

**Verification of the proportional hazards assumption (n=114)**

Covariates HR 95.0% CI for HR

**Base model 1, without stratification**

Origin		
- duodenal vs. ampullary	0.57	0.21 - 1.52
- distal bile duct vs. ampullary	0.51	0.23 - 1.17
- pancreatic vs. ampullary	1.19	0.62 - 2.31
Resection margin status	1.82	1.09 - 3.06
Lymph node status	1.55	0.84 - 2.86
Poor differentiation	1.82	1.06 - 3.12
Vessel involvement	1.72	1.02 - 2.92
Perineural infiltration	1.66	0.92 - 3.02
Tumour diameter (in cm)	1.23	0.96 - 1.58

**Base model 1, stratified by tumour origin**

Resection margin status	1.74	1.03 - 2.93
Lymph node status	1.72	0.90 - 3.27
Poor differentiation	1.83	1.06 - 3.15
Vessel involvement	1.65	0.96 - 2.84
Perineural infiltration	1.59	0.86 - 2.93
Tumour diameter (in cm)	1.21	0.94 - 1.57

**Base model 1, stratified by resection status**

Origin		
- duodenal vs. ampullary	0.57	0.21 - 1.52
- distal bile duct vs. ampullary	0.52	0.22 - 1.18
- pancreatic vs. ampullary	1.14	0.58 - 2.24
Lymph node status	1.58	0.85 - 2.94
Poor differentiation	1.91	1.11 - 3.28
Vessel involvement	1.66	0.97 - 2.84
Perineural infiltration	1.62	0.90 - 2.95
Tumour diameter (in cm)	1.22	0.95 - 1.56

**Base model 1, stratified by lymph node status**

Origin		
- duodenal vs. ampullary	0.51	0.18 - 1.42
- distal bile duct vs. ampullary	0.50	0.22 - 1.14
- pancreatic vs. ampullary	1.21	0.62 - 2.35
Resection margin status	1.85	1.10 - 3.12
Poor differentiation	1.90	1.11 - 3.27
Vessel involvement	1.77	1.04 - 3.00
Perineural infiltration	1.66	0.91 - 3.01
Tumour diameter (in cm)	1.19	0.91 - 1.54

**Base model 1, stratified by vessel infiltration**

Origin		
- duodenal vs. ampullary	0.56	0.21 - 1.47
- distal bile duct vs. ampullary	0.56	0.24 - 1.28
- pancreatic vs. ampullary	1.17	0.60 - 2.28
Resection margin status	1.74	1.03 - 2.94
Lymph node status	1.53	0.83 - 2.82
Poor differentiation	1.75	1.02 - 3.02
Perineural infiltration	1.71	0.94 - 3.13
Tumour diameter (in cm)	1.23	0.96 - 1.58

**Base model 1, stratified by perineural infiltration**

Origin		
- duodenal vs. ampullary	0.57	0.21 - 1.54
- distal bile duct vs. ampullary	0.50	0.22 - 1.14
- pancreatic vs. ampullary	1.18	0.61 - 2.30
Resection margin status	1.84	1.10 - 3.09
Lymph node status	1.50	0.82 - 2.75
Poor differentiation	1.95	1.13 - 3.37
Vessel involvement	1.75	1.03 - 2.98
Tumour diameter (in cm)	1.24	0.96 - 1.60

**Base model 1, stratified by presence of poor differentiation**

Origin		
- duodenal vs. ampullary	0.62	0.23 - 1.70
- distal bile duct vs. ampullary	0.54	0.24 - 1.24
- pancreatic vs. ampullary	1.16	0.59 - 2.29
Resection margin status	1.86	1.10 - 3.13
Lymph node status	1.50	0.81 - 2.77
Vessel involvement	1.67	0.98 - 2.86
Perineural infiltration	1.73	0.95 - 3.16
Tumour diameter (in cm)	1.21	0.94 - 1.55

**Graphical evaluation**

(n=110; excluding perioperative mortality)

