

MYELOMA (COMy)

## EVOLVING DEMOGRAPHICS AND OUTCOMES IN BONE MARROW TRANSPLANTATION FOR MULTIPLE MYELOMA: A RETROSPECTIVE ANALYSIS

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## **ABSTRACT**

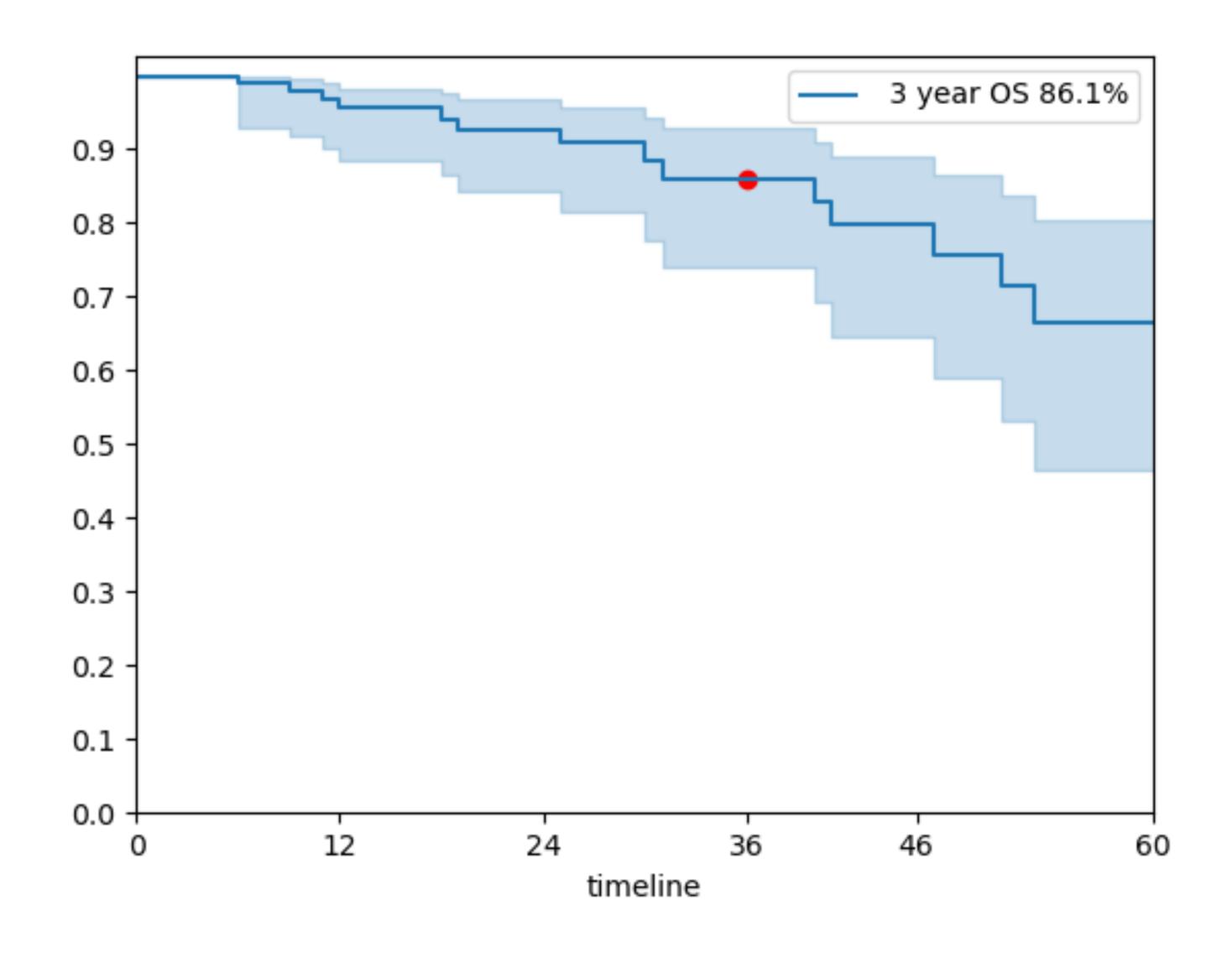
**Background:** In the challenging context of the Russian invasion in Ukraine, healthcare services, especially for conditions like multiple myeloma, faced significant disruptions. Despite these adversities, the commitment to continue providing treatment, including bone marrow transplantation (BMT), remained steadfast. This study highlights the resilience of the healthcare system in Ukraine and the importance of BMT as a treatment option.

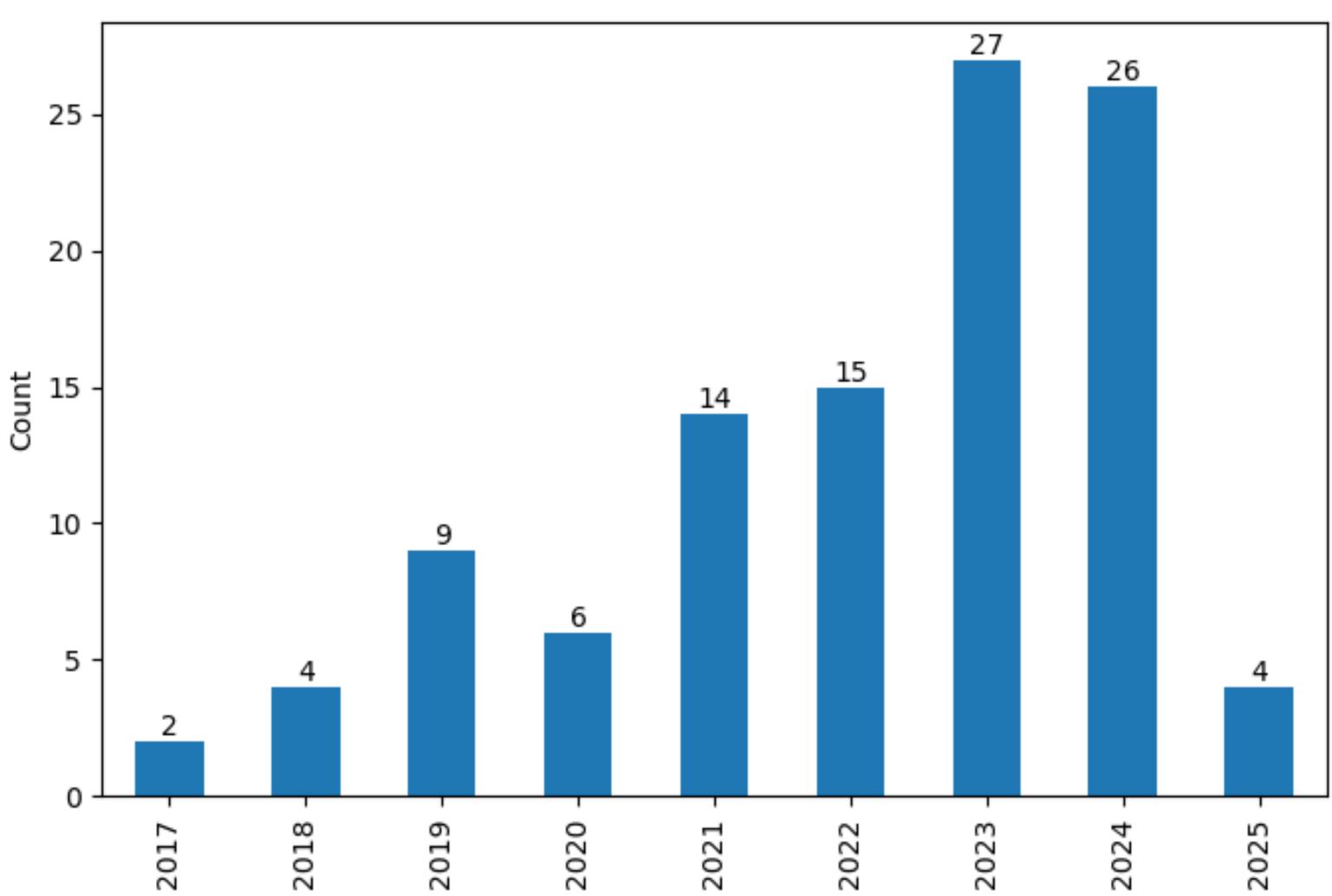
**Methods:** A retrospective analysis was conducted on multiple myeloma patients who underwent bone marrow transplantation (BMT), focusing on demographics, frequency, survival rates, and the role of BMT in treatment, particularly in the context of Ukraine's limited drug availability. Statistical methods were used to analyze these trends and outcomes.

Abstract: The dataset included 107 patients who underwent BMT, with two undergoing tandem transplantation due to high cytogenetic risk. The median age at transplantation was 55 years, ranging from 32 to 74 years, with a standard deviation of 7.64 years. The gender distribution was almost equal with 52 males and 55 females. Notably, there was a progressive increase in BMT utilization from 3 cases in 2017 to 29 by 2023 and 26 in 2024, reflecting the growing acceptance of BMT in treating multiple myeloma. The study reports a 3-year overall survival rate of 86.1% among the patients. The transplantation-related mortality within 100 days post-transplantation was about 4%. Regarding progression-free survival (PFS), the rates observed were 80.5% at 3 years, declining to 68% at 4 years. A majority of patients, 89 in total, received transplantation as consolidation of the first line of therapy, while 18 underwent it as consolidation of second or subsequent lines of therapy. This approach was mainly due to the limited availability of new drugs in Ukraine, necessitating early transplantation in case of disease progression.

## CONCLUSION

**Conclusion:** This study underscores the increasing role of bone marrow transplantation (BMT) in treating multiple myeloma, marked by a rising trend in utilization from 2017 to 2024. The diverse patient demographics and satisfactory survival rates, with a 3-year overall survival of 80.5% and a low early post-transplantation mortality, highlight the efficacy of BMT. However, the declining progression-free survival rates over time emphasize the need for sustained post-transplant care. The predominance of BMT as a first-line therapy consolidation in Ukraine, due to limited drug availability, reflects adaptability in healthcare amidst resource constraints. These findings offer valuable insights for enhancing multiple myeloma treatment strategies and patient care.





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