# **Munich Cancer Registry**



- ▶ Baseline statistics
- ▶ Selection Matrix
- ▶ Homepage

Munich Cancer Registry at Munich Cancer Center Marchioninistr. 15 Munich, 81377 Germany

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

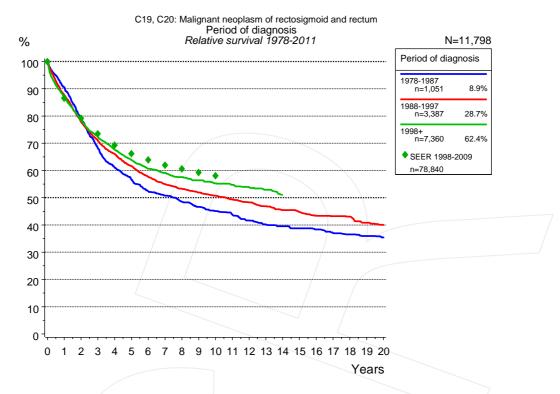
# **Cancer statistics: Survival**

C19, C20: Rectal cancer

Year of diagnosis	1978-1987	1988-1997	1998-2011
Patients	1,154	3,895	13,071
Diseases	1,157	3,897	13,085
Creation date	04/01/2013		
Export date	01/03/2013		
Population	4.5 m		



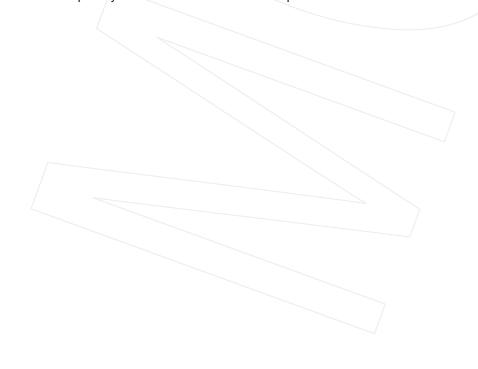
http://www.tumorregister-muenchen.de/en/facts/surv/surv\_C1920E.pdf



**Figure 1a.** Relative survival of patients with rectal cancer by period of diagnosis. Included in the evaluation are 11,798 cases diagnosed between 1978 and 2011.

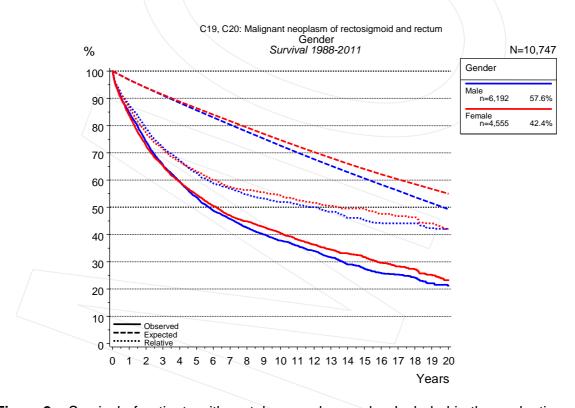
The survival results of the SEER program (Surveillance, Epidemiology, and End Results) of the American National Cancer Institute (NCI) are summarized as the period of diagnosis from 1998 to 2009, and are represented by green diamonds in order to facilitate comparisons between MCR and SEER.

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 1998, 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.



Period of diagnosis									
	1978-	1987	1988-	1997	199	98+			
	n=1,	051	n=3,	387	n=7,360				
Years	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %			
0	100.0	100.0	100.0	100.0	100.0	100.0			
1	87.7	90.5	84.8	87.6	84.0	86.8			
2	74.0	78.9	73.1	77.9	73.6	78.4			
3	61.9	68.1	64.6	70.9	66.0	72.2			
4	53.8	61.0	58.3	66.0	60.0	67.6			
5	48.5	56.6	52.7	61.6	55.0	63.8			
6	43.4	52.4	47.8	57.6	50.8	60.6			
7	40.9	50.8	44.1	54.9	48.1	59.1			
8	37.9	48.6	41.4	53.2	45.5	57.5			
9	35.2	46.6	39.1	51.9	43.2	56.4			
10	32.9	45.1	37.0	50.7	40.9	55.3			
11	30.9	43.8	35.0	49.4	39.2	54.7			
12	28.5	41.6	33.0	48.3	37.2	53.9			
13	26.4	40.0	31.0	46.8	35.4	52.9			
14	25.5	39.5	29.1	45.5					
15	24.1	38.7	27.7	44.7					
16	23.0	38.4	26.0	43.4					
17	21.5	37.0	25.1	43.2					
18	20.5	36.5	24.1	43.0					
19	19.6	35.9	22.2	40.8					
20	18.6	35.4	20.8	40.0					

**Table 1b.** Observed (obs.) and relative (rel.) survival of patients with rectal cancer by period of diagnosis for period 1978-2011 (N=11,798).

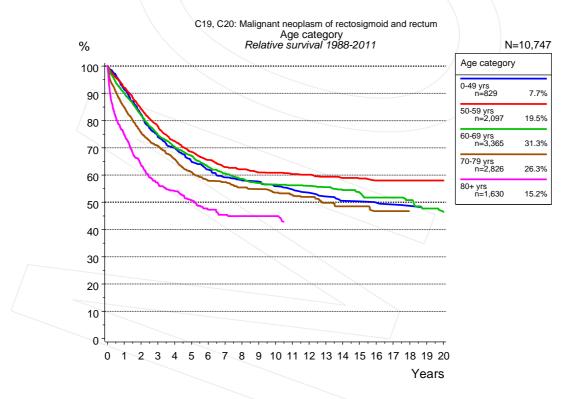


**Figure 2a.** Survival of patients with rectal cancer by gender. Included in the evaluation are 10,747 cases diagnosed between 1988 and 2011.

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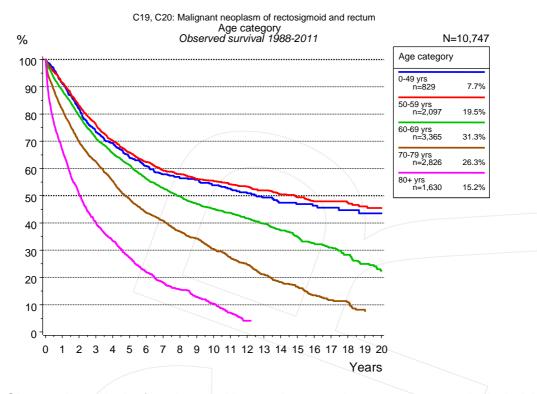
Gender									
	Ma	ale	Fem	nale					
	n=6,	192	n=4,555						
Years	obs. %	rel. %	obs. %	rel. %					
0	100.0	100.0	100.0	100.0					
1	84.7	87.5	83.6	86.5					
2	74.0	78.8	72.6	77.3					
3	65.6	72.0	65.3	71.4					
4	59.4	67.2	59.2	66.7					
5	53.7	62.7	54.7	63.3					
6	48.8	58.8	50.4	60.0					
7	45.7	56.8	47.0	57.5					
8	42.6	54.7	44.8	56.3					
9	40.0	53.2	42.7	55.5					
10	37.7	51.9	40.5	54.3					
11	35.9	51.1	38.3	52.7					
12	33.9	50.0	36.2	51.6					
13	31.7	48.4	34.4	50.5					
14	29.0	46.1	33.1	49.5					
15	27.4	45.3	31.7	49.4					
16	25.9	44.3	29.6	47.5					
17	25.3	44.1	28.3	46.7					
18	24.2	44.1	27.2	46.3					
19	22.1	42.4	25.3	44.1					
20	21.2	42.1	23.3	42.0					

**Table 2b.** Observed (obs.) and relative (rel.) survival of patients with rectal cancer by gender for period 1988-2011 (N=10,747).



**Figure 3a.** Relative survival of patients with rectal cancer by age category. Included in the evaluation are 10,747 cases diagnosed between 1988 and 2011.

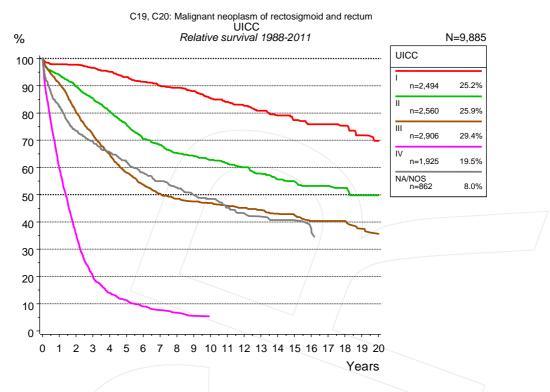
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**Figure 3b.** Observed survival of patients with rectal cancer by age category. Included in the evaluation are 10,747 cases diagnosed between 1988 and 2011.

				Age	categ	ory				
	0-49	yrs	50-59	9 yrs	60-69	9 yrs	70-79	9 yrs	80+	yrs
	n=8	329	n=2,	097	n=3,	365	n=2,	826	n=1,	,630
Years	obs. %	rel. %								
0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1	91.2	91.4	91.5	92.1	88.6	90.0	81.6	84.7	66.8	74.8
2	81.8	82.2	83.0	84.2	79.2	81.8	69.8	75.6	50.6	63.7
3	73.3	73.9	76.2	77.9	71.1	74.8	62.5	70.7	40.3	57.1
4	69.3	70.0	70.2	72.4	65.5	70.2	55.4	65.8	33.5	54.1
5	64.0	65.0	65.8	68.5	61.2	67.0	48.8	61.1	27.4	50.8
6	60.9	62.0	62.4	65.6	56.2	62.9	43.7	57.9	22.0	47.4
7	57.8	59.2	59.3	62.9	52.8	60.6	40.8	57.4	18.1	45.4
8	56.4	58.0	58.0	62.1	49.7	58.6	36.9	55.4	15.6	44.9
9	55.8	57.6	56.2	61.0	47.0	57.1	34.2	54.8	12.9	44.9
10	53.9	55.9	55.3	60.8	45.2	56.5	30.5	53.5	10.3	44.9
11	52.6	54.7	54.2	60.3	43.7	56.2	27.4	52.7		
12	50.9	53.5	53.4	60.1	41.7	56.0	24.7	52.0		
13	49.3	52.1	52.0	59.4	39.8	55.5	21.1	49.8		
14	47.5	50.5	50.5	58.9	37.2	54.5	18.3	48.5		
15	46.9	50.4	49.4	58.7	34.8	53.5	16.6	48.5		
16	46.3	49.9	47.9	58.0	32.6	51.7	13.4	46.7		
17	45.6	49.2	47.9	58.0	31.0	51.7	11.7	46.7		
18	44.7	48.7	47.5	58.0	28.3	50.8				
19			46.1	58.0	25.0	47.8				
20			45.5	58.0	22.4	46.4				

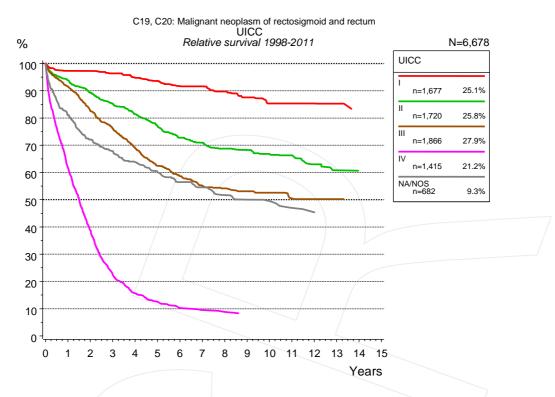
**Table 3c.** Observed (obs.) and relative (rel.) survival of patients with rectal cancer by age category for period 1988-2011 (N=10,747).



**Figure 4a.** Relative survival of patients with rectal cancer by UICC. For 10,038 of 10,747 cases diagnosed between 1988 and 2011 valid data could be obtained for this item. For a total of 9,885 cases an evaluable classification was established. The grey line represents the subgroup of 862 patients with missing values regarding UICC (8.0% of 10,747 patients, the percent values of all other categories are related to n=9,885).

UICC										
	I		I.	l	II	l	I۱	/	NA/N	NOS
	n=2,	494	n=2,	560	n=2,	906	n=1,	925	n=8	862
Years	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	97.8	90.8	93.9	88.1	90.8	57.9	59.6	78.6	82.3
2	91.9	97.7	84.0	89.7	75.5	80.2	33.5	35.3	67.7	73.4
3	88.0	96.6	77.6	85.4	66.0	72.0	18.3	19.7	62.2	69.5
4	83.8	95.1	71.0	80.6	57.7	64.7	12.7	13.9	57.1	65.6
5	79.6	93.2	64.8	75.9	50.4	58.1	10.0	11.2	52.6	62.0
6	75.7	91.5	58.4	70.5	45.3	53.6	7.8	8.9	48.0	58.0
7	72.0	90.0	54.8	68.3	41.4	50.4	6.5	7.6	44.5	55.0
8	69.3	89.2	50.8	65.3	38.7	48.5	5.7	6.6	41.4	52.6
9	65.9	88.0	48.2	64.2	36.8	47.5	4.5	5.5	38.3	49.9
10	61.7	85.5	45.6	62.8	35.4	46.9	4.3	5.3	36.1	48.5
11	58.9	84.0	43.3	61.5	33.6	45.9	4.3	5.1	32.5	45.2
12	55.9	82.7	40.8	60.1	32.1	45.1			29.9	43.2
13	52.8	80.8	37.9	57.8	30.4	44.4			28.4	42.0
14	49.9	79.1	35.2	55.7	28.5	43.0			26.9	40.7
15	47.2	77.4	33.5	54.8	27.2	42.4			26.1	40.6
16	44.9	75.9	31.5	53.2	25.1	40.3			24.1	37.6
17	43.4	75.9	30.5	53.2	24.6	40.3			21.0	34.3
18	41.6	75.3	28.9	52.5	24.0	40.3				
19	38.4	71.8	26.8	49.8	21.4	37.5				
20	35.9	69.8	25.6	49.8	19.9	35.7				

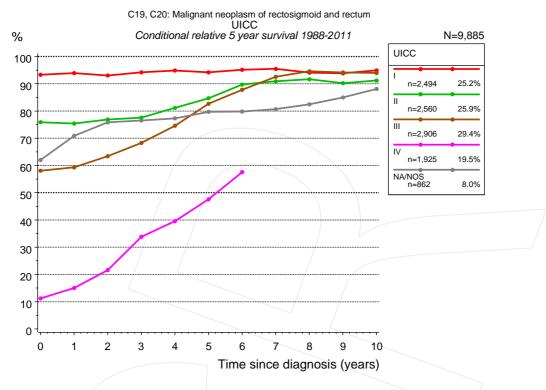
**Table 4b.** Observed (obs.) and relative (rel.) survival of patients with rectal cancer by UICC for period 1988-2011 (N=9,885).



**Figure 4c.** Relative survival of patients with rectal cancer by UICC. For 6,798 of 7,360 cases diagnosed between 1998 and 2011 valid data could be obtained for this item. For a total of 6,678 cases an evaluable classification was established. The grey line represents the subgroup of 682 patients with missing values regarding UICC (9.3% of 7,360 patients, the percent values of all other categories are related to n=6,678).

					UICC					
	I		II.	I	l!	I	I۱	/	NA/N	NOS
	n=1,	677	n=1,720		n=1,866		n=1,415		n=6	382
Years	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	94.4	97.3	90.6	93.8	88.9	91.5	59.9	61.7	77.4	81.0
2	91.6	97.3	83.5	89.3	78.0	82.5	36.8	38.7	66.5	72.0
3	87.8	96.3	77.4	85.2	70.0	76.1	20.9	22.4	60.9	67.8
4	83.6	94.8	71.8	81.4	61.7	68.9	14.3	15.6	55.7	63.8
5	80.1	93.6	66.0	77.1	54.5	62.4	11.2	12.6	51.4	60.1
6	75.9	91.7	60.5	72.8	49.9	58.6	9.0	10.3	47.1	56.5
7	73.6	91.6	57.3	71.0	45.7	55.1	8.2	9.5	44.6	54.5
8	69.7	89.8	53.9	68.8	43.7	54.2	7.8	8.8	41.2	51.7
9	65.9	87.6	51.5	68.3	41.9	53.1	6.9	8.2	39.4	50.0
10	61.7	85.3	48.7	66.8	40.1	52.6			38.0	49.5
11	60.7	85.3	47.0	66.3	37.2	50.4			34.6	47.0
12	58.8	85.3	42.9	63.0	36.5	50.2			32.1	45.4
13	56.1	85.3	39.9	60.8	36.5	50.2				

**Table 4d.** Observed (obs.) and relative (rel.) survival of patients with rectal cancer by UICC for period 1998-2011 (N=6,678).



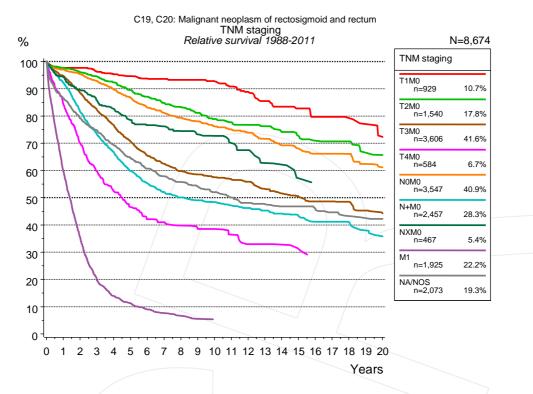
**Figure 4e.** Conditional relative 5-year survival of patients with rectal cancer by UICC. For 10,038 of 10,747 cases diagnosed between 1988 and 2011 valid data could be obtained for this item. For a total of 9,885 cases an evaluable classification was established. The grey line represents the subgroup of 862 patients with missing values regarding UICC (8.0% of 10,747 patients, the percent values of all other categories are related to n=9,885).

					UICC					
	- 1	I II			III		I۷	′	NA/N	IOS
		Cond. surv. %		Cond. surv. %		Cond. surv. %		Cond. surv. %		Cond. surv. %
Years	n	5 yrs	n	5 yrs	n	5 yrs	n	5 yrs	n	5 yrs
0	2,494	93.3	2,560	75.9	2,906	58.1	1,925	11.2	862	62.0
1	2,273	93.9	2,199	75.4	2,431	59.3	1,020	15.0	654	70.9
2	2,052	93.0	1,903	76.9	1,909	63.4	533	21.6	528	75.8
3	1,799	94.2	1,619	77.6	1,530	68.3	257	33.8	449	76.5
4	1,558	94.9	1,364	81.1	1,189	74.6	149	39.6	383	77.3
5	1,305	94.2	1,122	84.7	917	82.7	101	47.6	322	79.7
6	1,101	95.1	901	89.7	727	87.8	64	57.5	269	79.8
7	973	95.5	774	90.9	608	92.6			213	80.7
8	871	94.1	652	91.6	525	94.6			174	82.5
9	750	93.8	565	90.2	450	94.2			130	85.0
10	632	94.9	477	91.2	385	94.0			106	88.1

**Table 4f.** Conditional relative 5-year survival of patients with rectal cancer by UICC for period 1988-2011 (N=9,885).

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 94.2% (n=1,799).

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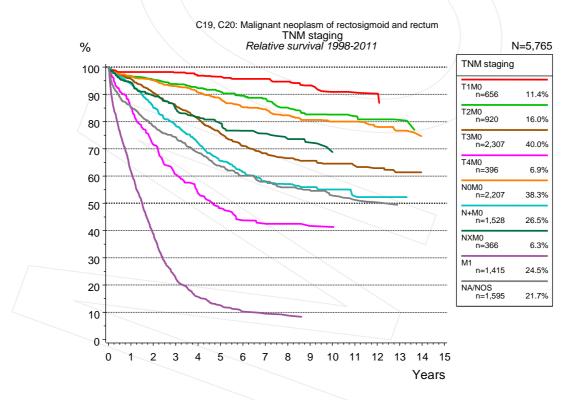


**Figure 4g.** Relative survival of patients with rectal cancer by TNM staging. For 10,038 of 10,747 cases diagnosed between 1988 and 2011 valid data could be obtained for this item. For a total of 8,674 cases an evaluable classification was established. The accumulated percentage exceeds the 100% value because patients are potientially considered in more than one subgroup. The grey line represents the subgroup of 2,073 patients with missing values regarding TNM staging (19.3% of 10,747 patients, the percent values of all other categories are related to n=8,674).

						TNI	/I stagi	ing						
	T1I	M0	T2l	M0	T3M0 T4M			MO	NO	M0	N+	M0	NX	M0
	n=9	929	n=1,	540	n=3,606 n=5		84	n=3,547		n=2,457		n=467		
Years	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	97.6	94.8	97.7	91.8	94.7	81.4	84.4	94.1	97.0	89.5	92.2	91.3	94.2
2	92.8	97.6	90.4	96.0	83.3	88.5	65.4	69.9	89.8	95.4	77.0	81.6	84.2	89.5
3	89.0	96.4	86.3	94.5	75.3	82.2	54.3	59.7	84.9	92.9	67.2	73.2	78.2	85.6
4	85.3	95.3	81.8	92.3	68.1	76.6	46.1	52.3	79.6	89.7	59.6	66.7	73.6	82.6
5	82.5	94.6	76.9	89.5	61.0	70.7	40.2	46.6	74.6	86.8	52.0	59.8	67.9	78.5
6	79.2	93.7	72.7	87.1	54.9	65.5	35.1	42.1	69.3	83.1	46.8	55.3	64.5	76.6
7	76.8	93.6	68.6	84.8	50.8	62.4	33.5	41.0	65.5	81.1	43.0	52.1	62.4	76.2
8	75.1	93.2	65.2	83.2	47.1	59.8	31.5	39.8	62.0	79.3	40.2	50.1	59.3	74.5
9	72.7	93.2	61.5	81.2	44.8	58.5	29.5	38.5	59.0	78.1	38.2	49.0	56.1	73.2
10	69.1	92.7	57.8	78.9	42.5	57.5	29.1	38.5	55.7	76.2	36.7	48.4	53.6	72.7
11	65.5	90.8	55.3	77.7	40.6	56.8	26.6	36.5	53.2	75.1	34.8	47.2	50.2	70.1
12	62.3	88.8	52.8	76.7	38.7	55.9	23.3	32.9	50.5	73.9	33.0	46.2	47.4	67.5
13	58.2	85.5	50.8	76.2	35.5	53.2	23.3	32.9	47.4	71.6	31.2	45.3	42.0	62.7
14	54.9	83.4	47.4	74.1	33.2	51.6	22.5	32.8	44.1	69.2	29.5	44.1	40.8	62.1
15	52.6	82.7	44.9	72.6	31.3	50.4	20.7	31.1	41.9	68.1	28.0	43.2	35.7	57.1
16	49.1	79.7	42.4	70.9	29.4	48.6	18.9	28.5	39.4	66.1	26.0	41.2		
17	49.1	79.7	41.3	70.7	28.4	48.6			38.2	66.1	25.4	41.1		
18	45.9	79.2	40.3	70.7	27.5	48.5			36.6	66.0	24.6	41.0		
19	43.0	77.0	36.5	66.5	24.8	45.3			33.7	62.4	22.1	38.0		
20	38.9	72.3	35.0	65.6	23.1	44.3			31.5	61.1	20.4	35.8		

TNM staging								
cont'd	M	1	NA/N	NOS				
	n=1,	925	n=2,073					
Years	obs. %	rel. %	obs. %	rel. %				
0	100.0	100.0	100.0	100.0				
1	57.9	59.6	82.9	86.4				
2	33.5	35.3	73.1	79.1				
3	18.3	19.7	66.8	74.8				
4	12.7	13.9	59.9	69.2				
5	10.0	11.2	54.1	64.6				
6	7.8	8.9	49.2	60.7				
7	6.5	7.6	45.4	57.8				
8	5.7	6.6	42.5	55.8				
9	4.5	5.5	39.8	54.1				
10	4.3	5.3	37.2	52.0				
11	4.3	5.1	34.5	50.0				
12			32.1	48.1				
13			30.8	47.6				
14			29.2	46.8				
15			28.6	46.8				
16			27.0	46.1				
17			25.0	44.6				
18			23.4	43.3				
19			22.2	42.5				
20			21.4	42.2				

**Table 4h.** Observed (obs.) and relative (rel.) survival of patients with rectal cancer by TNM staging for period 1988-2011 (N=15,055).

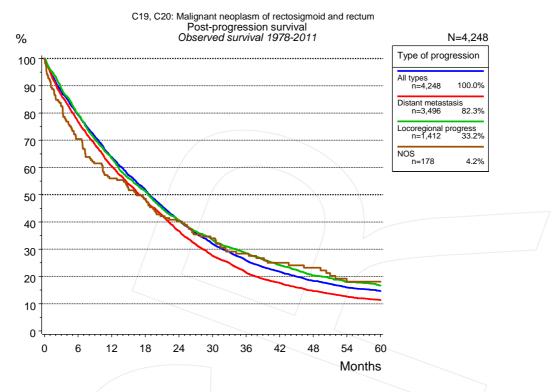


**Figure 4i.** Relative survival of patients with rectal cancer by TNM staging. For 6,798 of 7,360 cases diagnosed between 1998 and 2011 valid data could be obtained for this item. For a total of 5,765 cases an evaluable classification was established. The accumulated percentage exceeds the 100% value because patients are potientially considered in more than one subgroup. The grey line represents the subgroup of 1,595 patients with missing values regarding TNM staging (21.7% of 7,360 patients, the percent values of all other categories are related to n=5,765).

	TNM staging													
	T11	M0	T2	M0	T3M0		T4l	M0	NO	M0	N+	M0	NX	M0
	n=6	656	n=9	920	n=2,	307	n=3	396	n=2,	207	n=1,528		n=366	
Years	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	96.0	98.2	93.7	96.5	92.9	95.8	82.5	85.2	93.8	96.7	91.3	93.8	91.7	94.4
2	94.1	98.2	89.8	95.4	85.4	90.6	67.2	71.5	89.6	95.2	80.6	85.1	84.5	89.6
3	90.3	98.0	85.9	93.8	78.7	85.8	55.5	60.6	85.1	93.0	72.5	78.5	77.8	84.7
4	86.5	96.8	82.0	92.3	72.3	81.0	47.7	53.6	80.5	90.6	64.9	72.2	73.3	81.7
5	83.7	96.5	78.6	91.0	65.6	75.6	41.9	48.1	76.1	88.4	57.4	65.5	69.5	79.4
6	80.6	95.7	75.1	89.5	60.0	71.0	36.9	43.7	71.3	85.3	52.6	61.4	65.4	76.7
7	78.9	95.7	72.0	88.4	56.1	68.4	35.6	42.5	68.5	84.5	48.5	58.1	63.3	75.6
8	75.6	94.7	67.2	85.1	53.0	66.6	34.8	42.4	64.5	82.3	46.3	57.1	60.1	73.7
9	71.4	93.2	63.3	82.6	51.2	65.6	32.4	41.7	61.6	80.6	44.5	56.0	56.9	72.3
10	66.7	90.9	61.2	82.5	48.1	64.5	32.4	41.3	58.6	80.0	42.8	55.1	51.9	68.8
11	65.1	90.7	59.0	82.0	46.2	63.8	31.0	40.5	57.3	80.0	39.2	52.6	51.9	68.1
12	63.2	90.2	56.3	80.8	43.9	62.9			53.3	78.0	38.3	52.2	51.9	67.4
13	58.5	84.4	54.7	80.6	41.2	61.4			50.4	76.6	38.3	52.2		

TNM staging								
cont'd	M	11	NA/NOS					
	n=1,	,415	n=1,595					
Years	obs. %	rel. %	obs. %	rel. %				
0	100.0	100.0	100.0	100.0				
1	59.9	61.7	81.7	85.3				
2	36.8	38.7	72.2	78.1				
3	20.9	22.4	66.4	74.2				
4	14.3	15.6	59.3	68.5				
5	11.2	12.6	53.4	63.5				
6	9.0	10.3	49.1	60.1				
7	8.2	9.5	45.9	57.9				
8	7.8	8.8	43.2	55.8				
9	6.9	8.2	40.9	54.8				
10			38.4	52.8				
11			35.9	51.2				
12			33.8	50.3				
13			32.2	48.9				

**Table 4j.** Observed (obs.) and relative (rel.) survival of patients with rectal cancer by TNM staging for period 1998-2011 (N=9,795).



**Figure 5a.** Observed post-progression survival of 4,248 patients with rectal cancer diagnosed between 1978 and 2011 (incl. M1). These 4,248 patients with documented progression events during their course of disease represent 36.0% of the totally 11,798 evaluated cases. Patients with cancer relapse documented via death certificates only were excluded (n=854, 7.2%). Multiple progression types on different sites are included in the evaluation even when not occuring 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 potientially considered in more than one subgroup.

	7	Type of progr	ession	
	All types	Distant metastasis	Locoregional progress	NOS
	n=4,248	n=3,496	n=1,412	n=178
Months	%	%	%	%
0	100.0	100.0	100.0	100.0
12	63.7	60.4	63.2	56.0
24	40.6	36.6	40.5	40.2
36	25.8	21.4	28.5	28.4
48	18.3	14.6	20.4	23.2
60	14.6	11.3	16.7	18.1

**Table 5b.** Observed post-progression survival of patients with rectal cancer for period 1978-2011 (N=4,248).

#### **Shortcuts**

AS Assembled survival chart (observed, expected, relative)

CS Conditional survival

DCO Death certificate only. The death certificate provides the only notification to the registry.

MCR Munich Cancer Registry, Germany (Tumorregister München)

NA Not available

NCI National Cancer Institute, USA

NOS Not otherwise specified

OS Observed/overall survival (Kaplan-Meier estimate)

PPS Post-progression survival

RS Relative Survival. Ratio of observed and expected survival (derived from the normal population)

SEER Surveillance, Epidemiology, and End Results, USA

TTP Time to progression

Date of entry: Date of diagnosis

Event (Progression): First local recurrence, lymph node relapse or distant metastasis, unspecified

recurrence

First all-cause recurrence is illustrated by survival curves (Kaplan-Meier estimate).

First local recurrence, lymph node relapse or distant metastasis are depicted cumulatively, where

applicable ("reverse" Kaplan-Meier estimate).

UICC Union for International Cancer Control, Geneva

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