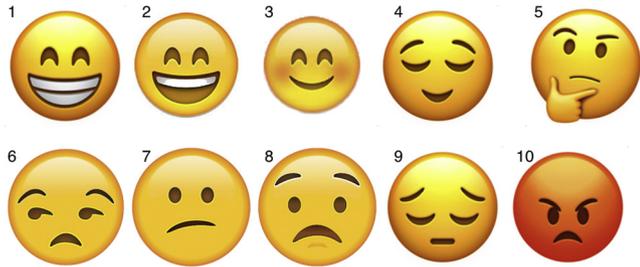


Mean emoji at admission for male was significantly lower than female (6.2±2.6 v. 5.4±2.6; p=0.006) and slightly higher mood change (slope=0.52, p=0.065).

Conclusion: Emoji can be a useful tool in tracking a patient's mood during the ED visit. We did not observe any effect from wait time or length of stay in the ED on the patients' emoji selection. These emoji surveys are simple to administer and could impact the overall management and care within the ED.



	Results					
	2014	2015	2016	2017	2018	Overall
Billing	32	45	46	49	50	222
Satisfaction	13	28	13	34	11	99
Care	64	72	71	52	92	351
Follow Up	3	2	1	0	0	6
Nursing	1	2	0	3	2	8
Other	6	6	2	8	5	27
Information	2	4	3	5	4	18
Physical Plant	0	0	0	0	0	0
Total Complaints	121	159	136	151	164	731
Total Patients	49908	50808	51135	49915	49246	251012

	Number of Days From Date of Service to Case Open					
	2014	2015	2016	2017	2018	Overall
Billing	195	166	190	120	131	160
Satisfaction	13	20	16	37	13	20
Care	35	73	35	23	24	38
Follow Up	9	7	6	NA	NA	7
Nursing	14	17	NA	14	13	14
Information	102	99	2.5	60	8	67
Physical Plant	0	0	0	0	0	0
Other	29	169	1	6	18	44

	Number of Days From Case Open to Close					
	2014	2015	2016	2017	2018	Overall
Billing	6	26	13	19	17	13
Satisfaction	15	21	32	10	16	19
Care	11	35	39	33	22	28
Follow Up	2	20	1	NA	NA	6
Nursing	182	32	NA	3	11	57
Information	9	11	28	15	5	13
Physical Plant	0	0	0	0	0	0
Other	11	32	15	5	13	15

95 An Analysis of Patient Complaints at a Community Teaching Hospital's Emergency Department and Its Correlation to Litigation

Almeida VM, Martin JF, Dalsey W, Galligan K/Monmouth Medical Center, Long Branch, NJ; Community Medical Center, Toms River, NJ; Monmouth University, West Long Branch, NJ

Study Objectives: The purpose of this study is to analyze emergency department (ED) complaints received at a community teaching hospital, create benchmarks with complaint rates and to correlate this with litigation.

Methods: A prospective study analyzed logged patient complaints forwarded to the ED Medical Director between 2014 and 2018. Our community teaching ED has an approximate annual volume of 50,000 visits with ED attending and mid-level provider coverage. Our ED satisfaction scores place us in the 85th percentile in our peer group and 65th percentile nationally. Qualitative evaluation was performed based on a systematic taxonomy and the following data was extracted: patient's provider, reason of complaint, origin of complaint, patient date of service, the date case opened, and the date the case closed. The complaints were totaled by year and categorized, correlating to the context of complaints, mode of case opening, and time frame for resolution. ED litigation was reviewed over the same five-year interval and correlated to the complaint log.

Results: The most common reason for a complaint was based on clinical care concerns, followed by billing issues, and then by patient satisfaction issues. Satisfaction concerns were received the earliest at 19.7 days, clinical concerns occurred in 38 days and finally billing at 160 days. Most complaints were resolved within 19.5 days after the case was opened. Cases that took more than 90 days to open from the date of service were most likely associated to billing. Most complaints originated from the Patient Satisfaction and Billing Departments. We have found that our facility had an annual complaint rate ranging from 24.2 to 33.3 per 10,000 visits during the observation period, with an overall rate of 29.1 per 10,000 visits. The hospital had nine total lawsuits attributed to the ED over the five-year period, for a rate of 9 per 251,012 or 0.36 lawsuits per 10,000 patient visits. The rate of a complaint associated with a lawsuit was 2 per 731 or 27.4 lawsuits per 10,000 complaints when extrapolated. Only one suit would assign attribution to the ED provider; all others were related to supporting services.

Conclusion: The complaint incidence in our ED is low at 29.1 per 10,000 visits and remained constant over the five-year observation period. Only two complaints out of the 731 complaints led to litigation for a rate of 27.4 lawsuits per 10,000 complaints. This rate was substantially higher in magnitude than the general rate of 0.36 per 10,000. Moreover, most cases that ended up in litigation did not have an associated complaint filed in advance of the claim. Clinical complaints of quality of care, billing, and satisfaction were the most common. Satisfaction and quality of care complaints tend to come in earlier, while billing complaints are more likely to come in later and take longer to be resolved.

96 Appropriate Stroke Prophylaxis Action After US Emergency Department Diagnosis and Discharge of Atrial Fibrillation and Flutter Patients

Kea B, Warton M, Sun BC, Reed ME, Ballard DW, Vinson DR; on behalf of the, KP CREST Network/Center for Policy & Research, Oregon Health & Science University, Portland, OR/Kaiser Permanente Division of Research, Oakland, CA; University of Pennsylvania, Philadelphia, PA; The Permanente Medical Group, Oakland, CA

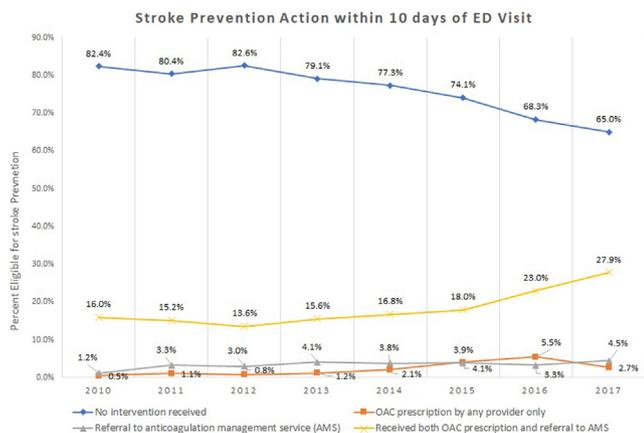
Study Objectives: Oral anticoagulation (OAC) reduces stroke and mortality risk in patients with nonvalvular atrial fibrillation and flutter (AFF). The incidence of US emergency department (ED) OAC initiation is poorly understood, as are the appropriate actions following discharge. We examined stroke prophylaxis actions on, and shortly following, ED discharge of stroke-prone AFF patients in a large integrated health care delivery system.

Methods: We included all adults with a primary diagnosis of nonvalvular AFF, high stroke risk (CHA₂DS₂-VASc ≥2), and no recent (<90d) OAC at discharge from 21 EDs in Kaiser Permanente Northern California between 2010-2017. Rates of appropriate stroke prevention action were calculated for all eligible discharges per calendar year. Actions were defined as either (1) an OAC prescription by an ED or follow-up provider, (2) a referral to a pharmacy-led anticoagulation management service (AMS), or (3) receipt of both an OAC prescription and AMS referral, within 10 days of ED discharge. We estimated appropriate OAC action (yes/no) with a mixed logistic model with sex, age, race, Hispanic ethnicity, stroke (CHA₂DS₂-VASc) and bleeding (HAS-BLED) risk and year as a fixed effect, and accounting for clustering by patient.

Results: Among 10,281 eligible ED discharges, mean age was 73.7 (STD 11.4) years, 61% were female, and mean CHA₂DS₂-VASc score was 3.7 (STD 1.62). From 2010 to 2017, there was steady increase in patients receiving both an OAC prescription and referral to AMS, 16.0 to 27.9% (Figure). The rate of no intervention decreased from 82.4 to 65.0% of eligible patients. Factors inversely associated with stroke prevention action within 10 days of ED discharge include female sex (aOR 0.79, 95% CI 0.71-0.88), age >74 years (0.59, 0.45-0.76) vs <64yo, high bleeding risk by

HAS-BLED score (0.70, 0.58-0.85) vs low risk respectively, and highest stroke risk (CHA₂DS₂-VASc score 6-9) (0.70, 0.60-0.84) vs lower risk (CHA₂DS₂-VASc scores 2-4). The odds of receiving any action was 2.6 times higher in 2017 compared to 2010 (aOR 2.60, 2.08-3.24).

Conclusion: Within a community-based ED population of AFF patients at high-stroke risk, the rate of appropriate stroke prevention action increased over the 7-year study period. However, there remains an opportunity to improve AFF thromboprophylaxis as more than half of the eligible patients in 2017 were not receiving appropriate stroke prevention action within 10 days of their index visit. Additionally, female sex and those greater than 74yo were less likely to receive appropriate action compared to men and those younger than 65yo. The undertreatment of those greater than 74yo suggests a misunderstanding of the net clinical benefit associated with OAC in the elderly. Furthermore, opportunities to address sex disparities exist as we seek to improve stroke prophylaxis in nonvalvular AF patients discharged from the ED.



ECG review, at least one change in ischemic pattern was found in greater than half of patients presenting with AAD (51.7%, 45/87), (Table 1). 35.6% (31/87) had new ischemic findings at the time of AAD diagnosis and 16.1% (14/87) had normalization of ischemic findings seen on the prior ECG. The most common new ischemic finding was new T-wave inversions (23.0%, 20/87). The presence of new ischemic findings was similar in patients with a Type A dissection (36.6%, 15/41) compared to a Type B dissection (34.8%, 16/46). The most common non-ischemic change was a change in axis (17.2%, 15/87). Many patients had multiple changes to their ECG. For example the 50 ischemic changes seen were shared across ECGs from 45 patients. Overall, 81.6% (71/87) of patients with AAD had a significant change in ischemic pattern and/or non-ischemic change on ECG when compared to their most recent ECG.

Conclusion: Acute ischemic changes on ECGs in patients with a diagnosis of AAD were common. New T-wave inversions and axis changes on ECG used in conjunction with patient presentation can help heighten concern for the rare finding of an acute aortic dissection.

	Overall ECG Comparison					
	Total (N=87)		Type A (N=41)		Type B (N=46)	
	Number	Percent	Number	Percent	Number	Percent
Total Patients with any ECG Change	71	81.6%	36	87.8%	35	76.1%
Total Patients with any Change in Ischemic Pattern	45	51.7%	25	61.0%	20	43.5%
Total Patients with New Ischemic Findings at Diagnosis of AAD	31	35.6%	15	36.6%	16	34.8%
Significant ECG Changes						
New T Wave Inversions	20	23.0%	9	22.0%	11	23.9%
Change in Axis	15	17.2%	9	22.0%	6	13.0%
Normalization of Prior Ischemia	14	16.1%	10	24.4%	4	8.7%
New AV Block	8	9.2%	4	9.8%	4	8.7%
New Q waves	5	5.7%	4	9.8%	1	2.2%
New ST Elevations	5	5.7%	2	4.9%	3	6.5%
New ST Depressions	4	4.6%	2	4.9%	2	4.3%
New Arrhythmia	4	4.6%	3	7.3%	1	2.2%
New LBBB	2	2.3%	1	2.4%	1	2.2%
New RBBB	1	1.1%	0	0.0%	1	2.2%
Other Non-ischemic Changes	39	44.8%	20	48.8%	19	41.3%

* Blue = Ischemic Changes. Note: Multiple ischemic and non-ischemic changes could be seen on the same ECG.

97 Ten-Year Retrospective Review Investigating Ischemic Electrocardiogram Changes in Patients With the Diagnosis of Acute Aortic Dissection in the Emergency Department

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Study Objectives: To identify new ischemic changes on electrocardiogram (ECG) in patients presenting to the emergency department (ED) with undiagnosed acute aortic dissections (AAD) as a potential screening tool for risk stratifying patients with this rare but often fatal diagnosis.

Methods: This was a retrospective multicenter chart review of all ED patients presenting with the diagnosis of AAD from January 1, 2006 to December 31, 2016 in a large health care system. The EDs in the system were comprised of an urban academic quaternary care center, 5 urban community EDs, 3 suburban community EDs, and 3 free-standing EDs with a current census of over 506,500 patients per year. All patients with the following 3 criteria were included in the analysis: 1) diagnosis of AAD as reported by ICD code, 2) confirmed AAD by CT imaging performed in the ED, and 3) ECG done at the time of presentation and a prior ECG in the electronic medical record. ECGs were reviewed independently by two board-certified Emergency physicians and findings were compared to the prior ECG. We reviewed all changes between ECGs. Ischemic changes were defined as T-wave inversions, q waves, ST elevations or depressions, and/or a new left bundle branch block (LBBB). Other significant ECG changes such as change in axis, rate, or rhythm were recorded but not considered to be ischemic changes. Non-specific T-wave changes were not considered significant. Data management and analysis were calculated and reported using descriptive methods.

Results: A total of 147 patients were identified with the diagnosis of AAD. Of this group, 87 patients qualified for inclusion as they had a prior ECG available for comparison. 41 patients had Type A dissection and 46 patients had Type B dissection. Mean age of patients was 66.4 years. 62% were male, and 51% were Caucasian. On

98 Which Patients Presenting to the Emergency Department in Atrial Fibrillation With Rapid Ventricular Response Require a Chest X-Ray?

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Study Objectives: There is variability in the workup and management of patients presenting to the emergency department (ED) with atrial fibrillation with rapid ventricular response (afib rvr). The utility of a chest x-ray (CXR) in these patients has not been established or researched. The primary goal of this study was to characterize the proportion of patients who received a CXR and the frequency of an abnormal finding on CXR in this patient population. The secondary goal was to identify signs, symptoms, or other patient characteristics at presentation which were associated with an abnormal finding on CXR.

Methods: This is a multicenter retrospective study of patients with a primary diagnosis of afib rvr that presented to the ED between January 2016 and October 2018. Patients aged 18 years and older with a diagnosis of afib rvr were included. Pregnant patients and those who required intubation in the ED were excluded. Patient characteristics, including demographics, past medical history, symptoms on presentation, and vital signs in the ED were collected. Patients who had a CXR in the ED were identified and results were determined to be abnormal if they showed any evidence of pulmonary congestion, pleural effusion, infiltrate, pneumonia, pneumothorax, or if disease could not be excluded. Stepwise variable selection logistic regression analysis was employed to identify risk characteristics and to assess their corresponding adjusted effects in predicting the presence of abnormal CXR.

Results: A total of 3008 patients met inclusion criteria and 1733 (57.6%) received a CXR in the ED. After excluding missing information, 1304 of 1733 was used in final analysis. Of 1304 patients receiving a CXR, 337 (25.8%) were identified to have an abnormal CXR. Results show that shortness of breath (aOR 2.25, 95% CI 1.71-2.95, $P < 0.001$), tachypnea or hypoxia (aOR 1.88, 95% CI 1.29-2.75, $P < 0.001$), and history of heart failure (aOR 1.60, 95% CI 1.13-2.25, $P = 0.01$) were significantly associated with an abnormality on CXR. Compared to patients aged less than 60 years, older patients were twice as likely to have an abnormal CXR (aOR 2.03, 95% CI