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### Published In/Presented At

Greenberg, M., Levitt, C., McCambridge, M., Oertner, B., Young, M., Miller, A., Glaser, T., Stashin, A., Galeano, K., Vido, M., (2021, October). Sex specific analysis of management and disposition of patients with venous thromboembolism during the Covid pandemic [Poster]. Poster presented at: American College of Emergency Physicians, ACEP, Boston, MA

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# Sex-Specific Analysis of Management and Disposition of Patients with Venous Thromboembolism During the Covid Pandemic

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# Study Objectives

Clinical guidelines from professional societies including ACEP and the European Society of Cardiology suggest that outpatient management is safe for low-risk patients with venous thromboembolism (VTE). With FDA clearance of direct oral anticoagulants (DOACs), there has been a shift in treating low-risk VTE patients with DOACs in the outpatient setting compared to admission. This study sought to describe differences in the management of VTE related to sex of the patient in context of the Covid Pandemic.

# Methods

We performed a retrospective analysis on a quality improvement database of a convenience sample of patients diagnosed with VTE during the Covid pandemic between 9/1/2020 and 2/28/2021. Patients were included if they were evaluated in the ED at one of a network of six hospitals in NE Pennsylvania: three northern rural community hospitals, one Level 1 trauma/academic center, one suburban hospital and one center city hospital.

## Results

454 patients, 219 female (48.2%) and 235 (51.8%) male, were diagnosed with VTE between 9/1/20 and 2/28/21. Of these, 248 (54.6%) were admitted for VTE treatment and 206 (45.4%) were discharged. Data include 235 males and 219 females, with an average age of 58 and 61 years, respectively. The range in length of stay (LOS) for the female group was 37-2,776 minutes with an average of 389 minutes vs. a range of 70–1,545 minutes with an average of 396 minutes for the male group. Regarding disposition, 127 (57.9%) females were admitted and 92 (42.0%) were discharged vs. 121 (51.5%) males admitted and 114 (48.5%) discharged (p=0.164). Twenty-seven (12.3%) of the female patients and 33 (14.0%) of the males did not have a

follow-up appointment scheduled at discharge (p=0.590). There were 27 patients that returned within 30 days with a VTE diagnosis, 13 were females and 14 were males (p=0.992). Of those who returned that had been discharged, 9 were females (69.3%) compared to 4 (28.6%) males. Of those who returned that had been admitted, 4 were females (30.7%) vs. 10 (71.4%) males. DOACs were prescribed to 127 (57.9%) female patients and the anticoagulant breakdown was as follows: 82 (64.6%) receiving apixaban, 33 (25.9%) rivaroxaban, 7(5.5%) enoxaparin and 5 (3.9%) warfarin compared to 126 (53.6%) male patients: 65 (51.6%) receiving apixaban, 37 (29.4%) rivaroxaban, 18 (14.3%) enoxaparin and 6 (4.8%) warfarin.

# Conclusion

During the COVID pandemic at a six-hospital network in Northeast PA there was no sex specific difference in disposition of patients presenting to the ED with VTE. There were some sex specific differences in medication management and return visits, but the numbers in our study were too small to generate confident clinical and statistical significance. Further study with a larger dataset to determine the impact of these potential sex specific differences on patient outcomes as well as to elucidate the impact COVID has on the decision-making process for management is indicated.









