

Munich Cancer Registry



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

Cancer statistics: Survival

C53-C55: Uterine cancer

Year of diagnosis	1988-2012
Patients	14,216
Diseases	14,273
Cases evaluated	8,744
Creation date	03/25/2014
Export date	02/12/2014
Population (females)	2.3 m



http://www.tumorregister-muenchen.de/en/facts/surv/surv_C5355E.pdf

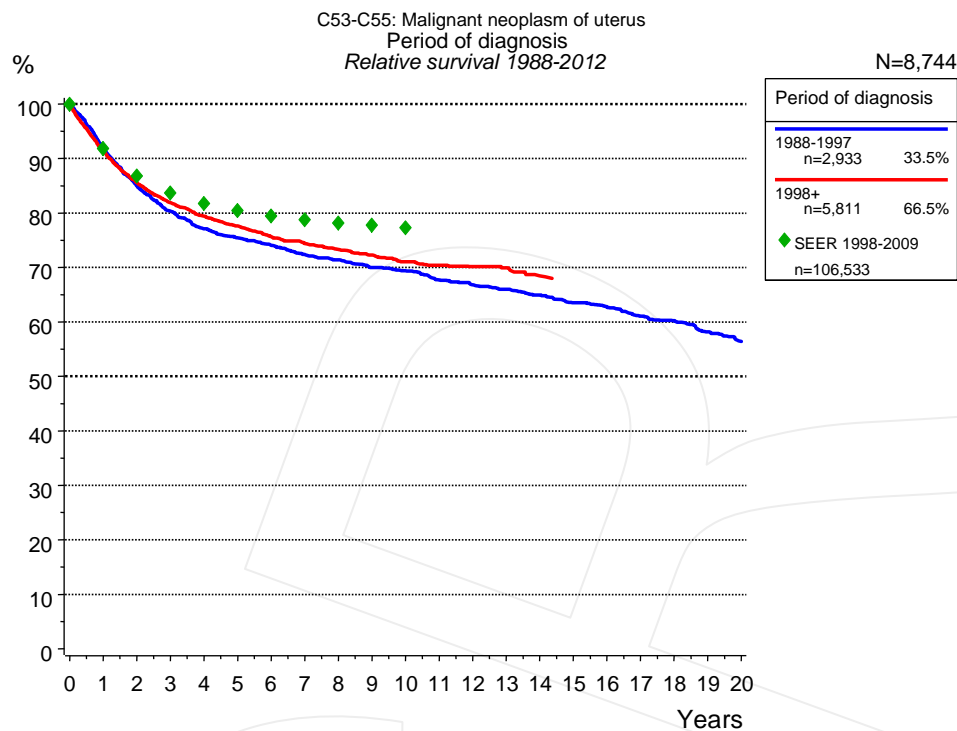


Figure 1a. Relative survival of patients with uterine cancer by period of diagnosis. Included in the evaluation are 8,744 cases diagnosed between 1988 and 2012.

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 2009, and are represented by green 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.

Years	Period of diagnosis			
	1988-1997		1998+	
	n=2,933		n=5,811	
	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0
1	90.0	92.1	89.4	91.2
2	81.2	84.9	82.3	85.6
3	75.1	80.3	77.4	81.9
4	70.6	77.1	73.7	79.4
5	67.6	75.4	70.8	77.6
6	65.0	74.1	67.8	75.6
7	62.1	72.4	65.6	74.4
8	59.9	71.4	63.5	73.3
9	57.4	70.0	61.4	72.3
10	55.7	69.4	59.3	71.1
11	53.2	67.7	57.6	70.4
12	51.3	66.8	56.4	70.2
13	49.6	66.0	55.2	70.0
14	47.6	65.0	52.8	68.5
15	45.5	63.6		
16	43.8	62.7		
17	41.5	61.1		
18	39.9	60.3		
19	37.5	58.2		
20	35.4	56.4		

Table 1b. Observed (obs.) and relative (rel.) survival of patients with uterine cancer by period of diagnosis for period 1988-2012 (N=8,744).

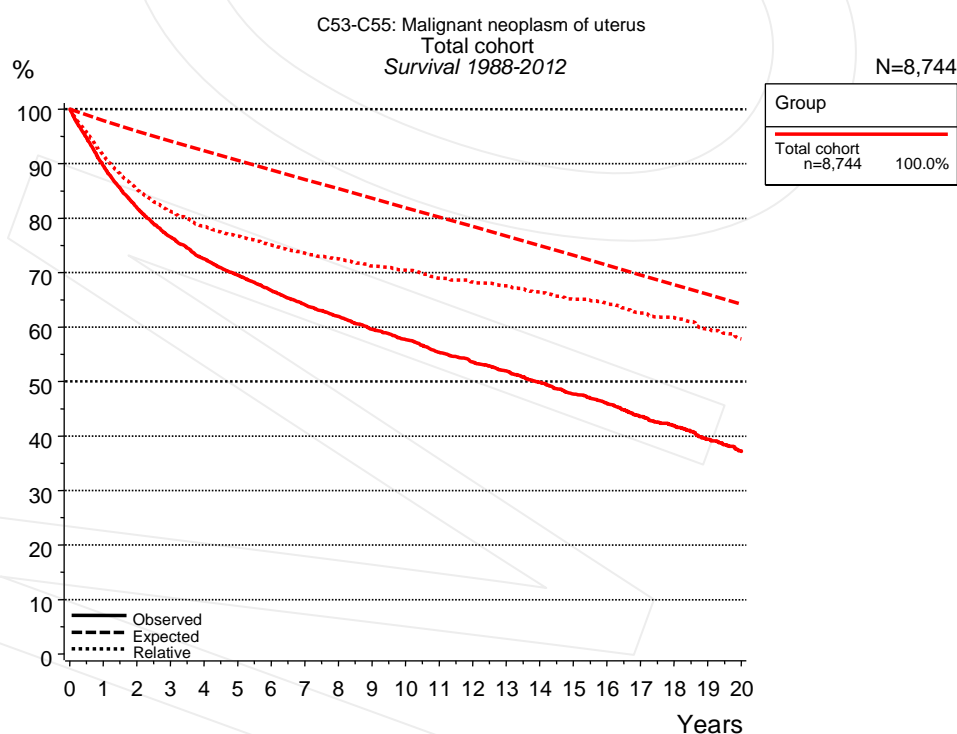


Figure 2a. Observed, expected and relative survival of the total cohort with uterine cancer. Included in the evaluation are 8,744 cases diagnosed between 1988 and 2012.

Years	Group	
	Total cohort n=8,744	
	obs. %	rel. %
0	100.0	100.0
1	89.6	91.5
2	81.9	85.3
3	76.5	81.2
4	72.5	78.5
5	69.5	76.7
6	66.7	75.1
7	64.1	73.6
8	61.9	72.5
9	59.6	71.2
10	57.7	70.4
11	55.3	69.0
12	53.6	68.3
13	51.9	67.6
14	49.8	66.5
15	47.7	65.1
16	46.0	64.3
17	43.6	62.6
18	41.9	61.8
19	39.4	59.6
20	37.2	57.9

Table 2b. Observed (obs.) and relative (rel.) survival of the total cohort with uterine cancer for period 1988-2012 (N=8,744).

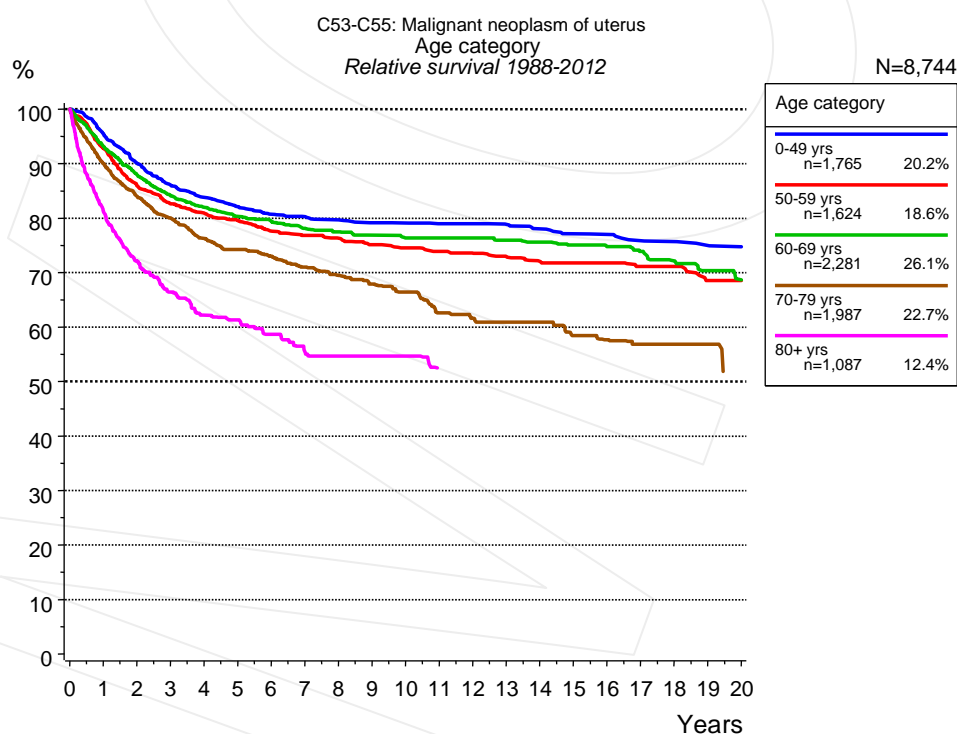


Figure 3a. Relative survival of patients with uterine cancer by age category. Included in the evaluation are 8,744 cases diagnosed between 1988 and 2012.

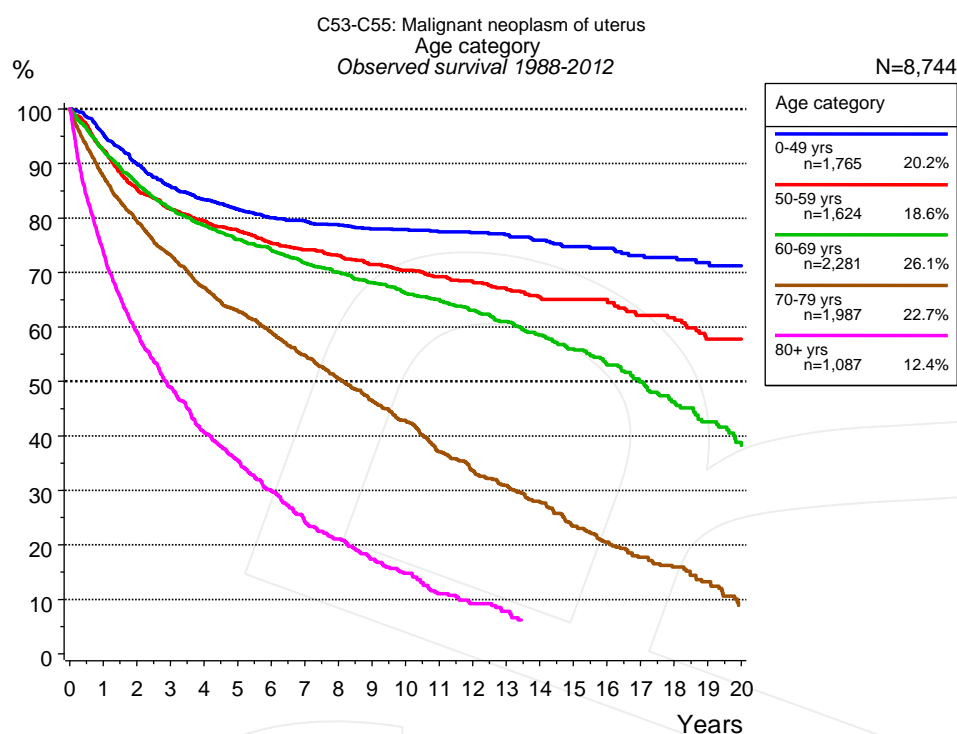


Figure 3b. Observed survival of patients with uterine cancer by age category. Included in the evaluation are 8,744 cases diagnosed between 1988 and 2012.

Years	Age category									
	0-49 yrs n=1,765		50-59 yrs n=1,624		60-69 yrs n=2,281		70-79 yrs n=1,987		80+ yrs n=1,087	
	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	95.4	95.5	92.5	92.8	92.3	93.2	87.7	90.0	73.4	81.2
2	89.9	90.1	85.3	85.9	86.4	87.9	79.4	84.0	59.0	72.1
3	85.8	86.1	81.6	82.6	81.6	84.1	73.2	80.0	49.0	66.4
4	83.4	83.8	79.5	80.9	78.7	82.0	67.2	76.2	40.7	62.2
5	81.6	82.1	77.7	79.5	76.0	80.3	62.9	74.2	35.4	61.3
6	80.1	80.7	75.4	77.6	74.1	79.4	59.0	73.0	29.9	58.6
7	79.5	80.3	74.1	76.8	71.8	78.1	54.8	71.0	24.2	55.4
8	78.8	79.7	73.1	76.3	70.0	77.5	50.5	69.4	21.1	54.6
9	78.0	79.1	71.5	75.1	68.1	76.8	46.4	67.9	17.4	54.6
10	77.9	79.1	70.4	74.5	66.1	76.3	42.9	66.4	14.8	54.6
11	77.4	79.0	69.2	73.9	65.1	76.3	37.1	62.6	11.0	52.5
12	77.3	79.0	68.3	73.5	63.0	76.3	33.7	61.6		
13	76.9	78.9	67.0	72.9	61.0	76.0	30.9	60.9		
14	75.9	78.1	65.5	72.0	58.5	75.6	27.8	60.9		
15	74.7	77.1	65.1	71.8	56.0	75.0	23.4	58.4		
16	74.5	77.0	65.1	71.8	53.0	74.7	20.5	57.7		
17	73.1	75.9	62.1	71.1	49.9	73.9	17.7	56.8		
18	72.7	75.7	61.7	71.1	46.3	72.1	15.9	56.8		
19	71.8	75.0	57.8	68.5	42.6	70.4	13.2	56.8		
20	71.3	74.7	57.8	68.5	38.2	68.6				

Table 3c. Observed (obs.) and relative (rel.) survival of patients with uterine cancer by age category for period 1988-2012 (N=8,744).

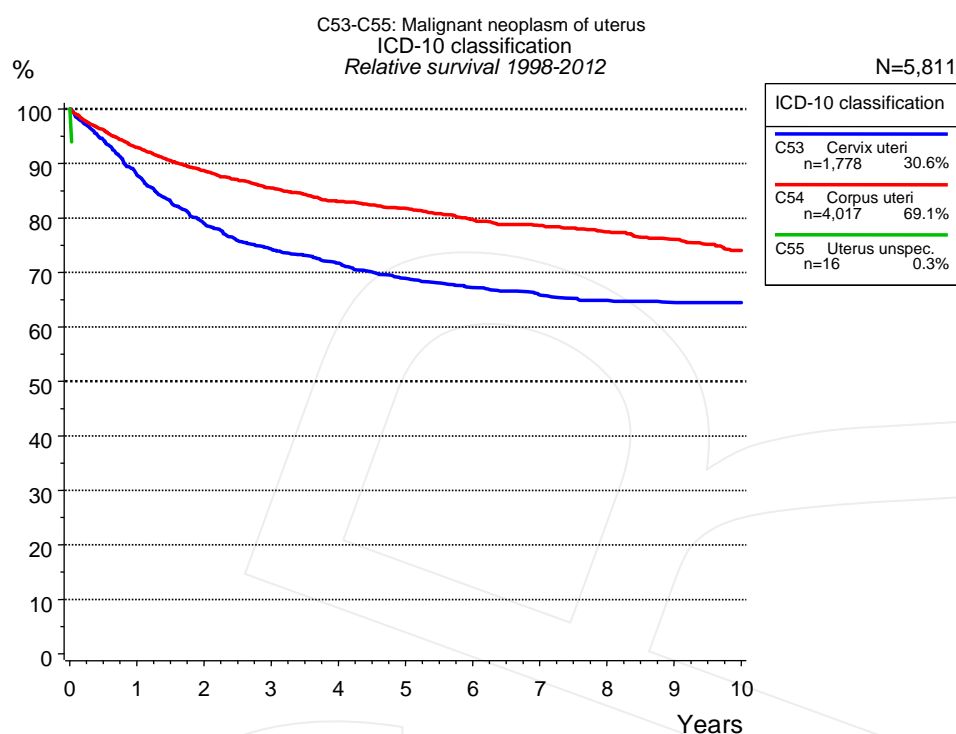


Figure 4a. Relative survival of patients with uterine cancer by ICD-10 classification. Included in the evaluation are 5,811 cases diagnosed between 1998 and 2012.

ICD-10 classification						
Years	C53 Cervix uteri n=1,778		C54 Corpus uteri n=4,017		C55 Uterus unsp. n=16	
	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0	100.0	100.0
1	86.8	87.8	90.7	92.9		
2	77.4	79.0	84.7	88.7		
3	72.3	74.3	79.8	85.5		
4	69.3	71.7	75.9	83.1		
5	66.1	68.9	73.0	81.8		
6	64.1	67.2	69.6	79.7		
7	62.4	65.9	67.1	78.6		
8	61.2	64.9	64.6	77.5		
9	60.4	64.5	62.0	76.1		
10	60.2	64.5	58.9	74.1		

Table 4b. Observed (obs.) and relative (rel.) survival of patients with uterine cancer by ICD-10 classification for period 1998-2012 (N=5,811).

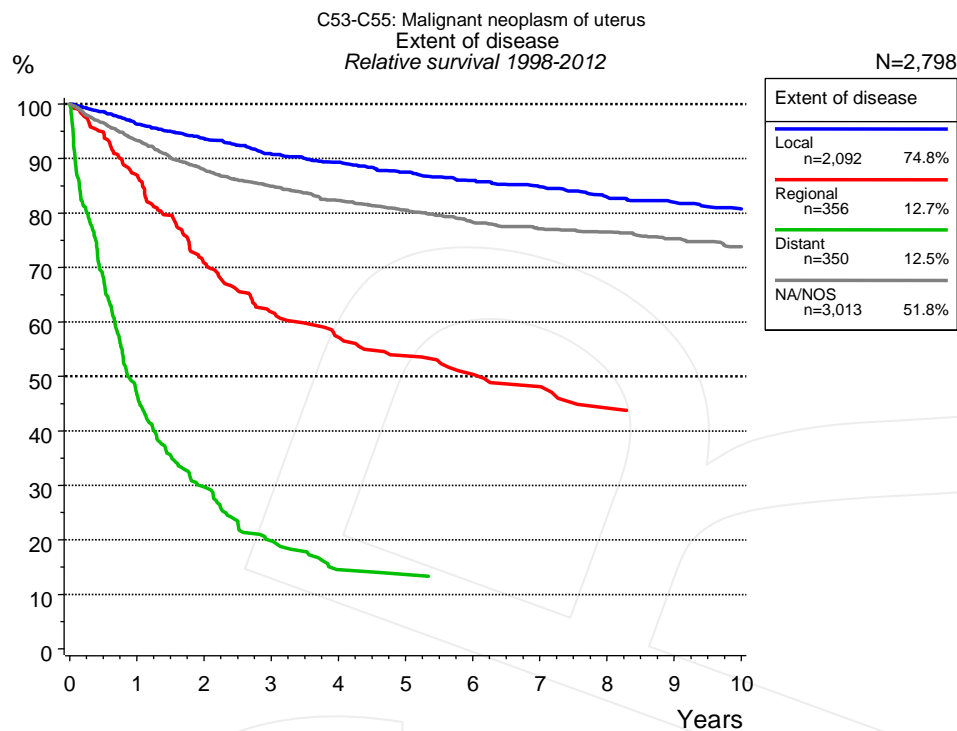


Figure 4c. Relative survival of patients with uterine cancer by extent of disease. For 5,513 of 5,811 cases diagnosed between 1998 and 2012 valid data could be obtained for this item. For a total of 2,798 cases an evaluable classification was established. The grey line represents the subgroup of 3,013 patients with missing values regarding extent of disease (51.8% of 5,811 patients, the percent values of all other categories are related to n=2,798).

Years	Extent of disease							
	Local n=2,092		Regional n=356		Distant n=350		NA/NOS n=3,013	
	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	94.7	96.3	86.1	86.9	45.7	46.6	91.0	93.3
2	90.9	93.7	69.2	70.8	28.8	29.7	84.0	88.0
3	86.7	90.8	59.9	61.8	19.2	19.8	79.4	84.9
4	84.1	89.3	55.0	57.1	13.7	14.5	75.5	82.3
5	81.2	87.5	51.2	53.8	13.1	13.6	72.4	80.5
6	78.5	86.0	48.0	50.4	12.3	12.9	69.1	78.3
7	76.2	84.8	45.8	48.1			66.7	77.1
8	73.4	82.9	41.5	44.2			65.0	76.5
9	71.4	81.9	40.2	43.1			62.7	75.3
10	69.1	80.8	40.2	42.2			60.2	73.8

Table 4d. Observed (obs.) and relative (rel.) survival of patients with uterine cancer by extent of disease for period 1998-2012 (N=2,798).

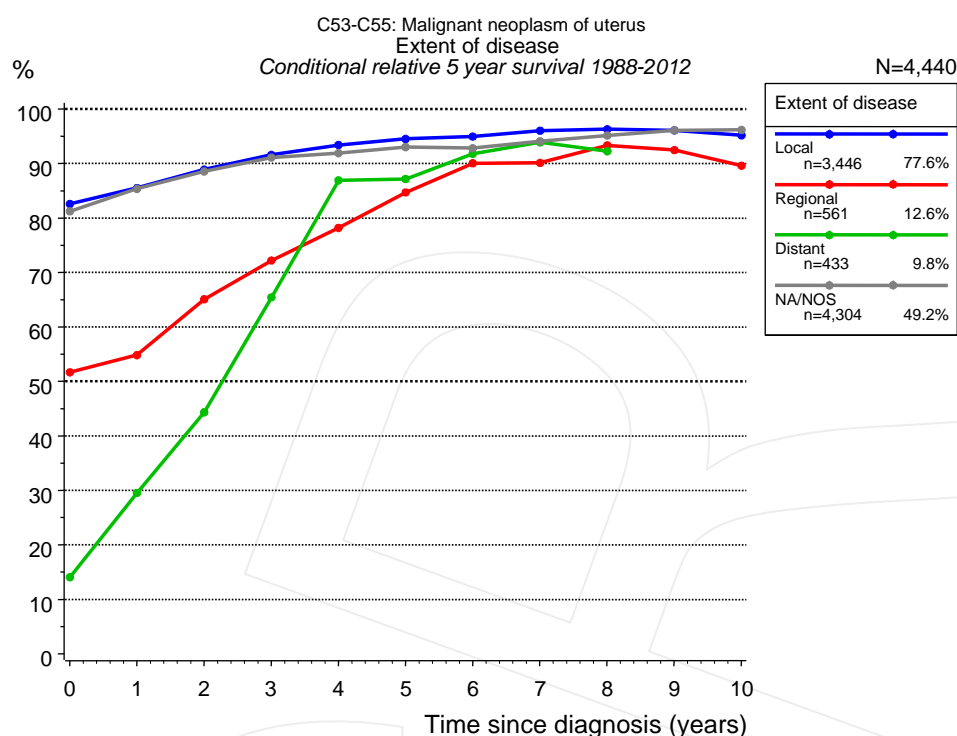


Figure 4e. Conditional relative 5-year survival of patients with uterine cancer by extent of disease. For 8,241 of 8,744 cases diagnosed between 1988 and 2012 valid data could be obtained for this item. For a total of 4,440 cases an evaluable classification was established. The grey line represents the subgroup of 4,304 patients with missing values regarding extent of disease (49.2% of 8,744 patients, the percent values of all other categories are related to n=4,440).

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	3,446	82.6	561	51.7	433	14.1	4,304	81.2
1	3,051	85.5	464	54.8	173	29.5	3,765	85.4
2	2,612	88.9	334	65.1	102	44.3	3,268	88.6
3	2,273	91.6	253	72.2	58	65.4	2,858	91.1
4	1,993	93.4	210	78.2	37	86.9	2,502	91.9
5	1,741	94.5	183	84.7	31	87.2	2,175	93.0
6	1,498	94.9	151	90.0	24	91.8	1,902	92.8
7	1,358	96.0	128	90.1	20	93.9	1,657	94.1
8	1,230	96.3	110	93.3	19	92.3	1,424	95.1
9	1,111	96.1	102	92.5			1,213	96.1
10	985	95.2	90	89.6			1,064	96.2

Table 4f. Conditional relative 5-year survival of patients with uterine cancer by extent of disease for period 1988-2012 (N=4,440).

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 91.6% (n=2,273).

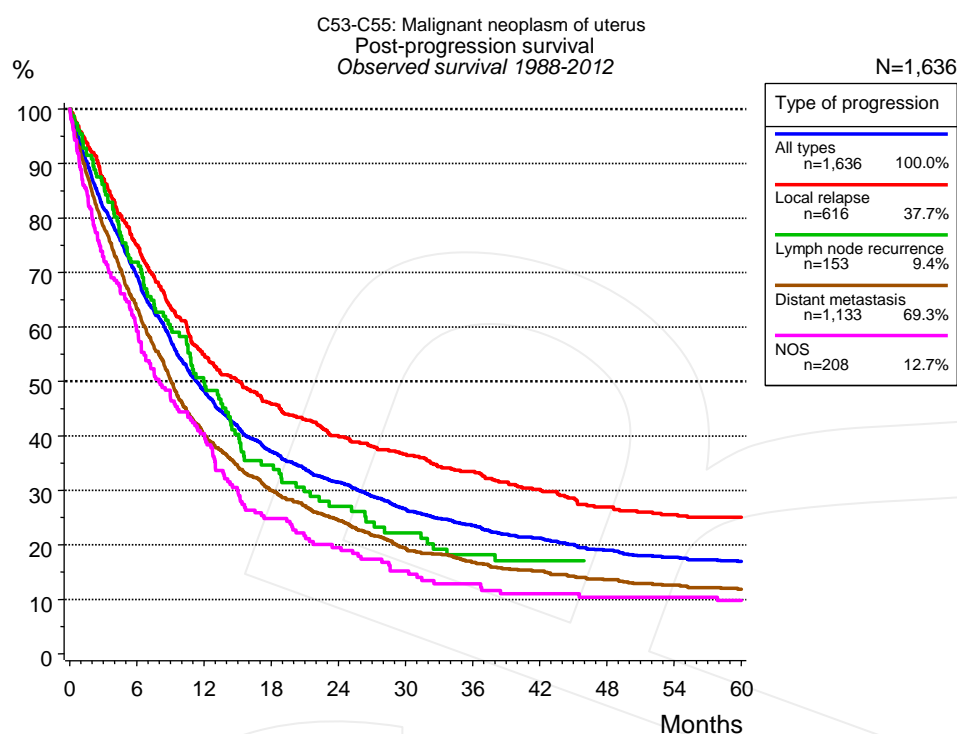


Figure 5a. Observed post-progression survival of 1,636 patients with uterine cancer diagnosed between 1988 and 2012 (incl. M1). These 1,636 patients with documented progression events during their course of disease represent 18.7% of the totally 8,744 evaluated cases. Patients with cancer relapse documented via death certificates only were excluded (n=461, 5.3%). 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=1,636	Local relapse n=616	Lymph node recurrence n=153	Distant metastasis n=1,133	NOS n=208
	%	%	%	%	%
0	100.0	100.0	100.0	100.0	100.0
12	48.3	55.0	49.9	40.3	40.4
24	31.4	40.0	27.1	24.6	19.5
36	23.6	33.5	18.2	16.8	12.8
48	19.0	27.0	17.1	13.6	10.4
60	17.0	25.1		11.9	9.8

Table 5b. Observed post-progression survival of patients with uterine cancer for period 1988-2012 (N=1,636).

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

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