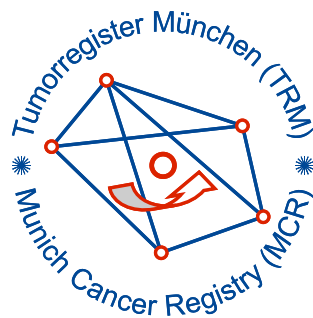


Munich Cancer Registry



- ▶ [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

C60-C68: Urologic cancer

Year of diagnosis	1978-1987	1988-1997	1998-2011
Patients	2,883	13,335	53,178
Diseases	2,933	13,696	55,189
Creation date	04/01/2013		
Export date	01/03/2013		
Population	4.5 m		



http://www.tumorregister-muenchen.de/en/facts/surv/surv_C6068E.pdf

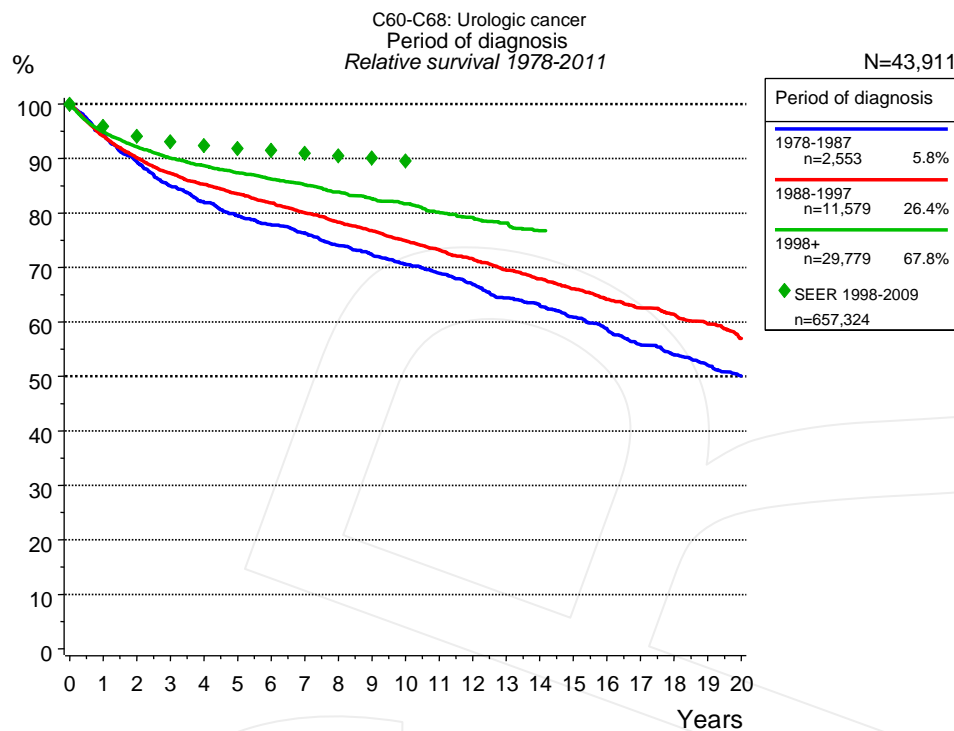


Figure 1a. Relative survival of patients with urologic cancer by period of diagnosis. Included in the evaluation are 43,911 cases diagnosed between 1978 and 2011.

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=2,553		1988-1997 n=11,579		1998+ n=29,779	
	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0	100.0	100.0
1	91.3	94.2	90.3	94.1	91.8	94.9
2	83.8	89.3	83.1	90.1	86.4	92.1
3	77.2	84.9	77.5	87.3	81.8	90.0
4	72.1	81.9	72.8	85.2	78.0	88.7
5	67.8	79.5	68.7	83.5	74.4	87.4
6	64.3	77.8	64.8	81.8	71.0	86.2
7	61.2	76.4	61.0	80.0	67.8	85.2
8	57.5	74.0	57.5	78.3	64.4	83.8
9	54.5	72.3	54.3	76.7	61.2	82.6
10	51.7	70.6	51.0	74.9	58.2	81.7
11	49.0	68.9	48.1	73.2	54.9	80.1
12	46.2	66.8	45.3	71.6	52.2	79.1
13	43.2	64.4	42.3	69.5	49.6	78.1
14	41.1	62.9	39.8	67.9	46.7	76.7
15	38.7	60.8	37.3	66.1		
16	36.4	58.7	34.8	64.1		
17	33.6	55.8	32.7	62.6		
18	31.7	53.9	30.8	61.4		
19	29.9	52.0	28.8	59.6		
20	28.1	50.1	26.6	57.0		

Table 1b. Observed (obs.) and relative (rel.) survival of patients with urologic cancer by period of diagnosis for period 1978-2011 (N=43,911).

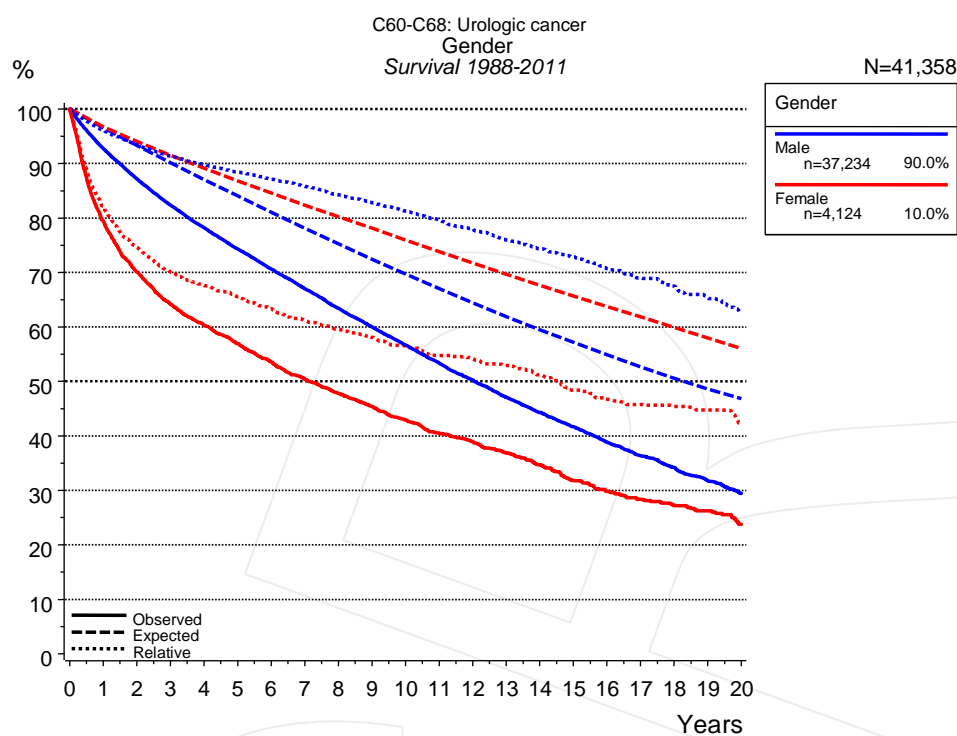


Figure 2a. Survival of patients with urologic cancer by gender. Included in the evaluation are 41,358 cases diagnosed between 1988 and 2011.

Years	Gender			
	Male n=37,234		Female n=4,124	
	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0
1	92.7	96.0	79.4	82.1
2	87.1	93.4	70.1	74.5
3	82.3	91.3	64.1	70.0
4	78.2	89.8	60.3	67.6
5	74.3	88.4	56.9	65.5
6	70.6	87.1	53.5	63.3
7	67.0	85.8	50.4	61.1
8	63.4	84.2	47.8	59.5
9	60.0	82.8	45.4	58.1
10	56.6	81.2	42.9	56.5
11	53.3	79.6	40.5	54.7
12	50.2	78.0	38.9	54.2
13	47.0	75.9	36.9	52.9
14	44.3	74.3	34.7	51.2
15	41.6	72.8	31.8	48.4
16	38.8	70.7	29.8	46.7
17	36.3	68.9	28.4	45.7
18	34.2	67.5	27.2	45.4
19	31.8	65.3	26.2	44.7
20	29.4	62.6	23.8	42.3

Table 2b. Observed (obs.) and relative (rel.) survival of patients with urologic cancer by gender for period 1988-2011 (N=41,358).

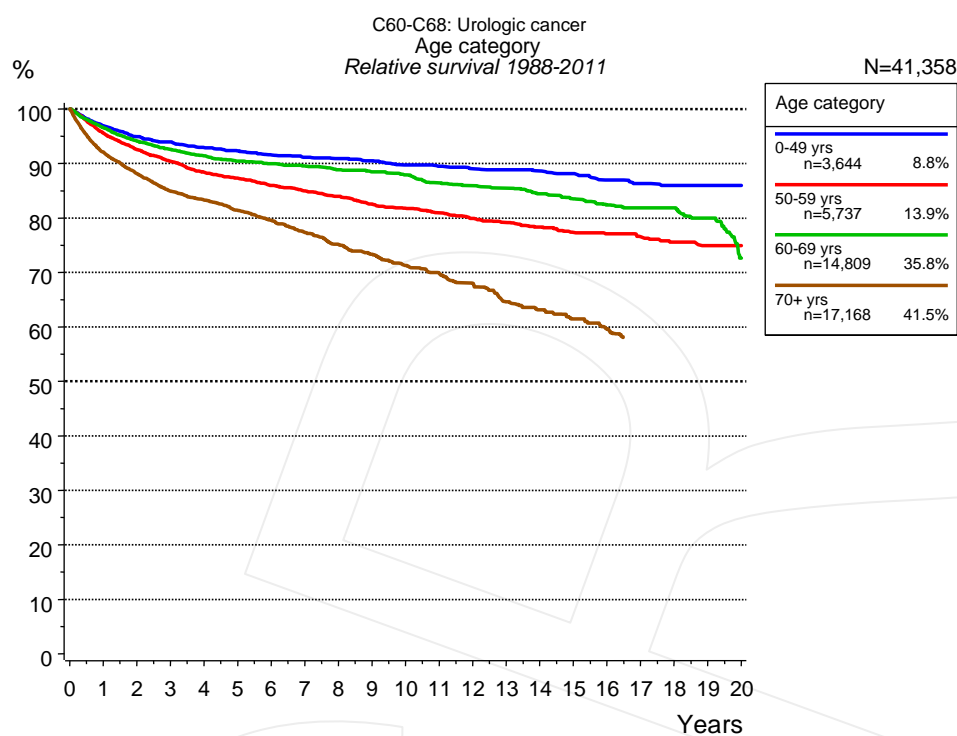


Figure 3a. Relative survival of patients with urologic cancer by age category. Included in the evaluation are 41,358 cases diagnosed between 1988 and 2011.

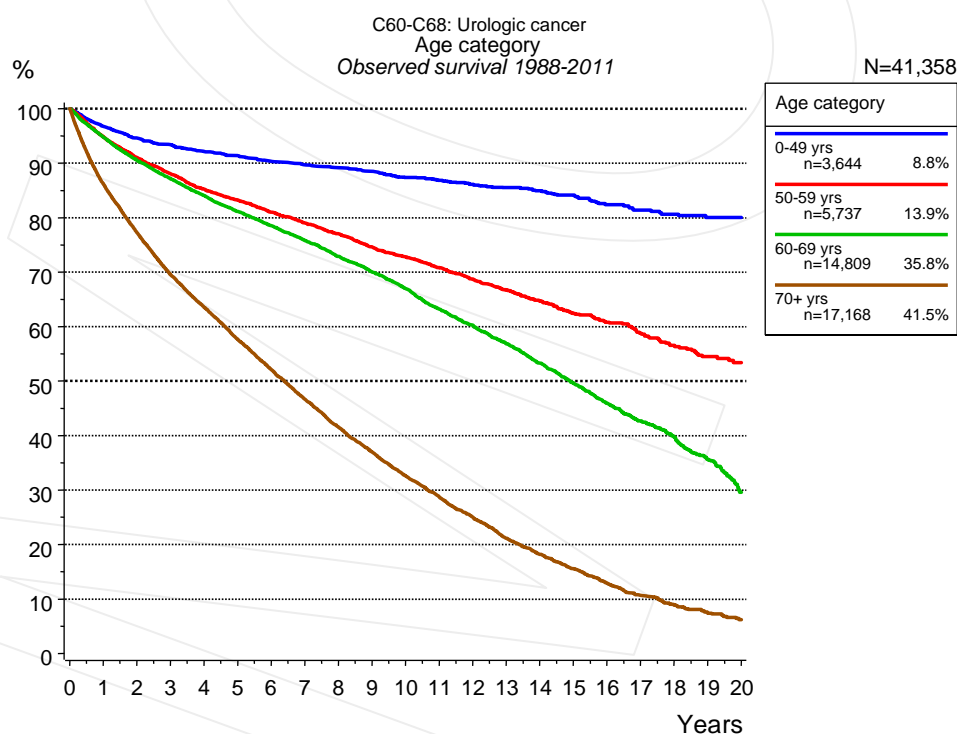


Figure 3b. Observed survival of patients with urologic cancer by age category. Included in the evaluation are 41,358 cases diagnosed between 1988 and 2011.

Years	Age category							
	0-49 yrs n=3,644		50-59 yrs n=5,737		60-69 yrs n=14,809		70+ yrs n=17,168	
	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	96.7	96.9	94.8	95.6	94.8	96.5	86.2	92.0
2	94.5	94.9	91.0	92.5	90.5	94.1	77.2	88.1
3	93.4	93.9	88.0	90.4	87.2	92.6	69.5	84.9
4	92.1	92.9	85.2	88.4	84.0	91.4	63.5	83.3
5	91.3	92.3	83.2	87.3	81.1	90.5	57.6	81.4
6	90.3	91.6	81.0	86.0	78.5	89.9	52.1	79.5
7	89.7	91.1	79.0	85.0	75.8	89.5	46.7	77.3
8	89.2	90.9	77.0	84.0	72.9	88.8	41.6	75.1
9	88.5	90.5	74.6	82.5	70.0	88.4	37.0	73.3
10	87.4	89.7	72.7	81.8	67.0	87.9	32.6	71.3
11	86.8	89.5	70.8	80.9	63.2	86.5	28.8	69.8
12	86.1	89.0	68.7	79.9	60.2	85.9	25.0	68.0
13	85.5	88.8	66.7	79.2	56.9	85.5	21.1	64.6
14	84.9	88.6	64.7	78.3	53.3	84.4	18.2	63.1
15	84.1	88.1	62.4	77.3	49.6	83.5	15.6	61.5
16	82.4	86.9	60.8	77.1	45.9	82.4	12.9	59.6
17	81.4	86.3	58.8	76.5	42.7	81.8		
18	80.7	86.0	56.5	75.6	39.7	81.8		
19	80.0	86.0	54.5	74.9	35.6	80.0		
20	80.0	86.0	53.4	74.9	29.6	72.6		

Table 3c. Observed (obs.) and relative (rel.) survival of patients with urologic cancer by age category for period 1988-2011 (N=41,358).

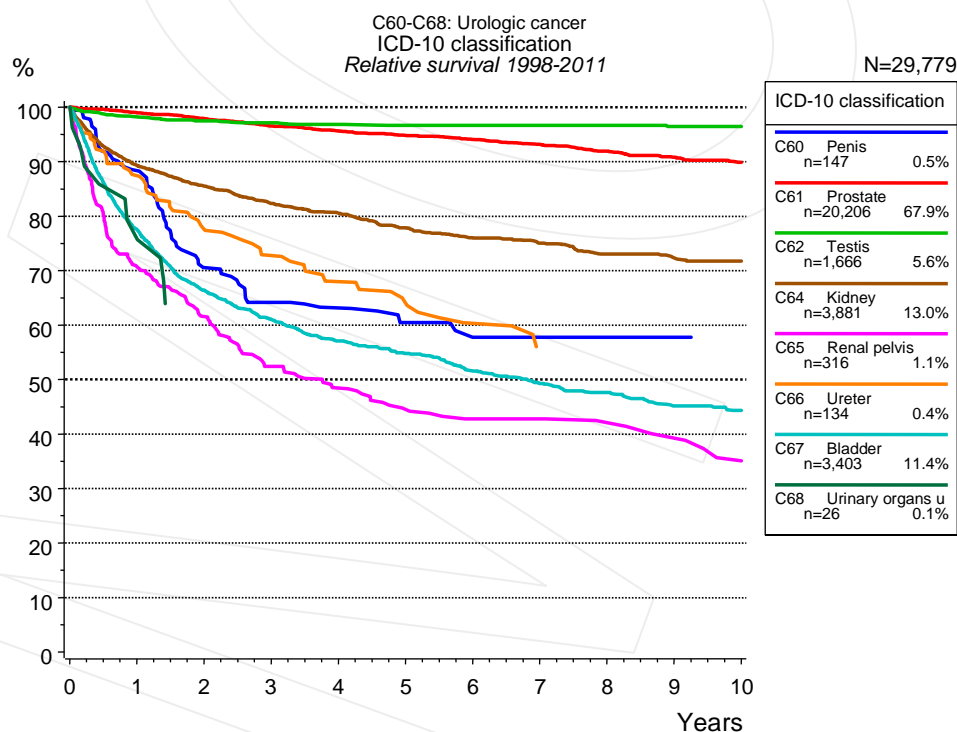


Figure 4a. Relative survival of patients with urologic cancer by ICD-10 classification. Included in the evaluation are 29,779 cases diagnosed between 1998 and 2011.

ICD-10 classification														
	C60 Penis n=147		C61 Prostate n=20,206		C62 Testis n=1,666		C64 Kidney n=3,881		C65 Renal pelvis n=316		C66 Ureter n=134		C67 Bladder n=3,403	
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	88.3	95.6	99.0	98.0	98.2	87.2	89.3	68.1	70.7	84.4	87.4	73.9	77.5
2	65.2	70.5	91.4	97.9	97.0	97.5	81.6	85.5	56.9	61.5	72.2	77.6	60.7	66.3
3	57.9	64.2	87.1	96.6	96.5	97.1	76.7	82.3	46.5	52.5	65.0	72.8	53.7	61.0
4	55.2	63.1	83.3	95.6	95.8	96.8	73.3	80.6	41.4	48.5	58.5	67.9	48.3	57.1
5	50.6	60.5	79.6	94.8	95.4	96.7	69.1	77.8	36.7	44.5	53.6	64.0	44.7	54.8
6	46.2	57.8	76.1	94.1	95.2	96.7	65.8	76.0	34.0	42.8	48.1	60.3	40.5	51.6
7	46.2	57.8	72.4	93.1	95.2	96.7	63.3	75.0	34.0	42.8	42.8	56.0	37.2	49.3
8	44.4	57.8	68.7	91.9	94.6	96.7	60.1	73.1	31.9	42.1	42.8	56.0	34.9	47.6
9	44.4	57.8	65.0	90.8	93.9	96.5	57.8	72.3	29.4	39.3	42.8	56.0	31.7	45.2
10			61.5	89.8	93.9	96.5	55.8	71.7	25.4	35.1	42.8	56.0	30.1	44.3

ICD-10 classification		
<i>cont'd</i>		
C68 Urinary organs unspec. n=26		
Years	obs. %	rel. %
0	100.0	100.0
1	76.9	75.9

Table 4b. Observed (obs.) and relative (rel.) survival of patients with urologic cancer by ICD-10 classification for period 1998-2011 (N=29,779).

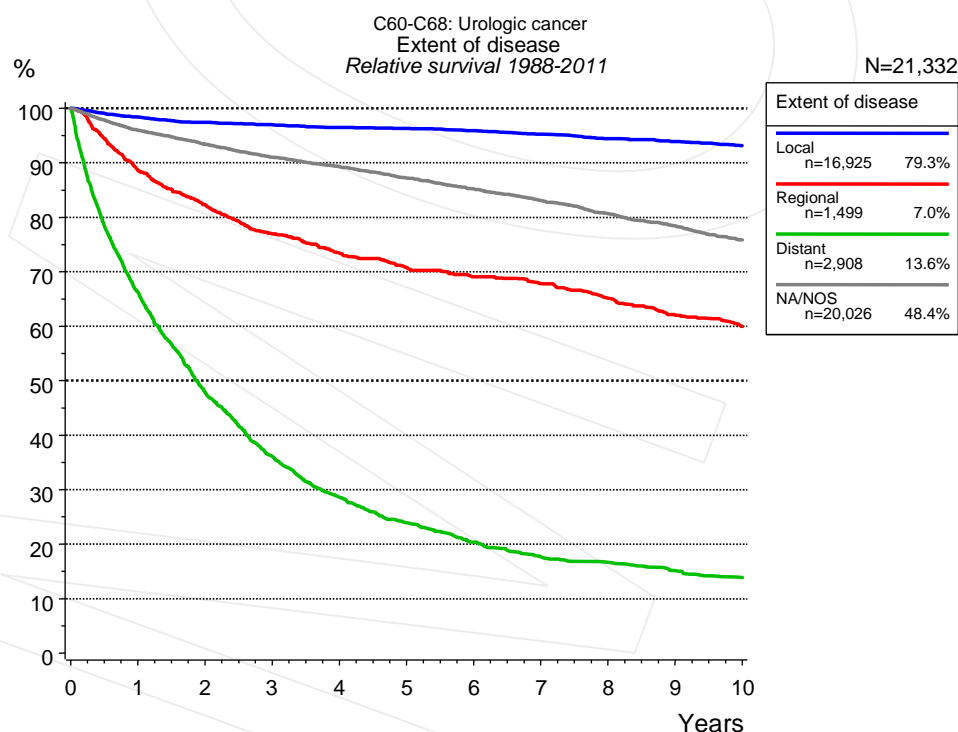


Figure 4c. Relative survival of patients with urologic cancer by extent of disease. For 36,805 of 41,358 cases diagnosed between 1988 and 2011 valid data could be obtained for this item. For a total of 21,332 cases an evaluable classification was established. The grey line represents the subgroup of 20,026 patients with missing values regarding extent of disease (48.4% of 41,358 patients, the percent values of all other categories are related to n=21,332).

Years	Extent of disease							
	Local n=16,925		Regional n=1,499		Distant n=2,908		NA/NOS n=20,026	
	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	95.5	98.4	86.6	88.6	63.8	66.3	92.2	96.0
2	91.8	97.4	78.7	82.3	44.5	47.9	86.4	93.4
3	88.7	97.0	71.9	76.9	32.5	36.1	81.0	91.0
4	85.7	96.5	67.1	73.4	24.9	28.6	76.4	89.3
5	82.9	96.3	63.2	70.8	20.2	23.9	71.7	87.2
6	79.9	95.9	60.1	69.0	16.7	20.3	67.3	85.2
7	76.8	95.2	57.6	67.8	14.1	17.6	63.0	83.0
8	73.7	94.4	53.9	65.1	13.1	16.7	58.7	80.7
9	70.7	93.9	50.0	62.0	11.7	15.1	54.7	78.4
10	67.7	93.1	47.1	60.0	10.5	13.9	50.7	75.8

Table 4d. Observed (obs.) and relative (rel.) survival of patients with urologic cancer by extent of disease for period 1988-2011 (N=21,332).

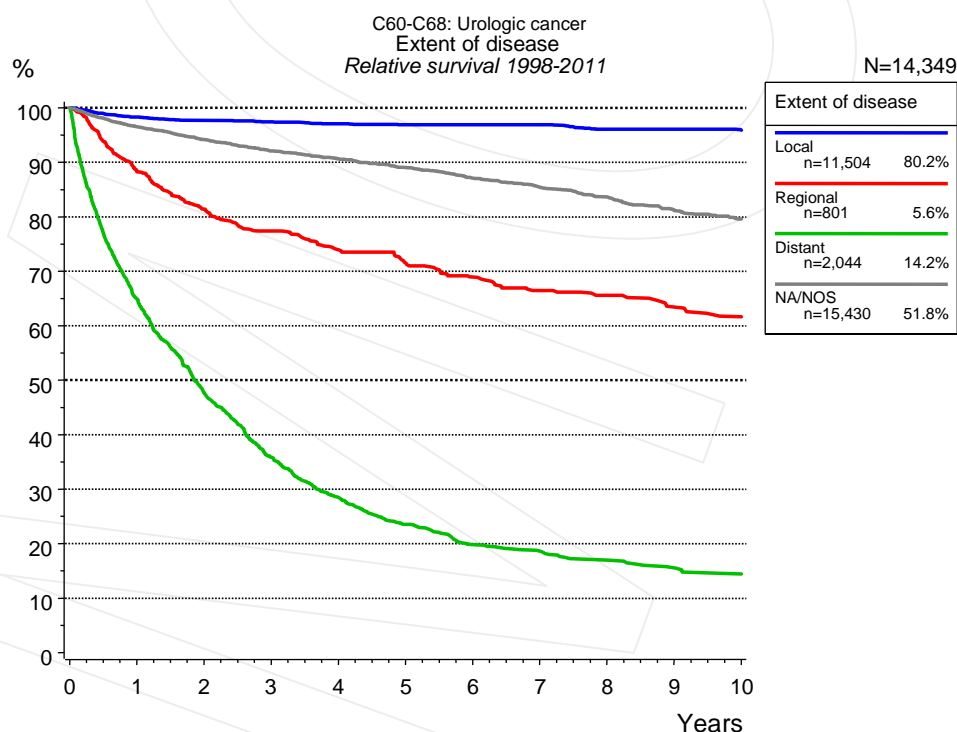


Figure 4e. Relative survival of patients with urologic cancer by extent of disease. For 26,383 of 29,779 cases diagnosed between 1998 and 2011 valid data could be obtained for this item. For a total of 14,349 cases an evaluable classification was established. The grey line represents the subgroup of 15,430 patients with missing values regarding extent of disease (51.8% of 29,779 patients, the percent values of all other categories are related to n=14,349).

Years	Extent of disease							
	Local n=11,504		Regional n=801		Distant n=2,044		NA/NOS n=15,430	
	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	95.5	98.3	86.5	88.3	62.7	64.9	93.1	96.5
2	92.3	97.7	78.3	81.4	44.6	47.7	87.8	94.2
3	89.5	97.4	73.0	77.4	32.5	35.8	82.9	92.1
4	86.7	97.1	68.4	73.9	25.1	28.5	78.8	90.6
5	83.9	96.9	64.8	71.5	20.1	23.5	74.6	89.0
6	81.5	96.9	61.1	69.0	16.6	19.8	70.4	87.1
7	78.8	96.9	57.7	66.5	15.3	18.6	66.4	85.4
8	75.6	96.1	55.7	65.6	13.7	17.0	62.6	83.6
9	73.1	96.1	52.7	63.4	12.3	15.6	58.4	81.2
10	70.2	95.9	50.2	61.6	11.1	14.5	55.0	79.6

Table 4f. Observed (obs.) and relative (rel.) survival of patients with urologic cancer by extent of disease for period 1998-2011 (N=14,349).

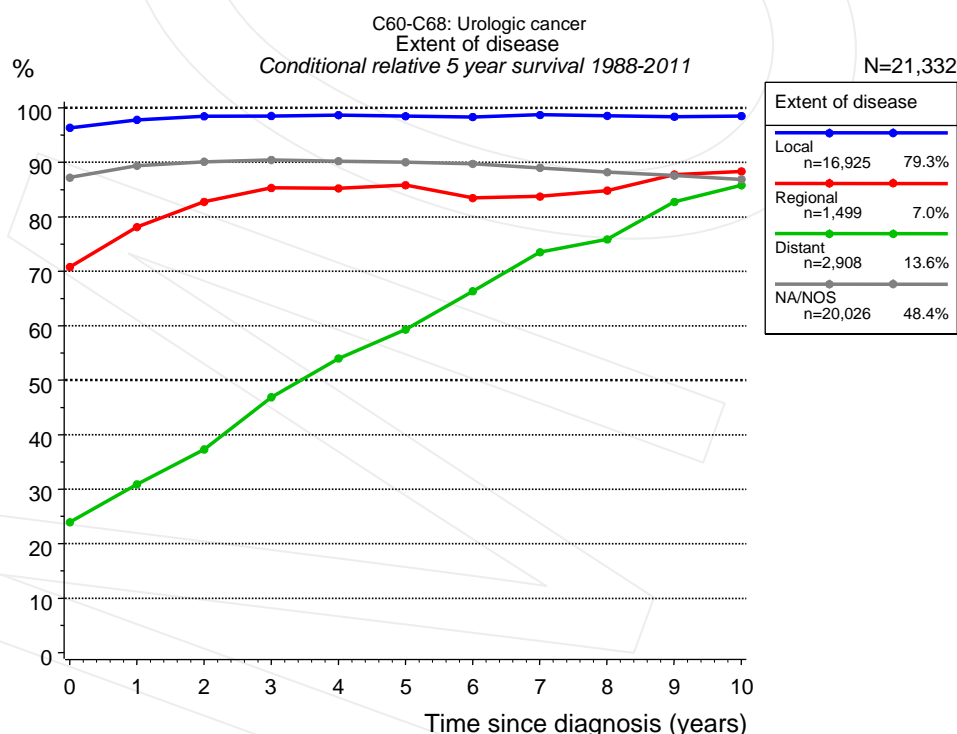


Figure 4g. Conditional relative 5-year survival of patients with urologic cancer by extent of disease. For 36,805 of 41,358 cases diagnosed between 1988 and 2011 valid data could be obtained for this item. For a total of 21,332 cases an evaluable classification was established. The grey line represents the subgroup of 20,026 patients with missing values regarding extent of disease (48.4% of 41,358 patients, the percent values of all other categories are related to n=21,332).

Years	Extent of disease							
	Local		Regional		Distant		NA/NOS	
	n	Cond. surv. % 5 yrs	n	Cond. surv. % 5 yrs	n	Cond. surv. % 5 yrs	n	Cond. surv. % 5 yrs
0	16,925	96.3	1,499	70.8	2,908	23.9	20,026	87.2
1	15,480	97.8	1,251	78.1	1,737	30.9	17,595	89.4
2	13,926	98.5	1,069	82.7	1,111	37.3	15,149	90.1
3	12,430	98.5	901	85.3	740	46.9	12,789	90.4
4	11,019	98.7	797	85.2	518	54.0	10,583	90.2
5	9,553	98.5	689	85.8	370	59.3	8,576	90.0
6	8,217	98.3	608	83.4	271	66.3	6,961	89.7
7	7,277	98.7	553	83.7	202	73.5	5,734	89.0
8	6,353	98.5	479	84.8	168	75.8	4,707	88.2
9	5,469	98.4	420	87.8	138	82.7	3,753	87.6
10	4,631	98.5	373	88.3	106	85.8	2,924	86.9

Table 4h. Conditional relative 5-year survival of patients with urologic cancer by extent of disease for period 1988-2011 (N=21,332).

Conditional relative survival rates refer to the relative survival probability, in this case for 5 years after cancer diagnosis, compared to the age- and sex-matched population (=100%) under the condition of being alive for a certain time period (x-axis in Figure 4e). The results illustrate to what extent the cancer induced mortality of particular subgroups declines in the subsequent years after detection of the malignancy. For instance, according to the presented survival statistics, patients in the subgroup extent of disease="Local", who are alive at least 3 years after cancer diagnosis, the conditional relative 5-year survival rate is 98.5% (n=12,430).

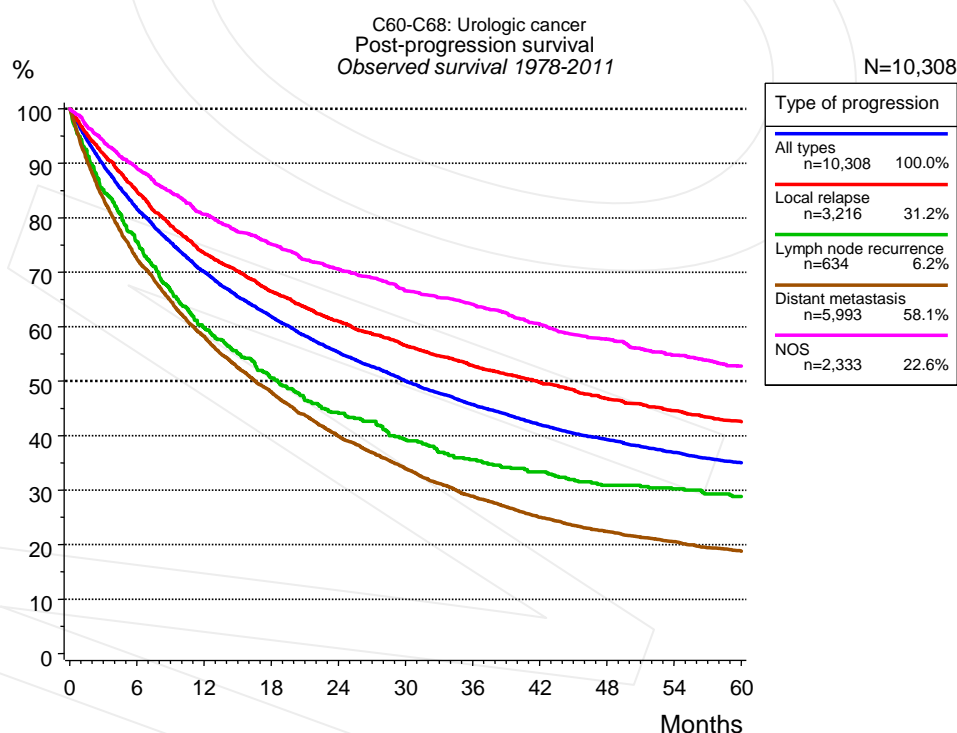


Figure 5a. Observed post-progression survival of 10,308 patients with urologic cancer diagnosed between 1978 and 2011 (incl. M1). These 10,308 patients with documented progression events during their course of disease represent 23.5% of the totally 43,911 evaluated cases. Patients with cancer relapse documented via death certificates only were excluded (n=1,756, 4.0%). 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=10,308	Local relapse n=3,216	Lymph node recurrence n=634	Distant metastasis n=5,993	NOS n=2,333
	%	%	%	%	%
0	100.0	100.0	100.0	100.0	100.0
12	70.1	73.5	59.9	58.1	80.6
24	55.3	61.0	44.1	39.9	70.5
36	45.7	52.9	35.6	28.9	64.1
48	39.3	46.8	30.9	22.4	57.7
60	35.0	42.6	28.8	18.8	52.8

Table 5b. Observed post-progression survival of patients with urologic cancer for period 1978-2011 (N=10,308).

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./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	Observed survival by age category (chart)	4
3c	Survival by age category (table)	5
4a	Relative survival by ICD-10 classification (chart)	5
4b	Survival by ICD-10 classification (table)	6
4c	Relative survival by extent of disease 1988+ (chart)	6
4d	Survival by extent of disease 1988+ (table)	7
4e	Relative survival by extent of disease 1998+ (chart)	7
4f	Survival by extent of disease 1998+ (table)	8
4g	Conditional survival by extent of disease (chart)	8
4h	Conditional survival by extent of disease (table)	9
5a	Observed post-progression survival (chart)	9
5b	Observed post-progression survival (table)	10