January 1, 2017 -December 31, 2021
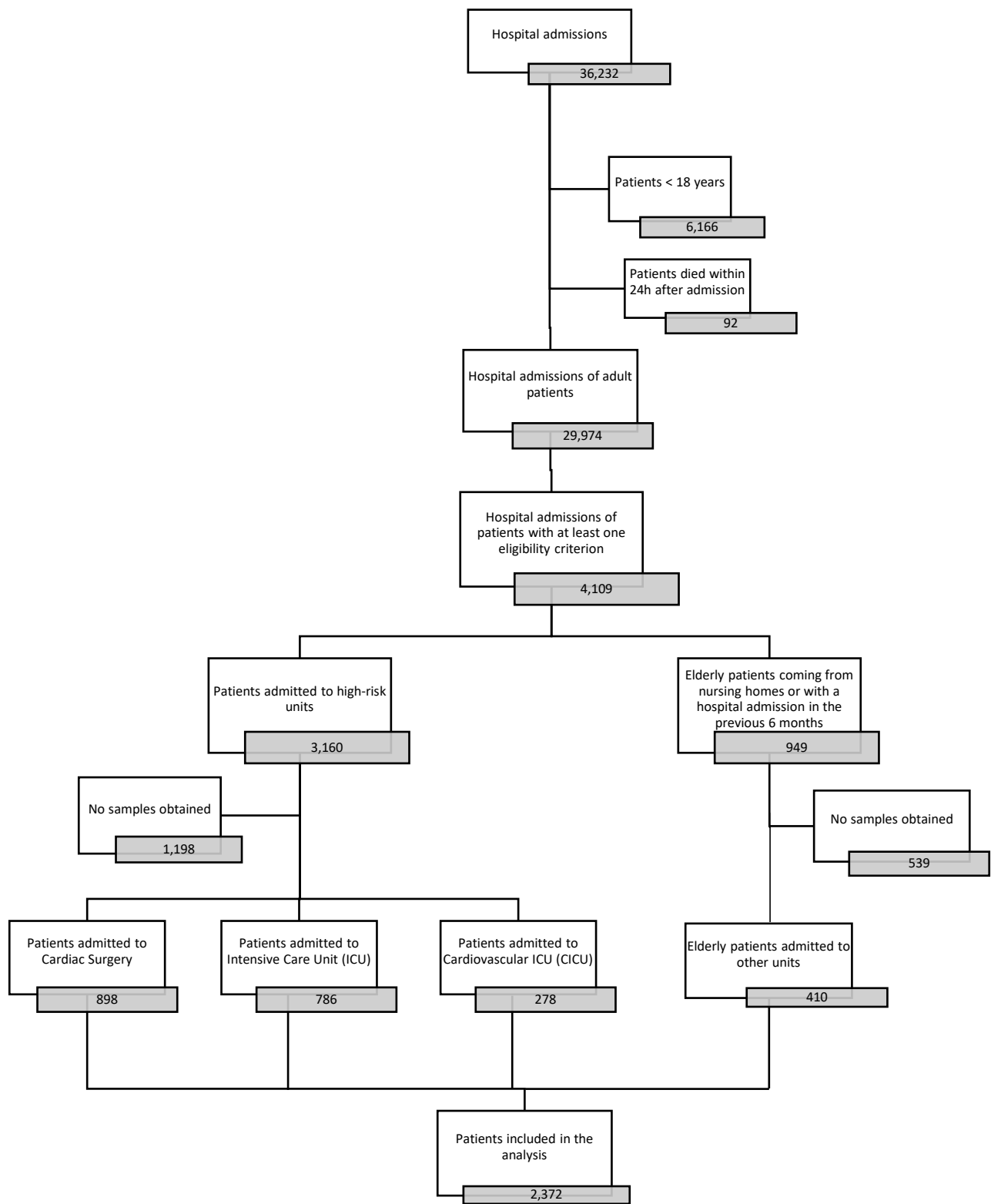
Hospital admissions
36,232

Patients < 18 years
6,166

Patients died within 24h after admission
92

Hospital admissions of adult patients
29,974

Hospital admissions of patients with at least one eligibility criterion
4,109

Patients admitted to high-risk units
3,160

Elderly patients coming from nursing homes or with a hospital admission in the previous 6 months
949

No samples obtained
1,198

No samples obtained
539

Patients admitted to Cardiac Surgery
898

Patients admitted to Intensive Care Unit (ICU)
786

Patients admitted to Cardiovascular ICU (CICU)
278

Elderly patients admitted to other units
410

Patients included in the analysis
2,372

Figure S1. Flow-chart of sampling procedures of the study

Table S1**. Results of the multilevel logistic regression analysis for estimates of associations of AMR pattern of isolates with explanatory variables**

Model 1: Outcome: AMR pattern of isolates from nasal swabs
Log-likelihood =-94924.567; Prob > chi2 = 0.2460; Obs = 493

Variables	OR	95% CI	*p*
Hospital wards			
Cardiac Surgery*	1.00		
ICU and CICU	1.08	0.95-1.22	0.243
Other wards	1.18	0.99-1.41	0.068
Sex			
Female*	1.00		
Male	0.94	0.83-1.06	0.289
Age in years (continuous)	0.99	0.99-1.00	0.932

Model 2: Outcome: AMR pattern of isolates from pharyngeal swabs
Log-likelihood =-113078.35; Prob > chi2 < 0.001 ; Obs = 422

Variables	OR	95% CI	*p*
Hospital wards			
Cardiac Surgery*			
ICU and CICU	1.74	1.31-2.33	<0.001
Other wards	0.90	0.64-1.25	0.519
Sex			
Female*	1.00		
Male	1.04	0.78-1.39	0.795
Age in years (continuous)	0.99	0.98-1.00	0.146

Model 3: Outcome: AMR pattern of isolates from rectal swabs
Log-likelihood =-30431.049; Prob > chi2 = 0.4123; Obs = 132

Variables	OR	95% CI	*p*
Hospital wards			
Cardiac Surgery*	1.00		
ICU and CICU	1.03	0.80-1.31	0.842
Other wards	0.56	0.26-1.18	0.125
Sex			
Female*	1.00		
Male	0.70	0.41-1.22	0.211
Age in years (continuous)	0.99	0.98-1.01	0.721

Abbreviations: ICU, Intensive Care Unit; CICU, Cardiovascular Intensive Care Unit.

*Reference category.