

# Munich Cancer Registry



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Munich Cancer Registry at Munich Cancer Center  
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<http://www.tumorregister-muenchen.de/en>

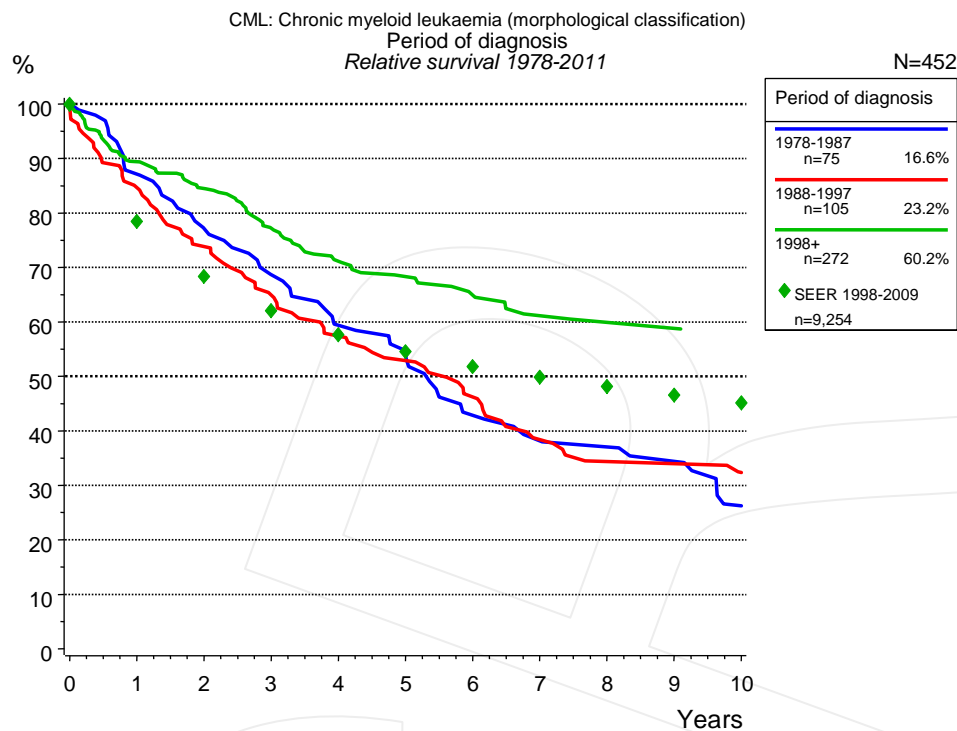
## Cancer statistics: Survival

### CML: Chronic myel. leukaemia (morph.)

Year of diagnosis	1978-1987	1988-1997	1998-2011
Patients	80	130	683
Diseases	80	130	683
Creation date	04/01/2013		
Export date	01/03/2013		
Population	4.5 m		



[http://www.tumorregister-muenchen.de/en/facts/surv/surv\\_hCML\\_E.pdf](http://www.tumorregister-muenchen.de/en/facts/surv/surv_hCML_E.pdf)

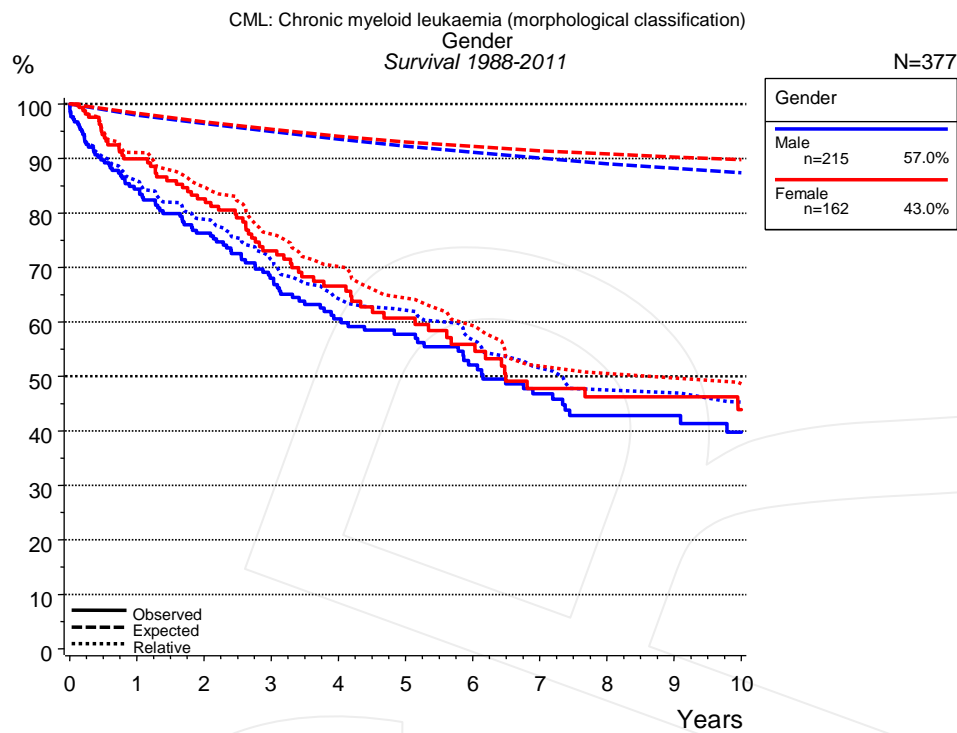


**Figure 1a.** Relative survival of patients with chronic myel. leukaemia (morph.) by period of diagnosis. Included in the evaluation are 452 cases diagnosed between 1978 and 2011.

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=75		1988-1997 n=105		1998+ n=272	
	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0	100.0	100.0
1	86.7	87.1	83.8	84.7	87.9	89.4
2	74.7	77.1	72.4	73.8	81.7	84.5
3	65.3	68.7	62.9	64.9	73.3	77.2
4	55.8	59.3	55.2	57.4	66.7	71.1
5	50.3	54.1	50.5	52.9	63.3	68.3
6	39.5	42.8	43.7	46.2	59.7	64.9
7	35.4	38.1	35.8	38.4	55.4	61.2
8	34.0	37.0	31.7	34.4	54.1	59.9
9	31.3	34.4	31.7	34.0	54.1	58.9
10	23.1	26.2	29.5	32.4	51.6	56.8

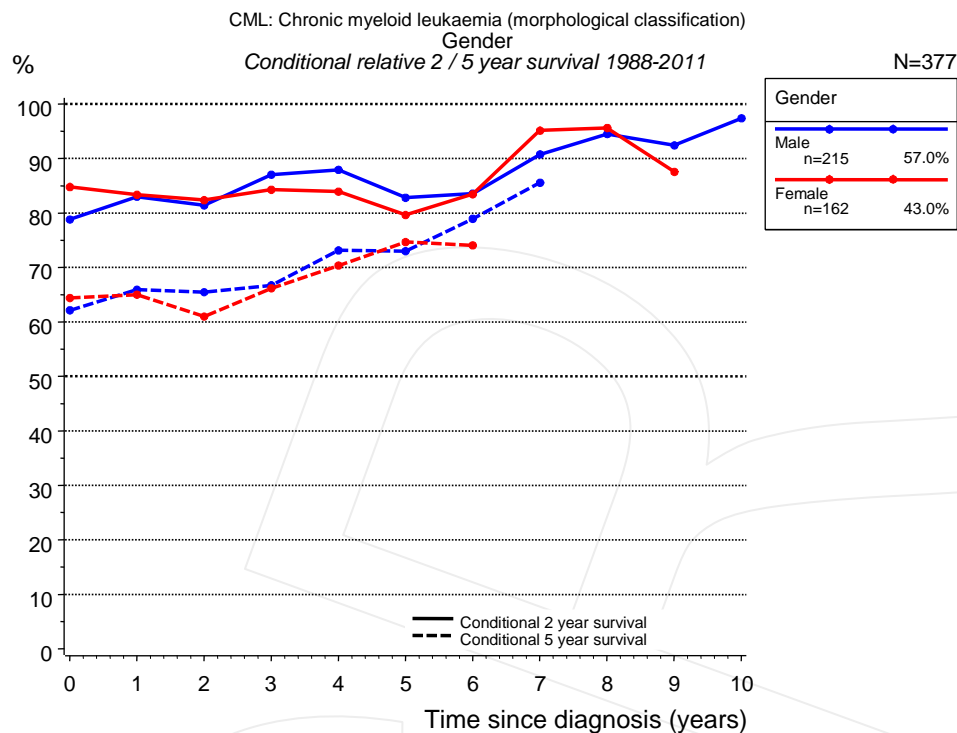
**Table 1b.** Observed (obs.) and relative (rel.) survival of patients with chronic myel. leukaemia (morph.) by period of diagnosis for period 1978-2011 (N=452).



**Figure 2a.** Survival of patients with chronic myel. leukaemia (morph.) by gender. Included in the evaluation are 377 cases diagnosed between 1988 and 2011.

Years	Gender			
	Male n=215		Female n=162	
	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0
1	84.4	85.9	89.9	91.1
2	76.3	78.8	82.6	84.8
3	68.0	71.4	73.1	76.1
4	60.5	64.2	66.6	70.1
5	57.7	62.1	60.7	64.4
6	52.1	56.7	55.9	59.3
7	46.8	51.5	47.8	51.9
8	42.8	47.5	46.2	50.5
9	42.8	47.0	46.2	49.7
10	39.7	45.3	43.9	48.6

**Table 2b.** Observed (obs.) and relative (rel.) survival of patients with chronic myel. leukaemia (morph.) by gender for period 1988-2011 (N=377).

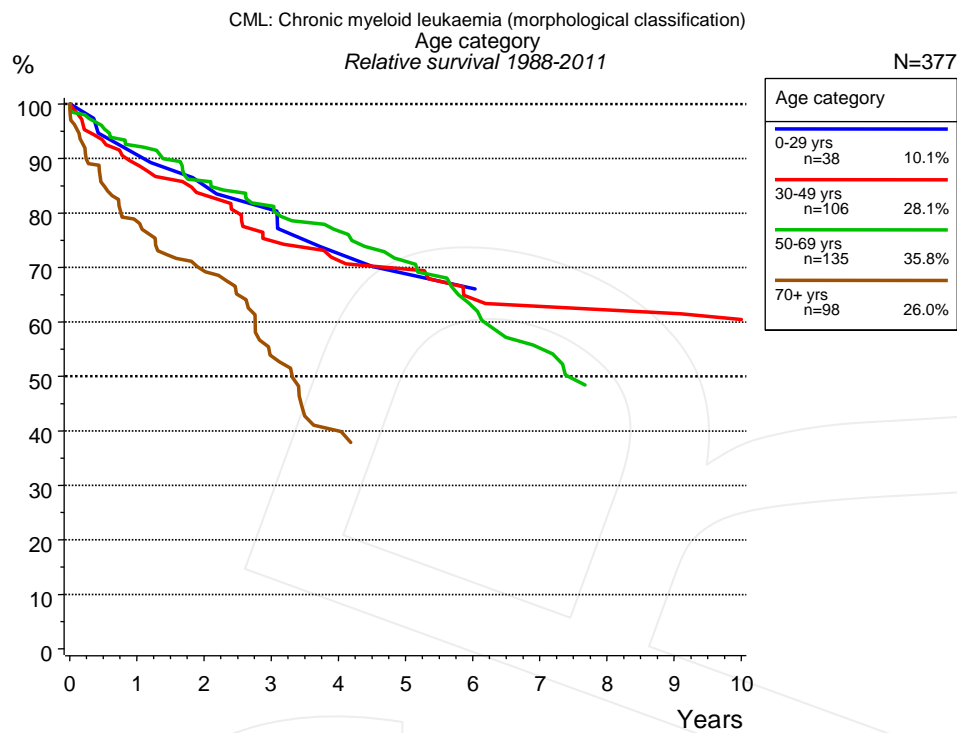


**Figure 2c.** Conditional relative 2 / 5-year survival of patients with chronic myel. leukaemia (morph.) by gender. For 377 of 377 cases diagnosed between 1988 and 2011 valid data could be obtained for this item.

Years	Gender					
	Male			Female		
	n	Cond. surv. % 2 yrs	5 yrs	n	Cond. surv. % 2 yrs	5 yrs
0	215	78.8	62.1	162	84.8	64.4
1	171	83.0	65.9	137	83.3	65.0
2	144	81.4	65.5	121	82.4	61.0
3	118	87.0	66.7	95	84.3	66.2
4	89	87.9	73.1	74	83.9	70.4
5	79	82.8	73.0	54	79.6	74.7
6	61	83.6	78.9	42	83.4	74.1
7	49	90.8	85.6	33	95.1	
8	39	94.5		29	95.6	
9	29	92.4		24	87.5	
10	24	97.4				

**Table 2d.** Conditional relative 2 / 5-year survival of patients with chronic myel. leukaemia (morph.) by gender for period 1988-2011 (N=377).

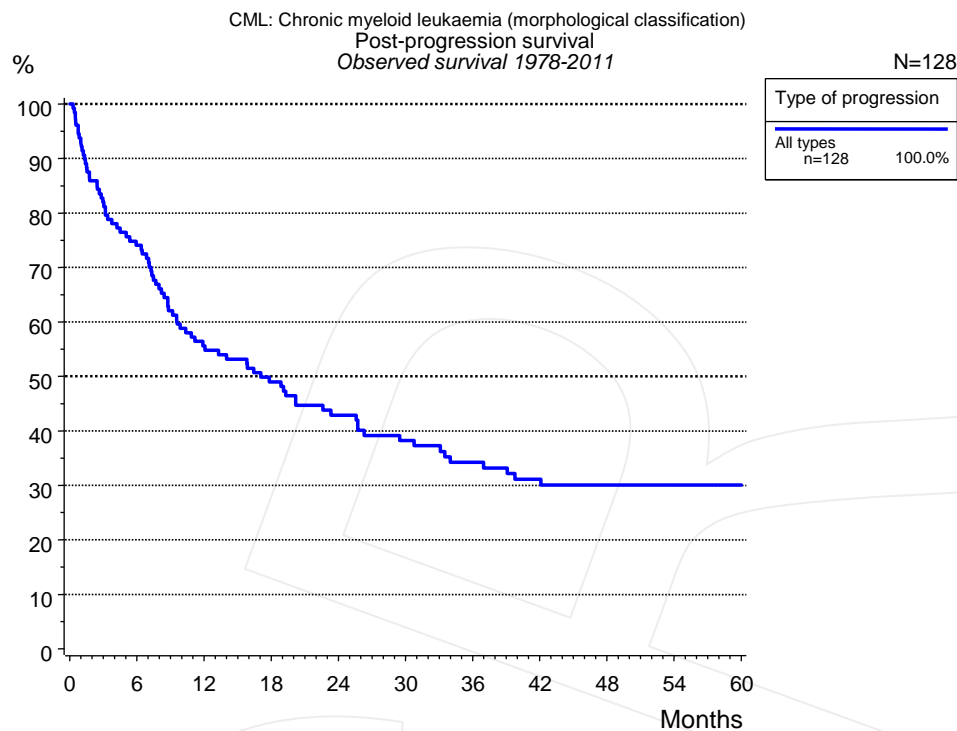
Conditional relative survival rates refer to the relative survival probability, in this case for 2 and 5 years after cancer diagnosis, compared to the age- and sex-matched population (=100%) under the condition of being alive for a certain time period (x-axis in Figure 2a). The results illustrate to 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 gender="Male", who are alive at least 3 years after cancer diagnosis, the conditional relative 2-year survival rate is 87.0% (n=118).



**Figure 3a.** Relative survival of patients with chronic myel. leukaemia (morph.) by age category. Included in the evaluation are 377 cases diagnosed between 1988 and 2011.

Years	Age category							
	0-29 yrs n=38		30-49 yrs n=106		50-69 yrs n=135		70+ yrs n=98	
	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	92.0	90.6	89.4	88.9	91.8	92.3	74.7	78.4
2	86.4	85.0	83.4	83.3	84.5	85.8	63.2	69.3
3	83.4	80.6	74.9	74.9	79.3	81.3	45.8	53.8
4	73.6	72.5	71.3	71.2	73.4	76.7	33.5	40.0
5	70.0	68.8	70.0	69.7	67.6	71.1		
6	70.0	66.2	64.1	64.2	58.8	62.7		
7			62.5	62.8	50.9	55.2		
8			62.5	62.2	43.6	48.2		
9			62.5	61.6	43.6	47.3		
10			60.2	60.4				

**Table 3b.** Observed (obs.) and relative (rel.) survival of patients with chronic myel. leukaemia (morph.) by age category for period 1988-2011 (N=377).



**Figure 5a.** Observed post-progression survival of 128 patients with chronic myel. leukaemia (morph.) diagnosed between 1978 and 2011 (incl. M1). These 128 patients with documented progression events during their course of disease represent 28.3% of the totally 452 evaluated cases. Patients with cancer relapse documented via death certificates only were excluded (n=74, 16.4%).

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.

Type of progression	
All types	
n=128	
Months	%
0	100.0
12	55.6
24	42.9
36	34.2
48	30.1
60	30.1

**Table 5b.** Observed post-progression survival of patients with chronic myel. leukaemia (morph.) for period 1978-2011 (N=128).

**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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