

Managing Blinatumomab Administration through Multidisciplinary Coordination

Adrien Lemoine*

Department of Clinical Hematology, Institut Gustave Roussy, Villejuif, France

Introduction

Blinatumomab, a Bispecific T-Cell Engager (BiTE), has emerged as a transformative treatment for acute lymphoblastic leukemia (ALL), particularly for patients with relapsed/refractory disease and those with Philadelphia chromosome-positive variants. However, the administration of blinatumomab is notably complex, requiring continuous intravenous infusion over several days or weeks, accompanied by intensive monitoring for potentially severe side effects such as cytokine release syndrome and neurotoxicity. These challenges necessitate a well-coordinated, multidisciplinary approach involving oncologists, infusion nurses, pharmacists and supportive care teams to ensure safe, effective and patient-centered delivery of therapy. Managing blinatumomab effectively not only improves clinical outcomes but also enhances patient safety, reduces treatment interruptions and promotes adherence in both inpatient and outpatient settings [1].

Description

Multidisciplinary coordination is central to overcoming the logistical and clinical barriers associated with blinatumomab infusion. The infusion process requires meticulous planning to ensure accurate preparation, storage and pump programming, as well as patient education. Pharmacists play a crucial role in compounding blinatumomab under sterile conditions and ensuring proper drug stability. Nurses are instrumental in initiating and monitoring the infusion, assessing patients for early signs of adverse effects and providing round-the-clock support. Oncologists guide treatment decisions, manage toxicities and adjust dosages or schedules based on patient response and tolerance. Social workers, case managers and patient navigators also contribute by facilitating outpatient infusion services, coordinating home health visits and addressing psychosocial concerns that may impact treatment compliance. This integrated team approach minimizes errors, enhances safety protocols and supports a seamless transition between care settings.

Additionally, clear communication and standardized protocols are essential components of this multidisciplinary model. Institutions that have implemented structured workflows and pre-infusion checklists have reported fewer interruptions and improved patient experiences. Education initiatives targeting patients and caregivers are equally vital, especially when managing infusions at home or in ambulatory clinics. These programs include training on how to recognize early signs of infusion-related reactions, troubleshooting pump alarms and maintaining proper catheter care. Pediatric patients, in particular, benefit from child-specific education strategies and caregiver support networks.

***Address for Correspondence:** Adrien Lemoine, Department of Clinical Hematology, Institut Gustave Roussy, Villejuif, France; E-mail: lemoineadrien@igr.fr

Copyright: © 2025 Lemoine A. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Received: 01 March, 2025, Manuscript No. jcs-25-168222; **Editor assigned:** 03 March, 2025, PreQC No. P-168222; **Reviewed:** 15 March, 2025, QC No. Q-168222; **Revised:** 21 March, 2025, Manuscript No. R-168222; **Published:** 29 March, 2025, DOI: 10.37421/1948-5956.2025.17.694

Evidence from practice-based studies also suggests that pre-emptive management of side effects, such as the use of corticosteroids and antipyretics and close coordination during transition of care (e.g., from hospital to home) are critical for maintaining therapeutic continuity. Thus, the success of blinatumomab therapy heavily relies on a well-orchestrated team effort across disciplines and care environments [2].

Conclusion

Administering blinatumomab effectively requires more than clinical knowledge; it demands a cohesive and proactive multidisciplinary infrastructure. As this therapy becomes more widely used in both adult and pediatric ALL patients, the importance of coordinated planning, communication and patient-centered education cannot be overstated. Through joint efforts across oncology, pharmacy, nursing and supportive care, the complex challenges of blinatumomab infusion can be managed safely and efficiently. This collaborative model not only improves clinical outcomes but also promotes a more supportive and responsive healthcare experience for patients undergoing this advanced immunotherapy.

Acknowledgement

None.

Conflict of Interest

None.

References

1. Szoch, Stephanie, Christina Boord, Alison Duffy and Ciera Patzke. "Addressing administration challenges associated with blinatumomab infusions: A multidisciplinary approach." *J Infus Nurs* 41 (2018): 241-246.
2. Bernhardt, Melanie B., Olga Militano, Lisa Honeyford and Sue Zupanec. "Blinatumomab use in pediatric ALL: Taking a BiTE out of preparation, administration and toxicity challenges." *J Oncol Pharm Pract* 27 (2021): 376-388.

How to cite this article: Lemoine, Adrien. "Managing Blinatumomab Administration through Multidisciplinary Coordination." *J Cancer Sci Ther* 17 (2025): 694.