# **Munich Cancer Registry**



- Baseline statistics
- Selection Matrix
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- Deutsch

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

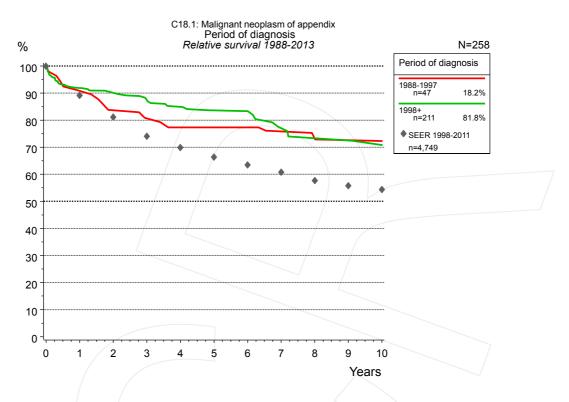
## **Cancer statistics: Survival**

## C18.1: Appendix cancer

Year of diagnosis	1988-2013
Patients	549
Diseases	549
Cases evaluated	258
Creation date	05/13/2015
Export date	12/30/2014
Population	4.64 m



http://www.tumorregister-muenchen.de/en/facts/surv/surv\_C181\_E.pdf



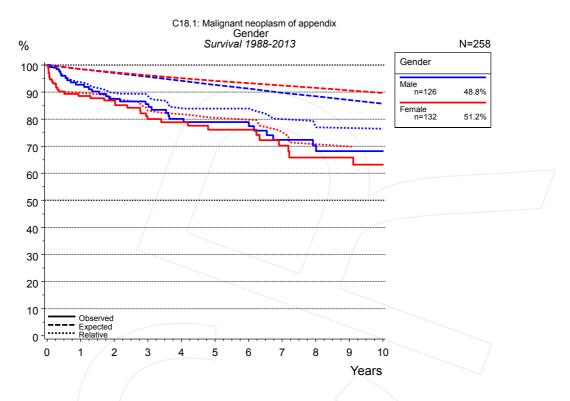
**Figure 1a.** Relative survival of patients with appendix cancer by period of diagnosis. Included in the evaluation are 258 cases diagnosed between 1988 and 2013.

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 2011, and are represented by gray 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 populationbased 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.

	Period	of dia	gnosis	j	
	1988-	1997	1998+		
	n=	47	n=211		
Years	obs. %	rel. %	obs. %	rel. %	
0	100.0	100.0	100.0	100.0	
1	89.4	90.8	90.9	91.9	
2	80.9	83.6	88.8	90.1	
3	76.6	80.7	84.4	87.4	
4	72.3	77.3	81.4	84.9	
5	72.3	77.3	78.8	83.6	
6	72.3	77.3	78.8	83.3	
7	68.0	75.8	71.3	77.0	
8	65.8	73.0	67.8	73.3	
9	63.6	72.6	67.8	72.5	
10	63.6	72.3	64.9	70.8	

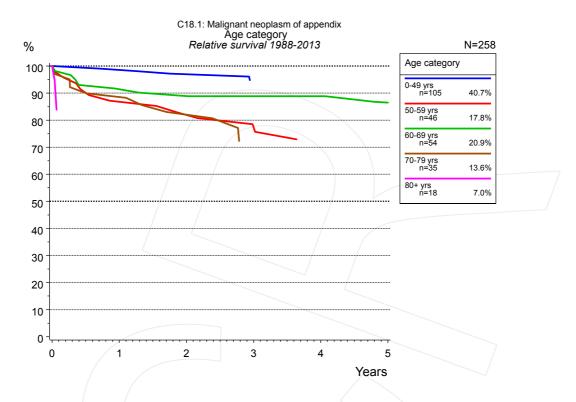
**Table 1b.** Observed (obs.) and relative (rel.) survival of patients with appendix cancer by period of diagnosis for period 1988-2013 (N=258).



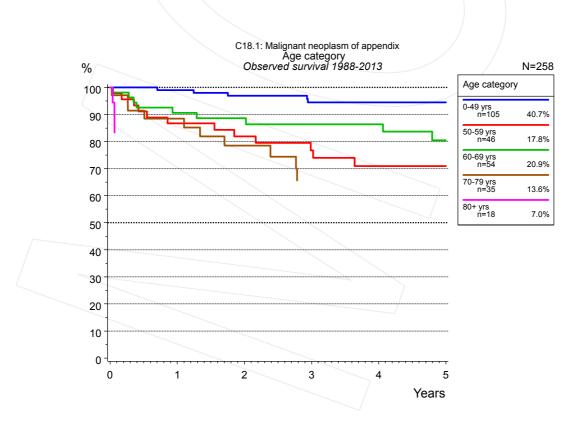
**Figure 2a.** Survival of patients with appendix cancer by gender. Included in the evaluation are 258 cases diagnosed between 1988 and 2013.

	C	Gende	r			
	Ma	ale	Female			
	n=1	126	n=1	32		
Years	obs. %	rel. %	obs. %	rel. %		
0	100.0	100.0	100.0	100.0		
1	92.7	93.6	88.6	89.8		
2	87.5	89.7	86.9	87.6		
3	85.5	88.6	80.0	83.2		
4	80.1	84.0	78.9	81.9		
5	78.9	83.9	76.1	80.5		
6	78.9	83.9	76.1	79.8		
7	72.4	80.0	70.2	75.1		
8	70.3	77.2	65.8	70.7		
9	68.2	76.7	65.8	69.9		
10	68.2	76.4	63.2	69.3		

**Table 2b.** Observed (obs.) and relative (rel.) survival of patients with appendix cancer by gender for period 1988-2013 (N=258).



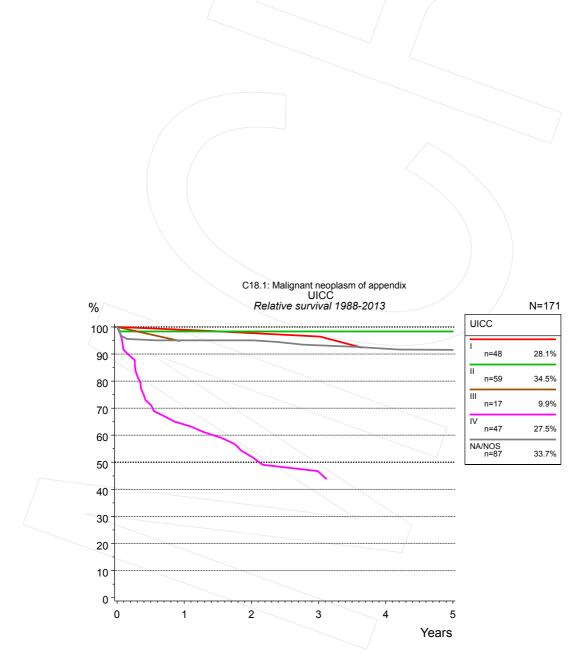
**Figure 3a.** Relative survival of patients with appendix cancer by age category. Included in the evaluation are 258 cases diagnosed between 1988 and 2013.



**Figure 3b.** Observed survival of patients with appendix cancer by age category. Included in the evaluation are 258 cases diagnosed between 1988 and 2013.

Age category													
	0-49 yrs 50-59 yrs			60-69 yrs		70-79 yrs		80+	yrs				
	n=1	n=105		n=46		n=54		n=35		18			
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	99.0	98.6	86.7	86.8	90.6	91.4	88.5	88.5					
2	97.0	96.9	81.9	81.9	88.6	88.9	78.5	82.0					
3			76.7	77.5	86.4	88.9	65.6	69.5					
4			70.9	72.4	86.4	88.9							
5			70.9	70.9	80.5	86.5							

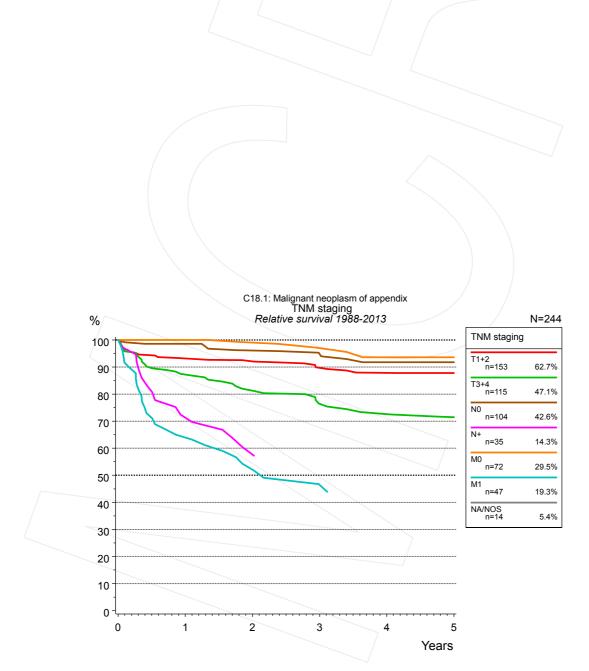
**Table 3c.** Observed (obs.) and relative (rel.) survival of patients with appendix cancer by age category for period 1988-2013 (N=258).



**Figure 4a.** Relative survival of patients with appendix cancer by UICC. For 186 of 258 cases diagnosed between 1988 and 2013 valid data could be obtained for this item. For a total of 171 cases an evaluable classification was established. The grey line represents the subgroup of 87 patients with missing values regarding UICC (33.7% of 258 patients, the percent values of all other categories are related to n=171).

UICC													
	l		1	II III		IV		NA/NOS					
	n=	n=48		n=59		17	n=	47	n=	87			
Years	obs. %	rel. %											
0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0			
1	100.0	99.0	98.3	98.4	94.1	94.3	63.8	63.9	94.2	95.1			
2	97.7	97.8	96.5	98.4			52.5	52.1	94.2	95.1			
3	97.7	96.5	96.5	98.4			44.5	46.5	90.2	93.2			
4	89.6	92.1	93.8	98.4					88.7	92.0			
5	89.6	91.1	93.8	98.4					87.2	91.6			

**Table 4b.** Observed (obs.) and relative (rel.) survival of patients with appendix cancer by UICC for period 1988-2013 (N=171).

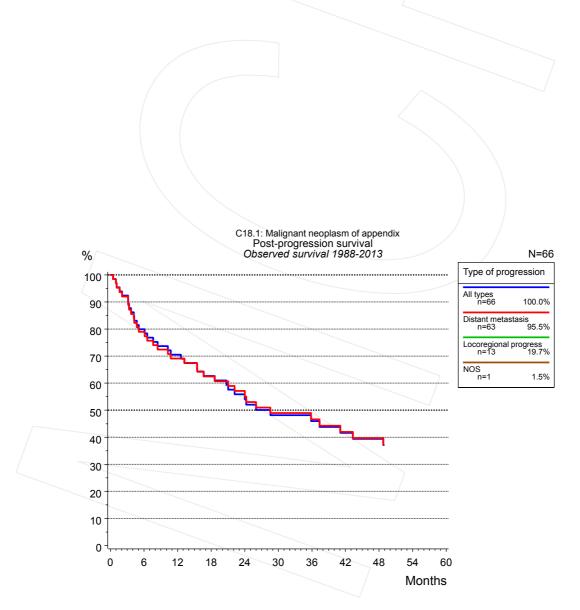


**Figure 4c.** Relative survival of patients with appendix cancer by TNM staging. For 258 of 258 cases diagnosed between 1988 and 2013 valid data could be obtained for this item. For a total of 244 cases an evaluable classification was established. The accumulated percentage exceeds the 100% value because patients are potientially considered in more than one subgroup. The grey line represents the subgroup of 14 patients with missing values regarding TNM staging (5.4% of 258

patients, the percent values of all other categories are related to n=244). Subgroups with sample size <15 are dropped from the chart.

	TNM staging													
	T1+2		Т3	+4	N0		N+		MO		M1		NA/NOS	
	n=153		n=1	15	n=104		n=35		n=72		n=47		n=14	
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	92.1	93.2	86.0	87.3	98.1	98.6	71.4	71.3	100.0	100.0	63.8	63.9		
2	89.9	92.1	79.4	81.3	93.9	96.1	59.1	57.7	96.9	99.0	52.5	52.1		
3	86.0	89.7	72.6	76.4	91.4	94.8			93.0	97.0	44.5	46.5		
4	83.4	87.8	68.8	72.6	87.1	91.8			88.5	93.6				
5	82.5	87.8	65.8	71.5	87.1	91.8			88.5	93.6				

**Table 4d.** Observed (obs.) and relative (rel.) survival of patients with appendix cancer by TNM staging for period 1988-2013 (N=526).



**Figure 5a.** Observed post-progression survival of 66 patients with appendix cancer diagnosed between 1988 and 2013 (incl. M1). These 66 patients with documented progression events during their course of disease represent 25.6% of the totally 258 evaluated cases. Patients with cancer relapse documented via death certificates only were excluded (n=6, 2.3%). 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. Subgroups with sample size <15 are dropped from the chart.

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	Distant metastasis	Distant metastasis Locoregional progress								
	n=66	n=63	n=13	n=1							
Months	%	%	%	%							
0	100.0	100.0	100.0	100.0							
12	70.5	69.1		100.0							
24	55.9	57.1									
36	46.0	46.6									
48	39.4	39.6									

**Table 5b.** Observed post-progression survival of patients with appendix cancer for period 1988-2013 (N=66).

#### Shortcuts

- MCR Munich Cancer Registry, Germany (Tumorregister München)
- NCI National Cancer Institute, USA
- SEER Surveillance, Epidemiology, and End Results, USA
- UICC Union for International Cancer Control, Geneva
- DCO Death certificate only. The death certificate provides the only notification to the registry.
- NA Not available
- NOS Not otherwise specified
- OS Observed/overall survival (Kaplan-Meier estimate)
- RS Relative survival, compared to the general population, ratio of observed to expected survival (Ederer II method), reflecting excess mortality among cancer patients
- AS Assembled survival chart (observed, expected, relative)
- PPS Post-progression survival, survival since first relapse (Kaplan-Meier estimate) Date of entry: Date of first locoregional recurrence, distant metastasis, unspecified

progression Event:

- Death of all causes
- CS Conditional survival, survival probability under the condition of surviving a given period of time

#### **Recommended Citation**

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