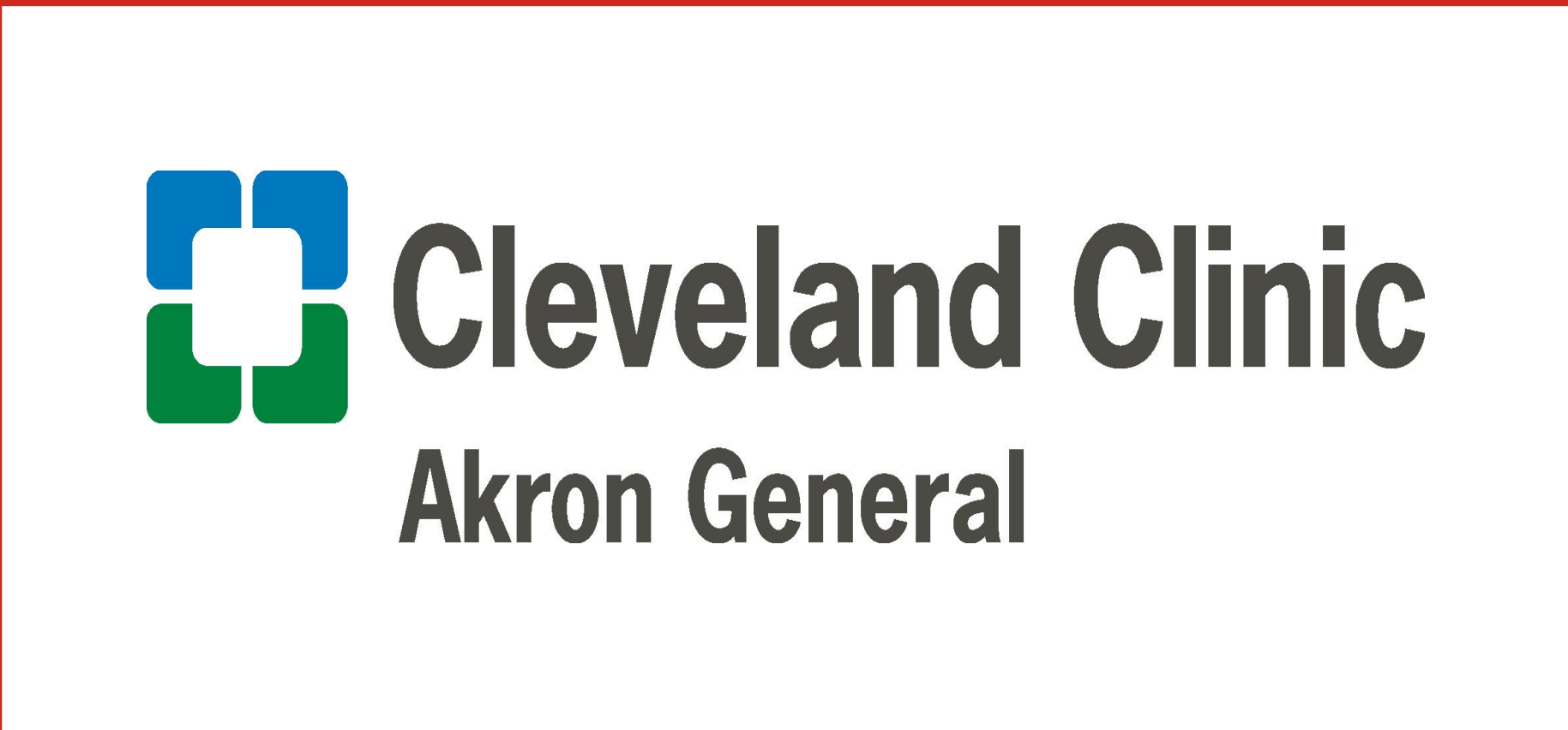


Secondary multiple myeloma and antecedent cancer lineage

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INTRODUCTION AND AIM

- Second primary malignancies (SPM) are a growing clinical burden.
- Data on Multiple Myeloma (MM) as a subsequent malignancy remain limited.
- Risk of secondary MM may vary by the biologic lineage of the antecedent malignancy: an understudied association.
- Aim: examine lineage-specific patterns in antecedent malignancies associated with secondary MM

METHODS

- Retrospective cohort study using the TriNetX US Collaborative Network.
- Adult patients who developed MM following a prior cancer diagnosis were identified.
- Demographics and prior malignancy distributions were summarized for the overall cohort.
- Comparative analyses: Prior solid vs. hematologic malignancies; prior myeloid vs. lymphoid malignancies.
- 1:1 propensity score matching for age, sex, race, ethnicity, and comorbidities.
- Risk/survival analyses excluded patients with outcomes before the analysis window

CONCLUSIONS

- Secondary MM occurred more often after antecedent hematologic malignancies- particularly myeloid neoplasms than after solid tumors.
- Findings support heightened vigilance in long-term survivors of myeloid neoplasms.
- Further research is needed on: mortality, disease risk features, and whether management should differ from de novo MM

RESULTS

- Cohort: 7,838 patients with secondary MM
- Mean age at MM diagnosis: 68.4 ± 13 years
- Predominantly male and white population
- 10-year survival probability: 46.9%
- Antecedent malignancies: Lymphoid, hematopoietic, and related tissue neoplasms: 28%; Myeloproliferative Neoplasms (MPN): 12.3%; Myelodysplastic Syndrome (MDS): 10%; Breast: 5%; Gastrointestinal: 5%; Urinary tract: 4% ; Respiratory: 4%
- After propensity matching: Hematologic vs. solid antecedent tumors: risk difference 0.956% (95% CI 0.908–1.004%); OR 12.08 (95% CI 10.29–14.18); HR 12.44
- Myeloid vs. lymphoid malignancies: 634 vs. 419 patients; risk difference 0.15% (95% CI 0.105–0.193); OR 1.51 (95% CI 1.34–1.71); HR 1.51.

Demographic Characteristics	Number of patients	% of patients
Secondary MM cohort	7,838	100
Male	4,213	54.58
Female	3,503	45.38
White	5,836	75.61
African American	1,109	14.37
Asian	181	2.35
Hispanic	303	3.93

Characteristics of the secondary Multiple Myeloma cohort

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