

### The actual retrieval strategy in present study.

**1#** (((((((((((((Neoplasms, Colorectal[Title/Abstract]) OR Colorectal Neoplasm[Title/Abstract]) OR Neoplasm, Colorectal[Title/Abstract]) OR Colorectal Tumors[Title/Abstract]) OR Colorectal Tumor[Title/Abstract]) OR Tumor, Colorectal[Title/Abstract]) OR Tumors, Colorectal[Title/Abstract]) OR Colorectal Carcinoma[Title/Abstract]) OR Carcinoma, Colorectal[Title/Abstract]) OR Carcinomas, Colorectal[Title/Abstract]) OR Colorectal Carcinomas[Title/Abstract]) OR Colorectal Cancer[Title/Abstract]) OR Cancer, Colorectal[Title/Abstract]) OR Cancers, Colorectal[Title/Abstract]) OR Colorectal Cancers[Title/Abstract])) OR "Colorectal Neoplasms"[Mesh]

**2#** (((((((((((((((Colonic Neoplasm[Title/Abstract]) OR Neoplasm, Colonic[Title/Abstract]) OR Neoplasms, Colonic[Title/Abstract]) OR Colon Neoplasms[Title/Abstract]) OR Colon Neoplasm[Title/Abstract]) OR Neoplasm, Colon[Title/Abstract]) OR Neoplasms, Colon[Title/Abstract]) OR Cancer of Colon[Title/Abstract]) OR Colon Cancers[Title/Abstract]) OR Cancer of the Colon[Title/Abstract]) OR Colonic Cancer[Title/Abstract]) OR Cancer, Colonic[Title/Abstract]) OR Cancers, Colonic[Title/Abstract]) OR Colonic Cancers[Title/Abstract]) OR Colon Cancer) OR Cancer, Colon) OR Cancers, Colon)) OR "Colonic Neoplasms"[Mesh])

**3#** (((((((((((((((Neoplasm, Rectal[Title/Abstract]) OR Rectal Neoplasm[Title/Abstract]) OR Rectum Neoplasms[Title/Abstract]) OR Neoplasm, Rectum[Title/Abstract]) OR Rectum Neoplasm[Title/Abstract]) OR Rectal Tumors[Title/Abstract]) OR Rectal Tumor[Title/Abstract]) OR Tumor, Rectal[Title/Abstract]) OR Neoplasms, Rectal[Title/Abstract]) OR Cancer of Rectum[Title/Abstract]) OR Rectum Cancers[Title/Abstract]) OR Rectal Cancer[Title/Abstract]) OR Cancer, Rectal[Title/Abstract]) OR Rectal Cancers[Title/Abstract]) OR Rectum Cancer[Title/Abstract]) OR Cancer, Rectum[Title/Abstract]) OR Cancer of the Rectum[Title/Abstract])) OR "Rectal Neoplasms"[Mesh]

**4#** (((side[Title/Abstract]) OR sidedness[Title/Abstract]) OR sided[Title/Abstract]) OR location[Title/Abstract]) OR localisation[Title/Abstract]

**5#** (survival[Title/Abstract]) OR outcome[Title/Abstract]

**6#** (((("Prognosis"[Mesh]) OR prognoses[Title/Abstract]) OR prognostic factors[Title/Abstract]) OR factor, prognostic[Title/Abstract]) OR factors, prognostic[Title/Abstract]) OR prognostic factor[Title/Abstract]

**7#=1# OR 2# OR 3#**

**8#=5# OR 6#**

**9#=7# AND 4# AND 8#**

**Supplementary Table 1** Association between primary tumor location and outcome of [first-line](#) chemotherapy treated mCRC patients in the meta-analysis (-Right vs. Left).

Subgroup	Overall survival				Progression-free survival			
	Heterogeneity test		HR (and 95% CI)		Heterogeneity test		HR (and 95% CI)	
	<i>p</i> -value	<i>I</i> <sup>2</sup>	Fixed	Random	<i>p</i> -value	<i>I</i> <sup>2</sup>	Fixed	Random
Overall population	0.827	0.00	1.46(1.32-1.62)	1.46(1.32-1.62)	0.280	20.4	1.30(1.17-1.44)	1.32(1.17-1.49)
<i>RAS</i> status								
Wild type	0.756	0.00	1.32(1.02-1.72)	1.32(1.02-1.72)	0.402	0.00	1.32(0.98-1.77)	1.32(0.98-1.77)
Unknown	0.731	0.00	1.49(1.33-1.67)	1.49(1.33-1.67)	0.135	46.1	1.30(1.16-1.44)	1.33(1.14-1.56)
Race								
Caucasian	0.958	0.00	1.51(1.28-1.78)	1.51(1.28-1.78)	0.349	4.90	1.44(1.23-1.68)	1.45(1.23-1.70)
Mixed	0.632	0.00	1.48(1.28-1.70)	1.48(1.28-1.70)	0.519	0.00	1.21(1.06-1.38)	1.21(1.06-1.38)
<a href="#">Metastatic setting*</a>	<a href="#">0.661</a>	<a href="#">0.00</a>	<a href="#">1.43(1.24-1.64)</a>	<a href="#">1.43(1.24-1.64)</a>	<a href="#">0.567</a>	<a href="#">0.00</a>	<a href="#">1.40(1.23-1.59)</a>	<a href="#">1.40(1.23-1.59)</a>

**Abbreviation:** HR: hazard ratio; CI: confidence interval; [metastatic setting\\*](#): the included studies with unresectable mCRC patients.

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**Supplementary Table 2** Association between primary tumor location and outcome for mCRC patients treated with [first-line](#) chemotherapy plus bevacizumab in the meta-analysis (Left vs. Right).

Subgroup	Overall survival				Progression-free survival			
	Heterogeneity test		MSR (and 95% CI)		Heterogeneity test		MSR (and 95% CI)	
	<i>p</i> -value	<i>I</i> <sup>2</sup>	Fixed	Random	<i>p</i> -value	<i>I</i> <sup>2</sup>	Fixed	Random
Overall population	0.000	91.0	1.24(1.20-1.28)	1.23(1.08-1.39)	0.000	88.0	1.13(1.10-1.18)	1.03(0.92-1.16)
RAS status								
Wild type	0.045	62.8	1.24(1.15-1.35)	1.29(1.12-1.48)	0.169	43.8	1.11(1.01-1.21)	1.09(0.97-1.23)
Unknown	0.000	94.7	1.24(1.19-1.29)	1.20(0.99-1.45)	0.000	92.0	1.14(1.10-1.19)	1.00(0.86-1.17)
Race								
Caucasian	0.000	89.7	1.14(1.05-1.24)	1.17(0.90-1.53)	0.000	89.5	0.97(0.88-1.07)	0.93(0.67-1.28)
Mixed	0.000	93.2	1.26(1.21-1.31)	1.29(1.10-1.51)	0.189	34.9	1.18(1.13-1.22)	1.18(1.12-1.24)
<a href="#">Metastatic setting*</a>	<a href="#">0.000</a>	<a href="#">91.8</a>	<a href="#">1.26(1.21-1.32)</a>	<a href="#">1.23(1.05-1.45)</a>	<a href="#">0.000</a>	<a href="#">89.3</a>	<a href="#">1.12(1.06-1.17)</a>	<a href="#">1.00(0.86-1.16)</a>

**Abbreviation:** MSR: median survival ratio; CI: confidence interval; [metastatic setting\\*](#): the included studies with unresectable mCRC patients.

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**Supplementary Table 3** Clinical outcome comparison in right-sided *RAS*-wild mCRC patients with first-line chemotherapy plus bevacizumab or chemotherapy in the meta-analysis (chemotherapy plus bevacizumab vs. chemotherapy).

Subgroup	Overall survival				Progression-free survival			
	Heterogeneity test		MSR(95% CI)		Heterogeneity test		MSR(95% CI)	
	<i>p</i> -value	<i>I</i> <sup>2</sup>	Fixed	Random	<i>p</i> -value	<i>I</i> <sup>2</sup>	Fixed	Random
Overall population	0.658	0.000	1.21(1.11-1.31)	1.21(1.11-1.31)	0.009	0.787	1.37(1.26-1.48)	1.40(1.15-1.71)
Metastatic setting*	0.363	0.000	1.20(1.06-1.36)	1.20(1.06-1.36)	0.369	0.0	1.57(1.39-1.77)	1.57(1.39-1.77)

**Abbreviation:** MSR: median survival ratio; CI: confidence interval; metastatic setting: the included studies with unresectable mCRC patients.

**Supplementary Table 43** Outcome comparison of right-sided mCRC patients treated with chemotherapy plus bevacizumab or chemotherapy plus anti-EGFR mAbs in meta-analysis (chemotherapy plus bevacizumab vs. chemotherapy plus anti-EGFR mAbs).

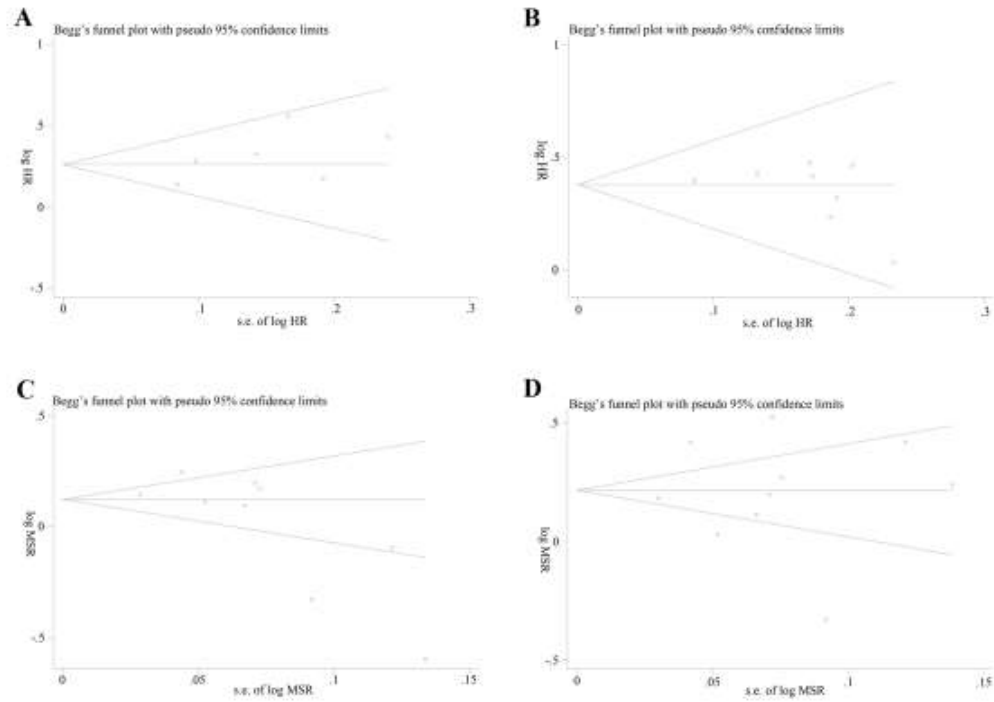
	FIRE 3 (Right-sided N=88)		CALGB 80405 (Right-sided N=149)		PEAK (Right-sided N=36)		p-value	I <sup>2</sup>	Combined HR(95%CI)
	FOLFIRI	FOLFIRI	FOLFIRI/	FOLFIRI/	FOLFOX6	FOLFOX6			
	+Bev n=50	+Cet n=38	FOLFOX6+ Bev n=78	FOLFOX6+ Cet n=71	+Bev n=14	+Pani n=22			
OS									
Median, months	23.0	18.3	29.2	13.6	21.04	17.4			
HR (95%CI)	0.76(0.47-1.23)		0.74(0.50-1.08)		0.67(0.30-1.50)		0.966	0.0	0.74(0.56-0.98)
PFS									
Median, months	9.0	7.6	10.2	7.5	12.6	8.7			
HR (95%CI)	0.69(0.44-1.09)		0.61(0.42-0.87)		0.96(0.46-2.00)		0.552	0.0	0.67(0.52-0.88)

**Abbreviation:** OS: overall survival; PFS: progression-free survival; OR: odds ratio; HR: hazard ratio; CI: confidence interval; Bev: bevacizumab; Cet: cetuximab; Pani: panitumumab; FOLFIRI: fluorouracil, leucovorin and irinotecan; FOLFOX: fluorouracil, leucovorin and oxaliplatin.

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Supplementary Figure 1