

Real-World Practices of Primary Thromboprophylaxis in Multiple Myeloma: Insights from a Nationwide Survey of Moroccan Hematologists

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Patients with multiple myeloma (MM) are at a significantly increased risk of venous thromboembolism (VTE), with an incidence exceeding 10%, particularly during the first year following diagnosis.¹ This risk may rise to as high as 26% with the use of novel therapeutic agents, especially immunomodulatory drugs (IMiDs) and Carfilzomib.²

Beyond their frequency, thrombotic complications have important clinical consequences, including treatment interruption, increased morbidity, and a substantial economic burden on healthcare systems.³

In daily practice, several challenges complicate the choice of primary thromboprophylaxis in MM. Many clinicians still rely primarily on clinical experience rather than standardized approaches. In addition, defining a simple, reliable, and widely applicable risk stratification model remains a major issue.

We conducted a nationwide descriptive structured electronic cross-sectional survey distributed to Moroccan clinical hematologists to evaluate real-world practices and perceptions regarding primary thromboprophylaxis in MM.

Seventy-three hematologists participated (50% specialists, 33% residents, 23.3% professors), predominantly practicing in university hospitals (54.8%). Professional experience was polarized, with 32.9% having <4 years and 31.5% >12 years of practice.

While 95.9% of respondents considered primary thromboprophylaxis integral to MM management, substantial heterogeneity was observed in clinical decision-making.

Timing of initiation varied, with 38.4% starting prophylaxis at initiation of immunomodulatory agents or carfilzomib and 32.9% at diagnosis.

Risk stratification strategies were inconsistent: 45.2% did not use any validated risk score, whereas only 38.4% relied on the IMWG score.

Choice of agent differed according to renal function. For CrCl >30 mL/min, LMWH was most frequently prescribed (49.3%), followed by aspirin (37%). In severe renal impairment (<30 mL/min), aspirin (39.7%) and dose-adjusted LMWH (30.1%) predominated.

The platelet threshold for discontinuation was <50,000/mm³ in 57.5% of cases. Duration of prophylaxis also varied, with 54.8% maintaining treatment until disease control.

Only 24.7% reported switching anticoagulant therapy, mainly after treatment cessation or achievement of major hematologic response. In a hypothetical context without reimbursement limitations, LMWH remained the preferred option (30.1%), followed by apixaban (17.8%) and aspirin (16.4%), suggesting economic factors may influence therapeutic choices.

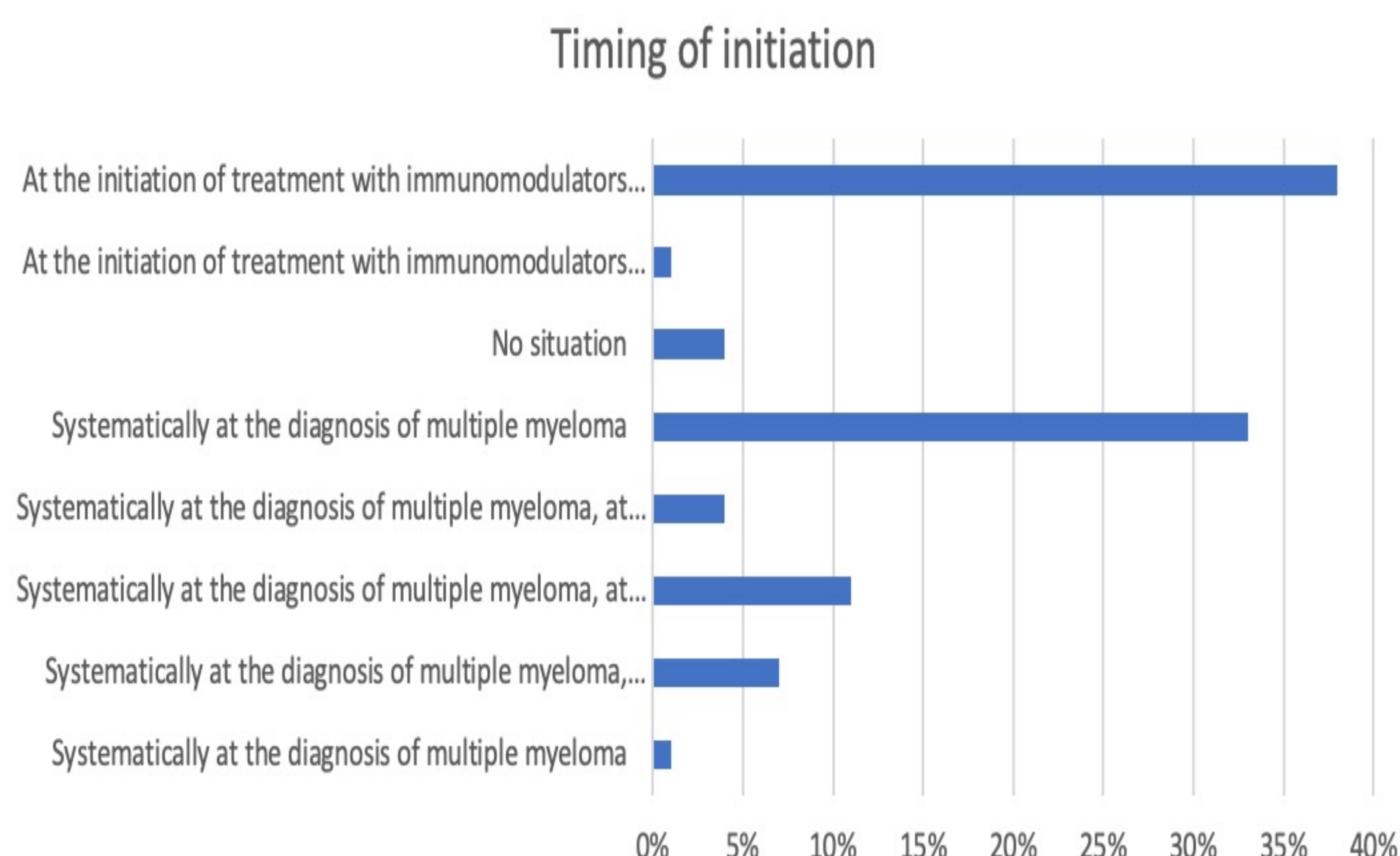


Figure 1: timing of initiation of primary prophylaxis

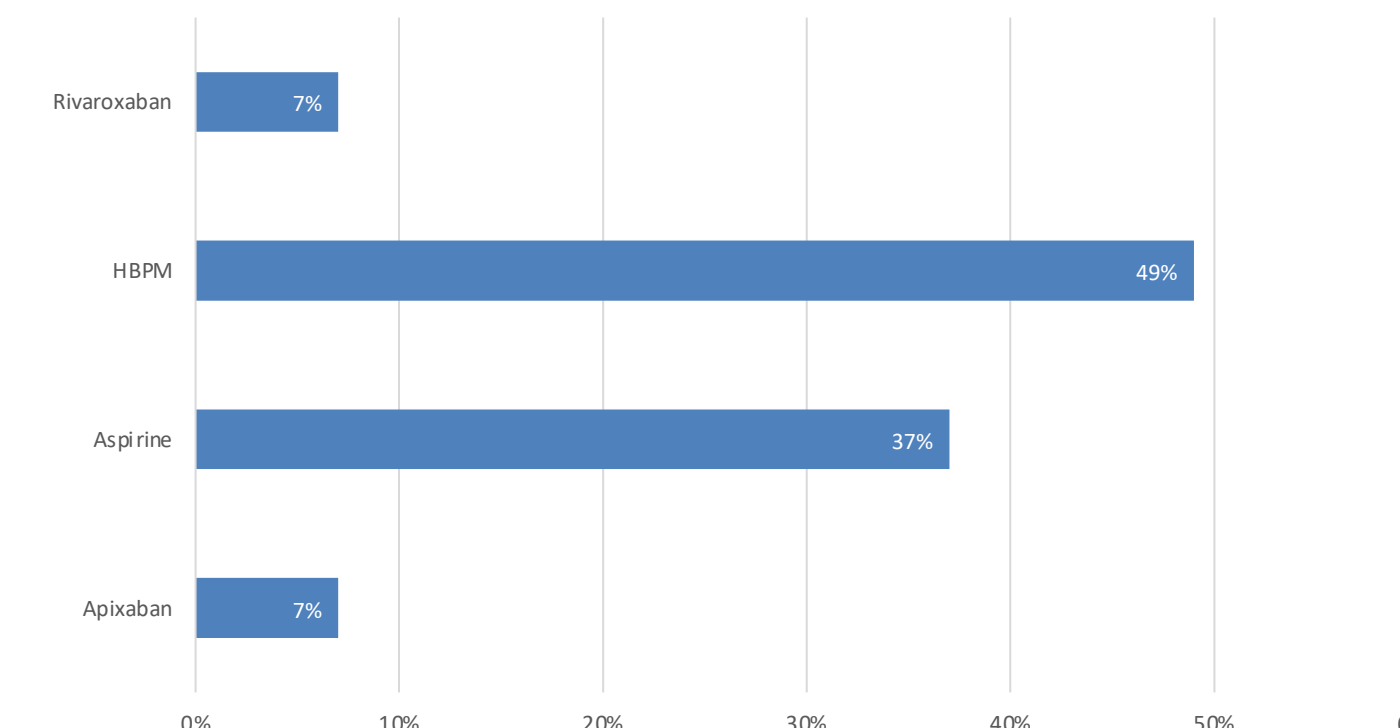


Figure 2: Options when CrCl >30ml/min

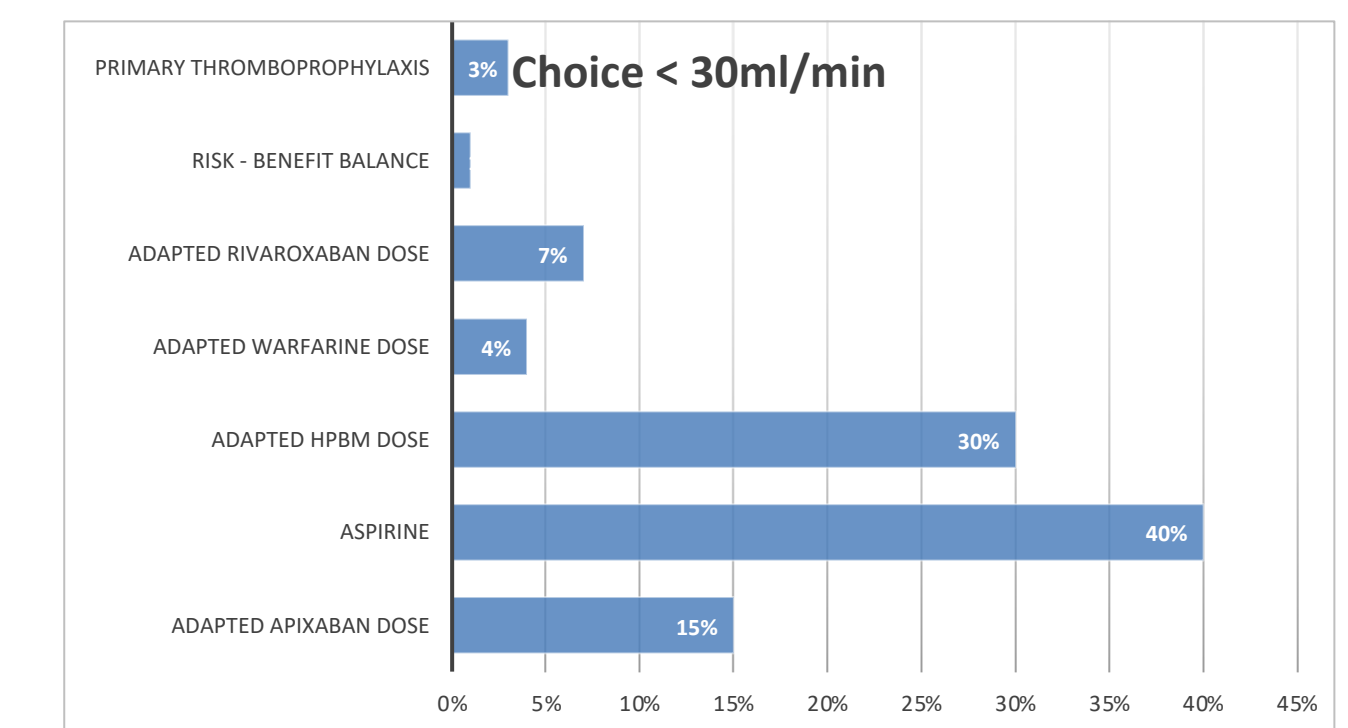


Figure 3: options when CrCl <30ml/min

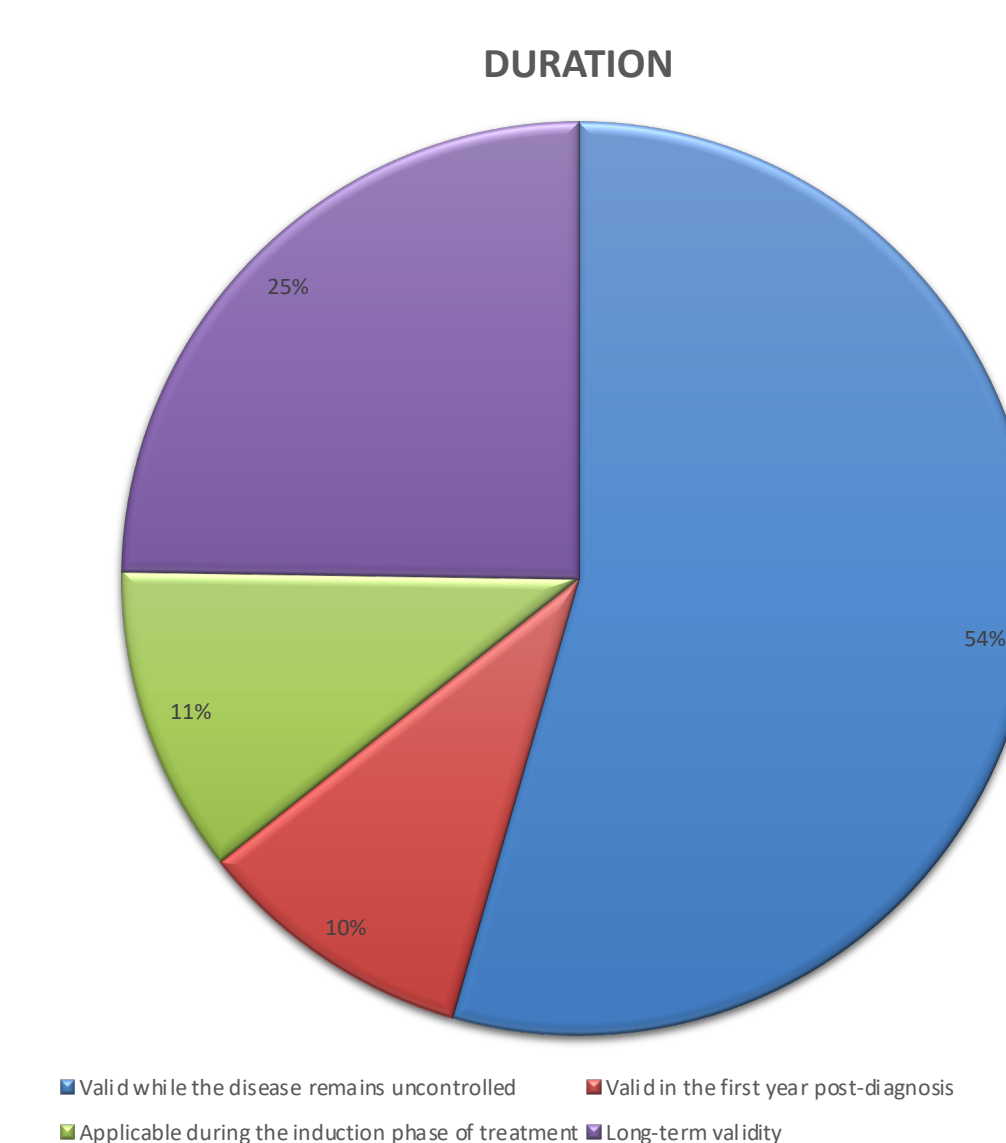


Figure 4: duration of thromboprophylaxis

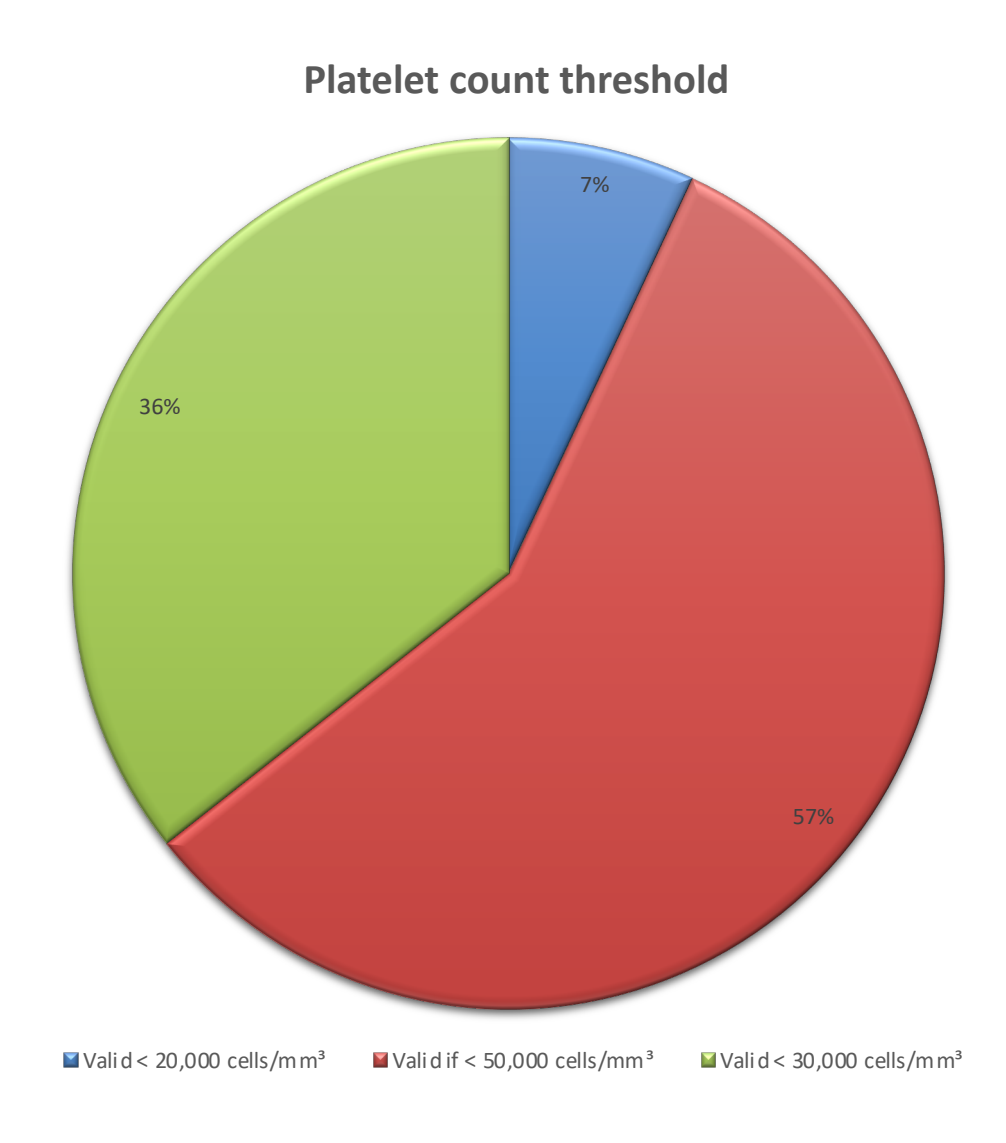


Figure 5: Platelet Count Threshold

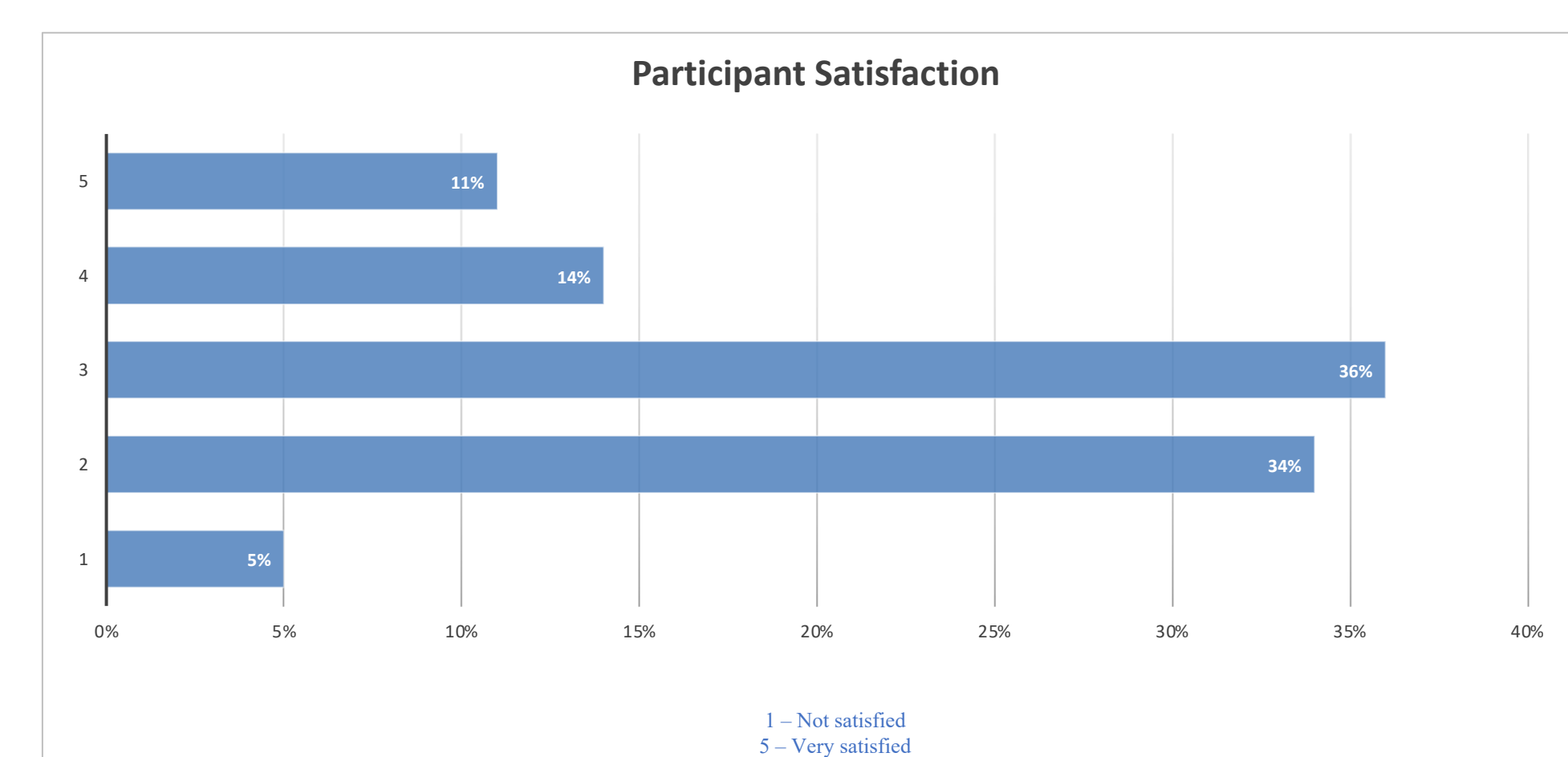


Figure 6: Level of satisfaction of participants

CONCLUSION

This nationwide survey demonstrates considerable heterogeneity in real-world practices of primary thromboprophylaxis in multiple myeloma. Despite widespread recognition of its clinical importance, important gaps persist in the use of validated risk assessment tools and in the standardization of management strategies.

Significant variability was observed across all key aspects of care, including indications, choice of agents, duration of therapy, discontinuation criteria, and the management of comorbidities. The limited integration of emerging options, such as direct oral anticoagulants, further reflects the ongoing uncertainty in routine clinical practice.

Altogether, these findings underline that the optimal approach to thrombosis prevention in multiple myeloma remains insufficiently defined and represents an important unmet clinical need.

REFERENCES

1. Fotiou D, Gavriatopoulou M, Terpos E. Multiple myeloma and thrombosis: prophylaxis and risk prediction tools. *Cancers (Basel)*. 2020; 12(1):191.
2. Falanga A, Marchetti M. Venous thromboembolism in the hematologic malignancies. *J Clin Oncol*. 2009; 27(29):4848-4857.
3. Khorana, A.A.; Dalal, M.R.; Lin, J.; Connolly, G.C. Health care costs associated with venous thromboembolism in selected high-risk ambulatory patients with solid tumors undergoing chemotherapy in the United States. *Clin. Outcomes Res*. 2013, 5, 101-108.

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