# **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

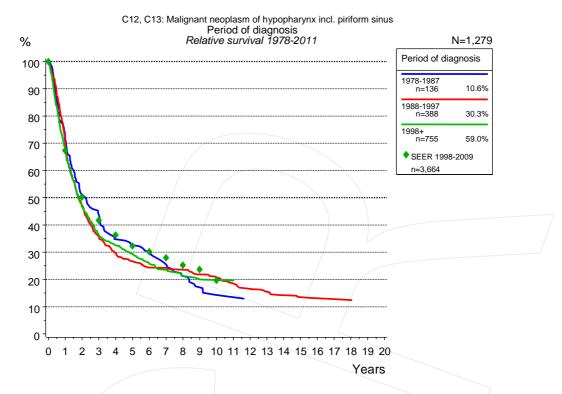
### **Cancer statistics: Survival**

## C12, C13: Hypopharynx cancer

Year of diagnosis	1978-1987	1988-1997	1998-2011
Patients	154	451	1,293
Diseases	154	452	1,293
Creation date	04/01/2013		
Export date	01/03/2013		
Population	4.5 m		



http://www.tumorregister-muenchen.de/en/facts/surv/surv\_C1213E.pdf



**Figure 1a.** Relative survival of patients with hypopharynx cancer by period of diagnosis. Included in the evaluation are 1,279 cases diagnosed between 1978 and 2011.

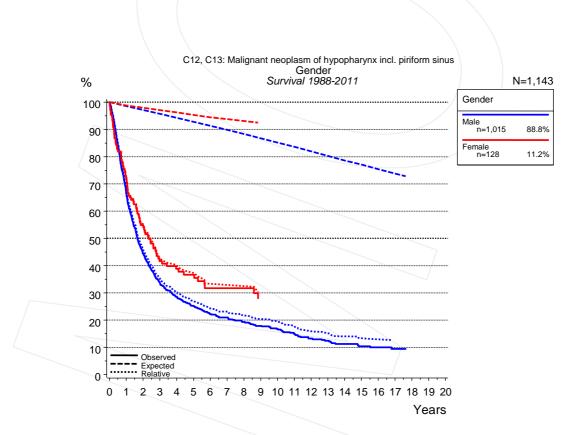
The survival results of the SEER program (Surveillance, Epidemiology, and End Results) of the American National Cancer Institute (NCI) are summarized as the period of diagnosis from 1998 to 2009, and are represented by green diamonds in order to facilitate comparisons between MCR and SEER.

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-		1988-	_	1998+				
	n=1	36	n=3	888	n=755				
Years	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %			
0	100.0	100.0	100.0	100.0	100.0	100.0			
1	69.9	71.1	69.0	69.9	65.8	66.8			
2	50.0	51.2	46.0	47.2	45.4	46.6			
3	41.9	43.4	34.4	35.6	35.0	36.4			
4	33.0	34.8	28.4	29.7	30.8	32.5			
5	30.7	32.6	25.2	26.7	27.3	29.4			
6	28.5	30.0	22.5	24.4	23.7	25.8			
7	24.0	25.5	22.2	24.2	21.6	23.5			
8	19.5	21.3	21.1	23.6	19.3	21.4			
9	15.7	17.0	19.3	21.8	18.1	20.1			
10	12.7	14.3	18.2	20.8	17.4	19.8			
11	12.0	13.5	15.9	18.5	17.4	19.6			
12	11.2	12.8	14.1	16.5					
13	11.2	12.4	12.9	15.5					
14			11.6	14.2					
15			10.8	13.5					
16			10.4	13.1					
17			9.9	12.8					
18			9.9	12.4					

**Table 1b.** Observed (obs.) and relative (rel.) survival of patients with hypopharynx cancer by period of diagnosis for period 1978-2011 (N=1,279).

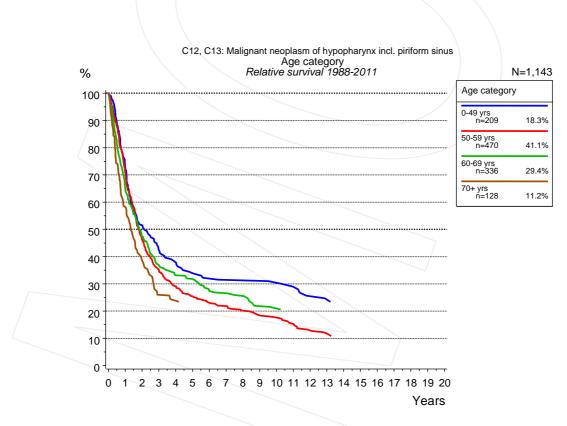


**Figure 2a.** Survival of patients with hypopharynx cancer by gender. Included in the evaluation are 1,143 cases diagnosed between 1988 and 2011.

Munich Cancer Registry 04/01/2013 surv\_C1213E.pdf

Gender										
	Ma	ale	Fem	nale						
	n=1,	015	n=1	128						
Years	obs. %	rel. %	obs. %	rel. %						
0	100.0	100.0	100.0	100.0						
1	66.2	67.2	72.2	72.6						
2	44.4	45.7	54.9	55.2						
3	33.9	35.3	41.6	42.7						
4	28.6	30.2	38.8	40.0						
5	25.1	27.1	36.6	37.3						
6	22.2	24.2	31.7	33.4						
7	21.0	23.1	31.7	32.9						
8	19.3	21.7	31.7	32.5						
9	17.9	20.4	28.0	30.1						
10	16.7	19.5	28.0	29.2						
11	15.0	17.7								
12	13.2	15.9								
13	12.4	15.2								
14	11.2	14.0								
15	10.4	13.4								
16	10.0	12.9								
17	9.4	12.6								
18	9.4	12.1								

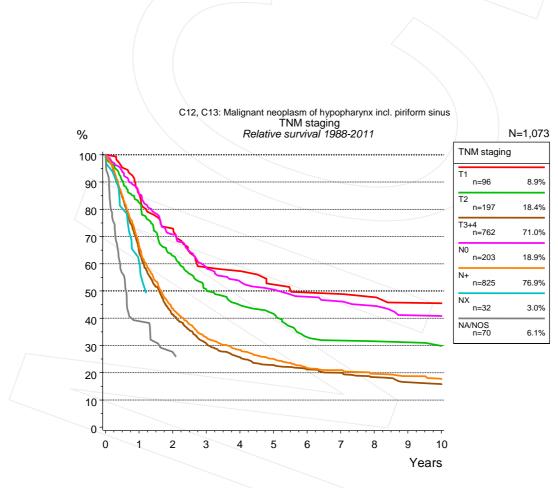
**Table 2b.** Observed (obs.) and relative (rel.) survival of patients with hypopharynx cancer by gender for period 1988-2011 (N=1,143).



**Figure 3a.** Relative survival of patients with hypopharynx cancer by age category. Included in the evaluation are 1,143 cases diagnosed between 1988 and 2011.

Age category											
	0-49	yrs	50-59	9 yrs	60-69	9 yrs	70+ yrs				
	n=2	209	n=4	170	n=3	36	n=128				
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	72.7	72.4	69.8	70.3	63.3	64.4	55.9	58.2			
2	51.6	51.5	45.6	46.2	46.0	47.4	35.0	38.5			
3	42.1	42.3	34.5	35.1	35.3	36.8	22.3	26.0			
4	37.8	37.8	28.3	29.0	30.8	33.1	19.9	23.8			
5	33.7	33.9	24.6	25.4	28.8	31.7					
6	31.5	31.9	22.0	23.0	24.2	27.3					
7	30.7	31.5	20.7	21.8	23.6	26.6					
8	30.7	31.3	18.7	20.1	22.1	25.5					
9	30.7	31.1	17.1	18.4	18.0	21.8					
10	29.7	30.4	16.3	17.6	17.1	20.9					
11	27.5	28.9	14.0	15.3	16.0	20.1					
12	24.2	25.5	11.5	12.9							
13	23.1	24.2	10.5	11.7							
14	21.9	23.0									
15	21.9	22.5									

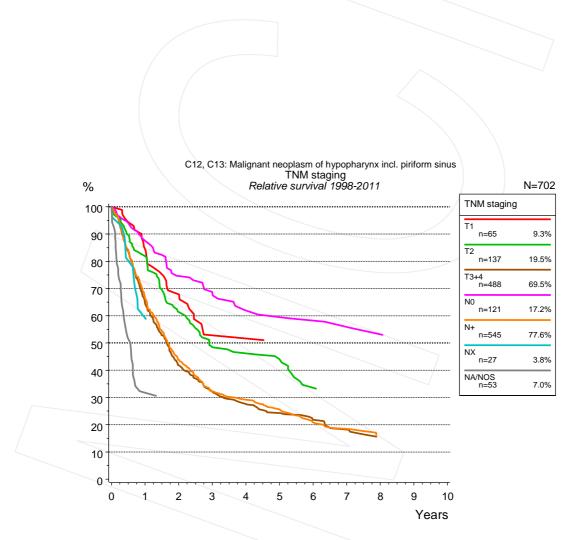
**Table 3b.** Observed (obs.) and relative (rel.) survival of patients with hypopharynx cancer by age category for period 1988-2011 (N=1,143).



**Figure 4a.** Relative survival of patients with hypopharynx cancer by TNM staging. For 1,080 of 1,143 cases diagnosed between 1988 and 2011 valid data could be obtained for this item. For a total of 1,073 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 70 patients with missing values regarding TNM staging (6.1% of 1,143 patients, the percent values of all other categories are related to n=1,073).

	TNM staging													
	Т	1	Т	2	T3	+4	N0 N+		+	N	Χ	NA/NOS		
	n=	96	n=1	197	n=7	'62	n=2	203	n=8	325	n=	32	n=	70
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	85.3	85.6	81.8	82.4	63.5	64.4	84.1	85.6	65.8	66.6	61.3	60.3	38.4	38.9
2	72.3	72.9	61.7	62.9	40.3	41.4	68.7	70.8	42.5	43.5			26.4	27.5
3	57.2	58.7	49.5	50.6	29.5	30.7	56.0	58.5	31.9	33.0				
4	55.8	57.3	43.2	44.8	24.3	25.7	50.5	53.5	27.1	28.4				
5	49.7	52.4	39.2	41.6	21.4	22.8	47.4	50.5	23.5	25.1				
6	46.2	49.4	31.0	33.0	19.4	21.2	44.0	47.8	20.1	21.7				
7	46.2	48.9	29.4	31.8	18.2	19.9	42.2	46.1	19.2	20.9				
8	44.5	47.7	28.5	31.5	16.4	18.3	40.3	44.5	17.6	19.6				
9	40.8	45.7	28.5	31.1	14.5	16.5	36.0	41.1	16.5	18.7				
10	40.8	45.5	27.3	29.8	13.6	15.8	36.0	40.8	15.4	17.6				

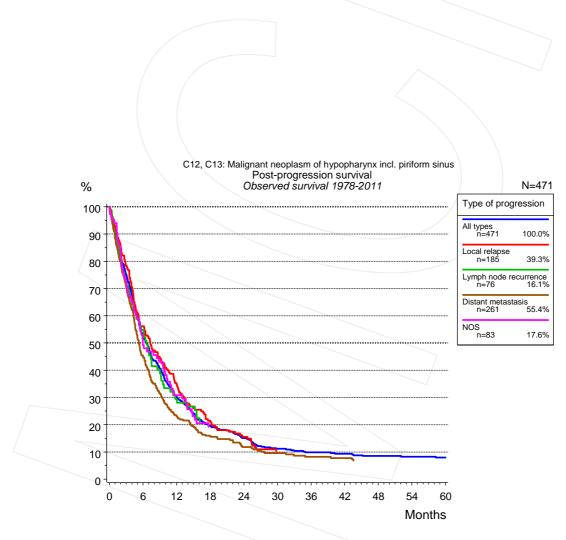
**Table 4b.** Observed (obs.) and relative (rel.) survival of patients with hypopharynx cancer by TNM staging for period 1988-2011 (N=2,115).



**Figure 4c.** Relative survival of patients with hypopharynx cancer by TNM staging. For 707 of 755 cases diagnosed between 1998 and 2011 valid data could be obtained for this item. For a total of 702 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 53 patients with missing values regarding TNM staging (7.0% of 755 patients, the percent values of all other categories are related to n=702).

	TNM staging													
	Т	1	Т	2	T3+4 N0		N+		N	X	NA/NOS			
	n=	65	n=1	137	n=4	188	n=1	21	n=5	545	n=	27	n=	53
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	84.4	84.3	81.1	81.8	63.4	64.3	86.1	87.5	65.5	66.3	61.5	59.1	31.6	31.7
2	67.9	67.8	60.1	61.3	40.7	41.8	72.4	74.6	42.9	43.8				
3	51.4	52.8	47.6	48.4	30.9	32.1	65.4	68.1	31.2	32.2				
4	51.4	51.7	44.6	46.2	26.2	27.6	58.2	61.9	27.9	29.2				
5			41.1	44.0	22.9	24.3	56.3	59.5	24.0	25.6				
6			31.9	33.5	20.0	21.8	54.3	58.2	19.3	20.9				
7			30.4	32.5	17.0	18.2	52.1	55.9	17.2	18.4				
8					13.9	15.4	49.6	53.1	14.5	16.2				
9									14.5	15.7				
10									14.5	15.3				

**Table 4d.** Observed (obs.) and relative (rel.) survival of patients with hypopharynx cancer by TNM staging for period 1998-2011 (N=1,383).



**Figure 5a.** Observed post-progression survival of 471 patients with hypopharynx cancer diagnosed between 1978 and 2011 (incl. M1). These 471 patients with documented progression events during their course of disease represent 36.8% of the totally 1,279 evaluated cases. Patients with cancer relapse documented via death certificates only were excluded (n=215, 16.8%). 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.

	Type of progression									
	All types	Local relapse	Lymph node recurrence	Distant metastasis	NOS					
	n=471	n=185	n=76	n=261	n=83					
Months	%	%	%	%	%					
0	100.0	100.0	100.0	100.0	100.0					
12	30.0	34.7	29.4	23.1	30.8					
24	15.1	15.5		11.8						
36	9.8			8.2						
48	8.5			6.8						
60	7.9									

**Table 5b.** Observed post-progression survival of patients with hypopharynx cancer for period 1978-2011 (N=471).



#### **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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### Index of figures and tables

Fig./Tb	l.	Page
1a	Relative survival by period of diagnosis (chart)	2
1b	Survival by period of diagnosis (table)	3
2a	Survival by gender (chart)	3
2b	Survival by gender (table)	4
3a	Relative survival by age category (chart)	4
3b	Survival by age category (table)	5
4a	Relative survival by TNM staging 1988+ (chart)	5
4b	Survival by TNM staging 1988+ (table)	6
4c	Relative survival by TNM staging 1998+ (chart)	6
4d	Survival by TNM staging 1998+ (table)	7
5a	Observed post-progression survival (chart)	7
5b	Observed post-progression survival (table)	8

