Prophylaxis for Venous Thromboembolism (VTE)

Prophylaxis is Recommended to Reduce the Risk of VTE

NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) Recommendations for Cancer-Associated VTE Disease:[1]

Anticoagulant options for VTE prophylaxis for ambulatory patients with cancer include direct oral anticoagulants (DOACs) and low molecular weight heparins (LMWHs) †, ‡, §

MARIPOSA Adverse Event: VTE[2-5]¶

Overview of MARIPOSA[2-4]

Line of Therapy:	1L
Intervention:	Amivantamab + Lazertinib
Patient Population:	Patients with locally advanced or metastatic NSCLC and documented ***EGFR* exon 19 deletion or exon 21 L858R mutations**

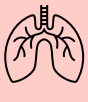
n (%)	Amivantamab + lazertinib (n=421)	Osimertinib (n=428)
Any VTE#		
All grades	157 (37)	39 (9)
Grade 1	5 (1)	0
Grade 2	105 (25)	24 (6)
Grade 3	43 (10)	12 (3)
Grade 4	2 (0.5)	1 (0.2)
Grade 5	2 (0.5)	2 (0.5)
Any VTE leading to death	2 (0.5)	2 (0.5)
Any VTE leading to any discontinuation	12 (3)	2 (0.5)
VTE‖		
Pulmonary embolism	73 (17)	20 (5)
Deep vein thrombosis	61 (14)	11 (3)
Venous thrombosis limb	17 (4)	1 (0.2)
Thrombosis	9 (2)	1 (0.2)
Venous thrombosis	8 (2)	1 (0.2)
Anticoagulation use at time of first VTE		
On anticoagulants	5 (1)	0
Not on anticoagulants	152 (36)	39 (9)
Median days to first VTE	84	194
Within first 4 months	97/157 (62)	13/39 (33)

- Most VTEs were Grade 1–2
- The incidence of Grade 4–5 VTE was <1% in both arms
- The majority of VTE events in the amivantamab + lazertinib arm occurred within the first 4 months
- At time of first VTE, few patients were receiving anticoagulation (1% for amivantamab + lazertinib and 0% for osimertinib)

When initiating treatment with amivantamab + lazertinib, administer anticoagulant prophylaxis to prevent VTE events for the first four months of treatment. The use of Vitamin K antagonists is not recommended. Monitor for signs and symptoms of VTE events and treat as medically appropriate.,[4]**

VTE Risk Assessment

Cancer-associated VTE is multifactorial, physicians base diagnosis on medical history, a physical exam, imaging/blood tests, and risk factors.[6,7]



Cancer is a prothrombotic condition and lung cancer is a known risk factor for VTE. The use of systemic chemotherapy is associated with a 2- to 6-fold increased risk of VTE.[7]

Assessing VTE Risk Using the Khorana Risk Score[1,7-9]:

Incorporates 5 clinical and prechemotherapy laboratory variables to identify patients at increased risk of VTE.

Score = 0	Score = 1–2	Score ≥3
Low Risk	**Intermediate Risk**	**High Risk**

A meta-analysis of 45 articles and over 34,000 patients demonstrated that the Khorana risk score can be used to **select high-risk patients f**or thromboprophylaxis.[8]

Patient Characteristic[10,11,††]	Khorana Risk Score
Site of cancer	
Very high risk (stomach, pancreas)	2
High risk (lung, lymphoma, gynecologic, bladder, testicular, renal)	1
Prechemotherapy platelet count ≥350,000/mL	1
Hemoglobin level <10 g/dL or use of red cell growth factors‡‡	1
Prechemotherapy leukocyte count >11,000/mL	1
Body mass index ≥35 kg/m^2	1
Interpretation	
High-risk score ≥3 points	
Intermediate-risk score = 1-2 points	
Low-risk score = 0 points	

‡‡ ESAs associated with VTE include erythropoietin and darbepoetin.[12]

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†Recommendations derived from clinical trials of ambulatory patients with cancer with high thrombosis risk are not included in product labeling. Prophylaxis duration should be 6 months or longer if risk persists. ‡Always refer to the NCCN Guidelines for the comprehensive and most up-to-date recommendations on cancer-associated VTE when considering prophylaxis. §When using Rybrevant® in combination with LAZCLUZE™ please refer to the Prescribing Information for VTE prophylaxis recommendation. ¶The safety population included all patients who had undergone randomization and received at least one dose of any trial treatment. #Grouping includes the following preferred terms: PE, DVT, venous thrombosis limb, thrombosis, venous thrombosis, superficial vein thrombosis, thrombophlebitis, embolism, embolism venous, jugular vein thrombosis, pulmonary infarction, axillary vein thrombosis, portal vein thrombosis, post thrombotic syndrome, sigmoid sinus thrombosis, superior sagittal sinus thrombosis, vena cava thrombosis, pelvic venous thrombosis, pulmonary thrombosis, superior vena cava syndrome. ‖Events in this category are listed according to decreasing incidence in the amivantamab + lazertinib group.**If there are no signs or symptoms of VTE during the first four months of treatment, consider discontinuation of anticoagulant prophylaxis at the discretion of the healthcare provider. †† Reprinted from *Blood,* Vol 111, Issue 10, Khorana et al., Development and validation of a predictive model for chemotherapy-associated thrombosis, 4902–4907, Copyright 2008, with permission from Elsevier.

Abbreviations: 1L, first line; DOAC, direct oral anticoagulant; DVT, deep vein thrombosis; EGFR, epidermal growth factor receptor; ESAs, erythropoietin stimulating agents; LMWH, low molecular-weight heparin; NCCN, National Comprehensive Cancer Network®; NSCLC, non-small cell lung cancer; PE, pulmonary embolism; VTE, venous thromboembolism.

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