Munich Cancer Registry

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

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

Cancer statistics: Survival

C54: Corpus cancer

Year of diagnosis	1988-2012
Patients	9,617
Diseases	9,618
Cases evaluated	5,843
Creation date	03/25/2014
Export date	02/12/2014
Population (females)	2.3 m

http://www.tumorregister-muenchen.de/en/facts/surv/surv_C54__E.pdf

C54: Malignant neoplasm of corpus uteri
Period of diagnosis
Relative survival 1988-2012

%   N=5,843

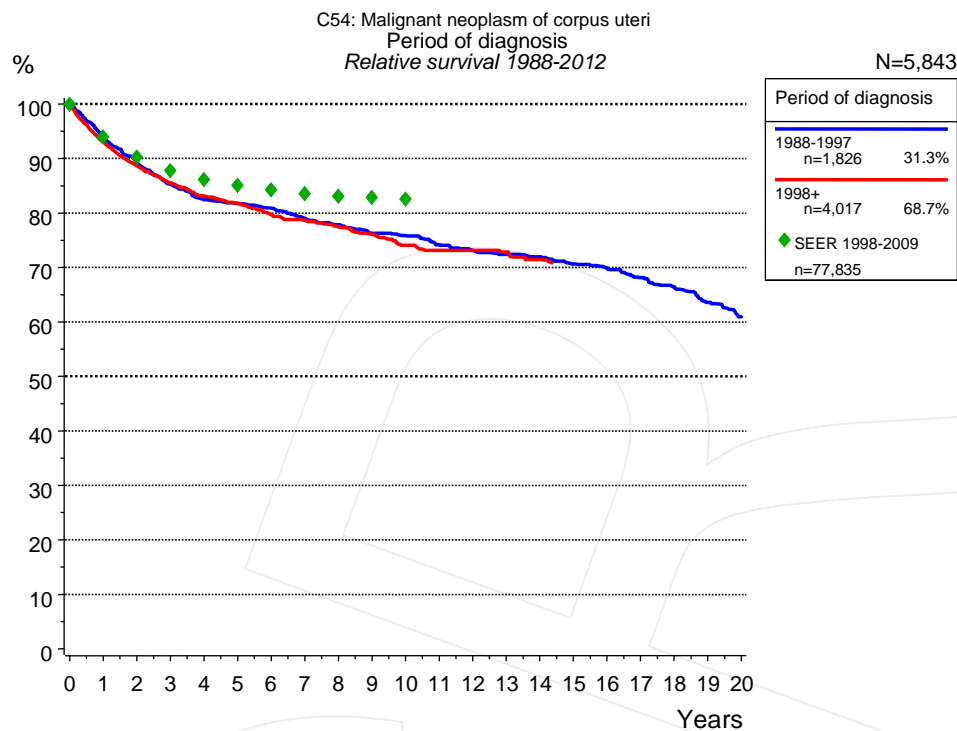| Period of diagnosis |
| --- |
| 1988-1997 |
| n=1,826   31.3% |
| 1998+ |
| n=4,017   68.7% |
| ◆ SEER 1998-2009 |
| n=77,835 |

Figure 1a. Relative survival of patients with corpus cancer by period of diagnosis. Included in the evaluation are 5,843 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 n=1,826		1998+ n=4,017	
	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0
1	91.7	94.2	90.7	92.9
2	84.6	89.2	84.7	88.7
3	78.7	85.2	79.8	85.5
4	74.1	82.4	75.9	83.1
5	71.5	81.7	73.0	81.8
6	68.9	80.8	69.6	79.7
7	65.4	79.0	67.1	78.6
8	62.7	77.8	64.6	77.5
9	59.7	76.3	62.0	76.1
10	57.7	75.8	58.9	74.1
11	54.8	74.2	57.0	73.1
12	52.4	73.1	55.3	73.1
13	50.4	72.4	53.7	72.8
14	48.3	72.0	51.1	71.5
15	45.7	70.6		
16	43.5	69.7		
17	40.8	68.1		
18	38.3	66.4		
19	35.2	63.6		
20	32.3	61.0		

Table 1b. Observed (obs.) and relative (rel.) survival of patients with corpus cancer by period of diagnosis for period 1988-2012 (N=5,843).
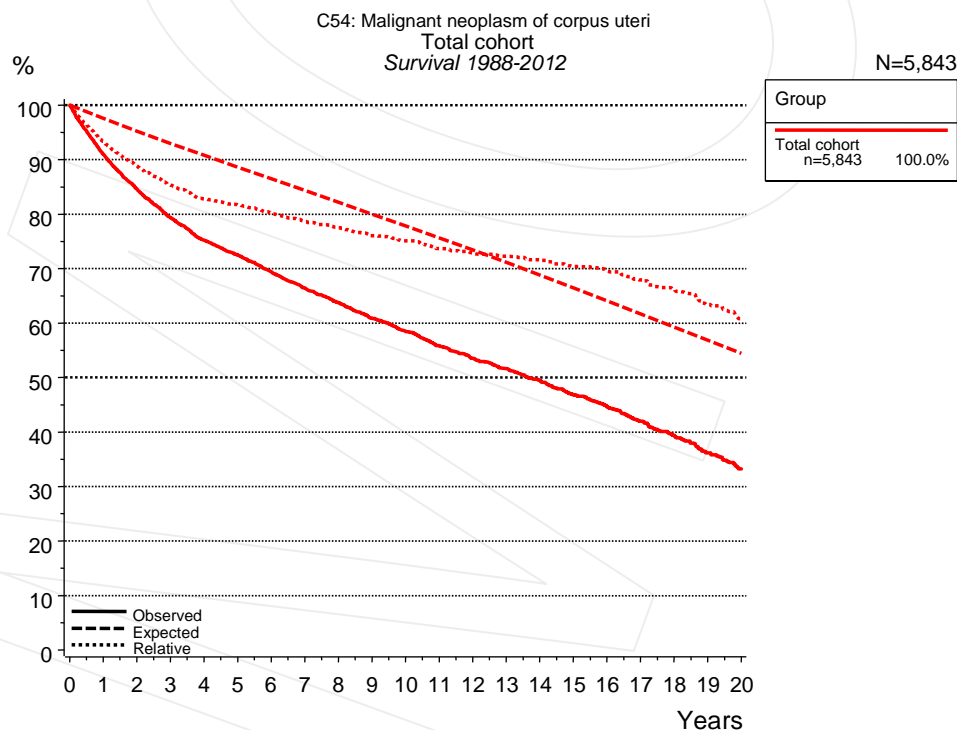

Figure 2a. Observed, expected and relative survival of the total cohort with corpus cancer. Included in the evaluation are 5,843 cases diagnosed between 1988 and 2012.

Group		
	Total cohort n=5,843	
Years	obs. %	rel. %
0	100.0	100.0
1	91.0	93.3
2	84.6	88.9
3	79.4	85.3
4	75.2	82.8
5	72.4	81.7
6	69.4	80.2
7	66.4	78.7
8	63.7	77.5
9	60.9	76.0
10	58.5	75.1
11	55.8	73.7
12	53.6	72.9
13	51.6	72.3
14	49.4	71.6
15	46.9	70.4
16	44.7	69.6
17	42.0	67.9
18	39.4	66.2
19	36.1	63.4
20	33.2	60.8

Table 2b. Observed (obs.) and relative (rel.) survival of the total cohort with corpus cancer for period 1988-2012 (N=5,843).
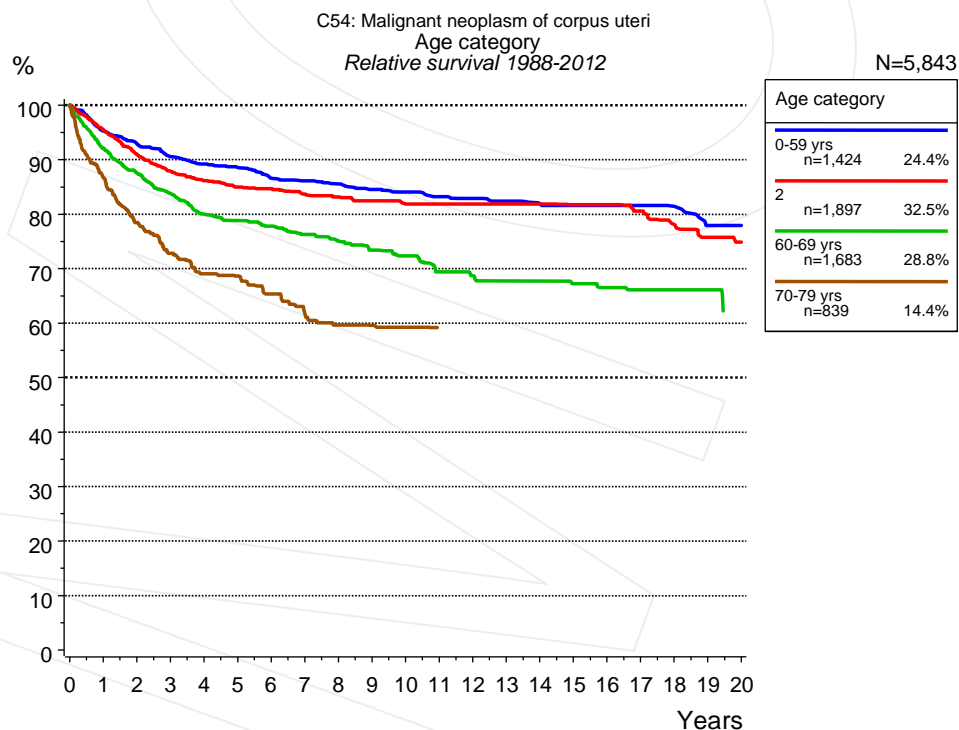

Figure 3a. Relative survival of patients with corpus cancer by age category. Included in the evaluation are 5,843 cases diagnosed between 1988 and 2012.
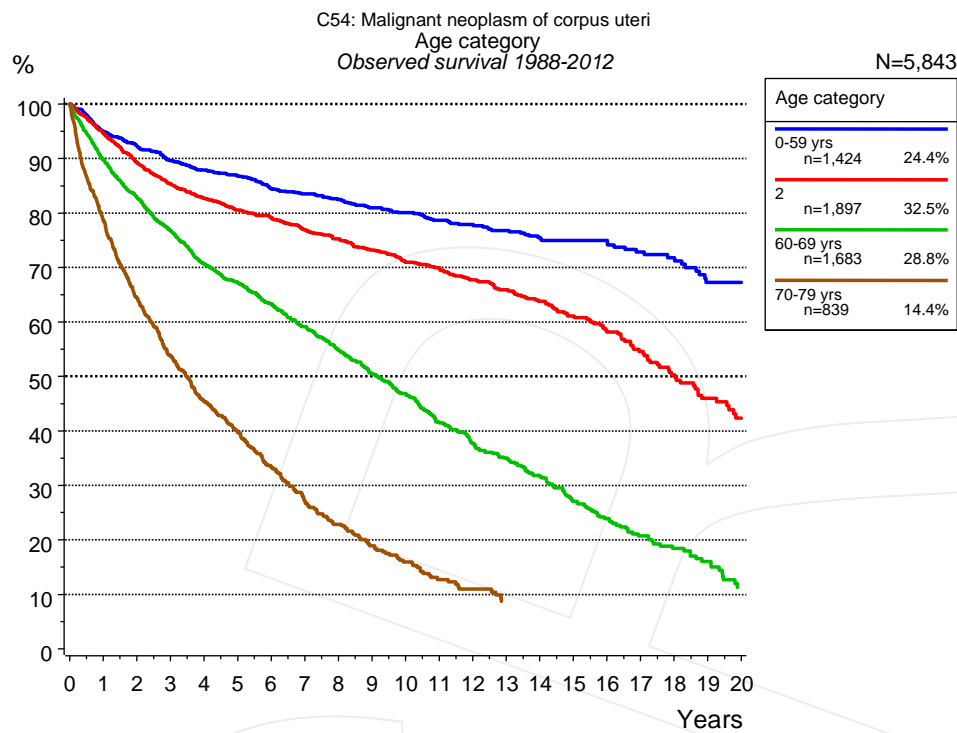
C54: Malignant neoplasm of corpus uteri
Age category
Observed survival 1988-2012

Figure 3b. Observed survival of patients with corpus cancer by age category. Included in the evaluation are 5,843 cases diagnosed between 1988 and 2012.

	Age category							
	0-59 yrs n=1,424		2 n=1,897		60-69 yrs n=1,683		70-79 yrs n=839	
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	95.0	95.3	94.6	95.5	89.8	92.1	78.6	86.7
2	92.3	92.9	89.3	91.0	82.8	87.5	64.5	78.5
3	89.5	90.5	85.3	87.8	76.7	83.8	53.9	72.8
4	87.8	89.2	82.7	86.1	70.6	80.0	45.4	69.0
5	86.9	88.6	80.5	85.0	67.1	78.8	39.7	68.6
6	84.5	86.6	79.2	84.7	63.3	77.8	33.4	65.4
7	83.5	86.1	76.9	83.7	59.1	76.3	27.1	61.7
8	82.5	85.5	75.2	83.2	54.8	75.0	22.9	59.6
9	80.9	84.5	73.1	82.4	50.4	73.4	18.9	59.6
10	80.0	84.0	70.9	81.9	46.9	72.3	15.9	59.2
11	78.6	83.2	69.9	81.9	41.4	69.4	12.7	59.2
12	77.8	82.9	67.7	81.9	37.7	68.7		
13	76.8	82.4	65.9	81.9	35.0	67.7		
14	75.5	81.9	63.8	81.9	31.6	67.7		
15	74.9	81.6	61.1	81.8	27.1	67.2		
16	74.9	81.6	58.1	81.8	23.9	66.5		
17	72.8	81.6	54.6	80.6	20.8	66.1		
18	71.8	81.4	50.3	78.1	18.4	66.1		
19	67.2	77.9	46.0	75.8	16.1	66.1		
20	67.2	77.9	42.3	74.8				

Table 3c. Observed (obs.) and relative (rel.) survival of patients with corpus cancer by age category for period 1988-2012 (N=5,843).

C54: Malignant neoplasm of corpus uteri
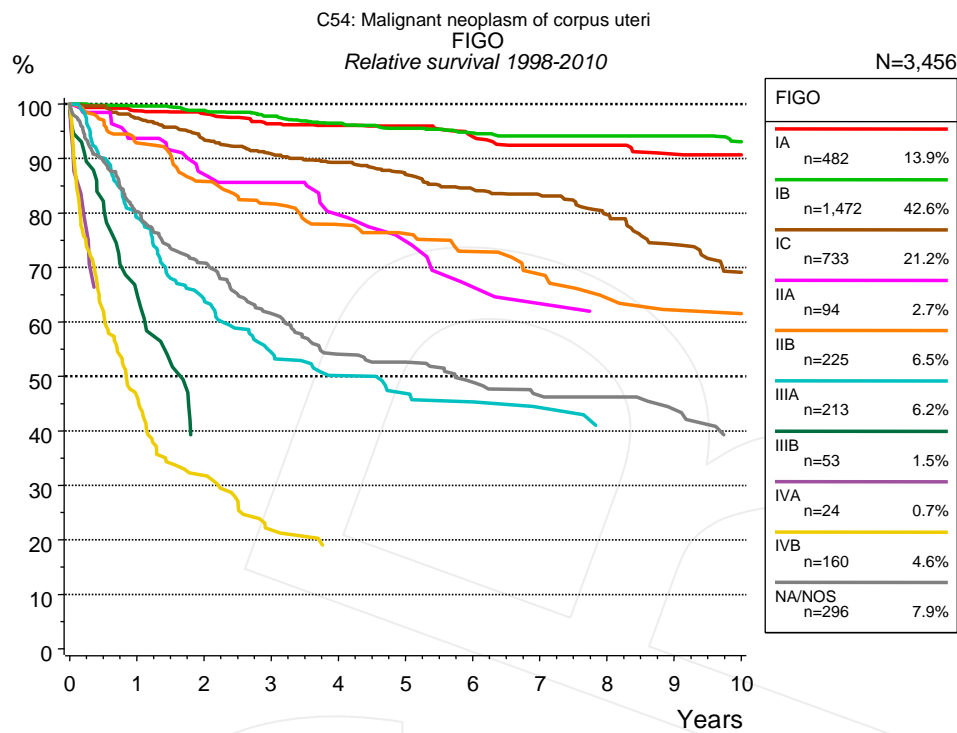FIGO
Relative survival 1998-2010

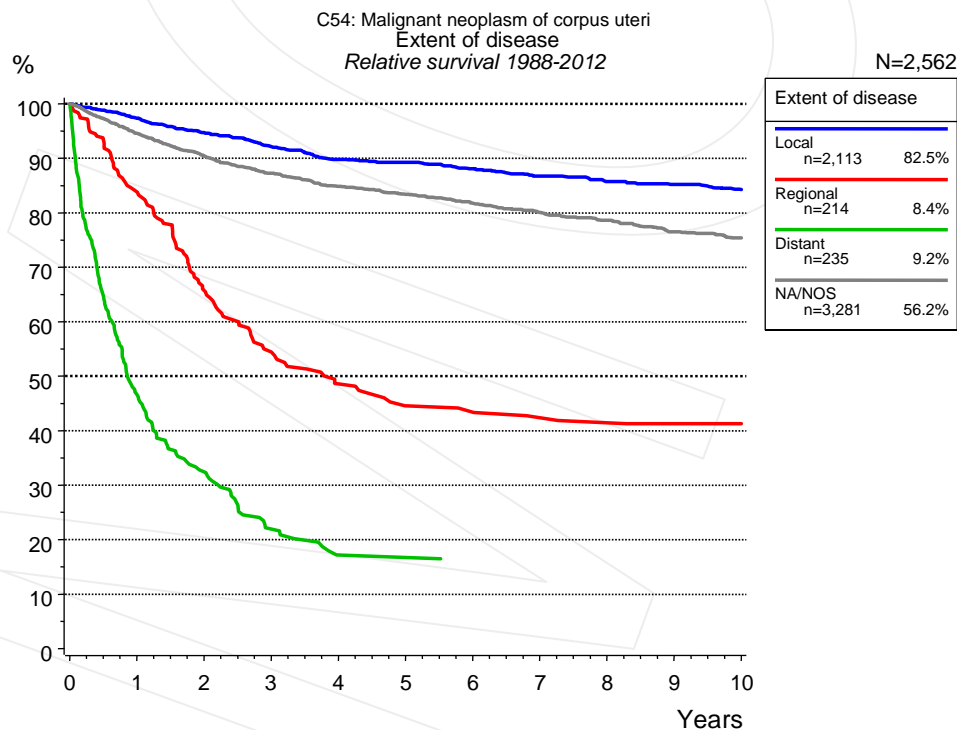**Figure 4a.** Relative survival of patients with corpus cancer by FIGO. For 3,594 of 3,752 cases diagnosed between 1998 and 2010 valid data could be obtained for this item. For a total of 3,456 cases an evaluable classification was established. The grey line represents the subgroup of 296 patients with missing values regarding FIGO (7.9% of 3,752 patients, the percent values of all other categories are related to n=3,456).

Due to substantial changes in stage classification schemes long-term survival statistics over decades could not be created.

	FIGO													
	IA		IB		IC		IIA		IIB		IIIA		IIIB	
	n=482		n=1,472		n=733		n=94		n=225		n=213		n=53	
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	97.3	98.7	98.0	99.6	94.6	97.4	91.4	93.7	90.8	92.8	76.8	79.1	64.3	65.0
2	95.2	98.2	95.5	98.8	88.1	93.4	83.0	87.1	82.3	85.8	60.6	64.0	36.4	37.8
3	91.8	96.3	92.5	97.8	83.2	90.9	80.4	85.6	76.7	81.7	50.1	54.4		
4	90.1	96.1	89.6	96.5	79.4	89.3	72.4	79.7	71.3	77.9	45.3	50.2		
5	88.4	95.9	87.2	95.6	74.7	87.1	66.7	74.8	68.5	76.2	42.0	46.9		
6	84.9	94.0	84.6	94.7	70.4	84.3	57.7	66.4	64.1	72.9	40.3	45.4		
7	82.5	92.4	82.6	94.1	67.1	83.3	54.8	63.3	59.5	68.8	37.9	44.3		
8	80.7	92.4	81.1	94.1	62.2	79.6			54.0	64.4	34.5	40.9		
9	77.8	90.8	79.5	94.1	56.1	74.2			50.7	62.2	34.5	40.1		
10	76.9	90.6	75.7	93.1	50.7	69.1			50.7	61.5	34.5	39.2		

	FIGO					
cont'd	IVA n=24		IVB n=160		NA/NOS n=296	
Years	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0	100.0	100.0
1			45.2	46.2	77.0	80.2
2			31.0	31.8	65.6	70.8
3			20.7	21.8	55.4	61.5
4					47.4	54.1
5					45.6	52.6
6					41.6	48.9
7					38.7	46.4
8					38.1	46.2
9					35.2	43.9
10					30.6	39.2

Table 4b. Observed (obs.) and relative (rel.) survival of patients with corpus cancer by FIGO for period 1998-2010 (N=3,456).

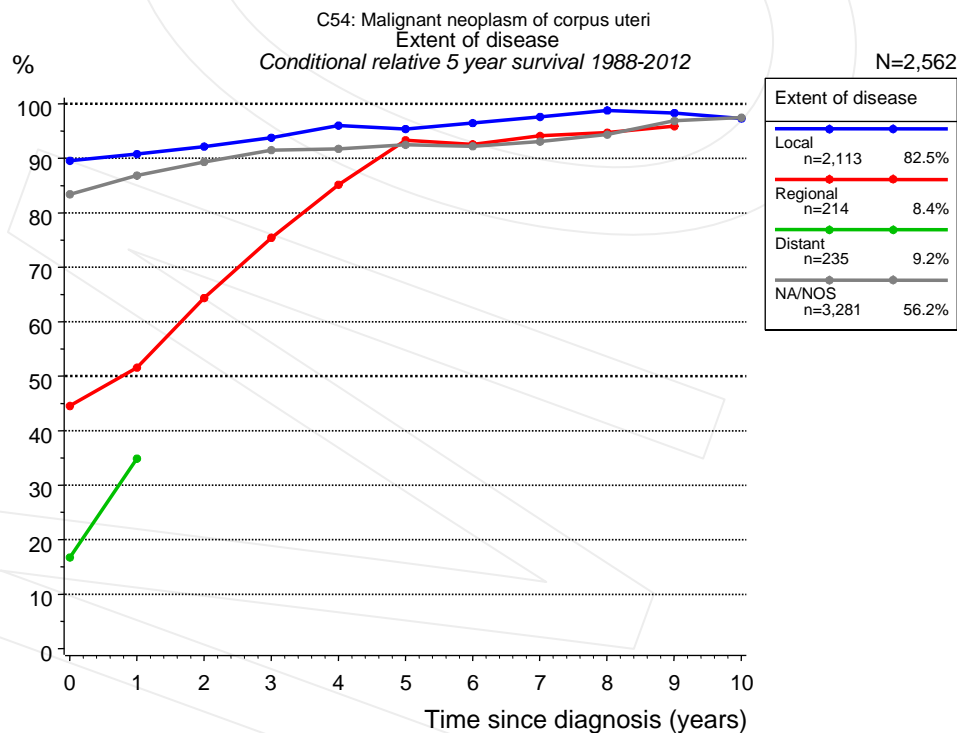**Figure 4c.** Relative survival of patients with corpus cancer by extent of disease. For 5,561 of 5,843 cases diagnosed between 1988 and 2012 valid data could be obtained for this item. For a total of 2,562 cases an evaluable classification was established. The grey line represents the subgroup of 3,281 patients with missing values regarding extent of disease (56.2% of 5,843 patients, the percent values of all other categories are related to n=2,562).

	Extent of disease							
	Local n=2,113		Regional n=214		Distant n=235		NA/NOS n=3,281	
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	95.4	97.4	82.7	83.8	45.5	46.5	92.0	94.6
2	91.0	94.7	63.7	65.7	31.4	32.4	85.6	90.4
3	86.8	92.1	52.2	54.4	20.8	22.0	80.4	87.3
4	82.9	89.8	45.3	48.6	15.7	17.2	76.1	84.8
5	81.0	89.3	40.8	44.5	15.7	16.7	72.9	83.4
6	78.0	88.1	40.0	43.4	14.8	16.2	69.6	81.8
7	75.1	86.7	38.1	42.4			66.3	80.1
8	72.4	85.7	37.1	41.4			63.4	78.6
9	70.3	85.2	35.9	41.3			59.8	76.5
10	67.8	84.3	35.9	41.3			57.3	75.4

Table 4d. Observed (obs.) and relative (rel.) survival of patients with corpus cancer by extent of disease for period 1988-2012 (N=2,562).

Figure 4e. Conditional relative 5-year survival of patients with corpus cancer by extent of disease. For 5,561 of 5,843 cases diagnosed between 1988 and 2012 valid data could be obtained for this item. For a total of 2,562 cases an evaluable classification was established. The grey line represents the subgroup of 3,281 patients with missing values regarding extent of disease (56.2% of 5,843 patients, the percent values of all other categories are related to n=2,562).

	Extent of disease							
	Local		Regional		Distant		NA/NOS	
		Cond. surv. %		Cond. surv. %		Cond. surv. %		Cond. surv. %
Years	n	5 yrs	n	5 yrs	n	5 yrs	n	5 yrs
0	2,113	89.6	214	44.5	235	16.7	3,281	83.4
1	1,901	90.8	165	51.6	97	34.9	2,897	86.8
2	1,641	92.2	112	64.4			2,532	89.3
3	1,436	93.8	80	75.4			2,205	91.5
4	1,235	96.0	64	85.2			1,923	91.7
5	1,068	95.4	52	93.3			1,673	92.5
6	904	96.5	46	92.6			1,470	92.2
7	814	97.6	38	94.1			1,276	93.1
8	720	98.8	32	94.7			1,098	94.4
9	641	98.3	29	95.9			933	96.9
10	551	97.3					819	97.5

Table 4f. Conditional relative 5-year survival of patients with corpus cancer by extent of disease for period 1988-2012 (N=2,562).

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 93.8% (n=1,436).
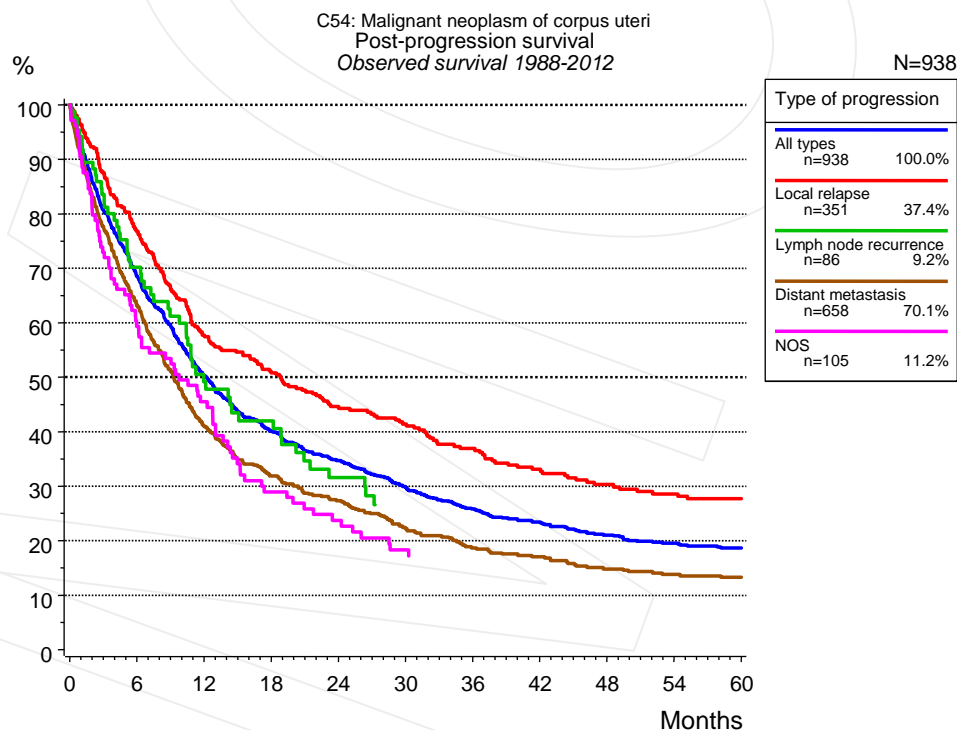

Figure 5a. Observed post-progression survival of 938 patients with corpus cancer diagnosed between 1988 and 2012 (incl. M1). These 938 patients with documented progression events during their course of disease represent 16.1% of the totally 5,843 evaluated cases. Patients with cancer relapse documented via death certificates only were excluded (n=290, 5.0%). 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 "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 n=938	Local relapse n=351	Lymph node recurrence n=86	Distant metastasis n=658	NOS n=105
Months	%	%	%	%	%
0	100.0	100.0	100.0	100.0	100.0
12	50.2	57.7	49.2	40.9	45.5
24	34.7	44.6	31.6	27.3	23.7
36	25.8	36.9		18.7	
48	21.0	30.3		14.8	
60	18.7	27.7		13.2	

Table 5b. Observed post-progression survival of patients with corpus cancer for period 1988-2012 (N=938).

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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