Oral Abstract 16: Risk Stratification and Targeted Thromboprophylaxis in Gynecologic Oncology Patients Undergoing Chemotherapy

Presenting Author: Sarah Moghaddam, BS, Lewis Katz School of Medicine at Temple University

Topic
Quality & Healthcare Systems

Objectives
We sought to evaluate the effect of targeted prophylaxis on venous thromboembolism (VTE) rates for gynecologic oncology patients undergoing chemotherapy.

Methods
We retrospectively analyzed patients with gynecologic malignancies on chemotherapy at risk for VTE between 11/2022-10/2024 to identify risk factors for VTE development. We then introduced a quality improvement intervention from 2/2025-2/2026 providing VTE prophylaxis with apixaban 2.5mg BID for those at high risk (ascites and Khorana score ≥2). We compared the historical "pre-intervention" cohort to the intervention cohort to compare radiographically confirmed VTE. Descriptive statistics were performed between cohorts and univariate analysis and Firth's regression were conducted.

Results
A total of 275 patients in the pre-intervention cohort and 15 in the intervention cohort were included. The median age was 64 years (IQR 57 – 73). Most patients were White (81%), with ovarian (49%) or uterine (36%) malignancies, and with stage III-IV disease (69%). Overall, 14 patients (5%) in the pre-intervention cohort and 0 patients (0%) in the intervention group developed a VTE (p=0.37). On univariate analysis of the entire cohort, patients who developed VTE were significantly more likely to have ascites (odds ratio (OR) 7.58, 95% CI 2.06-27.8, p=0.002), prior history of VTE (OR 38.5, 95% CI10.0-147.6, p< 0.001), pleural effusion (OR 4.21, 95% CI 1.42-12.5, p=0.010), and elevated platelet count (OR 1.003, per 1 x103/μL, 95% CI 1.001-1.006, p=0.020) (Table). BMI was protective (OR 0.87, per 1 kg/m2, 95% CI 0.78-0.96, p=0.007). On Firth's regression, adjusted OR (aOR) for VTE was 5.84 for ascites (95% CI 1.66–25.4, p=0.005), 25.2 for prior VTE history (95% CI 7.4–107.3, p< 0.001), and 0.84 for VTE prophylaxis intervention (95% CI 0.01 - 9.66, p=0.98). Among 51 high-risk (ascites + Khorana score ≥2) patients in the pre-intervention group, VTE incidence was 14% (7/51) compared to 0% post-intervention (0/15) (p=0.336).

Conclusions
A targeted QI thromprobophylaxis strategy resulted in no VTE events among a limited number of patients. Incorporation of risk factors beyond Khorana score alone may provide a more targeted approach to prophylaxis for gynecologic oncology patients, though larger studies are still necessary.

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