Munich Cancer Registry

Munich Cancer Registry at Munich Cancer Center
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Germany

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

Cancer statistics: Survival

CML: Chronic myel. leukaemia

Year of diagnosis	1988-2013
Patients	960
Diseases	960
Cases evaluated	400
Creation date	05/13/2015
Export date	12/30/2014
Population	4.64 m

BERLIN

GERMANY

BAVARIA

MUNICH

CML: Chronic myeloid leukaemia [CML], BCR/ABL-positive
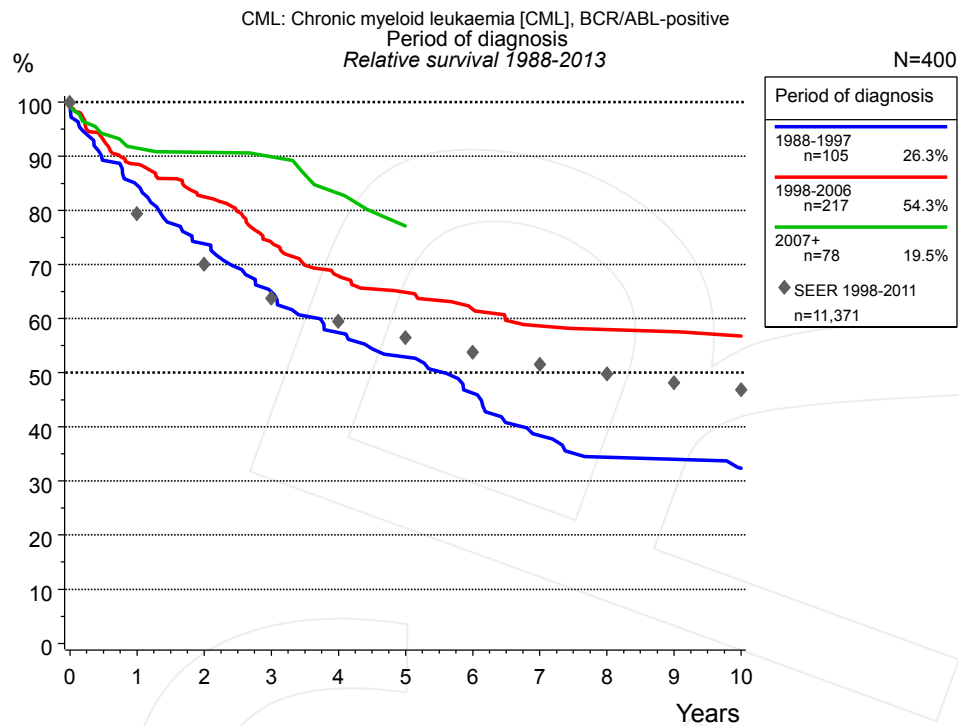Period of diagnosis
Relative survival 1988-2013

Figure 1a. Relative survival of patients with chronic myel. leukaemia by period of diagnosis. Included in the evaluation are 400 cases diagnosed between 1988 and 2013.

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.

	Period of diagnosis					
	1988-1997 n=105		1998-2006 n=217		2007+ n=78	
Years	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0	100.0	100.0
1	83.8	84.7	87.1	88.5	90.3	91.5
2	72.4	73.8	79.8	82.5	88.7	90.7
3	62.9	64.9	70.4	74.1	86.7	89.9
4	55.2	57.4	63.7	67.9	79.8	83.1
5	50.5	52.9	60.2	64.9	70.9	77.1
6	43.7	46.2	56.8	61.7	70.9	72.4
7	35.8	38.4	53.2	58.6		
8	31.7	34.4	52.1	58.0		
9	31.7	34.0	52.1	57.6		
10	29.5	32.4	50.5	56.8		

Table 1b. Observed (obs.) and relative (rel.) survival of patients with chronic myel. leukaemia by period of diagnosis for period 1988-2013 (N=400).
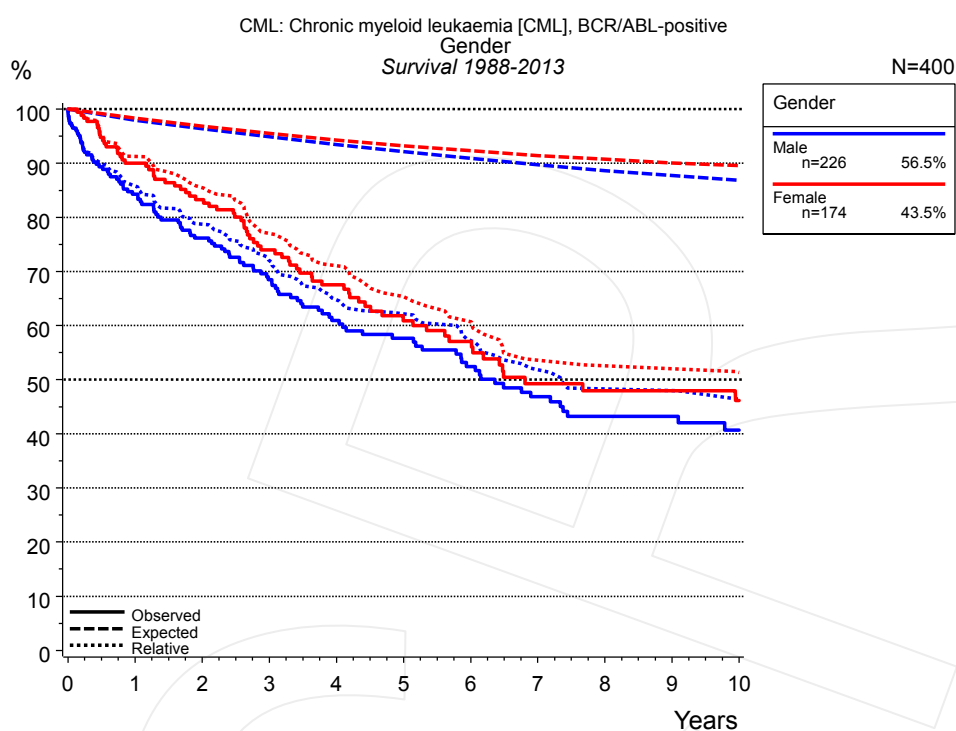
CML: Chronic myeloid leukaemia [CML], BCR/ABL-positive
Gender
Survival 1988-2013

Figure 2a. Survival of patients with chronic myel. leukaemia by gender. Included in the evaluation are 400 cases diagnosed between 1988 and 2013.

	Gender			
	Male n=226		Female n=174	
Years	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0
1	84.3	85.8	90.0	91.3
2	76.1	78.7	83.3	85.5
3	68.5	72.0	74.0	77.0
4	60.9	64.8	67.5	71.1
5	57.7	62.2	60.9	65.3
6	52.4	57.2	57.1	60.7
7	46.8	51.8	49.3	53.6
8	43.2	48.3	47.9	52.6
9	43.2	48.0	47.9	52.0
10	40.7	46.4	46.2	51.3

Table 2b. Observed (obs.) and relative (rel.) survival of patients with chronic myel. leukaemia by gender for period 1988-2013 (N=400).

CML: Chronic myeloid leukaemia [CML], BCR/ABL-positive
Gender
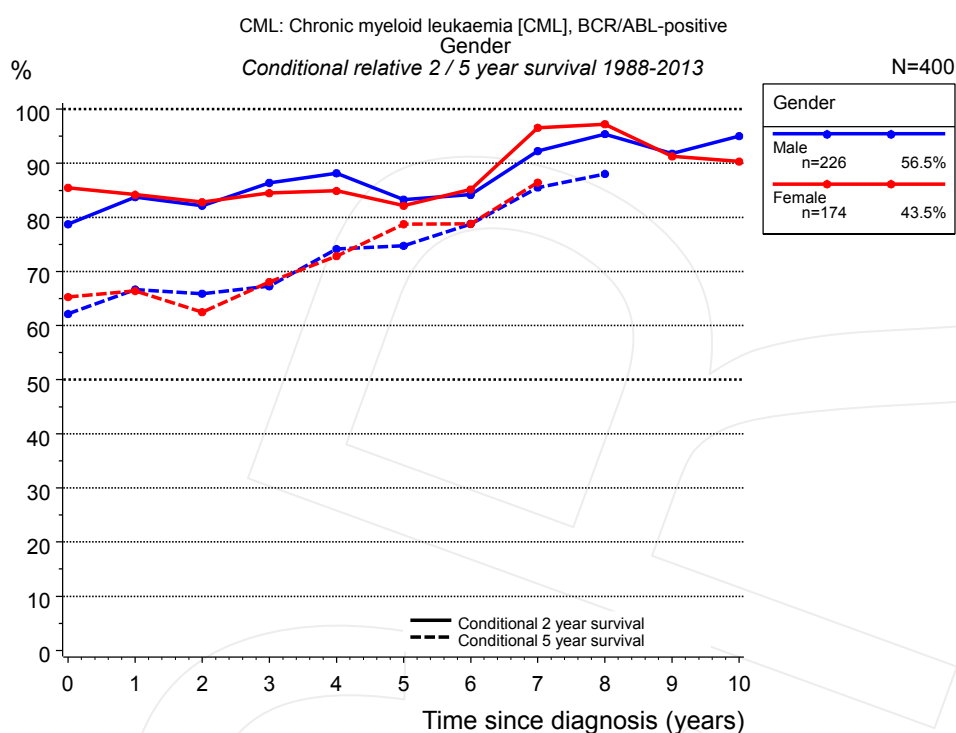*Conditional relative 2 / 5 year survival 1988-2013*

Figure 2c. Conditional relative 2 / 5-year survival of patients with chronic myel. leukaemia by gender. For 400 of 400 cases diagnosed between 1988 and 2013 valid data could be obtained for this item.

	Gender					
	Male			Female		
		Cond. surv. %			Cond. surv. %	
Years	n	2 yrs	5 yrs	n	2 yrs	5 yrs
0	226	78.7	62.2	174	85.5	65.3
1	180	83.8	66.7	150	84.2	66.4
2	155	82.1	65.9	132	82.8	62.5
3	128	86.4	67.3	106	84.5	68.1
4	95	88.2	74.2	89	84.9	72.8
5	81	83.3	74.7	67	82.1	78.8
6	68	84.2	78.8	54	85.2	78.8
7	54	92.2	85.5	40	96.6	86.4
8	42	95.4	88.1	34	97.2	
9	36	91.8		29	91.3	
10	29	95.0		26	90.3	

Table 2d. Conditional relative 2 / 5-year survival of patients with chronic myel. leukaemia by gender for period 1988-2013 (N=400).

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 86.4% (n=128).
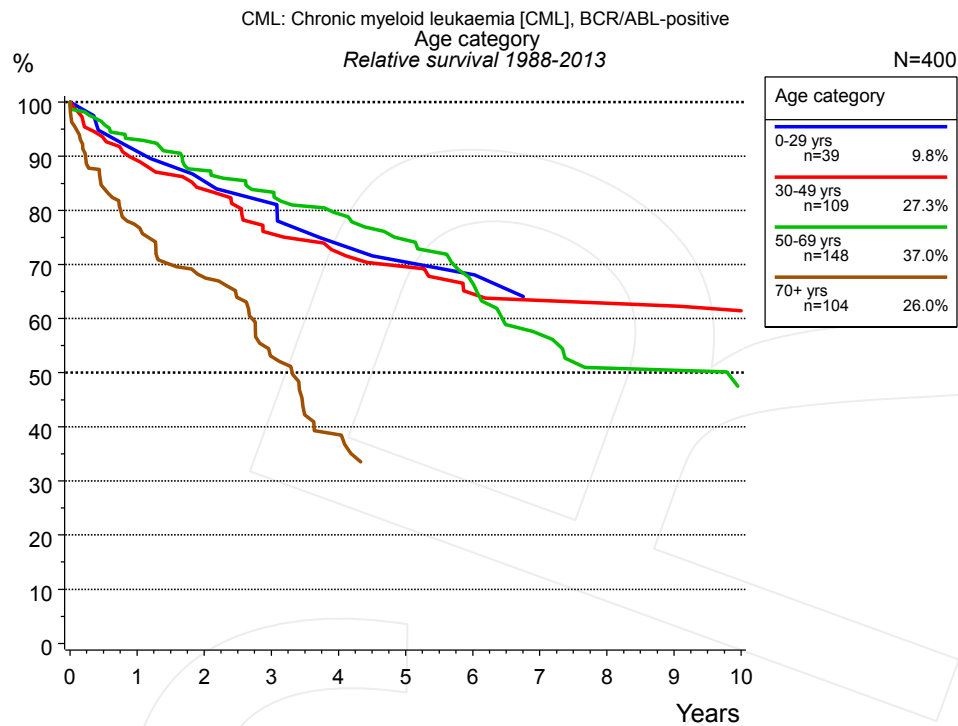
Figure 3a. Relative survival of patients with chronic myel. leukaemia by age category. Included in the evaluation are 400 cases diagnosed between 1988 and 2013.

	Age category							
	0-29 yrs n=39		30-49 yrs n=109		50-69 yrs n=148		70+ yrs n=104	
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	92.2	90.9	89.7	89.2	92.5	93.0	73.3	77.0
2	86.7	85.4	84.0	83.8	86.0	87.4	61.6	67.6
3	83.9	81.3	75.7	75.7	81.4	83.4	45.2	53.0
4	74.8	73.8	72.2	72.2	76.1	79.4	32.2	38.6
5	71.4	70.4	69.7	69.5	70.9	74.6		
6	71.4	68.1	64.3	64.6	62.9	66.4		
7			62.9	63.3	52.7	57.1		
8			62.9	62.8	46.0	50.9		
9			62.9	62.3	46.0	50.5		
10			60.9	61.4	41.1	47.2		

Table 3b. Observed (obs.) and relative (rel.) survival of patients with chronic myel. leukaemia by age category for period 1988-2013 (N=400).

CML: Chronic myeloid leukaemia [CML], BCR/ABL-positive
Post-progression survival
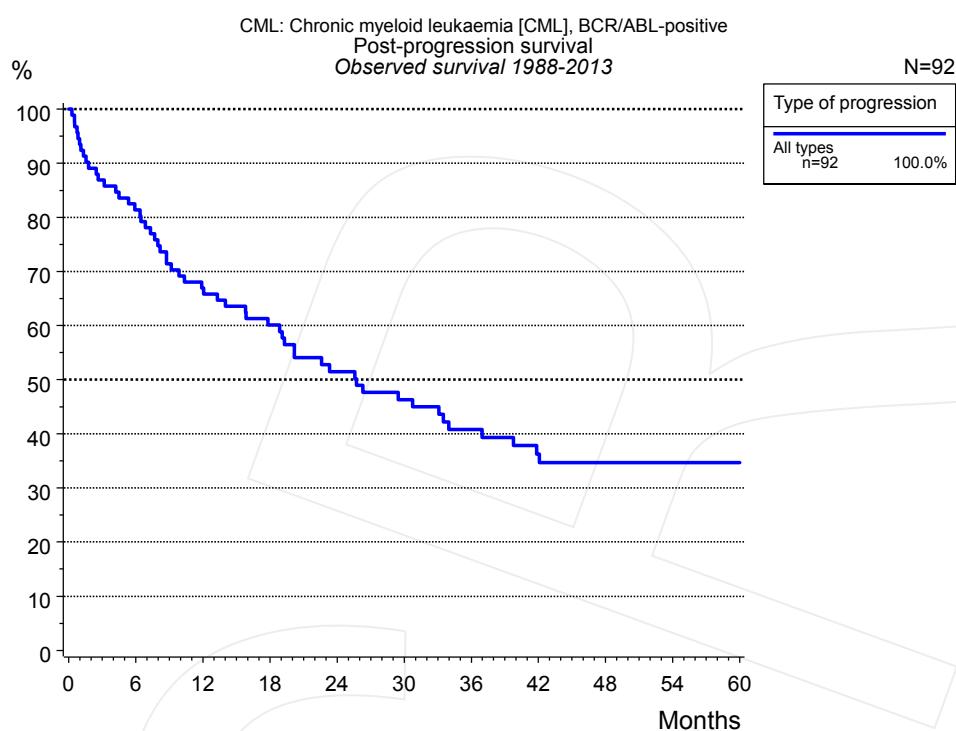*Observed survival 1988-2013*

Figure 5a. Observed post-progression survival of 92 patients with chronic myel. leukaemia diagnosed between 1988 and 2013 (incl. M1). These 92 patients with documented progression events during their course of disease represent 23.0% of the totally 400 evaluated cases. Patients with cancer relapse documented via death certificates only were excluded (n=70, 17.5%).

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=92
Months	%
0	100.0
12	67.0
24	51.5
36	40.8
48	34.7
60	34.7

Table 5b. Observed post-progression survival of patients with chronic myel. leukaemia for period 1988-2013 (N=92).

Shortcuts

MCR   Munich Cancer Registry, Germany (Tumorregister München)
NCI   National Cancer Institute, USA
SEER   Surveillance, Epidemiology, and End Results, USA
UICC   Union for International Cancer Control, Geneva

DCO   Death certificate only. The death certificate provides the only notification to the registry.
NA   Not available
NOS   Not otherwise specified

OS   Observed/overall survival (Kaplan-Meier estimate)
RS   Relative survival, compared to the general population,
        ratio of observed to expected survival (Ederer II method),
        reflecting excess mortality among cancer patients
AS   Assembled survival chart (observed, expected, relative)
PPS   Post-progression survival, survival since first relapse (Kaplan-Meier estimate)
        Date of entry: Date of first locoregional recurrence, distant metastasis, unspecified
progression
        Event: Death of all causes
CS   Conditional survival, survival probability under the condition of surviving a given period of time

Recommended Citation

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