

Munich Cancer Registry



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Marchioninstr. 15
Munich, 81377
Germany

<http://www.tumorregister-muenchen.de/en>

Cancer statistics: Survival

C19, C20: Rectal cancer

Year of diagnosis	1988-2013
Patients	19,052
Diseases	19,075
Cases evaluated	11,183
Creation date	05/13/2015
Export date	12/30/2014
Population	4.64 m



http://www.tumorregister-muenchen.de/en/facts/surv/surv_C1920E.pdf

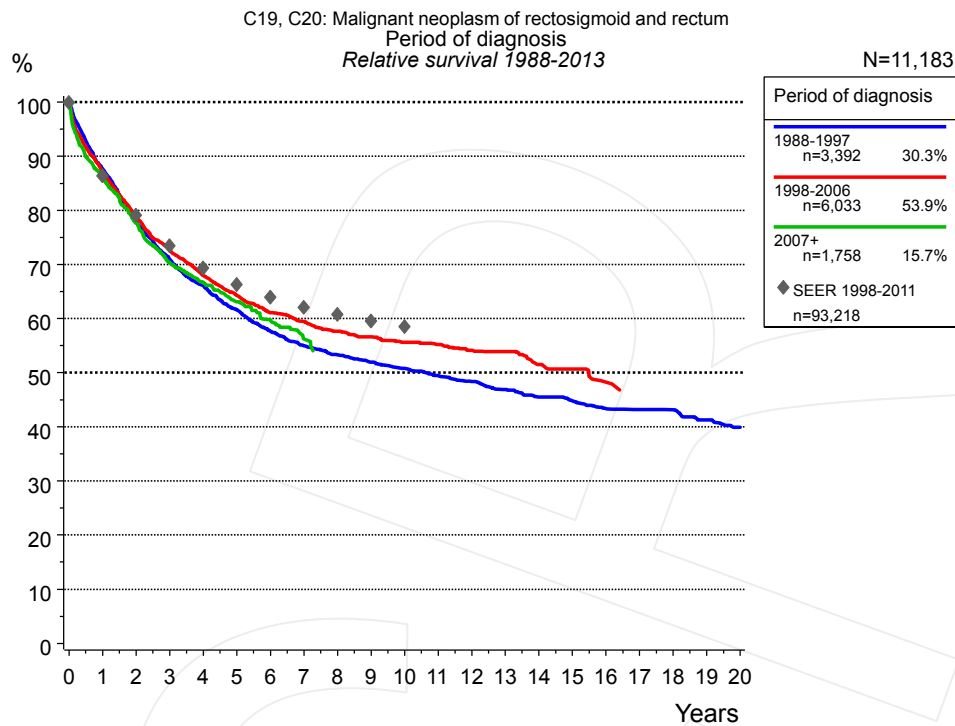


Figure 1a. Relative survival of patients with rectal cancer by period of diagnosis. Included in the evaluation are 11,183 cases diagnosed between 1988 and 2013.

The survival results of the SEER program (Surveillance, Epidemiology, and End Results) of the American National Cancer Institute (NCI) are summarized as the period of diagnosis from 1998 to 2011, and are represented by gray diamonds in order to facilitate comparisons between MCR and SEER.

The presented survival curves are derived from clinical records with valid follow-up informations, which means that death certificate cases (DCO) cases are omitted from the analysis. With this one restriction, the MCR has provided population-based statistics since 1988, collecting data on all cancer cases in the region of southern Bavaria. Historical data of previous time periods can be heavily selected, therefore, univariate survival comparisons of the presented time periods must be carefully considered. Nonetheless, all calculable survival curves are depicted to facilitate the comparison of long time follow-up analyses of relative survival between particular cancers.

Years	Period of diagnosis					
	1988-1997 n=3,392		1998-2006 n=6,033		2007+ n=1,758	
	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0	100.0	100.0
1	84.8	87.6	84.4	87.2	83.1	85.9
2	73.1	77.9	74.0	78.8	73.2	77.7
3	64.6	71.0	66.5	72.7	64.3	70.3
4	58.3	66.1	60.3	67.9	59.3	66.7
5	52.7	61.6	55.5	64.3	54.2	63.1
6	47.8	57.7	51.2	61.1	49.9	59.7
7	44.2	55.0	48.5	59.4	45.6	56.2
8	41.5	53.3	45.6	57.6		
9	39.2	52.0	43.5	56.6		
10	37.1	50.8	41.3	55.6		
11	35.0	49.5	39.6	55.2		
12	33.1	48.4	37.5	54.1		
13	31.1	46.9	36.1	53.9		
14	29.2	45.5	33.2	51.5		
15	27.7	44.8	31.7	50.7		
16	26.0	43.4	29.0	48.2		
17	25.1	43.2				
18	24.1	43.2				
19	22.3	41.3				
20	20.7	39.9				

Table 1b. Observed (obs.) and relative (rel.) survival of patients with rectal cancer by period of diagnosis for period 1988-2013 (N=11,183).

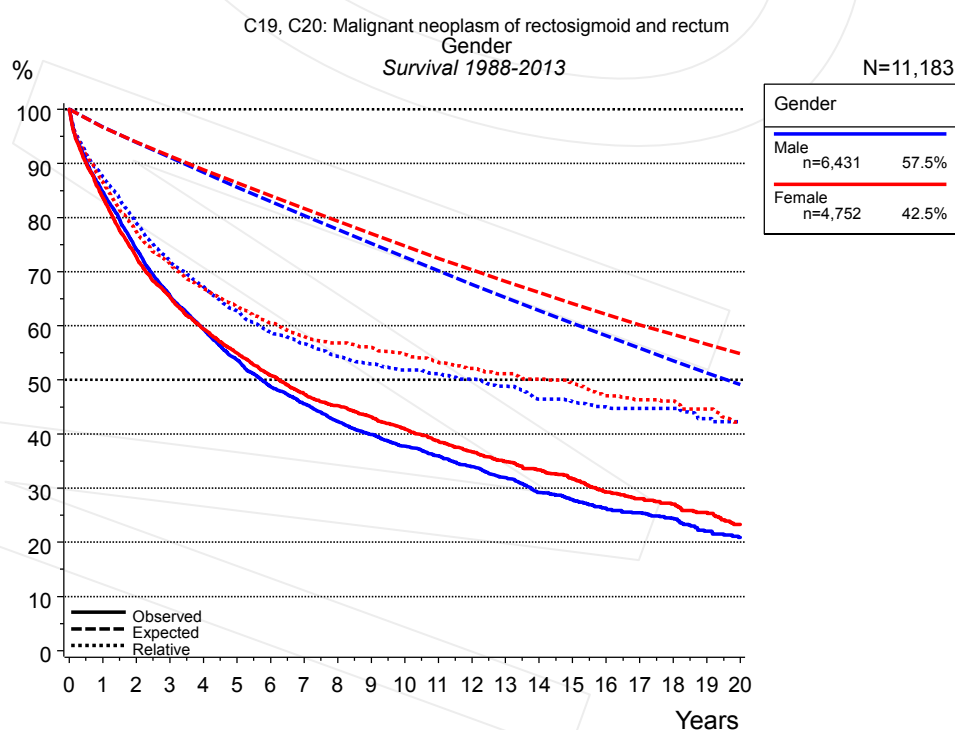


Figure 2a. Survival of patients with rectal cancer by gender. Included in the evaluation are 11,183 cases diagnosed between 1988 and 2013.

Years	Gender			
	Male n=6,431		Female n=4,752	
	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0
1	84.8	87.6	83.7	86.6
2	74.2	79.0	72.8	77.5
3	65.6	72.0	65.4	71.5
4	59.5	67.2	59.4	66.9
5	53.7	62.8	55.0	63.6
6	48.8	58.8	50.9	60.5
7	45.6	56.7	47.4	58.1
8	42.4	54.4	45.2	56.8
9	39.9	53.0	43.2	56.0
10	37.8	51.8	40.9	54.8
11	36.0	51.2	38.8	53.3
12	34.0	50.2	36.7	52.1
13	32.0	48.8	35.0	51.2
14	29.2	46.4	33.4	50.1
15	27.8	46.0	31.7	49.4
16	26.3	45.1	29.3	47.1
17	25.5	44.8	28.0	46.3
18	24.4	44.8	27.1	46.1
19	22.1	42.9	25.5	44.6
20	20.9	42.3	23.3	42.2

Table 2b. Observed (obs.) and relative (rel.) survival of patients with rectal cancer by gender for period 1988-2013 (N=11,183).

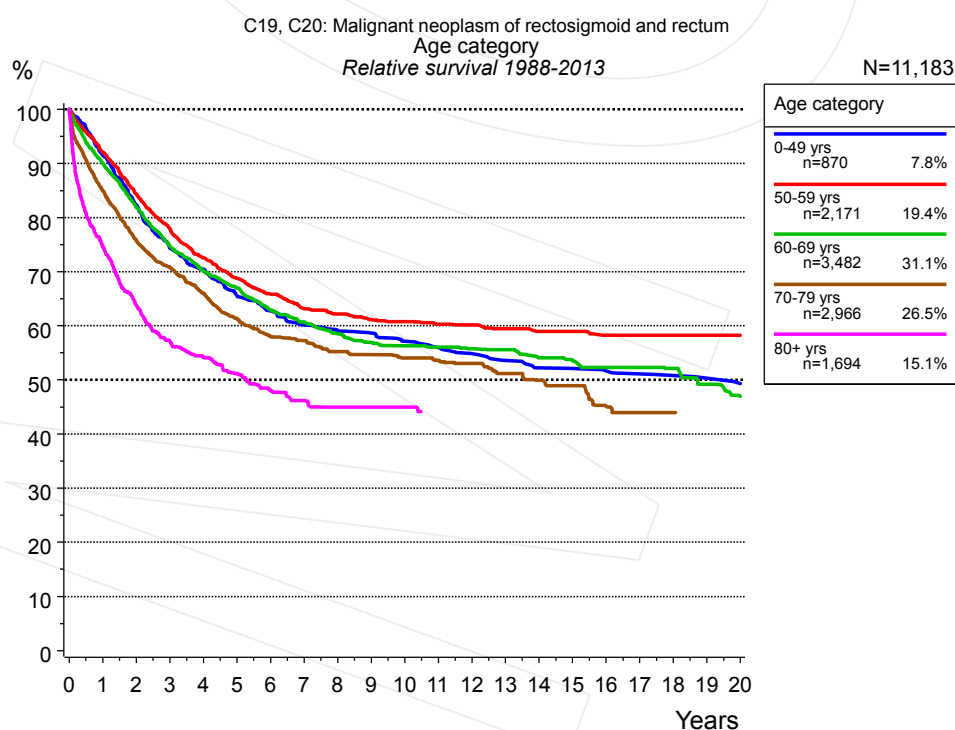


Figure 3a. Relative survival of patients with rectal cancer by age category. Included in the evaluation are 11,183 cases diagnosed between 1988 and 2013.

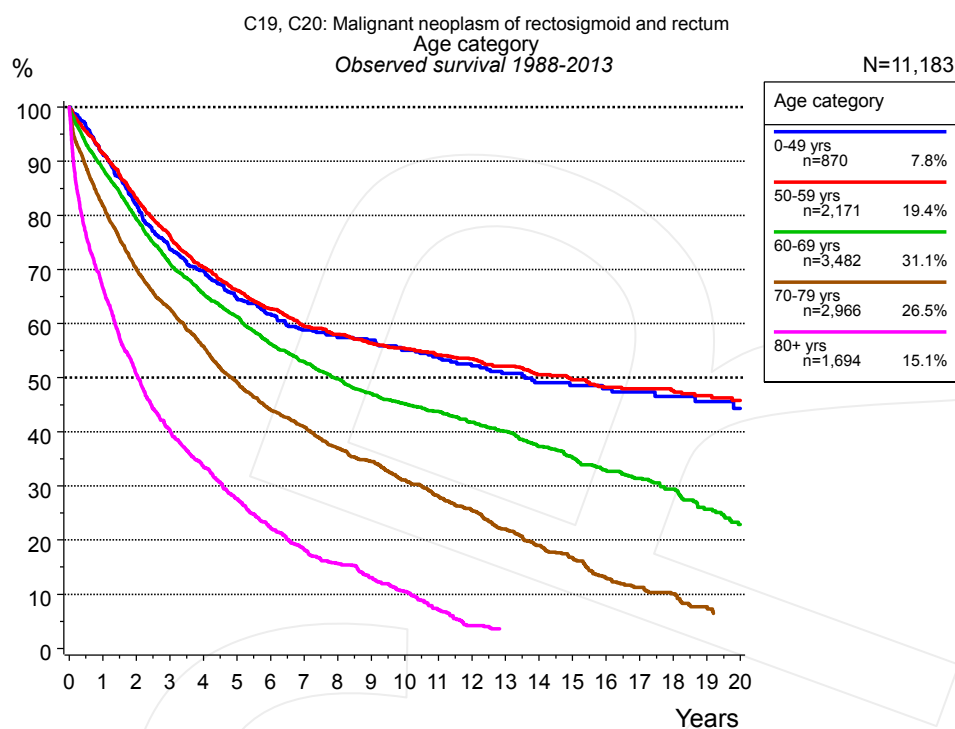


Figure 3b. Observed survival of patients with rectal cancer by age category. Included in the evaluation are 11,183 cases diagnosed between 1988 and 2013.

Years	Age category									
	0-49 yrs n=870		50-59 yrs n=2,171		60-69 yrs n=3,482		70-79 yrs n=2,966		80+ yrs n=1,694	
	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1	91.4	91.5	91.5	92.1	88.7	90.1	81.9	85.0	66.7	74.7
2	82.0	82.4	83.2	84.3	79.3	81.9	70.2	75.8	50.8	63.8
3	73.7	74.3	76.3	78.0	71.1	74.7	62.7	70.8	40.4	57.2
4	69.8	70.5	70.4	72.6	65.5	70.1	55.8	66.0	33.7	54.3
5	64.6	65.6	66.1	68.8	61.3	67.0	49.2	61.3	27.6	51.2
6	61.8	62.8	62.7	65.9	56.3	62.9	44.1	58.1	22.3	48.2
7	58.8	60.2	59.5	63.1	53.0	60.7	40.9	57.3	18.3	46.2
8	57.4	59.1	58.0	62.2	49.8	58.5	37.1	55.3	15.7	45.0
9	56.9	58.7	56.4	61.2	47.0	56.9	34.5	54.7	13.1	45.0
10	55.1	57.1	55.3	60.8	45.2	56.3	31.1	54.1	10.5	45.0
11	53.9	56.0	54.2	60.3	43.8	56.1	28.2	53.7		
12	52.2	54.9	53.5	60.2	41.8	55.8	25.5	53.1		
13	50.8	53.6	52.1	59.5	40.1	55.6	22.1	51.2		
14	49.1	52.2	50.6	58.9	37.3	54.1	19.0	50.0		
15	48.6	52.1	49.6	58.9	35.2	53.6	16.7	49.0		
16	48.0	51.7	48.2	58.3	33.0	52.3	13.1	45.2		
17	47.4	51.1	47.9	58.3	31.4	52.3	11.3	44.0		
18	46.6	50.8	47.6	58.3	29.4	52.2	10.1	44.0		
19	45.7	50.3	46.7	58.3	25.7	49.2				
20	44.3	49.3	45.8	58.3	22.9	47.0				

Table 3c. Observed (obs.) and relative (rel.) survival of patients with rectal cancer by age category for period 1988-2013 (N=11,183).

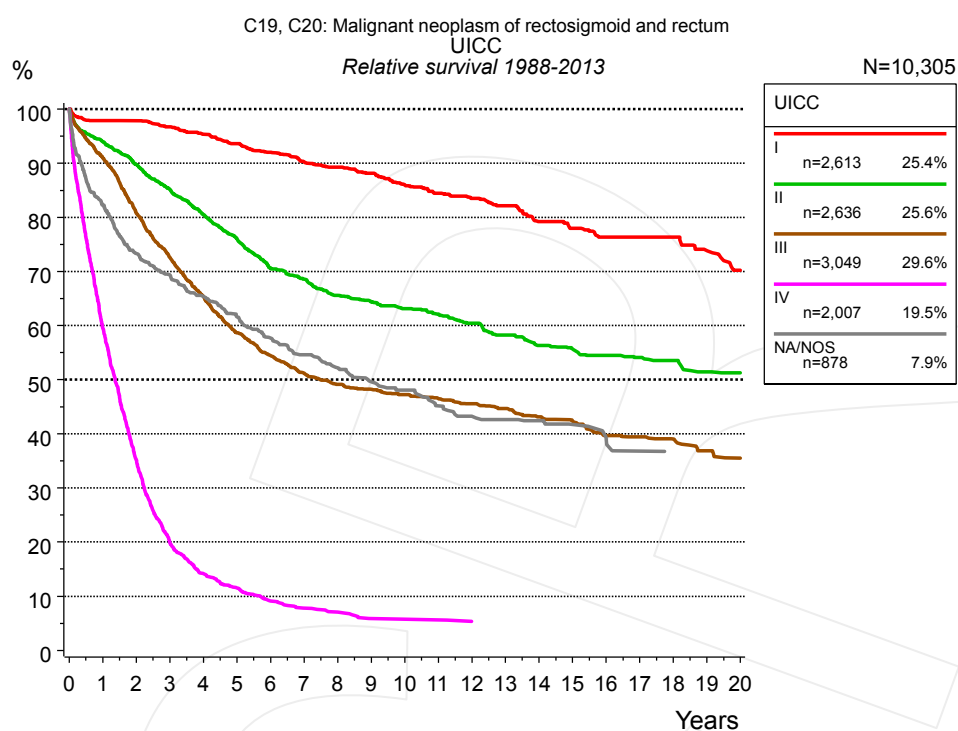


Figure 4a. Relative survival of patients with rectal cancer by UICC. For 10,456 of 11,183 cases diagnosed between 1988 and 2013 valid data could be obtained for this item. For a total of 10,305 cases an evaluable classification was established. The grey line represents the subgroup of 878 patients with missing values regarding UICC (7.9% of 11,183 patients, the percent values of all other categories are related to n=10,305).

Years	UICC									
	I n=2,613		II n=2,636		III n=3,049		IV n=2,007		NA/NOS n=878	
	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1	95.0	97.9	90.8	94.0	88.3	91.0	57.9	59.6	78.6	82.2
2	92.0	97.8	84.0	89.7	76.2	80.8	33.4	35.2	67.5	73.3
3	88.1	96.7	77.4	85.2	66.6	72.6	18.5	19.8	62.0	69.3
4	84.0	95.3	70.9	80.5	58.4	65.4	12.9	14.1	56.9	65.3
5	80.0	93.6	64.9	76.1	51.0	58.7	10.2	11.5	52.2	61.6
6	76.1	92.0	58.4	70.6	46.1	54.4	7.9	9.1	47.6	57.7
7	72.2	90.2	54.9	68.5	42.2	51.2	6.7	7.8	44.0	54.6
8	69.2	89.2	50.9	65.6	39.3	49.2	6.0	7.0	40.9	52.2
9	66.0	88.1	48.4	64.4	37.5	48.2	4.8	5.9	37.9	49.6
10	62.1	86.0	45.9	63.1	35.9	47.3	4.6	5.7	35.8	48.1
11	59.2	84.5	43.6	62.1	34.2	46.5	4.6	5.6	32.4	45.2
12	56.4	83.5	41.0	60.4	32.5	45.6	4.1	5.3	30.1	43.2
13	53.6	82.1	38.2	58.3	30.8	44.7	4.1	5.1	28.9	42.6
14	49.9	79.2	35.6	56.3	28.8	43.1			28.1	42.4
15	47.5	78.0	33.8	55.7	27.3	42.3			26.5	41.7
16	44.9	76.3	32.0	54.5	24.9	39.7			24.9	39.4
17	43.6	76.3	30.6	54.1	24.1	39.4			22.4	36.8
18	42.1	76.3	29.4	53.6	23.1	39.0			21.3	36.6
19	38.9	73.8	27.1	51.5	21.1	36.9			21.3	36.1
20	35.7	70.2	25.8	51.3	19.8	35.5				

Table 4b. Observed (obs.) and relative (rel.) survival of patients with rectal cancer by UICC for period 1988-2013 (N=10,305).

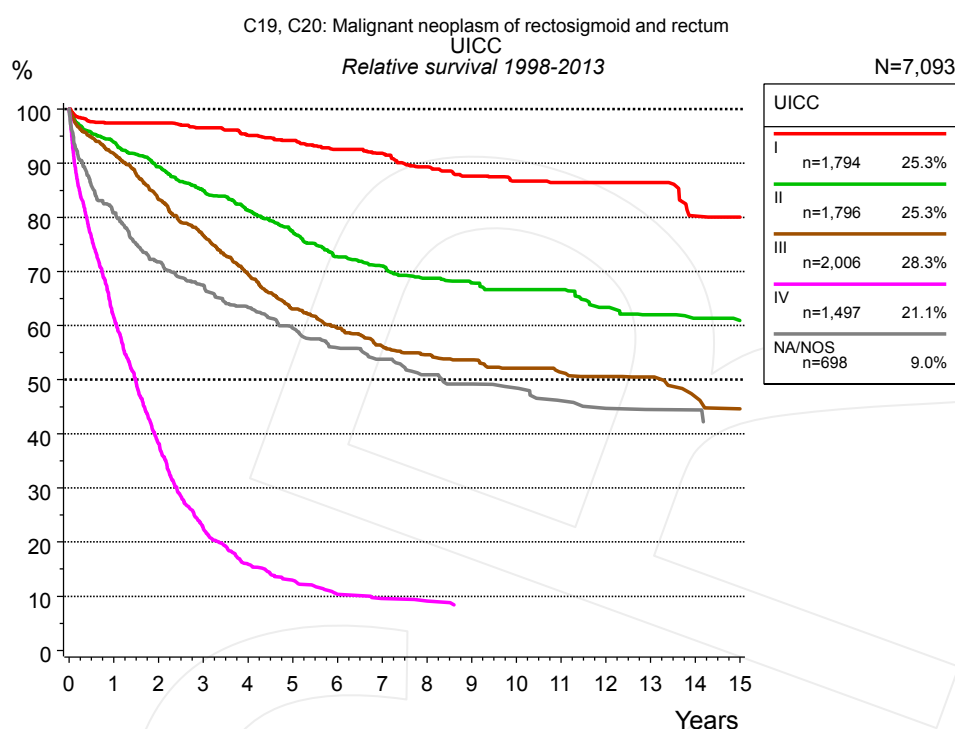


Figure 4c. Relative survival of patients with rectal cancer by UICC. For 7,214 of 7,791 cases diagnosed between 1998 and 2013 valid data could be obtained for this item. For a total of 7,093 cases an evaluable classification was established. The grey line represents the subgroup of 698 patients with missing values regarding UICC (9.0% of 7,791 patients, the percent values of all other categories are related to n=7,093).

Years	UICC									
	I n=1,794		II n=1,796		III n=2,006		IV n=1,497		NA/NOS n=698	
	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1	94.5	97.4	90.7	93.9	89.2	91.8	59.8	61.5	77.2	80.8
2	91.8	97.4	83.6	89.3	78.8	83.3	36.3	38.2	66.2	71.8
3	88.0	96.5	77.2	84.9	70.6	76.7	21.0	22.5	60.6	67.5
4	83.9	95.2	71.7	81.3	62.4	69.5	14.6	15.9	55.3	63.4
5	80.6	94.2	66.2	77.4	55.2	63.1	11.5	12.9	50.8	59.5
6	76.6	92.6	60.4	72.7	50.8	59.6	9.0	10.3	46.6	55.9
7	73.6	91.8	57.2	71.0	46.7	56.2	8.2	9.5	43.8	53.8
8	69.2	89.3	53.8	68.8	44.1	54.6	7.9	9.1	40.4	50.9
9	66.0	87.6	51.2	67.9	42.6	53.7	7.0	8.3	38.5	49.2
10	62.7	86.7	48.8	66.6	40.0	52.1			36.9	48.5
11	60.6	86.4	47.2	66.6	37.9	51.3			33.9	46.1
12	58.9	86.4	43.0	63.4	36.4	50.6			31.7	44.7
13	57.1	86.4	40.6	62.0	35.3	50.5			30.8	44.5
14	50.3	80.2	38.5	61.4	31.5	46.9			30.8	44.4
15	49.4	80.1	36.6	60.9	29.4	44.6				

Table 4d. Observed (obs.) and relative (rel.) survival of patients with rectal cancer by UICC for period 1998-2013 (N=7,093).

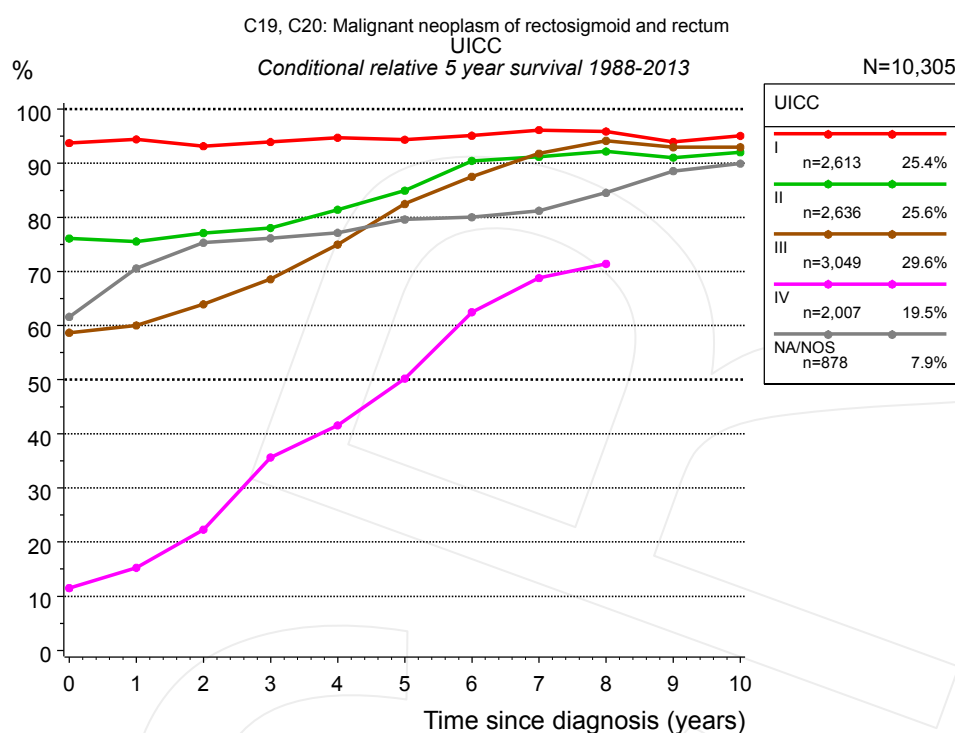


Figure 4e. Conditional relative 5-year survival of patients with rectal cancer by UICC. For 10,456 of 11,183 cases diagnosed between 1988 and 2013 valid data could be obtained for this item. For a total of 10,305 cases an evaluable classification was established. The grey line represents the subgroup of 878 patients with missing values regarding UICC (7.9% of 11,183 patients, the percent values of all other categories are related to n=10,305).

UICC										
Years	I		II		III		IV		NA/NOS	
	n	Cond. surv. % 5 yrs	n	Cond. surv. % 5 yrs	n	Cond. surv. % 5 yrs	n	Cond. surv. % 5 yrs	n	Cond. surv. % 5 yrs
0	2,613	93.7	2,636	76.1	3,049	58.7	2,007	11.5	878	61.6
1	2,385	94.4	2,264	75.5	2,572	60.0	1,070	15.3	665	70.6
2	2,146	93.2	1,972	77.1	2,041	63.9	563	22.3	539	75.3
3	1,884	93.9	1,681	78.1	1,635	68.6	278	35.6	469	76.2
4	1,653	94.7	1,418	81.4	1,284	75.0	169	41.6	397	77.1
5	1,403	94.4	1,177	84.9	1,016	82.5	116	50.2	331	79.6
6	1,188	95.1	968	90.4	819	87.5	78	62.5	281	80.0
7	1,043	96.1	850	91.2	682	91.8	58	68.8	227	81.2
8	939	95.9	732	92.2	576	94.1	40	71.4	189	84.5
9	826	93.9	625	91.0	500	93.0			146	88.6
10	715	95.1	543	92.0	430	93.0			124	89.9

Table 4f. Conditional relative 5-year survival of patients with rectal cancer by UICC for period 1988-2013 (N=10,305).

Conditional relative survival rates refer to the relative survival probability, in this case for 5 years after cancer diagnosis, compared to the age- and sex-matched population (=100%) under the condition of being alive for a certain time period (x-axis in Figure 4c). The results illustrate to what extent the cancer induced mortality of particular subgroups declines in the subsequent years after detection of the malignancy. For instance, according to the presented survival statistics, patients in the subgroup UICC="I", who are alive at least 3 years after cancer diagnosis, the conditional relative 5-year survival rate is 93.9% (n=1,884).

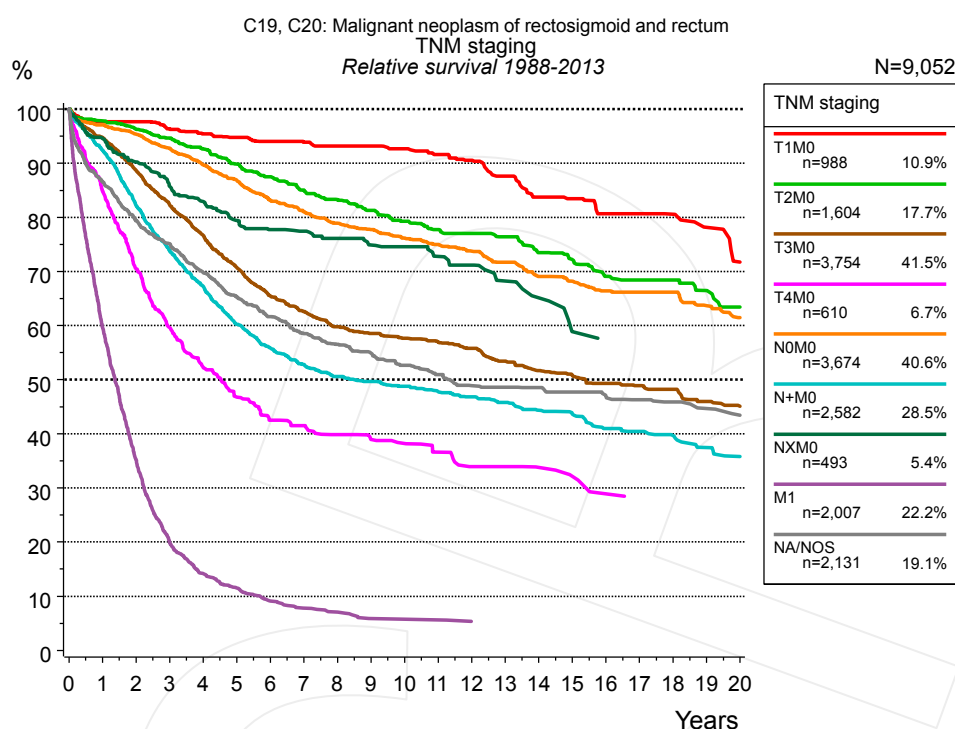


Figure 4g. Relative survival of patients with rectal cancer by TNM staging. For 10,456 of 11,183 cases diagnosed between 1988 and 2013 valid data could be obtained for this item. For a total of 9,052 cases an evaluable classification was established. The accumulated percentage exceeds the 100% value because patients are potentially considered in more than one subgroup. The grey line represents the subgroup of 2,131 patients with missing values regarding TNM staging (19.1% of 11,183 patients, the percent values of all other categories are related to n=9,052).

TNM staging															
Years	T1M0 n=988		T2M0 n=1,604		T3M0 n=3,754		T4M0 n=610		N0M0 n=3,674		N+M0 n=2,582		NXM0 n=493		
	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	
0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
1	95.3	97.7	94.9	97.8	91.8	94.7	81.9	84.9	94.1	97.1	89.8	92.4	91.6	94.5	
2	92.9	97.7	90.6	96.2	83.5	88.7	65.9	70.5	89.8	95.4	77.7	82.2	84.8	90.3	
3	89.0	96.4	86.4	94.6	75.4	82.3	54.3	59.6	84.8	92.8	67.9	73.8	78.2	85.7	
4	85.5	95.4	82.1	92.6	68.2	76.7	46.1	52.2	79.5	89.7	60.2	67.2	73.8	82.9	
5	82.8	94.8	77.2	89.8	61.1	70.8	40.4	46.8	74.7	86.9	52.6	60.3	68.6	79.4	
6	79.7	94.0	73.0	87.5	55.0	65.5	35.5	42.5	69.3	83.2	47.5	55.9	65.3	77.7	
7	77.0	93.9	68.7	85.0	51.0	62.6	34.1	41.5	65.5	81.0	43.7	52.8	63.4	77.5	
8	74.8	93.2	65.2	83.3	47.3	59.8	31.7	39.9	61.7	78.9	40.8	50.6	60.6	76.1	
9	72.7	93.2	61.7	81.3	44.9	58.6	30.0	39.0	58.8	77.8	38.9	49.7	57.4	74.9	
10	69.2	92.7	58.2	79.3	42.7	57.6	28.9	38.2	55.7	76.2	37.3	48.8	55.3	74.6	
11	66.2	91.6	55.4	77.7	40.9	57.0	26.8	36.6	53.1	75.0	35.4	47.8	52.2	72.8	
12	63.4	90.5	52.9	77.0	38.8	55.8	24.0	33.9	50.3	73.7	33.7	46.8	50.2	71.2	
13	59.5	87.6	51.0	76.4	35.7	53.4	24.0	33.9	47.4	71.7	31.8	45.8	45.8	68.2	
14	54.8	83.7	47.1	73.4	33.4	51.7	22.7	33.8	43.9	69.1	29.9	44.3	42.4	65.1	
15	52.7	83.4	44.7	72.2	31.6	50.8	21.2	32.2	41.9	68.2	28.4	43.7	36.6	58.9	
16	49.4	80.7	41.4	69.1	29.7	49.3	18.8	28.9	39.3	66.4	25.9	41.0	35.0	57.6	
17	49.4	80.7	39.9	68.4	28.4	48.9	17.8	28.2	37.9	66.2	25.0	40.4	35.0	57.0	
18	46.1	80.6	39.2	68.4	27.4	48.2	17.8	27.6	36.6	66.2	23.8	39.7	35.0	56.5	
19	42.4	78.1	36.2	66.5	25.0	46.0	17.8	27.1	33.8	63.7	21.8	37.5			
20	37.7	71.7	33.6	63.4	23.5	45.1			31.4	61.5	20.3	35.8			

cont'd Years	TNM staging			
	M1 n=2,007		NA/NOS n=2,131	
	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0
1	57.9	59.6	82.9	86.5
2	33.4	35.2	73.3	79.3
3	18.5	19.8	67.1	75.1
4	12.9	14.1	60.3	69.8
5	10.2	11.5	54.6	65.3
6	7.9	9.1	49.9	61.7
7	6.7	7.8	45.8	58.5
8	6.0	7.0	42.9	56.5
9	4.8	5.9	40.3	54.9
10	4.6	5.7	37.5	52.7
11	4.6	5.6	35.1	51.0
12	4.1	5.3	32.5	48.9
13	4.1	5.1	31.5	48.6
14			30.3	48.5
15			28.9	47.7
16			27.6	47.2
17			26.0	46.3
18			24.7	45.9
19			23.2	44.7
20			21.7	43.4

Table 4h. Observed (obs.) and relative (rel.) survival of patients with rectal cancer by TNM staging for period 1988-2013 (N=15,712).

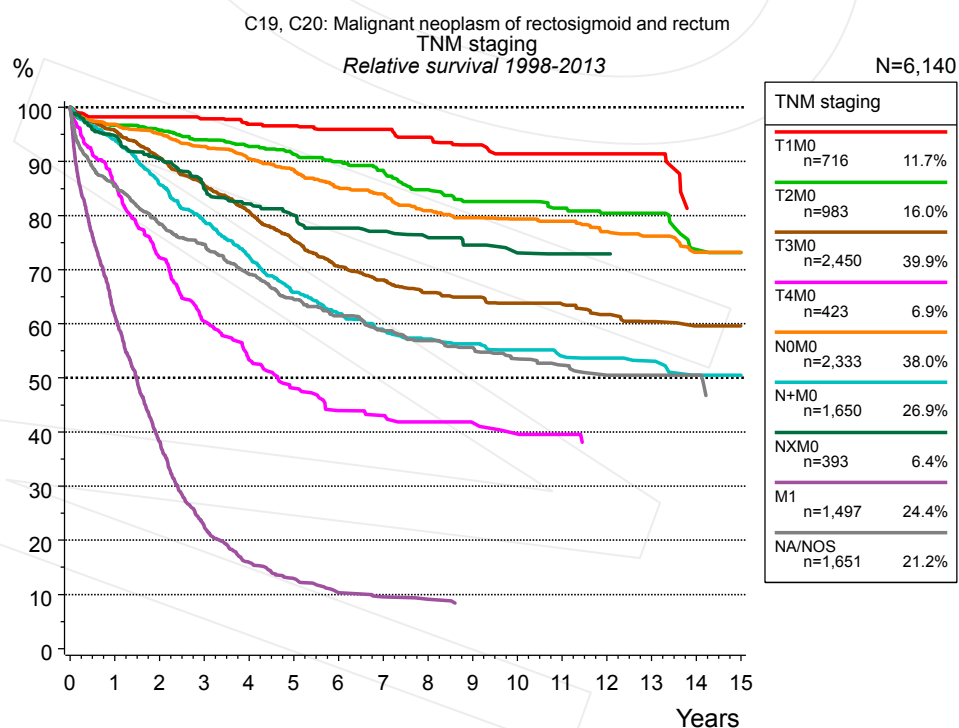


Figure 4i. Relative survival of patients with rectal cancer by TNM staging. For 7,214 of 7,791 cases diagnosed between 1998 and 2013 valid data could be obtained for this item. For a total of 6,140 cases an evaluable classification was established. The accumulated percentage exceeds the 100% value because patients are potentially considered in more than one subgroup. The grey line represents the subgroup of 1,651 patients with missing values regarding TNM staging (21.2% of 7,791 patients, the percent values of all other categories are related to n=6,140).

TNM staging														
Years	T1M0 n=716		T2M0 n=983		T3M0 n=2,450		T4M0 n=423		N0M0 n=2,333		N+M0 n=1,650		NXM0 n=393	
	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1	95.9	98.3	93.9	96.7	92.9	95.7	83.2	85.9	93.8	96.8	91.6	94.0	92.0	94.8
2	94.2	98.3	90.2	95.8	85.6	90.7	67.9	72.3	89.5	95.2	81.4	85.8	85.3	90.5
3	90.3	97.9	86.1	94.0	78.6	85.6	55.5	60.5	84.8	92.8	73.0	78.9	77.9	84.9
4	86.7	96.9	82.4	92.8	72.2	80.8	47.6	53.4	80.3	90.5	65.3	72.5	73.7	82.1
5	84.1	96.6	78.9	91.3	65.5	75.4	42.0	48.1	76.1	88.5	57.8	65.8	70.0	80.1
6	81.2	96.0	75.5	90.0	59.7	70.6	37.2	44.0	71.1	85.2	53.1	61.9	66.2	77.7
7	79.1	96.0	72.0	88.4	56.0	68.1	36.1	43.1	68.0	84.0	49.3	58.9	64.4	77.1
8	75.0	94.5	67.0	84.8	52.6	65.8	34.3	41.9	63.5	80.9	46.7	57.2	61.8	76.0
9	71.6	93.1	63.4	82.6	50.5	64.9	32.7	41.7	60.8	79.6	45.1	56.3	58.6	74.6
10	67.7	91.4	61.7	82.6	48.0	63.8	31.0	39.7	58.2	79.4	42.9	55.2	55.3	73.1
11	66.8	91.4	58.4	81.4	46.1	63.7	30.0	39.6	56.2	79.0	40.3	54.0	54.0	72.9
12	65.9	91.4	55.7	80.4	43.2	61.7	27.5	38.1	52.5	77.1	38.9	53.6	54.0	72.9
13	61.9	91.4	54.3	80.4	40.9	60.4	27.5	38.0	50.1	76.2	37.6	53.1	52.1	72.0
14			47.8	73.7	38.6	59.6			46.0	73.2	33.9	50.5		
15			46.6	73.1	37.0	59.6			44.9	73.2	33.9	50.5		

TNM staging				
Years	M1 n=1,497		NA/NOS n=1,651	
	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0
1	59.8	61.5	81.8	85.4
2	36.3	38.2	72.4	78.4
3	21.0	22.5	66.8	74.7
4	14.6	15.9	59.9	69.2
5	11.5	12.9	54.1	64.6
6	9.0	10.3	50.0	61.5
7	8.2	9.5	46.2	58.7
8	7.9	9.1	43.4	56.9
9	7.0	8.3	41.2	55.6
10			38.5	53.5
11			36.4	52.4
12			33.9	50.5
13			33.3	50.5
14			32.6	50.5

Table 4j. Observed (obs.) and relative (rel.) survival of patients with rectal cancer by TNM staging for period 1998-2013 (N=10,445).

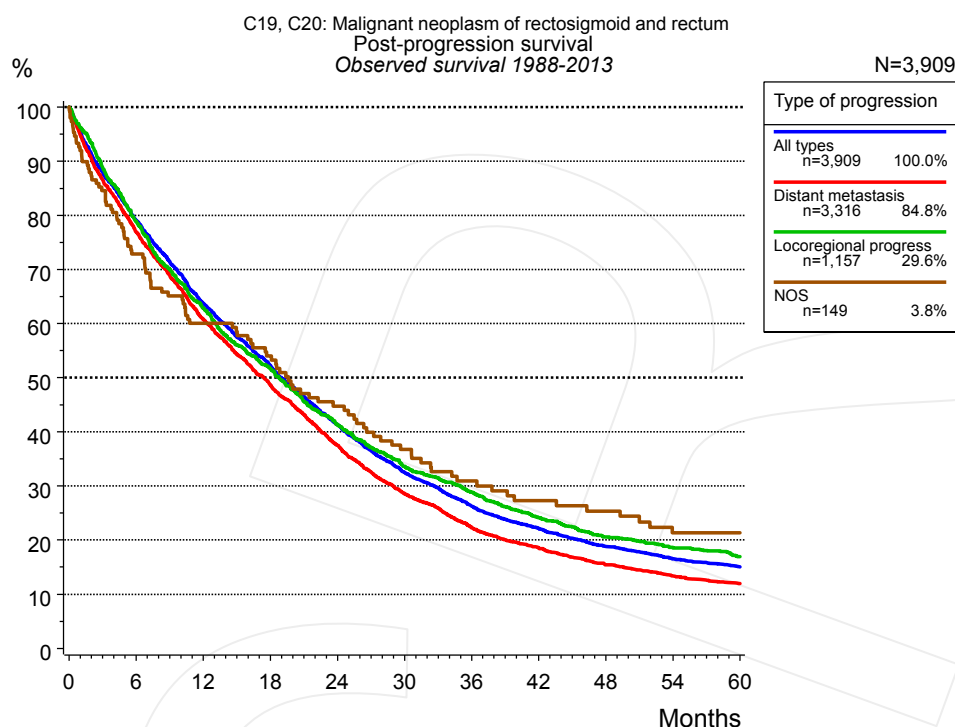


Figure 5a. Observed post-progression survival of 3,909 patients with rectal cancer diagnosed between 1988 and 2013 (incl. M1). These 3,909 patients with documented progression events during their course of disease represent 35.0% of the totally 11,183 evaluated cases. Patients with cancer relapse documented via death certificates only were excluded (n=828, 7.4%). Multiple progression types on different sites are included in the evaluation even when not occurring synchronously. The NOS (not otherwise specified) class is included under the condition, that it is the one and only progression type during the course of disease.

Medical record documentation often lacks the linguistic severity to distinguish between local relapse, regional lymph node metastasis and distant spread in solid cancers. Frequently, the statement “not specified” is the only information in registries regarding relapse of the disease. The category “All types” denotes all cases who suffered from at least one relapse during the course of disease (incl. primary M1-status). Although, the real number of relapsed patients is likely to be much higher. The accumulated percentage of patients with local relapse or distant metastasis exceeds the 100% value because patients are potentially considered in more than one subgroup.

Months	Type of progression			
	All types n=3,909	Distant metastasis n=3,316	Locoregional progress n=1,157	NOS n=149
	%	%	%	%
0	100.0	100.0	100.0	100.0
12	63.7	60.7	62.8	60.1
24	41.3	37.5	41.3	44.7
36	26.2	22.3	28.9	30.9
48	18.8	15.5	20.6	25.4
60	15.0	11.9	17.0	21.4

Table 5b. Observed post-progression survival of patients with rectal cancer for period 1988-2013 (N=3,909).

Shortcuts

MCR	Munich Cancer Registry, Germany (Tumorregister München)
NCI	National Cancer Institute, USA
SEER	Surveillance, Epidemiology, and End Results, USA
UICC	Union for International Cancer Control, Geneva
DCO	Death certificate only. The death certificate provides the only notification to the registry.
NA	Not available
NOS	Not otherwise specified
OS	Observed/overall survival (Kaplan-Meier estimate)
RS	Relative survival, compared to the general population, ratio of observed to expected survival (Ederer II method), reflecting excess mortality among cancer patients
AS	Assembled survival chart (observed, expected, relative)
PPS	Post-progression survival, survival since first relapse (Kaplan-Meier estimate)
progression	Date of entry: Date of first locoregional recurrence, distant metastasis, unspecified
	Event: Death of all causes
CS	Conditional survival, survival probability under the condition of surviving a given period of time

Recommended Citation

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