Munich Cancer Registry



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

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

Cancer statistics: Survival

C49: Soft tissue cancer

Year of diagnosis	1978-1987	1988-1997	1998-2011
Patients	231	485	1,640
Diseases	232	485	1,645
Creation date	04/01/2013		
Export date	01/03/2013		
Population	4.5 m		



http://www.tumorregister-muenchen.de/en/facts/surv/surv_C49__E.pdf

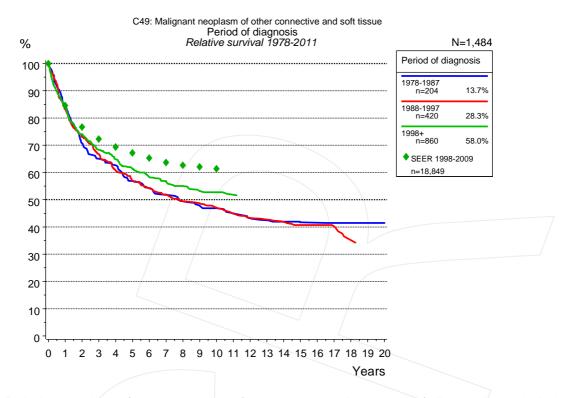


Figure 1a. Relative survival of patients with soft tissue cancer by period of diagnosis. Included in the evaluation are 1,484 cases diagnosed between 1978 and 2011.

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									
		1987		1997	1998+				
	n=2	204	n=4	120	n=860				
Years	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %			
0	100.0	100.0	100.0	100.0	100.0	100.0			
1	82.8	84.1	81.2	83.1	81.7	83.8			
2	68.5	70.7	70.2	73.0	70.8	74.0			
3	62.1	65.0	63.0	66.7	64.1	68.3			
4	59.2	62.6	56.2	60.6	59.9	64.8			
5	52.8	56.8	52.0	57.0	55.4	61.3			
6	49.8	54.2	48.5	54.2	51.9	58.2			
7	46.8	51.7	45.8	51.9	49.9	56.8			
8	43.8	49.4	42.8	49.4	47.3	55.0			
9	41.8	47.7	41.5	48.7	45.0	53.2			
10	40.8	46.9	39.3	47.1	44.4	52.8			
11	38.2	45.0	36.8	44.9	42.9	51.8			
12	36.2	43.2	35.0	43.3					
13	35.2	42.4	34.0	42.7					
14	34.2	41.9	32.9	41.8					
15	33.2	41.7	31.4	40.7					
16	32.7	41.5	30.9	40.7					
17	32.2	41.4	30.3	40.2					
18	31.6	41.4	25.8	35.1					
19	31.6	41.4							
20	31.6	41.4							

Table 1b. Observed (obs.) and relative (rel.) survival of patients with soft tissue cancer by period of diagnosis for period 1978-2011 (N=1,484).

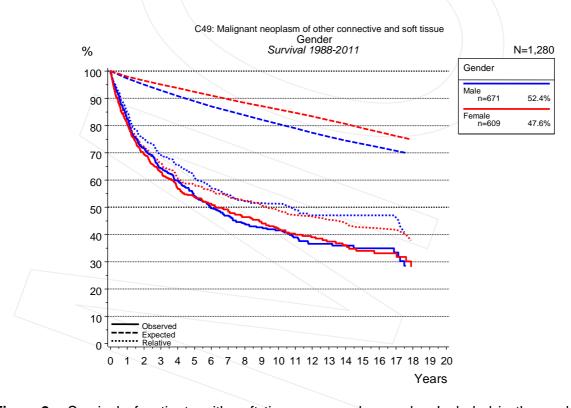


Figure 2a. Survival of patients with soft tissue cancer by gender. Included in the evaluation are 1,280 cases diagnosed between 1988 and 2011.

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Gender									
	Ma	Fem	nale						
	n=6	571	n=6	809					
Years	obs. %	rel. %	obs. %	rel. %					
0	100.0	100.0	100.0	100.0					
1	82.6	84.8	80.4	82.1					
2	71.6	75.3	69.4	71.8					
3	64.3	69.1	62.9	66.1					
4	59.7	65.7	57.0	60.5					
5	54.2	60.7	53.8	58.1					
6	49.6	56.9	51.3	56.1					
7	46.9	54.7	49.2	54.3					
8	43.9	52.2	46.4	52.4					
9	42.6	51.5	44.4	50.7					
10	41.5	51.3	41.9	48.8					
11	39.0	49.1	39.9	47.1					
12	36.6	47.1	39.0	46.6					
13	36.6	47.1	37.4	45.4					
14	35.9	47.1	36.1	44.1					
15	34.9	47.1	34.0	42.6					
16	34.9	47.1	33.1	42.3					
17	33.4	46.1	33.1	41.8					
18			28.3	36.9					

Table 2b. Observed (obs.) and relative (rel.) survival of patients with soft tissue cancer by gender for period 1988-2011 (N=1,280).

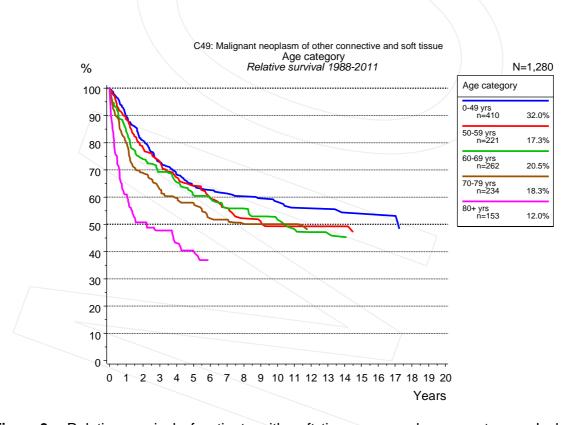


Figure 3a. Relative survival of patients with soft tissue cancer by age category. Included in the evaluation are 1,280 cases diagnosed between 1988 and 2011.

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Age category											
	0-49 yrs		50-59	9 yrs	rs 60-69 yrs		70-79 yrs		80+ yrs		
	n=4	110	n=221		n=262		n=234		n=153		
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	89.6	89.7	88.1	88.5	82.9	84.0	77.1	79.7	54.7	61.0	
2	80.5	80.7	77.2	77.9	71.8	73.9	64.0	68.8	41.5	50.7	
3	72.7	72.8	71.7	72.9	66.2	69.2	55.9	62.8	34.1	47.7	
4	68.1	68.2	65.7	67.2	61.5	65.5	50.8	59.6	26.4	43.1	
5	63.7	64.1	62.1	64.2	56.2	60.7	47.0	57.8	21.2	40.2	
6	62.2	62.6	57.0	59.5	54.2	59.6	40.3	52.2	16.9	36.9	
7	61.0	61.3	53.6	56.0	50.0	55.8	37.8	51.7			
8	59.7	60.3	49.2	52.2	48.5	55.8	34.2	50.2			
9	58.6	59.5	48.3	51.1	45.1	52.9	33.3	50.1			
10	57.5	58.2	45.8	49.3	42.2	51.7	31.2	50.1			
11	54.9	56.1	45.8	49.3	38.2	48.2	28.4	50.1			
12	54.9	55.9	44.7	49.2	36.1	47.2					
13	54.9	55.6	44.7	49.2	34.8	46.7					
14	52.7	54.3	44.7	49.2	33.3	45.3					
15	52.7	53.9	41.1	46.9							
16	52.7	53.5	41.1	46.2							
17	52.7	53.1									

Table 3b. Observed (obs.) and relative (rel.) survival of patients with soft tissue cancer by age category for period 1988-2011 (N=1,280).

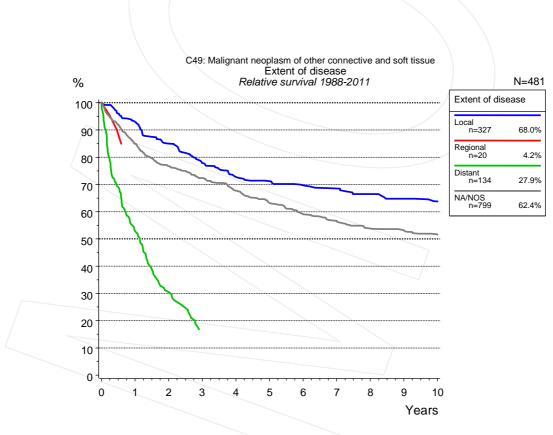


Figure 4a. Relative survival of patients with soft tissue cancer by extent of disease. For 722 of 1,280 cases diagnosed between 1988 and 2011 valid data could be obtained for this item. For a total of 481 cases an evaluable classification was established. The grey line represents the subgroup of 799 patients with missing values regarding extent of disease (62.4% of 1,280 patients, the percent values of all other categories are related to n=481).

Extent of disease										
Loc	Local Regional Distant		Regional		ant	NA/NOS				
n=3	327	n=	20	n=1	34	n=799				
obs. %	rel. %	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %			
100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0			
91.3	92.9			52.3	52.9	82.6	85.0			
82.2	85.0			30.2	30.5	73.0	76.7			
74.3	77.9			16.2	16.7	67.5	72.4			
68.4	72.7					61.8	67.7			
66.3	71.2					56.5	63.2			
64.0	69.7					51.9	59.1			
62.1	68.5					49.1	56.6			
59.4	66.4					45.5	53.8			
57.0	64.7					44.2	53.0			
55.0	63.8					42.1	51.6			
•	n=3 bbs. % 100.0 91.3 82.2 74.3 68.4 66.3 64.0 62.1 59.4 57.0	n=327 bbs. % rel. % 100.0 100.0 91.3 92.9 82.2 85.0 74.3 77.9 68.4 72.7 66.3 71.2 64.0 69.7 62.1 68.5 59.4 66.4 57.0 64.7	Local n=327 n= obs. % rel. % obs. % 100.0 100.0 100.0 91.3 92.9 82.2 85.0 74.3 77.9 68.4 72.7 66.3 71.2 64.0 69.7 62.1 68.5 59.4 66.4 57.0 64.7	Local n=327 n=20 obs. % rel. % obs. % rel. % 100.0 100.0 100.0 100.0 91.3 92.9 82.2 85.0 74.3 77.9 68.4 72.7 66.3 71.2 64.0 69.7 62.1 68.5 59.4 66.4 57.0 64.7	Local n=327 Regional n=20 Dist n=1 obs. % rel. % obs. % obs. % rel. % obs. % rel. % obs. % obs. % rel. % obs. % obs. %	Local n=327 Regional n=20 Distant n=134 obs. % rel. % obs. % obs. % rel. % obs. % rel. % obs. % obs. % rel. % obs. % obs. % rel. % obs. % ob	Local n=327 Regional n=20 Distant n=134 NA/N n=7 obs. % rel. % obs. % obs. % rel. % obs. % obs. % rel. % obs.			

Table 4b. Observed (obs.) and relative (rel.) survival of patients with soft tissue cancer by extent of disease for period 1988-2011 (N=481).

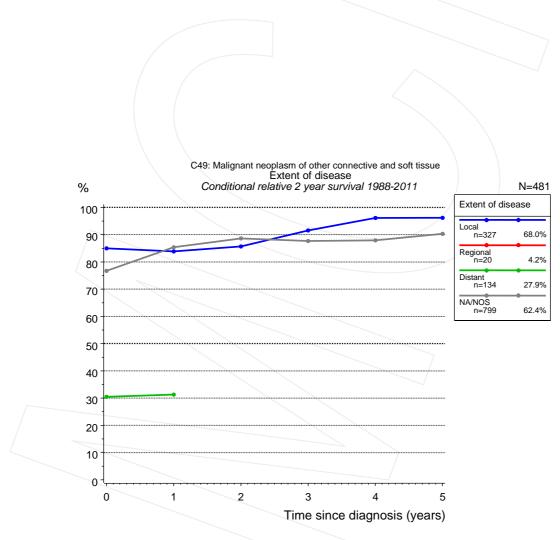


Figure 4c. Conditional relative 2-year survival of patients with soft tissue cancer by extent of disease. For 722 of 1,280 cases diagnosed between 1988 and 2011 valid data could be obtained for this item. For a total of 481 cases an evaluable classification was established. The grey line represents the subgroup of 799 patients with missing values regarding extent of disease (62.4% of 1,280 patients, the percent values of all other categories are related to n=481).

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Extent of disease										
	Loc	al	Regional		Distant		NA/NOS			
	Cond. surv. %							Cond. surv. %		
Years	n	2 yrs	n	2 yrs	n	2 yrs	n	2 yrs		
0	327	85.0	20		134	30.5	799	76.7		
1	288	83.9			65	31.3	641	85.4		
2	239	85.7					528	88.6		
3	197	91.6					450	87.7		
4	168	96.1					366	87.9		
5	149	96.2					297	90.3		

Table 4d. Conditional relative 2-year survival of patients with soft tissue cancer by extent of disease for period 1988-2011 (N=481).

Conditional relative survival rates refer to the relative survival probability, in this case for 2 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 4a). 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 2-year survival rate is 91.6% (n=197).

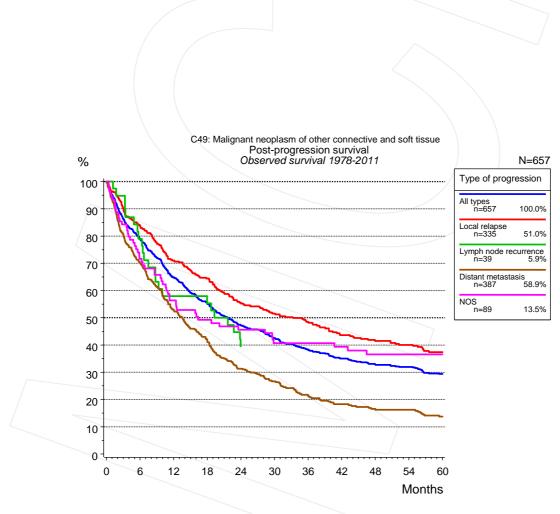


Figure 5a. Observed post-progression survival of 657 patients with soft tissue cancer diagnosed between 1978 and 2011 (incl. M1). These 657 patients with documented progression events during their course of disease represent 44.3% of the totally 1,484 evaluated cases. Patients with cancer relapse documented via death certificates only were excluded (n=114, 7.7%). Multiple progression types on different sites are included in the evaluation even when not occurring synchronously. The

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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.

	Type of progression										
	All types	Local relapse	Lymph node recurrence	Distant metastasis	NOS						
	n=657	n=335	n=39	n=387	n=89						
Months	%	%	%	%	%						
0	100.0	100.0	100.0	100.0	100.0						
12	64.7	71.0	57.9	52.8	56.4						
24	47.3	55.5	39.5	31.3	45.6						
36	38.2	48.5		21.4	40.7						
48	32.9	41.5		16.6	36.6						
60	29.3	37.4		13.8	36.6						

Table 5b. Observed post-progression survival of patients with soft tissue cancer for period 1978-2011 (N=657).



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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