

Supplementary Material

Supplementary table 1 – Comparison of characteristics between patients with and without missing outcome data

Variable	Not missing	Missing	p-value
N	11757	531	
Admission age	64 [49-74]	62 [46-74]	0.17
Sex = Male (%)	6910 (58.8)	504 (56.0)	0.32
OASIS score	33 [24-42]	33 [25-40]	0.56

Supplementary table 2 – Missingness of laboratory variables and values before (complete case analysis) and after imputation

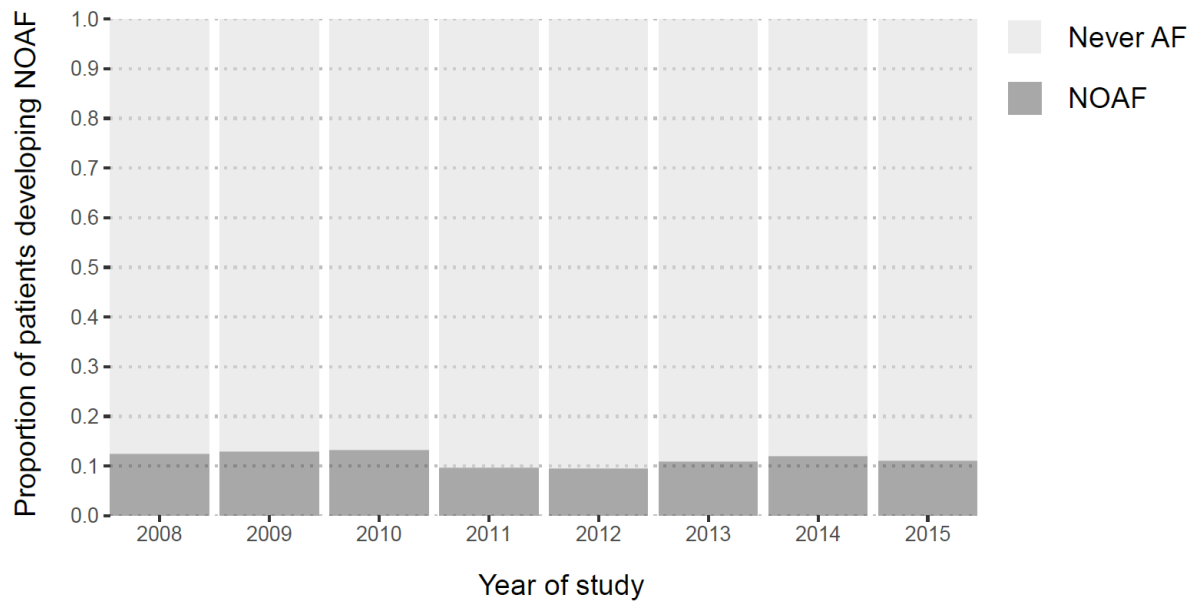
Variable	Percentage missing	Median [IQR] before MI	Median [IQR] after MI
Potassium	0.25	4.1 [3.7-4.6]	4.1 [3.7-4.6]
Magnesium	3.65	0.78 [0.67-0.91]	0.78 [0.67-0.91]
Urea	2.99	6.8 [4.7-11.4]	6.8 [4.7-11.4]
Creatinine	3.39	85 [62-138]	84 [62-138]
White cell count	3.25	11.7 [8.19-16.15]	11.7 [8.19-16.15]
Lactate	1.1	1.5 [1.0-2.5]	1.5 [1.0-2.5]

*Supplementary table 3 - Sensitivity analysis using alternative definition of NOAF**

Model	SDHR (95% CI)
M1 (primary analysis): Sex, OASIS score and comorbidity-adjusted	1.97 (1.72 - 2.25)
M2: OASIS score-adjusted	2.00 (1.75 - 2.28)
M3: Sex, OASIS score, comorbidity and laboratory data-adjusted	1.88 (1.64 - 2.15)
M4: Sex, OASIS score, comorbidity, laboratory data and vasopressor use-adjusted	1.79 (1.56 - 2.04)

*Atrial fibrillation or atrial flutter lasting for $\geq 1h$ or requiring pharmacological therapy or cardioversion

Supplementary figure 1 – Bar plot of proportion of patients developing new-onset atrial fibrillation each year of the study



Supplementary table 4 – Mortality risk associated with duration of NOAF

<i>Duration of NOAF</i>	<i>n</i>	<i>OR</i>	<i>95% CI</i>	<i>OR</i>	<i>95% CI</i>
		Unadjusted model		Adjusted model*	
None	6710	Ref.		Ref	
30s - 30min	18	3.51	1.29-8.94	1.72	0.60-4.59
>30min-60min	116	2.91	1.95-4.26	1.79	1.17-2.71
>1h-2h	74	3.56	2.20-5.67	2.92	1.70-4.94
>2h-4h	94	2.67	1.71-4.09	1.71	1.06-2.72
>4h-8h	102	3.62	2.40-5.40	2.18	1.39-3.38
>8h-24h	201	2.95	2.18-3.96	1.93	1.39-2.66
>24h-48h	117	3.84	2.63-5.57	2.20	1.45-3.30
>48h	109	3.60	2.42-5.29	1.75	1.14-2.65

**Sex, OASIS score and comorbidity-adjusted*