

**Supplementary Table 19. Time persistence effect on cholecystitis and cholangitis development following zoster vaccination**

Time (yr)	Events, n (%)	aHR (95% CI)	
		Model 1 <sup>a)</sup>	Model 2 <sup>b)</sup>
< 1			
Unvaccinated	1,949 (0.27)	1.0 (reference)	1.0 (reference)
Vaccinated	1,631 (0.22)	0.84(0.78 to 0.89) <sup>c)</sup>	0.83 (0.78 to 0.89) <sup>c)</sup>
1–2			
Unvaccinated	1,917 (0.26)	1.0 (reference)	1.0 (reference)
Vaccinated	1,605 (0.22)	0.84(0.78 to 0.89) <sup>c)</sup>	0.83 (0.78 to 0.89) <sup>c)</sup>
2–4			
Unvaccinated	3,052 (0.42)	1.0 (reference)	1.0 (reference)
Vaccinated	2,353 (0.32)	0.81 (0.76to 0.85) <sup>c)</sup>	0.81 (0.77 to 0.85) <sup>c)</sup>
4–6			
Unvaccinated	1,720 (0.24)	1.0 (reference)	1.0 (reference)
Vaccinated	1,246 (0.17)	0.85 (0.79 to 0.91) <sup>c)</sup>	0.83 (0.77 to 0.89) <sup>c)</sup>
6–8			
Unvaccinated	517 (0.07)	1.0 (reference)	1.0 (reference)
Vaccinated	345 (0.05)	0.85 (0.74 to 0.97) <sup>c)</sup>	0.81 (0.71 to 0.93) <sup>c)</sup>
≥ 8			
Unvaccinated	21 (0.003)	1.0 (reference)	1.0 (reference)
Vaccinated	17 (0.002)	1.09 (0.57 to 2.07)	1.17 (0.61 to 2.24)

aHR, adjusted hazard ratio; CI, confidence interval.

<sup>a)</sup>Models 1: adjusted for age (50–54, 55–59, 60–64, and ≥ 65 years) and sex.<sup>b)</sup>Model 2: adjusted for age (50–54, 55–59, 60–64, and ≥ 65 years); sex; household income (low income, middle income, and high income); region of residence (urban and rural); Charlson comorbidity index (0, 1, and ≥ 2); obesity (underweight [ $< 18.5 \text{ kg/m}^2$ ], normal [ $18.5\text{--}22.9 \text{ kg/m}^2$ ], overweight [ $23.0\text{--}24.9 \text{ kg/m}^2$ ], and obese [ $\geq 25.0 \text{ kg/m}^2$ ]); blood pressure (systolic blood pressure  $< 140 \text{ mmHg}$  and diastolic blood pressure  $< 90 \text{ mmHg}$  and systolic blood pressure  $\geq 140 \text{ mmHg}$  or diastolic blood pressure  $\geq 90 \text{ mmHg}$ ); fasting blood glucose ( $< 100$  and  $\geq 100 \text{ mg/dL}$ ); glomerular filtration rate ( $< 60$ ,  $60\text{--}89$ , and  $\geq 90 \text{ mL/min/1.73 m}^2$ ); smoking status (non-, ex-, and current smoker); alcohol consumption (drinks;  $< 1$ ,  $1\text{--}2$ ,  $3\text{--}4$ , and  $\geq 5$  days per week); aerobic physical activity (sufficient and insufficient); and history of medication use for coronary artery disease, diabetes mellitus, dyslipidemia, and hypertension.<sup>c)</sup>Significant differences ( $p < 0.05$ ).