

Conference Abstracts

Vol. 6, Issue Supplement 2, 2026

Chronic Kidney Disease and Clinical Outcomes in Patients With Multiple Myeloma: A Multicenter Real-World Cohort Study

Sajjad Ahmed Khan, MBBS^{1,a}

¹ Birat Medical College Teaching Hospital, Morang, Nepal

Corresponding author

^a Sajjad Ahmed Khan, MBBS, Birat Medical College Teaching Hospital, Morang, Nepal

Email: khan.sajjad.sak32@gmail.com

Keywords: Multiple myeloma, Chronic Kidney Disease, Clinical outcomes

Submission received: 2026-08-16 / Accepted: 2026-08-27 / Published: 2026-09-10

<https://doi.org/10.53876/001a.129864>

Abstract

Background

Chronic kidney disease (CKD) is a common complication of multiple myeloma (MM), but its association with subsequent multisystem morbidity and mortality remains incompletely characterized. We compared long-term clinical outcomes in adults with MM with versus without CKD.

Methods

We conducted a retrospective cohort study using the TriNetX Research Network, including 117 healthcare organizations. Adults with MM (ICD-10-CM C90.0) with CKD (N18) were compared with those without CKD. After propensity-score matching, 39,579 patients were included in each cohort. Outcomes were assessed from 1 to 1825 days after the index event and included acute respiratory distress syndrome (ARDS), respiratory failure, ICU admission, sepsis, acute kidney injury (AKI), cardiac arrest, cerebral infarction, heart failure, acute myocardial infarction (MI), and all-cause mortality.

Results

CKD was associated with significantly higher risks of ARDS (1.1% vs 0.6%; RR 1.82, 95% CI 1.56–2.13), respiratory failure (14.2% vs 8.1%; RR 1.74, 95% CI 1.67–1.82), sepsis (15.6% vs 9.3%; RR 1.68, 95% CI 1.61–1.74), AKI (26.3% vs 10.0%; RR 2.63, 95% CI 2.53–2.73), cardiac arrest (2.4% vs 1.1%; RR 2.14, 95% CI 1.92–2.40), cerebral infarction (4.3% vs 2.8%; RR 1.55, 95% CI 1.43–1.67), heart failure (16.7% vs 8.7%; RR 1.92, 95% CI 1.84–2.00), and acute MI (6.4% vs 2.9%; RR 2.22, 95% CI 2.07–2.38; all $p < 0.001$). ICU admission did not differ significantly (0.7% vs 0.8%; RR 0.88, $p = 0.105$). Mortality was significantly higher with CKD (29.6% vs 21.2%; RR 1.40, 95% CI 1.36–1.43), with increased mortality hazard (HR 1.45, 95% CI 1.41–1.49; $p < 0.001$).

Conclusion

CKD in MM is associated with substantially greater renal, respiratory, infectious, cardiovascular, neurologic, and mortality risks, highlighting CKD as an important marker of adverse prognosis in MM.

© 2021–2026 Binaytara. Website design and layout all rights reserved. Articles published in the International Journal of Cancer Care and Delivery are open access. Authors retain copyright. All articles are distributed under the terms of the Creative Commons Attribution-ShareAlike 4.0 International (CC BY-SA 4.0) license, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited and derivative works are shared under the same license.