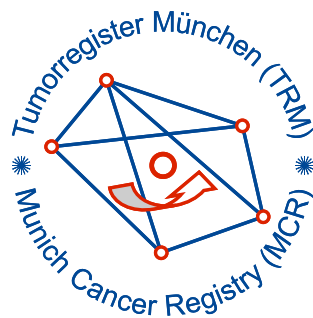


# Munich Cancer Registry



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- ▶ [Deutsch](#)

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

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

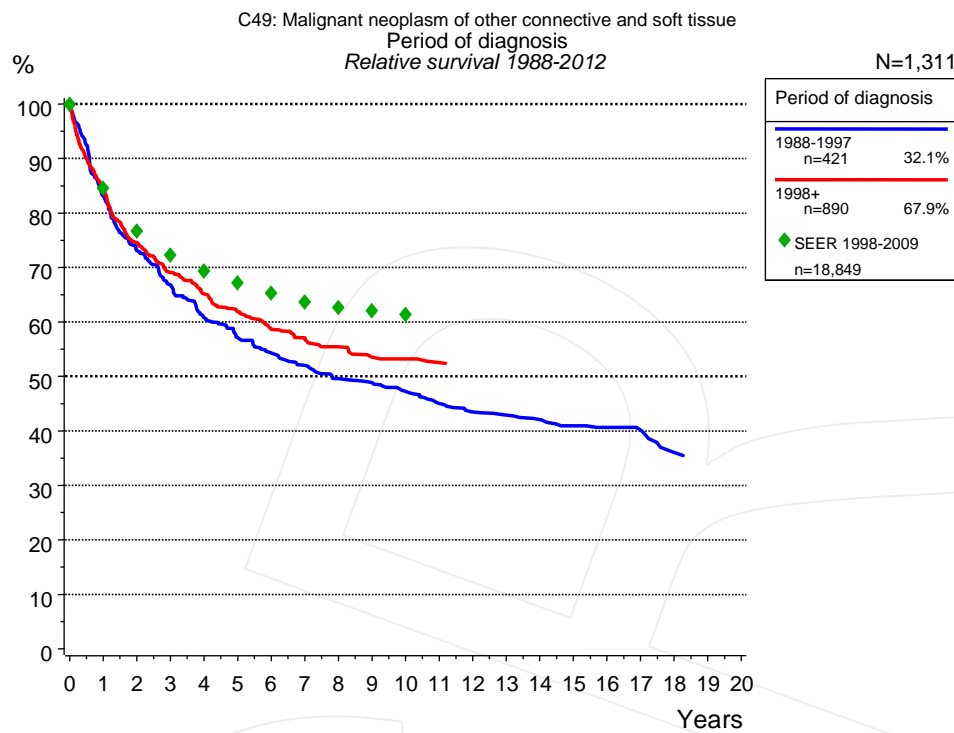
## Cancer statistics: Survival

### C49: Soft tissue cancer

Year of diagnosis	1988-2012
Patients	2,269
Diseases	2,279
Cases evaluated	1,311
Creation date	03/25/2014
Export date	02/12/2014
Population	4.5 m



[http://www.tumorregister-muenchen.de/en/facts/surv/surv\\_C49\\_\\_E.pdf](http://www.tumorregister-muenchen.de/en/facts/surv/surv_C49__E.pdf)



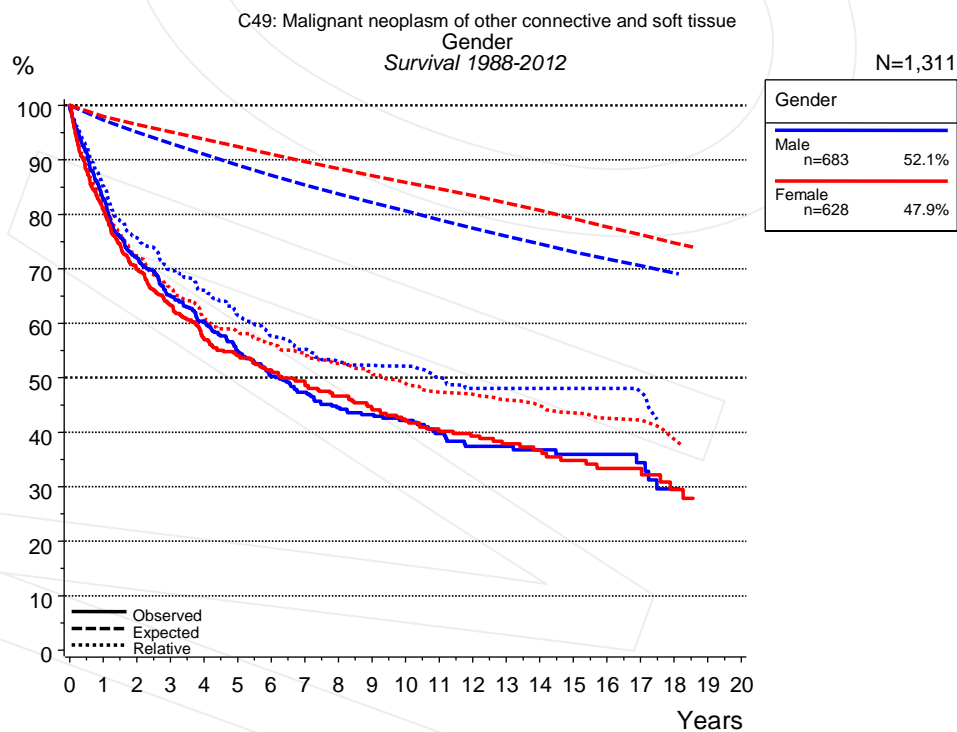
**Figure 1a.** Relative survival of patients with soft tissue cancer by period of diagnosis. Included in the evaluation are 1,311 cases diagnosed between 1988 and 2012.

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 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=421		1998+ n=890	
	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0
1	81.2	83.1	82.1	84.1
2	70.3	73.1	71.3	74.5
3	63.1	66.7	64.8	69.0
4	56.3	60.7	60.2	65.1
5	52.1	57.1	56.1	61.9
6	48.7	54.3	52.3	58.6
7	45.9	52.1	50.1	57.1
8	42.9	49.6	47.7	55.4
9	41.7	48.8	45.2	53.5
10	39.4	47.2	44.7	53.2
11	36.9	45.0	43.5	52.5
12	35.1	43.5		
13	34.1	42.9		
14	33.1	42.0		
15	31.6	40.9		
16	30.8	40.6		
17	30.2	40.1		
18	26.4	36.0		

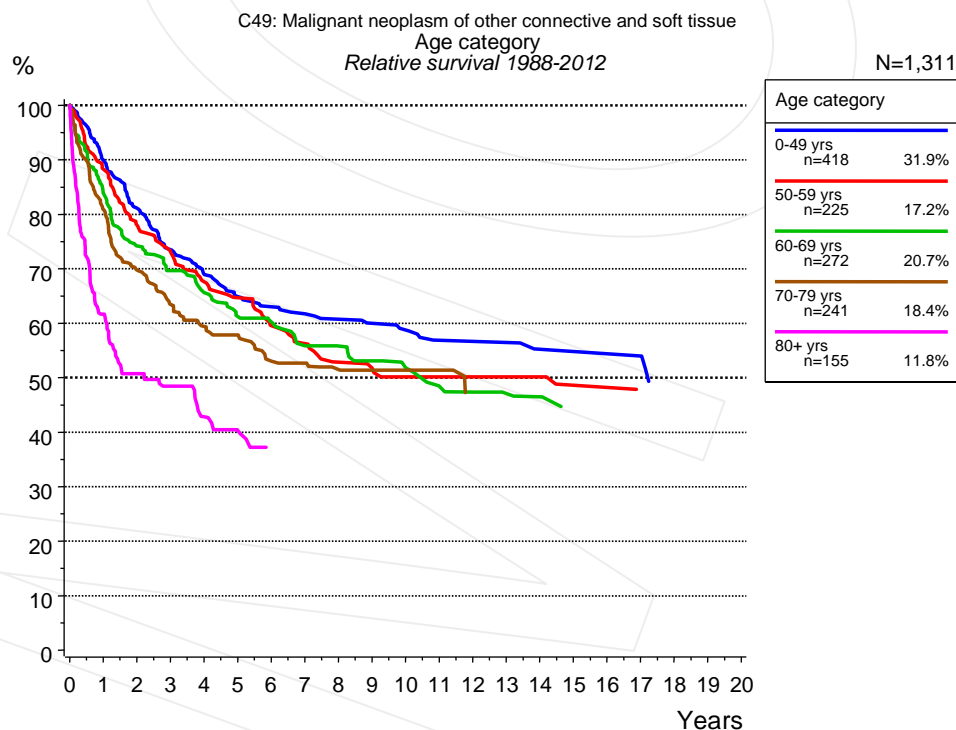
**Table 1b.** Observed (obs.) and relative (rel.) survival of patients with soft tissue cancer by period of diagnosis for period 1988-2012 (N=1,311).



**Figure 2a.** Survival of patients with soft tissue cancer by gender. Included in the evaluation are 1,311 cases diagnosed between 1988 and 2012.

Years	Gender			
	Male n=683		Female n=628	
	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0
1	82.9	85.1	80.7	82.4
2	72.0	75.7	69.9	72.3
3	65.0	69.8	63.3	66.5
4	60.1	66.0	57.2	60.7
5	54.8	61.4	54.1	58.4
6	50.3	57.6	51.5	56.3
7	47.3	55.2	49.4	54.5
8	44.5	52.9	46.6	52.6
9	43.2	52.3	44.4	50.7
10	42.2	52.1	42.1	48.9
11	39.7	50.0	40.2	47.4
12	37.4	48.0	39.3	47.0
13	37.4	48.0	37.9	45.9
14	36.8	48.0	36.7	44.9
15	35.9	48.0	34.8	43.5
16	35.9	48.0	33.3	42.6
17	34.4	47.4	33.3	42.2
18			29.4	38.7

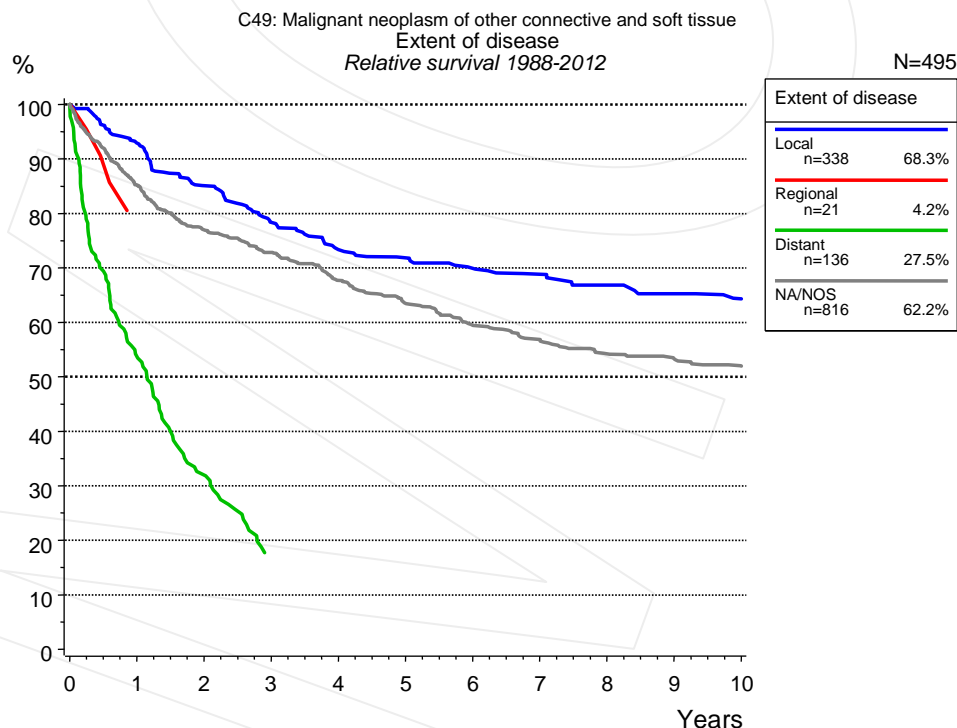
**Table 2b.** Observed (obs.) and relative (rel.) survival of patients with soft tissue cancer by gender for period 1988-2012 (N=1,311).



**Figure 3a.** Relative survival of patients with soft tissue cancer by age category. Included in the evaluation are 1,311 cases diagnosed between 1988 and 2012.

Years	Age category									
	0-49 yrs n=418		50-59 yrs n=225		60-69 yrs n=272		70-79 yrs n=241		80+ yrs n=155	
	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	89.8	89.9	87.9	88.3	82.8	83.8	78.1	80.8	55.3	61.6
2	80.9	81.1	77.3	78.0	72.1	74.2	64.8	69.7	41.5	50.7
3	73.4	73.5	71.9	73.1	66.7	69.7	56.5	63.5	34.7	48.4
4	68.8	68.9	66.1	67.6	61.7	65.6	50.6	59.4	26.3	42.8
5	64.5	64.9	62.6	64.7	56.7	61.2	47.1	57.8	21.4	40.3
6	62.6	63.0	57.1	59.6	54.8	60.2	41.0	53.0	17.1	37.2
7	61.4	61.7	53.9	56.3	50.0	55.8	38.6	52.7		
8	60.1	60.7	49.8	52.8	48.5	55.8	35.1	51.5		
9	59.1	60.0	49.0	51.8	45.3	53.1	34.2	51.4		
10	58.0	58.7	46.5	50.2	42.4	51.8	32.1	51.4		
11	55.7	56.8	46.5	50.1	38.4	48.4	29.4	51.4		
12	55.7	56.6	45.5	50.1	36.3	47.4	23.2	46.3		
13	55.7	56.5	45.5	50.1	35.2	47.1				
14	53.6	55.3	45.5	50.1	34.0	46.5				
15	53.6	54.8	42.4	48.6	30.6	43.8				
16	53.6	54.4	42.4	48.2						
17	53.6	54.0	39.9	47.3						

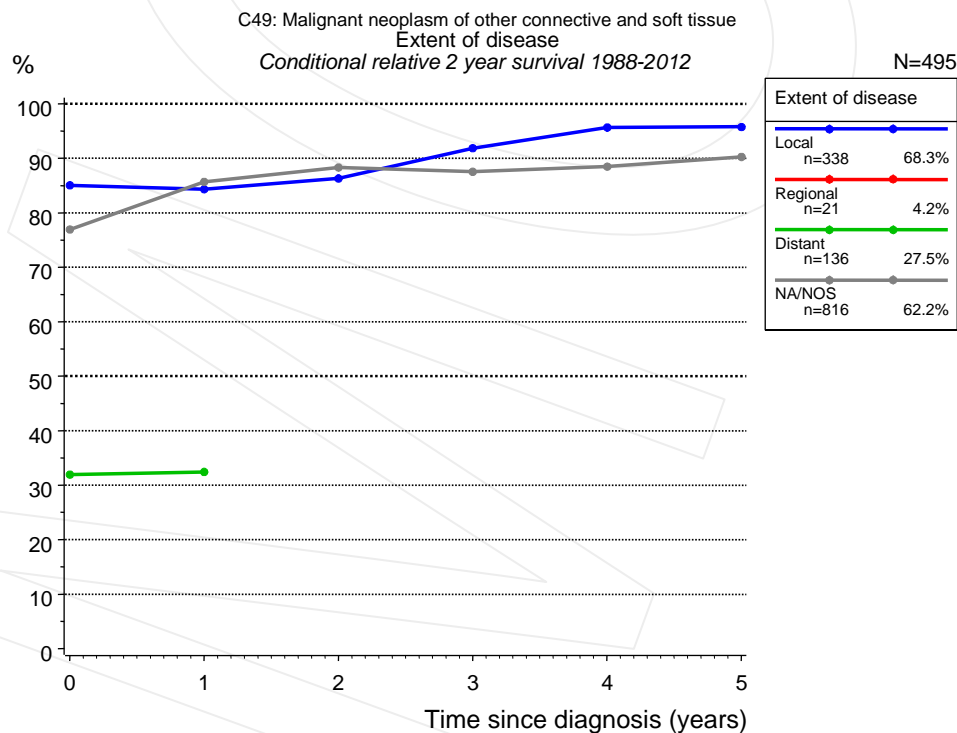
**Table 3b.** Observed (obs.) and relative (rel.) survival of patients with soft tissue cancer by age category for period 1988-2012 (N=1,311).



**Figure 4a.** Relative survival of patients with soft tissue cancer by extent of disease. For 739 of 1,311 cases diagnosed between 1988 and 2012 valid data could be obtained for this item. For a total of 495 cases an evaluable classification was established. The grey line represents the subgroup of 816 patients with missing values regarding extent of disease (62.2% of 1,311 patients, the percent values of all other categories are related to n=495).

Years	Extent of disease							
	Local n=338		Regional n=21		Distant n=136		NA/NOS n=816	
	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	91.3	92.9			53.0	53.7	82.9	85.2
2	82.3	85.1			31.6	31.9	73.2	76.9
3	74.8	78.3			17.0	17.6	68.0	72.8
4	69.0	73.3					61.8	67.7
5	67.0	71.8					56.9	63.5
6	64.3	69.9					52.2	59.4
7	62.3	68.8					49.2	56.8
8	59.8	66.8					45.8	54.2
9	57.5	65.2					44.3	53.3
10	55.5	64.3					42.3	52.0

**Table 4b.** Observed (obs.) and relative (rel.) survival of patients with soft tissue cancer by extent of disease for period 1988-2012 (N=495).

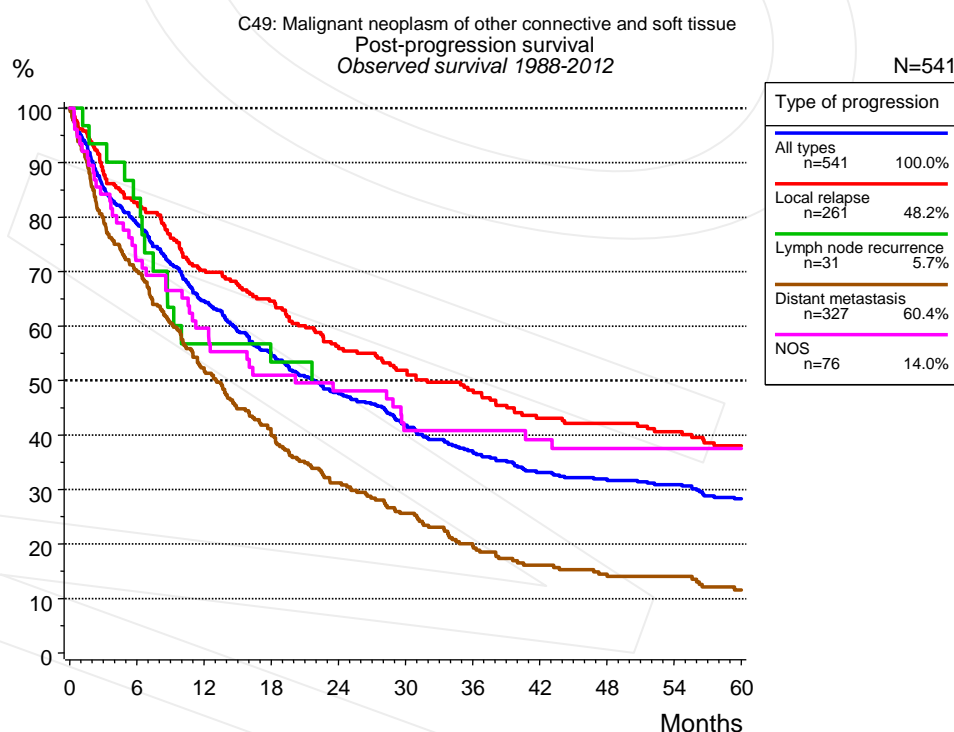


**Figure 4c.** Conditional relative 2-year survival of patients with soft tissue cancer by extent of disease. For 739 of 1,311 cases diagnosed between 1988 and 2012 valid data could be obtained for this item. For a total of 495 cases an evaluable classification was established. The grey line represents the subgroup of 816 patients with missing values regarding extent of disease (62.2% of 1,311 patients, the percent values of all other categories are related to n=495).

Years	Extent of disease							
	Local		Regional		Distant		NA/NOS	
	n	Cond. surv. % 2 yrs	n	Cond. surv. % 2 yrs	n	Cond. surv. % 2 yrs	n	Cond. surv. % 2 yrs
0	338	85.1	21		136	31.9	816	76.9
1	298	84.3			68	32.4	656	85.7
2	254	86.3					537	88.3
3	205	91.9					464	87.5
4	173	95.7					382	88.5
5	154	95.8					314	90.3

**Table 4d.** Conditional relative 2-year survival of patients with soft tissue cancer by extent of disease for period 1988-2012 (N=495).

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 91.9% (n=205).



**Figure 5a.** Observed post-progression survival of 541 patients with soft tissue cancer diagnosed between 1988 and 2012 (incl. M1). These 541 patients with documented progression events during their course of disease represent 41.3% of the totally 1,311 evaluated cases. Patients with cancer relapse documented via death certificates only were excluded (n=112, 8.5%). 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				NOS n=76 %
	All types n=541 %	Local relapse n=261 %	Lymph node recurrence n=31 %	Distant metastasis n=327 %	
0	100.0	100.0	100.0	100.0	100.0
12	64.5	70.3	56.7	52.0	59.6
24	47.8	56.3		31.2	48.1
36	36.9	48.3		19.6	40.8
48	31.9	42.2		14.4	37.5
60	28.3	38.1		11.6	37.5

**Table 5b.** Observed post-progression survival of patients with soft tissue cancer for period 1988-2012 (N=541).



## 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

## Recommended Citation

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