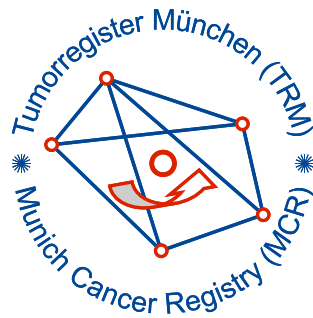


# Munich Cancer Registry



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- ▶ [Selection Matrix](#)
- ▶ [Homepage](#)

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

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

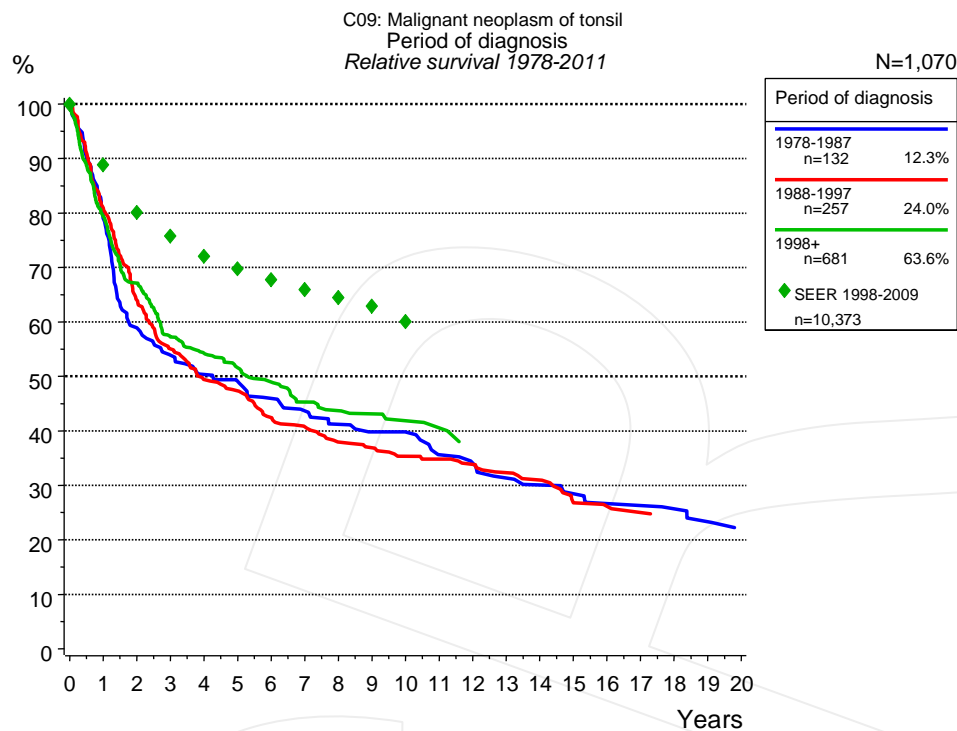
## Cancer statistics: Survival

### C09: Tonsil cancer

Year of diagnosis	1978-1987	1988-1997	1998-2011
Patients	143	309	1,152
Diseases	143	309	1,158
Creation date	04/01/2013		
Export date	01/03/2013		
Population	4.5 m		



[http://www.tumorregister-muenchen.de/en/facts/surv/surv\\_C09\\_\\_E.pdf](http://www.tumorregister-muenchen.de/en/facts/surv/surv_C09__E.pdf)



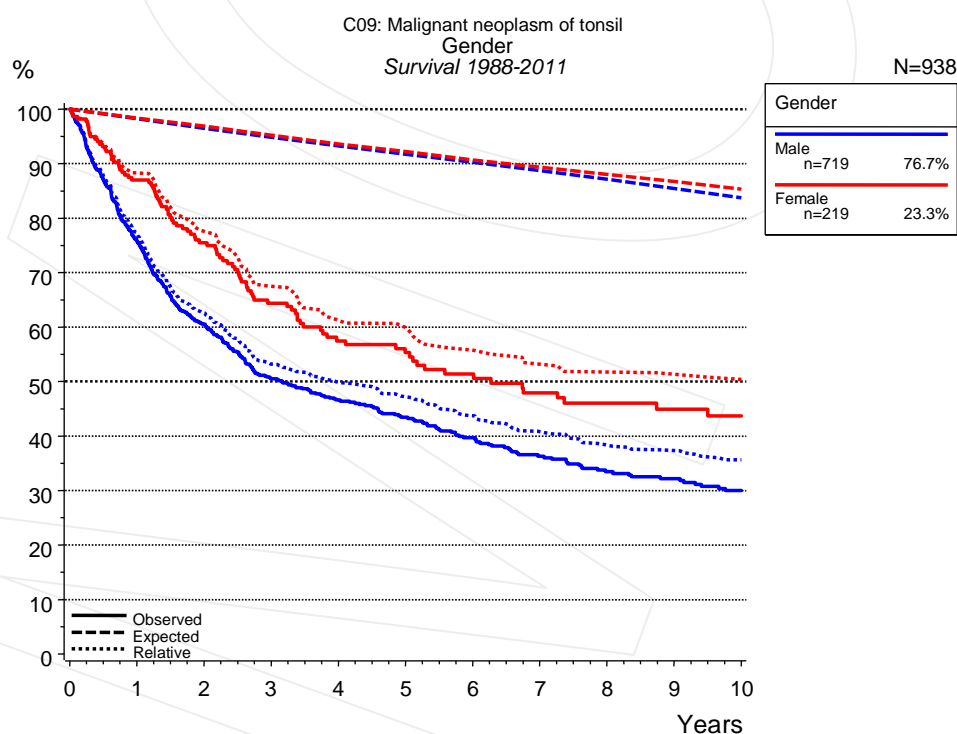
**Figure 1a.** Relative survival of patients with tonsil cancer by period of diagnosis. Included in the evaluation are 1,070 cases diagnosed between 1978 and 2011.

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.

Years	Period of diagnosis					
	1978-1987 n=132		1988-1997 n=257		1998+ n=681	
	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0	100.0	100.0
1	77.3	79.0	79.0	80.4	78.1	79.4
2	56.8	58.9	61.9	63.9	65.0	67.1
3	50.0	53.9	52.1	55.0	54.5	57.3
4	45.4	50.3	45.9	49.4	50.9	54.2
5	43.1	49.1	43.6	47.3	47.5	51.6
6	39.3	45.9	38.5	42.4	44.9	48.9
7	36.2	43.7	36.2	40.7	40.5	45.3
8	33.1	41.2	33.0	37.9	38.7	43.7
9	30.8	39.8	31.9	36.9	37.5	43.1
10	30.0	39.8	29.9	35.3	35.9	41.9
11	26.0	35.6	29.1	34.8	34.4	40.6
12	24.5	34.1	27.8	33.8	30.7	37.2
13	22.1	31.3	26.1	32.3	30.7	35.1
14	20.5	30.1	24.6	31.0		
15	18.9	28.5	20.5	26.8		
16	17.4	26.7	19.8	26.1		
17	16.6	26.3	19.2	25.0		
18	15.8	25.7	18.0	23.8		
19	14.2	23.3				
20	12.6	21.9				

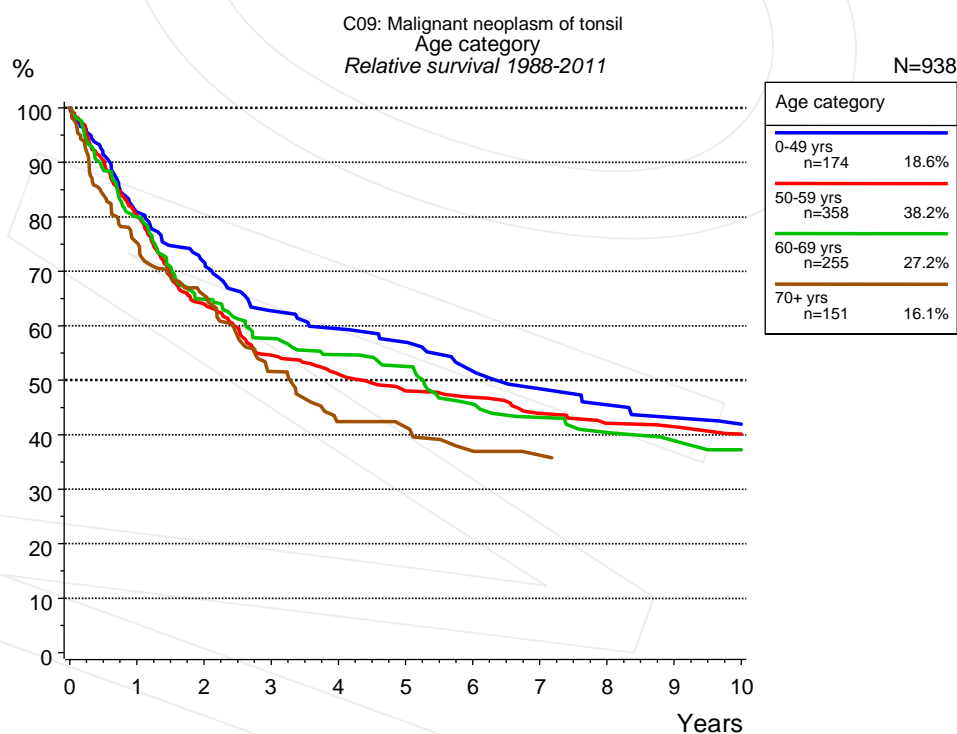
**Table 1b.** Observed (obs.) and relative (rel.) survival of patients with tonsil cancer by period of diagnosis for period 1978-2011 (N=1,070).



**Figure 2a.** Survival of patients with tonsil cancer by gender. Included in the evaluation are 938 cases diagnosed between 1988 and 2011.

Years	Gender			
	Male n=719		Female n=219	
	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0
1	75.7	77.0	87.0	88.3
2	60.5	62.6	75.4	77.5
3	50.5	53.2	64.4	67.5
4	46.6	49.9	57.5	61.2
5	43.4	47.2	55.3	59.9
6	39.7	43.7	51.4	55.8
7	36.3	40.8	47.9	53.2
8	33.4	38.3	46.1	51.7
9	32.2	37.4	44.9	51.3
10	30.0	35.6	43.7	50.4

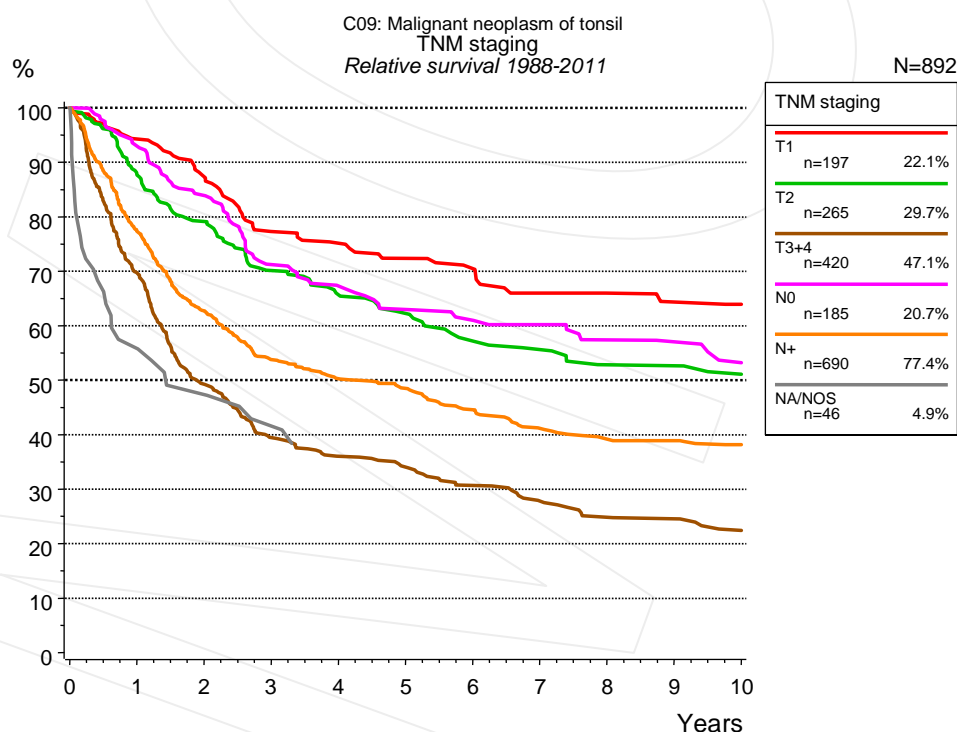
**Table 2b.** Observed (obs.) and relative (rel.) survival of patients with tonsil cancer by gender for period 1988-2011 (N=938).



**Figure 3a.** Relative survival of patients with tonsil cancer by age category. Included in the evaluation are 938 cases diagnosed between 1988 and 2011.

Years	Age category							
	0-49 yrs n=174		50-59 yrs n=358		60-69 yrs n=255		70+ yrs n=151	
	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	80.6	80.9	79.5	80.0	78.9	79.9	71.8	75.2
2	71.7	71.7	63.2	63.9	63.0	64.8	58.6	65.5
3	62.1	62.7	53.4	54.6	55.2	57.6	42.8	51.6
4	59.2	59.4	49.8	51.1	51.3	54.7	32.8	42.4
5	56.7	57.0	46.2	48.0	48.5	52.5	30.6	41.3
6	52.1	51.6	44.8	46.9	41.4	45.6	26.1	37.0
7	48.0	48.4	41.4	43.9	38.0	43.2	23.6	36.2
8	44.6	45.5	39.3	42.1	35.2	40.4		
9	42.1	43.1	38.7	41.5	32.8	38.9		
10	40.7	41.9	36.7	40.1	30.2	37.2		

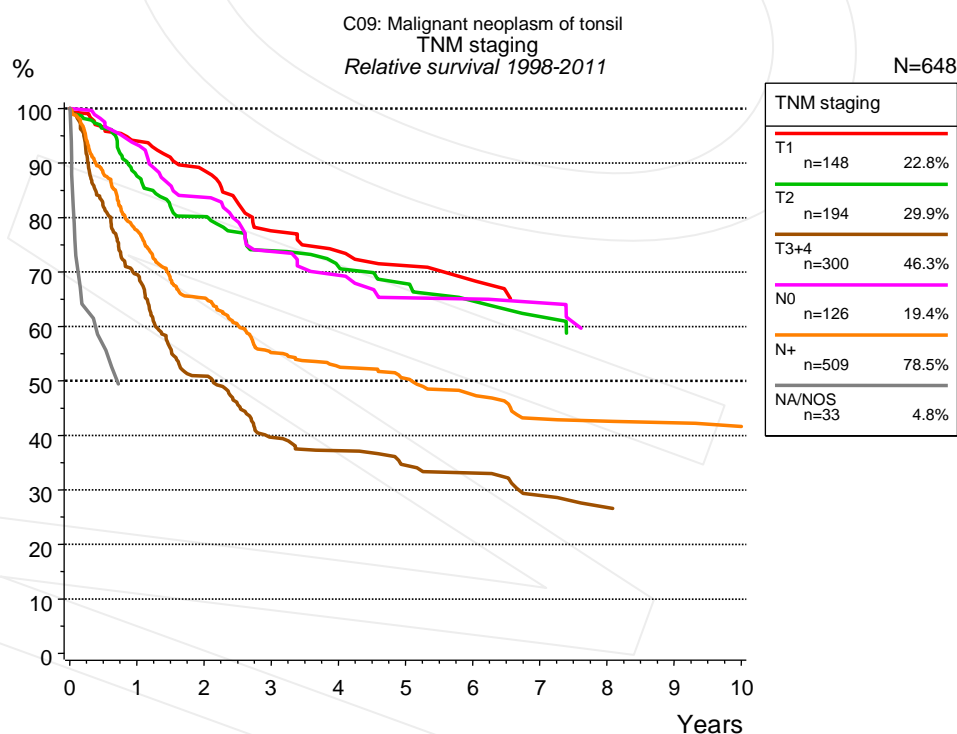
**Table 3b.** Observed (obs.) and relative (rel.) survival of patients with tonsil cancer by age category for period 1988-2011 (N=938).



**Figure 4a.** Relative survival of patients with tonsil cancer by TNM staging. For 895 of 938 cases diagnosed between 1988 and 2011 valid data could be obtained for this item. For a total of 892 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 46 patients with missing values regarding TNM staging (4.9% of 938 patients, the percent values of all other categories are related to n=892).

Years	TNM staging											
	T1 n=197		T2 n=265		T3+4 n=420		N0 n=185		N+ n=690		NA/NOS n=46	
	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
1	93.3	94.3	86.3	87.7	68.4	69.7	92.3	93.0	76.0	77.3	56.2	55.8
2	85.5	87.3	77.0	79.1	47.5	49.2	81.9	83.9	60.7	62.7	47.2	47.3
3	74.3	77.3	66.9	70.1	37.2	39.5	68.1	71.2	51.1	53.8	40.4	41.5
4	71.6	75.1	61.8	65.6	33.2	36.0	63.2	67.3	47.0	50.3		
5	68.0	72.4	58.0	62.2	31.1	34.0	58.7	63.0	44.7	48.5		
6	65.5	70.5	52.7	57.2	27.5	30.7	56.0	61.0	40.5	44.6		
7	60.1	66.0	50.3	55.6	24.5	27.8	54.2	60.2	36.7	41.2		
8	59.0	66.0	46.7	52.8	21.7	24.8	50.4	57.4	34.4	39.2		
9	56.6	64.4	46.7	52.6	21.3	24.6	49.2	57.0	34.1	39.0		
10	55.1	63.9	44.3	51.1	18.9	22.5	45.2	53.2	32.4	38.2		

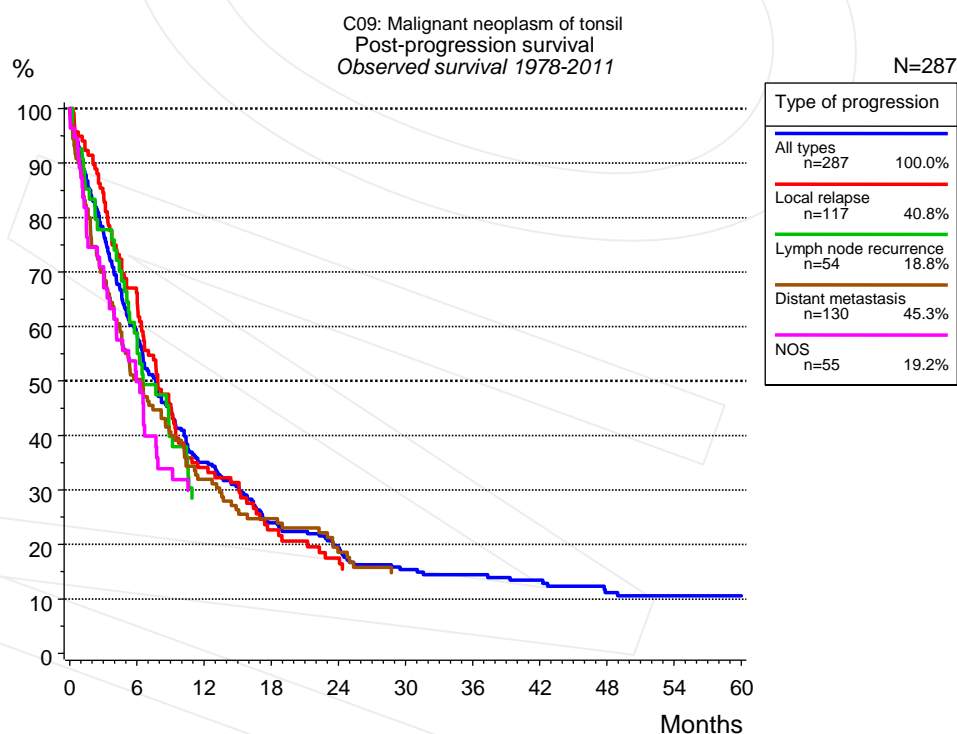
**Table 4b.** Observed (obs.) and relative (rel.) survival of patients with tonsil cancer by TNM staging for period 1988-2011 (N=1,757).



**Figure 4c.** Relative survival of patients with tonsil cancer by TNM staging. For 651 of 681 cases diagnosed between 1998 and 2011 valid data could be obtained for this item. For a total of 648 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 33 patients with missing values regarding TNM staging (4.8% of 681 patients, the percent values of all other categories are related to n=648).

TNM staging												
	T1 n=148		T2 n=194		T3+4 n=300		N0 n=126		N+ n=509		NA/NOS n=33	
Years	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
1	93.1	94.0	86.4	87.6	68.5	69.5	92.7	93.4	76.4	77.6	48.0	46.8
2	87.0	88.6	78.5	80.1	49.2	50.9	82.2	83.7	63.3	65.2		
3	74.6	77.6	71.3	73.9	37.4	39.7	71.3	73.7	52.4	55.2		
4	70.6	73.8	67.7	71.0	34.6	37.2	66.7	69.4	49.3	52.6		
5	67.2	71.2	64.3	67.9	31.4	34.5	61.3	65.3	46.5	50.4		
6	65.9	68.5	60.1	64.7	30.0	33.1	61.3	65.1	43.8	47.5		
7	59.3	64.8	56.6	61.8	25.7	29.0	59.4	64.3	38.5	43.1		
8	59.3	64.1	52.7	57.9	23.8	26.8	53.3	59.1	37.9	42.6		
9	59.3	63.4	52.7	56.4	22.7	25.5	53.3	57.5	37.1	42.3		
10	59.3	62.7	52.7	55.0					35.9	41.6		

**Table 4d.** Observed (obs.) and relative (rel.) survival of patients with tonsil cancer by TNM staging for period 1998-2011 (N=1,277).



**Figure 5a.** Observed post-progression survival of 287 patients with tonsil cancer diagnosed between 1978 and 2011 (incl. M1). These 287 patients with documented progression events during their course of disease represent 26.8% of the totally 1,070 evaluated cases. Patients with cancer relapse documented via death certificates only were excluded (n=144, 13.5%). 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=55 %
	All types n=287 %	Local relapse n=117 %	Lymph node recurrence n=54 %	Distant metastasis n=130 %	
0	100.0	100.0	100.0	100.0	100.0
12	35.1	34.1	28.5	31.9	
24	19.4	17.5		18.5	
36	14.5				
48	11.1				
60	10.5				

**Table 5b.** Observed post-progression survival of patients with tonsil cancer for period 1978-2011 (N=287).



**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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