

# Munich Cancer Registry



- Incidence and Mortality
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## Mammarian Paget disease

### Survival

Year of diagnosis	1998-2020
Patients	316
Diseases	316
Cases evaluated	263
Creation date	04/27/2022
Database export	12/20/2021
Population (females)	2.48 m



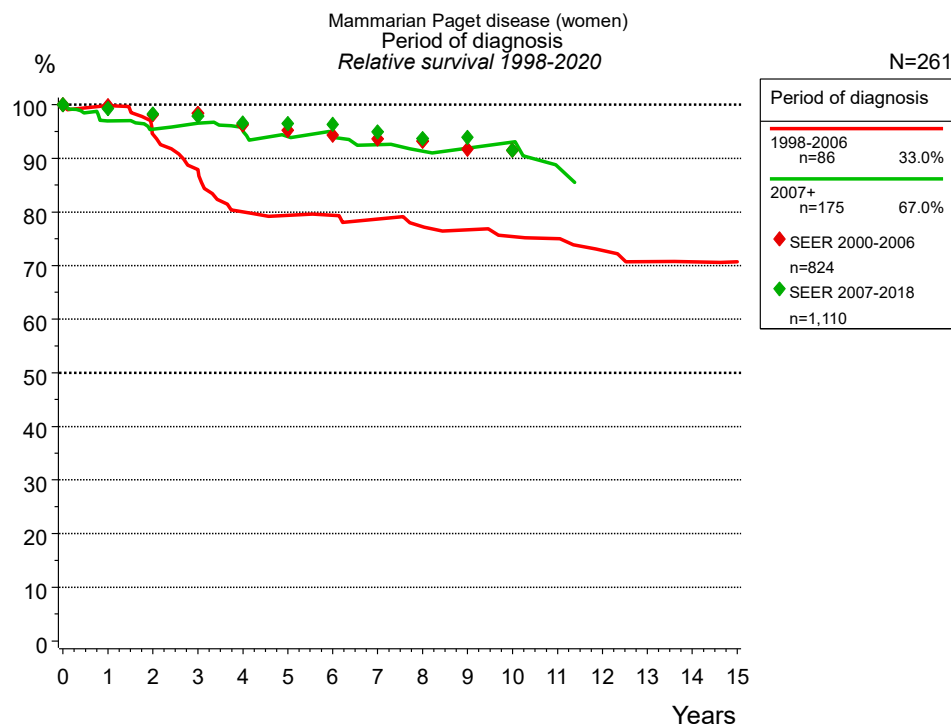
Munich Cancer Registry  
Cancer Registry Bavaria - Upper Bavaria Regional Center  
at Klinikum Grosshadern/IBE  
Marchioninistr. 15  
Munich, 81377  
Germany

<https://www.tumorregister-muenchen.de/en>

[https://www.tumorregister-muenchen.de/en/facts/surv/sMPDf\\_E-Mammarian-Paget-disease-survival.pdf](https://www.tumorregister-muenchen.de/en/facts/surv/sMPDf_E-Mammarian-Paget-disease-survival.pdf)

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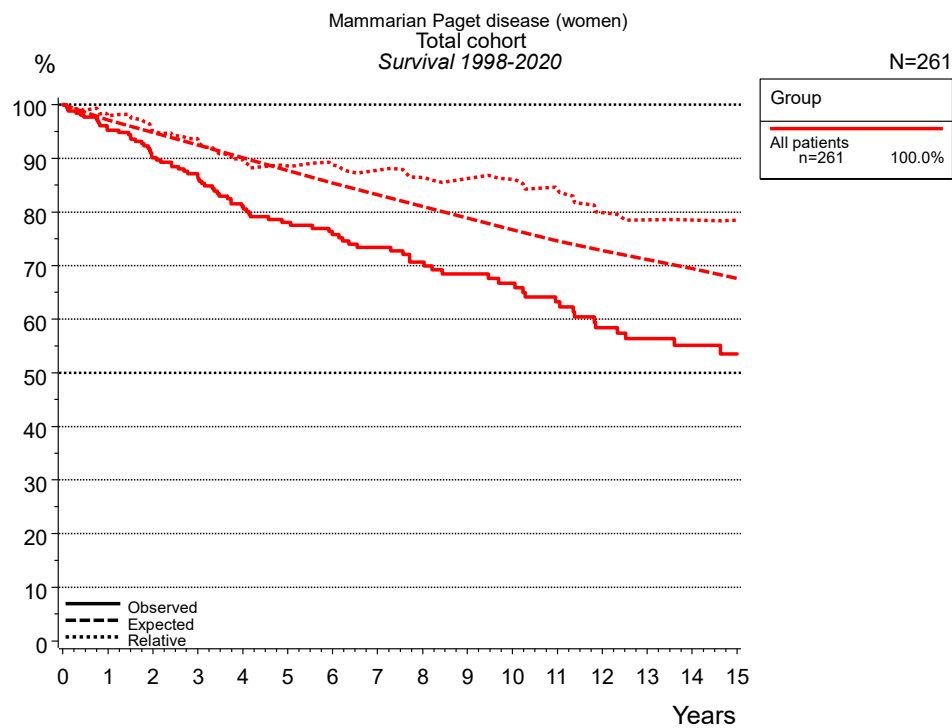


**Figure 1a.** Relative survival of patients with mammarian Paget disease by period of diagnosis. Included in the evaluation are 261 cases diagnosed between 1998 and 2020.

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				
Years	1998-2006 n=86		2007+ n=175	
	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0
1	97.7	99.9	94.0	96.9
2	90.6	94.4	90.0	95.4
3	83.5	87.9	89.3	96.5
4	74.1	80.0	85.4	95.2
5	71.7	79.3	82.0	94.0
6	70.5	79.4	78.9	93.9
7	68.1	78.7	76.4	92.6
8	65.7	77.2	73.4	91.3
9	63.3	76.7	71.8	91.9
10	60.6	75.4	71.8	93.0
11	59.3	75.0	64.5	88.4
12	55.3	72.8		
13	52.5	70.7		
14	51.2	70.7		
15	49.7	70.7		
Median	14.6			

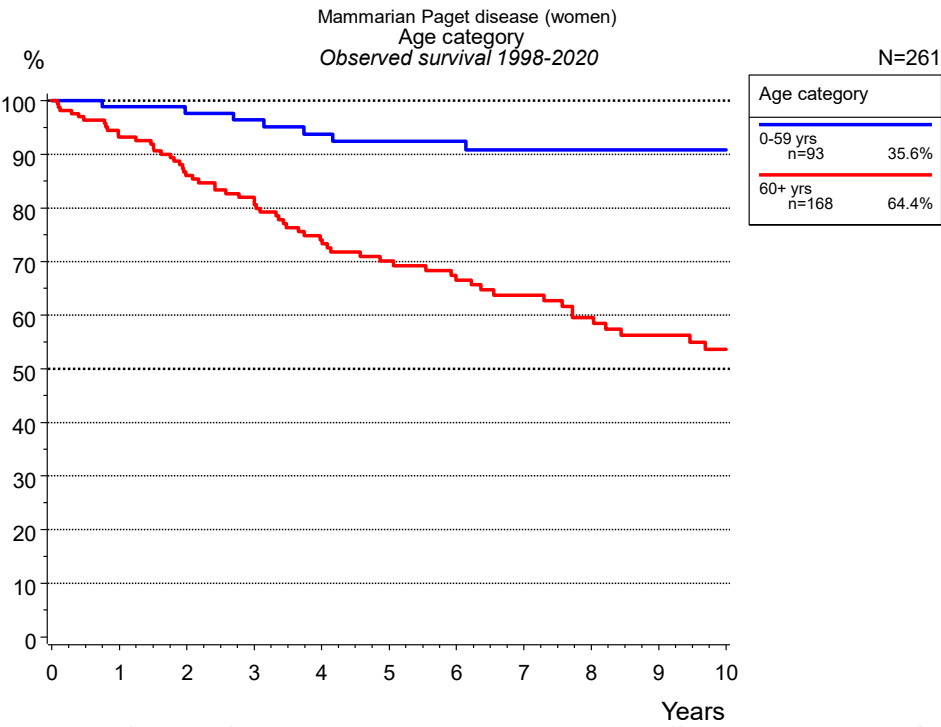
**Table 1b.** Observed (obs.) and relative (rel.) survival of patients with mammarian Paget disease by period of diagnosis for period 1998-2020 (N=261).



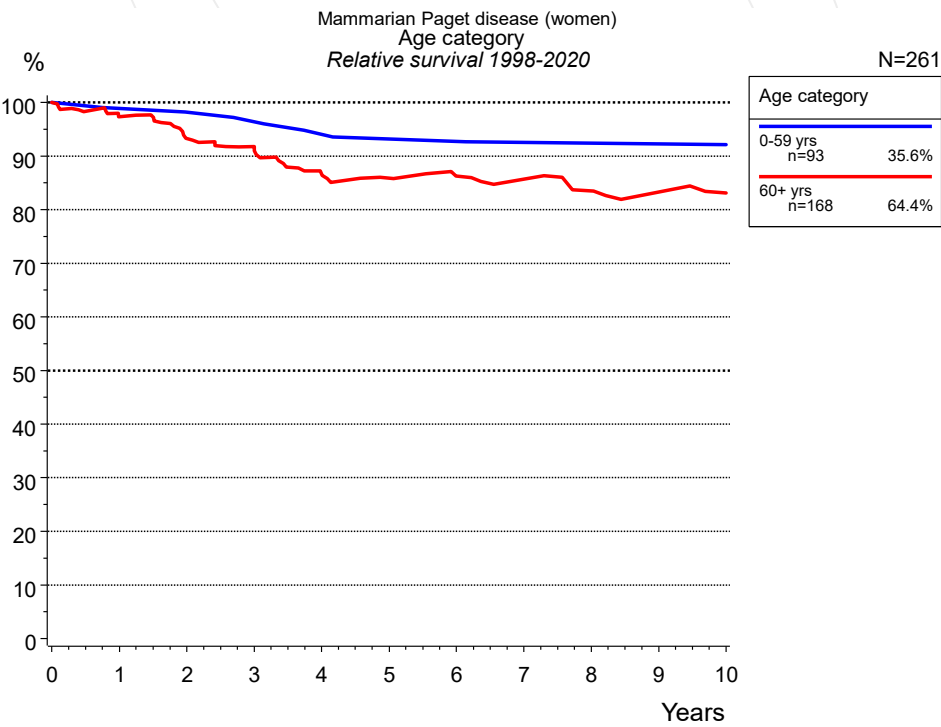
**Figure 2a.** Observed, expected and relative survival of the total cohort with mammarian Paget disease. Included in the evaluation are 261 cases diagnosed between 1998 and 2020.

Years	Group	
	All patients n=261	
	obs. %	rel. %
0	100.0	100.0
1	95.2	98.0
2	90.1	95.0
3	87.1	93.7
4	81.1	89.6
5	78.0	88.6
6	75.8	88.8
7	73.4	87.7
8	70.6	86.4
9	68.4	86.2
10	66.7	86.0
11	63.2	84.2
12	58.4	79.9
13	56.4	78.5
14	55.1	78.5
15	53.5	78.5
Median	19.0	

**Table 2b.** Observed (obs.) and relative (rel.) survival of the total cohort with mammarian Paget disease for period 1998-2020 (N=261).



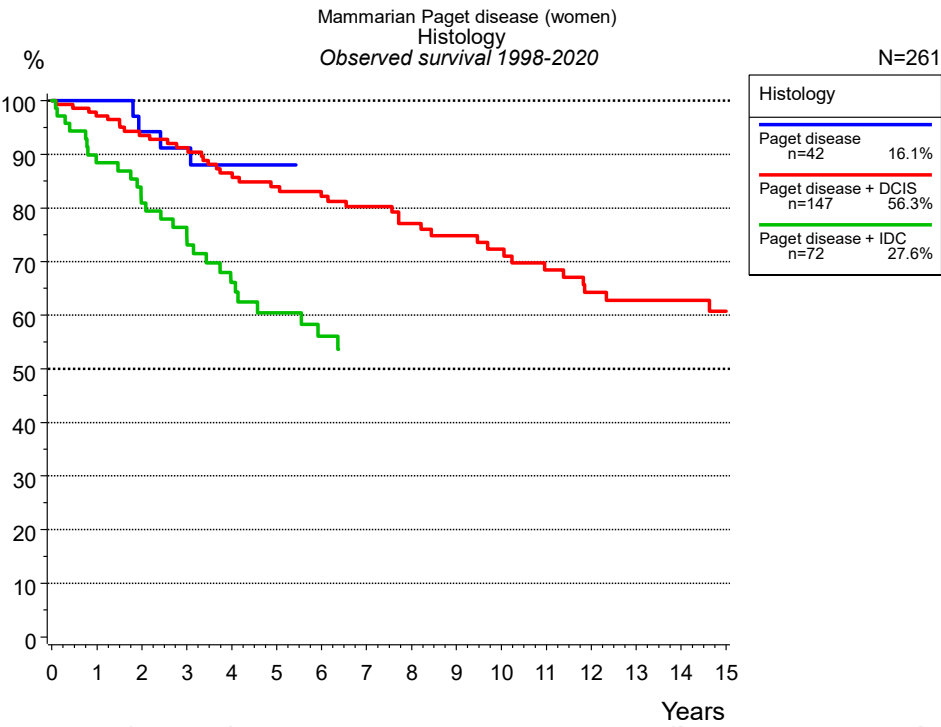
**Figure 3a.** Observed survival of patients with mammarian Paget disease by age category. Included in the evaluation are 261 cases diagnosed between 1998 and 2020.



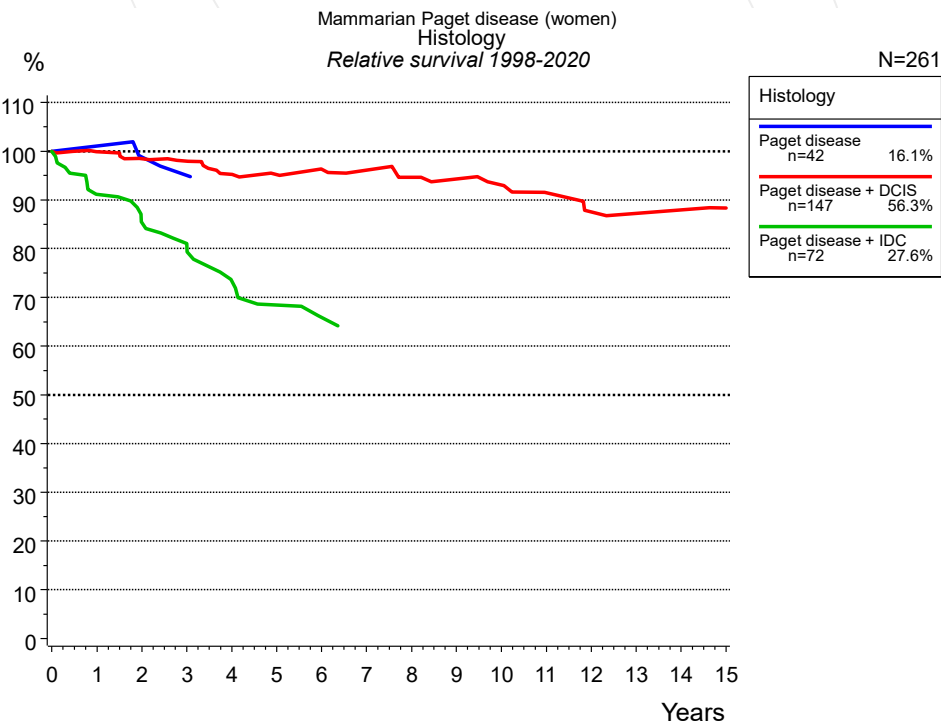
**Figure 3b.** Relative survival of patients with mammarian Paget disease by age category. Included in the evaluation are 261 cases diagnosed between 1998 and 2020.

Years	Age category			
	0-59 yrs n=93		60+ yrs n=168	
	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0
1	98.9	98.9	93.2	97.3
2	97.7	98.2	86.0	93.2
3	96.4	96.4	82.0	91.8
4	93.8	94.1	74.1	86.7
5	92.4	93.2	70.1	85.9
6	92.4	92.7	66.6	86.3
7	90.8	92.6	63.7	85.7
8	90.8	92.4	59.5	83.5
9	90.8	92.3	56.2	83.3
10	90.8	92.1	53.6	83.1
Median			11.0	

**Table 3c.** Observed (obs.) and relative (rel.) survival of patients with mammarian Paget disease by age category for period 1998-2020 (N=261).



**Figure 4a.** Observed survival of patients with mammarian Paget disease by histology. For 261 of 261 cases diagnosed between 1998 and 2020 valid data could be obtained for this item.

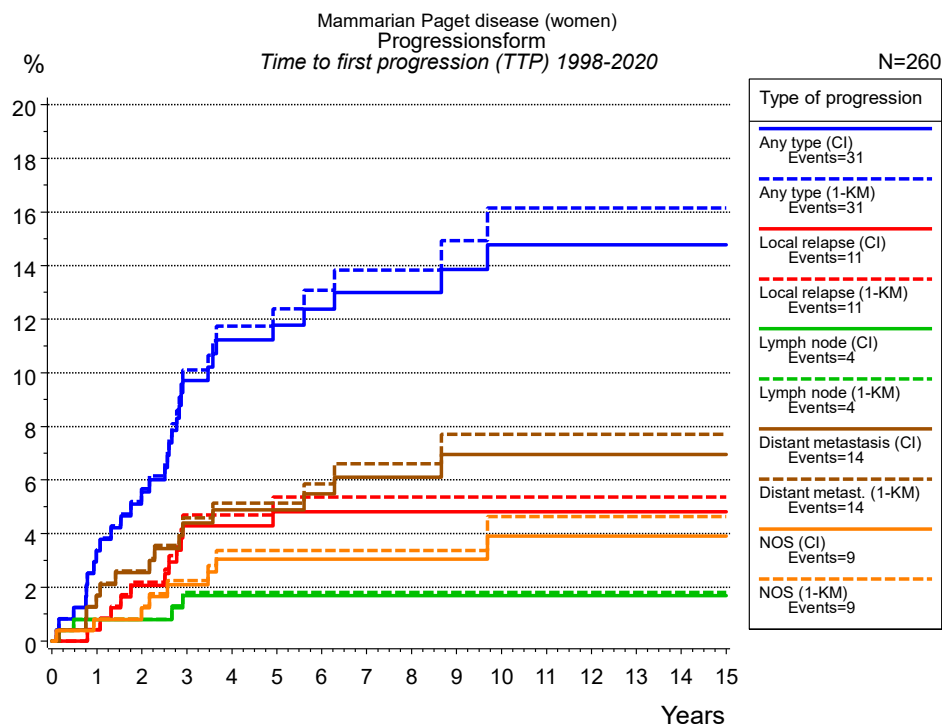


**Figure 4b.** Relative survival of patients with mammarian Paget disease by histology. For 261 of 261 cases diagnosed between 1998 and 2020 valid data could be obtained for this item.

Years	Histology					
	Paget disease n=42		Paget disease + DCIS n=147		Paget disease + IDC n=72	
	obs. %	rel. %	obs. %	rel. %	obs. %	rel. %
0	100.0	100.0	100.0	100.0	100.0	100.0
1	100.0	101.1	97.2	99.9	88.4	91.2
2	94.2	98.9	93.5	98.4	80.9	85.3
3	91.2	95.1	91.2	97.9	76.4	81.1
4	88.0	95.1	86.5	95.2	66.1	73.3
5	88.0	95.4	84.0	95.2	60.4	68.4
6			82.2	96.3	56.0	65.9
7			80.3	96.1		
8			77.1	94.6		
9			74.9	94.3		
10			72.3	93.1		
11			68.4	91.5		
12			64.3	87.5		
13			62.8	87.2		
14			62.8	87.9		
15			60.7	88.3		
Median						

**Table 4c.** Observed (obs.) and relative (rel.) survival of patients with mammarian Paget disease by histology for period 1998-2020 (N=261).





**Figure 5a.** Time to first progression of 260 patients with mammalian Paget disease 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)	Local relapse (CI)	Local relapse (1-KM)	Lymph node (CI)	Lymph node (1-KM)	Distant metastasis (CI)
N	247	247	260	260	260	260	247
Events	30	30	11	11	4	4	14
compet.	50		74		78		57
Years	%	%	%	%	%	%	%
0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	3.4	3.4	0.4	0.4	0.8	0.8	1.7
2	5.6	5.7	2.1	2.2	0.8	0.8	2.5
3	9.7	10.1	4.3	4.7	1.7	1.8	4.4
4	11.2	11.7	4.3	4.7	1.7	1.8	4.9
5	11.8	12.4	4.8	5.4	1.7	1.8	4.9
6	12.4	13.1	4.8	5.4	1.7	1.8	5.5
7	13.0	13.8	4.8	5.4	1.7	1.8	6.1
8	13.0	13.8	4.8	5.4	1.7	1.8	6.1
9	13.9	14.9	4.8	5.4	1.7	1.8	7.0
10	14.8	16.1	4.8	5.4	1.7	1.8	7.0
11	14.8	16.1	4.8	5.4	1.7	1.8	7.0
12	14.8	16.1	4.8	5.4	1.7	1.8	7.0
13	14.8	16.1	4.8	5.4	1.7	1.8	7.0
14	14.8	16.1	4.8	5.4	1.7	1.8	7.0
15	14.8	16.1	4.8	5.4	1.7	1.8	7.0

<i>cont'd</i>	Type of progression		
	Distant		
	metast. (1-KM)	NOS (CI)	NOS (1-KM)
	N	260	260
	Events	8	8
compet.	14	74	
Years	%	%	%
0	0.0	0.0	0.0
1	1.7	0.8	0.8
2	2.6	1.2	1.3
3	4.6	2.1	2.2
4	5.1	3.0	3.4
5	5.1	3.0	3.4
6	5.8	3.0	3.4
7	6.6	3.0	3.4
8	6.6	3.0	3.4
9	7.7	3.0	3.4
10	7.7	3.9	4.6
11	7.7	3.9	4.6
12	7.7	3.9	4.6
13	7.7	3.9	4.6
14	7.7	3.9	4.6
15	7.7	3.9	4.6

**Table 5b.** Time to first progression of patients with mammarian Paget disease for period 1998-2020 (N=260), also showing the total of progression events (Events) and of deaths as competing risk (compet.).

## 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

## Recommended Citation

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