

WCCCT 2020: Direct oral anticoagulants in preventing venous thromboembolism in ambulatory patients with cancer: A systematic review and meta-analysis- Dastynne Marie L. Dela Cruz, MD and Janine Audrei T. Pajimna, MD- St. Luke's Medical Center – Quezon City, Quezon City, Philippines

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Abstract

Venous thromboembolism (VTE) is the second highest cause of mortality among cancer patients¹. Routine thromboprophylaxis is not being given to ambulatory cancer patient based on recent guidelines.

Methods: A literature search of randomized controlled trials evaluating the use of direct oral anticoagulants (DOACs) as prophylaxis for VTE among ambulatory cancer patients was conducted in the following databases: PubMed, Cochrane Library, CENTRAL, clinicaltrials.gov, and HERDIN. The primary outcome was the incidence of VTE and the secondary outcomes were major and non-major bleeding episodes. Two independent reviewers assessed the methodological quality of the studies using the Cochrane risk of bias tool. The random effects model for dichotomous data was used with a 95% confidence interval.

Results: Two randomized controlled trials were included in this study (N=1404). The incidence of VTE among ambulatory cancer patients on DOACs was significantly decreased (OR 0.53; 95% CI 0.31-0.89, $I^2=31%$). The rates of major (OR 1.97; 95% CI 0.88-4.43, $I^2=0%$) and non-major (OR 1.37; 95% CI 0.79-2.37, $I^2=0%$) bleeding were not statistically significant.

Conclusion: This meta-analysis showed that the use of direct oral anticoagulants is associated with a statistically significant decrease in the rates of venous thromboembolism among high risk ambulatory cancer patients receiving chemotherapy. There was no statistically significant difference in the rates of major and non-major bleeding. DOACs can be used as primary VTE prophylaxis. Further evaluation on more homogeneous population of cancer patients and more powered studies is needed.

Biography

Dastynne Marie L. Dela Cruz, MD has completed her medical education at Pamantasan ng Lungsod ng Maynila-College of Medicine and is currently a first year medical resident at St. Luke's Medical Center-Quezon City.

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