

**eTable 1. ICD-9 codes for outcome and covariates**

<b>Outcome</b>	
Gastric carcinoma	151, 151.0, 151.1, 151.2, 151.3, 151.4, 151.5, 151.6, 151.8, 151.9, 230.2
<b>Covariates</b>	
Smoking	491, 492, 496, V15.82
Alcohol	291, 303, 305.0, 571.0, 571.1, 571.2, 571.3, 980.8, 980.9
Gastric ulcer	531
Duodenal ulcer	532
Diabetes mellitus	249, 250
Hypertension	401-405
Dyslipidemia	272.0-272.4
Obesity	278.0, 278.1
Ischemic heart disease	410-413, 414.0, 414.8, 414.9, 429.7
Atrial fibrillation	427.3
Congestive heart failure	402.01, 402.11, 402.91, 404.01, 404.03, 404.11, 404.13, 404.91, 404.93, 428
Stroke	430-432, 433.01, 433.11, 433.21, 433.31, 433.81, 433.91, 434.01, 434.11, 434.91, 436, 437.0, 437.1
Chronic renal failure	585
Cirrhosis	571.2, 571.5, 571.6, 572.2-572.4, 573.5

**eTable 2. Incidence rate of gastric cancer of PPIs users for each follow-up year**

	2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year	5 <sup>th</sup> year	6 <sup>th</sup> year	7 <sup>th</sup> year
<b>Number of GC cases</b>	4	3	2	1	3	1
<b>Number of persons at risk</b>	3,084	2,963	2,857	2,567	2,318	2,054
<b>Incidence rate (per 10,000 person-years)</b>	13.0	10.1	7.0	3.9	12.9	4.9
	8 <sup>th</sup> year	9 <sup>th</sup> year	10 <sup>th</sup> year	11 <sup>th</sup> year	12 <sup>th</sup> year	
<b>Number of GC cases</b>	1	2	1	0	1	
<b>Number of persons at risk</b>	1,758	1,446	1,126	813	540	
<b>Incidence rate (per 10,000 person-years)</b>	5.7	13.8	8.9	0	18.5	

\* There were no gastric cancer cases within the first year of *H. pylori* eradication therapy since these patients were excluded in the current study  
PPIs, proton pump inhibitors; GC, gastric cancer

**eTable 3. HRs and 95% CIs for the association between PPIs use (frequency and duration) and risk of gastric cancer (multivariable analysis)**

		Dose-response relationship (n=63,397, GC=153)		
PPIs frequency	HR	95% CI		p-value
Non-user (<weekly use)	Ref	-		-
Weekly to <daily	2.08	1.29 – 3.61		<b>0.002</b>
Daily	3.23	0.98 – 10.60		0.054

PPIs frequency	PPIs use ≥ 1 year (n=56,592, GC=128)			PPIs use ≥ 2 years (n=54,958, GC=104)			PPIs use ≥ 3 years (n=53,900, GC=85)		
	HR	95% CI	p-value	HR	95% CI	p-value	HR	95% CI	p-value
Non-user (<weekly use)	Ref	-	-	Ref	-	-	Ref	-	-
Weekly to <daily	1.28	0.64 – 2.52	0.490	0.71	0.25 – 2.01	0.521	0.27	0.04 – 2.03	0.205
Daily	3.07	0.92 – 10.29	0.068	3.34	0.98 – 11.39	0.054	4.22	1.23 – 14.49	<b>0.022</b>

Significant p-values were highlighted in bold  
HR, hazard ratio; 95% CI, 95% confidence interval; PPIs, proton pump inhibitors; GC, gastric cancer

**eTable 4. HRs and 95% CIs for the association between PPIs use (frequency and duration) and risk of gastric cancer (propensity score adjustment without trimming)**

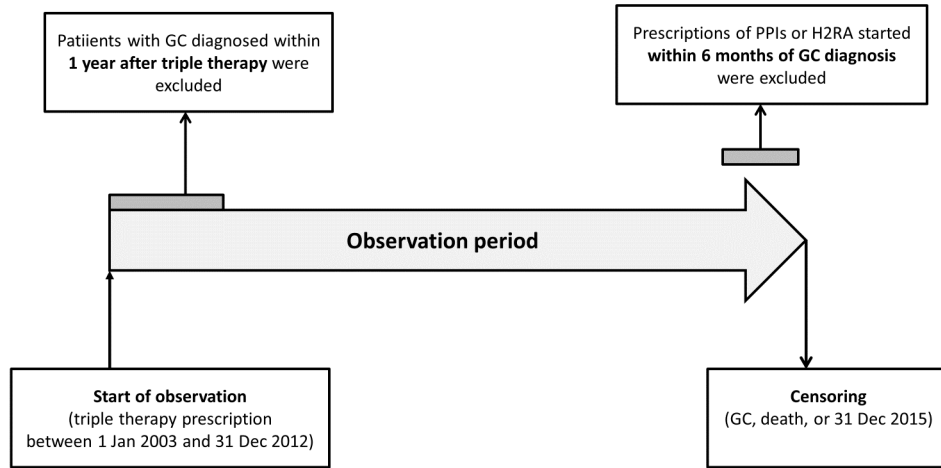
PPIs frequency	Dose-response relationship (n=63,397, GC=153)		
	HR	95% CI	p-value
Non-user (<weekly use)	Ref	-	-
Weekly to <daily	2.00	1.15 – 3.48	<b>0.015</b>
Daily	3.71	1.13 – 12.20	<b>0.031</b>

PPIs frequency	PPIs use ≥ 1 year (n=56,592, GC=128)			PPIs use ≥ 2 years (n=54,958, GC=104)			PPIs use ≥ 3 years (n=53,900, GC=85)		
	HR	95% CI	p-value	HR	95% CI	p-value	HR	95% CI	p-value
Non-user (<weekly use)	Ref	-	-	Ref	-	-	Ref	-	-
Weekly to <daily	1.32	0.66 – 2.64	0.432	0.75	0.26 – 2.13	0.582	0.30	0.04 – 2.22	0.236
Daily	3.83	1.14 – 12.83	<b>0.029</b>	4.41	1.28 – 15.23	<b>0.019</b>	5.46	1.52 – 19.57	<b>0.009</b>

Significant p-values were highlighted in bold  
\* PPIs non-user was defined as <weekly use in subsequent analysis as there was no significant difference between <monthly use and monthly to <weekly use  
HR, hazard ratio; 95% CI, 95% confidence interval; PPIs, proton pump inhibitors; GC, gastric cancer

**eFigure 1. Study observation period**



Abbreviations: GC, gastric cancer; PPIs, proton pump inhibitors; H2RA, histamine 2 receptor antagonist