

Supplementary data for

# Temporal Change in Treatment Patterns of Metastatic Colorectal Cancer and Its Association with Patient Survival: A Retrospective Cohort Study Based on an Intelligent Big-Data Platform

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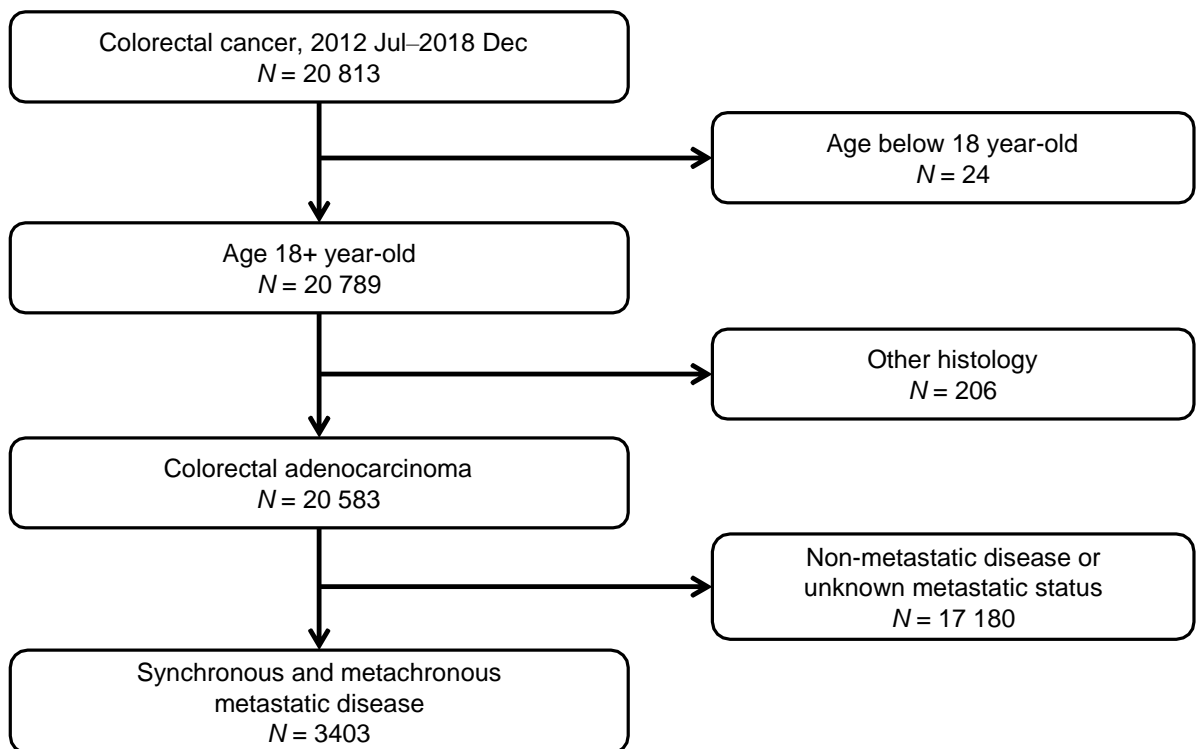
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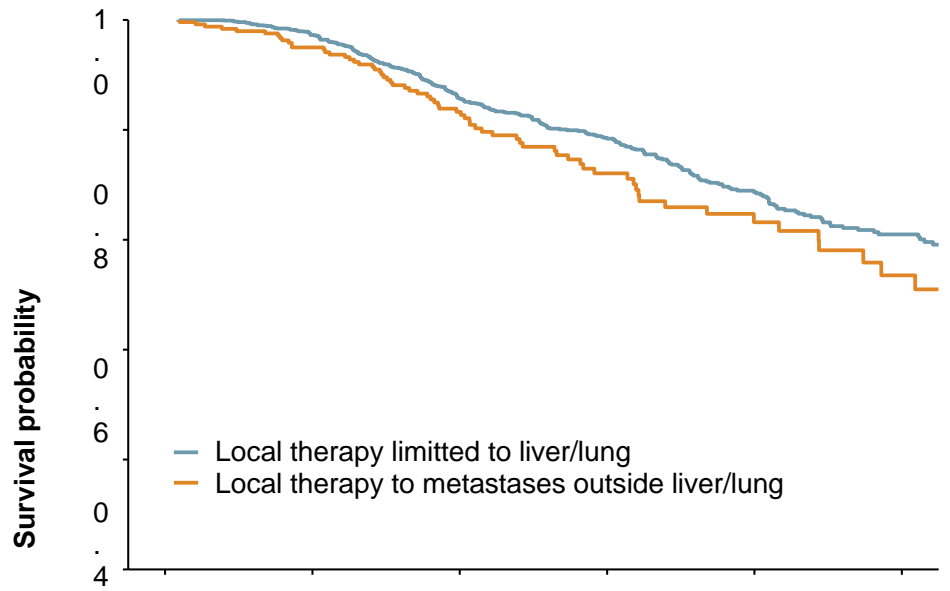


**Fig. S1.** Flowchart for the patient inclusion and exclusion process.

**Table S1**Baseline characteristics of the study cohort ( $N = 3403$ ).

Variable	Category	Number
Age, years	< 65	2147 (63.1%)
	≥ 65	1256 (36.9%)
Sex	Male	2091 (61.4%)
	Female	1312 (38.6%)
Performance status	KPS = 100 or ECOG = 0	104 (3.1%)
	KPS = 80–90 or ECOG = 1	2232 (65.6%)
	KPS ≤ 70 or ECOG ≥ 2	37 (1.1%)
	Unknown	1030 (30.3%)
Tumor sidedness	Left	1850 (54.4%)
	Right	792 (23.3%)
	Both	222 (6.5%)
	Unknown	539 (15.8%)
Number of metastatic sites	1	1575 (46.3%)
	> 1	1431 (42.1%)
	Unknown	397 (11.7%)
Liver metastasis	No	995 (29.2%)
	Yes	2011 (59.1%)
	Unknown	397 (11.7%)
Lung metastasis	No	1795 (52.7%)
	Yes	1211 (35.6%)
	Unknown	397 (11.7%)
Peritoneal metastasis	No	2639 (77.5%)
	Yes	367 (10.8%)
	Unknown	397 (11.7%)
Bone metastasis	No	2800 (82.3%)
	Yes	206 (6.1%)
	Unknown	397 (11.7%)
Molecular subtype	<i>kras/nras</i> and <i>braf</i> wild-type	483 (14.2%)
	<i>kras/nras</i> -mutant	607 (17.8%)
	<i>braf</i> <sup>V600E</sup> -mutant	76 (2.2%)
	Other/unknown	2237 (65.7%)

KPS: Karnofsky performance status.



	0	12	24	36	48	60
	No. at risk					
Local therapy limited to liver/lung	1234	1140	783	498	264	141
Local therapy to metastases outside liver/lung	242	220	141	79	41	22

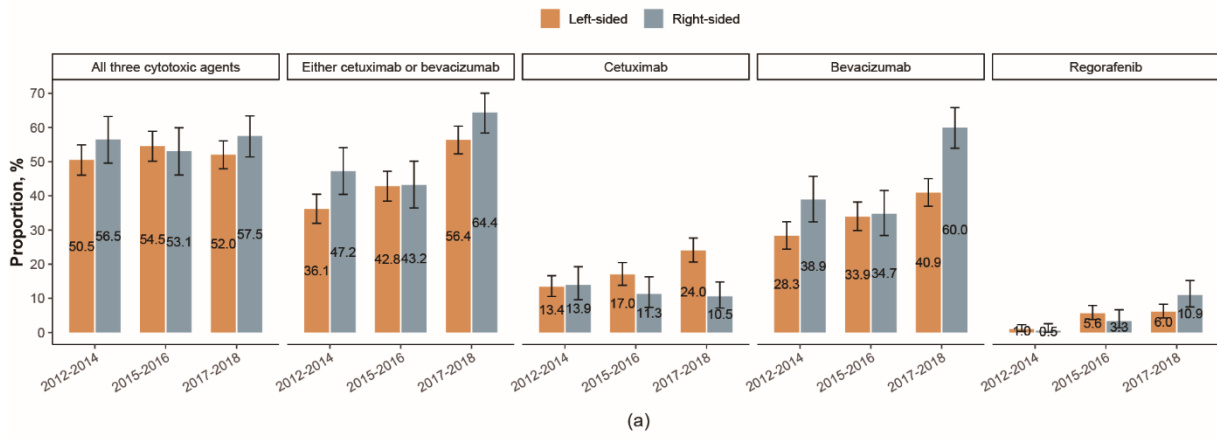
**Fig. S2.** OS in patients receiving local therapy to extrahepatic and/or extrapulmonary metastases versus those receiving local therapy limited to liver and/or lung lesions.

**Table S2**

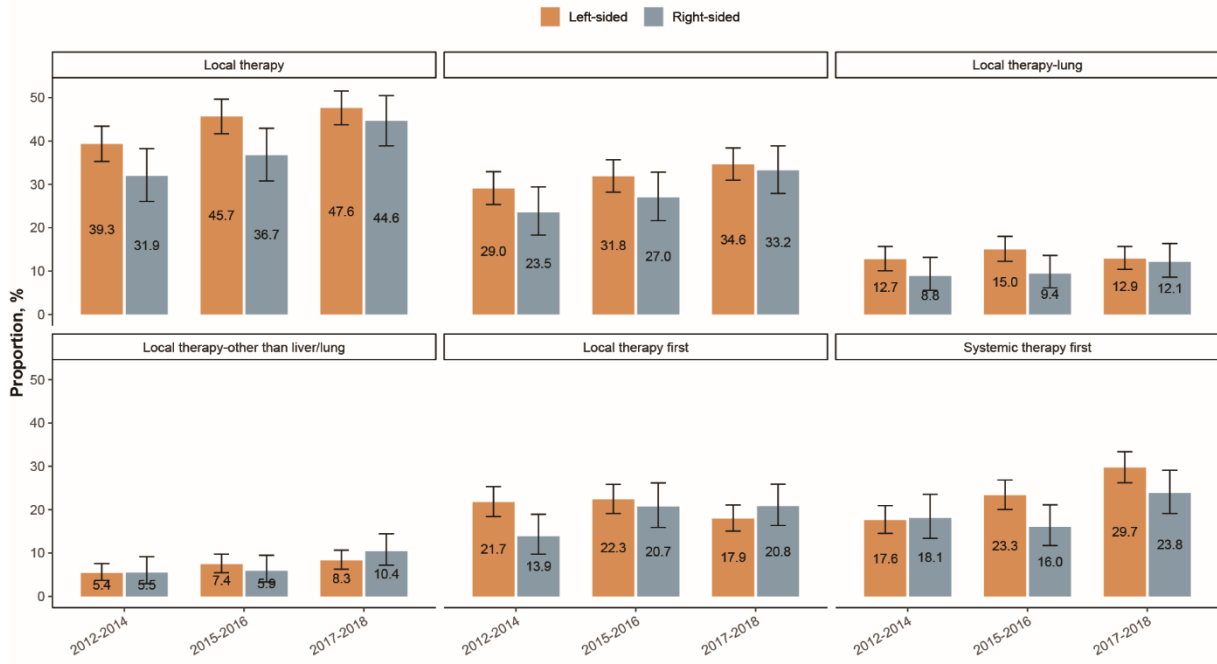
Temporal changes in baseline characteristics.

Variable	Category	Number (proportion)			P value
		2012–2014	2015–2016	2017–2018	
Age, years	< 65	701 (67.1%)	669 (58.9%)	777 (63.5%)	0.101
	≥ 65	343 (32.9%)	466 (41.1%)	447 (36.5%)	
Sex	Male	631 (60.4%)	685 (60.4%)	775 (63.3%)	0.149
	Female	413 (39.6%)	450 (39.6%)	449 (36.7%)	
Performance status	KPS = 100 or ECOG = 0	31 (4.2%)	19 (2.7%)	54 (5.8%)	0.032
	KPS = 80–90 or ECOG = 1	702 (94.6%)	658 (95.1%)	872 (92.9%)	
	KPS ≤ 70 or ECOG ≥ 2	9 (1.2%)	15 (2.2%)	13 (1.4%)	
Tumor sidedness	Left	575 (65.7%)	622 (64.9%)	653 (63.3%)	0.367
	Right	238 (27.2%)	256 (26.7%)	298 (28.9%)	
	Both	62 (7.1%)	80 (8.4%)	80 (7.8%)	
Number of metastatic sites	1	443 (48.6%)	564 (55.8%)	568 (52.4%)	0.206
	> 1	469 (51.4%)	447 (44.2%)	515 (47.6%)	
Liver metastasis	No	36 (29.0%)	108 (30.5%)	137 (31.6%)	0.511
	Yes	88 (71.0%)	246 (69.5%)	297 (68.4%)	
Lung metastasis	No	66 (53.2%)	197 (55.6%)	254 (58.5%)	0.113
	Yes	58 (46.8%)	157 (44.4%)	180 (41.5%)	
Peritoneal metastasis	No	107 (86.3%)	324 (91.5%)	371 (85.5%)	0.143
	Yes	17 (13.7%)	30 (8.5%)	63 (14.5%)	
Bone metastasis	No	114 (91.9%)	331 (93.5%)	401 (92.4%)	0.6035
	Yes	10 (8.1%)	23 (6.5%)	33 (7.6%)	
Molecular subtype	<i>kras/nras</i> and <i>braf</i> wild-type	119 (43.4%)	117 (34.4%)	247 (44.7%)	< 0.001
	<i>kras/nras</i> -mutant	146 (53.3%)	203 (59.7%)	258 (46.7%)	
	<i>braf</i> <sup>N600E</sup> -mutant	9 (3.3%)	20 (5.9%)	47 (8.5%)	

Patients with missing data were excluded from analysis per variable. P values from Cochran–Armitage test are shown.



(a)



(b)

**Fig. S3.** Temporal changes in the utility of (a) systemic therapy and (b) local therapy according to primary tumor location. Only patients that received systemic therapy were included in the analysis of temporal changes in systemic treatment patterns.