between AF and No-AF patients and logistic regressions performed to identify independent variables associated with incident AF. Incremental ROC curves were built with pertinent associated variables to test the additional value of E/A ratio.
Results: Between Jan 2015 and Apr 2017, 682 patients were included (101 AF vs 581 No-AF). In multivariable analysis, age, LA volume (LAv), E/A ratio and left ventricular mass (LVmass) were predictive of AF (table). Successive integrations in ROC curves of LAv and LAv + E/A ratio over age improved prediction of incident AF (AUCage=0.70; AUCage+LAv=0.74; AUCage+LAv+E/A ratio=0.78); p<0.05) (figure).

Table 1. Univariate and multivariate binary logistic backward stepwise regressions for paroxysmal AF

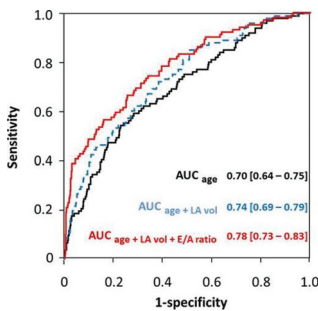|	Univariate models		Multivariate model	
	Odds ratio	p	Odds ratio	p
Age (10y)	1.60 [1.40–1.81]	<0.01	1.56 [1.27–1.87]	<0.01
Hypertension	1.77 [1.13–2.78]	0.01		
Heart Rate (10/min)	0.75 [0.62–0.90]	<0.01		
E/e' ratio	1.16 [1.07–1.25]	<0.01		
LV mass (10 g/m²)	1.08 [1.00–1.16]	0.04	1.12 [1.00–1.24]	0.05
E/A ratio (0.1 unit)	1.16 [1.10–1.22]	<0.01	1.21 [1.12–1.31]	<0.01
LV vol (10 ml/m²)	1.63 [1.44–1.82]	<0.01	1.31 [1.02–1.60]	0.04

Figure 1. ROC curves - PAF identification

Conclusion: E/A ratio has an incremental and independent value for paroxysmal AF identification over the traditional factors following IS or TIA.

P6384
High proportion of ischemic strokes may be due to low adherence to oral anticoagulation guidelines among patients with atrial fibrillation and stroke risk factors

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Background: Oral anticoagulation is highly effective for preventing stroke in patients with atrial fibrillation (AF) and stroke risk factors. However, the proportion of ischemic strokes occurring in patients with AF who did not adhere to guideline recommendations for anticoagulation is not well understood.
Purpose: We sought to analyze oral anticoagulation utilization among patients with a recent ischemic stroke and a prior diagnosis of AF in an effort to better understand the potential for stroke prevention through better guideline adherence.
Methods: Using deidentified Optum EHR data from 2011–2016, we included cardiovascular disease patients with ischemic stroke (ICD-9 codes 433.x/434.x/436.x or ICD-10 codes I63.x/I65.x/I66.x) and a prior history of AF. Subsequent analysis was limited to those indicated for oral anticoagulation (i.e., CHADS2 scores ≥2). Anticoagulant prescription in the year prior to the index ischemic stroke was assessed as a function of CHADS2 score.
Results: A total of 46,230 ischemic stroke patients with a prior history of AF were identified. Among these, 34,657 (75.0%) had CHADS2 scores ≥2 prior to the index stroke – a group where existing guidelines give strong recommendation to anticoagulate. While anticoagulant utilization was low across all evaluated CHADS2 scores, it was lowest among patients with CHADS2 scores of 2 or 3 prior to the index stroke (27.2% and 36.9%, respectively, line graph). Patients with these CHADS2 scores accounted for the 84.8% of anticoagulant-eligible patients (bar graphs).
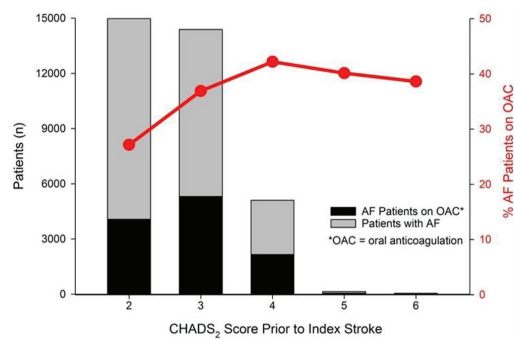

Figure 1

Conclusions: In a large real-world ischemic stroke population, adherence to guideline recommendations for oral anticoagulation was low across the entire spectrum of CHADS2 scores, even in patients with higher CHADS2 scores. The majority of AF patients suffering from ischemic stroke had a CHADS2 score ≤3 prior to the stroke event and adherence to anticoagulation guidelines was lowest among these patients. Improved adherence to established stroke prevention guidelines, particularly among those with moderate risk, could potentially reduce the burden of ischemic stroke.
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P6385
Impact of admission plasma D-dimer level on short-term risk of ischemic stroke in hospitalized patients with acute heart failure

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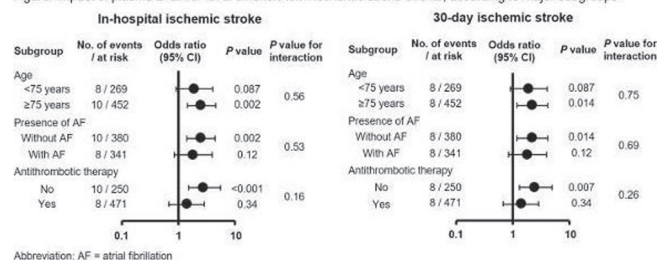
Background: Heart failure increases the risk of ischemic stroke, and its risk could be higher in the short-term period after an acute heart failure (AHF) event. However, its determinants remain to be clarified. Plasma D-dimer (DD) level reflects fibrin turnover, and exhibits unique properties as a biomarker of thrombosis.
Purpose: To investigate whether DD level is a determinant of short-term ischemic stroke events in AHF patients.
Methods: We examined 721 consecutive hospitalized AHF patients with plasma DD level on admission from our prospective registry between January 2013 and May 2016. The study endpoints were incidence of ischemic stroke during hospitalization and at 30-day after admission.
Results: Of the total participants (mean age: 76 years, male: 60%, history of atrial fibrillation [AF]: 47%, mean left ventricular ejection fraction: 38%, median DD level: 2.1 μg/ml, median hospitalization period: 21 days), in-hospital and 30-day ischemic stroke occurred in 18 and 16 patients, respectively. Patients with ischemic stroke had higher DD level than those without; however, other variables including age or history of AF were comparable. Multivariable logistic regression analyses demonstrated that elevated DD level was an independent determinant of short-term ischemic stroke (Table). Subgroup analyses showed that DD level was significantly associated with in-hospital and 30-day ischemic stroke in patients

Figure: Impact of plasma D-dimer level on short-term ischemic stroke events, according to major subgroups

Abstract P6385 – Table 1. Logistic regression analyses for the impact of plasma D-dimer level on short-term ischemic stroke events

	Model 1*		Model 2†		Model 3‡	
	OR (95% CI)	P value	OR (95% CI)	P value	OR (95% CI)	P value
In-hospital ischemic stroke						
D-dimer, log	2.18 (1.40–3.40)	<0.001	2.36 (1.46–3.84)	<0.001	2.29 (1.46–3.60)	<0.001
D-dimer ≥3.5 μg/ml (based on ROC curve analysis)	3.52 (1.37–9.68)	0.009	3.73 (1.39–10.64)	0.009	3.76 (1.45–10.44)	0.007
30-day ischemic stroke						
D-dimer, log	1.98 (1.24–3.13)	0.005	2.23 (1.34–3.69)	0.002	2.04 (1.27–3.25)	0.004
D-dimer ≥3.5 μg/ml (based on ROC curve analysis)	2.85 (1.05–8.08)	0.040	3.26 (1.15–9.60)	0.026	2.97 (1.09–8.48)	0.034

*Unadjusted, †Adjusted for major confounders; age, history of atrial fibrillation, and use of antithrombotic therapy (oral anticoagulant and/or antiplatelet agents), ‡Adjusted for CHA2DS2-VASc score.
Abbreviations: CI = confidence interval, OR = odds ratio, ROC = receiver-operating characteristics.