

DEVELOPMENT OF THE BISPECIFIC OUTPATIENT READINESS SCORE (BORS):
AN INSTITUTIONAL READINESS TOOL FOR OUTPATIENT BISPECIFIC ANTIBODY THERAPY IN MULTIPLE MYELOMA

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10 domains
30 points

BACKGROUND

- Bispecific antibodies have expanded treatment options for relapsed/refractory multiple myeloma (RRMM).
- Safe outpatient delivery requires systems to recognize and manage CRS, ICANS, infections, cytopenias, and urgent escalation.
- As bispecific therapy expands beyond IEC-experienced centers, no standardized framework exists to assess institutional outpatient readiness.

OBJECTIVE

- Develop an evidence-derived Bispecific Outpatient Readiness Score (BORS) to evaluate institutional preparedness for safe outpatient bispecific antibody delivery in RRMM.

DESIGN & TOOL DEVELOPMENT

Regulatory
prescribing information

Pivotal bispecific
clinical trials

Toxicity-management
literature

Supportive-care
recommendations

Readiness elements were mapped into operational domains and weighted by toxicity severity, preventability, and dependence on institutional infrastructure.

WHO SHOULD USE BORS?

- Outpatient hematology/oncology programs initiating bispecific therapy
- Centers expanding outpatient step-up dosing
- Programs developing shared-care or decentralized treatment models

WHY BORS MATTERS

- BORS is designed as a pre-implementation gap assessment—not a patient-level toxicity score.
- It asks a practical question:
- “Does our institution have the people, protocols, medications, monitoring, and emergency pathways required to deliver outpatient bispecific therapy safely?”

THE BORS FRAMEWORK

10 operational domains • each scored 0–3 • total score 0–30

1 CRS response capability

2 ICANS monitoring

3 Infection prevention protocols

4 Immunoglobulin / IVIG strategy

5 Cytopenia & laboratory monitoring

6 Step-up dosing workflow

7 Patient / caregiver education

8 24-hour clinical access

9 Emergency transfer systems

10 Dose-hold / rechallenge pathways

SCORING MODEL

0
Absent

1
Limited

2
Partial

3
Fully operational

Cumulative BORS = sum of 10 domain scores (maximum 30)

READINESS TIERS

BORS-A24–30FULL OUTPATIENT READINESS

BORS-B16–23CONDITIONAL READINESS
Shared-care safeguards required

BORS-C<16NOT OUTPATIENT-READY

CRITICAL READINESS ELEMENTS

FEVER
Same-day evaluation

CRS
Tocilizumab + corticosteroids

TRAINING
CRS/ICANS recognition

TRANSFER
Predefined emergency pathway

INFECTION
Prophylaxis planning

EDUCATION
Caregiver red flags

OUTPATIENT SAFETY WORKFLOW

1. PRE-TREATMENTScore institutional readiness



2. STEP-UP DOSINGStandardized monitoring + observation



3. TOXICITY RESPONSERapid CRS / ICANS recognition



4. ESCALATION24-hour access + emergency transfer



5. CONTINUITYInfection, IVIG, cytopenia monitoring

IMPLEMENTATION GAPS BORS CAN EXPOSE

No same-day fever pathway



No 24-hour clinical access



Delayed access to tocilizumab



Inconsistent ICANS training



No defined transfer agreement



Incomplete infection/IVIG protocol



DISCUSSION & CLINICAL IMPLICATIONS

- BORS converts dispersed safety requirements into a single operational readiness framework.
- The tool emphasizes infrastructure-dependent risks that can be anticipated before the first outpatient dose.
- Conditional readiness may support shared-care models when safeguards and escalation pathways are explicitly defined.
- Standardized readiness assessment may facilitate benchmarking, resource allocation, accreditation planning, and more equitable expansion of bispecific therapy.

LIMITATIONS & CONCLUSION

LIMITATIONS

Evidence-derived framework; domain weights and tier thresholds require prospective multicenter validation and correlation with clinical outcomes.

CONCLUSION

BORS offers a practical 30-point framework to identify institutional gaps before outpatient bispecific therapy. Prospective validation should test whether higher BORS scores predict fewer preventable complications, emergency visits, hospitalizations, and treatment delays.