Munich Cancer Registry

ICD-10 C00-C14,C30-C32: HN cancer

Survival

Year of diagnosis	1988-1997	1998-2014
Patients	3,433	11,407
Diseases	3,524	11,875
Cases evaluated	3,156	9,118
Creation date	03/02/2016	
Export date	12/23/2015	
Population	4.64 m	

BERLIN

GERMANY

BAVARIA

MUNICH

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

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

http://www.tumorregister-muenchen.de/en/facts/surv/sC0032E-ICD-10-C00-C14-C30-C32-HN-cancer-survival.pdf
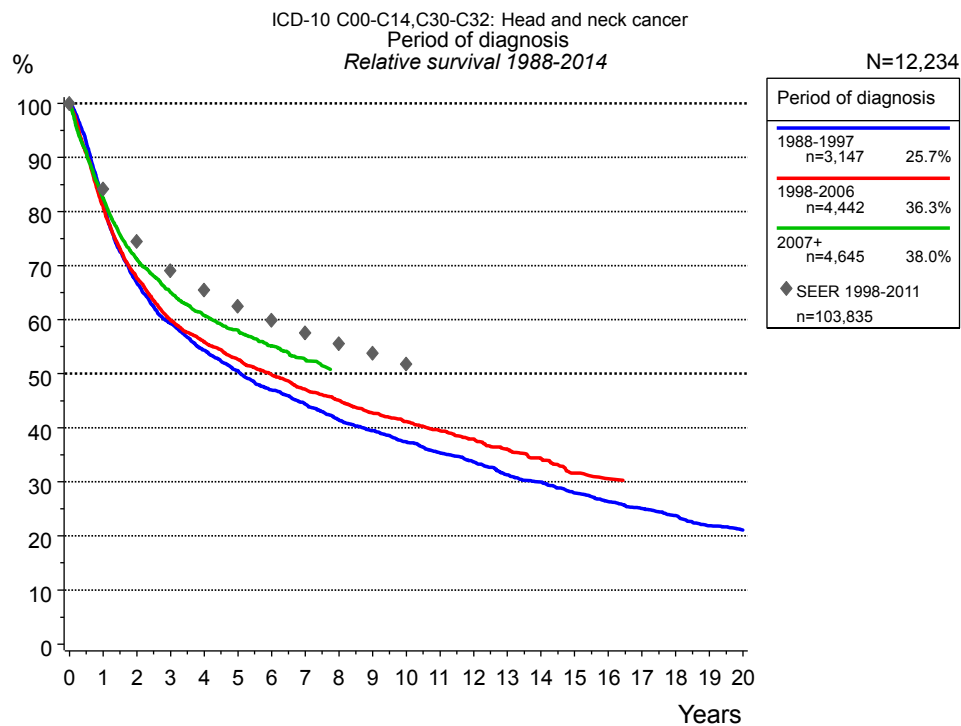
Figure 1a. Relative survival of patients with HN cancer by period of diagnosis. Included in the evaluation are 12,234 cases diagnosed between 1988 and 2014.

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 2011, and are represented by gray 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 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.

| | Period of diagnosis | | | | | |
| | 1988-1997 n=3,147 | | 1998-2006 n=4,442 | | 2007+ n=4,645 | |
Years	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0	100.0	100.0
1	80.0	81.6	79.3	80.7	80.9	82.5
2	64.3	66.8	65.3	67.7	68.5	71.2
3	56.0	59.4	56.8	59.9	61.4	65.0
4	50.3	54.3	52.0	55.9	56.3	60.8
5	45.9	50.6	48.1	52.6	52.7	58.0
6	41.8	47.0	44.7	49.8	49.0	55.1
7	38.7	44.4	41.4	47.1	45.9	52.6
8	35.4	41.4	38.8	45.0		
9	33.1	39.5	36.1	42.8		
10	30.7	37.4	34.1	41.2		
11	28.5	35.4	31.9	39.5		
12	26.6	33.7	30.0	37.9		
13	24.2	31.3	27.7	36.0		
14	22.6	29.9	25.8	34.3		
15	20.6	27.9	23.2	31.6		
16	19.1	26.4	21.9	30.6		
17	17.7	25.0				
18	16.3	23.7				
19	14.7	21.9				
20	13.8	21.0				

Table 1b. Observed (obs.) and relative (rel.) survival of patients with HN cancer by period of diagnosis for period 1988-2014 (N=12,234).

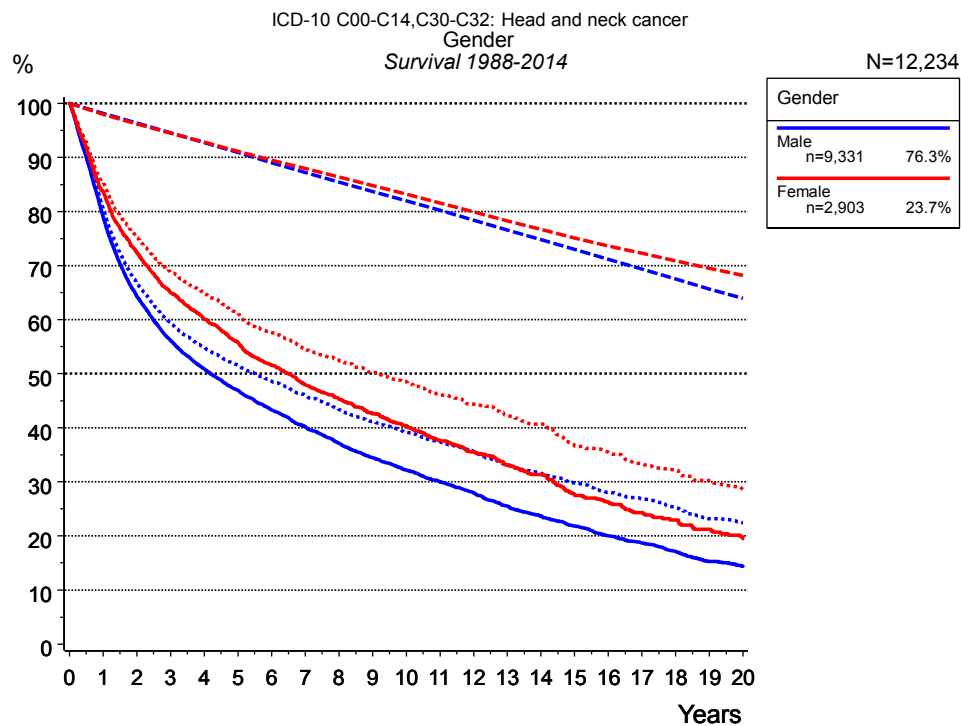ICD-10 C00-C14,C30-C32: Head and neck cancer
Gender
Survival 1988-2014

Figure 2a. Survival of patients with HN cancer by gender. Included in the evaluation are 12,234 cases diagnosed between 1988 and 2014.

	Gender			
	Male n=9,331		Female n=2,903	
Years	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0
1	78.9	80.4	83.7	85.4
2	64.3	66.7	72.5	75.3
3	56.2	59.4	64.9	68.7
4	50.9	54.9	60.1	64.7
5	46.9	51.6	55.8	61.2
6	43.3	48.6	51.6	57.6
7	40.2	46.0	48.0	54.5
8	37.1	43.4	45.4	52.4
9	34.5	41.2	42.6	50.2
10	32.2	39.2	40.4	48.5
11	30.0	37.4	37.6	46.0
12	28.0	35.7	35.5	44.4
13	25.5	33.2	33.1	42.2
14	23.7	31.6	31.4	40.7
15	21.8	29.8	27.5	36.6
16	20.0	28.1	26.2	35.5
17	18.6	26.8	24.3	33.4
18	17.1	25.3	23.0	32.2
19	15.2	23.2	21.3	30.2
20	14.4	22.5	19.5	28.6

Table 2b. Observed (obs.) and relative (rel.) survival of patients with HN cancer by gender for period 1988-2014 (N=12,234).

ICD-10 C00-C14,C30-C32: Head and neck cancer
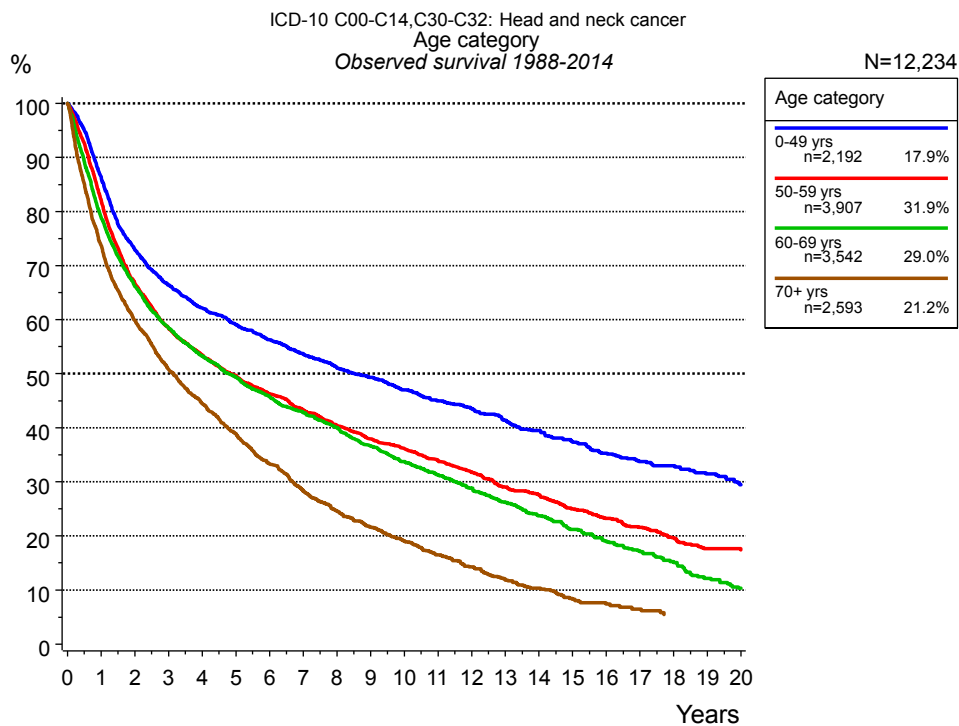Age category
Observed survival 1988-2014

Figure 3a. Observed survival of patients with HN cancer by age category. Included in the evaluation are 12,234 cases diagnosed between 1988 and 2014.

ICD-10 C00-C14,C30-C32: Head and neck cancer
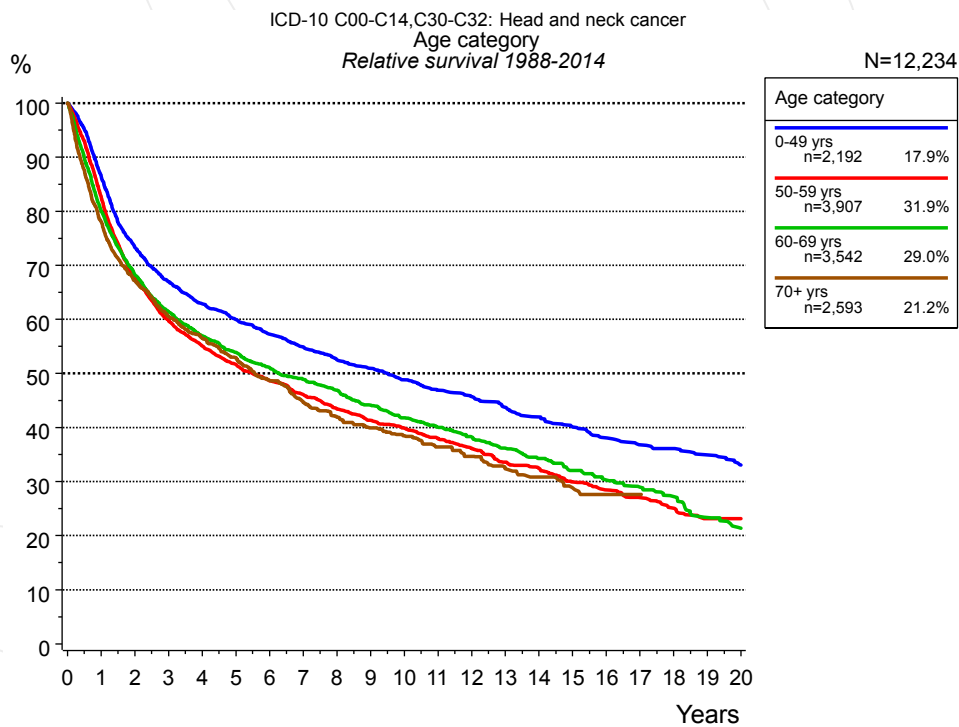Age category
Relative survival 1988-2014

Figure 3b. Relative survival of patients with HN cancer by age category. Included in the evaluation are 12,234 cases diagnosed between 1988 and 2014.

	Age category							
	0-49 yrs n=2,192		50-59 yrs n=3,907		60-69 yrs n=3,542		70+ yrs n=2,593	
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	86.2	86.4	82.0	82.6	78.9	80.1	73.7	78.1
2	72.9	73.3	66.8	67.7	66.2	68.3	59.8	67.1
3	66.4	66.9	58.5	59.8	58.4	61.3	50.8	60.5
4	62.2	62.9	53.4	55.1	53.2	56.9	44.5	56.5
5	59.1	60.0	49.7	51.7	49.4	53.9	38.9	52.9
6	56.2	57.3	46.3	48.6	45.8	51.1	33.3	48.7
7	53.7	54.9	43.4	46.1	42.8	48.9	28.3	44.6
8	51.1	52.5	40.4	43.4	40.1	46.9	24.6	41.9
9	49.3	50.9	37.9	41.3	36.7	44.2	21.6	39.9
10	47.1	48.8	36.2	39.9	33.7	41.8	19.1	38.5
11	45.0	46.9	34.0	38.0	31.3	40.1	16.5	36.4
12	43.6	45.7	31.9	36.2	28.8	38.3	14.3	34.6
13	41.4	43.7	29.1	33.6	26.2	36.2	11.8	32.4
14	39.5	42.0	27.6	32.4	23.7	34.3	10.3	30.8
15	37.4	40.1	25.0	29.9	21.2	32.1	8.2	28.8
16	35.3	38.0	23.3	28.5	19.1	30.3	7.4	27.6
17	33.7	36.8	21.6	27.0	17.1	29.0	6.5	27.6
18	33.0	36.1	19.6	25.0	15.1	27.3		
19	31.5	34.9	17.7	23.1	12.2	23.4		
20	29.5	33.1	17.4	23.1	10.3	21.4		

Table 3c. Observed (obs.) and relative (rel.) survival of patients with HN cancer by age category for period 1988-2014 (N=12,234).
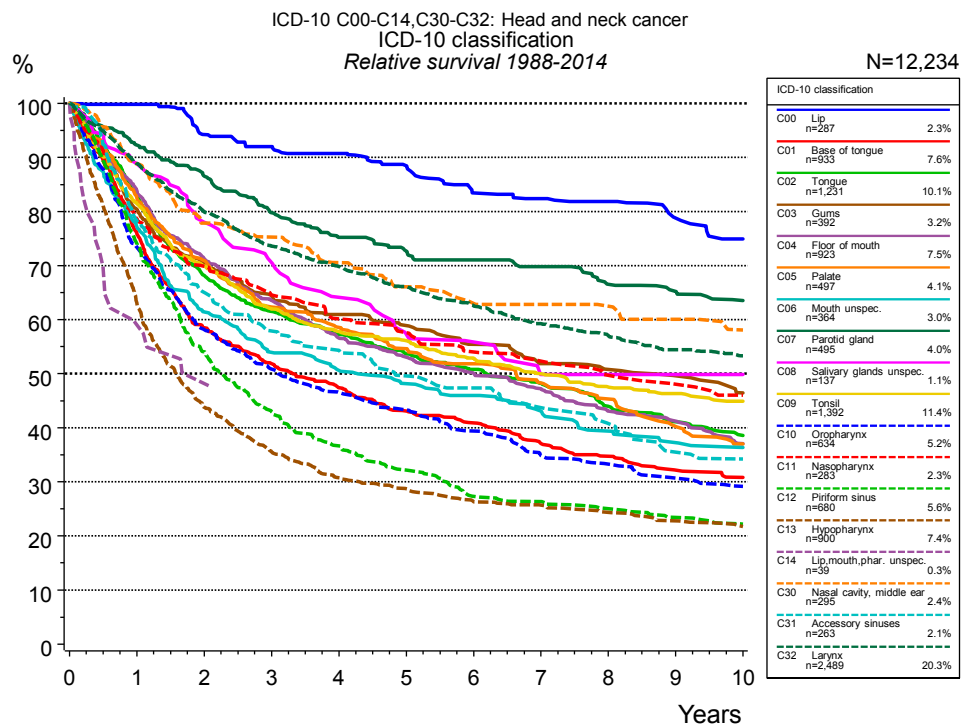
Figure 4a. Relative survival of patients with HN cancer by ICD-10 classification. Included in the evaluation are 12,234 cases diagnosed between 1988 and 2014.

	ICD-10 classification												
	C00 Lip n=287		C01 Base of tongue n=933		C02 Tongue n=1,231		C03 Gums n=392		C04 Floor of mouth n=923		C05 Palate n=497		C06 Mouth unspec. n=364	
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	97.5	99.8	74.8	75.9	82.0	83.3	78.3	80.4	82.6	83.8	81.7	82.5	75.4	77.2
2	86.6	94.3	56.9	58.5	66.0	68.2	67.1	70.5	69.5	71.3	69.1	70.9	58.9	61.4
3	81.7	92.0	49.6	51.8	58.6	61.5	60.1	64.5	61.2	63.5	59.8	62.3	50.8	53.9
4	78.2	90.7	44.6	47.4	53.6	57.3	55.4	60.9	53.9	56.6	55.6	58.5	46.7	50.6
5	72.6	88.5	40.0	43.1	49.4	53.6	52.3	58.9	50.0	53.1	51.2	54.6	43.4	48.1
6	65.6	83.4	37.3	40.9	46.0	50.8	47.9	55.4	46.4	50.1	47.9	51.8	40.7	46.0
7	63.1	82.4	33.1	37.1	42.9	48.2	43.8	51.9	43.2	47.2	44.0	48.3	37.4	43.1
8	60.7	81.9	30.6	34.8	38.4	43.9	42.0	50.8	38.7	43.1	40.7	45.3	33.4	39.4
9	56.3	78.8	27.8	32.2	35.4	41.1	40.1	49.6	36.7	41.2	35.7	40.2	31.0	37.2
10	52.2	74.9	26.2	30.8	32.6	38.5	36.7	46.5	32.4	37.1	32.1	37.0	29.5	36.3

	ICD-10 classification												
cont'd	C07 Parotid gland n=495		C08 Salivary glands unspec. n=137		C09 Tonsil n=1,392		C10 Oropharynx n=634		C11 Nasopharynx n=283		C12 Piriform sinus n=680		C13 Hypopharynx n=900	
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	89.6	92.3	86.9	88.8	80.2	81.5	72.6	73.5	77.8	78.6	73.2	74.1	62.1	63.0
2	81.9	86.5	74.6	78.0	67.8	69.9	56.7	58.1	68.3	69.9	52.7	54.0	42.6	43.8
3	73.4	79.8	66.7	70.6	59.1	62.0	48.9	50.9	62.2	64.5	41.4	43.0	34.2	35.6
4	67.5	75.3	58.9	64.1	54.3	57.8	44.2	46.6	57.3	60.1	34.7	36.7	29.1	30.8
5	63.9	72.7	51.6	57.3	51.8	56.1	40.5	43.3	54.4	57.6	29.9	32.2	26.8	28.7
6	61.5	71.1	49.3	55.9	48.0	52.8	36.3	39.4	50.3	54.0	25.0	27.3	24.3	26.3
7	58.9	69.8	42.8	49.9	44.7	50.0	31.6	34.9	48.0	52.3	24.0	26.4	23.3	25.7
8	54.5	66.6	42.8	49.9	41.8	47.5	29.9	33.3	44.7	49.7	22.4	25.0	21.8	24.4
9	52.6	65.2	42.8	49.9	40.1	46.3	27.1	30.7	42.6	48.1	20.6	23.4	20.1	22.8
10	50.1	63.5	42.8	49.9	38.2	44.9	25.3	29.2	40.2	46.0	19.1	22.2	18.9	21.7

	ICD-10 classification							
cont'd	C14 Lip,mouth,phar. unspec. n=39		C30 Nasal cavity, middle ear n=295		C31 Accessory sinuses n=263		C32 Larynx n=2,489	
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	59.0	59.0	86.6	88.8	76.2	78.3	87.0	88.9
2	48.7	48.2	73.7	77.9	62.0	65.0	76.5	79.9
3			69.4	75.3	54.0	57.9	68.9	73.6
4			63.4	70.5	49.9	54.3	63.9	69.8
5			57.9	66.1	44.4	49.6	59.1	66.1
6			54.1	63.0	41.7	47.4	54.5	62.5
7			53.4	62.8	37.8	43.7	50.5	59.2
8			51.5	62.5	34.4	40.8	47.4	57.0
9			48.4	60.1	29.6	35.5	44.3	54.4
10			44.7	58.1	28.2	34.2	42.2	53.3

Table 4b. Observed (obs.) and relative (rel.) survival of patients with HN cancer by ICD-10 classification for period 1988-2014 (N=12,234).
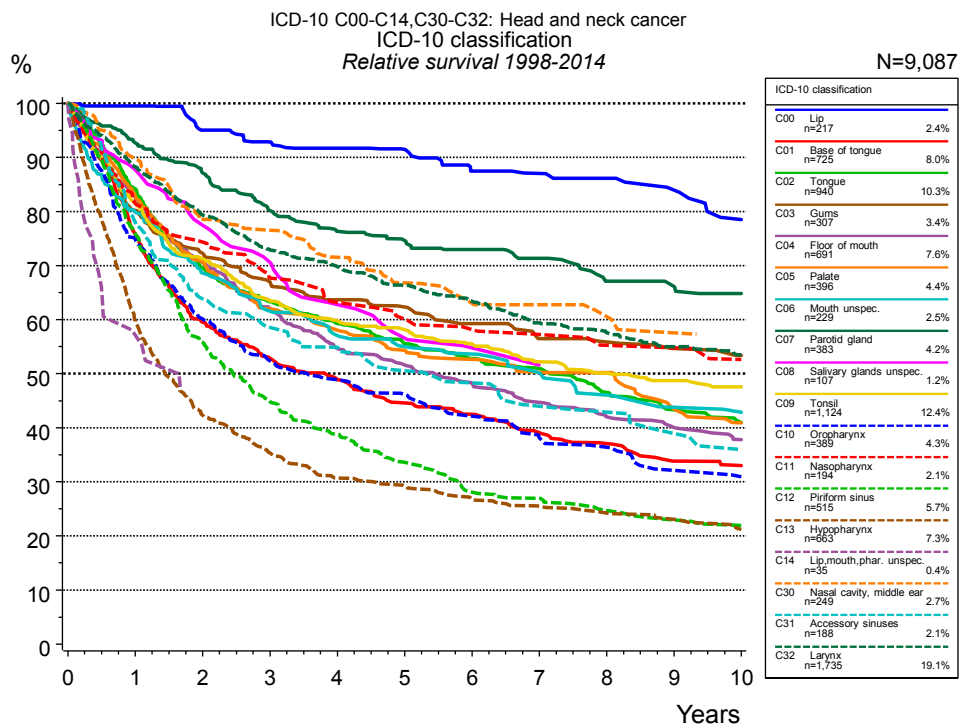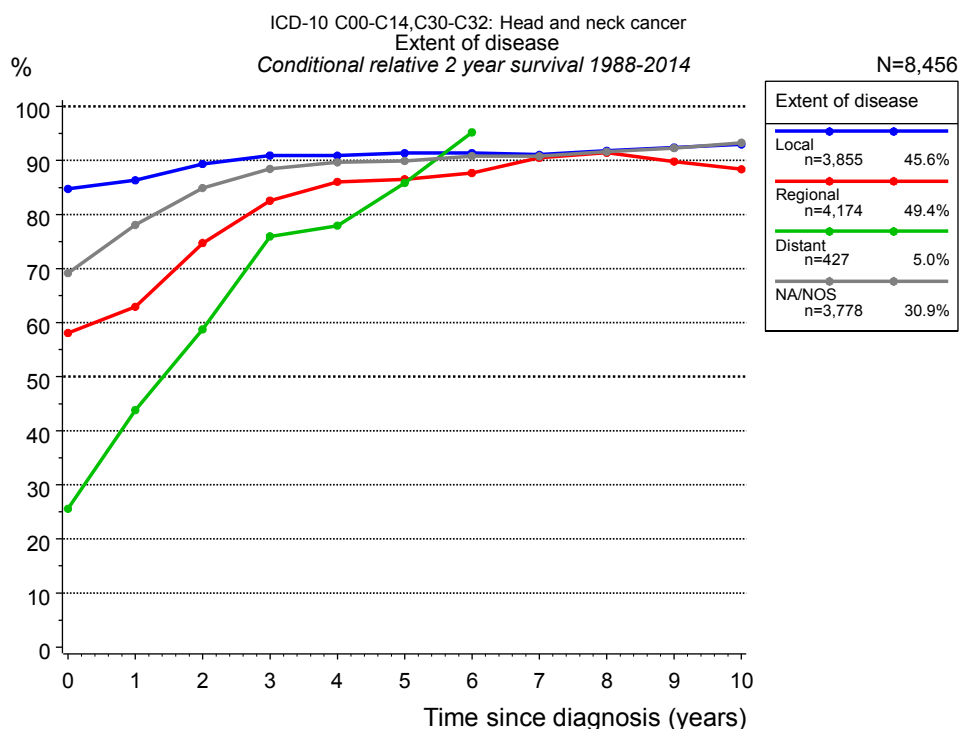
ICD-10 C00-C14,C30-C32: Head and neck cancer
ICD-10 classification
Relative survival 1998-2014

N=9,087

ICD-10 classification

C00	Lip n=217	2.4%
C01	Base of tongue n=725	8.0%
C02	Tongue n=940	10.3%
C03	Gums n=307	3.4%
C04	Floor of mouth n=691	7.6%
C05	Palate n=396	4.4%
C06	Mouth unspec. n=229	2.5%
C07	Parotid gland n=383	4.2%
C08	Salivary glands unspec. n=107	1.2%
C09	Tonsil n=1,124	12.4%
C10	Oropharynx n=389	4.3%
C11	Nasopharynx n=194	2.1%
C12	Piriform sinus n=515	5.7%
C13	Hypopharynx n=663	7.3%
C14	Lip,mouth,phar. unspec. n=35	0.4%
C30	Nasal cavity, middle ear n=249	2.7%
C31	Accessory sinuses n=188	2.1%
C32	Larynx n=1,735	19.1%

Figure 4c. Relative survival of patients with HN cancer by ICD-10 classification. Included in the evaluation are 9,087 cases diagnosed between 1998 and 2014.

ICD-10 classification

Years	C00 Lip n=217 obs. %	rel. %	C01 Base of tongue n=725 obs. %	rel. %	C02 Tongue n=940 obs. %	rel. %	C03 Gums n=307 obs. %	rel. %	C04 Floor of mouth n=691 obs. %	rel. %	C05 Palate n=396 obs. %	rel. %	C06 Mouth unspec. n=229 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	97.7	99.5	74.7	75.8	82.8	84.2	78.3	80.2	81.4	82.5	82.1	82.9	77.5	79.8
2	87.1	95.1	57.8	59.5	67.4	69.6	68.7	72.3	68.9	70.6	68.9	70.6	65.4	68.6
3	82.1	92.9	50.5	52.8	60.4	63.3	62.5	67.0	59.7	62.0	59.5	62.0	57.6	61.5
4	79.5	91.7	46.0	48.9	55.6	59.3	58.0	63.6	52.1	54.7	55.2	58.1	52.2	57.0
5	74.7	91.5	41.2	44.6	51.3	55.6	55.6	62.3	48.8	51.6	51.1	54.3	49.0	55.0
6	68.1	87.5	38.7	42.5	48.0	52.8	51.5	59.3	44.8	48.2	48.8	52.7	46.8	53.7
7	65.9	87.1	34.9	39.1	45.6	51.0	47.9	56.5	41.0	44.7	45.9	50.3	42.7	50.2
8	63.2	86.2	32.6	37.1	41.0	46.5	46.6	55.9	37.8	42.0	45.4	50.2	38.1	46.0
9	59.3	83.9	29.0	33.8	37.6	43.3	44.4	54.7	35.7	40.1	38.8	43.5	34.8	43.8
10	53.8	78.5	28.0	33.0	34.8	41.0	42.5	53.4	33.0	37.8	35.6	40.9	33.6	42.9

ICD-10 classification

cont'd Years	C07 Parotid gland n=383 obs. %	rel. %	C08 Salivary glands unspec. n=107 obs. %	rel. %	C09 Tonsil n=1,124 obs. %	rel. %	C10 Oropharynx n=389 obs. %	rel. %	C11 Nasopharynx n=194 obs. %	rel. %	C12 Piriform sinus n=515 obs. %	rel. %	C13 Hypopharynx n=663 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	90.1	92.7	86.2	87.7	80.3	81.6	74.2	74.9	80.8	81.5	75.0	75.8	58.8	59.7
2	82.5	87.1	74.7	77.5	69.1	71.2	58.6	60.1	72.9	74.3	54.3	55.7	41.2	42.3
3	73.7	80.1	67.8	70.6	60.6	63.5	50.4	52.4	65.4	67.7	43.2	44.9	34.0	35.4
4	68.4	76.3	58.7	62.8	56.3	59.8	46.4	48.9	60.5	63.2	36.7	38.8	29.0	30.7
5	65.7	74.6	52.9	56.6	53.8	58.1	43.3	46.1	57.2	60.1	31.2	33.6	27.3	29.3
6	63.1	73.0	49.6	54.8	50.5	55.5	39.0	42.2	54.5	58.2	25.7	28.1	24.7	26.7
7	60.1	71.3	45.6	51.6	46.8	52.2	34.6	38.2	52.4	57.3	24.5	26.9	23.1	25.4
8	55.0	67.1	45.6	50.9	44.3	50.1	33.0	36.4	49.8	55.3	22.0	24.7	21.9	24.2
9	53.6	66.1	45.6	50.1	42.4	48.7	28.6	32.1	49.8	54.8	20.0	23.0	20.7	23.1
10	51.5	64.9	45.6	49.4	40.7	47.6	27.1	30.9	46.1	52.7	19.1	22.0	18.5	21.2

	ICD-10 classification							
cont'd	C14 Lip,mouth,phar. unspec. n=35		C30 Nasal cavity, middle ear n=249		C31 Accessory sinuses n=188		C32 Larynx n=1,735	
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	57.1	57.1	87.5	89.7	75.8	77.9	86.4	88.2
2	45.7	44.7	74.5	78.6	61.0	63.9	76.1	79.3
3			70.8	76.6	54.9	58.6	68.4	72.9
4			64.5	71.5	50.9	54.9	64.1	69.8
5			58.8	66.8	45.6	50.6	59.6	66.4
6			54.6	63.0	42.9	48.3	55.5	63.4
7			53.7	62.8	38.3	44.0	51.0	59.4
8			50.8	60.6	37.1	42.9	48.0	57.6
9			47.5	57.6	33.2	39.0	45.0	55.0
10			45.3	57.3	30.3	36.0	42.6	53.5

Table 4d. Observed (obs.) and relative (rel.) survival of patients with HN cancer by ICD-10 classification for period 1998-2014 (N=9,087).

ICD-10 C00-C14,C30-C32: Head and neck cancer
Extent of disease
Conditional relative 2 year survival 1988-2014

N=8,456

Figure 4e. Conditional relative 2-year survival of patients with HN cancer by extent of disease. For 11,152 of 12,234 cases diagnosed between 1988 and 2014 valid data could be obtained for this item. For a total of 8,456 cases an evaluable classification was established. The grey line represents the subgroup of 3,778 patients with missing values regarding extent of disease (30.9% of 12,234 patients, the percent values of all other categories are related to n=8,456).

	Extent of disease							
	Local		Regional		Distant		NA/NOS	
		Cond. surv. %		Cond. surv. %		Cond. surv. %		Cond. surv. %
Years	n	2 yrs	n	2 yrs	n	2 yrs	n	2 yrs
0	3,855	84.7	4,174	58.1	427	25.6	3,778	69.2
1	3,387	86.3	3,088	62.9	162	43.8	2,904	78.1
2	2,870	89.3	2,149	74.7	95	58.8	2,399	84.9
3	2,444	90.9	1,603	82.6	58	76.0	2,074	88.4
4	2,091	90.9	1,277	86.0	44	77.9	1,816	89.7
5	1,770	91.4	1,037	86.5	35	85.9	1,598	89.9
6	1,531	91.4	865	87.7	28	95.2	1,327	90.8
7	1,352	91.1	728	90.5			1,060	90.8
8	1,149	91.8	615	91.4			846	91.6
9	1,008	92.4	517	89.8			707	92.3
10	878	93.0	433	88.4			592	93.3

Table 4f. Conditional relative 2-year survival of patients with HN cancer by extent of disease for period 1988-2014 (N=8,456).

Conditional relative survival rates refer to the relative survival probability, in this case for 2 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 2-year survival rate is 90.9% (n=2,444).
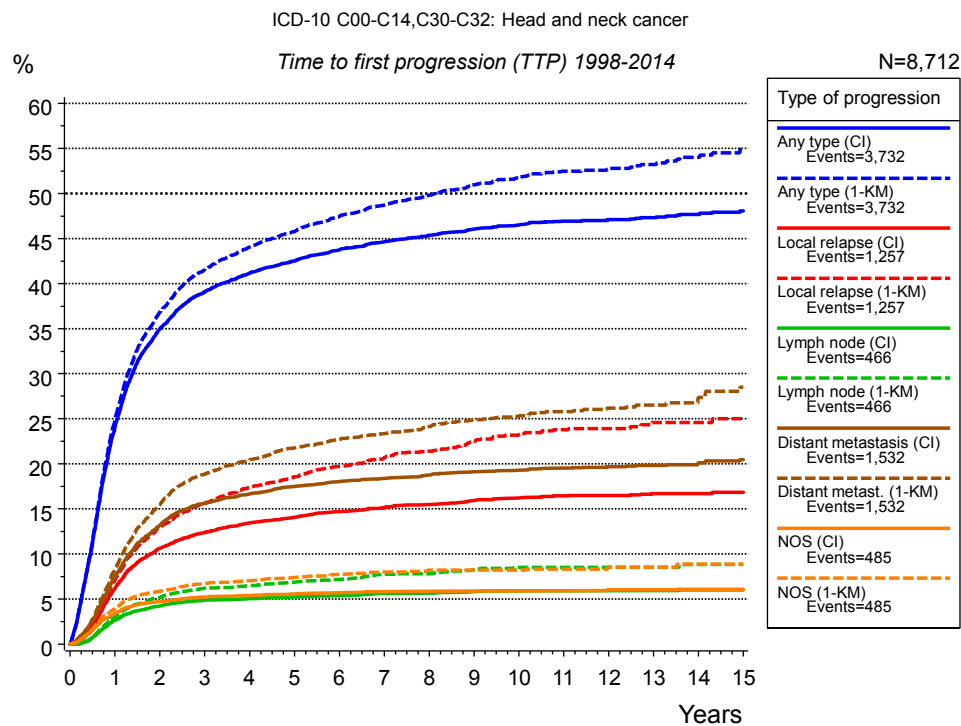
ICD-10 C00-C14,C30-C32: Head and neck cancer

Figure 5a. Time to first progression of 8,712 patients with HN cancer diagnosed between 1998 and 2014 (M0 only in solid cancers) 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						Distant metastasis (CI)
	Any type (CI)	Any type (1-KM)	Local relapse (CI)	Local relapse (1-KM)	Lymph node (CI)	Lymph node (1-KM)	
	n=8,712	n=8,712	n=8,712	n=8,712	n=8,712	n=8,712	n=8,712
Years	%	%	%	%	%	%	%
0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	24.1	25.0	6.2	7.1	2.7	3.1	7.5
2	34.9	36.8	10.7	13.0	4.2	5.2	13.1
3	39.1	41.6	12.4	15.6	4.9	6.2	15.6
4	41.1	44.0	13.5	17.4	5.1	6.5	16.7
5	42.5	45.8	14.1	18.6	5.3	6.9	17.5
6	43.8	47.5	14.7	19.7	5.4	7.2	18.0
7	44.7	48.8	15.2	20.7	5.6	7.8	18.4
8	45.4	49.8	15.5	21.4	5.7	7.8	18.8
9	46.1	51.0	16.0	22.5	5.8	8.2	19.2
10	46.6	51.8	16.2	23.3	5.9	8.5	19.4
11	46.9	52.5	16.4	23.8	5.9	8.5	19.5
12	47.1	52.8	16.5	23.9	5.9	8.5	19.7
13	47.3	53.2	16.7	24.6	5.9	8.5	19.8
14	47.7	54.0	16.7	24.6	6.0	8.8	20.1
15	48.1	54.9	16.8	25.0	6.0	8.8	20.5

	Type of progression		
cont'd	Distant metast. (1-KM) n=8,712	NOS (CI) n=8,712	NOS (1-KM) n=8,712
Years	%	%	%
0	0.0	0.0	0.0
1	8.4	3.4	4.0
2	15.4	4.7	5.9
3	18.9	5.2	6.7
4	20.5	5.4	7.0
5	21.8	5.6	7.4
6	22.7	5.7	7.8
7	23.3	5.8	8.0
8	24.1	5.9	8.2
9	24.9	5.9	8.2
10	25.3	5.9	8.2
11	25.8	6.0	8.3
12	26.2	6.0	8.5
13	26.5	6.0	8.5
14	27.4	6.1	8.9
15	28.5	6.1	8.9

Table 5b. Time to first progression of patients with HN cancer for period 1998-2014 (N=8,712).

ICD-10 C00-C14,C30-C32: Head and neck cancer
Progression type
Observed post-progression survival 1998-2014   N=2,684

Type of progression

Any type
n=2,684   100.0%

Local relapse
n=1,278   47.6%

Lymph node
n=474   17.7%

Distant metastasis
n=1,216   45.3%

NOS
n=486   18.1%
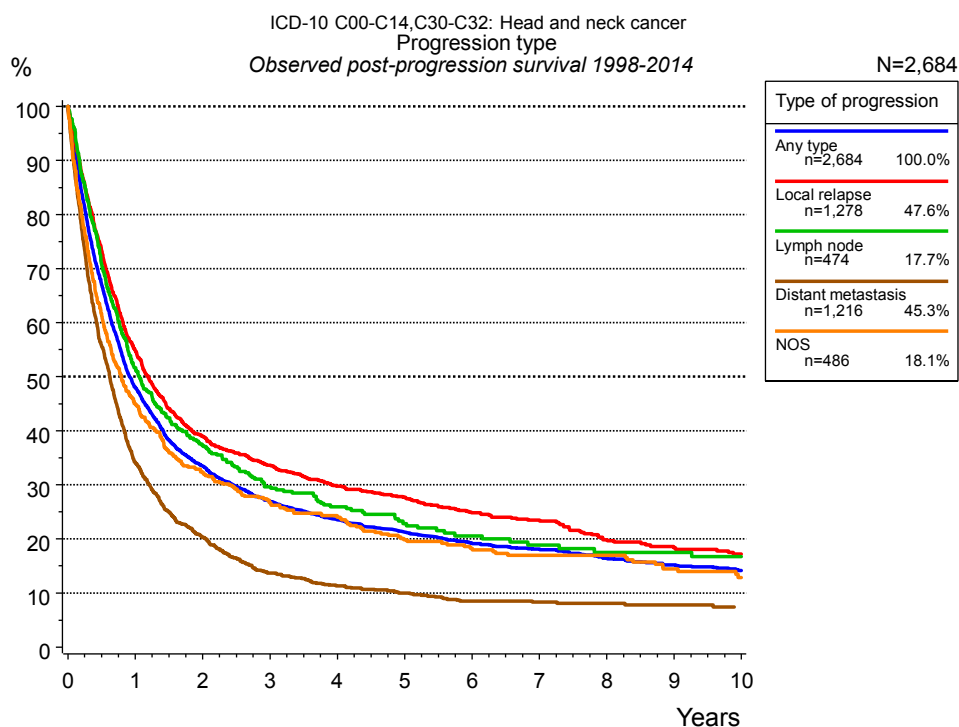
Figure 5c. Observed post-progression survival of 2,684 patients with HN cancer diagnosed between 1998 and 2014. These 2,684 patients with documented progression events during their course of disease represent 29.7 % of the totally 9,048 evaluated cases (incl. M1, n=336, 3.7 %). Patients with cancer relapse documented via death certificates only were excluded (n=1,384, 15.3 %). 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 n=2,684 | Local relapse n=1,278 | Lymph node n=474 | Distant metastasis n=1,216 | NOS n=486 |
Years	%	%	%	%	%
0	100.0	100.0	100.0	100.0	100.0
1	48.0	54.9	51.7	34.2	44.8
2	33.5	39.0	37.3	20.3	32.4
3	27.0	33.6	29.7	13.7	26.7
4	23.5	29.8	25.9	11.3	24.0
5	21.3	27.7	22.9	10.0	19.8
6	19.2	24.8	20.6	8.5	18.3
7	18.1	23.5	18.8	8.3	17.0
8	16.4	19.9	17.5	8.1	17.0
9	15.2	18.4	17.5	7.8	14.4
10	14.2	17.2	16.7	7.4	12.9

Table 5d. Observed post-progression survival of patients with HN cancer for period 1998-2014 (N=2,684).

ICD-10 C00-C14,C30-C32: Head and neck cancer
Type of Progression: Distant metastasis
Observed post-progression survival by period of progression date 1988-2014   N=1,552
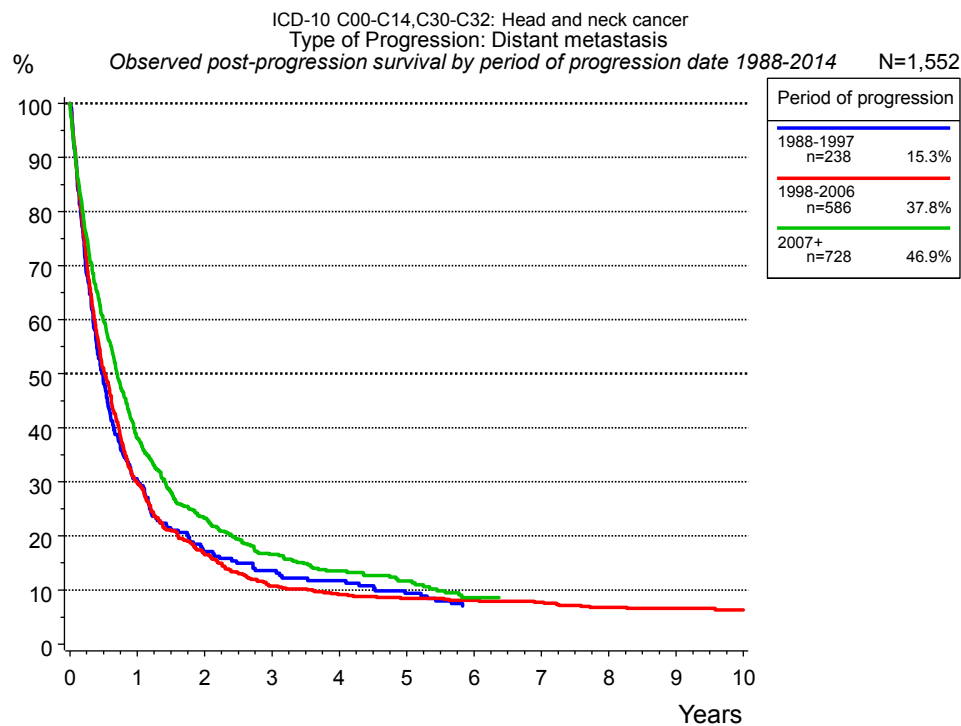

Figure 5e. Observed post-progression (distant metastasis) survival of 1,552 patients with HN cancer diagnosed between 1988 and 2014 by period of progression.

	Period of progression		
	1988-1997 n=238	1998-2006 n=586	2007+ n=728
Years	%	%	%
0	100.0	100.0	100.0
1	30.1	30.0	38.2
2	17.2	16.5	23.3
3	13.6	10.7	16.6
4	11.8	9.1	13.5
5	9.4	8.4	11.7
6	7.1	8.1	8.7
7		7.7	8.7
8		6.8	
9		6.6	
10		6.3	

Table 5f. Observed post-progression (distant metastasis) survival of patients with HN cancer for period 1988-2014 by period of progression (N=1,552).

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-KM	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

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