

# MM-1107: Mental health and malignancy: Real-world associations between early-onset multiple myeloma and mental illness



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## INTRODUCTION

Although progress has been made in reducing overall cancer incidence, early-onset cancers have continued their troublesome rise.<sup>1</sup> Similarly, the incidence and/or prevalence of psychiatric disorders has increased, particularly among young adults.<sup>2-4</sup> Mental illness may influence cancer development, however, real-world evidence linking mental illness to early-onset multiple myeloma (EOMM) is limited.

## AIM

We sought to conduct a real-world, retrospective cohort study using the TriNetX United States Research Database, a federated network of de-identified electronic health records from over 70 healthcare organizations, to examine this association.

## METHOD

Adults aged 18-50 years with at least one of five pre-determined core mental illnesses, including generalized anxiety disorder (GAD), major depressive disorder (MDD), obsessive-compulsive disorder (OCD), bipolar disorder, and/or schizophrenia, were compared with same-aged individuals without any of the core mental illnesses.

A five-year lookback period was used from May 15th, 2021 to May 15th, 2026. Propensity score matching was used to adjust for demographic and clinical confounders.

Incidence of early-onset cancers diagnosed were then assessed during five-year follow-up. Sensitivity analyses required a ≥ 1-year lag between mental illness diagnosis and EOMM onset.

## CONCLUSIONS

In this large, real-world cohort study, GAD, MDD, and primary insomnia were associated with increased odds of developing early-onset multiple myeloma.

These findings suggest that mental health and/or sleep disorders represent a potentially modifiable risk factor to combat the rise in multiple myeloma in adolescent and young adult populations and warrants further investigation.

## RESULTS

3,497,552

patients ages 18-50 identified as having a core mental illness

23,951,668

patients ages 18-50 identified as not having any core mental illness

### PRIMARY ENDPOINT

All-cause mental illness was associated with increased odds of developing EOMM (OR 1.492, CI 1.291-1.724, p < 0.0001)

Generalized anxiety disorder

OR 1.556

CI 1.134-2.135, p = 0.006

Major depressive disorder

OR 1.593

CI 1.151-2.206, p = 0.005

Secondary Analysis: Primary insomnia disorder

OR 2.635

CI 1.839-3.775, p < 0.0001

OCD, bipolar disorder, and schizophrenia were found to be statistically insignificant.

## CONTACT INFORMATION



## REFERENCES

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