80-84		39%	31%	9%	4%	9%	1%	7%	378
		34% 44%	27% 36%	6% 12%	2% 6%	7% 13%	0% 2%	5% 11%	
85+		36%	26%	8%	3%	16%	1%	9%	543
		33% 41%	23% 30%	6% 11%	2% 5%	13% 19%	1% 3%	7% 11%	
All ages		32%	34%	12%	5%	8%	0%	9%	2,733
		31% 34%	32% 36%	11% 13%	4% 6%	7% 9%	0% 1%	8% 10%	

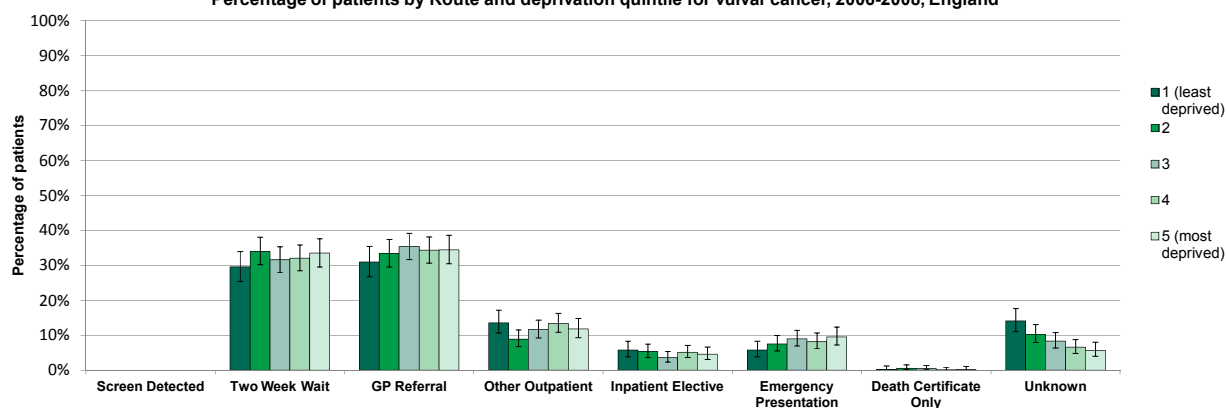
Percentage of patients by Route and age group for vulval cancer, 2006-2008, England



#### Percentage of patients by Route and deprivation quintile

Deprivation group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
1 (least deprived)		30%	31%	14%	6%	6%	0%	14%	433
		26% 34%	27% 36%	11% 17%	4% 8%	4% 8%	0% 1%	11% 18%	
2		34%	33%	9%	5%	7%	1%	10%	547
		30% 38%	30% 38%	7% 12%	4% 8%	6% 10%	0% 2%	8% 13%	
3		32%	35%	12%	4%	9%	0%	8%	611
		28% 35%	32% 39%	9% 14%	2% 5%	7% 12%	0% 1%	6% 11%	
4		32%	34%	13%	5%	8%	0%	7%	620
		29% 36%	31% 38%	11% 16%	4% 7%	6% 11%	0% 1%	5% 9%	
5 (most deprived)		34%	34%	12%	5%	10%	0%	6%	522
		30% 38%	31% 39%	9% 15%	3% 7%	7% 12%	0% 1%	4% 8%	
All quintiles		32%	34%	12%	5%	8%	0%	9%	2,733
		31% 34%	32% 36%	11% 13%	4% 6%	7% 9%	0% 1%	8% 10%	

Percentage of patients by Route and deprivation quintile for vulval cancer, 2006-2008, England





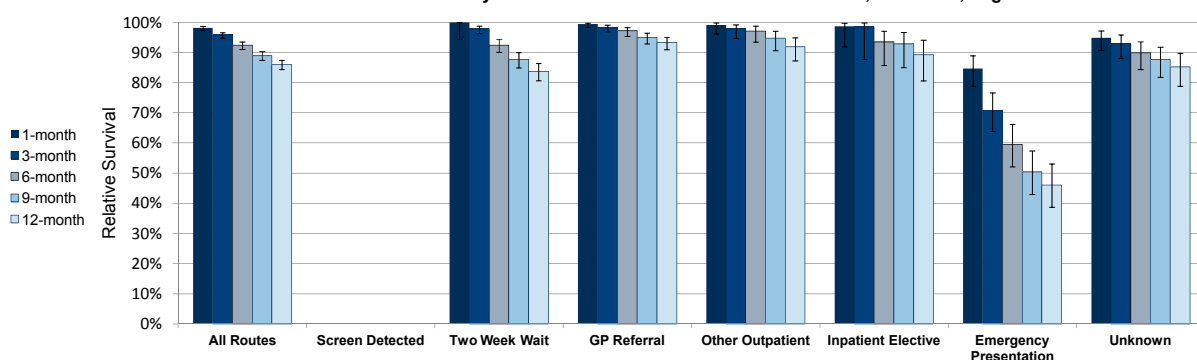
## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C51: Vulva

#### Relative survival estimates by Route and survival interval

Age group	Survival interval	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
All ages	1-month	98%		100%	99%	99%	99%	85%	95%
		97% 99%		94% 100%	98% 100%	96% 100%	92% 100%	79% 89%	91% 97%
	3-month	96%		98%	98%	98%	99%	71%	93%
		95% 97%		96% 99%	97% 99%	95% 99%	88% 100%	64% 77%	88% 96%
	6-month	92%		92%	97%	97%	93%	60%	90%
		91% 93%		90% 94%	95% 98%	93% 99%	86% 97%	52% 66%	84% 94%
	9-month	89%		88%	95%	95%	93%	50%	88%
		87% 90%		85% 90%	93% 96%	91% 97%	85% 97%	43% 57%	82% 92%
	12-month	86%		84%	93%	92%	89%	46%	85%
		84% 87%		81% 86%	91% 95%	87% 95%	81% 94%	39% 53%	79% 90%
	Number in cohort	2,701		879	923	323	130	211	235

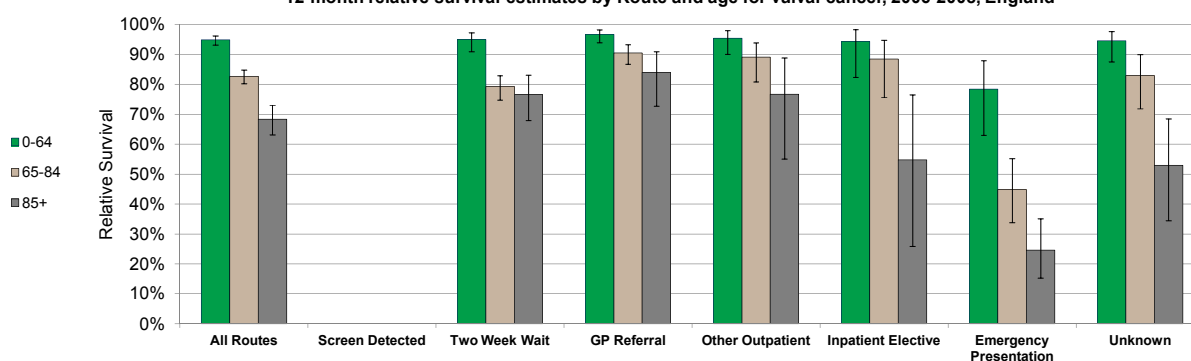
Relative survival estimates by Route and survival interval for vulval cancer, 2006-2008, England



#### 12-month relative survival estimates by Route and age group

Survival interval	Age group	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
12-month	0-64	95%		95%	97%	95%	94%	78%	95%
		93% 96%		91% 97%	94% 98%	90% 98%	82% 98%	63% 88%	88% 98%
	Number in cohort	903		221	343	142	50	45	102
	65-84	83%		79%	90%	89%	88%	45%	83%
		80% 85%		75% 83%	87% 93%	81% 94%	76% 95%	34% 55%	72% 90%
	Number in cohort	1,281		462	441	138	63	87	90
	85+	68%		77%	84%	77%	55%	25%	53%
		63% 73%		68% 83%	73% 91%	55% 89%	26% 76%	15% 35%	34% 68%
	Number in cohort	517		196	139	43	17	79	43

12-month relative survival estimates by Route and age for vulval cancer, 2006-2008, England



#### Comments

A third of vulval cancer patients are diagnosed through the "Two Week Wait" Route whilst a similar proportion are also diagnosed through the GP referral Route. 12 month survival is higher for non-TWW GP referred patients which would be consistent with earlier diagnosis before red flag symptoms have presented. The symptoms that women with vulval cancer experience are often mistaken for innocent benign conditions such as candidiasis, and GPs need to be encouraged to examine women with vulval symptoms in order to aid early detection of vulval malignancy and increase the proportion of women referred before they have symptoms that lead to TWW referrals. Early diagnosis is paramount, as women with early stage disease have an excellent prognosis, but surgery for large advanced tumours is associated with markedly increased morbidity and patients with metastatic disease have a much poorer prognosis. Women who present with advanced disease via an emergency presentation have a significantly poorer one year survival, particularly in advanced age groups.

## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C53: Cervix

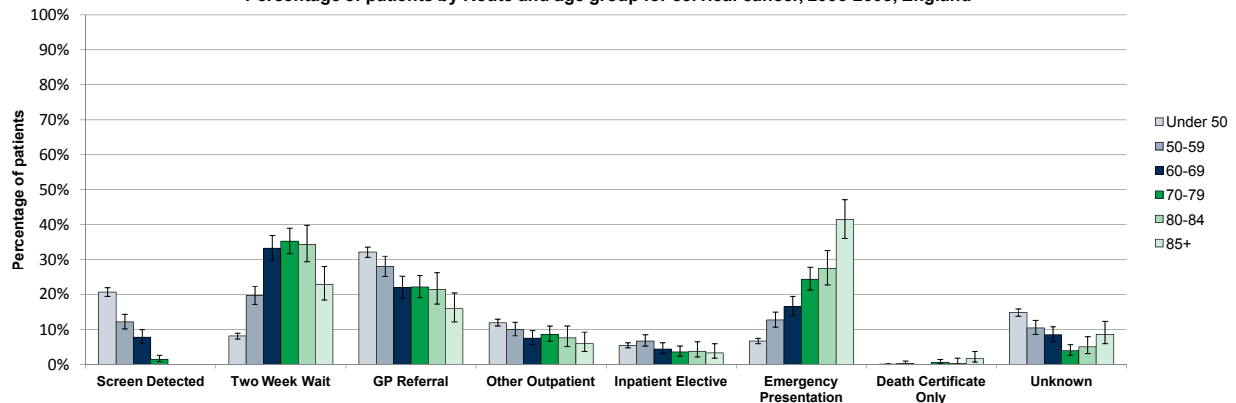
#### Introduction

The percentage of patients diagnosed through each Route is presented with 95% confidence intervals, with results broken down by age group and deprivation quintile. Relative survival estimates for 1, 3, 6, 9 and 12 months are also shown by Route with the exception of Death Certificate Only. 12 month relative survival estimates are also presented by age group. These data are a selection of the available Routes to Diagnosis data. Please see [www.ncin.org.uk](http://www.ncin.org.uk) for more information.

#### Percentage of patients by Route and age group

Age group	Screen Detected		Two Week Wait		GP Referral		Other Outpatient		Inpatient Elective		Emergency Presentation		Death Certificate Only		Unknown		Number of cases
Under 50	21%		8%		32%		12%		5%		7%		0%		15%		4,115
	20%	22%	7%	9%	31%	34%	11%	13%	5%	6%	6%	8%	0%	0%	14%	16%	
50-59	12%		20%		28%		10%		7%		13%		0%		10%		921
	10%	14%	17%	22%	25%	31%	8%	12%	5%	9%	11%	15%	0%	1%	9%	13%	
60-69	8%		33%		22%		7%		4%		17%				9%		682
	6%	10%	30%	37%	19%	25%	6%	10%	3%	6%	14%	20%			7%	11%	
70-79	2%		35%		22%		9%		4%		24%		1%		4%		664
	1%	3%	32%	39%	19%	26%	7%	11%	2%	5%	21%	28%	0%	2%	3%	6%	
80-84			34%		21%		8%		4%		27%		0%		5%		317
			29%	40%	17%	26%	5%	11%	2%	7%	23%	33%	0%	2%	3%	8%	
85+			23%		16%		6%		3%		42%		2%		9%		301
			19%	28%	12%	21%	4%	9%	2%	6%	36%	47%	1%	4%	6%	12%	
All ages	15%		17%		28%		10%		5%		13%		0%		12%		7,000
	14%	16%	16%	17%	27%	30%	10%	11%	5%	6%	12%	13%	0%	0%	11%	13%	

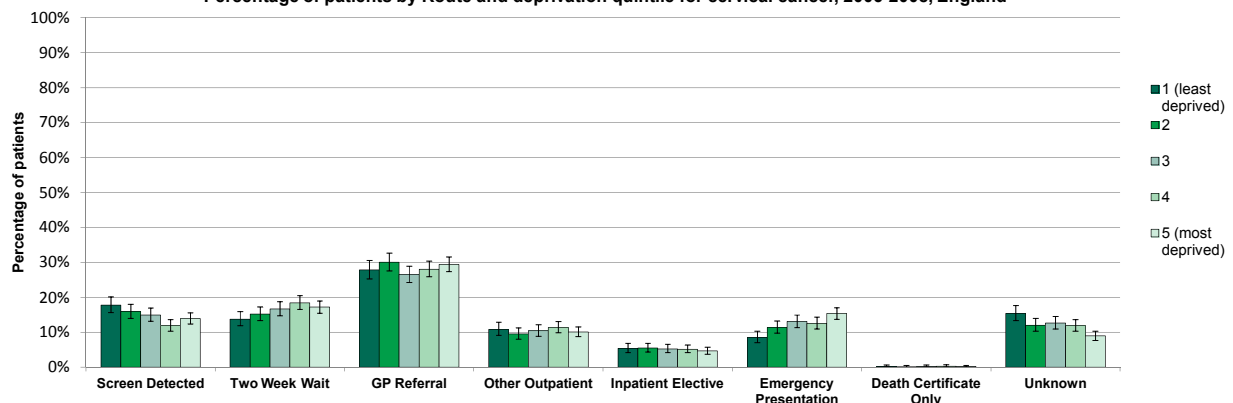
Percentage of patients by Route and age group for cervical cancer, 2006-2008, England



#### Percentage of patients by Route and deprivation quintile

Deprivation group	Screen Detected		Two Week Wait		GP Referral		Other Outpatient		Inpatient Elective		Emergency Presentation		Death Certificate Only		Unknown		Number of cases
1 (least deprived)	18%		14%		28%		11%		5%		9%		0%		15%		1,094
	16%	20%	12%	16%	25%	31%	9%	13%	4%	7%	7%	10%	0%	1%	13%	18%	
2	16%		15%		30%		10%		6%		11%		0%		12%		1,253
	14%	18%	13%	17%	28%	33%	8%	11%	4%	7%	10%	13%	0%	1%	10%	14%	
3	15%		17%		27%		10%		5%		13%		0%		13%		1,348
	13%	17%	15%	19%	24%	29%	9%	12%	4%	7%	11%	15%	0%	1%	11%	15%	
4	12%		18%		28%		11%		5%		13%		0%		12%		1,499
	10%	14%	17%	21%	26%	30%	10%	13%	4%	6%	11%	14%	0%	1%	10%	14%	
5 (most deprived)	14%		17%		29%		10%		5%		15%		0%		9%		1,806
	12%	16%	16%	19%	27%	32%	9%	12%	4%	6%	14%	17%	0%	1%	8%	10%	
All quintiles	15%		17%		28%		10%		5%		13%		0%		12%		7,000
	14%	16%	16%	17%	27%	30%	10%	11%	5%	6%	12%	13%	0%	0%	11%	13%	

Percentage of patients by Route and deprivation quintile for cervical cancer, 2006-2008, England



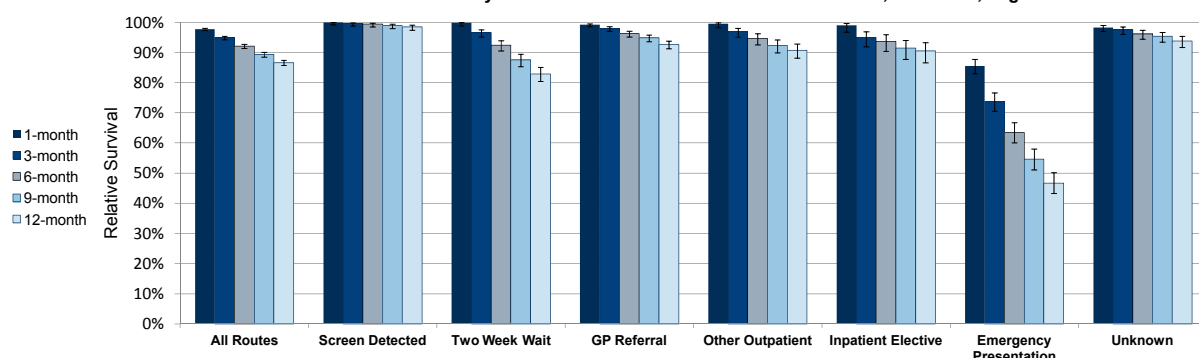
## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C53: Cervix

#### Relative survival estimates by Route and survival interval

Age group	Survival interval	All Routes		Screen Detected		Two Week Wait		GP Referral		Other Outpatient		Inpatient Elective		Emergency Presentation		Unknown	
All ages	1-month	98%		100%		100%		99%		99%		99%		86%		98%	
		97%	98%	99%	100%	99%	100%	99%	100%	98%	100%	97%	100%	83%	88%	97%	99%
	3-month	95%		99%		97%		98%		97%		95%		74%		98%	
		94%	95%	99%	100%	95%	98%	97%	99%	95%	98%	92%	97%	71%	77%	96%	98%
	6-month	92%		99%		92%		96%		95%		94%		63%		96%	
		91%	93%	98%	100%	91%	94%	95%	97%	93%	96%	90%	96%	60%	67%	94%	97%
	9-month	89%		99%		88%		95%		92%		91%		55%		95%	
		89%	90%	98%	99%	85%	89%	94%	96%	90%	94%	88%	94%	51%	58%	93%	97%
	12-month	87%		99%		83%		93%		91%		90%		47%		94%	
		86%	87%	97%	99%	80%	85%	91%	94%	88%	93%	87%	93%	43%	50%	92%	95%
Number in cohort		6.950		1.027		1.155		1.990		730		361		855		832	

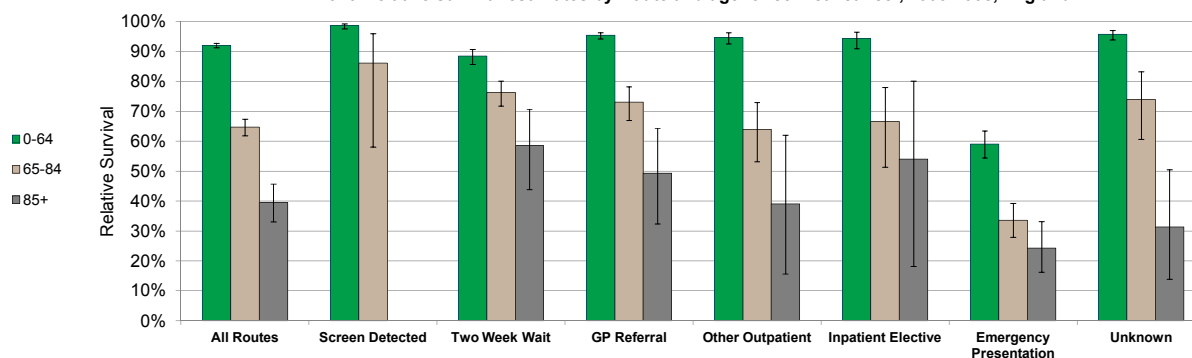
Relative survival estimates by Route and survival interval for cervical cancer, 2006-2008, England



#### 12-month relative survival estimates by Route and age group

Survival interval	Age group	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
12-month	0-64	92%	99%	88%	95%	95%	94%	59%	96%
		91% 93%	98% 99%	86% 91%	94% 96%	93% 96%	91% 96%	54% 63%	94% 97%
	Number in cohort	5,415	1,008	628	1,672	612	298	458	739
	65-84	65%	86%	76%	73%	64%	67%	34%	74%
		62% 67%	58% 96%	72% 80%	67% 78%	53% 73%	51% 78%	28% 39%	61% 83%
	Number in cohort	1,251	19	458	272	101	53	281	67
	85+	39%		59%	49%	39%	54%	24%	31%
		33% 46%		44% 71%	32% 64%	16% 62%	18% 80%	16% 33%	14% 51%
	Number in cohort	284		69	46	17	10	116	26

12-month relative survival estimates by Route and age for cervical cancer, 2006-2008, England



#### Comments

Cases of cervical cancer present by a wide range of routes, with wide variation between age cohorts. This partly reflects the screening programme which ceases at 65 years of age. There are known data issues with screening data for cervical patients and the 15% shown is very likely to under record the proportion of screen detected cervical cancers. Symptomatic women are more likely to be referred through GP referral routes other than the "Two Week Wait" pathway, which could indicate a lack of awareness amongst general practitioners of cervical cancer as potential diagnosis for women presenting with abnormal vaginal bleeding including post-coital bleeding, and vaginal discharge. Patients with advanced disease are more likely to be diagnosed through the Emergency Presentation Route and this becomes more frequent with increasing age and deprivation. The one year prognosis is generally good for all Routes to Diagnosis with the exception of the Emergency Presentation Route, which has a one year survival of only 47% compared to the overall one year survival estimate for cervical cancer of 87%.

## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C54-C55: Uterus

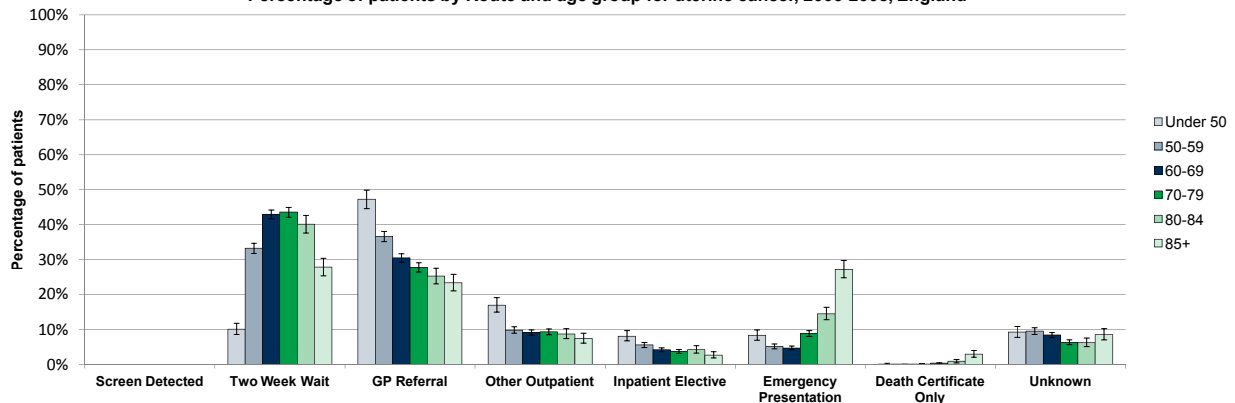
#### Introduction

The percentage of patients diagnosed through each Route is presented with 95% confidence intervals, with results broken down by age group and deprivation quintile. Relative survival estimates for 1, 3, 6, 9 and 12 months are also shown by Route with the exception of Death Certificate Only. 12 month relative survival estimates are also presented by age group. These data are a selection of the available Routes to Diagnosis data. Please see [www.ncin.org.uk](http://www.ncin.org.uk) for more information.

#### Percentage of patients by Route and age group

Age group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
Under 50		10%	47%	17%	8%	8%	0%	9%	1,332
		9% 12%	45% 50%	15% 19%	7% 10%	7% 10%	0% 0%	8% 11%	
50-59		33%	37%	10%	6%	5%	0%	10%	4,027
		32% 35%	35% 38%	9% 11%	5% 6%	5% 6%	0% 0%	9% 11%	
60-69		43%	30%	9%	4%	5%	0%	8%	5,872
		42% 44%	29% 32%	8% 10%	4% 5%	4% 5%	0% 0%	8% 9%	
70-79		44%	28%	9%	4%	9%	0%	6%	4,537
		42% 45%	27% 29%	9% 10%	3% 4%	8% 10%	0% 1%	6% 7%	
80-84		40%	25%	9%	4%	14%	1%	6%	1,456
		38% 43%	23% 28%	7% 10%	3% 5%	13% 16%	1% 2%	5% 8%	
85+		28%	23%	7%	3%	27%	3%	9%	1,238
		25% 30%	21% 26%	6% 9%	2% 4%	25% 30%	2% 4%	7% 10%	
All ages		37%	31%	10%	5%	8%	0%	8%	18,462
		37% 38%	31% 32%	9% 10%	4% 5%	8% 9%	0% 1%	8% 9%	

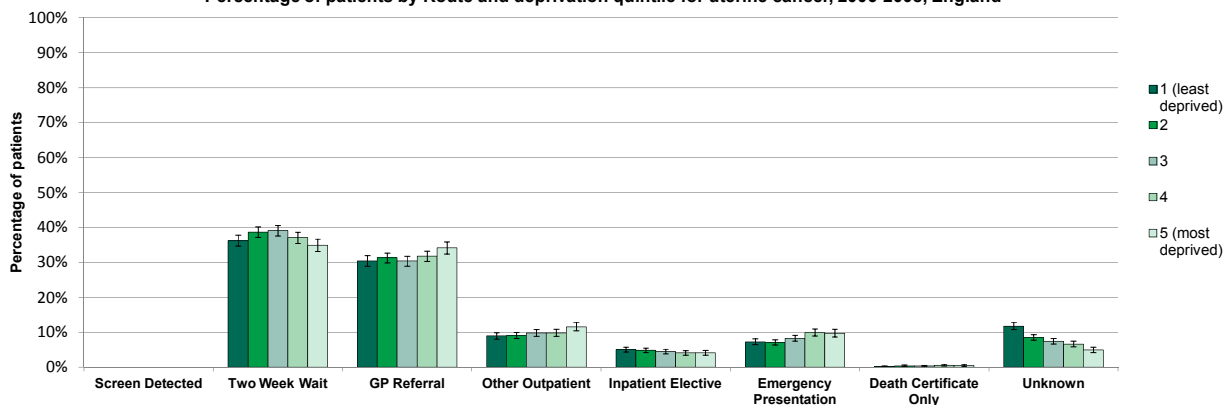
Percentage of patients by Route and age group for uterine cancer, 2006-2008, England



#### Percentage of patients by Route and deprivation quintile

Deprivation group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
1 (least deprived)		36%	30%	9%	5%	7%	0%	12%	3,797
		35% 38%	29% 32%	8% 10%	4% 6%	7% 8%	0% 0%	11% 13%	
2		39%	31%	9%	5%	7%	0%	9%	4,182
		37% 40%	30% 33%	8% 10%	4% 6%	6% 8%	0% 1%	8% 9%	
3		39%	30%	10%	5%	8%	0%	7%	4,042
		38% 41%	29% 32%	9% 11%	4% 5%	8% 9%	0% 1%	7% 8%	
4		37%	32%	10%	4%	10%	1%	7%	3,614
		36% 39%	30% 33%	9% 11%	4% 5%	9% 11%	0% 1%	6% 8%	
5 (most deprived)		35%	34%	12%	4%	10%	0%	5%	2,827
		33% 37%	32% 36%	11% 13%	4% 5%	9% 11%	0% 1%	4% 6%	
All quintiles		37%	31%	10%	5%	8%	0%	8%	18,462
		37% 38%	31% 32%	9% 10%	4% 5%	8% 9%	0% 1%	8% 9%	

Percentage of patients by Route and deprivation quintile for uterine cancer, 2006-2008, England



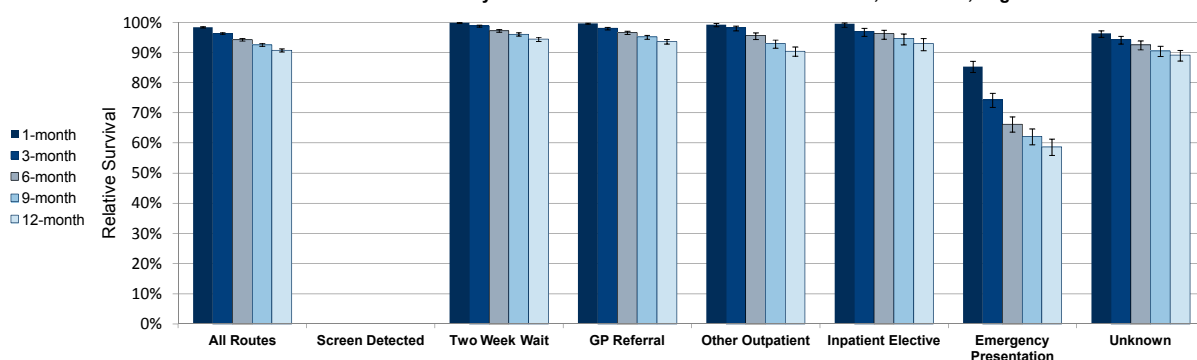
## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C54-C55: Uterus

Relative survival estimates by Route and survival interval

Age group	Survival interval	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
All ages	1-month	98%		100%	100%	99%	99%	85%	96%
		98% 99%		100% 100%	99% 100%	99% 100%	98% 100%	83% 87%	95% 97%
	3-month	96%		99%	98%	98%	97%	74%	94%
		96% 97%		98% 99%	98% 98%	97% 99%	95% 98%	72% 76%	93% 95%
	6-month	94%		97%	97%	96%	96%	66%	93%
		94% 95%		97% 98%	96% 97%	94% 97%	94% 97%	64% 69%	91% 94%
	9-month	93%		96%	95%	93%	95%	62%	91%
		92% 93%		95% 97%	94% 96%	91% 94%	93% 96%	59% 65%	89% 92%
	12-month	91%		94%	94%	90%	93%	59%	89%
		90% 91%		94% 95%	93% 94%	89% 92%	91% 95%	56% 61%	87% 91%
	Number in cohort	18,259		6,898	5,796	1,785	840	1,460	1,480

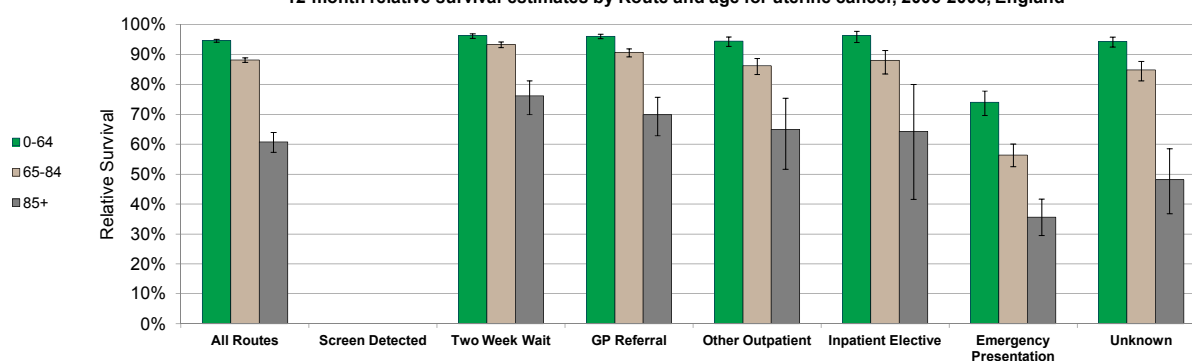
Relative survival estimates by Route and survival interval for uterine cancer, 2006-2008, England



12-month relative survival estimates by Route and age group

Survival interval	Age group	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
12-month	0-64	95%		96%	96%	94%	96%	74%	94%
		94% 95%		95% 97%	95% 97%	93% 96%	94% 98%	70% 78%	92% 96%
	Number in cohort	8,470		2,799	3,054	903	467	449	798
	65-84	88%		93%	91%	86%	88%	56%	85%
		87% 89%		92% 94%	89% 92%	83% 89%	84% 91%	53% 60%	81% 88%
	Number in cohort	8,657		3,756	2,459	798	344	720	580
	85+	61%		76%	70%	65%	64%	36%	48%
		57% 64%		70% 81%	63% 76%	52% 75%	42% 80%	30% 42%	37% 59%
	Number in cohort	1,132		343	283	84	29	291	102

12-month relative survival estimates by Route and age for uterine cancer, 2006-2008, England



#### Comments

Post-menopausal bleeding is a classic symptom which should trigger a "Two Week Wait" referral. Nearly 40% of patients are diagnosed through this Route. A further 31% of women are diagnosed from non Two Week Wait "gp referral" Routes which may represent a lack of awareness of referral criteria. However, one year survival for both of these Routes is very similar. The patients who have a significantly poorer one year survival are patients diagnosed through the Emergency Presentation Route, which is seen disproportionately more frequently amongst elderly women aged 80 years or over.

## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C56: Ovary

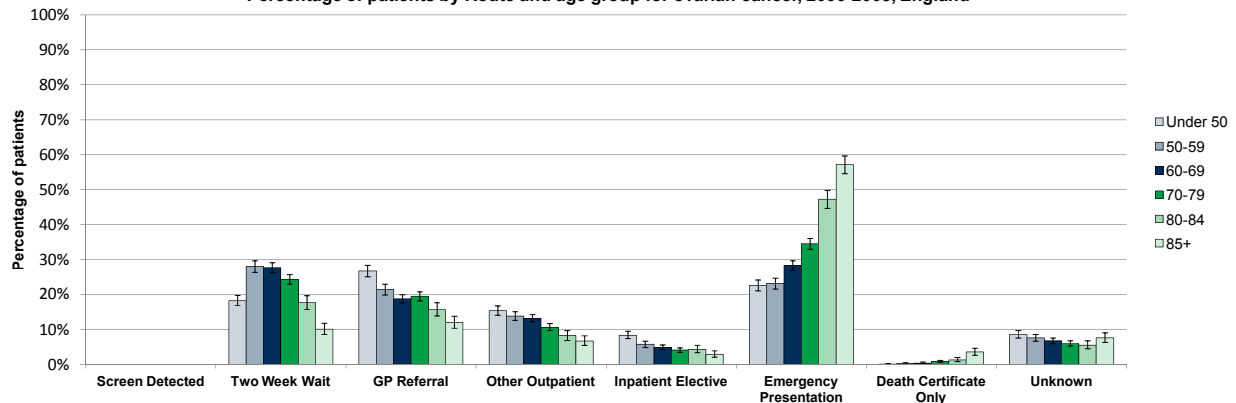
#### Introduction

The percentage of patients diagnosed through each Route is presented with 95% confidence intervals, with results broken down by age group and deprivation quintile. Relative survival estimates for 1, 3, 6, 9 and 12 months are also shown by Route with the exception of Death Certificate Only. 12 month relative survival estimates are also presented by age group. These data are a selection of the available Routes to Diagnosis data. Please see [www.ncin.org.uk](http://www.ncin.org.uk) for more information.

#### Percentage of patients by Route and age group

Age group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
Under 50		18%	27%	15%	8%	23%	0%	9%	2,721
		17% 20%	25% 28%	14% 17%	7% 10%	21% 24%	0% 0%	8% 10%	
50-59		28%	21%	14%	6%	23%	0%	8%	2,822
		26% 30%	20% 23%	13% 15%	5% 7%	22% 25%	0% 1%	7% 9%	
60-69		28%	19%	13%	5%	28%	0%	7%	3,958
		26% 29%	18% 20%	12% 14%	4% 6%	27% 30%	0% 1%	6% 8%	
70-79		24%	20%	11%	4%	35%	1%	6%	3,646
		23% 26%	18% 21%	10% 12%	4% 5%	33% 36%	1% 1%	5% 7%	
80-84		18%	16%	8%	4%	47%	1%	6%	1,483
		16% 20%	14% 18%	7% 10%	3% 6%	45% 50%	1% 2%	5% 7%	
85+		10%	12%	7%	3%	57%	4%	8%	1,396
		9% 12%	10% 14%	6% 8%	2% 4%	55% 60%	3% 5%	6% 9%	
All ages		23%	20%	12%	5%	32%	1%	7%	16,026
		22% 24%	19% 21%	12% 13%	5% 6%	31% 33%	1% 1%	7% 7%	

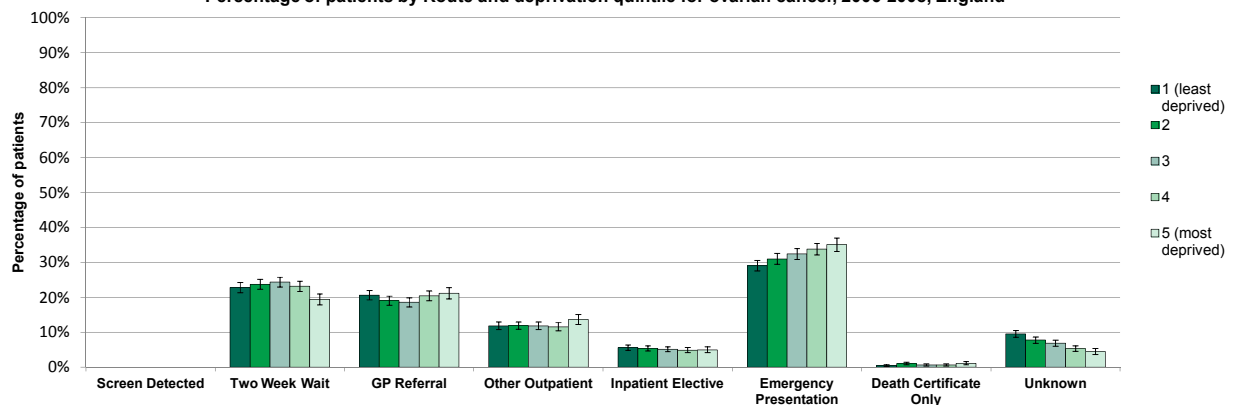
Percentage of patients by Route and age group for ovarian cancer, 2006-2008, England



#### Percentage of patients by Route and deprivation quintile

Deprivation group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
1 (least deprived)		23%	21%	12%	6%	29%	0%	10%	3,339
		21% 24%	19% 22%	11% 13%	5% 6%	28% 31%	0% 1%	9% 11%	
2		24%	19%	12%	5%	31%	1%	8%	3,521
		22% 25%	18% 20%	11% 13%	5% 6%	30% 33%	1% 2%	7% 9%	
3		24%	19%	12%	5%	32%	1%	7%	3,578
		23% 26%	17% 20%	11% 13%	5% 6%	31% 34%	0% 1%	6% 8%	
4		23%	20%	12%	5%	34%	1%	5%	3,118
		22% 25%	19% 22%	11% 13%	4% 6%	32% 36%	0% 1%	5% 6%	
5 (most deprived)		19%	21%	14%	5%	35%	1%	4%	2,470
		18% 21%	20% 23%	12% 15%	4% 6%	33% 37%	1% 2%	4% 5%	
All quintiles		23%	20%	12%	5%	32%	1%	7%	16,026
		22% 24%	19% 21%	12% 13%	5% 6%	31% 33%	1% 1%	7% 7%	

Percentage of patients by Route and deprivation quintile for ovarian cancer, 2006-2008, England



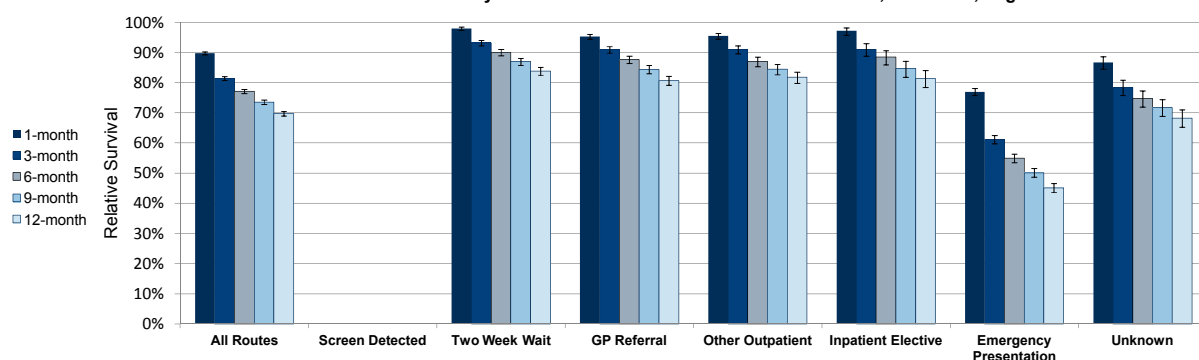
## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C56: Ovary

#### Relative survival estimates by Route and survival interval

Age group	Survival interval	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
All ages	1-month	90%		98%	95%	95%	97%	77%	87%
		89% 90%		97% 98%	94% 96%	94% 96%	96% 98%	76% 78%	85% 89%
	3-month	81%		93%	91%	91%	91%	61%	78%
		81% 82%		92% 94%	90% 92%	90% 92%	89% 93%	60% 63%	76% 81%
	6-month	77%		90%	88%	87%	88%	55%	75%
		76% 78%		89% 91%	86% 89%	85% 89%	86% 91%	54% 56%	72% 77%
	9-month	74%		87%	84%	84%	85%	50%	72%
		73% 74%		86% 88%	83% 86%	83% 86%	82% 87%	49% 52%	69% 74%
	12-month	70%		84%	81%	82%	81%	45%	68%
		69% 70%		82% 85%	79% 82%	80% 84%	78% 84%	44% 47%	65% 71%
	Number in cohort	15,613		3,672	3,161	1,907	827	4,930	1,116

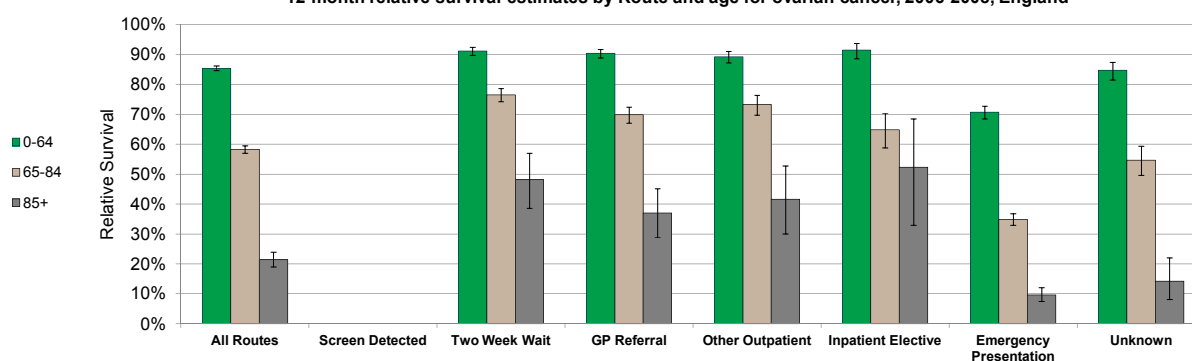
Relative survival estimates by Route and survival interval for ovarian cancer, 2006-2008, England



#### 12-month relative survival estimates by Route and age group

Survival interval	Age group	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
12-month	0-64	85%		91%	90%	89%	91%	71%	85%
		85% 86%		90% 92%	89% 92%	87% 91%	89% 94%	68% 73%	81% 87%
	Number in cohort	7,530		1,862	1,732	1,073	494	1,784	585
	65-84	58%		76%	70%	73%	65%	35%	55%
		57% 59%		74% 79%	67% 72%	70% 76%	59% 70%	33% 37%	50% 59%
	Number in cohort	6,857		1,670	1,268	748	296	2,446	429
	85+	21%		48%	37%	42%	52%	10%	14%
		19% 24%		39% 57%	29% 45%	30% 53%	33% 68%	7% 12%	8% 22%
	Number in cohort	1,226		140	161	86	37	700	102

12-month relative survival estimates by Route and age for ovarian cancer, 2006-2008, England



#### Comments

Ovarian cancer frequently presents as advanced disease, and symptoms of early disease are often quite vague and frequently overlooked by patients or mis-diagnosed by general practitioners. Thus emergency presentation is sadly the most common form of presentation for ovarian cancer (32% overall), and this group have a significantly worse prognosis than women diagnosed by other routes. Of those diagnosed through a GP managed Route a similar proportion are diagnosed through a GP referral (20%) as a Two Week Wait Route (23%), with better 12 month survival for TWW patients for women aged over 65. NAEDI and other awareness initiatives and campaigns are designed to raise awareness of the symptoms of ovarian cancer amongst patients and promote appropriate investigations and Two Week Wait referrals for women with ovarian cancer.

## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C61: Prostate

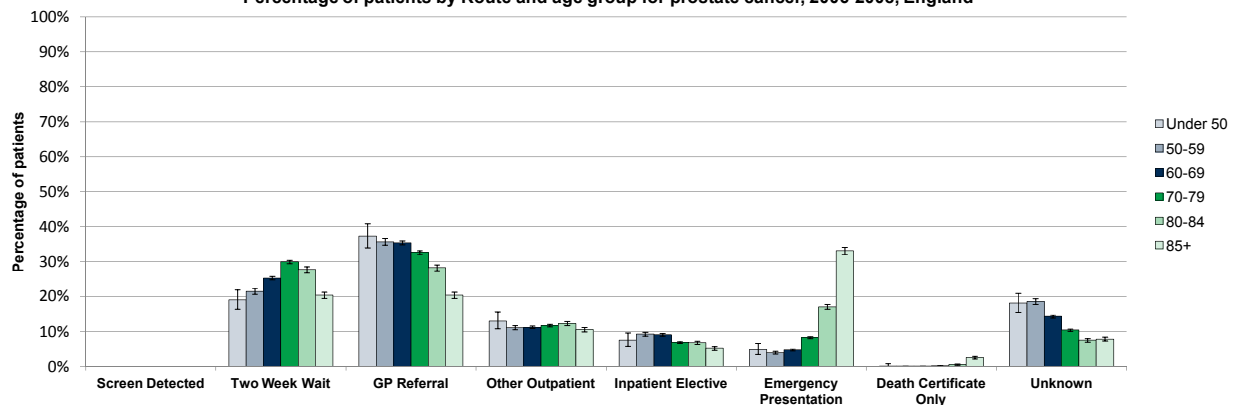
#### Introduction

The percentage of patients diagnosed through each Route is presented with 95% confidence intervals, with results broken down by age group and deprivation quintile. Relative survival estimates for 1, 3, 6, 9 and 12 months are also shown by Route with the exception of Death Certificate Only. 12 month relative survival estimates are also presented by age group. These data are a selection of the available Routes to Diagnosis data. Please see [www.ncin.org.uk](http://www.ncin.org.uk) for more information.

#### Percentage of patients by Route and age group

Age group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
Under 50		19%	37%	13%	8%	5%	0%	18%	745
50-59		21%	36%	11%	9%	4%	0%	19%	9,310
60-69		25%	35%	11%	9%	5%	0%	14%	29,487
70-79		30%	33%	12%	7%	8%	0%	10%	34,575
80-84		28%	28%	12%	7%	17%	1%	8%	10,817
85+		20%	20%	11%	5%	33%	3%	8%	7,988
All ages		26%	32%	11%	8%	10%	0%	12%	92,922

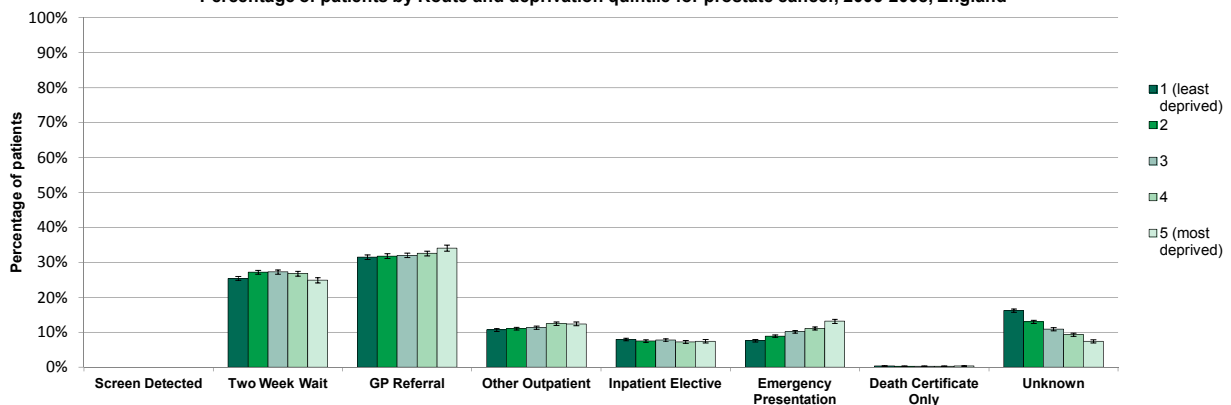
Percentage of patients by Route and age group for prostate cancer, 2006-2008, England



#### Percentage of patients by Route and deprivation quintile

Deprivation group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
1 (least deprived)		25%	32%	11%	8%	8%	0%	16%	22,444
2		27%	32%	11%	8%	9%	0%	13%	22,297
3		27%	32%	11%	8%	10%	0%	11%	19,753
4		27%	33%	12%	7%	11%	0%	9%	16,033
5 (most deprived)		25%	34%	12%	7%	13%	0%	7%	12,395
All quintiles		26%	32%	11%	8%	10%	0%	12%	92,922

Percentage of patients by Route and deprivation quintile for prostate cancer, 2006-2008, England





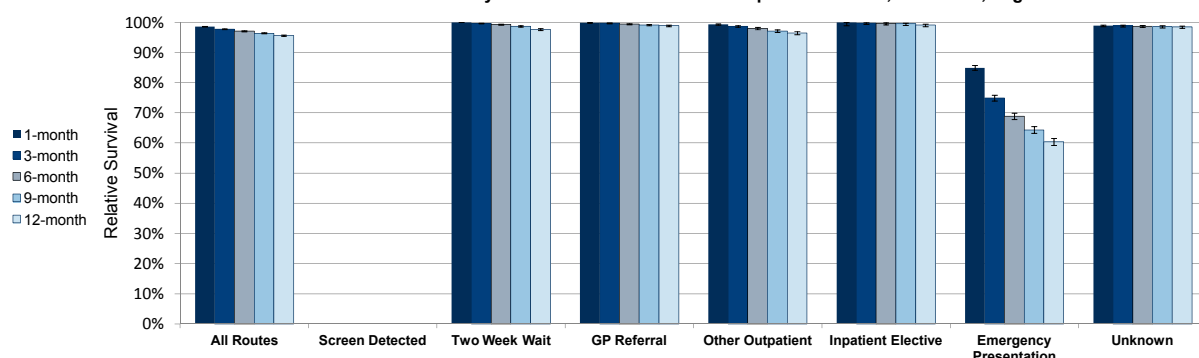
## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C61: Prostate

#### Relative survival estimates by Route and survival interval

Age group	Survival interval	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
All ages	1-month	99%		100%	100%	99%	100%	85%	99%
		99% 99%		100% 100%	100% 100%	99% 100%	99% 100%	84% 86%	99% 99%
	3-month	98%		100%	100%	99%	100%	75%	99%
		98% 98%		100% 100%	100% 100%	98% 99%	99% 100%	74% 76%	98% 99%
	6-month	97%		99%	99%	98%	100%	69%	99%
		97% 97%		99% 99%	99% 100%	98% 98%	99% 100%	68% 70%	98% 99%
	9-month	96%		99%	99%	97%	100%	64%	99%
		96% 97%		98% 99%	99% 99%	97% 98%	99% 100%	63% 65%	98% 99%
	12-month	96%		98%	99%	96%	99%	60%	98%
		95% 96%		97% 98%	99% 99%	96% 97%	99% 99%	59% 62%	98% 99%
	Number in cohort	91,459		24,551	29,812	10,543	7,071	8,367	11,115

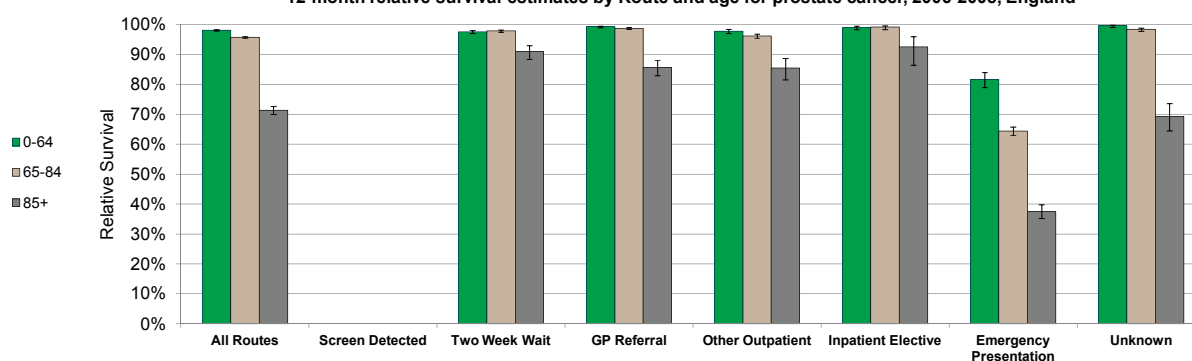
Relative survival estimates by Route and survival interval for prostate cancer, 2006-2008, England



#### 12-month relative survival estimates by Route and age group

Survival interval	Age group	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
12-month	0-64	98%		98%	99%	98%	99%	82%	100%
		98% 98%		97% 98%	99% 100%	97% 98%	98% 100%	79% 84%	99% 100%
	Number in cohort	22,815		5,247	8,059	2,566	2,122	964	3,857
	65-84	96%		98%	99%	96%	99%	64%	98%
		95% 96%		97% 98%	98% 99%	95% 97%	98% 100%	63% 66%	98% 99%
	Number in cohort	61,475		17,680	20,199	7,192	4,556	5,202	6,646
	85+	71%		91%	86%	86%	93%	37%	69%
		70% 73%		88% 93%	83% 88%	82% 89%	86% 96%	35% 40%	64% 74%
	Number in cohort	7,169		1,624	1,554	785	393	2,201	612

12-month relative survival estimates by Route and age for prostate cancer, 2006-2008, England



#### Comments

For prostate cancer there is a surprisingly low proportion of Two Week Wait referrals and a marked fall in GP Referral by age countered by an increased proportion of Emergency Presentation in the elderly. One-year survival is very good for all Routes with the exception of Emergency Presentation which is even more marked in the elderly. This is likely to reflect symptomatic disease either locally advanced leading to renal failure or metastases presenting as bone pain. The effect of Emergency Presentation is likely to be magnified by a high proportion of patients in Two Week Wait and GP Referral having low risk or incidental disease detected by PSA testing and TURP.

## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C62: Testis

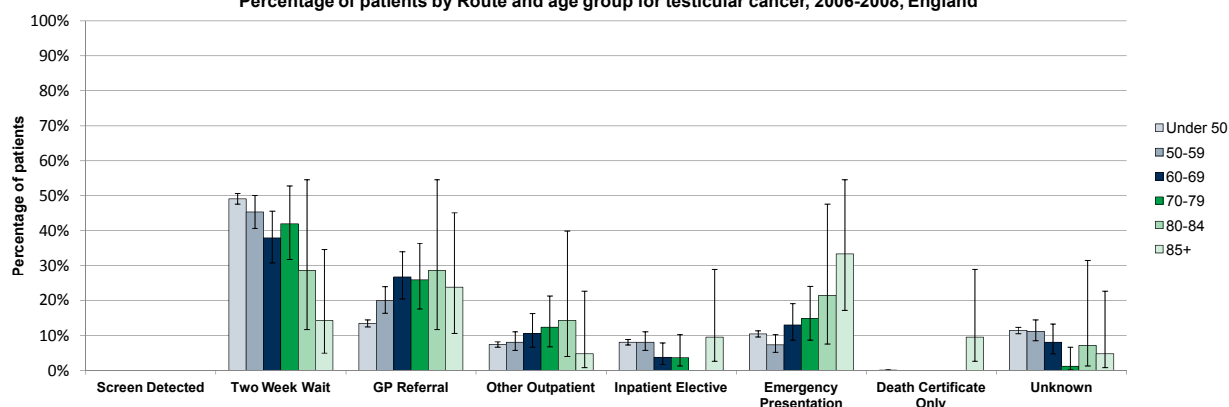
#### Introduction

The percentage of patients diagnosed through each Route is presented with 95% confidence intervals, with results broken down by age group and deprivation quintile. Relative survival estimates for 1, 3, 6, 9 and 12 months are also shown by Route with the exception of Death Certificate Only. 12 month relative survival estimates are also presented by age group. These data are a selection of the available Routes to Diagnosis data. Please see [www.ncin.org.uk](http://www.ncin.org.uk) for more information.

#### Percentage of patients by Route and age group

Age group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
Under 50		49%	13%	7%	8%	10%	0%	11%	4,372
		48% 51%	13% 15%	7% 8%	7% 9%	10% 11%	0% 0%	11% 12%	
50-59		45%	20%	8%	8%	7%		11%	421
		41% 50%	16% 24%	6% 11%	6% 11%	5% 10%		9% 15%	
60-69		38%	27%	11%	4%	13%		8%	161
		31% 46%	21% 34%	7% 16%	2% 8%	9% 19%		5% 13%	
70-79		42%	26%	12%	4%	15%		1%	81
		32% 53%	18% 36%	7% 21%	1% 10%	9% 24%		0% 7%	
80-84		29%	29%	14%		21%		7%	14
		12% 55%	12% 55%	4% 40%		8% 48%		1% 32%	
85+		14%	24%	5%	10%	33%	10%	5%	21
		5% 35%	11% 45%	1% 23%	3% 29%	17% 55%	3% 29%	1% 23%	
All ages		48%	15%	8%	8%	10%	0%	11%	5,070
		47% 50%	14% 16%	7% 8%	7% 9%	10% 11%	0% 0%	10% 12%	

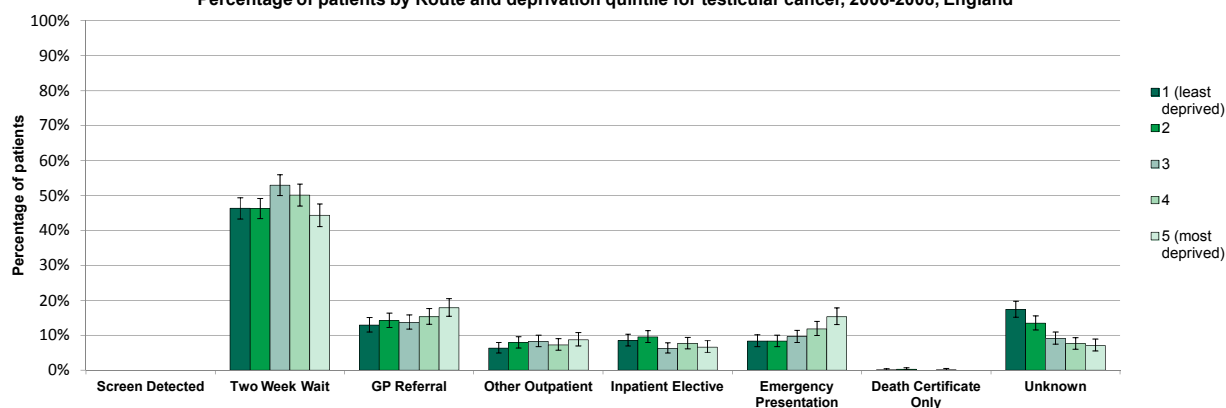
Percentage of patients by Route and age group for testicular cancer, 2006-2008, England



#### Percentage of patients by Route and deprivation quintile

Deprivation group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
1 (least deprived)		46%	13%	6%	9%	8%	0%	17%	1,029
		43% 49%	11% 15%	5% 8%	7% 10%	7% 10%	0% 1%	15% 20%	
2		46%	14%	8%	10%	8%	0%	13%	1,130
		43% 49%	12% 16%	6% 10%	8% 11%	7% 10%	0% 1%	12% 16%	
3		53%	14%	8%	6%	10%		9%	1,051
		50% 56%	12% 16%	7% 10%	5% 8%	8% 12%		8% 11%	
4		50%	15%	7%	8%	12%	0%	8%	987
		47% 53%	13% 18%	6% 9%	6% 10%	10% 14%	0% 1%	6% 9%	
5 (most deprived)		44%	18%	9%	7%	15%		7%	873
		41% 48%	16% 21%	7% 11%	5% 9%	13% 18%		6% 9%	
All quintiles		48%	15%	8%	8%	10%	0%	11%	5,070
		47% 50%	14% 16%	7% 8%	7% 9%	10% 11%	0% 0%	10% 12%	

Percentage of patients by Route and deprivation quintile for testicular cancer, 2006-2008, England



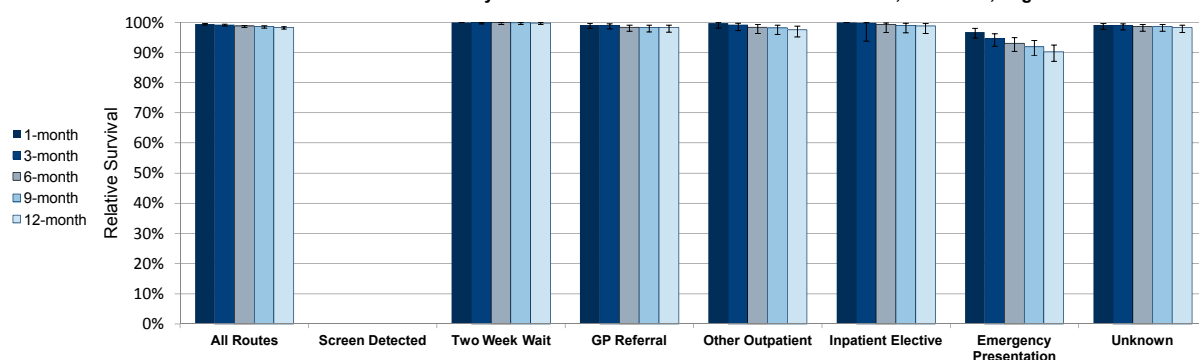
## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C62: Testis

Relative survival estimates by Route and survival interval

Age group	Survival interval	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
All ages	1-month	99%		100%	99%	100%	100%	97%	99%
		99%   100%		100%   100%	98%   100%	98%   100%	100%   100%	95%   98%	98%   100%
	3-month	99%		100%	99%	99%	100%	95%	99%
		99%   99%		99%   100%	98%   100%	97%   100%	94%   100%	92%   96%	98%   100%
	6-month	99%		100%	98%	98%	99%	93%	99%
		98%   99%		99%   100%	97%   99%	96%   99%	97%   100%	90%   95%	97%   99%
	9-month	99%		100%	98%	98%	99%	92%	99%
		98%   99%		99%   100%	97%   99%	96%   99%	97%   100%	89%   94%	97%   99%
	12-month	98%		100%	98%	98%	99%	90%	98%
		98%   99%		99%   100%	97%   99%	95%   99%	96%   100%	87%   92%	97%   99%
	Number in cohort	5,058		2,439	744	388	396	527	564

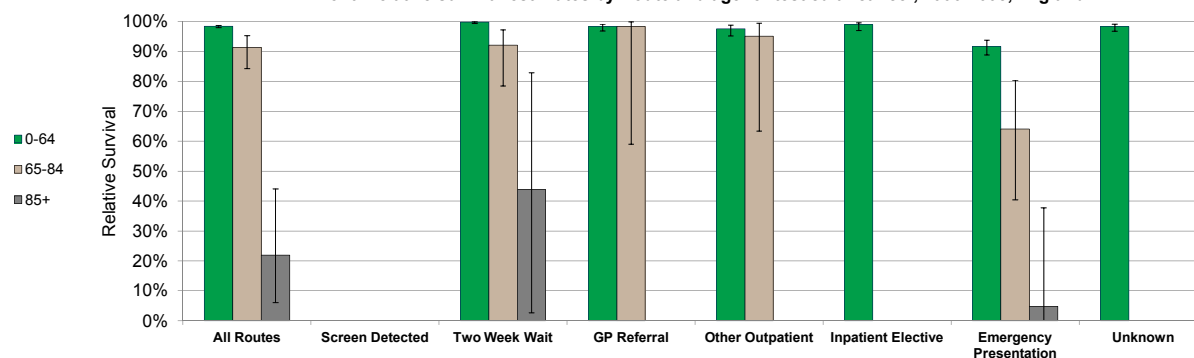
Relative survival estimates by Route and survival interval for testicular cancer, 2006-2008, England



12-month relative survival estimates by Route and age group

Survival interval	Age group	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
12-month	0-64	98%		100%	98%	98%	99%	92%	98%
		98%   99%		99%   100%	97%   99%	95%   99%	97%   100%	89%   94%	97%   99%
	65-84	91%		92%	98%	95%		64%	
		84%   95%		79%   97%	59%   100%	63%   99%		40%   80%	
	85+	22%		44%	48	18		5%	
		6%   44%		3%   83%				0%   38%	
	Number in cohort	4,878		2,374	692	369	389	497	557
	Number in cohort	163		62	48	18		24	
	Number in cohort	17		3	4		2	6	

12-month relative survival estimates by Route and age for testicular cancer, 2006-2008, England



#### Comments

Outcomes for nearly all Routes are very good, with deaths from testicular cancer being rare. However, survival for Emergency Presentations is significantly lower. This probably reflects symptomatic metastatic disease. A high proportion (almost 50%) of testicular cancers are referred via the Two Week Wait with very good survival.

## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

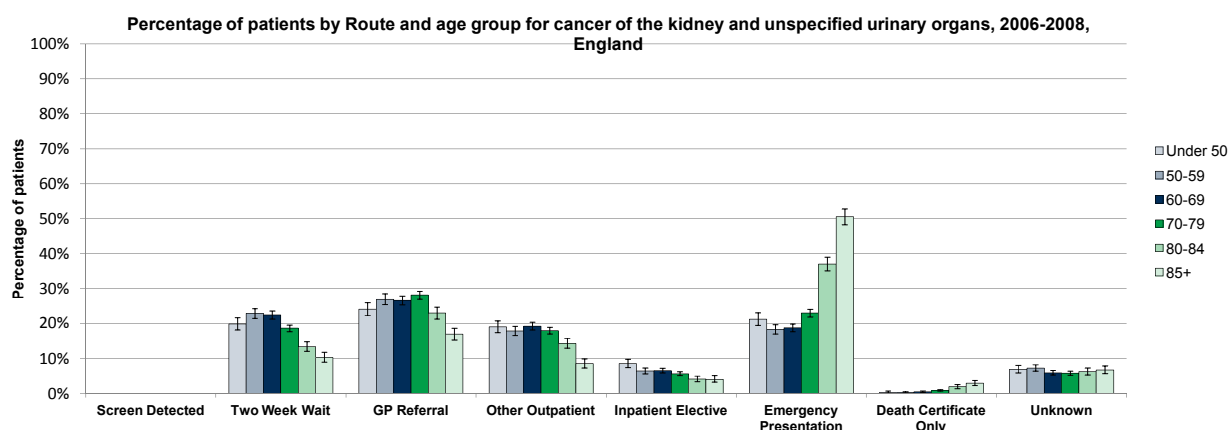
### C64-C66, C68: Kidney and unspecified urinary organs

#### Introduction

The percentage of patients diagnosed through each Route is presented with 95% confidence intervals, with results broken down by age group and deprivation quintile. Relative survival estimates for 1, 3, 6, 9 and 12 months are also shown by Route with the exception of Death Certificate Only. 12 month relative survival estimates are also presented by age group. These data are a selection of the available Routes to Diagnosis data. Please see [www.ncin.org.uk](http://www.ncin.org.uk) for more information.

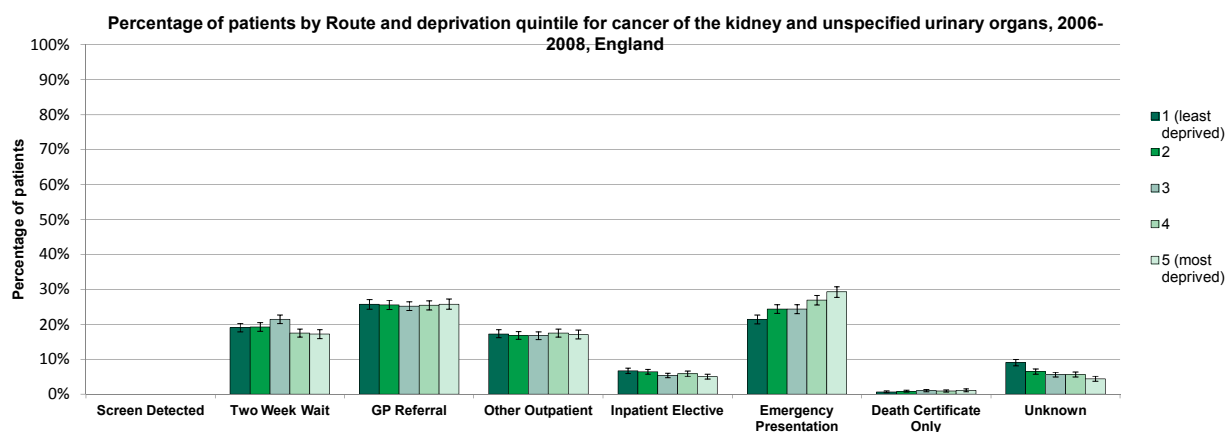
#### Percentage of patients by Route and age group

Age group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
Under 50		20%	24%	19%	9%	21%	0%	7%	1,974
		18% 22%	22% 26%	17% 21%	7% 10%	20% 23%	0% 1%	6% 8%	
50-59		23%	27%	18%	6%	18%	0%	7%	3,280
		22% 24%	26% 29%	17% 19%	6% 7%	17% 20%	0% 1%	6% 8%	
60-69		22%	27%	19%	7%	19%	0%	6%	5,076
		21% 24%	25% 28%	18% 20%	6% 7%	18% 20%	0% 1%	5% 7%	
70-79		19%	28%	18%	6%	23%	1%	6%	6,034
		18% 20%	27% 29%	17% 19%	5% 6%	22% 24%	1% 1%	5% 6%	
80-84		13%	23%	14%	4%	37%	2%	6%	2,338
		12% 15%	21% 25%	13% 16%	3% 5%	35% 39%	1% 3%	5% 7%	
85+		10%	17%	9%	4%	51%	3%	7%	1,892
		9% 12%	15% 19%	7% 10%	3% 5%	48% 53%	2% 4%	6% 8%	
All ages		19%	26%	17%	6%	25%	1%	6%	20,594
		19% 20%	25% 26%	17% 18%	6% 6%	25% 26%	1% 1%	6% 7%	



#### Percentage of patients by Route and deprivation quintile

Deprivation group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
1 (least deprived)		19%	26%	17%	7%	21%	1%	9%	4,108
		18% 20%	24% 27%	16% 19%	6% 8%	20% 23%	1% 1%	8% 10%	
2		19%	26%	17%	6%	24%	1%	6%	4,437
		18% 21%	24% 27%	16% 18%	6% 7%	23% 26%	1% 1%	6% 7%	
3		21%	25%	17%	5%	24%	1%	6%	4,409
		20% 23%	24% 27%	16% 18%	5% 6%	23% 26%	1% 1%	5% 6%	
4		18%	25%	17%	6%	27%	1%	6%	4,161
		16% 19%	24% 27%	16% 19%	5% 7%	26% 28%	1% 1%	5% 6%	
5 (most deprived)		17%	26%	17%	5%	29%	1%	4%	3,479
		16% 19%	24% 27%	16% 18%	4% 6%	28% 31%	1% 2%	4% 5%	
All quintiles		19%	26%	17%	6%	25%	1%	6%	20,594
		19% 20%	25% 26%	17% 18%	6% 6%	25% 26%	1% 1%	6% 7%	

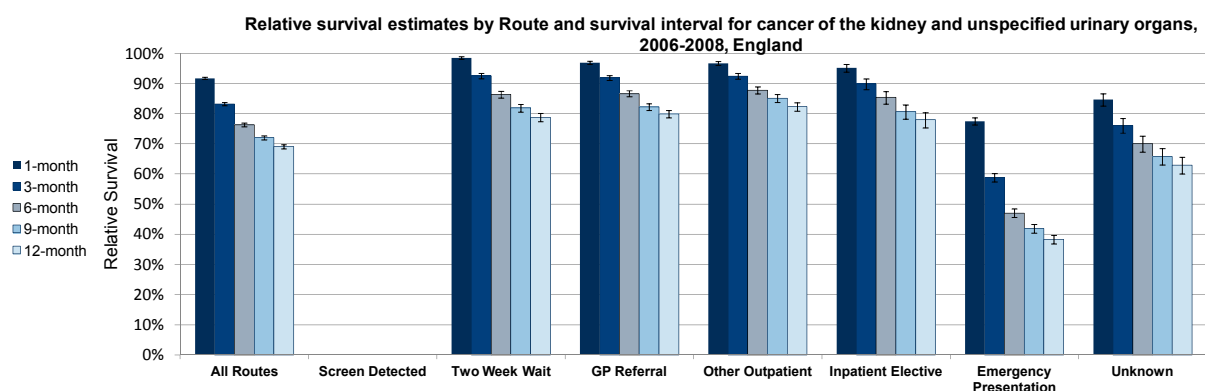


## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C64-C66, C68: Kidney and unspecified urinary organs

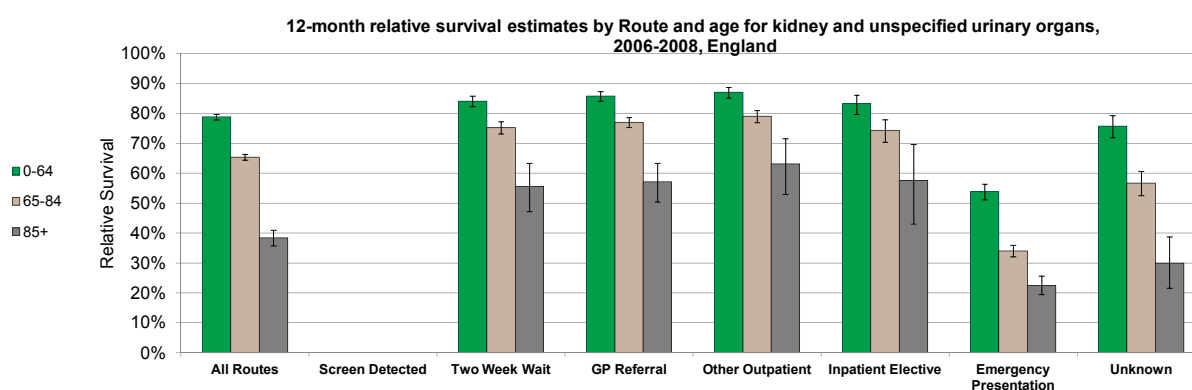
Relative survival estimates by Route and survival interval

Age group	Survival interval	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
All ages	1-month	92%		99%	97%	97%	95%	77%	85%
		91% 92%		98% 99%	96% 97%	96% 97%	94% 96%	76% 79%	83% 87%
	3-month	83%		92%	92%	92%	90%	59%	76%
		83% 84%		92% 93%	91% 93%	91% 93%	88% 92%	57% 60%	74% 78%
	6-month	76%		86%	87%	88%	85%	47%	70%
		76% 77%		85% 87%	86% 88%	87% 89%	83% 87%	46% 48%	67% 73%
	9-month	72%		82%	82%	85%	81%	42%	66%
		71% 73%		81% 83%	81% 83%	84% 86%	78% 83%	40% 43%	63% 68%
	12-month	69%		79%	80%	82%	78%	38%	63%
		68% 70%		77% 80%	79% 81%	81% 84%	75% 80%	37% 40%	60% 66%
	Number in cohort	19,910		3,912	5,212	3,464	1,202	4,828	1,292



12-month relative survival estimates by Route and age group

Survival interval	Age group	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
12-month	0-64	79%		84%	86%	87%	83%	54%	76%
		78% 80%		82% 86%	84% 87%	85% 89%	80% 86%	51% 56%	72% 79%
	Number in cohort	7,622		1,719	1,978	1,435	535	1,418	537
	65-84	65%		75%	77%	79%	74%	34%	57%
		64% 66%		73% 77%	75% 79%	77% 81%	70% 78%	32% 36%	52% 61%
	Number in cohort	10,622		1,999	2,930	1,886	596	2,582	629
	85+	38%		56%	57%	63%	58%	22%	30%
		36% 41%		47% 63%	50% 63%	53% 72%	43% 70%	19% 26%	22% 39%
	Number in cohort	1,666		194	304	143	71	828	126



#### Comments

High rates of Emergency Presentations occur in the elderly for kidney cancer. There is a surprisingly low proportion of patients assigned to the Two Week Wait Route. Results by deprivation are similar within Routes, however these results indicate a trend towards emergency presentations in the most deprived. A potential confounder in survival rates is that of incidental diagnosis in ill patients who then die from another illness but have a diagnosis of kidney cancer made due to investigation of another illness.

## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C67: Bladder

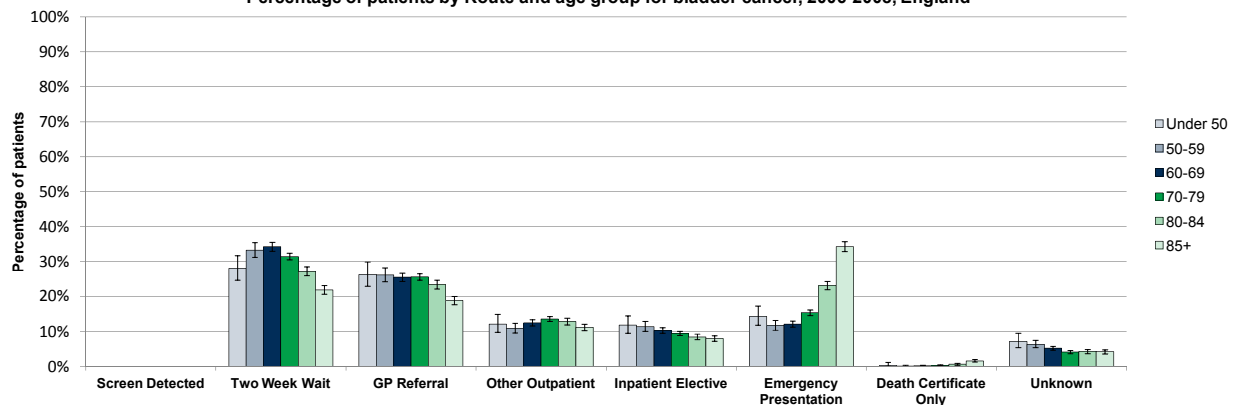
#### Introduction

The percentage of patients diagnosed through each Route is presented with 95% confidence intervals, with results broken down by age group and deprivation quintile. Relative survival estimates for 1, 3, 6, 9 and 12 months are also shown by Route with the exception of Death Certificate Only. 12 month relative survival estimates are also presented by age group. These data are a selection of the available Routes to Diagnosis data. Please see [www.ncin.org.uk](http://www.ncin.org.uk) for more information.

#### Percentage of patients by Route and age group

Age group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
Under 50		28%	26%	12%	12%	14%	0%	7%	628
50-59		33%	26%	11%	11%	12%	0%	6%	1,982
60-69		34%	26%	12%	10%	12%	0%	5%	5,540
70-79		31%	26%	14%	9%	15%	0%	4%	8,610
80-84		27%	23%	13%	8%	23%	1%	4%	4,543
85+		22%	19%	11%	8%	34%	2%	4%	4,336
All ages		30%	24%	13%	9%	19%	1%	5%	25,639

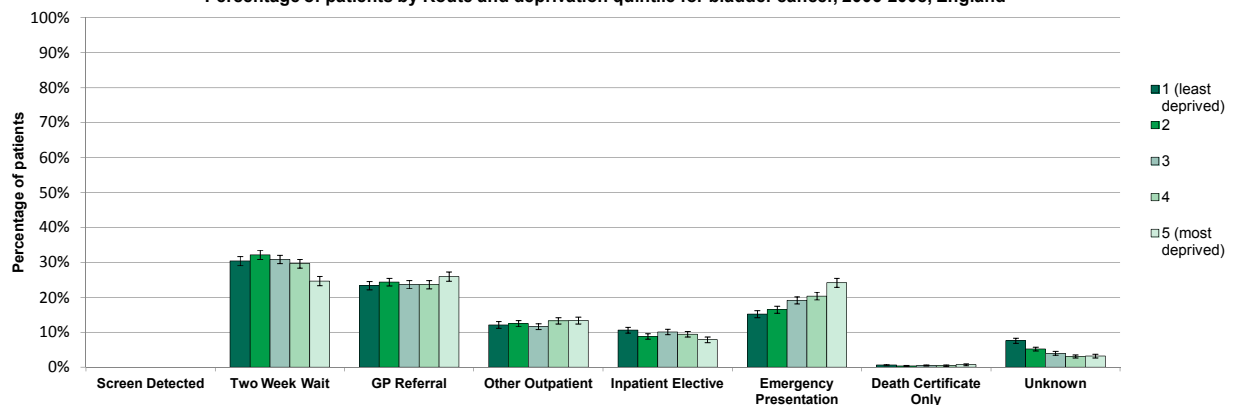
Percentage of patients by Route and age group for bladder cancer, 2006-2008, England



#### Percentage of patients by Route and deprivation quintile

Deprivation group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
1 (least deprived)		30%	23%	12%	11%	15%	1%	8%	4,916
2		32%	24%	13%	9%	16%	0%	5%	5,525
3		31%	24%	12%	10%	19%	1%	4%	5,592
4		30%	24%	13%	9%	20%	0%	3%	5,220
5 (most deprived)		25%	26%	13%	8%	24%	1%	3%	4,386
All quintiles		30%	24%	13%	9%	19%	1%	5%	25,639

Percentage of patients by Route and deprivation quintile for bladder cancer, 2006-2008, England



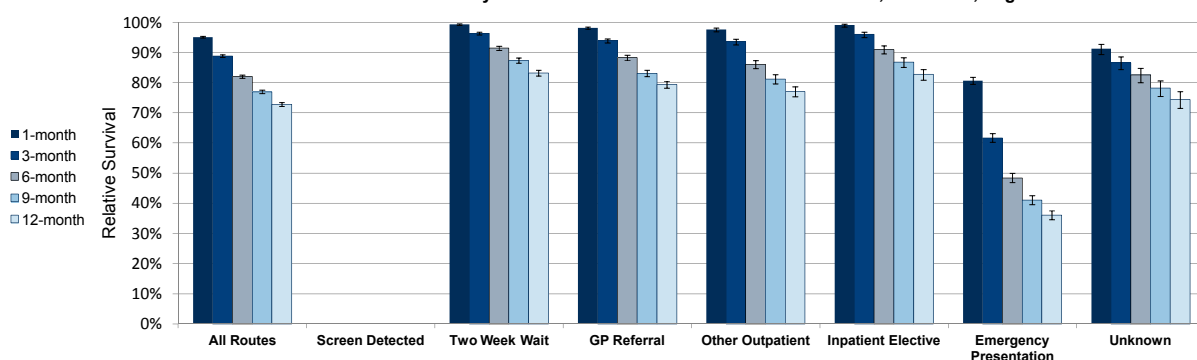
## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C67: Bladder

#### Relative survival estimates by Route and survival interval

Age group	Survival interval	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
All ages	1-month	95%		99%	98%	98%	99%	81%	91%
		95%   95%		99%   99%	98%   98%	97%   98%	98%   99%	79%   82%	89%   93%
	3-month	89%		96%	94%	94%	96%	62%	87%
		88%   89%		96%   97%	93%   95%	93%   94%	95%   97%	60%   63%	84%   89%
	6-month	82%		91%	88%	86%	91%	48%	83%
		81%   83%		91%   92%	87%   89%	85%   87%	90%   92%	47%   50%	80%   85%
	9-month	77%		87%	83%	81%	87%	41%	78%
		76%   78%		86%   88%	82%   84%	80%   83%	85%   88%	40%   43%	75%   81%
	12-month	73%		83%	79%	77%	83%	36%	74%
		72%   73%		82%   84%	78%   80%	75%   79%	81%   84%	35%   37%	72%   77%
	Number in cohort	25,089		7,624	6,158	3,181	2,398	4,539	1,189

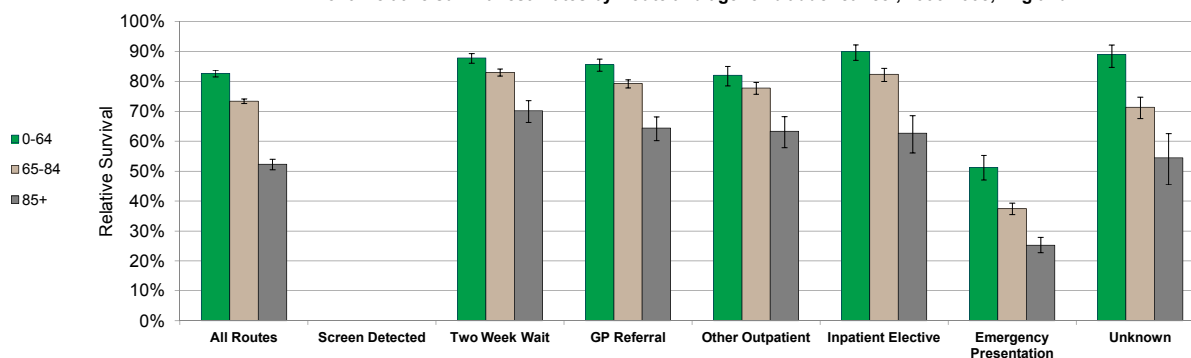
Relative survival estimates by Route and survival interval for bladder cancer, 2006-2008, England



#### 12-month relative survival estimates by Route and age group

Survival interval	Age group	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
12-month	0-64	83%		88%	86%	82%	90%	51%	89%
		82%   84%		86%   89%	83%   87%	79%   85%	87%   92%	47%   55%	85%   92%
	Number in cohort	4,936		1,662	1,255	574	574	577	294
	65-84	73%		83%	79%	78%	82%	37%	71%
		73%   74%		82%   84%	78%   81%	76%   80%	80%   84%	35%   39%	68%   75%
	Number in cohort	16,086		5,015	4,101	2,140	1,487	2,627	716
	85+	52%		70%	64%	63%	63%	25%	54%
		50%   54%		66%   74%	60%   68%	58%   68%	56%   69%	23%   28%	46%   63%
	Number in cohort	4,067		947	802	467	337	1,335	179

12-month relative survival estimates by Route and age for bladder cancer, 2006-2008, England



#### Comments

For Bladder cancer, there are high rates of emergency presentations in the elderly and a clear trend of increasing emergency presentation with deprivation. Poorer survival in Emergency Presentations may reflect metastases or renal failure with worse survival in the elderly being consistent with other disease sites.

## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C70-C72: Central nervous system

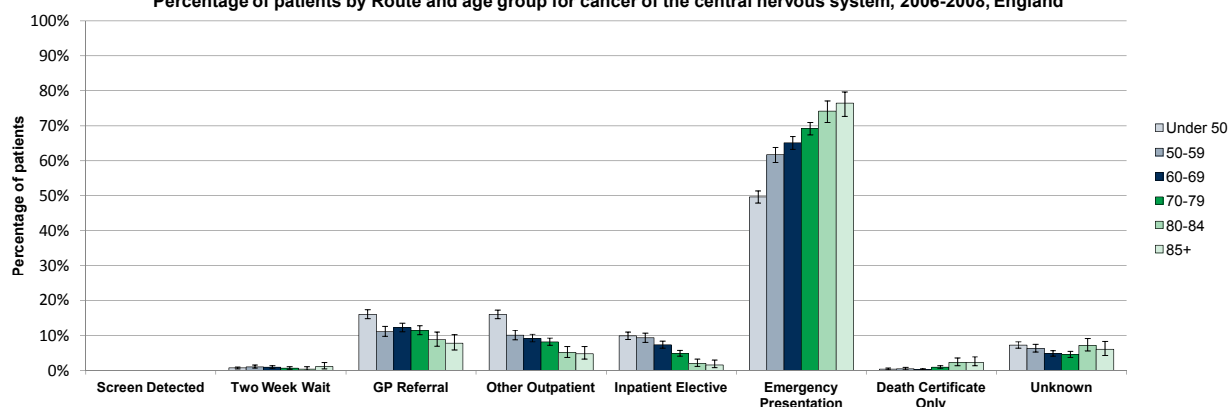
#### Introduction

The percentage of patients diagnosed through each Route is presented with 95% confidence intervals, with results broken down by age group and deprivation quintile. Relative survival estimates for 1, 3, 6, 9 and 12 months are also shown by Route with the exception of Death Certificate Only. 12 month relative survival estimates are also presented by age group. These data are a selection of the available Routes to Diagnosis data. Please see [www.ncin.org.uk](http://www.ncin.org.uk) for more information.

#### Percentage of patients by Route and age group

Age group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
Under 50		1%	16%	16%	10%	50%	0%	7%	3,293
		1% 1%	15% 17%	15% 17%	9% 11%	48% 51%	0% 1%	6% 8%	
50-59		1%	11%	10%	9%	62%	0%	6%	1,921
		1% 2%	10% 13%	9% 12%	8% 11%	60% 64%	0% 1%	5% 8%	
60-69		1%	12%	9%	7%	65%	0%	5%	2,672
		1% 1%	11% 14%	8% 10%	6% 8%	63% 67%	0% 1%	4% 6%	
70-79		1%	11%	8%	5%	69%	1%	5%	2,454
		0% 1%	10% 13%	7% 9%	4% 6%	67% 71%	1% 1%	4% 6%	
80-84		0%	9%	5%	2%	74%	2%	7%	793
		0% 1%	7% 11%	4% 7%	1% 3%	71% 77%	1% 4%	6% 9%	
85+		1%	8%	5%	2%	76%	2%	6%	564
		1% 2%	6% 10%	3% 7%	1% 3%	73% 80%	1% 4%	4% 8%	
All ages		1%	13%	11%	7%	62%	1%	6%	11,697
		1% 1%	12% 13%	10% 11%	7% 8%	61% 63%	1% 1%	6% 6%	

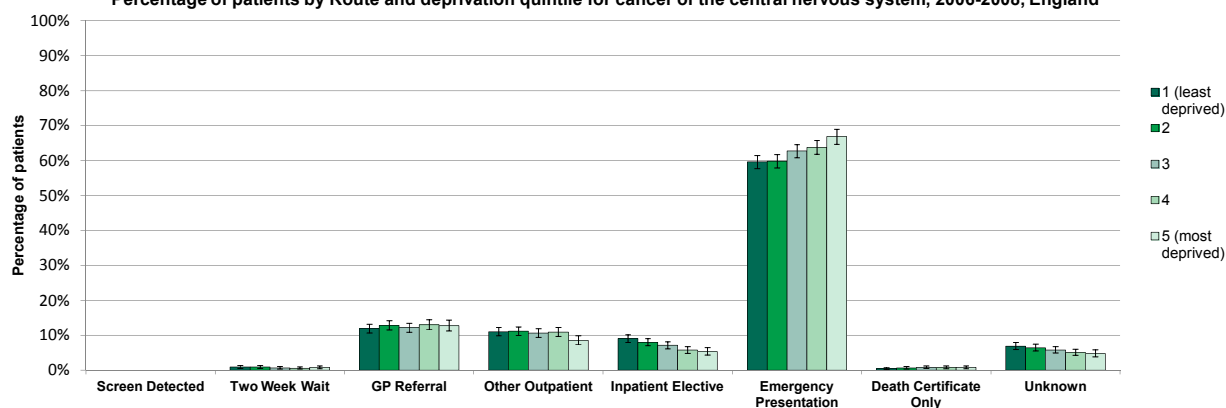
Percentage of patients by Route and age group for cancer of the central nervous system, 2006-2008, England



#### Percentage of patients by Route and deprivation quintile

Deprivation group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
1 (least deprived)		1%	12%	11%	9%	60%	0%	7%	2,614
		1% 1%	11% 13%	10% 12%	8% 10%	58% 62%	0% 1%	6% 8%	
2		1%	13%	11%	8%	60%	1%	6%	2,625
		1% 1%	12% 14%	10% 12%	7% 9%	58% 62%	0% 1%	6% 8%	
3		1%	12%	11%	7%	63%	1%	6%	2,455
		0% 1%	11% 14%	10% 12%	6% 8%	61% 65%	1% 1%	5% 7%	
4		1%	13%	11%	6%	64%	1%	5%	2,171
		0% 1%	12% 15%	10% 12%	5% 7%	62% 66%	1% 1%	4% 6%	
5 (most deprived)		1%	13%	9%	5%	67%	1%	5%	1,832
		1% 1%	11% 14%	7% 10%	4% 7%	65% 69%	1% 1%	4% 6%	
All quintiles		1%	13%	11%	7%	62%	1%	6%	11,697
		1% 1%	12% 13%	10% 11%	7% 8%	61% 63%	1% 1%	6% 6%	

Percentage of patients by Route and deprivation quintile for cancer of the central nervous system, 2006-2008, England



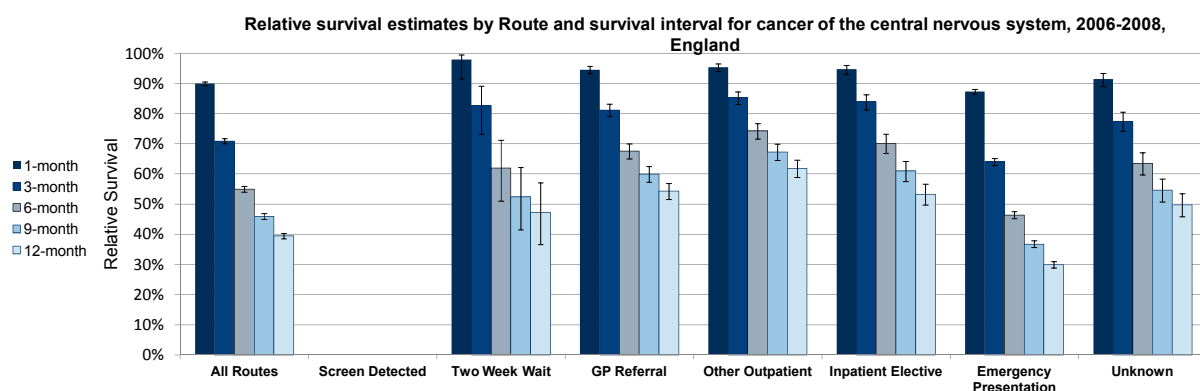


## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C70-C72: Central nervous system

Relative survival estimates by Route and survival interval

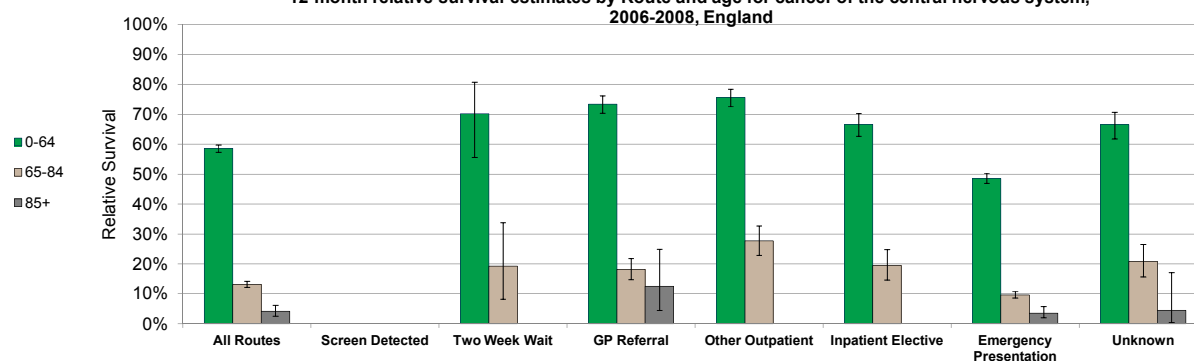
Age group	Survival interval	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
All ages	1-month	90%		98%	95%	95%	95%	87%	91%
		89% 91%		92% 100%	93% 96%	94% 97%	93% 96%	86% 88%	89% 93%
	3-month	71%		83%	81%	85%	84%	64%	77%
		70% 72%		73% 89%	79% 83%	83% 87%	81% 86%	63% 65%	74% 80%
	6-month	55%		62%	68%	74%	70%	46%	63%
		54% 56%		51% 71%	65% 70%	72% 77%	67% 73%	45% 48%	60% 67%
	9-month	46%		52%	60%	67%	61%	37%	55%
		45% 47%		42% 62%	57% 63%	64% 70%	58% 64%	36% 38%	51% 58%
	12-month	39%		47%	54%	62%	53%	30%	50%
		39% 40%		37% 57%	52% 57%	59% 65%	50% 57%	29% 31%	46% 54%
	Number in cohort	11,353		93	1,432	1,196	837	7,103	692



12-month relative survival estimates by Route and age group

Survival interval	Age group	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
12-month	0-64	59%		70%	73%	76%	67%	49%	66%
		57% 60%		56% 81%	70% 76%	73% 78%	63% 70%	47% 50%	62% 71%
	Number in cohort	6,534		53	917	842	594	3,690	438
	65-84	13%		19%	18%	28%	19%	10%	21%
		12% 14%		8% 34%	15% 22%	23% 33%	15% 25%	9% 11%	16% 27%
	Number in cohort	4,329		34	477	333	234	3,030	221
	85+	4%			13%			4%	5%
		3% 6%			4% 25%			2% 6%	0% 17%
	Number in cohort	490		6	38	21	9	383	33

12-month relative survival estimates by Route and age for cancer of the central nervous system, 2006-2008, England



#### Comments

The proportion of patients presenting through an Emergency Route for malignant tumours of the central nervous system is high and is unfortunately mainly due to the nature of the disease and the symptoms with which patients present. However, a more detailed analysis of these patients may indicate areas where improvements in early diagnosis can be made. More than 60% of patients are diagnosed through an Emergency Route with very few through the Two Week Wait Route. There is a difference in the proportion of patients diagnosed through the Emergency Route with deprivation, with a higher proportion for the most deprived. Survival for patients assigned as Emergency Presentations is significantly worse than patients presenting through other Routes, with a survival estimate of 30% at 12 months for Emergency Presentations compared to around 50% for more managed referral Routes. This may reflect the often serious nature of the first major symptom, the rapid progression and bad prognosis of the most malignant CNS tumours. These survival estimates include all malignant tumours of meninges, brain and spinal cord as well as all malignant childhood CNS tumours which also have a high proportion of emergency presentations.

## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C81: Hodgkin lymphoma

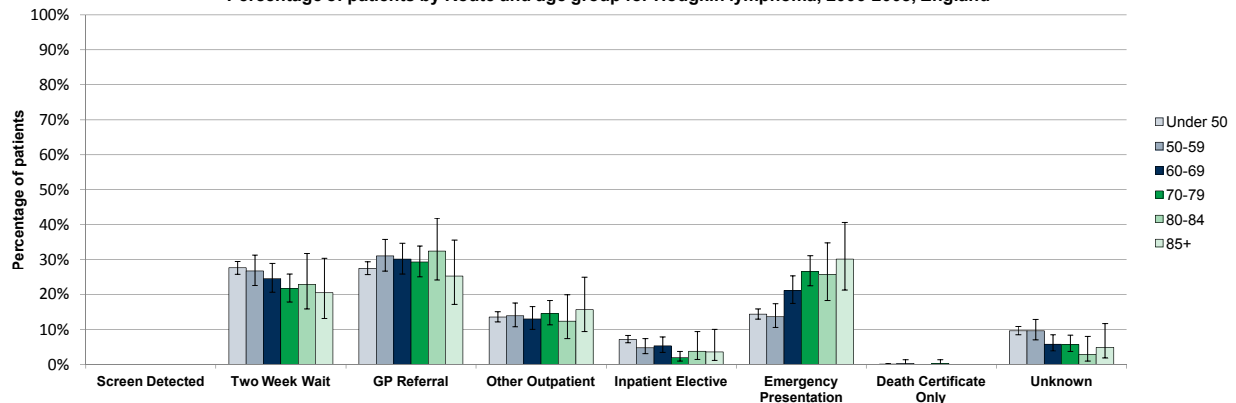
#### Introduction

The percentage of patients diagnosed through each Route is presented with 95% confidence intervals, with results broken down by age group and deprivation quintile. Relative survival estimates for 1, 3, 6, 9 and 12 months are also shown by Route with the exception of Death Certificate Only. 12 month relative survival estimates are also presented by age group. These data are a selection of the available Routes to Diagnosis data. Please see [www.ncin.org.uk](http://www.ncin.org.uk) for more information.

#### Percentage of patients by Route and age group

Age group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
Under 50		28% 26% 30%	27% 26% 29%	14% 12% 15%	7% 6% 8%	14% 13% 16%	0% 0% 0%	10% 9% 11%	2,239
50-59		27% 23% 31%	31% 27% 36%	14% 11% 18%	5% 3% 7%	14% 11% 17%	0% 0% 1%	10% 7% 13%	396
60-69		25% 21% 29%	30% 26% 35%	13% 10% 17%	5% 4% 8%	21% 18% 25%		6% 4% 9%	415
70-79		22% 18% 26%	29% 25% 34%	15% 11% 18%	2% 1% 4%	27% 23% 31%	0% 0% 1%	6% 4% 8%	406
80-84		23% 16% 32%	32% 24% 42%	12% 7% 20%	4% 2% 9%	26% 18% 35%		3% 1% 8%	105
85+		20% 13% 30%	25% 17% 36%	16% 9% 25%	4% 1% 10%	30% 21% 41%		5% 2% 12%	83
All ages		26% 25% 28%	28% 27% 30%	14% 13% 15%	6% 5% 7%	17% 16% 18%	0% 0% 0%	8% 8% 9%	3,644

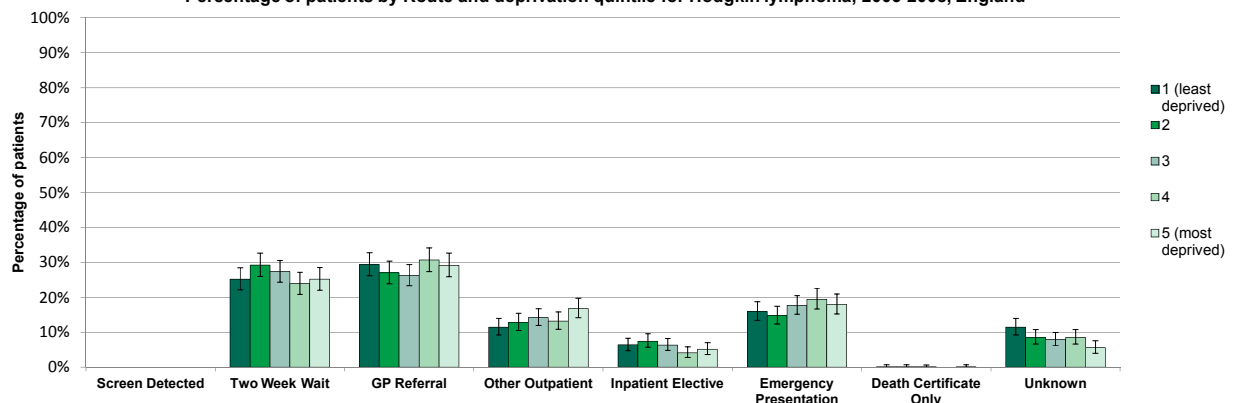
Percentage of patients by Route and age group for Hodgkin lymphoma, 2006-2008, England



#### Percentage of patients by Route and deprivation quintile

Deprivation group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
1 (least deprived)		25% 22% 29%	29% 26% 33%	11% 9% 14%	6% 5% 8%	16% 14% 19%	0% 0% 1%	11% 9% 14%	734
2		29% 26% 33%	27% 24% 30%	13% 11% 16%	7% 6% 10%	15% 12% 18%	0% 0% 1%	9% 7% 11%	725
3		27% 24% 31%	26% 23% 29%	14% 12% 17%	6% 5% 8%	18% 15% 21%	0% 0% 1%	8% 6% 10%	803
4		24% 21% 27%	31% 27% 34%	13% 11% 16%	4% 3% 6%	19% 17% 23%		9% 7% 11%	703
5 (most deprived)		25% 22% 29%	29% 26% 33%	17% 14% 20%	5% 4% 7%	18% 15% 21%	0% 0% 1%	6% 4% 8%	679
All quintiles		26% 25% 28%	28% 27% 30%	14% 13% 15%	6% 5% 7%	17% 16% 18%	0% 0% 0%	8% 8% 9%	3,644

Percentage of patients by Route and deprivation quintile for Hodgkin lymphoma, 2006-2008, England



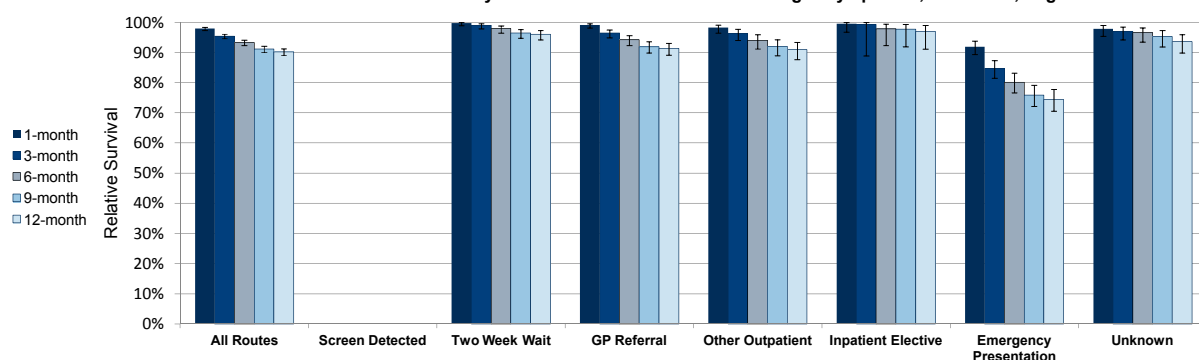
## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C81: Hodgkin lymphoma

Relative survival estimates by Route and survival interval

Age group	Survival interval	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
All ages	1-month	98%		100%	99%	98%	100%	92%	98%
		97% 98%		99% 100%	98% 100%	96% 99%	97% 100%	89% 94%	95% 99%
	3-month	95%		99%	96%	96%	99%	85%	97%
		95% 96%		98% 100%	95% 97%	94% 98%	89% 100%	81% 87%	94% 98%
	6-month	93%		98%	94%	94%	98%	80%	97%
		92% 94%		96% 99%	92% 96%	91% 96%	92% 99%	77% 83%	93% 98%
	9-month	91%		96%	92%	92%	98%	76%	95%
		90% 92%		95% 98%	90% 94%	89% 94%	92% 99%	72% 79%	92% 97%
	12-month	90%		96%	91%	91%	97%	74%	94%
		89% 91%		94% 97%	89% 93%	88% 93%	91% 99%	71% 78%	90% 96%
	Number in cohort	3,630		956	1,037	496	215	618	308

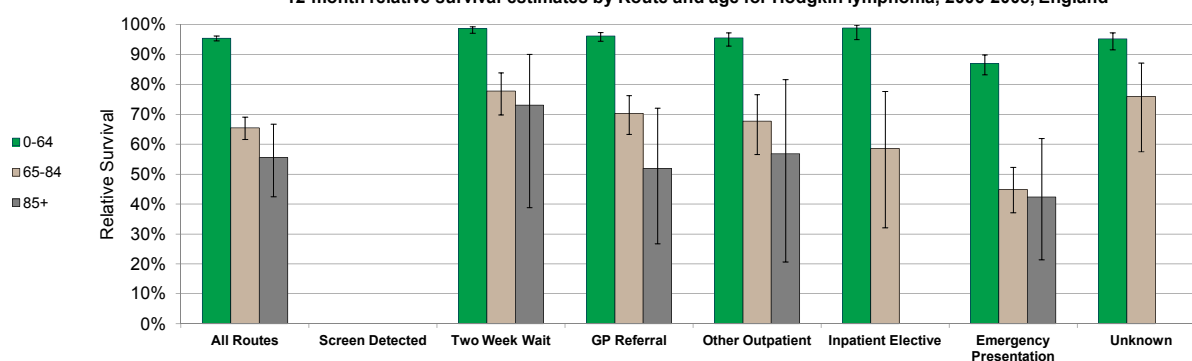
Relative survival estimates by Route and survival interval for Hodgkin lymphoma, 2006-2008, England



12-month relative survival estimates by Route and age group

Survival interval	Age group	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
12-month	0-64	95%		99%	96%	96%	99%	87%	95%
		95% 96%		97% 99%	94% 97%	93% 97%	95% 100%	83% 90%	92% 97%
	Number in cohort	2,849		777	800	390	194	422	266
	65-84	65%		78%	70%	68%	58%	45%	76%
		62% 69%		70% 84%	63% 76%	57% 77%	32% 78%	37% 52%	57% 87%
	Number in cohort	700		162	216	94	18	172	38
	85+	56%		73%	52%	57%		42%	
		42% 67%		39% 90%	27% 72%	21% 82%		21% 62%	
	Number in cohort	81		17	21	12	3	24	

12-month relative survival estimates by Route and age for Hodgkin lymphoma, 2006-2008, England



#### Comments

Young patients with Hodgkin lymphoma typically present to the GP with a lump in the neck. Biopsy, early diagnosis and effective treatment usually follow. In older people, chemotherapy treatment with curative intent may be less successful, with the balance between toxicity and anti-cancer effects more difficult to achieve. Chemotherapy may need to be reduced because of frailty or co-morbidity, and in some patients there is a significant risk of early death related to treatment. 12 month survival for younger patients is very good for all Routes, with the poorest survival seen for Emergency Presentations. Better understanding of why young patients are presenting as emergencies will help to focus efforts to increase earlier diagnosis. Survival for Two Week Wait patients is very good and given that as many patients are referred through a non-TWW GP referral as through the TWW Route implies that GPs should be encouraged to refer more patients through the TWW Route.

## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C82-C85: Non-Hodgkin lymphoma

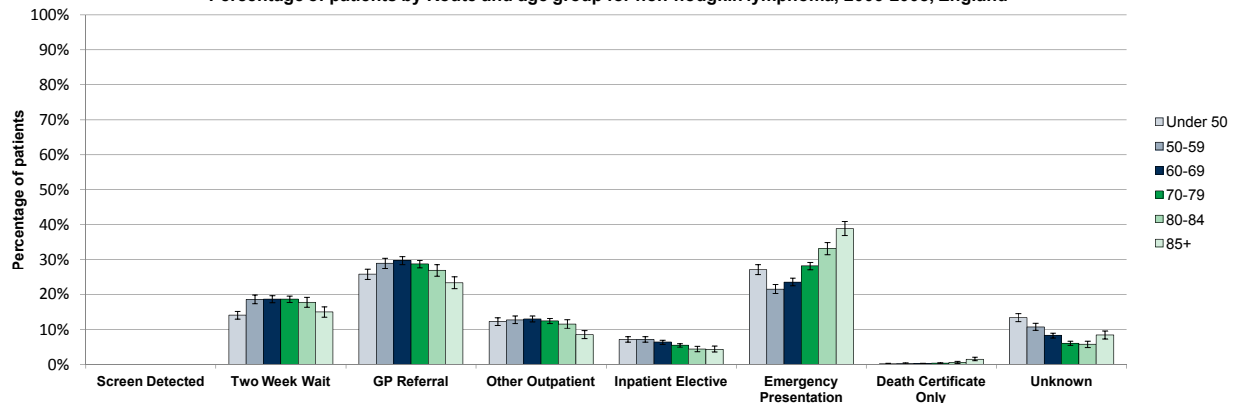
#### Introduction

The percentage of patients diagnosed through each Route is presented with 95% confidence intervals, with results broken down by age group and deprivation quintile. Relative survival estimates for 1, 3, 6, 9 and 12 months are also shown by Route with the exception of Death Certificate Only. 12 month relative survival estimates are also presented by age group. These data are a selection of the available Routes to Diagnosis data. Please see [www.ncin.org.uk](http://www.ncin.org.uk) for more information.

#### Percentage of patients by Route and age group

Age group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
Under 50		14%	26%	12%	7%	27%	0%	13%	3,610
		13% 15%	24% 27%	11% 13%	6% 8%	26% 29%	0% 0%	12% 15%	
50-59		19%	29%	13%	7%	22%	0%	11%	3,709
		17% 20%	28% 30%	12% 14%	6% 8%	20% 23%	0% 1%	10% 12%	
60-69		19%	30%	13%	6%	24%	0%	8%	6,060
		18% 20%	29% 31%	12% 14%	6% 7%	23% 25%	0% 0%	8% 9%	
70-79		19%	29%	12%	5%	28%	0%	6%	6,967
		18% 20%	28% 30%	12% 13%	5% 6%	27% 29%	0% 1%	6% 7%	
80-84		18%	27%	12%	4%	33%	1%	6%	2,748
		16% 19%	25% 29%	10% 13%	4% 5%	31% 35%	0% 1%	5% 7%	
85+		15%	23%	8%	4%	39%	2%	8%	2,319
		14% 17%	22% 25%	7% 10%	4% 5%	37% 41%	1% 2%	7% 10%	
All ages		18%	28%	12%	6%	27%	0%	9%	25,413
		17% 18%	27% 29%	12% 13%	6% 6%	27% 28%	0% 1%	8% 9%	

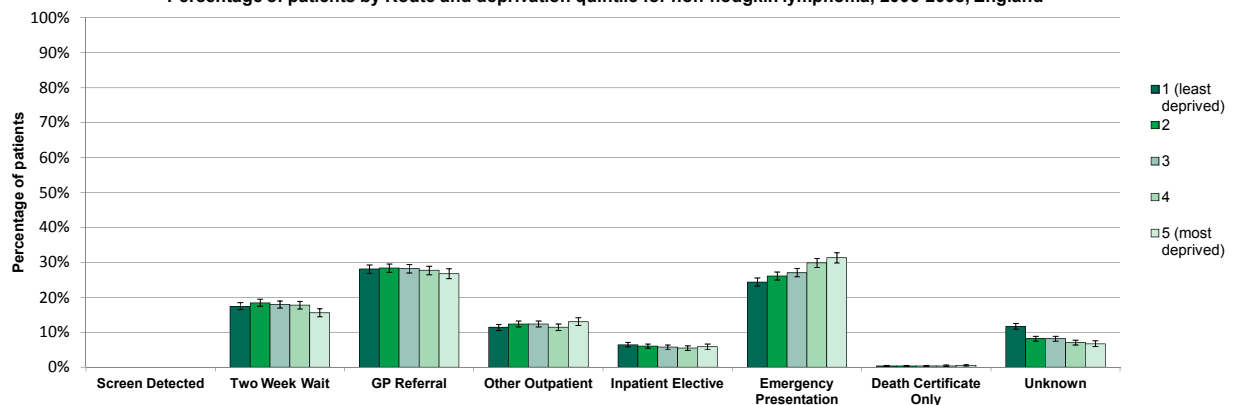
Percentage of patients by Route and age group for non-hodgkin lymphoma, 2006-2008, England



#### Percentage of patients by Route and deprivation quintile

Deprivation group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
1 (least deprived)		17%	28%	11%	6%	24%	0%	12%	5,416
		17% 19%	27% 29%	11% 12%	6% 7%	23% 26%	0% 1%	11% 13%	
2		18%	28%	12%	6%	26%	0%	8%	5,732
		18% 20%	27% 30%	12% 13%	6% 7%	25% 27%	0% 1%	8% 9%	
3		18%	28%	12%	6%	27%	0%	8%	5,571
		17% 19%	27% 29%	12% 13%	5% 6%	26% 28%	0% 1%	8% 9%	
4		18%	28%	11%	6%	30%	0%	7%	4,827
		17% 19%	27% 29%	11% 12%	5% 6%	29% 31%	0% 1%	6% 8%	
5 (most deprived)		16%	27%	13%	6%	31%	1%	7%	3,867
		15% 17%	25% 28%	12% 14%	5% 7%	30% 33%	0% 1%	6% 8%	
All quintiles		18%	28%	12%	6%	27%	0%	9%	25,413
		17% 18%	27% 29%	12% 13%	6% 6%	27% 28%	0% 1%	8% 9%	

Percentage of patients by Route and deprivation quintile for non-hodgkin lymphoma, 2006-2008, England



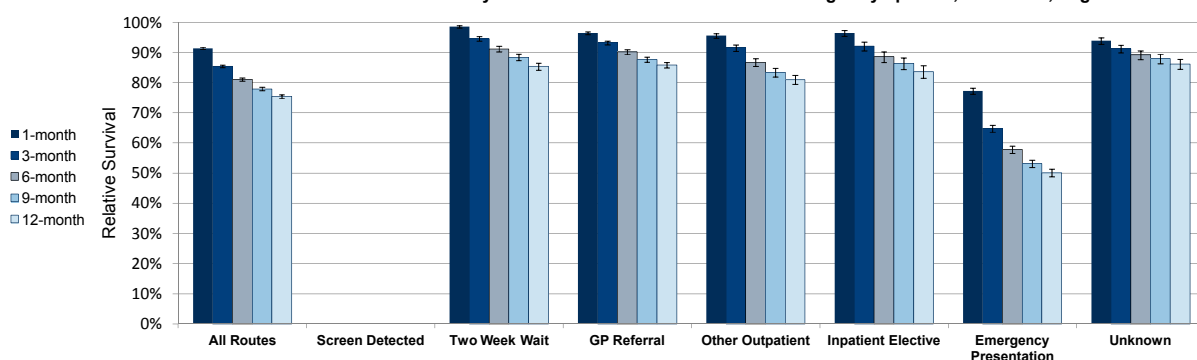
## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C82-C85: Non-Hodgkin lymphoma

Relative survival estimates by Route and survival interval

Age group	Survival interval	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
All ages	1-month	91%		99%	96%	96%	96%	77%	94%
		91% 92%		98% 99%	96% 97%	95% 96%	95% 97%	76% 78%	93% 95%
	3-month	85%		95%	93%	92%	92%	65%	91%
		85% 86%		94% 95%	93% 94%	90% 93%	91% 93%	64% 66%	90% 92%
	6-month	81%		91%	90%	87%	89%	58%	89%
		81% 82%		90% 92%	89% 91%	85% 88%	87% 90%	57% 59%	88% 91%
	9-month	78%		88%	88%	83%	86%	53%	88%
		77% 78%		87% 89%	87% 88%	82% 85%	84% 88%	52% 54%	86% 89%
	12-month	75%		85%	86%	81%	84%	50%	86%
		75% 76%		84% 87%	85% 87%	79% 82%	81% 86%	49% 51%	84% 88%
	Number in cohort	25,014		4,462	7,056	3,049	1,512	6,780	2,155

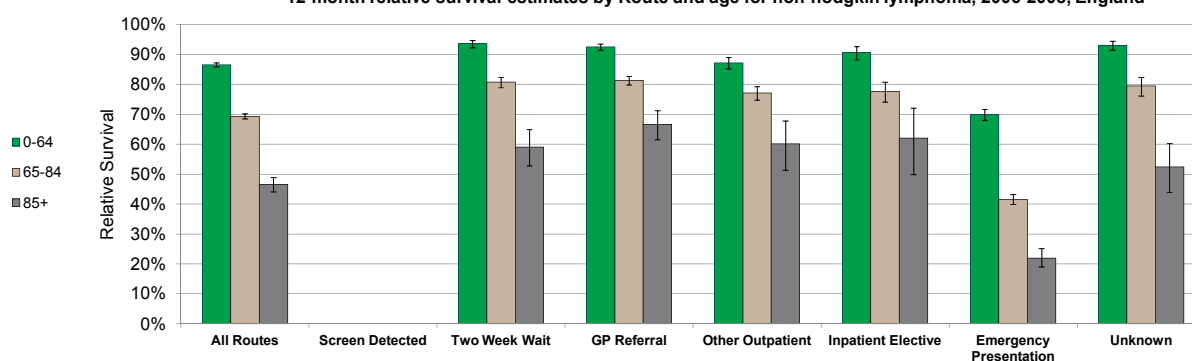
Relative survival estimates by Route and survival interval for non-hodgkin lymphoma, 2006-2008, England



12-month relative survival estimates by Route and age group

Survival interval	Age group	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
12-month	0-64	87%		94%	93%	87%	91%	70%	93%
		86% 87%		92% 95%	91% 93%	85% 89%	88% 93%	68% 72%	91% 94%
	Number in cohort	10,191		1,728	2,880	1,273	701	2,444	1,165
	65-84	69%		81%	81%	77%	78%	42%	79%
		68% 70%		79% 82%	80% 83%	75% 79%	74% 81%	40% 43%	76% 82%
	Number in cohort	12,643		2,390	3,648	1,587	712	3,509	797
	85+	46%		59%	67%	60%	62%	22%	52%
		44% 49%		53% 65%	62% 71%	51% 68%	50% 72%	19% 25%	44% 60%
	Number in cohort	2,180		344	528	189	99	827	193

12-month relative survival estimates by Route and age for non-hodgkin lymphoma, 2006-2008, England



#### Comments

Diagnosis of Non-Hodgkin lymphoma is relatively straightforward and speedy if people present to their GP with a palpable lump. However, 1 in 3 lymphomas start outside a lymph node (in bowel, brain, skin and other areas), with a wide range of symptoms. Diagnosis may be more difficult in these situations, and emergency admission with infection, acute abdomen, breathlessness, or acute CNS disorder may occur. The National Audit of Cancer Diagnosis in Primary Care (2011) showed that patients diagnosed with lymphoma may make several visits to the GP with symptoms due to lymphoma pre-diagnosis. Treatment decisions in the elderly are difficult; effective chemotherapy for NHL is often quite toxic, and whether to institute such treatment in the elderly is not always an easy decision. On the other hand, if "the fit elderly" are treated with the same treatment as younger patients, good survival figures can be achieved. One third of those diagnosed in an emergency admission do not survive their cancer for more than 3 months after diagnosis.

## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C88-C90: Myeloma

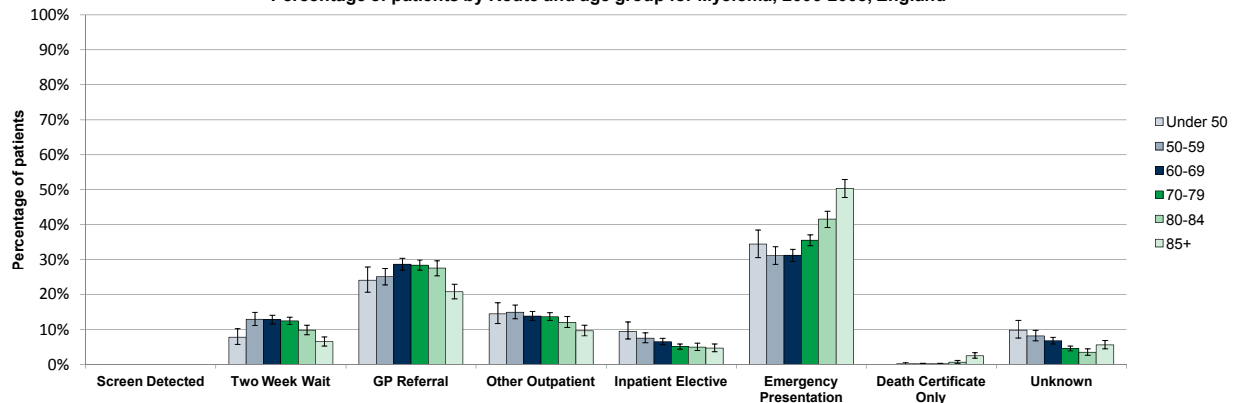
#### Introduction

The percentage of patients diagnosed through each Route is presented with 95% confidence intervals, with results broken down by age group and deprivation quintile. Relative survival estimates for 1, 3, 6, 9 and 12 months are also shown by Route with the exception of Death Certificate Only. 12 month relative survival estimates are also presented by age group. These data are a selection of the available Routes to Diagnosis data. Please see [www.ncin.org.uk](http://www.ncin.org.uk) for more information.

#### Percentage of patients by Route and age group

Age group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
Under 50		8%	24%	14%	9%	34%		10%	540
		6% 10%	21% 28%	12% 18%	7% 12%	31% 39%		8% 13%	
50-59		13%	25%	15%	8%	31%	0%	8%	1,297
		11% 15%	23% 28%	13% 17%	6% 9%	29% 34%	0% 1%	7% 10%	
60-69		13%	29%	14%	7%	31%	0%	7%	2,677
		12% 14%	27% 30%	13% 15%	6% 8%	30% 33%	0% 0%	6% 8%	
70-79		13%	28%	14%	5%	36%	0%	5%	3,614
		12% 14%	27% 30%	13% 15%	4% 6%	34% 37%	0% 0%	4% 5%	
80-84		10%	28%	12%	5%	42%	1%	3%	1,671
		9% 11%	25% 30%	11% 14%	4% 6%	39% 44%	0% 1%	3% 5%	
85+		6%	21%	10%	5%	50%	2%	6%	1,422
		5% 8%	19% 23%	8% 11%	4% 6%	48% 53%	2% 3%	5% 7%	
All ages		11%	27%	13%	6%	37%	1%	6%	11,221
		11% 12%	26% 28%	13% 14%	5% 6%	36% 38%	0% 1%	5% 6%	

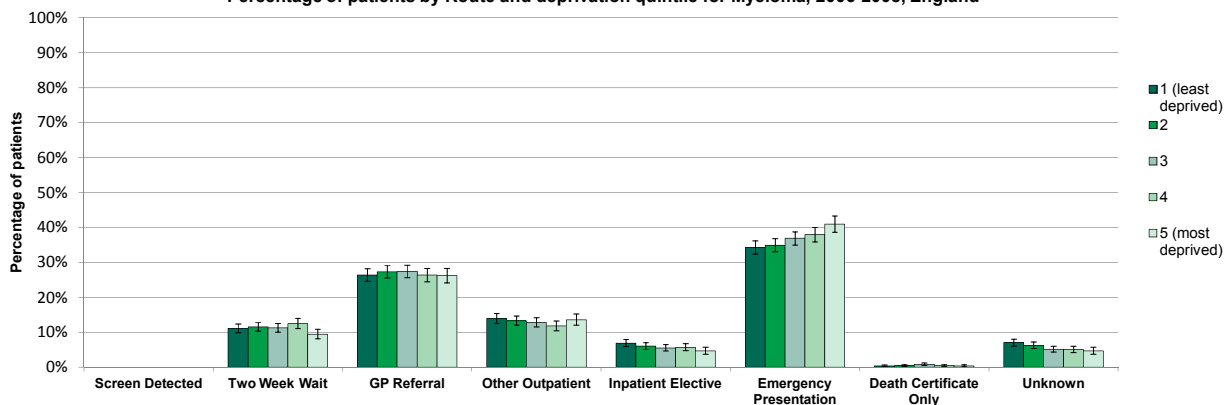
Percentage of patients by Route and age group for Myeloma, 2006-2008, England



#### Percentage of patients by Route and deprivation quintile

Deprivation group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
1 (least deprived)		11%	26%	14%	7%	34%	0%	7%	2,372
		10% 12%	25% 28%	13% 15%	6% 8%	32% 36%	0% 1%	6% 8%	
2		12%	27%	13%	6%	35%	0%	6%	2,539
		10% 13%	26% 29%	12% 15%	5% 7%	33% 37%	0% 1%	5% 7%	
3		11%	27%	13%	6%	37%	1%	5%	2,483
		10% 13%	26% 29%	12% 14%	5% 7%	35% 39%	1% 1%	4% 6%	
4		13%	26%	12%	6%	38%	0%	5%	2,072
		11% 14%	25% 28%	11% 13%	5% 7%	36% 40%	0% 1%	4% 6%	
5 (most deprived)		9%	26%	14%	5%	41%	0%	5%	1,755
		8% 11%	24% 28%	12% 15%	4% 6%	39% 43%	0% 1%	4% 6%	
All quintiles		11%	27%	13%	6%	37%	1%	6%	11,221
		11% 12%	26% 28%	13% 14%	5% 6%	36% 38%	0% 1%	5% 6%	

Percentage of patients by Route and deprivation quintile for Myeloma, 2006-2008, England



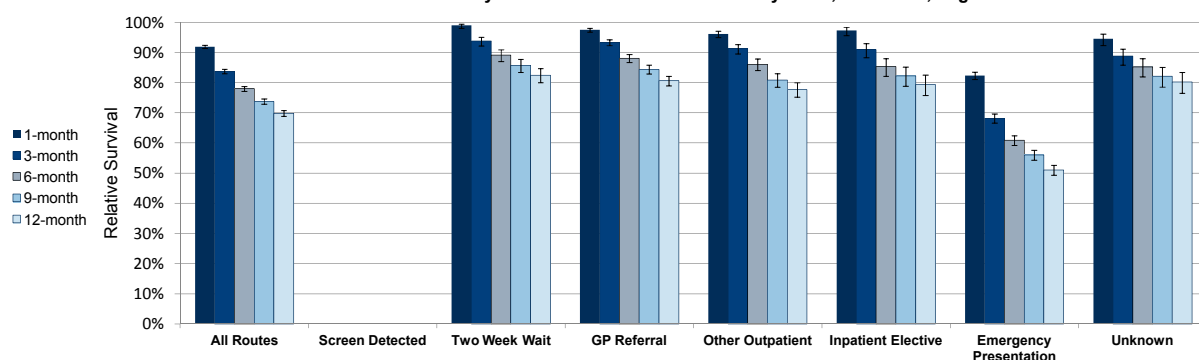
## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C88-C90: Myeloma

Relative survival estimates by Route and survival interval

Age group	Survival interval	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
All ages	1-month	92%		99%	97%	96%	97%	82%	95%
		91% 92%		98% 99%	97% 98%	95% 97%	96% 98%	81% 84%	92% 96%
	3-month	84%		94%	93%	91%	91%	68%	89%
		83% 84%		92% 95%	92% 94%	90% 93%	88% 93%	67% 70%	86% 91%
	6-month	78%		89%	88%	86%	85%	61%	85%
		77% 79%		87% 91%	87% 89%	84% 88%	82% 88%	59% 62%	82% 88%
	9-month	74%		86%	84%	81%	82%	56%	82%
		73% 75%		83% 88%	83% 86%	79% 83%	79% 85%	54% 58%	79% 85%
	12-month	70%		82%	81%	78%	79%	51%	80%
		69% 71%		80% 85%	79% 82%	75% 80%	76% 83%	49% 53%	76% 83%
	Number in cohort	10,864		1,259	2,969	1,441	653	3,902	640

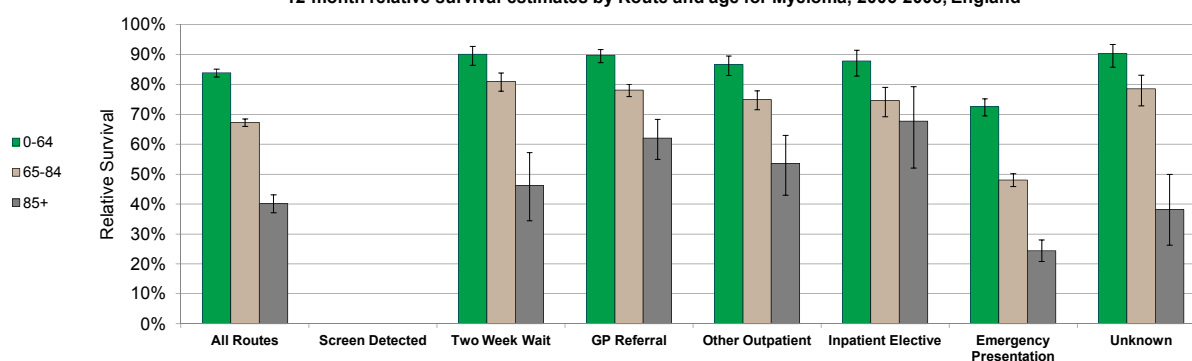
Relative survival estimates by Route and survival interval for Myeloma, 2006-2008, England



12-month relative survival estimates by Route and age group

Survival interval	Age group	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
12-month	0-64	84%		90%	90%	87%	88%	72%	90%
		82% 85%		86% 93%	87% 92%	83% 89%	83% 91%	70% 75%	86% 93%
	Number in cohort	3,082		380	796	449	236	960	261
	65-84	67%		81%	78%	75%	75%	48%	78%
		66% 68%		78% 84%	76% 80%	72% 78%	69% 79%	46% 50%	73% 83%
	Number in cohort	6,501		787	1,888	869	354	2,303	300
	85+	40%		46%	62%	54%	68%	24%	38%
		37% 43%		34% 57%	55% 68%	43% 63%	52% 79%	21% 28%	26% 50%
	Number in cohort	1,281		92	285	123	63	639	79

12-month relative survival estimates by Route and age for Myeloma, 2006-2008, England



#### Comments

Achieving early diagnosis of myeloma is unsatisfactory at present. A high proportion (37%) of myeloma patients are diagnosed through an Emergency Route. The National Audit of Cancer Diagnosis in Primary Care (2011) showed that patients diagnosed with myeloma often make several visits to the GP with symptoms due to myeloma pre-diagnosis, and often have a long interval from first presentation with a cancer related symptom to referral. There is a wide range of presenting symptoms, some, e.g. backache and tiredness common in GP practice. The emergency admission, with infection, fracture, hypercalcaemia, bleeding, anaemia or renal problems may be under a wide range of hospital specialists, with possible delay before admission being followed by possible delay in making the diagnosis of myeloma once in hospital. Instituting specific treatment against myeloma may be too late to be effective. One third of those diagnosed through the Emergency Route do not survive their cancer for more than 3 months after diagnosis.

## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C911: Leukaemia - chronic lymphocytic

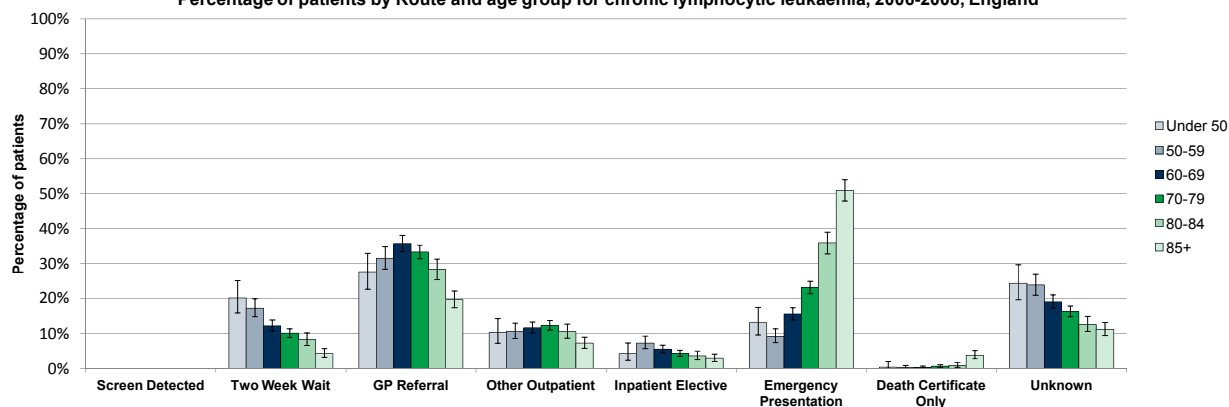
#### Introduction

The percentage of patients diagnosed through each Route is presented with 95% confidence intervals, with results broken down by age group and deprivation quintile. Relative survival estimates for 1, 3, 6, 9 and 12 months are also shown by Route with the exception of Death Certificate Only. 12 month relative survival estimates are also presented by age group. These data are a selection of the available Routes to Diagnosis data. Please see [www.ncin.org.uk](http://www.ncin.org.uk) for more information.

#### Percentage of patients by Route and age group

Age group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
Under 50		20%	28%	10%	4%	13%	0%	24%	283
		16% 25%	23% 33%	7% 14%	2% 7%	10% 18%	0% 2%	20% 30%	
50-59		17%	32%	11%	7%	9%	0%	24%	783
		15% 20%	28% 35%	9% 13%	6% 9%	7% 11%	0% 1%	21% 27%	
60-69		12%	36%	12%	5%	16%	0%	19%	1,629
		11% 14%	33% 38%	10% 13%	5% 7%	14% 17%	0% 1%	17% 21%	
70-79		10%	33%	12%	4%	23%	1%	16%	2,195
		9% 11%	31% 35%	11% 14%	4% 5%	21% 25%	0% 1%	15% 18%	
80-84		8%	28%	11%	4%	36%	1%	13%	914
		7% 10%	26% 31%	9% 13%	3% 5%	33% 39%	0% 2%	11% 15%	
85+		4%	20%	7%	3%	51%	4%	11%	1,031
		3% 6%	17% 22%	6% 9%	2% 4%	48% 54%	3% 5%	9% 13%	
All ages		11%	31%	11%	5%	25%	1%	17%	6,835
		10% 11%	30% 32%	10% 12%	4% 5%	24% 26%	1% 1%	16% 18%	

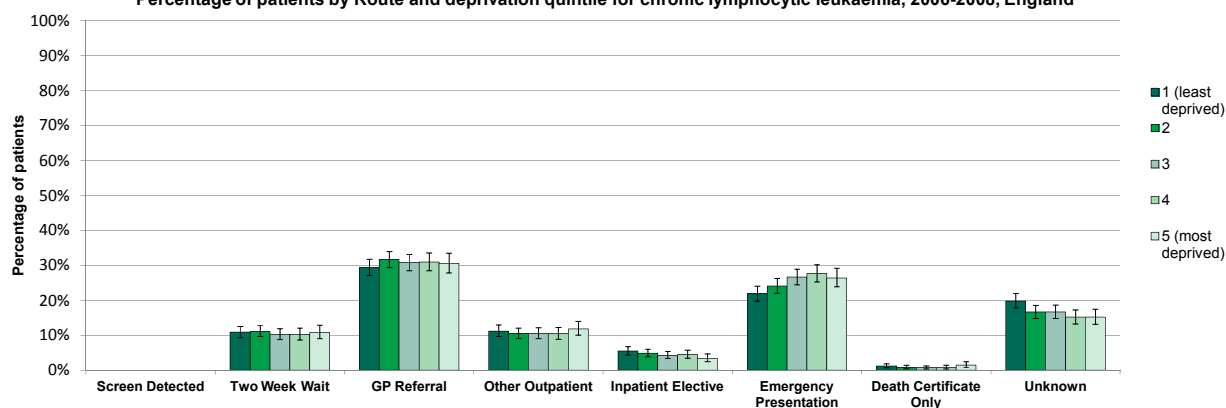
Percentage of patients by Route and age group for chronic lymphocytic leukaemia, 2006-2008, England



#### Percentage of patients by Route and deprivation quintile

Deprivation group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
1 (least deprived)		11%	29%	11%	5%	22%	1%	20%	1,476
		9% 13%	27% 32%	10% 13%	4% 7%	20% 24%	1% 2%	18% 22%	
2		11%	32%	11%	5%	24%	1%	17%	1,569
		10% 13%	29% 34%	9% 12%	4% 6%	22% 26%	1% 2%	15% 19%	
3		10%	31%	11%	4%	27%	1%	17%	1,492
		9% 12%	29% 33%	9% 12%	3% 5%	25% 29%	0% 1%	15% 19%	
4		10%	31%	10%	5%	28%	1%	15%	1,254
		9% 12%	29% 34%	9% 12%	4% 6%	25% 30%	0% 2%	13% 17%	
5 (most deprived)		11%	31%	12%	3%	26%	2%	15%	1,044
		9% 13%	28% 34%	10% 14%	3% 5%	24% 29%	1% 3%	13% 18%	
All quintiles		11%	31%	11%	5%	25%	1%	17%	6,835
		10% 11%	30% 32%	10% 12%	4% 5%	24% 26%	1% 1%	16% 18%	

Percentage of patients by Route and deprivation quintile for chronic lymphocytic leukaemia, 2006-2008, England





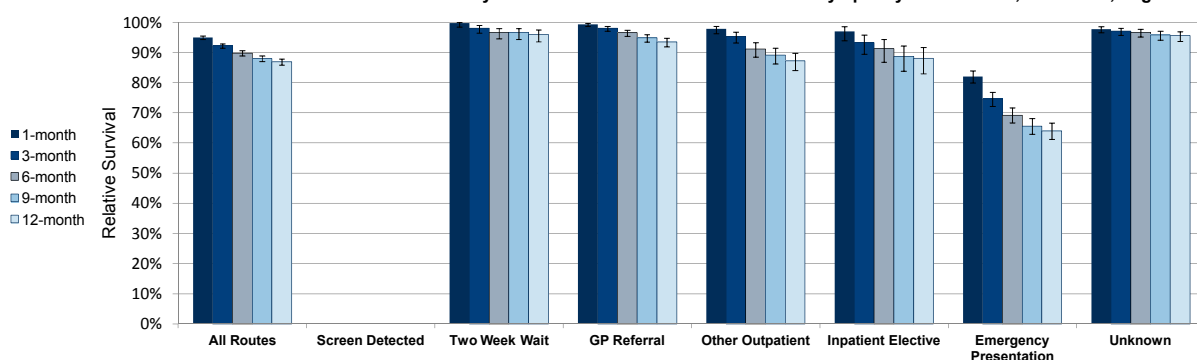
# **Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008**

## **C911: Leukaemia - chronic lymphocytic**

Relative survival estimates by Route and survival interval

Age group	Survival interval	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
All ages	1-month	95%		100%	99%	98%	97%	82%	98%
		94% 95%		98% 100%	99% 100%	96% 99%	94% 99%	80% 84%	97% 99%
	3-month	92%		98%	98%	95%	93%	75%	97%
		91% 93%		96% 99%	97% 99%	93% 97%	89% 96%	72% 77%	96% 98%
	6-month	90%		97%	97%	91%	91%	69%	97%
		89% 91%		95% 98%	95% 97%	88% 93%	87% 94%	67% 72%	95% 98%
	9-month	88%		97%	95%	89%	89%	66%	96%
		87% 89%		94% 98%	93% 96%	86% 91%	84% 92%	63% 68%	94% 97%
	12-month	87%		96%	93%	87%	88%	64%	96%
		86% 88%		94% 98%	92% 95%	84% 90%	83% 92%	61% 67%	94% 97%
	Number in cohort	6,489		731	2,064	718	312	1,515	1,149

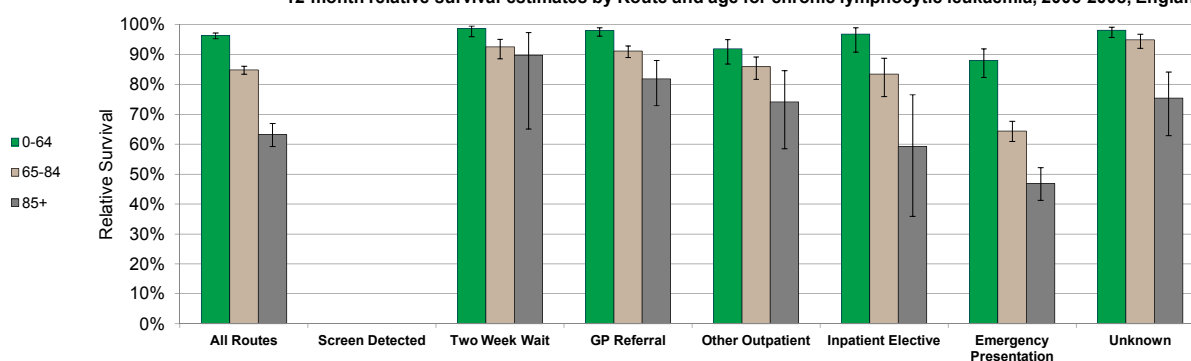
Relative survival estimates by Route and survival interval for chronic lymphocytic leukaemia, 2006-2008, England



12-month relative survival estimates by Route and age group

Survival interval	Age group	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
12-month	0-64	96%		99%	98%	92%	97%	88%	98%
		95% 97%		96% 100%	96% 99%	87% 95%	91% 99%	82% 92%	96% 99%
	Number in cohort	1,814		288	604	202	112	202	406
	65-84	85%		92%	91%	86%	83%	64%	95%
		83% 86%		89% 95%	89% 93%	82% 89%	76% 89%	61% 68%	92% 97%
	Number in cohort	3,818		399	1,272	450	171	894	632
	85+	63%		90%	82%	74%	59%	47%	75%
		59% 67%		65% 97%	73% 88%	58% 85%	36% 77%	41% 52%	63% 84%
	Number in cohort	857		44	188	66	29	419	111

12-month relative survival estimates by Route and age for chronic lymphocytic leukaemia, 2006-2008, England



### **Comments**

Chronic lymphocytic leukaemia is sometimes diagnosed incidentally when investigations are carried out for other conditions, and treatment of the leukaemia is not always necessary. Some emergency admissions, and deaths, may be unrelated to the diagnosis of chronic lymphocytic leukaemia, especially in the elderly. Only around one in nine patients aged under 65 presented through the Emergency Presentation Route, compared to nearly one in four patients aged 65-84. The survival estimates for Emergency Presentations are lower than for other Routes for both of these age groups.

## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

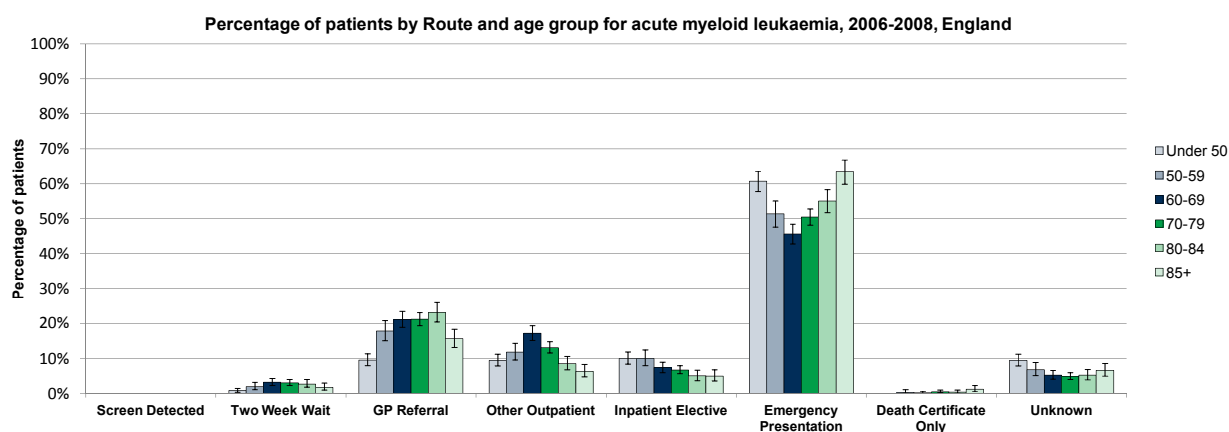
### C920, C924-C925, C930, C940, C942: Leukaemia - acute myeloid

#### Introduction

The percentage of patients diagnosed through each Route is presented with 95% confidence intervals, with results broken down by age group and deprivation quintile. Relative survival estimates for 1, 3, 6, 9 and 12 months are also shown by Route with the exception of Death Certificate Only. 12 month relative survival estimates are also presented by age group. These data are a selection of the available Routes to Diagnosis data. Please see [www.ncin.org.uk](http://www.ncin.org.uk) for more information.

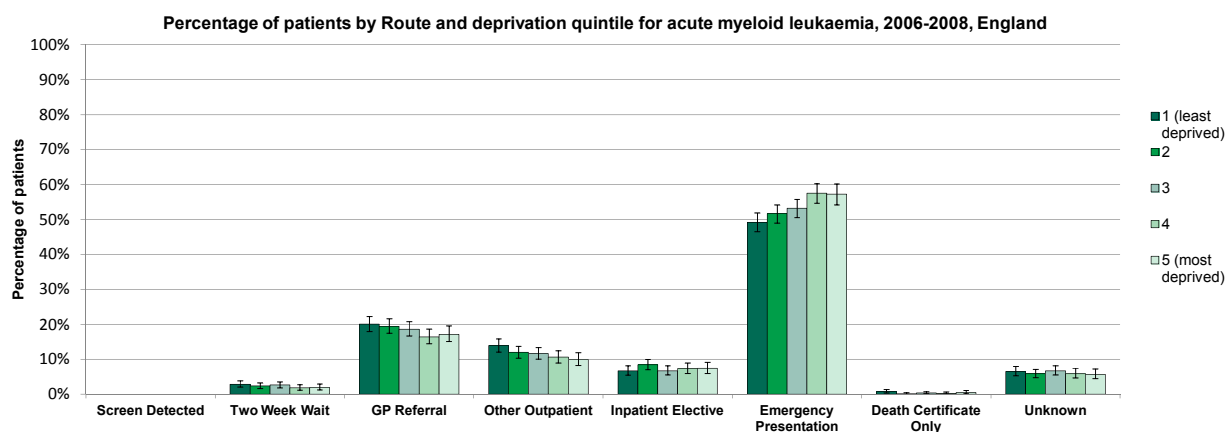
#### Percentage of patients by Route and age group

Age group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
Under 50		1%	10%	9%	10%	61%		9%	1,099
		0% 2%	8% 11%	8% 11%	8% 12%	58% 64%		8% 11%	
50-59		2%	18%	12%	10%	51%	0%	7%	679
		1% 3%	15% 21%	10% 14%	8% 13%	48% 55%	0% 1%	5% 9%	
60-69		3%	21%	17%	7%	46%	0%	5%	1,219
		2% 4%	19% 24%	15% 19%	6% 9%	43% 48%	0% 1%	4% 7%	
70-79		3%	21%	13%	7%	50%	1%	5%	1,769
		2% 4%	19% 23%	12% 15%	6% 8%	48% 53%	0% 1%	4% 6%	
80-84		3%	23%	9%	5%	55%	0%	5%	858
		2% 4%	21% 26%	7% 11%	4% 7%	52% 58%	0% 1%	4% 7%	
85+		2%	16%	6%	5%	63%	1%	7%	741
		1% 3%	13% 18%	5% 8%	4% 7%	60% 67%	1% 2%	5% 9%	
All ages		2%	18%	12%	7%	54%	0%	6%	6,365
		2% 3%	18% 19%	11% 13%	7% 8%	52% 55%	0% 1%	6% 7%	



#### Percentage of patients by Route and deprivation quintile

Deprivation group	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Death Certificate Only	Unknown	Number of cases
1 (least deprived)		3%	20%	14%	7%	49%	1%	7%	1,301
		2% 4%	18% 22%	12% 16%	6% 8%	47% 52%	0% 1%	5% 8%	
2		2%	19%	12%	8%	52%	0%	6%	1,412
		2% 3%	18% 22%	10% 14%	7% 10%	49% 54%	0% 1%	5% 7%	
3		3%	19%	12%	7%	53%	0%	7%	1,391
		2% 4%	17% 21%	10% 13%	6% 8%	51% 56%	0% 1%	6% 8%	
4		2%	16%	11%	7%	58%	0%	6%	1,197
		1% 3%	15% 19%	9% 13%	6% 9%	55% 60%	0% 1%	5% 7%	
5 (most deprived)		2%	17%	10%	7%	57%	0%	6%	1,064
		1% 3%	15% 20%	8% 12%	6% 9%	54% 60%	0% 1%	5% 7%	
All quintiles		2%	18%	12%	7%	54%	0%	6%	6,365
		2% 3%	18% 19%	11% 13%	7% 8%	52% 55%	0% 1%	6% 7%	



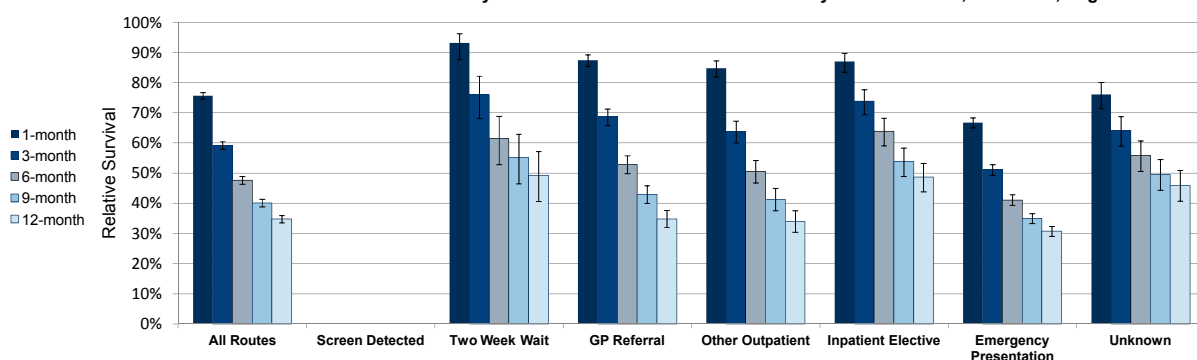
## Routes to Diagnosis: Incidence and survival by Route, England, 2006-2008

### C920, C924-C925, C930, C940, C942: Leukaemia - acute myeloid

Relative survival estimates by Route and survival interval

Age group	Survival interval	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
All ages	1-month	76%		93%	87%	85%	87%	67%	76%
		75% 77%		88% 96%	85% 89%	82% 87%	83% 90%	65% 68%	71% 80%
	3-month	59%		76%	69%	64%	74%	51%	64%
		58% 60%		68% 82%	66% 71%	60% 67%	69% 78%	49% 53%	59% 69%
	6-month	48%		61%	53%	51%	64%	41%	56%
		46% 49%		53% 69%	50% 56%	47% 54%	59% 68%	39% 43%	51% 61%
	9-month	40%		55%	43%	41%	54%	35%	50%
		39% 41%		46% 63%	40% 46%	38% 45%	49% 58%	33% 37%	44% 55%
	12-month	35%		49%	35%	34%	49%	31%	46%
		34% 36%		41% 57%	32% 38%	30% 38%	44% 53%	29% 32%	41% 51%
	Number in cohort	6,114		151	1,147	715	459	3,250	392

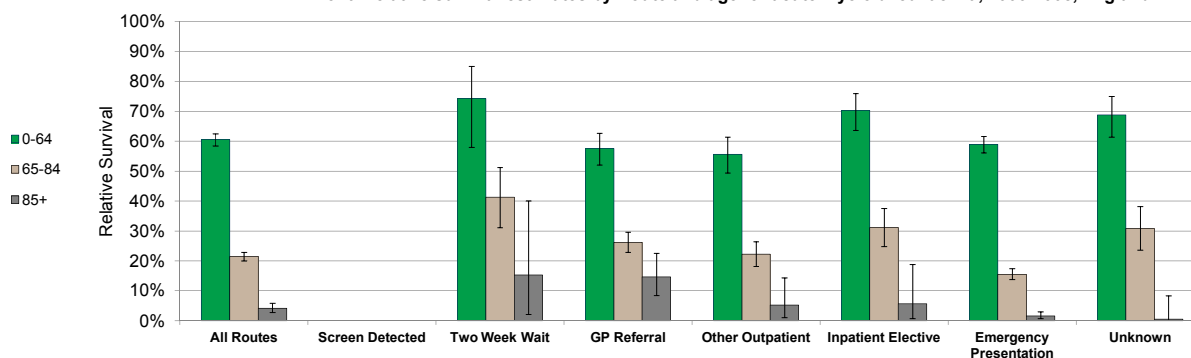
Relative survival estimates by Route and survival interval for acute myeloid leukaemia, 2006-2008, England



12-month relative survival estimates by Route and age group

Survival interval	Age group	All Routes	Screen Detected	Two Week Wait	GP Referral	Other Outpatient	Inpatient Elective	Emergency Presentation	Unknown
12-month	0-64	60%		74%	58%	56%	70%	59%	69%
		58% 62%		58% 85%	52% 63%	49% 61%	64% 76%	56% 62%	61% 75%
	Number in cohort	2,287		42	335	266	214	1,246	184
	65-84	21%		41%	26%	22%	31%	16%	31%
		20% 23%		31% 51%	23% 30%	18% 26%	25% 38%	14% 17%	24% 38%
	Number in cohort	3,147		96	702	404	213	1,572	160
	85+	4%		15%	15%	5%	6%	2%	0%
		3% 6%		2% 40%	8% 23%	1% 14%	1% 19%	1% 3%	0% 8%
	Number in cohort	680		13	110	45	32	432	48

12-month relative survival estimates by Route and age for acute myeloid leukaemia, 2006-2008, England



#### Comments

The most common Route for acute myeloid leukaemia is Emergency Presentation. 12 month survival in patients diagnosed through the Emergency Presentation Route is only a little worse than for GP Referral and Other Outpatient routes. Chemotherapy treatment of AML in the elderly is much less successful than in younger patients because of co-morbidity, frailty, and also less chemosensitive disease. There is a significant risk of early death related to intensive chemotherapy treatment given with the aim of cure, especially in the elderly. A third of patients diagnosed as an Emergency Presentation don't survive their cancer for more than a month after diagnosis.

## Glossary

### Number of patients/number in cohort

All newly diagnosed malignant neoplasms (excluding non-melanoma skin cancer) diagnosed in 2006-2008 in England were extracted from the National Cancer Data Repository (NCDR)<sup>1</sup>. The number of patients included is the number of tumours extracted from the NCDR for the presented metric. For survival cohorts, exclusions have been made for patients assigned the DCO Route and patients aged over 99 years. The number in a cohort will therefore be less than the number of patients presented by Route.

### 95% Confidence intervals for percentages

For the percentages by Route, 95% confidence intervals have been calculated using the Wilson Score Method. These are a measure of variability in the percentages and are calculated using the number of patients in the cohort. The upper and lower limits of the confidence interval show how big a contribution chance may have made to a particular statistic. The 95% confidence intervals quoted give the range in which the rate in question would fall 19 times out of 20, were it possible to repeat the analyses.

### Relative survival

Relative survival takes into account the expected survival for those included within the cohort. It is calculated as the ratio of the observed survival probability divided by the expected survival probability of a similar cohort of people in the general population, with respect to age, sex and year of diagnoses. Relative survival estimates are presented here with their 95% confidence intervals. These have been calculated using the  $strel^2$  algorithm in STATA® (version 10).

### Survival Interval

The survival interval for the relative survival estimate is the specified time period from diagnosis for which the estimate has been calculated for. A survival estimate for a 12 month interval is the estimated percentage of people who survive their cancer for 12-months after their diagnosis.

### Deprivation Quintile

This publication used the Income Score from IMD2007 to assign each LSOA in England a deprivation quintile. The quintiles were re-ordered such that deprivation was presented from the least deprived (1) to the most deprived (5). Patients are assigned to a deprivation quintile based on their residence at diagnosis.

### Percentage by Route and Survival Estimates

A graded colour scale has been used to help identify differences in results. Darker colours indicate a higher percentage with light colours indicating lower percentages. Percentages by Route range from light green (low) to dark green (high), with survival results coloured from dark blue (high) to light blue (low).

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<sup>1</sup> [http://ncin.org.uk/collecting\\_and\\_using\\_data/national\\_cancer\\_data\\_repository/default.aspx](http://ncin.org.uk/collecting_and_using_data/national_cancer_data_repository/default.aspx)

<sup>2</sup> Cancer survival group at the London School of Hygiene and Tropical Medicine (2006)

## ICD10 groups for cancer sites

The following ICD 10 groups were used for the cancer sites contained within this report:

All Cancers	C00-C97 excl. C44
Head and neck - Oropharynx	C01, C09-C10
Head and neck - Oral cavity	C02-C04, C06
Oesophagus	C15
Stomach	C16
Colorectal	C18-C20
Liver	C22
Pancreas	C25
Head and neck – larynx	C32
Lung	C33-C34
Melanoma	C43
Mesothelioma	C45
Sarcoma: connective and soft tissue	C49
Sarcoma: other	C40-C41, C48
Breast	C50
Vulva	C51
Cervix	C53
Uterus	C54-C55
Ovary	C56
Prostate	C61
Testis	C62
Kidney and unspecified urinary organs	C64-C66, C68
Bladder	C67
Central Nervous System	C70-C72
Head and neck – thyroid	C73
Hodgkin lymphoma	C81
Non-Hodgkin lymphoma	C82-C85
Myeloma	C88-C90
Leukaemia: chronic lymphocytic	C911
Leukaemia: acute myeloid	C920, C924-C925, C930, C940, C942

**Version Control**

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