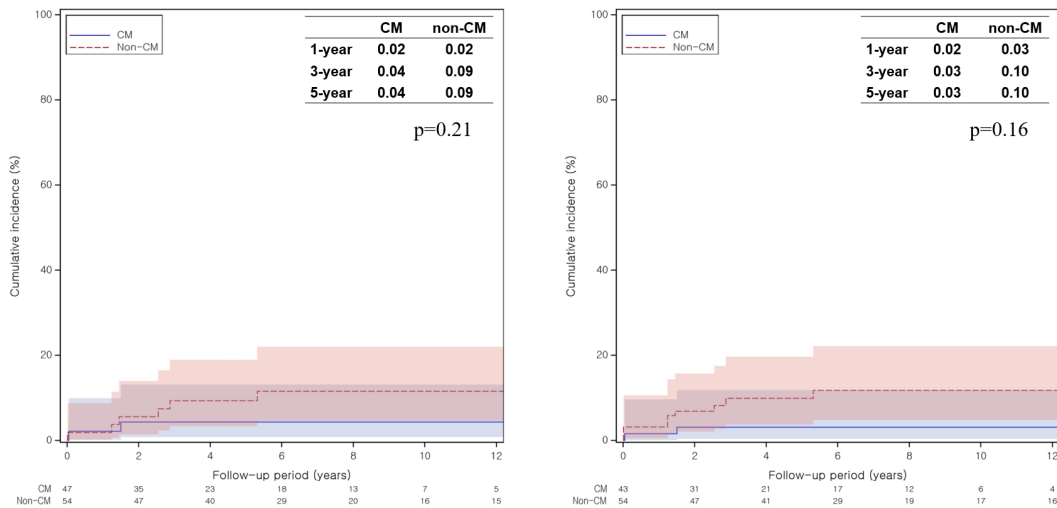
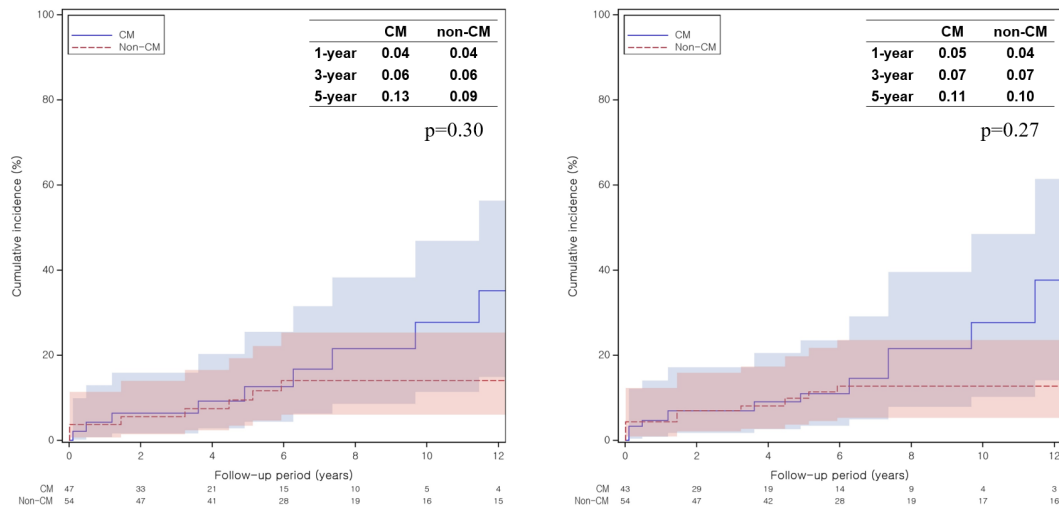


**Figure S1** Cumulative incidence curves for cardiac death in patients undergoing aortic valve replacement with or without a concomitant Cox-Maze procedure with 1-, 3-, and 5-year cumulative incidence. (A) Before IPTW, (B) after IPTW. CM, Cox-Maze procedure; IPTW, inverse probability of treatment weighting.



**Figure S2** Cumulative incidence curves for thromboembolic events in patients undergoing aortic valve replacement with or without a concomitant Cox-Maze procedure with 1-, 3-, and 5-year cumulative incidence. (A) Before IPTW, (B) after IPTW. CM, Cox-Maze procedure; IPTW, inverse probability of treatment weighting.



**Figure S3** Cumulative incidence curves for bleeding events in patients undergoing aortic valve replacement with or without a concomitant Cox-Maze procedure with 1-, 3-, and 5-year cumulative incidence. (A) Before IPTW, (B) after IPTW. CM, Cox-Maze procedure; IPTW, inverse probability of treatment weighting.

**Table S1** Multivariable risk factor analysis for occurrence of atrial fibrillation

Variables	Univariable	Multivariable	
	P value	sHR (95% CI)	P
Age	0.15		
Male	0.37		
BSA	0.85		
Obesity	0.13		
Smoking	0.04	-	0.18
Hypertension	0.36		
Diabetes	0.59		
Dyslipidemia	0.56		
Chronic kidney disease	0.63		
Hemodialysis	0.88		
COPD	0.55		
History of stroke	0.80		
Coronary artery disease	0.75		
NYHA Functional score $\geq$ III	0.37		
Left ventricular dysfunction (EF <50%)	0.25		
Bicuspid aortic valve	0.36		
Aortic regurgitation (vs. stenosis)	0.59		
Paroxysmal atrial fibrillation (vs. persistent)	0.20		
Tissue valve (vs. mechanical)	0.89		
Concomitant mitral valve repair	0.02	-	0.35
Concomitant tricuspid valve repair	0.79		
Concomitant aortic surgery	0.82		
Concomitant Cox-Maze procedure	<0.001	0.33 (0.20, 0.53)	<0.001
Ejection fraction	0.62		
Left atrium diameter	0.14		
Pulmonary artery systemic pressure	0.89		
Left ventricle end-systolic diameter	0.61		
Left ventricle end-diastolic diameter	0.64		

BSA, body surface area; CI, confidence interval; COPD, chronic obstructive pulmonary disease; EF, ejection fraction; NYHA, New York Heart Association; Shr, subdistribution hazard ratio.