# **Munich Cancer Registry**



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## ICD-10 C44: Skin other

### Survival

Year of diagnosis	1988-1997	1998-2020
Patients	919	25,994
Diseases	957	32,377
Cases evaluated	751	15,717
Creation date	04/15/2022	
Database export	12/20/2021	
Population	4 92 m	



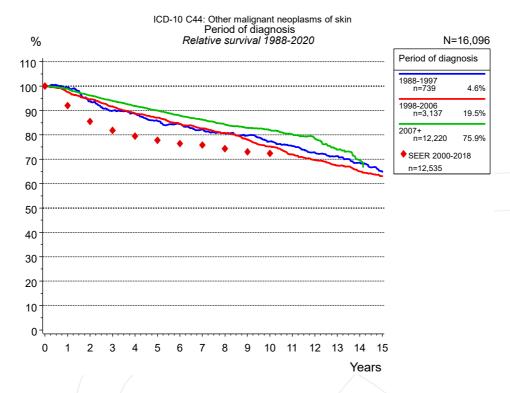
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https://www.tumorregister-muenchen.de/en

https://www.tumorregister-muenchen.de/en/facts/surv/sC44\_\_E-ICD-10-C44-Skin-other-survival.pdf

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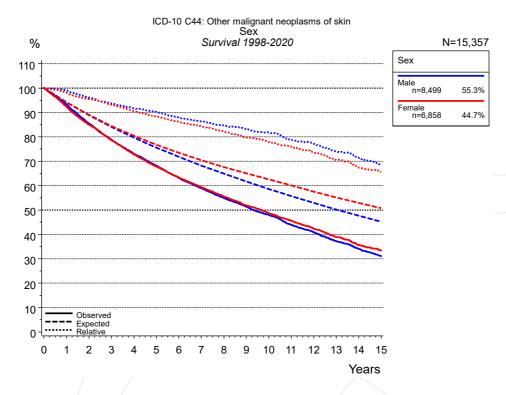


**Figure 1a.** Relative survival of patients with skin other by period of diagnosis. Included in the evaluation are 16,096 cases diagnosed between 1988 and 2020.

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.

	F	Period	of diag	gnosis	i	
	1988-	1997	1998-	2006	200	)7+
	n=7	739	n=3,	137	n=12	,220
Years	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0	100.0	100.0
1	93.8	99.5	91.3	97.7	93.3	98.9
2	83.8	93.8	83.1	94.6	85.8	96.2
3	76.4	89.9	76.0	91.7	79.6	94.0
4	72.1	88.7	69.4	88.6	73.9	91.8
5	66.7	85.8	64.6	87.0	69.0	90.0
6	63.2	84.5	59.6	84.6	64.3	87.9
7	58.9	82.2	55.3	82.5	60.2	86.3
8	55.8	80.6	51.4	80.7	56.3	84.3
9	53.1	79.7	47.4	78.1	53.0	82.9
10	49.7	77.3	43.5	75.3	50.1	82.0
11	46.7	75.4	39.6	71.9	46.9	80.3
12	43.5	72.8	36.7	69.7	43.7	78.4
13	41.1	71.3	33.9	67.5	39.3	73.9
14	38.1	68.6	31.1	65.0	35.3	69.6
15	34.7	64.9	28.7	63.1		
Median	9.9		8.5	7	10.0	

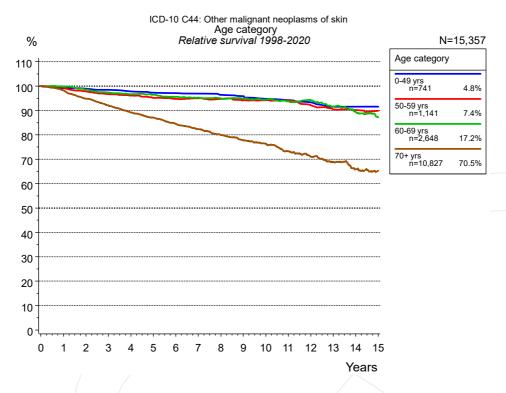
**Table 1b.** Observed (obs.) and relative (rel.) survival of patients with skin other by period of diagnosis for period 1988-2020 (N=16,096).



**Figure 2a.** Survival of patients with skin other by sex. Included in the evaluation are 15,357 cases diagnosed between 1998 and 2020.

Sex						
	Ma	ıle	Fen	nale		
	n=8,	499	n=6,	858		
Years	obs. %	rel. %	obs. %	rel. %		
0	100.0	100.0	100.0	100.0		
1	93.3	99.1	92.4	98.1		
2	85.4	96.1	85.0	95.5		
3	78.9	93.8	78.7	93.2		
4	73.1	91.7	72.7	90.5		
5	68.2	90.2	67.8	88.3		
6	63.1	87.9	63.4	86.2		
7	59.0	86.3	59.4	84.3		
8	54.9	84.5	55.6	82.2		
9	51.4	83.3	51.9	79.7		
10	48.0	81.9	48.7	77.9		
11	43.9	78.9	45.7	76.0		
12	40.9	77.2	42.3	73.4		
13	37.2	74.0	39.0	70.5		
14	34.0	71.4	35.7	67.4		
15	31.1	68.8	33.4	65.7		
Median	9.3		9.7	7		

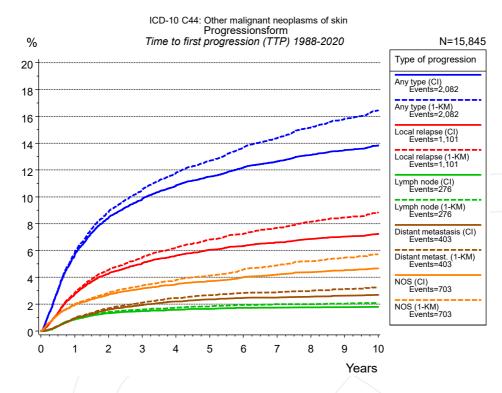
**Table 2b.** Observed (obs.) and relative (rel.) survival of patients with skin other by sex for period 1998-2020 (N=15,357).



**Figure 3a.** Relative survival of patients with skin other by age category. Included in the evaluation are 15,357 cases diagnosed between 1998 and 2020.

Age category									
	0-49	yrs	50-59	50-59 yrs		60-69 yrs		70+ yrs	
	n=7	<b>'</b> 41	n=1,	141	n=2,	648	n=10,827		
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	99.1	99.2	99.0	99.5	98.5	99.8	90.5	98.2	
2	98.7	98.9	96.8	97.8	95.9	98.6	80.6	94.9	
3	98.1	98.5	95.2	96.8	93.2	97.4	72.4	92.1	
4	97.1	97.8	93.9	96.2	91.0	96.7	64.7	89.2	
5	96.4	97.3	92.3	95.2	89.1	96.4	58.4	87.1	
6	96.1	97.1	91.2	94.8	86.6	95.6	52.3	84.5	
7	95.5	97.0	90.7	95.0	84.5	95.3	46.9	82.3	
8	94.7	96.4	89.6	94.8	82.3	94.9	41.9	79.9	
9	94.1	95.9	88.1	94.2	80.2	94.9	37.4	77.9	
10	92.5	94.8	87.2	94.2	77.6	94.5	33.4	76.4	
11	91.8	94.3	86.0	94.1	74.8	93.7	29.1	73.3	
12	90.4	93.4	83.1	92.1	72.7	94.2	25.3	71.0	
13	88.1	91.5	80.3	90.5	68.2	91.6	21.8	68.9	
14	88.1	91.5	78.9	90.2	64.0	89.4	18.4	65.8	
15	87.2	91.5	77.4	89.9	59.9	87.3	15.9	65.3	
Median					17.6	7	6.4		

**Table 3b.** Observed (obs.) and relative (rel.) survival of patients with skin other by age category for period 1998-2020 (N=15,357).



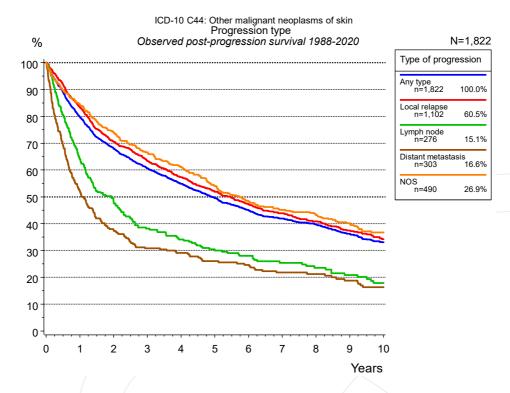
**Figure 5a.** Time to first progression of 15,845 patients with skin other diagnosed between 1988 and 2020 (in solid cancers M0 only) estimated by cumulative incidence function (CI, solid line) accounting for death as competing risk and by inverse Kaplan-Meier estimate (1-KM, dashed line). The frequency of events may be underestimated due to underreporting.

Type of progression							
F	Any type (CI)	Any type (1- KM)	Local relapse (CI)	Local relapse (1-KM)	Lymph node (CI)	Lymph node (1-KM)	Distant metastasis (CI)
N	15,782	15,782	15,844	15,844	15,845	15,845	15,784
Events	2,002	2,002	1,049	1,049	270	270	390
compet.	5,617		6,332		6,641		6,449
Years	%	%	%	%	%	%	%
0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	5.7	5.9	2.8	2.9	0.9	0.9	0.9
2	8.4	8.9	4.3	4.5	1.3	1.4	1.6
3	9.8	10.5	5.0	5.5	1.5	1.6	1.9
4	10.8	11.7	5.6	6.2	1.6	1.7	2.2
5	11.5	12.7	6.0	6.8	1.7	1.8	2.4
6	12.2	13.7	6.3	7.2	1.7	1.9	2.5
7	12.6	14.4	6.6	7.7	1.7	2.0	2.5
8	13.1	15.2	6.9	8.1	1.8	2.0	2.6
9	13.5	15.8	7.0	8.5	1.8	2.0	2.6
10	13.8	16.5	7.3	8.9	1.8	2.1	2.7

		f progressior	1
	Distant		
cont'd	metast. (1-	NOS (CI)	NOS (1-KM)
	KM)		
N	15,784	15,844	15,844
Events	390	669	669
compet.		6,390	
Years	%	%	%
0	0.0	0.0	0.0
1	1.0	2.0	2.0
2	1.7	2.7	2.8
3	2.1	3.1	3.4
4	2.5	3.4	3.8
5	2.7	3.7	4.1
6	2.8	4.0	4.6
7	2.9	4.2	4.9
8	3.0	4.4	5.2
9	3.1	4.5	5.5
10	3.2	4.7	5.7

**Table 5b.** Time to first progression of patients with skin other for period 1988-2020 (N=15,845), also showing the total of progression events (Events) and of deaths as competing risk (compet.).



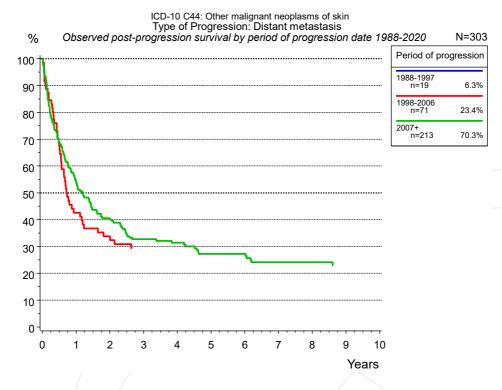


**Figure 5c.** Observed post-progression survival of 1,822 patients with skin other diagnosed between 1988 and 2020. These 1,822 patients with documented progression events during their course of disease represent 11.3 % of the totally 16,096 evaluated cases. Patients with cancer relapse documented via death certificates only were excluded (n=323, 2.0 %). 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 "Any type" 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	fprogression	1	
	Any type	Local relapse	Lymph node	Distant metastasis	NOS
	n=1,822	n=1,102	n=276	n=303	n=490
Years	%	%	%	%	%
0	100.0	100.0	100.0	100.0	100.0
1	79.8	83.4	64.3	52.4	84.3
2	68.0	70.5	48.3	37.6	73.9
3	60.7	63.4	38.1	30.8	66.6
4	54.9	57.3	34.1	29.1	61.1
5	49.4	51.9	30.0	26.0	54.0
6	45.0	47.2	28.0	24.6	48.2
7	41.9	43.9	25.4	21.8	45.1
8	39.6	40.9	23.5	21.2	43.2
9	36.3	37.4	20.8	18.8	40.2
10	33.1	34.3	17.9	16.4	36.7

**Table 5d.** Observed post-progression survival of patients with skin other for period 1988-2020 (N=1,822).



**Figure 5e.** Observed post-progression (distant metastasis) survival of 303 patients with skin other diagnosed between 1988 and 2020 by period of progression.

Period of progression							
1998-2006	2007+						
n=71	n=213						
%	%						
100.0	100.0						
42.6	54.6						
33.8	40.0						
	32.7						
	31.4						
	27.2						
	27.2						
	24.1						
	24.1						
	23.0						
	1998-2006 n=71 % 100.0 42.6						

**Table 5f.** Observed post-progression (distant metastasis) survival of patients with skin other for period 1988-2020 by period of progression (N=303).

#### **Shortcuts**

MCR	Munich Cancer Registry, Germany						
NCI SEER UICC	National Cancer Institute, USA Surveillance, Epidemiology, and End Results, USA Union for International Cancer Control, Geneva						
DCO NA NOS	Death certificate only Not available Not otherwise specified	Death certificate provides the only notification to the registry.					
os	Overall/Observed survival	Overall/Observed survival (Kaplan-Meier estimate) Date of entry: diagnosis Event: death from any cause					
RS	Relative survival	Survival compared to "general population", ratio of observed to expected survival (Ederer II method), reflecting cancer specific survival					
AS	Assembled survival	Assembled chart of observed, expected, relative survival					
CS	Conditional survival	Survival probability under the condition of surviving a given period of time					
TTP	Time to progression	Time to first progression / relapse Date of entry: diagnosis Event: (progression / relapse): first local-, lymph node recurrence, distant metastasis or unspecified progression					
	1-KM	1 minus Kaplan-Meier estimator ("inverse" Kaplan-Meier estimator)					
	CI	Cumulative incidence Death as competing risk (according to Kalbfleisch und Prentice)					
PPS	Post-progression survival	Survival since first progression / relapse (Kaplan-Meier estimate) Date of entry (progression / relapse): first local-, lymph node recurrence, distant metastasis or unspecified progression Event: death from any cause					

#### **Recommended Citation**

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