

# Munich Cancer Registry



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

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

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

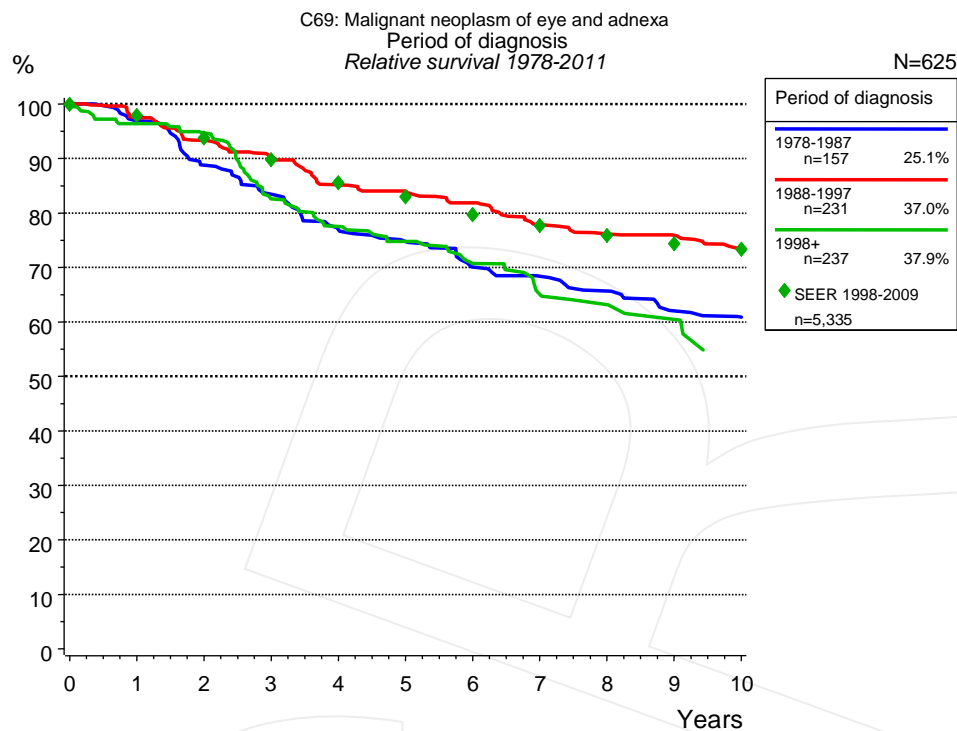
## Cancer statistics: Survival

### C69: Eye cancer

Year of diagnosis	1978-1987	1988-1997	1998-2011
Patients	174	262	439
Diseases	175	264	441
Creation date	04/01/2013		
Export date	01/03/2013		
Population	4.5 m		



[http://www.tumorregister-muenchen.de/en/facts/surv/surv\\_C69\\_\\_E.pdf](http://www.tumorregister-muenchen.de/en/facts/surv/surv_C69__E.pdf)

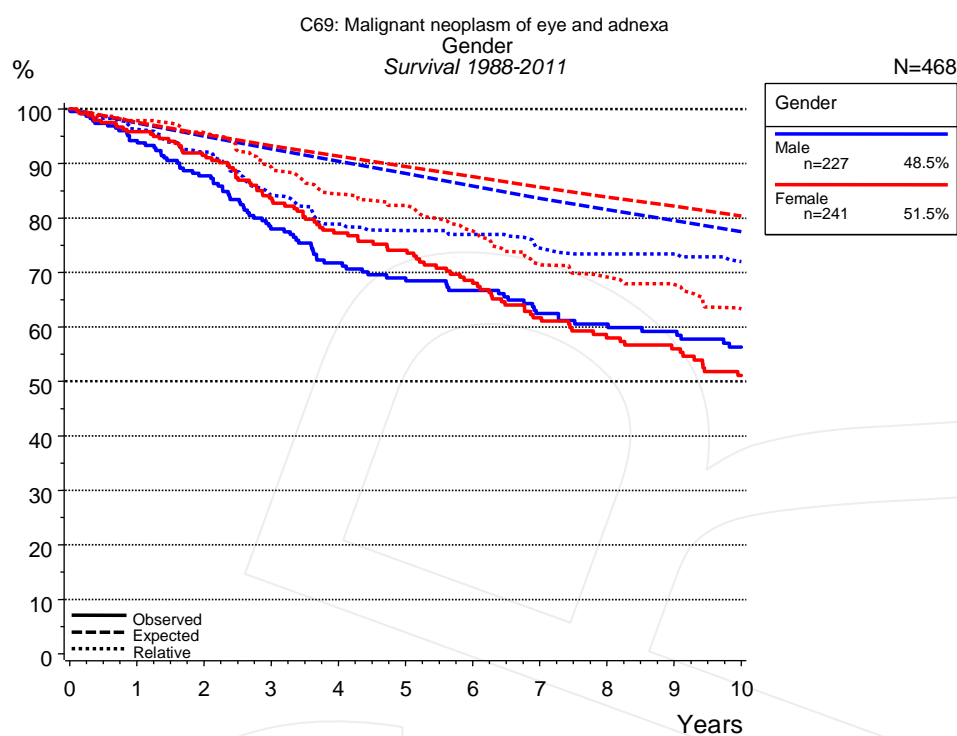


**Figure 1a.** Relative survival of patients with eye cancer by period of diagnosis. Included in the evaluation are 625 cases diagnosed between 1978 and 2011.

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=157		1988-1997 n=231		1998+ n=237	
	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0	100.0	100.0
1	95.5	96.9	95.7	97.5	94.4	96.4
2	85.3	88.8	89.6	93.3	89.8	94.6
3	78.9	83.4	84.8	90.3	76.3	82.6
4	71.2	76.9	78.1	85.2	70.3	77.5
5	67.9	74.8	75.9	84.0	66.1	74.7
6	62.0	70.1	72.4	81.9	60.4	70.7
7	59.4	68.4	67.1	77.9	54.5	65.0
8	56.2	65.7	64.0	76.2	52.4	63.2
9	51.5	62.0	62.7	75.9	49.3	60.4
10	49.6	60.9	59.1	73.4	42.6	52.7

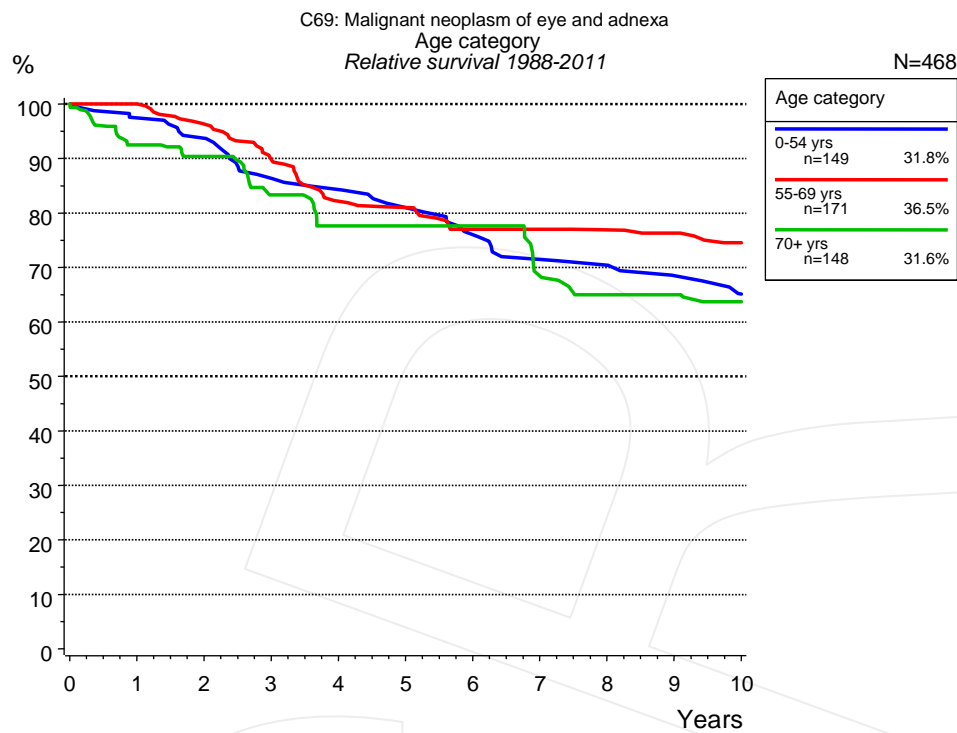
**Table 1b.** Observed (obs.) and relative (rel.) survival of patients with eye cancer by period of diagnosis for period 1978-2011 (N=625).



**Figure 2a.** Survival of patients with eye cancer by gender. Included in the evaluation are 468 cases diagnosed between 1988 and 2011.

Years	Gender			
	Male n=227		Female n=241	
	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0
1	94.2	96.3	95.8	97.9
2	87.7	92.1	91.5	95.6
3	78.0	84.1	83.6	89.3
4	71.7	78.9	77.2	84.4
5	69.0	77.7	74.1	82.3
6	66.7	77.0	68.0	77.6
7	62.5	74.5	61.7	71.4
8	60.5	73.4	58.0	69.1
9	59.2	73.4	56.0	67.8
10	56.3	72.0	51.1	63.3

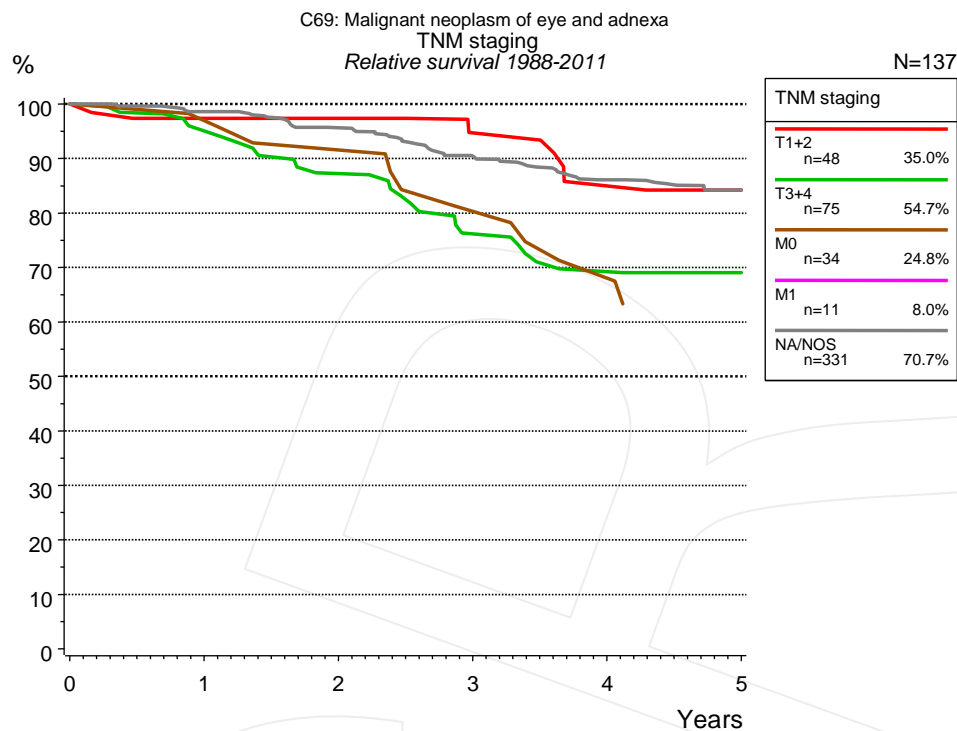
**Table 2b.** Observed (obs.) and relative (rel.) survival of patients with eye cancer by gender for period 1988-2011 (N=468).



**Figure 3a.** Relative survival of patients with eye cancer by age category. Included in the evaluation are 468 cases diagnosed between 1988 and 2011.

Years	Age category					
	0-54 yrs n=149		55-69 yrs n=171		70+ yrs n=148	
	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0	100.0	100.0
1	97.3	97.4	99.4	100.0	87.5	92.5
2	93.8	93.7	94.0	96.3	80.3	90.4
3	86.3	86.4	86.4	89.8	68.6	83.3
4	84.0	84.3	77.9	82.1	61.0	77.7
5	80.6	81.0	75.8	81.0	57.4	77.7
6	75.1	76.0	70.7	77.0	55.5	77.7
7	70.4	71.5	69.9	77.0	43.0	68.4
8	69.5	70.4	67.6	76.9	37.2	65.0
9	66.3	68.5	65.9	76.3	37.2	65.0
10	62.8	65.1	62.5	74.5	32.0	63.7

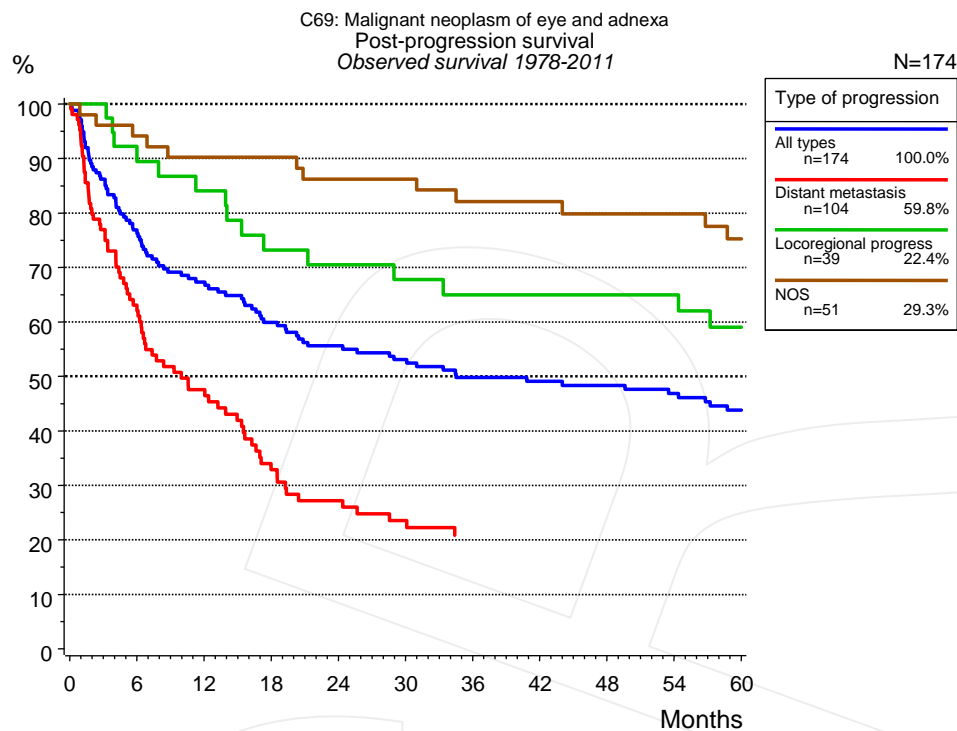
**Table 3b.** Observed (obs.) and relative (rel.) survival of patients with eye cancer by age category for period 1988-2011 (N=468).



**Figure 4a.** Relative survival of patients with eye cancer by TNM staging. For 138 of 468 cases diagnosed between 1988 and 2011 valid data could be obtained for this item. For a total of 137 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 331 patients with missing values regarding TNM staging (70.7% of 468 patients, the percent values of all other categories are related to n=137). Subgroups with sample size <15 are dropped from the chart.

TNM staging										
Years	T1+2 n=48		T3+4 n=75		M0 n=34		M1 n=11		NA/NOS n=331	
	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	95.8	97.4	93.3	95.1	97.1	96.9			96.6	98.6
2	95.8	97.4	82.3	87.2	91.1	91.6			91.6	95.6
3	86.9	94.7	69.2	76.2	77.9	80.3			84.8	90.4
4	77.4	85.0	61.8	69.2	67.6	68.0			79.1	86.1
5	74.9	84.2	60.2	69.0	59.6	61.7			76.0	84.2

**Table 4b.** Observed (obs.) and relative (rel.) survival of patients with eye cancer by TNM staging for period 1988-2011 (N=168).



**Figure 5a.** Observed post-progression survival of 174 patients with eye cancer diagnosed between 1978 and 2011 (incl. M1). These 174 patients with documented progression events during their course of disease represent 27.8% of the totally 625 evaluated cases. Patients with cancer relapse documented via death certificates only were excluded (n=33, 5.3%). 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			
	All types n=174 %	Distant metastasis n=104 %	Locoregional progress n=39 %	NOS n=51 %
0	100.0	100.0	100.0	100.0
12	67.3	47.5	84.0	90.2
24	55.6	27.2	70.5	86.2
36	49.8		64.9	82.1
48	48.3		64.9	79.8
60	43.8		59.0	75.2

**Table 5b.** Observed post-progression survival of patients with eye cancer for period 1978-2011 (N=174).

**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**

Munich Cancer Registry. Survival C69: Eye cancer [Internet]. 2013 [updated 2013 Apr 1; cited 2013 May 1]. Available from: [http://www.tumorregister-muenchen.de/en/facts/surv/surv\\_C69\\_\\_E.pdf](http://www.tumorregister-muenchen.de/en/facts/surv/surv_C69__E.pdf)

**Copyright**

The content of the public web site provided by the Munich Cancer Registry is available worldwide and free of charge. All documents are free to download, utilize, copy, print-out and distribute, providing that the MCR is referenced.

**Disclaimer**

The Munich Cancer Registry reserves the right to not be responsible for the topicality, correctness, completeness or quality of the information provided. Liability claims regarding damage caused by the use of any information provided, including any kind of information which is incomplete or incorrect, will therefore be rejected.

**Index of figures and tables**

Fig./Tbl.		Page
1a	Relative survival by period of diagnosis (chart)	2
1b	Survival by period of diagnosis (table)	2
2a	Survival by gender (chart)	3
2b	Survival by gender (table)	3
3a	Relative survival by age category (chart)	4
3b	Survival by age category (table)	4
4a	Relative survival by TNM staging (chart)	5
4b	Survival by TNM staging (table)	5
5a	Observed post-progression survival (chart)	6
5b	Observed post-progression survival (table)	6