# **Munich Cancer Registry**



- Baseline statistics
- Selection Matrix
- Homepage
- Deutsch

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

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

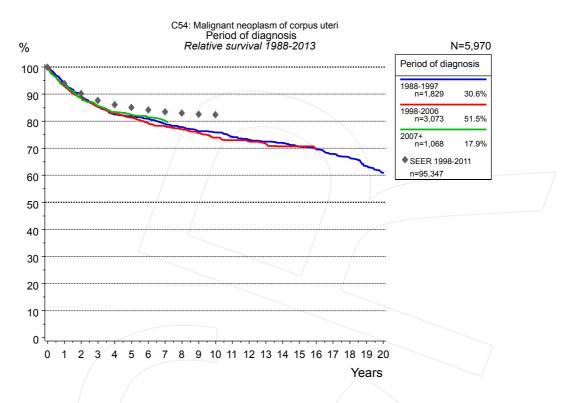
## **Cancer statistics: Survival**

## C54: Corpus cancer

Year of diagnosis	1988-2013
Patients	10,210
Diseases	10,211
Cases evaluated	5,970
Creation date	05/13/2015
Export date	12/30/2014
Population (females)	2.36 m



http://www.tumorregister-muenchen.de/en/facts/surv/surv\_C54\_E.pdf



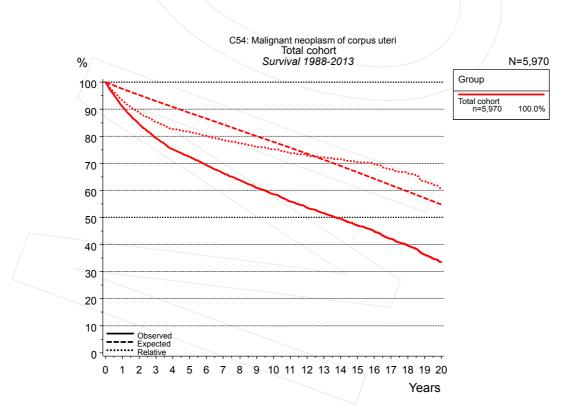
**Figure 1a.** Relative survival of patients with corpus cancer by period of diagnosis. Included in the evaluation are 5,970 cases diagnosed between 1988 and 2013.

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 populationbased 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.

	F	Period	of dia	anosis	i			
	1988-			-2006	200	)7+		
	n=1,829						n=1,	068
Years	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %		
0	100.0	100.0	100.0	100.0	100.0	100.0		
1	91.7	94.2	90.7	92.9	91.0	93.1		
2	84.6	89.2	84.4	88.5	85.1	88.7		
3	78.7	85.2	79.6	85.3	80.4	85.7		
4	74.1	82.5	75.5	82.8	76.7	83.4		
5	71.5	81.7	72.6	81.4	74.1	82.4		
6	68.9	80.9	69.1	79.3	71.8	81.5		
7	65.5	79.0	66.6	78.1	69.3	80.1		
8	62.7	77.8	64.2	77.1				
9	59.8	76.3	61.5	75.6				
10	57.8	75.9	58.7	73.9				
11	54.8	74.2	56.7	73.0				
12	52.4	73.2	54.6	72.5				
13	50.4	72.5	52.6	71.6				
14	48.4	72.0	50.5	70.7				
15	45.7	70.6	49.4	70.7				
16	43.6	69.7						
17	40.8	67.9						
18	38.5	66.6						
19	35.2	63.4						
20	32.5	60.9						

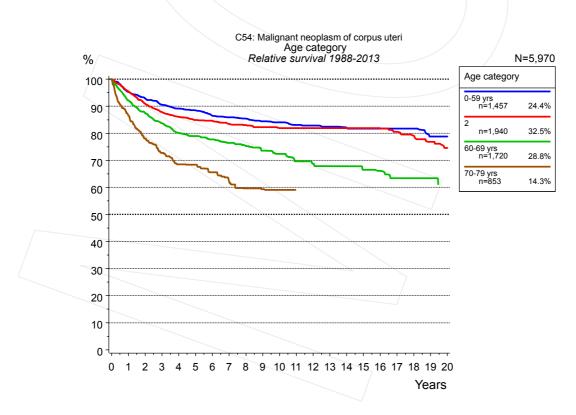
**Table 1b.** Observed (obs.) and relative (rel.) survival of patients with corpus cancer by period of diagnosis for period 1988-2013 (N=5,970).



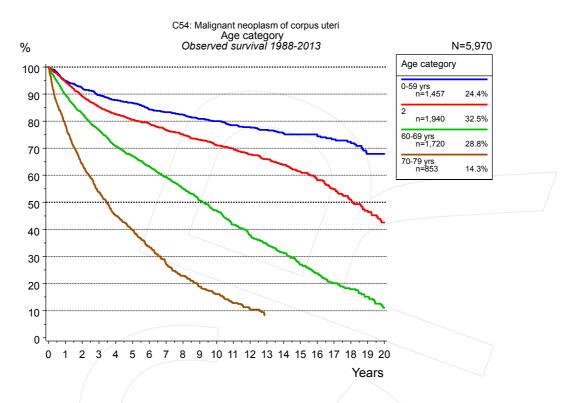
**Figure 2a.** Observed, expected and relative survival of the total cohort with corpus cancer. Included in the evaluation are 5,970 cases diagnosed between 1988 and 2013.

	Group	
	Total of	cohort
	n=5,	970
Years	obs. %	rel. %
0	100.0	100.0
1	91.0	93.3
2	84.6	88.8
3	79.3	85.3
4	75.1	82.7
5	72.4	81.6
6	69.4	80.2
7	66.4	78.7
8	63.8	77.5
9	60.9	76.0
10	58.6	75.2
11	55.9	73.8
12	53.6	72.9
13	51.6	72.2
14	49.5	71.6
15	47.1	70.5
16	44.9	69.6
17	42.1	67.8
18	39.8	66.5
19	36.3	63.3
20	33.5	60.9

**Table 2b.** Observed (obs.) and relative (rel.) survival of the total cohort with corpus cancer for period 1988-2013 (N=5,970).



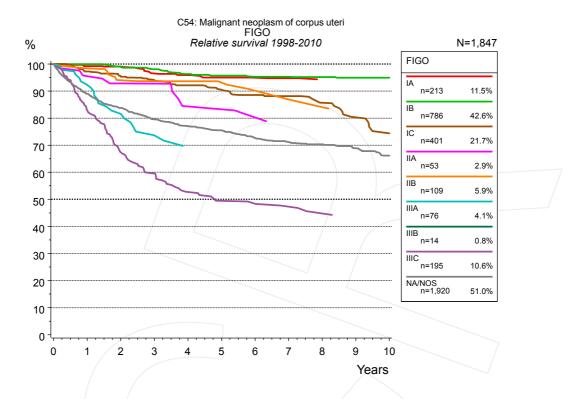
**Figure 3a.** Relative survival of patients with corpus cancer by age category. Included in the evaluation are 5,970 cases diagnosed between 1988 and 2013.



**Figure 3b.** Observed survival of patients with corpus cancer by age category. Included in the evaluation are 5,970 cases diagnosed between 1988 and 2013.

			Age	categ				
0-59 yrs			2	2	60-6	9 yrs	70-79 yrs	
	n=1,457		n=1,	940	n=1,	720	n=853	
Years	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
1	95.0	95.2	94.6	95.5	89.8	92.1	78.5	86.5
2	92.3	92.9	89.3	90.9	82.8	87.5	64.3	78.1
3	89.5	90.5	85.2	87.8	76.7	83.7	53.9	72.7
4	87.8	89.2	82.6	86.0	70.8	80.1	45.1	68.5
5	86.8	88.5	80.5	84.9	67.1	79.0	39.6	68.4
6	84.4	86.5	79.1	84.7	63.4	77.8	33.6	65.6
7	83.3	85.9	76.8	83.5	59.4	76.5	27.3	62.1
8	82.4	85.4	75.1	83.1	55.1	75.3	22.9	59.7
9	80.9	84.4	73.1	82.3	50.6	73.6	18.9	59.4
10	80.0	84.0	71.0	81.9	47.1	72.4	16.1	59.1
11	78.5	83.1	69.9	81.9	41.7	69.7	12.8	59.1
12	77.8	82.8	67.7	81.9	37.9	68.7		
13	76.8	82.5	66.0	81.9	34.6	67.8		
14	75.6	82.1	63.8	81.9	31.4	67.8		
15	75.1	81.8	61.4	81.9	27.0	66.5		
16	75.1	81.8	58.2	81.7	23.8	66.1		
17	73.3	81.8	54.8	80.6	20.1	63.4		
18	72.4	81.8	51.1	79.1	17.9	63.4		
19	67.9	78.8	46.9	76.9	15.1	63.4		
20	67.9	78.8	42.6	74.6				

**Table 3c.** Observed (obs.) and relative (rel.) survival of patients with corpus cancer by age category for period 1988-2013 (N=5,970).



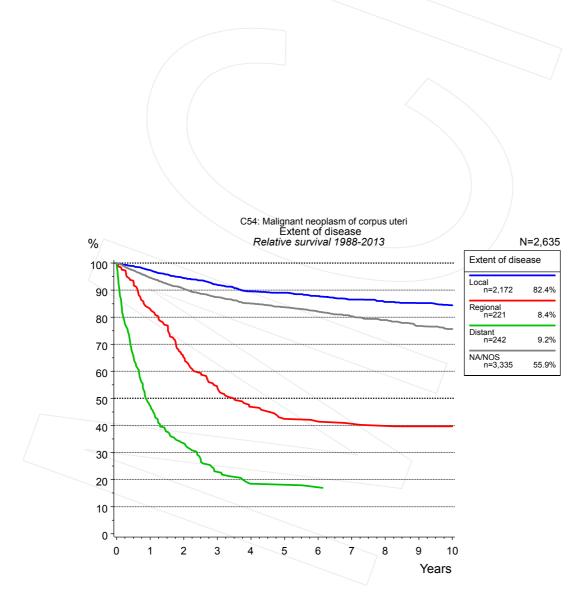
**Figure 4a.** Relative survival of patients with corpus cancer by FIGO. For 3,604 of 3,767 cases diagnosed between 1998 and 2010 valid data could be obtained for this item. For a total of 1,847 cases an evaluable classification was established. The grey line represents the subgroup of 1,920 patients with missing values regarding FIGO (51.0% of 3,767 patients, the percent values of all other categories are related to n=1,847). Subgroups with sample size <15 are dropped from the chart.

Due to substantial changes in stage classification schemes long-term survival statistics over decades could not be created.

FIGO														
	LA	4	IE	3	IC	2	IL	A	III	В	IIIA		IIIB	
	n=2	213	n=7	786	n=401		n=53		n=109		n=76		n=14	
Years	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	98.1	99.3	98.8	99.9	95.6	97.3	94.3	95.5	97.1	98.4	90.4	92.3		
2	97.1	99.1	96.3	99.0	91.9	95.3	90.1	92.8	91.7	94.0	79.9	81.6		
3	92.7	96.5	93.8	98.1	88.8	94.1	90.1	92.7	90.5	93.7	69.6	73.6		
4	90.9	95.9	90.7	96.3	85.5	92.2	79.3	84.3	89.2	93.6	65.1	69.7		
5	88.9	95.0	88.8	95.7	81.4	90.5	79.3	83.3	87.6	93.2	65.1	69.1		
6	87.0	95.0	86.8	95.3	78.6	88.6	76.0	80.3	83.5	90.2	65.1	68.6		
7	85.9	94.8	85.1	95.3	76.1	88.2			81.0	86.9	65.1	68.1		
8	83.3	94.3	83.9	95.2	71.4	85.7			78.0	84.1				
9	83.3	94.3	82.0	95.0	65.4	80.3								
10	83.3	94.3	79.9	95.0	60.2	74.4								

		FIGO		
cont'd				
	n=1	95	n=1,	,920
Years	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0
1	82.1	82.9	86.2	89.0
2	65.5	67.4	78.8	83.8
3	57.4	59.6	72.7	79.5
4	49.7	52.7	68.5	77.0
5	46.0	49.5	65.4	75.5
6	45.0	48.3	61.4	72.7
7	43.1	47.3	58.5	71.2
8	40.7	44.8	56.4	70.4
9	39.0	44.1	53.6	68.9
10	39.0	43.8	50.2	66.2

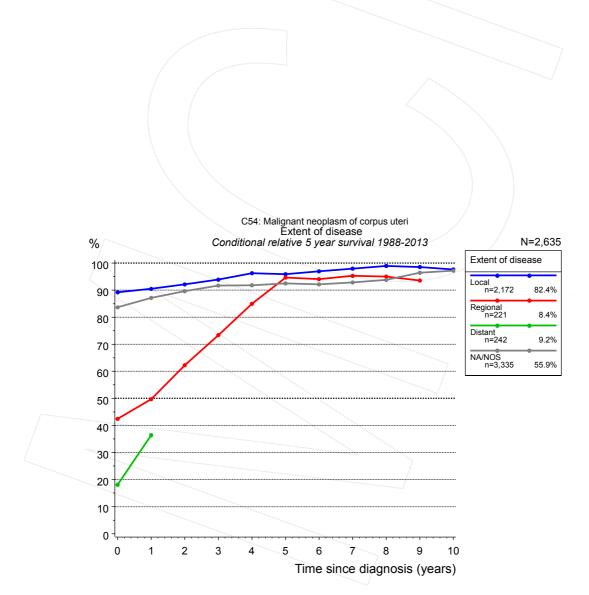
**Table 4b.** Observed (obs.) and relative (rel.) survival of patients with corpus cancer by FIGO for period 1998-2010 (N=1,847).



**Figure 4c.** Relative survival of patients with corpus cancer by extent of disease. For 5,676 of 5,970 cases diagnosed between 1988 and 2013 valid data could be obtained for this item. For a total of 2,635 cases an evaluable classification was established. The grey line represents the subgroup of 3,335 patients with missing values regarding extent of disease (55.9% of 5,970 patients, the percent values of all other categories are related to n=2,635).

Extent of disease													
	Lo	cal	Regi	onal	Dist	tant	NA/I	NA/NOS					
	n=2,	172	n=221		n=242		n=3,335						
Years	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					
1	95.4	97.4	82.0	83.0	46.1	47.2	92.0	94.6					
2	90.8	94.5	63.1	65.1	32.3	33.4	85.6	90.5					
3	86.6	91.9	51.6	53.9	21.7	22.9	80.5	87.4					
4	82.7	89.5	43.7	46.9	17.0	18.5	76.4	85.1					
5	80.7	89.0	38.8	42.4	17.0	18.1	73.1	83.7					
6	77.7	87.8	38.0	41.4	16.0	17.2	69.9	82.1					
7	75.0	86.5	36.4	40.6			66.5	80.3					
8	72.4	85.6	35.6	39.8			63.7	78.9					
9	70.4	85.2	34.5	39.7			60.0	76.7					
10	68.0	84.4	34.5	39.7			57.6	75.6					

**Table 4d.** Observed (obs.) and relative (rel.) survival of patients with corpus cancer by extent of disease for period 1988-2013 (N=2,635).

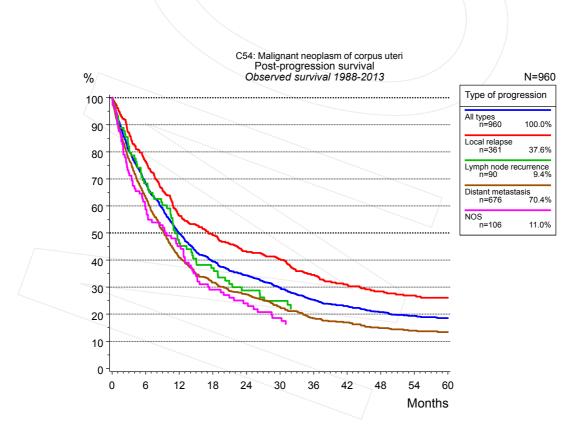


**Figure 4e.** Conditional relative 5-year survival of patients with corpus cancer by extent of disease. For 5,676 of 5,970 cases diagnosed between 1988 and 2013 valid data could be obtained for this item. For a total of 2,635 cases an evaluable classification was established. The grey line represents the subgroup of 3,335 patients with missing values regarding extent of disease (55.9% of 5,970 patients, the percent values of all other categories are related to n=2,635).

Extent of disease													
	Loc	al	Regio	onal	Dist	ant	NA/NOS						
	Cond. surv. %		Cond. surv. %		Cono surv.								
Years	n	5 yrs	n	5 yrs	n	5 yrs	n	5 yrs					
0	2,172	89.2	221	42.4	242	18.1	3,335	83.7					
1	1,960	90.5	173	49.7	102	36.4	2,953	87.1					
2	1,702	92.1	119	62.3			2,591	89.6					
3	1,486	93.9	89	73.4			2,267	91.7					
4	1,283	96.3	67	85.0			1,985	91.8					
5	1,100	95.9	54	94.6			1,758	92.5					
6	939	97.0	49	94.1			1,527	92.1					
7	846	97.9	44	95.3			1,348	92.8					
8	744	99.0	36	95.0			1,173	93.8					
9	667	98.5	29	93.5			980	96.4					
10	585	97.7					850	97.2					

**Table 4f.** Conditional relative 5-year survival of patients with corpus cancer by extent of disease for period 1988-2013 (N=2,635).

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 extent of disease="Local", who are alive at least 3 years after cancer diagnosis, the conditional relative 5-year survival rate is 93.9% (n=1,486).



**Figure 5a.** Observed post-progression survival of 960 patients with corpus cancer diagnosed between 1988 and 2013 (incl. M1). These 960 patients with documented progression events during their course of disease represent 16.1% of the totally 5,970 evaluated cases. Patients with cancer relapse documented via death certificates only were excluded (n=293, 4.9%). 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.

		Туре о	f progressior	า	
	All types	Local relapse	Lymph node recurrence	Distant metastasis	NOS
	n=960	n=361	n=90	n=676	n=106
Months	%	%	%	%	%
0	100.0	100.0	100.0	100.0	100.0
12	49.7	56.5	46.3	40.8	45.1
24	34.3	43.3	28.8	27.3	24.0
36	25.3	34.5		18.5	
48	20.8	28.4		14.9	
60	18.6	26.1		13.4	

**Table 5b.** Observed post-progression survival of patients with corpus cancer for period 1988-2013 (N=960).

#### 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)
- Date of entry: Date of first locoregional recurrence, distant metastasis, unspecified progression

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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