

**Supplementary Table 1 Multi-variate Cox regression with attained calendar year adjusted**

<b>Multi-variate Cox regression</b>		
	<b>Hazard ratio (95% CI)</b>	<b>P value</b>
Radiotherapy	1.05 (0.91-1.21)	0.499
Sex (M)	1.47 (1.32-1.65)	0
Diagnosis age (1 year increment)	1.02 (1.01-1.02)	0
Diagnosis year	1.22 (1.08-1.39)	0.002
Chemotherapy	0.97 (0.87-1.08)	0.591
DM	1.14 (1.01-1.28)	0.028
Hypertension	0.86 (0.75-0.97)	0.017
Liver cirrhosis	2.4 (2.03-2.82)	0
Rheumatologic disease	0.81 (0.64-1.03)	0.081
End stage renal disease	0.92 (0.8-1.05)	0.2
COPD	1.19 (1.06-1.33)	0.003
Dyslipidemia	0.85 (0.76-0.95)	0.006
Attained SPM calendar year <sup>1</sup>		
Year 1996	NA (0-inf)	1
Year 1997	NA (0-inf)	0.998
Year 1998	NA (0-inf)	0.991
Year 1999	NA (0-inf)	0.981
Year 2000	3.26 (1.33-7.97)	0.01
Year 2001	2.78 (1.32-5.82)	0.007
Year 2002	2.43 (1.32-4.47)	0.005
Year 2003	1.84 (1.11-3.04)	0.017
Year 2004	1.69 (1.14-2.5)	0.009
Year 2005	1.54 (1.13-2.09)	0.006
Year 2007	1.07 (0.8-1.43)	0.659
Year 2008	0.96 (0.67-1.38)	0.835
Year 2009	0.89 (0.57-1.4)	0.62

Year 2010	0.63 (0.36-1.11)	0.109
Year 2011	0.63 (0.32-1.24)	0.183

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<sup>1</sup>Stratified attained year referenced as Year 2006. DM: Diabetes mellitus; COPD: Chronic obstructive pulmonary disease; SPM: Second primary malignancy.

**Supplementary Table 2 Cox regression of subgroup analysis**

	Hazard ratio (95%CI)		
	All patients	> 5-yr survival patients	> 10-yr survival patients
Radiotherapy <sup>1</sup>	1.05 (0.911-1.214)	1.17 (0.924-1.468)	1.03 (0.56-1.889)
Sex(Male)	1.47 (1.319-1.648) <sup>a</sup>	1.57 (1.32-1.865) <sup>a</sup>	1.29 (0.855-1.947)
Age (1 year increment)	1.02 (1.01-1.021) <sup>a</sup>	1.02 (1.012-1.029) <sup>a</sup>	1.02 (0.995-1.036)
Diagnosis year (1 year increment)	1.06 (1.042-1.083) <sup>a</sup>	1.08 (1.031-1.124) <sup>a</sup>	0.93 (0.743-1.16)
Chemotherapy	0.97 (0.866-1.081)	0.94 (0.792-1.113)	1.15 (0.761-1.741)
DM	1.14 (1.015-1.28) <sup>a</sup>	1.28 (1.072-1.53) <sup>a</sup>	1.43 (0.919-2.213)
Hypertension	0.86 (0.754-0.973) <sup>a</sup>	0.93 (0.756-1.139)	1.26 (0.726-2.172)
Cirrhosis	2.4 (2.034-2.823) <sup>a</sup>	2.82 (2.211-3.588) <sup>a</sup>	2.17 (1.148-4.111) <sup>a</sup>
Rheumatologic disease	0.81 (0.642-1.025)	0.9 (0.642-1.265)	0.98 (0.453-2.135)
Renal Failure	0.91 (0.799-1.046)	0.86 (0.703-1.062)	1.03 (0.646-1.651)
COPD	1.19 (1.062-1.328) <sup>a</sup>	1.24 (1.042-1.471) <sup>a</sup>	1.75 (1.141-2.688) <sup>a</sup>
Dyslipidemia	0.85 (0.757-0.954) <sup>a</sup>	0.87 (0.729-1.04) <sup>a</sup>	0.84 (0.546-1.295)

<sup>1</sup>Indicates surgery-only as reference. <sup>a</sup> $P < 0.05$ . DM: Diabetes mellitus;

COPD: Chronic obstructive pulmonary disease.