Percentage of Patients Prescribed Anticoagulants in an **Emergency Department Setting Who Picked Up Prescriptions**

Jasmine Archuleta PA-S, Bailee Bird PA-S, Allison Elmer PA-S, Kawika Tupuola PA-S, Alden Baker, MPAS, PA-C, Jared Spackman MPAS, PA-C, Jennifer Coombs, PA-C, PhD, Department of Family and Preventive Medicine, Division of Physician Assistant Studies. Community Partner: Cole Sloan, PHARMD, BCPS



BACKGROUND

- Rivaroxaban, Apixaban (DOACS), Enoxaparin and Warfarin are anticoagulants are regularly prescribed in the Emergency Department (ED).
- Common indications: atrial fibrillation (AF), deep vein thrombosis (DVT), venous thromboembolism (VTE) and pulmonary embolism (PE)⁽¹⁾.
- Goal of anticoagulants prevention of recurrent and extensions of thrombotic events and reduce post-thrombotic syndrome ^(2,3).
- Patients who do not pick up their anticoagulant prescriptions following ED visits are more likely to revisit the ED within 30 days than those who fill their prescriptions.
- Our goal: assess the proportion of patients prescribed anticoagulants and filled their prescriptions within 4 weeks.

METHODS

- Electronic medical records (EMR) from patients prescribed anticoagulants by the ED between 2021 and 2022 were obtained.
- EMR charts were manually reviewed and coded to assess our research question and sub-analysis (Fig. 1).
- Percentage of patients who did not pick up anticoagulant prescriptions were assessed.
- Descriptive and regression analysis (R studio) were performed for variables that may influence outcomes. Both analyses assess the final number of patients who met our criteria (n= 225).
- Patients were sorted into two categories: "picked up" or "did not pick up."
- Variables assessed included:
 - Location (Rural vs. Urban zip codes)
 - Insurance Coverage (Y/N)
 - Gender
 - ESL
 - BMI (>40 kg/m^2)
 - Weight (>120 kg)



RESULTS

Total charts in 2021-

2022: 779

- 225 eligible patient charts reviewed (Fig 2).
- 14.2% of patients did not pick up their prescriptions (Fig 3).
- Descriptive Statistics indicated no correlation between ESL or insurance due to low power.
- Logistic regression showed no statistical significance between Weight, Age, Gender or Zip code (Table 1. Table 2.).

Table 1		1	Table 2	
Variables	P-value	Variables	P-value	
Weight	0.597	Weight <60	0.8098	
Age	0.529	Weight 60-69	0.4132	
Gender	0.488	Weight 80-89	0.7679	
Rural Zip code	0.193	Weight 90-99	0.4397	
Urban Zip code	0.26	Weight 110-119	0.9048	



Total Charts after Eligible patients removing following chart duplicates, and review and audit: outside pharmacy prescriptions: 460

225

DISCUSSION & CONCLUSION

85.7% of patients newly prescribed anticoagulants in the University of Utah Emergency Department filled their prescriptions between January 2021 and December 2022.

Limitations of this study include the inability to gather data from outside pharmacies, lack of height data within patient charts and limited access to charts outside of the University of Utah. **Strengths** include data from two consecutive years and multiple variables assessed.

Prescription fill rate of anticoagulants prescribed at the University of Utah Pharmacy within the University of Utah Emergency Department was unaffected by any studied variables. The absence of statistically significant data may highlight a lack of bias when treating patients, easily accessible resources, and a lack of a need for intervention within the University of Utah Emergency Department; a repeat of our study that addresses our limitations would be ideal.

Patients who picked up vs did not pick up prescription





References:

- 1. Atzema CL, Jackevicius CA, Chong A, et al. Prescribing of oral anticoagulants in the emergency department and subsequent long-term use by older adults with atrial fibrillation. CMAJ. 2019;191(49):E1345-E1354. doi:10.1503/cmaj.190747. Published December 9, 2019, Accessed December 7, 2022,
- 2. Geller, Andrew I et al. "Emergency Visits for Oral Anticoagulant Bleeding." Journal of general internal medicine vol. 35,1 (2020): 371-373. doi:10.1007/s11606-019-05391-y
- Secemsky EA, Rosenfield K, Kennedy KF, Jaff M, Yeh RW. High Burden of 30-Day 3 Readmissions After Acute Venous Thromboembolism in the United States. J Am Heart Assoc. 2018;7(13):e009047. doi:10.1161/JAHA.118.009047. Published 2018 Jun 26. Accessed February 9th, 2023

Acknowledgements: Dustin Elmer, MSBA: Data Analytics