

Supplemental online content for:

## Beyond Median Overall Survival: Estimating Trends for Multiple Survival Scenarios in Patients With Metastatic Esophagogastric Cancer

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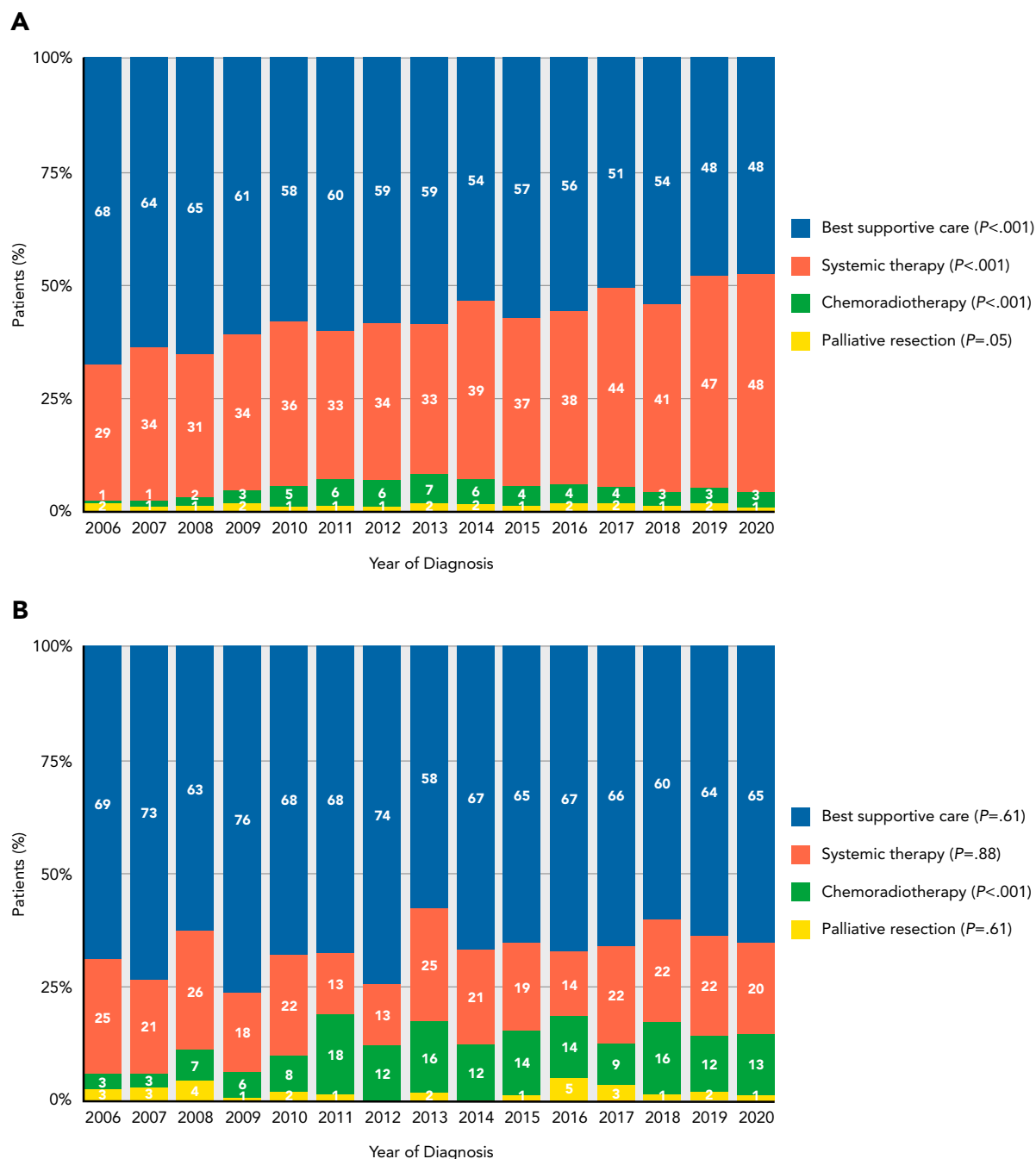
**eFigure 1:** Trends in Initial Treatment in Patients With Esophageal Adenocarcinoma and Esophageal Squamous Cell Carcinoma

**eFigure 2:** Overall Survival of Patients With Gastric Cancer With and Without Peritoneal Metastases for Different Scenarios Over Time

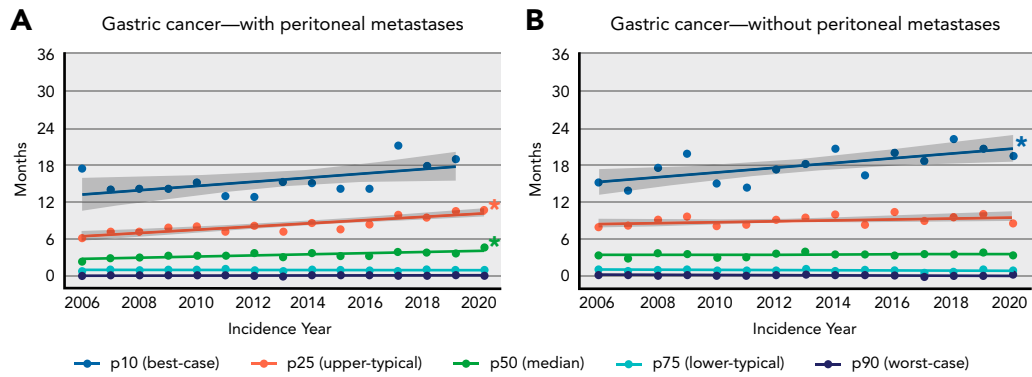
**eTable 1:** Survival of Patients When Esophageal Adenocarcinoma and Annual Average Change in Survival

**eTable 2:** Patients With Gastric Cancer Stratified by Presence of Peritoneal Metastases

**eTable 3:** Survival of Patients With Gastric Cancer Stratified by Presence of Peritoneal Metastases and Annual Average Change in Survival



**eFigure 1.** Trends in initial treatment in patients with **(A)** esophageal adenocarcinoma and **(B)** esophageal squamous cell carcinoma. *P* value represents the significance test for the linear trend-analysis between 2006 and 2020.



**Figure 2.** Overall survival of patients with gastric cancer **(A)** with and **(B)** without peritoneal metastases for different scenarios over time, stratified by percentile (p) of survival. For patients with peritoneal metastases **(A)** the highest percentile (p10, best-case scenario) for 2020 could not be displayed due to limited follow-up time.  
 \*Significant trend of  $P < .05$ .

**eTable 1. Survival of Patients With Esophageal Adenocarcinoma and Annual Average Change in Survival**

	Overall Survival (mo)			Slope Estimate <sup>a</sup> (95% CI)	P Value
	2006	2020	2006–2020		
<b>Esophageal adenocarcinoma scenarios<sup>b</sup></b>					
All patients (n=7,454)					
Best-case (p10)	15.8	20.9	19.5	0.43 (0.22 to 0.64)	.001
Upper-typical (p25)	10.6	11.7	10.9	0.08 (–0.02 to 0.18)	.14
Median (p50)	4.8	5.8	5.2	0.02 (–0.02 to 0.06)	.27
Lower-typical (p75)	1.9	2.4	2.2	0.01 (–0.01 to 0.03)	.19
Worst-case (p90)	0.9	1.0	0.9	0.00 (–0.01 to 0.01)	.81
Systemic therapy (n=2,842)					
Best-case (p10)	18.3	24.1	25.7	0.36 (–0.15 to 0.87)	.20
Upper-typical (p25)	14.9	16.7	15.9	0.20 (0.00 to 0.40)	.06
Median (p50)	10.5	10.1	9.5	0.05 (–0.05 to 0.15)	.28
Lower-typical (p75)	5.9	5.8	5.5	0.00 (–0.06 to 0.06)	.97
Worst-case (p90)	3.7	3.4	3.2	–0.03 (–0.07 to 0.01)	.16
Best supportive care (n=4,206)					
Best-case (p10)	13.2	9.6	10.6	–0.24 (–0.38 to –0.10)	.004
Upper-typical (p25)	6.1	4.9	5.7	–0.09 (–0.13 to –0.05)	<.001
Median (p50)	3.1	2.5	2.8	–0.05 (–0.08 to –0.02)	.008
Lower-typical (p75)	1.3	1.2	1.2	–0.01 (–0.02 to 0.00)	.07
Worst-case (p90)	0.7	0.6	0.6	–0.01 (–0.02 to 0.00)	.05
<b>Esophageal squamous cell carcinoma scenarios<sup>b</sup></b>					
All patients (n=2,441)					
Best-case (p10)	20.7	16.4 <sup>c</sup>	21.0	0.05 (–0.44 to 0.54)	.885
Upper-typical (p25)	12.6	12.6	11.0	–0.08 (–0.24 to 0.08)	.33
Median (p50)	5.9	5.2	5.5	–0.04 (–0.1 to 0.02)	.19
Lower-typical (p75)	2.9	2.0	2.4	–0.04 (–0.09 to 0.01)	.10
Worst-case (p90)	1.5	0.9	1.1	–0.02 (–0.05 to 0.01)	.32

<sup>a</sup>The slope estimate represents the annual average survival change (months) between 2006 and 2020.

<sup>b</sup>Analyses for patients with esophageal adenocarcinoma receiving palliative resection or chemoradiotherapy and esophageal squamous cell carcinoma receiving systemic therapy, best supportive care, palliative resection, or chemoradiotherapy were not performed due to limited sample size.

<sup>c</sup>Survival in 2019, because the survival in 2020 could not be calculated due to limited follow-up; the slope estimate of this analysis is subsequently calculated from 2006 to 2019.

**eTable 2. Patients With Gastric Cancer Stratified by Presence of Peritoneal Metastases**

Year of Diagnosis	With Peritoneal Metastases n (%)	Without Peritoneal Metastases n (%)
2006	192 (30.5)	438 (69.5)
2007	203 (32.3)	426 (67.7)
2008	252 (35.7)	453 (64.3)
2009	268 (37.6)	445 (62.4)
2010	280 (38.5)	448 (61.5)
2011	264 (37.0)	449 (63.0)
2012	291 (39.0)	455 (61.0)
2013	285 (41.8)	397 (58.2)
2014	301 (43.5)	391 (56.5)
2015	294 (43.7)	379 (56.3)
2016	321 (47.7)	352 (52.3)
2017	338 (48.5)	359 (51.5)
2018	358 (49.6)	364 (50.4)
2019	380 (50.8)	368 (49.2)
2020	370 (48.6)	391 (51.4)

**eTable 3. Survival of Patients With Gastric Cancer Stratified by Presence of Peritoneal Metastases and Annual Average Change in Survival**

	Overall Survival (mo)			Slope Estimate <sup>a</sup> (95% CI)	P Value
	2006	2020	2006–2020		
With peritoneal metastases survival scenarios (n=4,397)					
Best-case (p10)	17.7	19.2 <sup>b</sup>	16.3	0.15 (–0.13 to 0.43)	.33
Upper-typical (p25)	6.6	11.1	8.9	0.25 (0.17 to 0.33)	<.001
Median (p50)	2.9	5.1	3.8	0.10 (0.06 to 0.14)	<.001
Lower-typical (p75)	1.3	1.5	1.5	0.00 (–0.01 to 0.01)	.99
Worst-case (p90)	0.6	0.6	0.6	0.00 (–0.01 to 0.01)	.67
Without peritoneal metastases survival scenarios (n=6,115)					
Best-case (p10)	15.5	19.7	17.9	0.39 (0.17 to 0.61)	.004
Upper-typical (p25)	8.3	9.0	9.4	0.08 (–0.01 to 0.17)	.08
Median (p50)	3.9	3.8	3.9	0.01 (–0.02 to 0.04)	.45
Lower-typical (p75)	1.5	1.4	1.4	–0.01 (–0.03 to 0.01)	.43
Worst-case (p90)	0.7	0.7	0.7	–0.01 (–0.02 to 0.00)	.26

<sup>a</sup>The slope estimate represents the annual average survival change (months) between 2006 and 2020.

<sup>b</sup>Survival in 2019, as the survival in 2020 could not be calculated due to limited follow-up; the slope estimate of this analysis is subsequently calculated from 2006 to 2019.