# **Munich Cancer Registry**



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

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

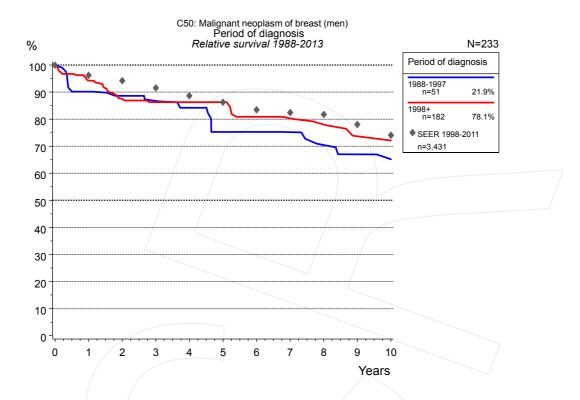
### **Cancer statistics: Survival**

## C50: Breast cancer (men)

Year of diagnosis	1988-2013
Patients	451
Diseases	454
Cases evaluated	233
Creation date	05/13/2015
Export date	12/30/2014
Population (males)	2.28 m



http://www.tumorregister-muenchen.de/en/facts/surv/surv\_C50m\_E.pdf



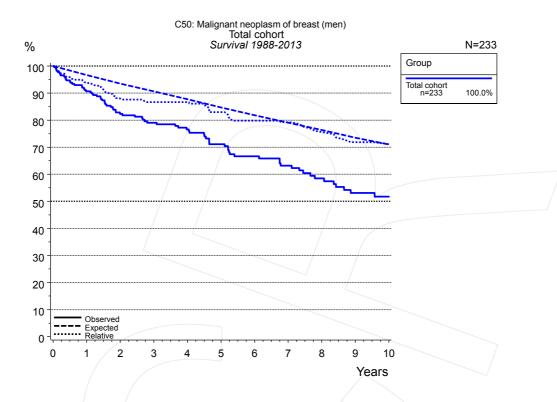
**Figure 1a.** Relative survival of patients with breast cancer (men) by period of diagnosis. Included in the evaluation are 233 cases diagnosed between 1988 and 2013.

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 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.

	Period	of dia	gnosis	
	1988-	1997	199	+8
	n=	51	n=1	82
Years	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0
1	88.2	90.1	91.3	94.2
2	82.4	88.6	82.2	87.5
3	78.4	86.7	79.2	86.3
4	72.5	84.2	78.3	86.3
5	62.5	75.3	75.3	86.3
6	62.5	75.3	68.3	80.8
7	58.4	75.2	65.5	80.3
8	52.4	70.4	62.1	78.0
9	48.4	67.0	55.3	73.6
10	46.4	65.2	55.3	72.1

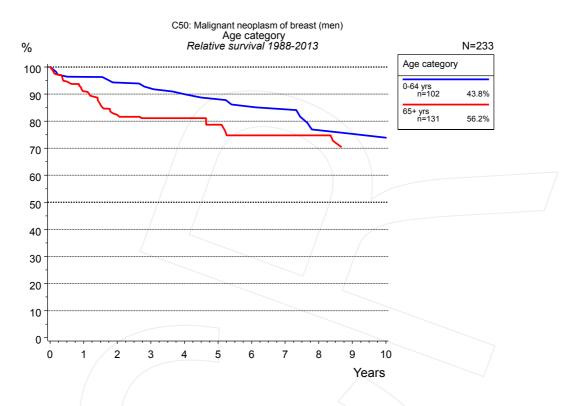
**Table 1b.** Observed (obs.) and relative (rel.) survival of patients with breast cancer (men) by period of diagnosis for period 1988-2013 (N=233).



**Figure 2a.** Observed, expected and relative survival of the total cohort with breast cancer (men). Included in the evaluation are 233 cases diagnosed between 1988 and 2013.

Group						
	Total of	cohort				
	n=2	233				
Years	obs. %	rel. %				
0	100.0	100.0				
1	90.6	93.7				
2	82.3	88.0				
3	79.0	86.7				
4	76.6	86.7				
5	71.1	82.9				
6	66.7	79.8				
7	63.2	79.2				
8	58.5	75.6				
9	53.1	71.8				
10	51.7	71.1				

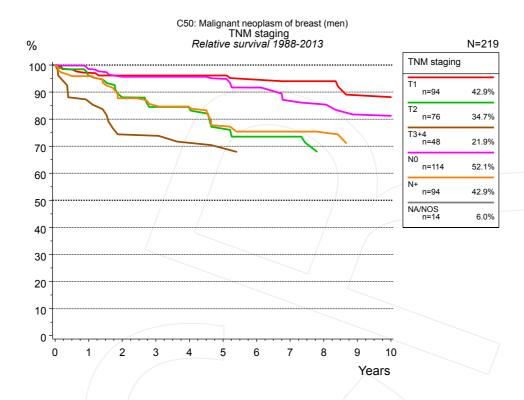
**Table 2b.** Observed (obs.) and relative (rel.) survival of the total cohort with breast cancer (men) for period 1988-2013 (N=233).



**Figure 3a.** Relative survival of patients with breast cancer (men) by age category. Included in the evaluation are 233 cases diagnosed between 1988 and 2013.

Age category							
	0-64	yrs	65+ yrs				
	n=1	102	n=131				
Years	obs. %	rel. %	obs. %	rel. %			
0	100.0	100.0	100.0	100.0			
1	96.0	96.4	86.4	91.1			
2	92.7	94.2	73.9	82.3			
3	90.3	92.1	69.8	81.1			
4	87.7	90.0	67.6	81.1			
5	84.6	88.1	60.3	78.7			
6	81.3	85.3	55.0	74.8			
7	79.4	84.3	50.6	74.8			
8	70.2	76.6	49.1	74.8			
9	67.7	75.2	41.4	70.4			
10	67.7	73.9					

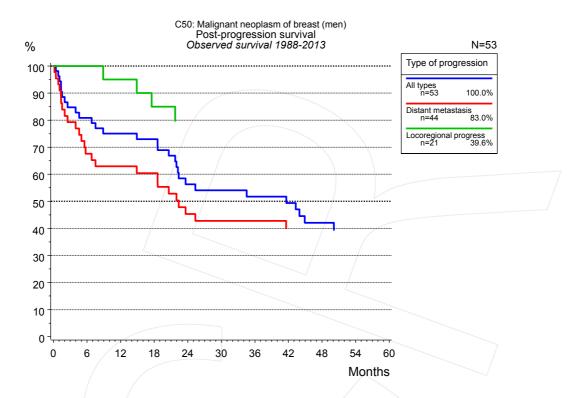
**Table 3b.** Observed (obs.) and relative (rel.) survival of patients with breast cancer (men) by age category for period 1988-2013 (N=233).



**Figure 4a.** Relative survival of patients with breast cancer (men) by TNM staging. For 224 of 233 cases diagnosed between 1988 and 2013 valid data could be obtained for this item. For a total of 219 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 (6.0% of 233 patients, the percent values of all other categories are related to n=219). Subgroups with sample size <15 are dropped from the chart.

	<b>T</b> 1114 - 4 - 111- 11											
	TNM staging											
	Т	1	Т	2	T3+4		N0		N+		NA/NOS	
	n=	94	n=	76	n=	48	n=114		n=94		n=14	
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	94.6	97.1	93.0	96.1	84.7	86.5	95.4	98.5	94.4	95.9		
2	92.3	96.1	82.1	88.1	70.1	74.3	89.6	95.7	82.8	87.8		
3	90.9	96.1	76.9	84.5	70.1	73.8	88.5	95.7	78.5	85.0		
4	89.4	96.1	74.8	83.9	64.4	71.3	86.1	95.7	75.3	84.4		
5	84.1	96.1	66.2	76.5	61.2	69.3	81.9	94.9	66.8	77.4		
6	80.3	94.6	61.7	73.5	57.6	65.4	77.3	91.6	63.1	75.4		
7	75.4	94.0	61.7	73.5			69.9	86.7	63.1	75.4		
8	75.4	94.0	52.4	65.1			67.8	85.4	58.4	75.1		
9	67.2	88.9					61.3	81.7	52.7	70.1		
10	67.2	88.2					61.3	81.2				

**Table 4b.** Observed (obs.) and relative (rel.) survival of patients with breast cancer (men) by TNM staging for period 1988-2013 (N=426).



**Figure 5a.** Observed post-progression survival of 53 patients with breast cancer (men) diagnosed between 1988 and 2013 (incl. M1). These 53 patients with documented progression events during their course of disease represent 22.7% of the totally 233 evaluated cases. Patients with cancer relapse documented via death certificates only were excluded (n=10, 4.3%). Multiple progression types on different sites are included in the evaluation even when not occurring synchronously.

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 Locoregional								
		n=53	n=44	n=21				
	Months	%	%	%				
	0	100.0	100.0	100.0				
	12	75.0	62.9	95.0				
	24	56.3	45.3					
	36	51.7	42.8					
	48	42.1						
	60	39.5						

**Table 5b.** Observed post-progression survival of patients with breast cancer (men) for period 1988-2013 (N=53).

#### **Shortcuts**

MCR	Munich Cancer Registry.	Germany (	(Tumorregister München)
14101	manion cancol region,	Community	( rainonegiotor manonen)

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
Assembled survival chart (observed, expected, relative)

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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