

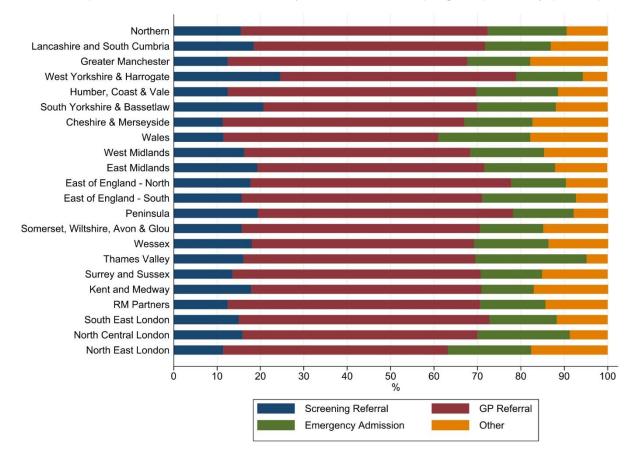
State of the Nation Report -**Supplementary Results 2023**

NBOCA: State of the Nation Report - Supplementary Results Date of publication: 8 February 2024

The National Bowel Cancer Audit is commissioned by the Healthcare Quality Improvement Partnership (HQIP) as part of the National Clinical Audit and Patient Outcomes Programme (NCAPOP). HQIP is led by a consortium of the Academy of Medical Royal Colleges, the Royal College of Nursing, and National Voices. Its aim is to promote quality improvement in patient outcomes, and in particular, to increase the impact that clinical audit, outcome review programmes and registries have on healthcare quality in England and Wales. HQIP holds the contract to commission, manage, and develop the National Clinical Audit and Patient Outcomes Programme (NCAPOP), comprising around 40 projects covering care provided to people with a wide range of medical, surgical and mental health conditions. The programme is funded by NHS England, the Welsh Government and, with some individual projects, other devolved administrations, and crown dependencies. www.hqip.org.uk/national-programmes.

of England

Supplementary Figure 1: Referral source of 35,247* patients diagnosed with bowel cancer between 01 April 2021 and 31 March 2022 by Cancer Alliance (England)/country (Wales).



*455 patients with recorded referral source "Not Known" and 76 patients not allocated a cancer alliance excluded. ^Somerset, Wiltshire, Avon & Gloucestershire.

Supplementary Table 1 Description of the 35,779 patients diagnosed with bowel cancer between 01 April 2021 and 31 March 2022 in England and Wales, by referral source.

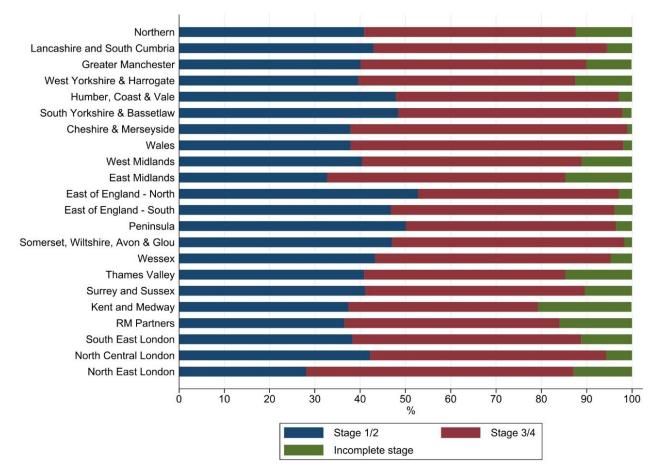
		Emerg Admi		GP Re	eferral	Screening	g Referral	Other/ No	ot Known
		Ν	%	N	%	N	%	Ν	%
Total	no. patients	5,907		19,265		5,637		4,970	
	Male	3,050	51.7	10,672	55.5	3,521	62.8	2,748	55.4
Sex	Female	2,852	48.3	8,565	44.5	2,088	37.2	2,216	44.6
	Missing (% of total)		5 (0.1)		28 (0.1)		28 (0.5)		6 (0.1)
	<50 yrs	597	10.1	1,192	6.2	2	0.0	516	10.4
	50-59 yrs	743	12.6	2,574	13.4	127	2.3	614	12.4
Age-group	60-74 yrs	1,721	29.1	6,445	33.5	5,139	91.2	1,832	36.9
Age-group	75-79 yrs	913	15.5	3,455	17.9	301	5.3	819	16.5
	80-84 yrs	859	14.5	3,059	15.9	43	0.8	688	13.8
	85+ yrs	1,074	18.2	2,540	13.2	25	0.4	501	10.1
	White	4,526	93.9	14,840	94.5	4,412	95.9	3,430	94.0
	Mixed/Multi Ethnic	27	0.6	80	0.5	18	0.4	16	0.4
	Asian	117	2.4	403	2.6	81	1.8	105	2.9
Ethnicity*	Black	98	2.0	254	1.6	52	1.1	59	1.6
	Other	53	1.1	131	0.8	39	0.8	37	1.0
	Missing/ Not Known (% of total)	1	,092 (18.5)	3	,557 (18.5)	1	,035 (18.4)	1,	317 (26.5)
	1 (Most deprived)	1,121	19.0	2,820	14.6	805	14.3	829	16.8
	2	1,158	19.6	3,523	18.3	993	17.6	858	17.3
IMDQ	3	1,187	20.1	4,208	21.9	1,217	21.6	1,032	20.9
(quintile)	4	1,260	21.4	4,407	22.9	1,296	23.0	1,111	22.5
	5 (Least deprived)	1,171	19.9	4,295	22.3	1,323	23.5	1,117	22.6
	Missing (% of total)		10 (0.2)	12 (0.1)		3 (0.1)			23 (0.5)
	Caecum/ascending colon	2,108	35.7	5,106	26.5	1,024	18.2	1,620	32.6
	Hepatic flexure	303	5.1	864	4.5	201	3.6	231	4.6
	Transverse colon	571	9.7	1,211	6.3	343	6.1	347	7.0
Cancer site	Splenic flexure/descending colon	529	9.0	919	4.8	346	6.1	266	5.4
	Sigmoid colon	1,346	22.8	4,057	21.1	1,929	34.2	1,044	21.0
	Rectosigmoid	237	4.0	1,125	5.8	206	3.7	224	4.5
	Rectal	813	13.8	5,983	31.1	1,588	28.2	1,238	24.9
	T1	124	2.1	959	5.0	762	13.5	498	10.0
Dec	T2	467	7.9	3,547	18.4	1,506	26.7	970	19.5
Pre- treatment	Т3	2,140	36.2	9,186	47.7	2,145	38.1	1,912	38.5
TNM T-stage	T4	1,920	32.5	3,500	18.2	355	6.3	745	15.0
	Тх	975	16.5	1,622	8.4	678	12.0	601	12.1
	Т9	217	3.7	271	1.4	78	1.4	163	3.3

		Emerg Admi		GP Re	eferral	Screening	g Referral	Other/ No	ot Known
		Ν	%	Ν	%	Ν	%	Ν	%
Total	no. patients	5,907		19,265		5,637		4,970	
	N0	1,993	33.7	8,143	42.3	3,492	61.9	2,443	49.2
Pre-	N1	1,773	30.0	6,568	34.1	1,383	24.5	1,330	26.8
treatment TNM N-stage	N2	1,052	17.8	3,138	16.3	393	7.0	556	11.2
**	Nx	884	15.0	1,172	6.1	297	5.3	481	9.7
	N9	205	3.5	244	1.3	72	1.3	160	3.2
Pre-	MO	3,865	65.4	15,446	80.2	5,219	92.6	4,111	82.7
treatment	M1	1,815	30.7	3,521	18.3	336	6.0	673	13.5
TNM M-	Mx	57	1.0	80	0.4	13	0.2	26	0.5
stage **	М9	170	2.9	218	1.1	69	1.2	160	3.2
	Normal activity	1,764	35.8	8,990	51.2	3,435	69.6	2,154	50.7
	Walk & light work	1,398	28.4	5,354	30.5	1,196	24.2	1,303	30.7
	Walk & all self	861	17.5	2,182	12.4	254	5.1	507	11.9
Performance	care:up >50% Ltd self care:				5.0				
Status ***	confined >50%	693	14.1	914	5.2	43	0.9	241	5.7
	Completely disabled	214	4.3	124	0.7	5	0.1	41	1.0
	Missing (% of total)		977 (16.5)		1,701 (8.8)		704 (12.5)		724 (14.6)
	Curative	2,810	47.6	13,259	68.8	4,804	85.2	3,423	68.9
Care Plan	Non Curative	1,795	30.4	3,024	15.7	185	3.3	622	12.5
Intent	No Cancer Treatment	660	11.2	1,289	6.7	120	2.1	314	6.3
	Not Known	642	10.9	1,693	8.8	528	9.4	611	12.3
	1	294	10.0	1,192	10.2	551	13.1	353	11.8
	2	1,243	42.2	6,260	53.8	2,711	64.3	1,587	53.2
ASA grade	3	1,181	40.1	3,928	33.7	920	21.8	958	32.1
	4 or 5	230	7.8	265	2.3	36	0.9	83	2.8
	Missing/ Not Known (% of total)	2	,959 (50.1)	7	620 (39.6)	1	,419 (25.2)	1,	989 (40.0)
	Major Resection	2,572	43.5	10,549	54.8	3,902	69.2	2,608	52.5
	Local Excision	42	0.7	634	3.3	530	9.4	333	6.7
Surgical	Stoma	282	4.8	707	3.7	30	0.5	97	2.0
Treatment	Stent	96	1.6	124	0.6	8	0.1	17	0.3
	Other	303	5.1	414	2.1	103	1.8	229	4.6
	None Reported	2,612	44.2	6,837	35.5	1,064	18.9	1,686	33.9

* Ethnicity obtained from HES for patients diagnosed in England and PEDW for patients diagnosed in Wales ** TNM. Tumour Nodes Metastases. A system to describe the amount and spread of cancer in the body. The 'T' refers to 'Tumour' and describes the main tumour. The 'N' refers to 'Nodes' and describes how many lymph nodes or 'glands' have cancer. The 'M' refers to 'Metastases' and describes cancer that has spread to other parts of the body. Refer to NBOCA dataset for full description of each staging.

*** WHO Performance Status. 0 = Fully active, 1 = Some restriction but cares for self, 2 = Ambulatory >50% of time, occasional assistance needed, 3 = Ambulatory $\leq 50\%$ of time, nursing care needed, 4 = Bedbound.

Supplementary Figure 2 Pre-treatment staging* of patients diagnosed with bowel cancer between 01 April 2021 and 31 March 2022 by Cancer Alliance (England)/country (Wales)**.



*Stage I: T1/T2, N0, M0

Stage II: T3/T4, N0, M0 Stage III: any T, N1/N2, M0

Stage IV: any T, any N, M1 Incomplete stage: missing N or M-stage ** The proportion of patients with missing pre-treatment staging varies from 1% to 21% making interpretation of geographical differences in pre-treatment staging problematic. ASomerset Witchire Avon & Cloucestershire

^Somerset, Wiltshire, Avon & Gloucestershire

	2017-18		2018-19		201	9-20	2020)-21	2021-22		
	Ν	%	N	%	Ν	%	N	%	Ν	%	
Total	31,698		31,500		34,113		29,749		35,779		
Major Resection	19,378	61.1	18,185	57.7	19,715	57.8	16,832	56.6	19,631	54.9	
Local Excision	1,256	4.0	1,217	3.9	1,467	4.3	1,090	3.7	1,539	4.3	
Non-resectional Surgery	1,916	6.0	2,144	6.8	2,391	7.0	2,101	7.1	2,410	6.7	
No Surgery	9,148	28.9	9,954	31.6	10,540	30.9	9,726	32.7	12,199	34.1	

Supplementary Table 2. Number of patients diagnosed and their reported surgical procedure by year of diagnosis.

Supplementary Table 3. Number of local QI targets met by hospitals/trusts/MDTs with information for the 7 QI targets that were measured over all 3 years.

	2019-20	2020-21	2021-22
% of hospitals/trusts/MDTs meeting all 7 targets	14.3	5.0	8.5
% of hospitals/trusts/MDTs meeting 6 or more targets	54.0	27.5	48.1
% of hospitals/trusts/MDTs meeting 5 or more targets	83.4	70.8	83.7
% of hospitals/trusts/MDTs meeting 4 or more targets	93.7	93.3	94.6
% of hospitals/trusts/MDTs meeting 3 or more targets	99.3	98.3	99.2
% of hospitals/trusts/MDTs meeting 2 or more targets	100.0	99.1	100.0
% of hospitals/trusts/MDTs meeting 1 or more targets	100.0	100.0	100.0

Supplementary Table 4 Number and proportion of patients recorded in NBOCA data as having been tested for mismatch repair or microsatellite instability* after a colorectal cancer diagnosis between 1 April 2018 and 31st March 2022 in England.

		2018-19			2019-20		2	2020-21		2021-22		
	Overall	No. with record	%									
All patients	28,831	3,962	13.7	31,072	5,440	17.5	27,115	6,214	22.9	32,615	8,654	26.5
With completed pathology file	17,279	3,485	20.2	19,490	4,762	24.4	15,941	4,912	30.8	18,390	6,482	35.3
Major Resection (MR) reported	16,754	3,283	19.6	18,177	4,463	24.6	15,352	4,633	30.2	17,849	6,131	34.4
MR & complete pathology file	15,481	3,247	21.0	17,403	4,428	25.4	14,340	4,535	31.6	16,235	5,961	36.7

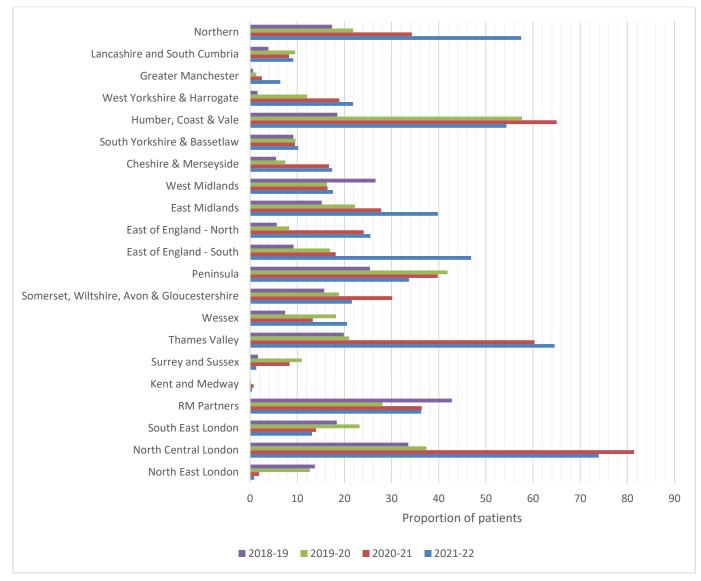
*Microsatellite instability added to dataset for 2021/22

Supplementary Table 5 Number and proportion of patients who underwent major resection recorded in NBOCA data as having been tested for mismatch repair or microsatellite instability* after a CRC diagnosis between 1 April 2018 and 31st March 2022 in England

		2018-19 2019-20					2020-21		2021-22			
	Overall	No. with record	%	Overall	No. with record	%	Overall	No. with record	%	Overall	No. with record	%
<50 years	1,105	260	23.5	1,176	333	28.3	1,080	372	34.4	1,164	446	38.3
50-59 years	2,361	508	21.5	2,431	632	26.0	1,873	606	32.4	2,211	797	36.1
60-74 years	7,467	1,424	19.1	8,557	2,068	24.2	7,273	2,193	30.2	8,523	2,937	34.5
75-84 years	4,757	888	18.7	4,971	1,192	24.0	4,211	1,218	28.9	4,914	1,632	33.2
>=85 years	1,064	203	19.1	1,042	238	22.8	915	244	26.7	1,037	319	30.8

*Microsatellite instability added to dataset for 2021/22

Supplementary Figure 3 Proportion of patients with mismatch repair/microsatellite instability testing reported to the audit after bowel cancer diagnosis between 1 April 2018 and 31st March 2022, by English Cancer Alliance

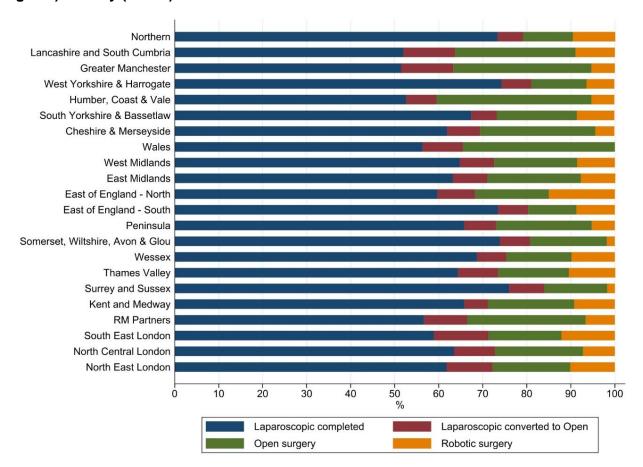


2017-18 2018-19 2019-20 2020-21 2021-22 % % Ν % % Ν % Ν Ν Ν Patients undergoing major 19,347 18,161 19,685 16,801 19,116 resection 550 515 2.4 All patients 608 3.1 3.0 511 2.6 3.1 466 Elective 221/12,338 1.8 214/11,796 1.8 185/11,968 1.5 172/10,777 1.6 178/13,261 1.3 Scheduled 2.1 2.0 83/3,972 71/3,475 60/3,525 1.7 49/2,536 1.9 49/2,812 1.7 90-day Surgical mortality Urgent 7.9 86/1,086 68/972 7.0 114/2,323 4.9 66/1,323 5.0 63/1,151 5.5 Urgency Emergency 213/1,813 11.7 189/1,724 11.0 149/1,733 8.6 222/1,976 11.2 175/1,769 9.9 5/138 8/194 3/136 6/189 1/123 0.8 Missing 3.6 4.1 2.2 3.2

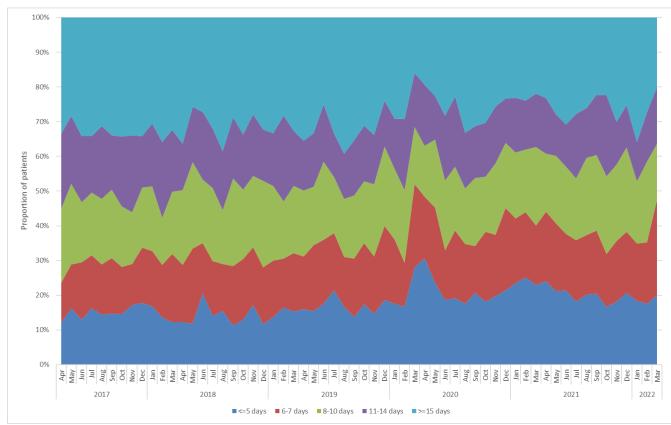
Supplementary Table 6 Number of patients dying within 90 days of a major resection for bowel cancer in England and Wales, by year of diagnosis

* Who are linked to ONS mortality data

Supplementary Figure 4 Surgical access in patients undergoing major resection after diagnosis between 01 April 2021 and 31 March 2022, by Cancer Alliance (England)/country (Wales)

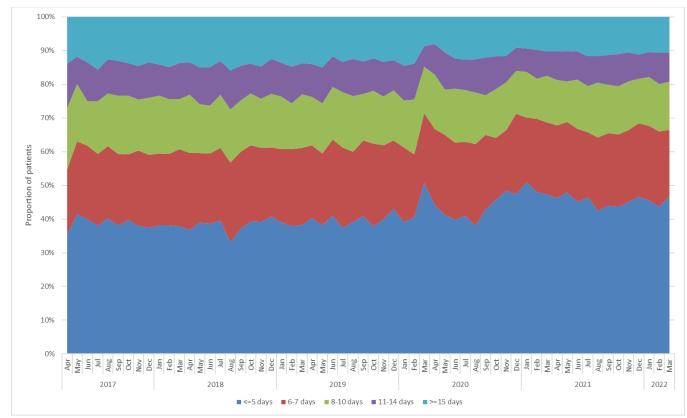


^Somerset, Wiltshire, Avon & Gloucestershire





*Welsh data for patients diagnosed between April 2019 and March 2020 excluded due to almost all patients being recorded as undergoing urgent/emergency surgery



Supplementary Figure 6. Length of stay for patients having elective or scheduled major surgery for bowel cancer between April 2017 and March 2022*

*Welsh data for patients diagnosed between April 2019 and March 2020 excluded due to almost all patients being recorded as undergoing urgent/emergency surgery

Supplementary Table 7 Management of rectal cancer patients as reported to NBOCA in England and Wales, by year of diagnosis

	2017	2017-18		2018-19		2019-20)-21	2021-22	
	N	%	N	%	N	%	N	%	N	%
Total Rectal Cancer Patients	8,850		8,937		9,233		7,829		9,622	
Major Resection	4,669	52.8	4,371	48.9	4,468	48.4	3,733	47.7	4,246	44.1
Local Excision	639	7.2	657	7.4	714	7.7	506	6.5	712	7.4
Non-resectional Surgery	625	7.1	669	7.5	761	8.2	665	8.5	797	8.3

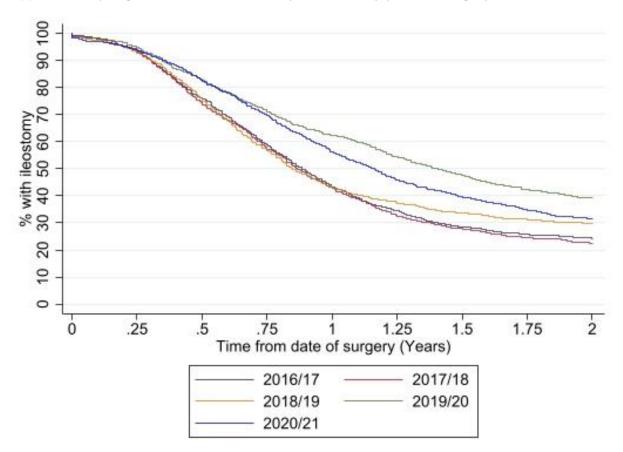
Supplementary Table 8 Type of major resection performed for rectal cancer in England and Wales, by year of surgery

	2016	2016-17		2017-18		3-19	2019-20		2020-21	
	N	%	Ν	%	N	%	N	%	Ν	%
Total	3,444		4,437		4,211		4,124		3,450	
Anterior Resection	2,199	63.9	2,695	60.7	2,577	61.2	2,517	61.0	1,990	57.7
Abdomino-perineal excision of rectum (APER)	802	23.3	1,201	27.1	1,117	26.5	1,116	27.1	1,044	30.3
Hartmann's	343	10.0	453	10.2	421	10.0	389	9.4	354	10.3
Other	100	2.9	88	2.0	96	2.3	102	2.5	62	1.8

Supplementary Table 9 Stoma status within 30 days of surgery and 18 months postsurgery in patients undergoing an anterior resection in England and Wales, by year of surgery

		2016-17		2017-	2017-18		2018-19		2019-20		-21
		N	%	N	%	N	%	Ν	%	N	%
Total		2,199		2,695		2,577		2,517		1,990	
Stoma status	No stoma	479	21.8	566	21.0	578	22.4	596	23.7	444	22.3
within 30d of	lleostomy	1,435	65.3	1,757	65.2	1,582	61.4	1,528	60.7	1,167	58.6
surgery	Colostomy	285	13.0	372	13.8	417	16.2	393	15.6	379	19.0
	lleostomy at 18 months in those with lleostomy at surgery	402	28.0	487	27.7	523	33.1	720	47.1	457	39.2

Supplementary Figure 7 Time to ileostomy reversal, by year of surgery



Supplementary Table 10 Patient characteristics by clinical group for 9,661 rectal cancer patients diagnosed in England between 01 January 2021 and 31 December 2021

The recommendations for the management of rectal cancer in <u>NICE guidelines</u> are partly based on tumour staging at diagnosis. Supplementary Table 10 shows the difference in patient and tumour characteristics and treatment (neo-adjuvant and surgical) by clinical groups defined by pre-treatment tumour staging.

		Early t	umour	Loc adva		Meta	static	Incom stag	
		Ν	%	Ν	%	Ν	%	N	%
Total r	ectal cancer patients	2,277		5,227		1,542		615	
	Male	1,419	62.4	3,436	65.8	991	64.5	352	57.6
Sex	Female	854	37.6	1,784	34.2	545	35.5	259	42.4
	Missing		4 (0.2)		7 (0.1)		6 (0.4)		4 (0.7)
	<50 yrs	117	5.1	374	7.2	140	9.1	47	7.6
	50-59 yrs	245	10.8	785	15.0	275	17.8	68	11.1
Age-group	60-74 yrs	1,208	53.1	2,359	45.1	590	38.3	259	42.1
	75-84 yrs	563	24.7	1,307	25.0	388	25.2	150	24.4
	85+ yrs	144	6.3	402	7.7	149	9.7	91	14.8
	T1	671	29.5	31	0.6	31	2.0	38	6.2
	T2	1,606	70.5	457	8.7	89	5.8	29	4.7
Pre-treatment TNM T-stage*	Т3			3,786	72.4	800	51.9	14	2.3
	Т4			943	18.0	545	35.3	8	1.3
	ТХ/ Т9			10	0.2	77	5.0	526	85.5
	NO	2,277	100.0	1,550	29.7	204	13.2	176	28.6
Pre-treatment	N1			2,462	47.1	617	40.0	11	1.8
TNM N-stage*	N2			1,166	22.3	644	41.8	8	1.3
	Nx/ N9			49	0.9	77	5.0	420	68.3
	МО	2,277	100.0	5,227	100.0			452	73.5
Pre-treatment TNM M-stage*	M1					1,542	100.0		
	Mx/ M9							163	26.5
	Anterior Resection	698	30.7	1,772	33.9	93	6.0	101	16.4
	APER/Pelvic Exenteration	288	12.6	841	16.1	64	4.2	22	3.6
	Hartmann's	90	4.0	287	5.5	37	2.4	18	2.9
Surgical Procedure	Local Excision	516	22.7	54	1.0	5	0.3	124	20.2
	Other Resection	46	2.0	80	1.5	7	0.5	10	1.6
	Stent/Stoma	10	0.4	323	6.2	243	15.8	25	4.1
	None	629	27.6	1,870	35.8	1,093	70.9	315	51.2
Mode of	Elective	1,919	95.7	4,523	90.8	1,090	75.5	393	80.9
admission	Emergency	87	4.3	459	9.2	354	24.5	93	19.1
(from HES)	Missing (% of total)	27	71 (11.9)	2	245 (4.7)		98 (6.4)	12	29 (21.0)

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		Early t	umour	Loc adva		Meta	static	Incom stag	
		N	%	Ν	%	Ν	%	N	%
Total	rectal cancer patients	2,277		5,227		1,542		615	
	0	1,031	51.5	2,534	50.9	795	55.1	237	48.9
Comorbidities	1	585	29.2	1,518	30.5	423	29.3	146	30.1
(from HES)	2+	387	19.3	922	18.5	224	15.5	102	21.0
	Missing (% of total)	27	74 (12.0)	2	253 (4.8)		100 (6.5)	13	0 (21.1))
	0-5	616	40.4	1,371	37.3	401	42.4	129	50.0
Tumour height	6-10	634	41.6	1,607	43.7	388	41.0	76	29.5
from anal verge (cm)	11-15	273	17.9	699	19.0	157	16.6	53	20.5
	Missing	7	54 (33.1)	1,5	50 (29.7)	59	96 (38.7)	35	57 (58.0)
	G1 Well	157	11.6	197	7.2	15	8.1	24	13.4
Grade	G2 Moderate	1,111	82.3	2,374	87.1	151	81.2	143	79.9
(differentiation)	G3/G4 Poor/Undifferentiated/anaplastic	82	6.1	155	5.7	20	10.8	12	6.7
	Missing	92	27 (40.7)	2,50	01 (47.8)	1,3	56 (87.9)	43	36 (70.9)
	None	925	68.4	1,529	55.8	85	41.3	120	62.5
Vascular/ Lymphatic	Vascular +/- Lymphatic	356	26.3	1,108	40.4	107	52.0	50	26.1
Invasion	Uncertain/Not assessed/NK	72	5.3	105	3.8	14	6.8	22	11.5
	Missing	92	24 (40.6)	2,48	35 (47.5)	1,33	36 (86.6)	42	23 (68.8)
	None	1,944	85.4	2,816	53.9	1,075	69.7	532	86.5
Neo-adjuvant	Long Course (LCRT)	140	6.1	1,469	28.1	170	11.0	40	6.5
Radiotherapy (RT)	Short Course (SCRT)	174	7.6	916	17.5	276	17.9	42	6.8
	Other**	19	0.8	26	0.5	21	1.4	<5	0.2

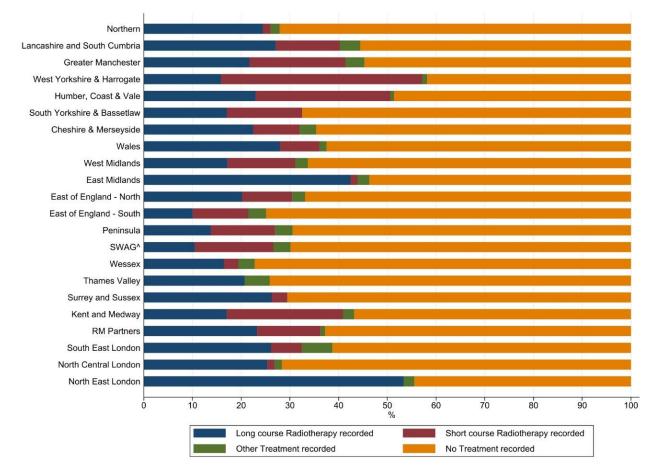
* TNM. Tumour Nodes Metastases. A system to describe the amount and spread of cancer in the body. The 'T' refers to 'Tumour' and describes the main tumour. The 'N' refers to 'Nodes' and describes how many lymph nodes or 'glands' have cancer. The 'M' refers to 'Metastases' and describes cancer that has spread to other parts of the body. Refer to <u>NBOCA dataset</u> for full description of each staging.

** Radiotherapy records that cannot be classified into long or short-course regimens

Clinical Groups

Early tumour:T1/2, N0, M0Locally Advanced:any T, N1/N2, M0 or T3/4, N0, M0Metastatic:any T, any N, M1Incomplete:any other staging that includes missing data that prevents classification

Supplementary Figure 8 Treatment pathways for rectal cancer patients diagnosed between 01 January 2021 and 31 December 2021 who underwent major resection, by Cancer Alliance (England)/country (Wales)* performing surgery



* Data for England and Wales has been obtained from different sources: Welsh data submitted by CANISC ; data for England from linked data sources (RTDS, SACT and HES)

^Somerset, Wiltshire, Avon & Gloucestershire

		2017-1	8	2018-1	9	2019-2	0
		N	%	N	%	Ν	%
All patier	nts	31,217		30,920		33,194	
	Yes	10,249	32.9	9,848	31.9	10,245	30.9
Died within 24 months	No	20,902	67.1	21,014	68.1	22,881	69.1
of diagnosis	Missing (% of total)	66 (0.2)		58 (0.2)		68 (0.2)	
Underwent Major	Resection	20,146	64.5	19,993	64.7	20,942	63.1
	Yes	3,116	15.5	2,987	15.0	2,844	13.6
Died within 24 months	No	17,007	84.5	16,985	85.0	18,073	86.4
of diagnosis	Missing (% of total)	23 (0.1)		21 (0.1)		25 (0.1)	
Underwent Loca	I Excision	1,239	4.0	1,182	3.8	1,394	4.2
	Yes	102	8.2	101	8.6	79	5.7
Died within 24 months	No	1,135	91.8	1,080	91.4	1,313	94.3
of diagnosis	Missing (% of total)	2 (0.0)		1 (0.0)		2 (0.0)	
No Excision of	Tumour	9,832	31.5	9,745	31.5	10,858	32.7
	Yes	7,031	71.8	6,760	69.6	7,322	67.7
Died within 24 months	No	2,760	28.2	2,949	30.4	3,495	32.3
of diagnosis	Missing (% of total)	41 (0.1)		36 (0.1)		41 (0.1)	

Supplementary Table 11 2-year all-cause mortality over time for all patients diagnosed between 01 April 2017 and 31 March 2020 in England and Wales

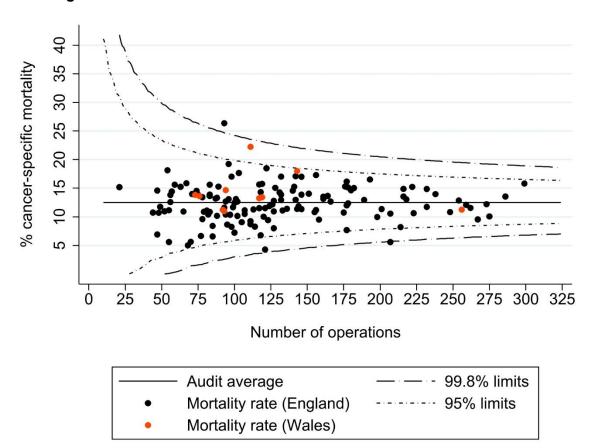
Patients whose date of diagnosis was >182 days after the recorded date of surgery were excluded unless the date of surgery was between April 2017 – March 2020 in which case it was used to allocate audit year of diagnosis.

*Local Excision/ Major Resection had to occur within one year of diagnosis; due to under-reporting of surgery for patients diagnosed April 2018 – March 2020, this has been updated from HES/PEDW where available

		2017-18		2018-19		2019-20		2020-21		2021-22	
		N	%	Ν	%	Ν	%	Ν	%	Ν	%
Total patients		4,669		4,371		4,468		3,733		4,246	
Recorded margin status	Negative	3,778	89.5	3,539	92.0	3,792	93.1	3,094	92.6	3,517	92.7
	Positive	445	10.5	306	8.0	279	6.9	246	7.4	277	7.3
	Missing	446 (9.6)		526 (12.0)		397 (8.9)		393 (10.5)		452 (10.6)	

Supplementary Table 12 Circumferential resection margin status for those with rectal cancer undergoing major resection in England and Wales, by year of diagnosis

Supplementary Figure 9 Adjusted cancer-specific 2-year mortality rate for patients who underwent a major resection between 01 April 2019 and 31 March 2020, by English NHS trusts/Welsh MDTs with more than ten patients



Audit average = 12.5%