

# Munich Cancer Registry



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## ICD-10 C61: Prostate cancer

### Survival

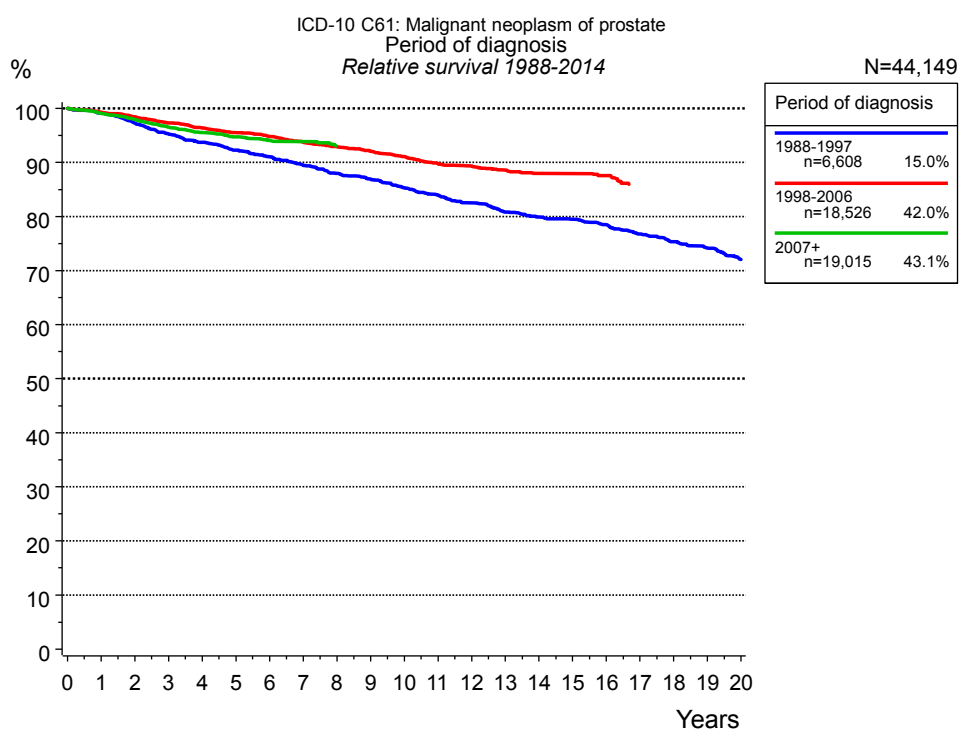
Year of diagnosis	1988-1997	1998-2014
Patients	7,399	46,513
Diseases	7,399	46,514
Cases evaluated	6,616	37,880
Creation date	03/02/2016	
Export date	12/23/2015	
Population (males)	2.28 m	



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Germany

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

[http://www.tumorregister-muenchen.de/en/facts/surv/sC61\\_\\_E-ICD-10-C61-Prostate-cancer-survival.pdf](http://www.tumorregister-muenchen.de/en/facts/surv/sC61__E-ICD-10-C61-Prostate-cancer-survival.pdf)

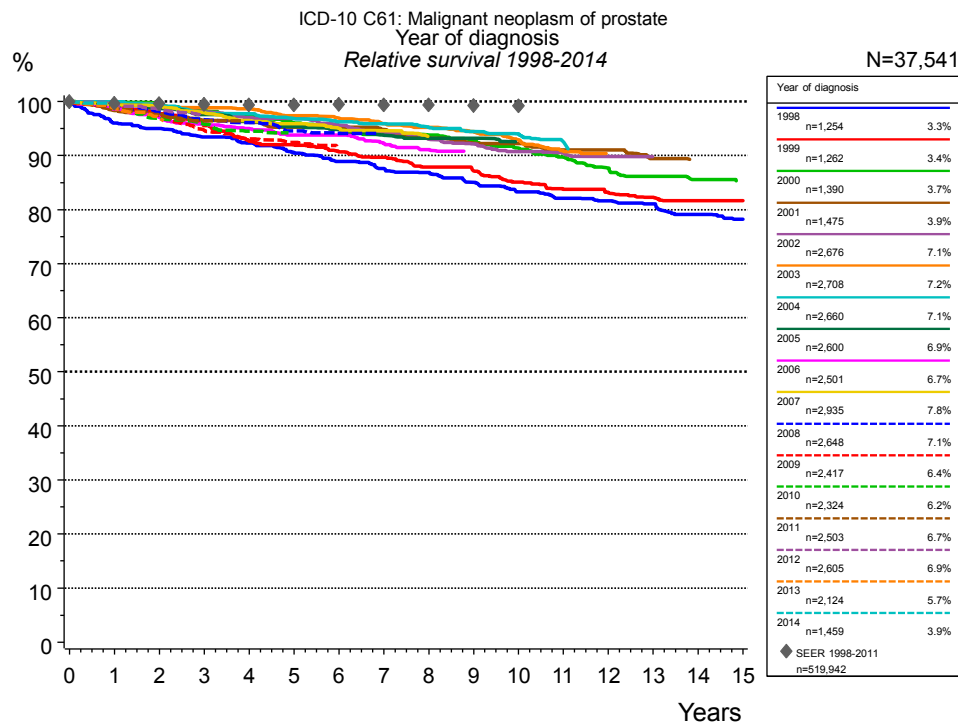


**Figure 1a.** Relative survival of patients with prostate cancer by period of diagnosis. Included in the evaluation are 44,149 cases diagnosed between 1988 and 2014.

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					
	1988-1997 n=6,608		1998-2006 n=18,526		2007+ n=19,015	
	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0	100.0	100.0
1	94.4	99.1	95.9	99.3	96.1	99.0
2	88.2	97.3	91.8	98.4	92.1	97.9
3	82.4	95.3	87.7	97.3	87.9	96.5
4	77.2	93.7	83.8	96.4	84.2	95.5
5	72.3	92.2	80.1	95.5	80.6	94.7
6	67.9	91.0	76.6	94.8	77.2	94.0
7	63.6	89.5	72.9	93.7	74.3	93.9
8	59.5	87.9	69.4	92.9		
9	55.9	86.9	66.0	92.1		
10	52.1	85.3	62.5	91.1		
11	48.7	84.0	58.9	89.8		
12	45.5	82.5	55.9	89.3		
13	42.0	80.8	52.6	88.5		
14	39.3	79.9	49.7	87.9		
15	36.9	79.4	47.2	87.9		
16	34.2	78.4	44.4	87.6		
17	31.4	76.7				
18	29.0	75.3				
19	26.5	74.1				
20	23.9	72.0				

**Table 1b.** Observed (obs.) and relative (rel.) survival of patients with prostate cancer by period of diagnosis for period 1988-2014 (N=44,149).



**Figure 1c.** Relative survival of patients with prostate cancer by year of diagnosis. Included in the evaluation are 37,541 cases diagnosed between 1998 and 2014.

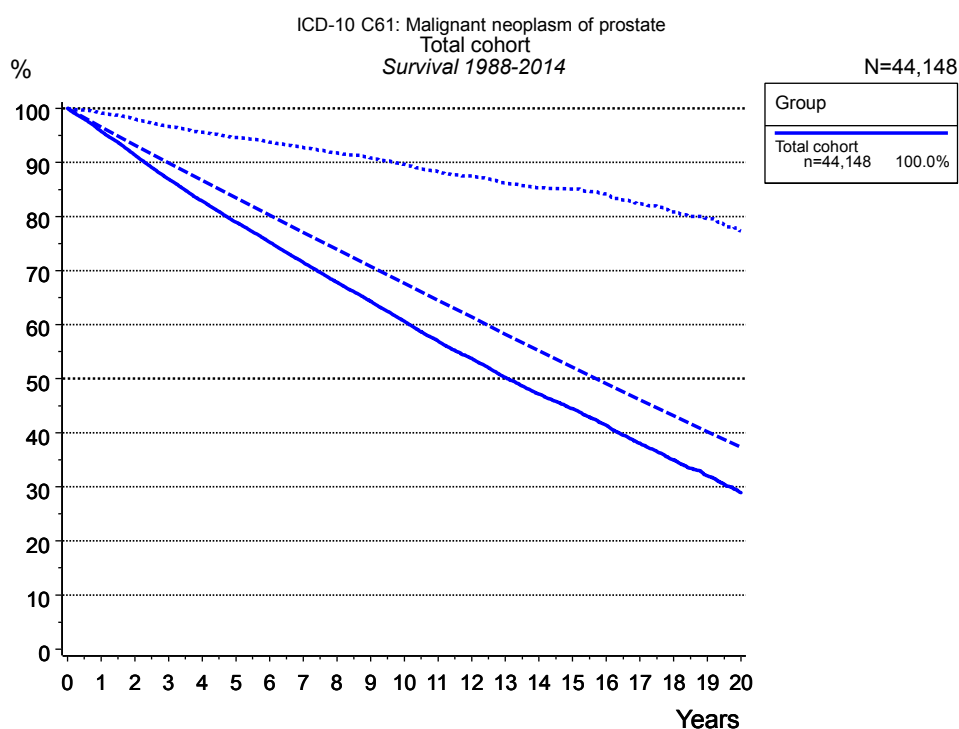
The survival results of the SEER program (Surveillance, Epidemiology, and End Results) of the American National Cancer Institute (NCI) are summarized as the period of diagnosis from 1998 to 2011, and are represented by gray diamonds in order to facilitate comparisons between MCR and SEER.

Years	Year of diagnosis													
	1998		1999		2000		2001		2002		2003		2004	
	n=1,254		n=1,262		n=1,390		n=1,475		n=2,676		n=2,708		n=2,660	
	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	96.0	95.2	99.0	96.5	99.9	94.9	98.3	96.1	99.6	96.8	99.6	97.0	99.9
2	87.6	95.0	90.4	97.7	92.2	99.3	90.9	97.7	92.1	98.9	93.2	99.5	93.2	99.3
3	82.7	93.4	85.0	95.5	87.9	98.3	86.7	96.5	88.0	98.0	89.7	98.8	89.0	97.9
4	78.4	92.3	79.3	92.7	83.8	97.3	83.2	96.2	84.1	97.0	86.3	98.7	86.0	97.7
5	73.7	90.5	75.8	92.0	79.4	96.1	79.6	95.2	81.1	96.8	82.2	97.4	82.2	96.8
6	69.6	88.9	71.7	90.7	75.6	95.1	76.7	95.2	77.0	95.7	78.8	96.9	78.9	96.2
7	65.8	87.6	68.3	89.7	72.1	93.9	73.0	94.8	73.0	94.3	75.1	95.9	75.7	95.9
8	62.5	86.9	64.5	87.9	68.7	93.8	69.0	93.4	69.2	93.0	71.8	95.2	72.4	95.2
9	58.6	85.0	61.0	87.1	65.2	92.8	65.4	92.3	65.7	92.1	68.3	94.5	69.0	94.4
10	54.9	83.3	57.1	85.1	61.3	91.4	62.8	92.2	62.4	90.7	64.3	92.9	65.7	94.0
11	51.7	82.1	53.8	83.8	57.6	89.7	59.3	91.0	59.1	90.5	60.0	90.8	62.5	92.5
12	48.9	81.6	51.0	83.1	53.7	87.7	56.5	91.0	56.4	89.8				
13	46.3	81.0	48.1	82.3	50.4	86.1	52.7	89.4						
14	43.0	79.1	45.6	81.6	47.4	85.5								
15	40.2	78.2	43.9	81.6										

<i>cont'd</i>	Year of diagnosis													
	2005		2006		2007		2008		2009		2010		2011	
	n=2,600		n=2,501		n=2,935		n=2,648		n=2,417		n=2,324		n=2,503	
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	96.4	99.5	95.5	98.5	96.4	99.3	96.1	99.0	95.9	98.8	95.9	98.9	95.8	98.7
2	92.6	98.7	91.1	97.1	93.3	99.1	92.1	98.0	91.4	97.1	91.2	96.9	91.6	97.5
3	88.7	97.6	87.1	95.8	89.3	97.9	87.9	96.6	86.4	94.7	87.3	95.8	87.7	96.4
4	84.4	96.3	83.5	95.0	85.1	96.5	84.8	96.0	82.4	93.1	83.3	94.5		
5	80.9	95.3	79.7	93.8	81.9	95.9	80.4	94.5	79.0	92.4				
6	77.4	94.7	76.9	93.8	78.2	95.0	77.1	94.1						
7	73.8	93.8	72.6	92.2	75.0	94.5								
8	70.9	93.2	68.9	91.1										
9	67.7	93.2												

<i>cont'd</i>	Year of diagnosis					
	2012		2013		2014	
	n=2,605		n=2,124		n=1,459	
Years	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0	100.0	100.0
1	96.2	99.2	95.7	98.7	97.3	99.7
2	92.6	98.6	91.3	96.9		

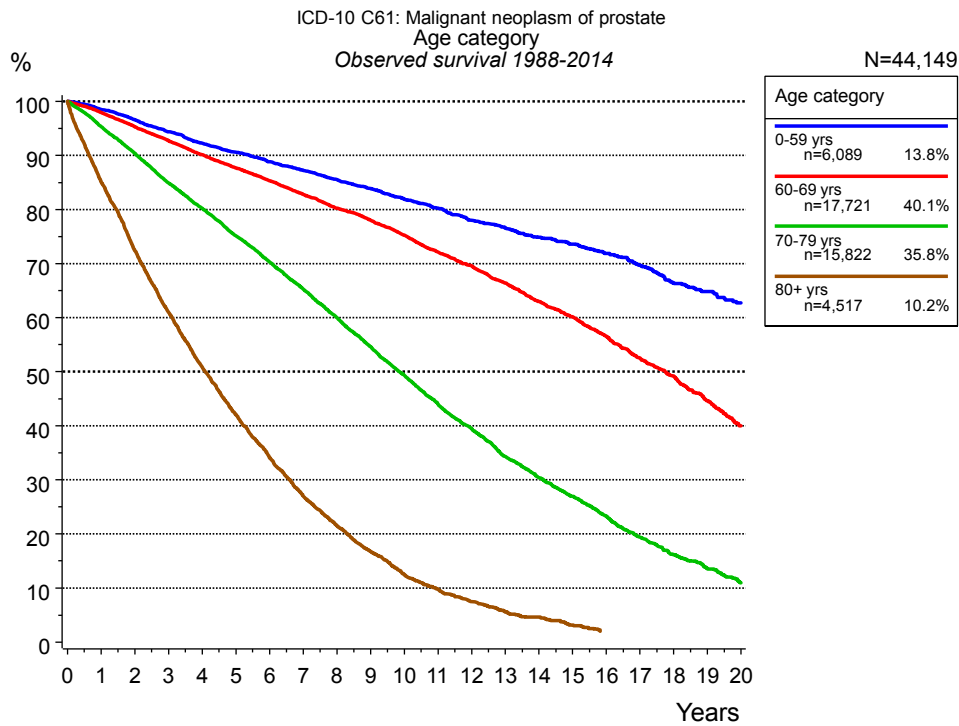
**Table 1d.** Observed (obs.) and relative (rel.) survival of patients with prostate cancer by year of diagnosis for period 1998-2014 (N=37,541).



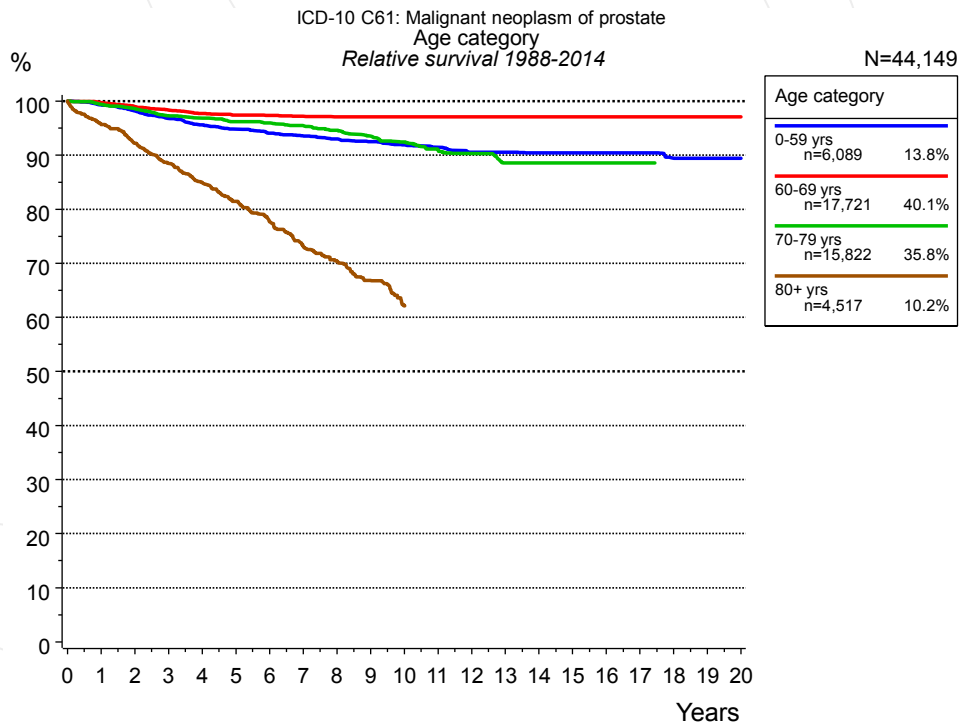
**Figure 2a.** Observed, expected and relative survival of the total cohort with prostate cancer. Included in the evaluation are 44,148 cases diagnosed between 1988 and 2014.

Years	Group	
	Total cohort n=44,148	
	obs. %	rel. %
0	100.0	100.0
1	95.7	99.2
2	91.4	98.0
3	86.9	96.7
4	82.9	95.6
5	78.9	94.6
6	75.2	93.8
7	71.5	92.7
8	67.8	91.8
9	64.3	90.9
10	60.6	89.7
11	57.0	88.3
12	53.8	87.5
13	50.2	86.2
14	47.2	85.3
15	44.5	85.1
16	41.4	84.2
17	38.0	82.4
18	35.0	80.9
19	32.0	79.6
20	29.0	77.3

**Table 2b.** Observed (obs.) and relative (rel.) survival of the total cohort with prostate cancer for period 1988-2014 (N=44,148).



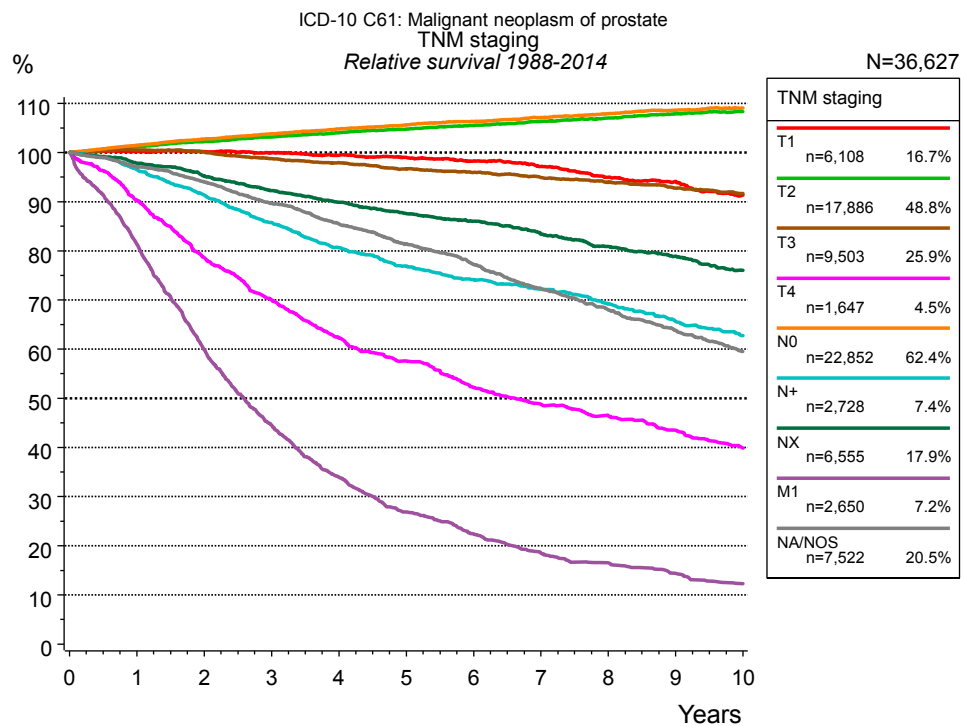
**Figure 3a.** Observed survival of patients with prostate cancer by age category. Included in the evaluation are 44,149 cases diagnosed between 1988 and 2014.



**Figure 3b.** Relative survival of patients with prostate cancer by age category. Included in the evaluation are 44,149 cases diagnosed between 1988 and 2014.

Years	Age category							
	0-59 yrs n=6,089		60-69 yrs n=17,721		70-79 yrs n=15,822		80+ yrs n=4,517	
	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	98.5	99.3	97.9	99.7	95.3	99.4	85.0	95.7
2	96.6	98.2	95.3	99.0	90.4	98.6	72.4	92.2
3	94.4	96.8	92.7	98.3	84.9	97.3	61.0	88.5
4	92.3	95.6	90.1	97.7	80.2	96.9	50.9	85.0
5	90.6	94.8	87.7	97.4	75.1	96.2	42.0	81.4
6	88.8	94.1	85.3	97.3	70.3	95.9	34.1	77.6
7	87.2	93.6	82.8	97.2	65.3	95.4	27.0	73.2
8	85.5	93.0	80.2	97.1	60.0	94.6	21.6	70.4
9	83.9	92.5	78.0	97.1	54.6	93.5	16.8	66.8
10	81.9	91.9	75.3	97.1	49.3	92.4	12.5	62.1
11	80.2	91.4	72.1	97.1	44.0	91.1		
12	78.0	90.5	69.6	97.1	39.4	90.2		
13	76.5	90.5	66.4	97.1	34.3	88.5		
14	74.8	90.5	63.0	97.1	30.4	88.5		
15	73.6	90.5	60.1	97.1	27.0	88.5		
16	71.9	90.5	56.5	97.1	23.3	88.5		
17	69.7	90.5	52.5	97.1	19.3	88.5		
18	66.4	89.4	49.2	97.1				
19	64.8	89.4	44.6	97.1				
20	62.7	89.4	40.0	97.1				

**Table 3c.** Observed (obs.) and relative (rel.) survival of patients with prostate cancer by age category for period 1988-2014 (N=44,149).



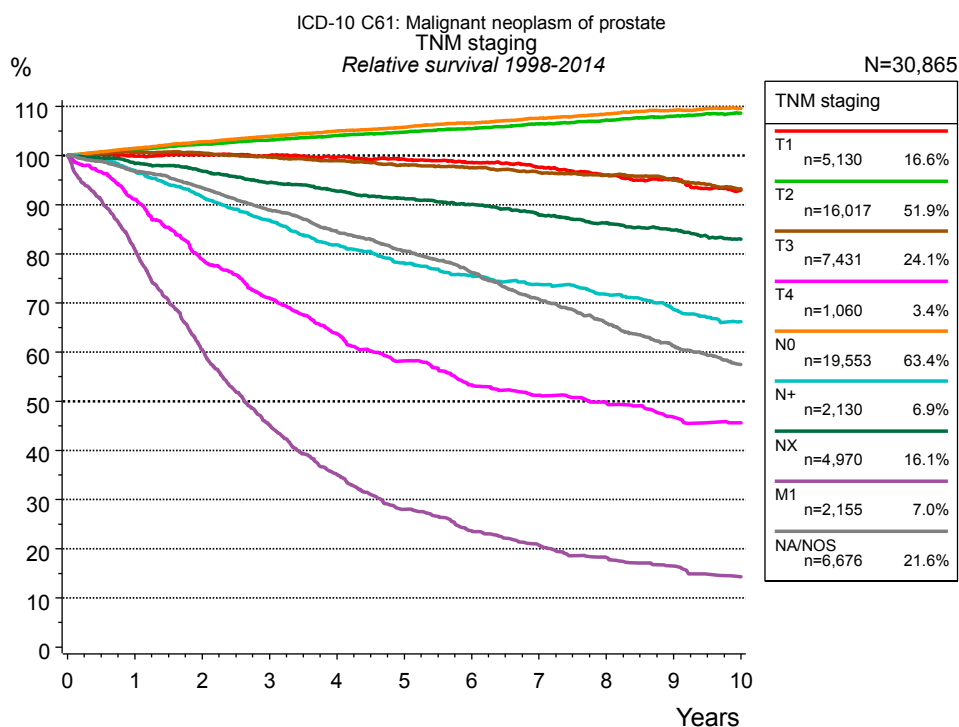
**Figure 4a.** Relative survival of patients with prostate cancer by TNM staging. For 36,747 of 44,149 cases diagnosed between 1988 and 2014 valid data could be obtained for this item. For a total of 36,627 cases an evaluable classification was established. The accumulated percentage exceeds the 100% value because patients are potentially considered in more than one subgroup. The grey line represents the subgroup of 7,522 patients with missing values regarding TNM staging (17.0 % of 44,149 patients, the percent values of all other categories are related to n=36,627).

TNM staging														
Years	T1 n=6,108		T2 n=17,886		T3 n=9,503		T4 n=1,647		N0 n=22,852		N+ n=2,728		NX n=6,555	
	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	95.7	100.1	98.7	101.2	97.7	100.5	86.3	90.3	99.1	101.5	94.1	96.5	93.0	97.8
2	91.3	100.2	97.1	102.2	94.4	100.1	72.0	78.6	97.8	102.7	86.7	91.3	86.2	95.2
3	86.8	99.9	95.3	103.2	90.4	98.8	61.5	70.0	96.3	103.8	79.2	85.8	79.4	92.3
4	82.2	99.4	93.4	104.0	86.8	97.9	52.4	62.3	94.5	104.8	72.4	80.7	73.4	89.9
5	77.7	99.0	91.2	104.7	82.8	96.7	46.4	57.6	92.4	105.6	67.0	76.9	67.8	87.6
6	73.1	98.3	89.0	105.5	79.4	96.0	40.4	52.2	90.2	106.3	62.5	74.1	63.1	86.0
7	68.4	97.2	86.7	106.3	75.7	94.9	36.1	48.7	87.9	107.1	58.9	72.2	57.8	83.3
8	63.1	95.0	84.3	107.0	72.1	94.0	32.9	46.4	85.5	107.9	54.4	69.2	53.0	80.9
9	58.9	94.1	81.8	107.9	68.3	92.7	29.6	43.5	82.9	108.6	49.7	65.6	48.8	78.9
10	53.8	91.4	79.0	108.3	64.7	91.6	25.8	39.8	79.9	109.0	45.8	62.8	44.3	76.0



<i>cont'd</i>	TNM staging			
	M1		NA/NOS	
	n=2,650		n=7,522	
Years	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0
1	77.7	81.3	92.1	97.0
2	54.9	59.9	84.5	94.0
3	39.1	44.5	76.3	89.7
4	28.6	34.0	68.6	85.4
5	21.7	26.8	61.5	81.3
6	17.3	22.4	54.9	77.2
7	13.7	18.5	48.3	72.3
8	11.7	16.5	42.5	68.0
9	9.7	14.4	37.4	63.8
10	8.0	12.3	32.6	59.6

**Table 4b.** Observed (obs.) and relative (rel.) survival of patients with prostate cancer by TNM staging for period 1988-2014 (N=69,929).

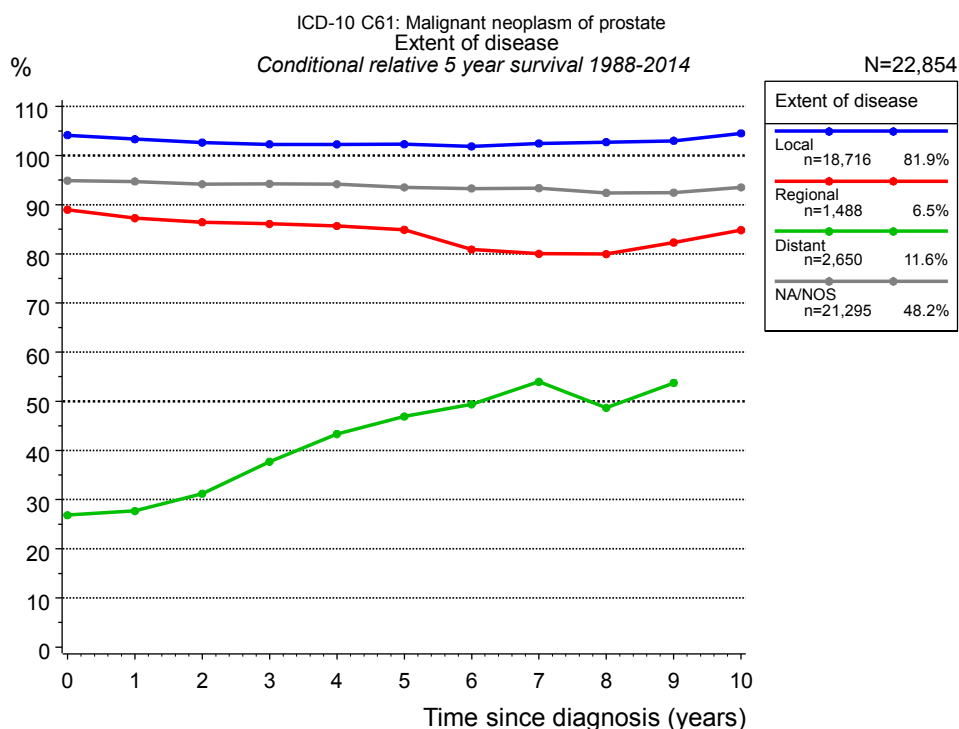


**Figure 4c.** Relative survival of patients with prostate cancer by TNM staging. For 30,973 of 37,541 cases diagnosed between 1998 and 2014 valid data could be obtained for this item. For a total of 30,865 cases an evaluable classification was established. The accumulated percentage exceeds the 100% value because patients are potentially considered in more than one subgroup. The grey line represents the subgroup of 6,676 patients with missing values regarding TNM staging (17.8 % of 37,541 patients, the percent values of all other categories are related to n=30,865).

		TNM staging													
		T1 n=5,130		T2 n=16,017		T3 n=7,431		T4 n=1,060		N0 n=19,553		N+ n=2,130		NX n=4,970	
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		95.7	99.9	98.8	101.2	98.1	100.6	87.9	91.1	99.3	101.5	94.6	96.8	94.3	98.4
2		91.8	100.1	97.5	102.3	95.5	100.5	73.4	78.9	98.2	102.8	87.3	91.6	88.9	96.8
3		87.6	100.0	95.7	103.2	92.2	99.7	63.9	71.0	96.9	103.9	80.6	86.8	83.0	94.5
4		83.3	99.7	93.9	104.1	88.9	98.9	55.2	63.7	95.3	105.0	74.0	81.8	77.9	92.8
5		78.9	99.2	91.8	104.7	85.5	98.1	48.7	58.2	93.4	105.7	68.8	78.1	73.1	91.3
6		74.6	98.6	89.7	105.5	82.3	97.5	43.2	53.3	91.4	106.6	64.6	75.6	68.7	90.0
7		69.9	97.6	87.6	106.4	78.8	96.5	39.9	51.2	89.4	107.6	61.1	73.8	63.8	87.9
8		65.0	96.0	85.3	107.2	75.7	96.0	37.2	49.6	87.1	108.4	57.4	71.7	59.6	86.3
9		61.0	95.4	82.9	108.0	72.0	95.0	33.8	46.8	84.7	109.2	53.0	68.7	55.6	84.8
10		56.0	92.9	80.3	108.6	67.9	93.2	31.6	45.6	81.8	109.6	49.3	66.2	51.5	83.0

<i>cont'd</i>	TNM staging			
	M1		NA/NOS	
	n=2,155		n=6,676	
Years	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0
1	77.4	80.8	91.9	96.7
2	55.8	60.5	84.2	93.4
3	40.0	45.1	76.0	88.9
4	30.0	35.1	68.3	84.5
5	23.0	28.0	61.4	80.6
6	18.6	23.7	54.6	76.2
7	15.7	20.8	47.7	70.8
8	13.2	18.2	41.6	65.9
9	11.4	16.5	36.2	61.3
10	9.6	14.4	31.7	57.5

**Table 4d.** Observed (obs.) and relative (rel.) survival of patients with prostate cancer by TNM staging for period 1998-2014 (N=58,446).

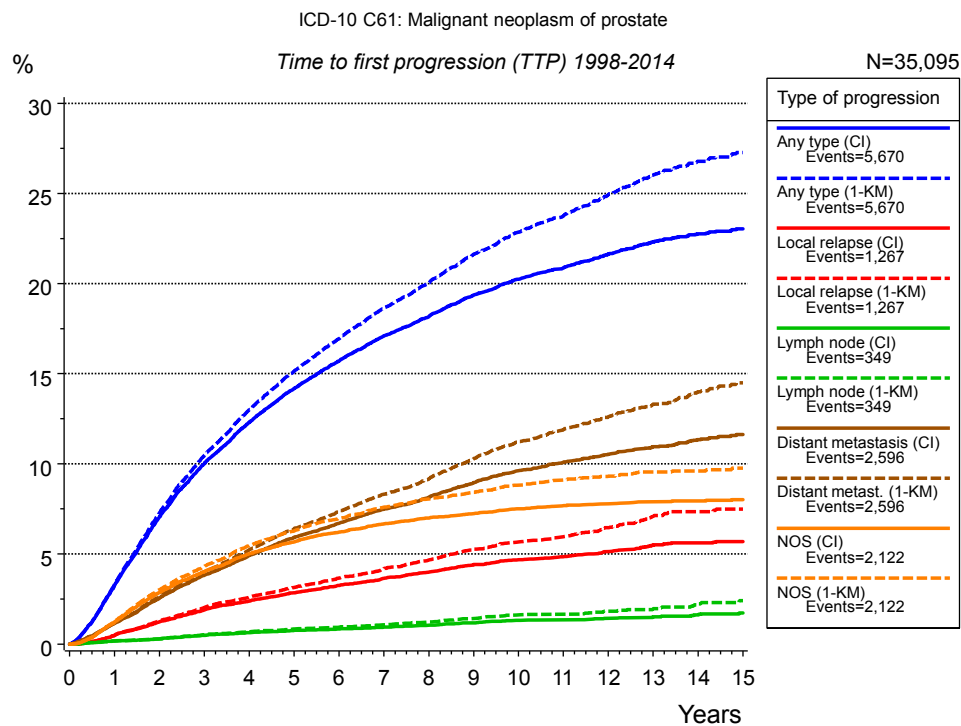


**Figure 4e.** Conditional relative 5-year survival of patients with prostate cancer by extent of disease. For 36,747 of 44,149 cases diagnosed between 1988 and 2014 valid data could be obtained for this item. For a total of 22,854 cases an evaluable classification was established. The grey line represents the subgroup of 21,295 patients with missing values regarding extent of disease (48.2% of 44,149 patients, the percent values of all other categories are related to n=22,854).

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	18,716	104.2	1,488	89.0	2,650	26.8	21,295	94.9
1	17,366	103.3	1,343	87.3	1,964	27.7	19,323	94.7
2	15,976	102.7	1,193	86.5	1,292	31.2	17,748	94.2
3	14,321	102.3	1,001	86.1	851	37.7	15,900	94.3
4	12,754	102.3	831	85.7	575	43.3	14,233	94.2
5	11,349	102.3	693	84.9	400	46.9	12,694	93.5
6	10,231	101.9	609	80.9	291	49.4	10,966	93.3
7	9,150	102.5	534	80.0	195	54.0	9,087	93.4
8	7,970	102.7	445	79.9	152	48.7	7,379	92.4
9	7,040	103.0	389	82.3	112	53.7	5,943	92.4
10	6,140	104.5	328	84.8			4,589	93.5

**Table 4f.** Conditional relative 5-year survival of patients with prostate cancer by extent of disease for period 1988-2014 (N=22,854).

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 4c). 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 102.3% (n=14,321).

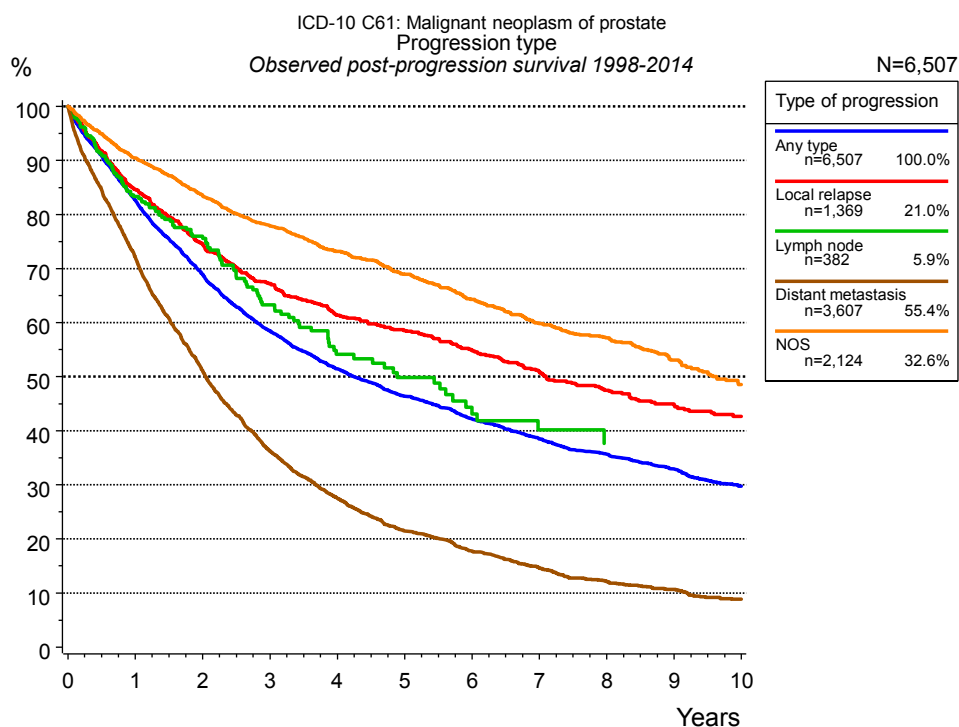


**Figure 5a.** Time to first progression of 35,095 patients with prostate cancer diagnosed between 1998 and 2014 (M0 only in solid cancers) estimated by cumulative incidence function (CI, solid line) accounting for death as competing risk and by inverse Kaplan-Meier estimate (1-KM, dashed line). The frequency of events may be underestimated due to underreporting.

Years	Type of progression						
	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=35,095 %	n=35,095 %	n=35,095 %	n=35,095 %	n=35,095 %	n=35,095 %	n=35,095 %
0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	3.3	3.3	0.5	0.5	0.2	0.2	1.2
2	7.0	7.3	1.2	1.3	0.3	0.3	2.6
3	10.0	10.4	1.9	2.0	0.5	0.5	3.8
4	12.3	13.0	2.4	2.6	0.6	0.7	4.9
5	14.2	15.1	2.9	3.1	0.8	0.8	5.9
6	15.7	16.9	3.3	3.7	0.8	0.9	6.7
7	17.1	18.7	3.7	4.2	0.9	1.1	7.5
8	18.2	20.0	4.0	4.7	1.0	1.2	8.1
9	19.4	21.6	4.4	5.3	1.2	1.4	9.0
10	20.3	22.9	4.7	5.7	1.3	1.6	9.6
11	20.9	23.8	4.9	6.0	1.3	1.7	10.1
12	21.6	24.9	5.1	6.5	1.4	1.8	10.5
13	22.3	26.0	5.5	7.1	1.5	2.0	11.0
14	22.8	26.8	5.6	7.3	1.6	2.2	11.3
15	23.0	27.3	5.7	7.5	1.7	2.4	11.6

<i>cont'd</i>	Type of progression		
	Distant metast. (1- KM)	NOS (CI)	NOS (1-KM)
	n=35,095	n=35,095	n=35,095
Years	%	%	%
0	0.0	0.0	0.0
1	1.2	1.2	1.3
2	2.6	2.9	3.0
3	4.0	4.0	4.3
4	5.2	5.0	5.5
5	6.4	5.7	6.3
6	7.4	6.2	7.0
7	8.3	6.7	7.6
8	9.2	7.0	8.1
9	10.3	7.2	8.4
10	11.2	7.5	8.8
11	11.9	7.7	9.1
12	12.6	7.8	9.3
13	13.3	7.9	9.5
14	14.0	7.9	9.6
15	14.5	8.0	9.8

**Table 5b.** Time to first progression of patients with prostate cancer for period 1998-2014 (N=35,095).

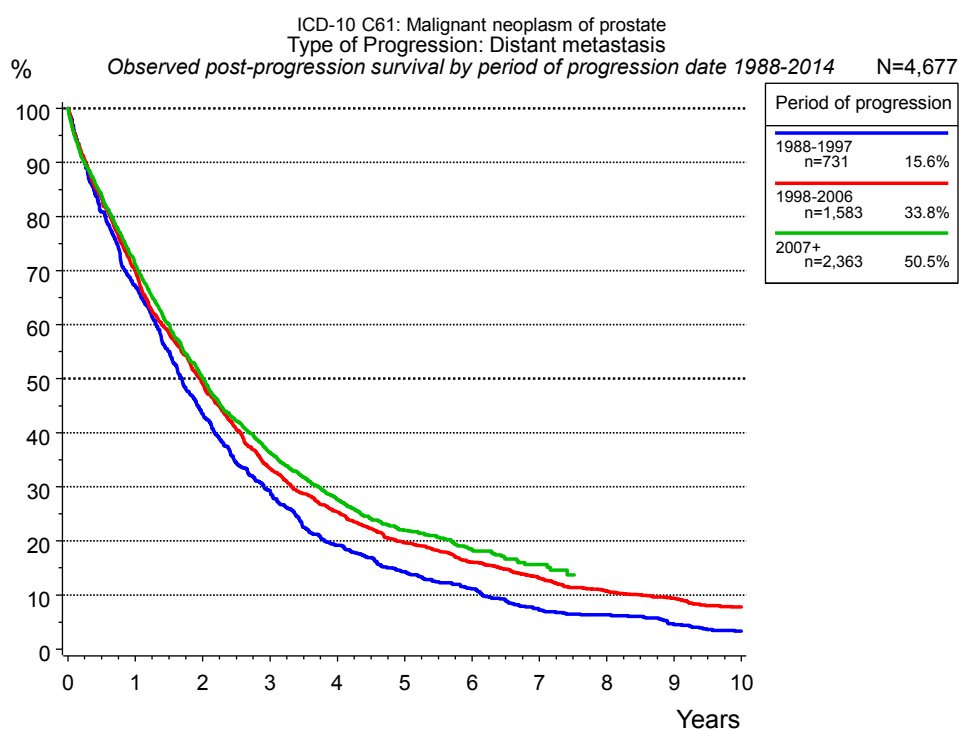


**Figure 5c.** Observed post-progression survival of 6,507 patients with prostate cancer diagnosed between 1998 and 2014. These 6,507 patients with documented progression events during their course of disease represent 17.5 % of the totally 37,230 evaluated cases (incl. M1, n=2,135, 5.7 %). Patients with cancer relapse documented via death certificates only were excluded (n=1,298, 3.5 %). 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 “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 potentially considered in more than one subgroup.

Years	Type of progression				
	Any type n=6,507 %	Local relapse n=1,369 %	Lymph node n=382 %	Distant metastasis n=3,607 %	NOS n=2,124 %
0	100.0	100.0	100.0	100.0	100.0
1	82.6	84.6	83.3	72.0	90.5
2	68.9	74.6	75.6	51.1	83.5
3	58.4	67.2	63.3	36.3	77.9
4	51.4	61.4	54.1	27.6	73.2
5	46.3	58.6	49.8	21.4	68.9
6	42.2	54.9	43.1	17.7	64.3
7	38.5	51.0	40.2	14.7	59.8
8	35.6	47.5	37.7	12.2	57.2
9	32.9	44.7		10.7	53.1
10	29.8	42.7		8.9	48.6

**Table 5d.** Observed post-progression survival of patients with prostate cancer for period 1998-2014 (N=6,507).



**Figure 5e.** Observed post-progression (distant metastasis) survival of 4,677 patients with prostate cancer diagnosed between 1988 and 2014 by period of progression.

Years	Period of progression		
	1988-1997 n=731	1998-2006 n=1,583	2007+ n=2,363
	%	%	%
0	100.0	100.0	100.0
1	67.2	69.9	71.1
2	43.5	49.1	50.2
3	29.3	33.4	36.3
4	19.2	25.4	27.7
5	14.3	19.6	22.0
6	11.1	16.1	18.3
7	7.2	13.2	15.7
8	6.3	10.8	
9	4.5	9.4	
10	3.3	7.8	

**Table 5f.** Observed post-progression (distant metastasis) survival of patients with prostate cancer for period 1988-2014 by period of progression (N=4,677).



## Shortcuts

MCR Munich Cancer Registry, Germany

NCI National Cancer Institute, USA

SEER Surveillance, Epidemiology, and End Results, USA

UICC Union for International Cancer Control, Geneva

DCO Death certificate only Death certificate provides the only notification to the registry.

NA Not available

NOS Not otherwise specified

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

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