

## **Some Comorbidity Clusters Associated with Lower Survival in Multiple Myeloma**

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CHICAGO—Multiple myeloma tends to be a disease of older adults, with an average age at diagnosis of 70. By that age, 3 out of 4 Americans have multiple other chronic conditions as well, according to the national Centers for Disease Control and Prevention.

Now, research conducted at the Boston VAMC has found that overall survival in multiple myeloma is significantly affected by which other chronic conditions patients have. Their study was presented June 3 at the 2019 American Society of Clinical Oncology Annual Meeting in Chicago.<sup>1</sup>

To get beyond comorbidity counts and better understand the effect specific clusters of chronic conditions might have on multiple myeloma, the team identified 7,815 patients over age 60 who had been diagnosed with and treated for multiple myeloma within the VA. They searched for 53 Centers for Medicare and Medicaid-defined chronic and disabling conditions in claims from these patients in the three years preceding their diagnosis.

A latent class analysis identified patterns of multimorbidity present in patients at the time of their multiple myeloma diagnosis. The researchers then assessed whether the specific patterns had an association with survival in the 5,992 patients who did not undergo stem cell transplantation for treatment of their multiple myeloma and who did receive either doublet or triplet chemotherapy.

Six multimorbidity clusters emerged in the analysis: minimal disease in 16.7% of patients, cardiovascular disease in 25.7% of patients, diabetes and complications in 23.3%, psychiatric and substance use disorders in 11.9%, chronic lung disease in 9.7% and multisystem impairment in 12.7%.

The researchers found that survival varied significantly depending on the multimorbidity cluster patients had at the time of their multiple myeloma diagnosis. Patients with minimal disease had the best survival, with median survival of 4.5 years and a 5-year survival rate of 24.3%.

Three clusters significantly increased the risk of death compared to the minimal disease cluster. Patients with chronic lung disease-related morbidities had a 40% increase in the risk of death, while those with psychiatric and substance use morbidities had a nearly 60% increase. Multisystem impairment increased the risk of death 71% relative to the

minimal disease cluster and was associated with the worst median survival, 2.4 years, and 5-year survival rate, at 24.3%.

The researchers posited that “unique combinations of chronic diseases may interact with [multiple myeloma] itself to drive differences in mortality.”

1. Fillmore N, DuMontier C, Cheng D, Cirstea D, Yellapragada S, et al. Multimorbidity patterns and their association with survival in a large national cohort of older veterans with multiple myeloma. *J Clin Oncol* 37, 2019 (suppl; abstr 8033).