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Non-Relapse Mortality with Bispecific Antibodies in Hematologic Malignancies

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INTRODUCTION

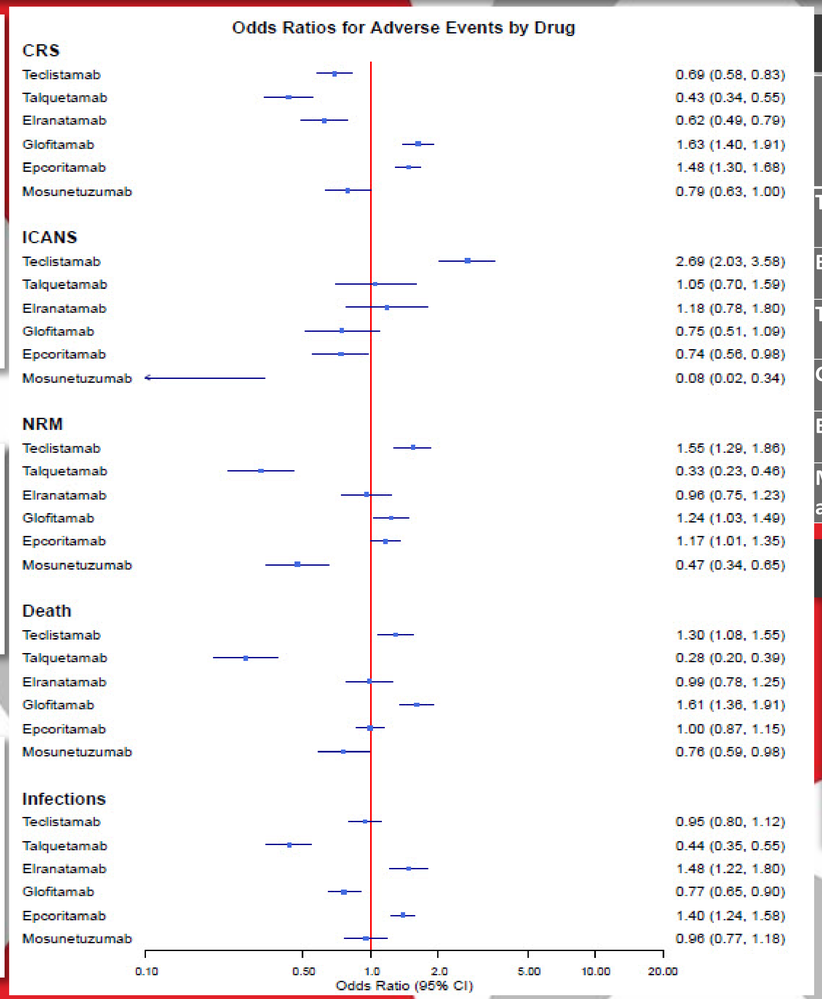
> Bispecific antibodies (BsAb) have emerged as a preferred regimen for patients, given the ease of access and universal, off-the-shelf availability.
> However, NRM remains elusive with BsAbs.
> This retrospective cohort study estimated NRM and AE patterns related to CRS, ICANS, and infections for 6 commercially available BsAb products approved thus far by the US FDA for B-NHL RRMM using the FAERS post-marketing surveillance database.

METHODS

- Between 2022 Q3 and 2024 Q3, the duration spanning FDA approval of all currently available BsAbs, we identified 5069 AE reports in FAERS.
- Outcomes for each AE, stratified by BsAb, co-occurrence, and correlation matrices were estimated.

RESULTS

- Glofitamab was associated with the highest reporting odds for NRM (ROR=3.75 [95%CI, 2.7–5.3]), followed by mosunetuzumab (ROR=3.46 [95%CI, 2.3–5.3]).
- Other BsAbs demonstrated a favorable AE signal in terms of NRM including teclistamab, talquetamb, and epcoritamab.



OUTCOMES STRATIFIED BY BsAb

	Disease	Total AEs	CRS (%)	CRS Mortality (%)	ICANS (%)	ICANS Mortality (%)	Infections (%)	Infection Mortality (%)
Teclistamab	MM	595	166 (27.9)	30 (18.1)	75 (12.6)	27 (36.0)	228 (38.3)	69 (30.3)
Elranatamab	MM	374	93 (24.8)	11 (11.8)	26 (6.9)	7 (26.9)	183 (48.9)	54 (29.5)
Talquetamab	MM	219	81 (36.9)	6 (7.4)	27 (12.3)	4 (14.8)	93 (42.4)	8 (8.6)
Glofitamab	NHL	741	307 (41.4)	80 (26.1)	32 (4.3)	13 (40.6)	222 (29.9)	87 (39.2)
Epcoritamab	NHL	1671	615 (36.8)	114 (18.5)	75 (4.4)	24 (32.0)	668 (39.9)	175 (26.2)
Mosunetuzumab	NHL	271	103 (38.0)	6 (5.8)	2 (0.7)	1 (50.0)	131 (48.3)	28 (21.4)

CONCLUSION

> We found infections accounting for nearly the same proportion of AEs as CRS/ICANS combined.
> The findings inform patient-centered decision-making, optimal BsAb selection, development of risk-adapted and product-specific antimicrobial prophylaxis guidelines and underscore the need for vigilant infection prevention strategies.

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