

S4 Table. Adjusted female-to-male hazard ratios (HR*), exploring interaction.

	Squamous cell carcinoma						Adenocarcinoma					
	stage IA-IIB		Stage IIIA		Stage IIIB-IV		stage IA-IIB		Stage IIIA		Stage IIIB-IV	
	HR*	P-value	HR*	P-value	HR*	P-value	HR*	P-value	HR*	P-value	HR*	P-value
Age												
0-59	0.7515		1.4525		0.9925		0.7089		0.8678		0.9608	
60-69	0.8990		0.9113		0.7823		0.6931		0.8460		0.7799	
70-79	0.7821		0.9321		0.8769		0.7211		0.7317		0.8018	
80-89	0.7311		1.3165		0.8888		0.7639		0.7278		0.9741	
90+	1.9299	0.455	1.8839	0.1503	1.6976	0.0570	1.2583	0.8757	5.974e-06	0.6762	0.6186	0.0000
Year of diagnosis												
2002-2006	0.8510		0.9362		0.8176		0.7509		0.6831		0.8481	
2007-2011	0.8087		1.0863		0.9086		0.7165		0.7318		0.8228	
2012-2016	0.7313	0.646	1.0703	0.6483	0.8610	0.3491	0.6869	0.7909	0.9311	0.1141	0.8491	0.7005
Education												
low	0.7923		1.2874		0.8715		0.7268		0.8014		0.8742	
middle	0.8708		0.9334		0.8208		0.6844		0.7780		0.8177	
high	0.6722		0.6709		0.9703		0.7813		0.7979		0.8152	
missing	0.7759	0.706	0.6306	0.0096	0.8960	0.4086	0.8036	0.8324	0.7060	0.9938	0.7412	0.2412
Origin												
Scandinavia	0.7777		1.0098		0.8596		0.7262		0.8014		0.8425	
Europe	1.2380		1.1466		0.9871		0.7667		0.6294		0.7634	
Non-Europe	3.2384	0.0173	2.4069		0.5565		0.1435		0.7691	0.6895	0.8730	
missing	-		1.7595	0.4564	0.9848	0.3232	0.6073	0.0576	-		1.0161	0.5763
ECOG performance status												
0	0.6732		0.8614		0.8039		0.7119		0.8125		0.8560	
1	0.8150		1.0568		0.8797		0.7012		0.8144		0.8423	
2	0.7883		0.9888		0.9357		0.9217		0.7912		0.8521	
3	1.1353		1.1209		0.8906		0.6105		0.4943		0.8279	

4	1.0215		2.5253		0.5093		0.2335		1.6591		0.8599
missing	0.7199	0.418	1.2728	0.5128	0.9325	0.0008	0.4943	0.1059	0.4156	0.2640	0.6752 0.3034
Smoking history											
Smoker	0.7935		1.1757		0.8469		0.7527		0.9623		0.7947
Former smoker	0.8033		0.8885		0.8714		0.6895		0.6462		0.8422
Never smoker	0.6222		0.9767		0.8958		0.7239		0.7865		0.9546
missing	1.8766	0.179	1.1998	0.2634	1.0709	0.7533	0.6592	0.8786	1.1118	0.0310	0.9292 0.0101
Elixhauser comorbidities											
0	0.7713		0.9820		0.8745		0.8557		0.8094		0.8353
1-2	0.8180		1.0126		0.8553		0.6572		0.7673		0.8252
2-3	0.8456		0.9410		0.8551		0.7486		0.7080		0.8972
5+	0.7998	0.962	1.7345	0.1665	0.8496	0.9866	0.5520	0.0569	1.0178	0.6583	0.8377 0.5628

Adjusted female-to-male hazard ratios (HR*) by histological cell type and stage. Exploring the interaction between (i.e. the effect of) female sex and selected covariates as well as the model fit (p-value) compared to the original model (Table 3).

*Adjusted for age, calendar year, education, marital status, birth country, health care region, ECOG performance status, smoking history, Elixhauser comorbidity groups, TNM stage, and primary tumor location.