# **Munich Cancer Registry**



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# ICD-10 C37: Thymus cancer

Survival

# Year of diagnosis1998-2020Patients341Diseases342Cases evaluated271Creation date04/15/2022Database export12/20/2021Population4.92 m



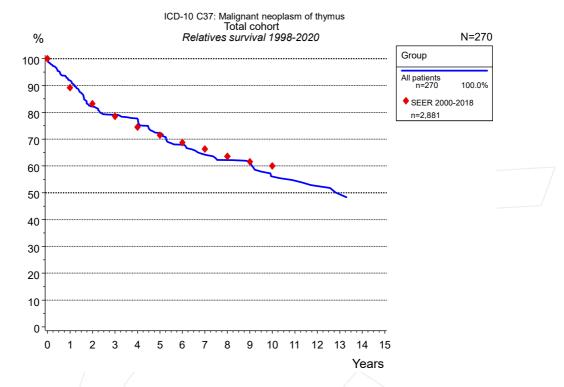
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**Figure 1a.** Relative survival of the total cohort with thymus cancer. Included in the evaluation are 270 cases diagnosed between 1998 and 2020.

Group		
	All patients	
	n=270	
Years	obs. %	rel. %
0	100.0	100.0
1	90.4	91.9
2	79.7	82.2
3	75.8	79.1
4	72.8	77.5
5	67.0	72.3
6	61.9	67.9
7	57.6	64.2
8	54.8	62.2
9	53.3	61.5
10	47.2	56.1
11	45.2	54.5
12	42.8	52.5
13	39.8	49.4
Median	9.2	

**Table 1b.** Observed (obs.) and relative (rel.) survival of the total cohort with thymus cancer for period 1998-2020 (N=270).

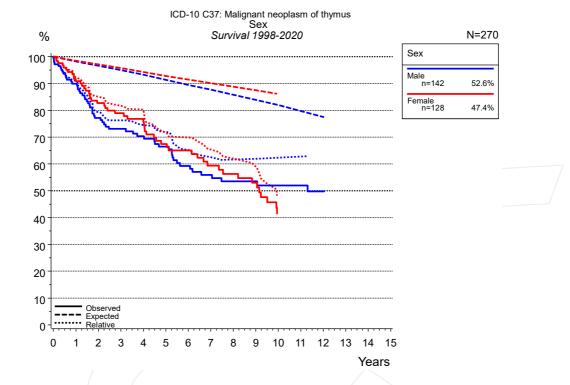
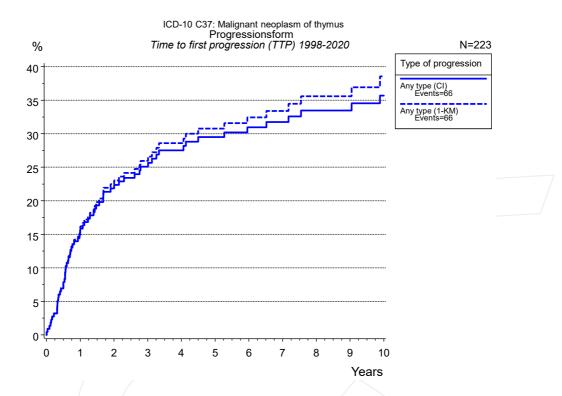


Figure 2a. Survival of patients with thymus cancer by sex. Included in the evaluation are 270 cases diagnosed between 1998 and 2020.

			Sex			
		Ma	ale	Female		
		n=142		n=128		
	Years	obs. %	rel. %	obs. %	rel. %	
	0	100.0	100.0	100.0	100.0	
	1	90.0	91.0	90.9	92.3	
	2	77.2	79.4	82.7	85.0	
	3	73.1	76.3	78.9	81.7	
	4	70.3	74.5	75.7	80.1	
	5	66.5	71.9	67.4	71.6	
	6	59.3	65.2	65.1	69.9	
	7	55.9	62.6	59.4	65.4	
	8	53.5	61.7	56.3	62.1	
	9	53.5	62.0	53.0	58.9	
	10	51.9	62.4			
	11	51.9	62.8			
	12	49.8	62.0			
	Median	11.3		9.1		

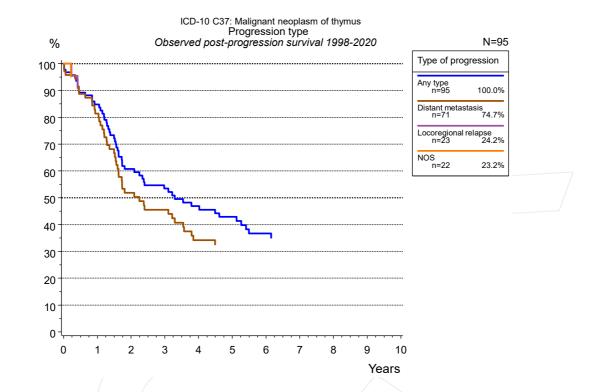
**Table 2b.** Observed (obs.) and relative (rel.) survival of patients with thymus cancer by sex for period 1998-2020 (N=270).



**Figure 5a.** Time to first progression of 223 patients with thymus cancer diagnosed between 1998 and 2020 (in solid cancers M0 only) 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.

Type of progression		
	Any type (CI)	Any type (1- KM)
N	223	223
Events	66	66
compet.	32	
Years	%	%
0	0.0	0.0
1	15.9	16.2
2	21.8	22.5
3	25.1	26.0
4	27.5	28.6
5	29.5	30.8
6	31.0	32.4
7	31.7	33.4
8	33.5	35.6
9	33.5	35.6
10	35.7	38.5

**Table 5b.** Time to first progression of patients with thymus cancer for period 1998-2020 (N=223), also showing the total of progression events (Events) and of deaths as competing risk (compet.).



**Figure 5c.** Observed post-progression survival of 95 patients with thymus cancer diagnosed between 1998 and 2020. These 95 patients with documented progression events during their course of disease represent 35.3 % of the totally 269 evaluated cases (incl. M1, n=46, 17.1 %). Patients with cancer relapse documented via death certificates only were excluded (n=17, 6.3 %). 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 "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 potientially considered in more than one subgroup.

	Type of progression					
		Any type	Distant metastasis	Locoregional relapse	NOS	
		n=95	n=71	n=23	n=22	
Y	/ears	%	%	%	%	
	0	100.0	100.0	100.0	100.0	
	1	84.8	81.4			
	2	60.7	51.8			
	3	53.4	45.6			
	4	46.9	34.2			
	5	42.9				
	6	36.8				

**Table 5d.** Observed post-progression survival of patients with thymus cancer for period 1998-2020 (N=95).

### 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-КМ	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	

### **Recommended Citation**

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