

Primary objective: To better define the details and outcomes of ASCT performed as first-line therapy in patients with newly diagnosed multiple myeloma

Eligibility: Patients ≥18 years who received ASCT as front-line therapy; **92%** received a single ASCT, **8%** received a tandem ASCT; **82%** received a bortezomib-based induction regimen; **10%** of patients received a second induction regimen, mostly lenalidomide-based; **5.3%** received consolidation (most used PI + IMiD); **54%** received maintenance therapy (**78.3%** of them with lenalidomide + steroids)

STUDY DESIGN

A retrospective cohort study utilizing the national CMRG database
2007–2021

Methods and endpoints

Details of the regimens used for the **transplant sequence**, and their contribution to clinical outcomes, were defined



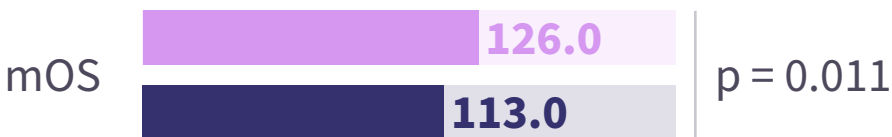
PFS and OS were assessed for the different subgroups

OUTCOMES

Outcomes according to different ASCT components (*data reported in months*)

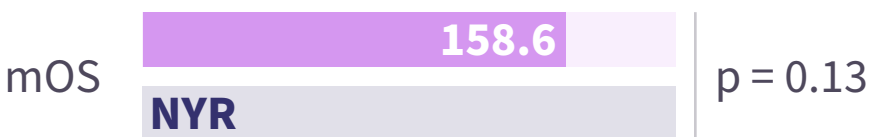
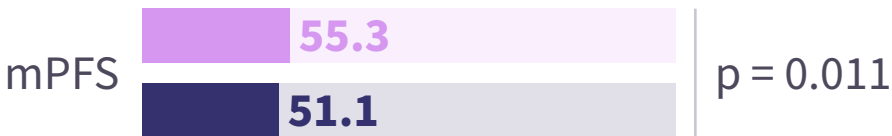
Number of ASCTs

Single Tandem ASCTs



Induction

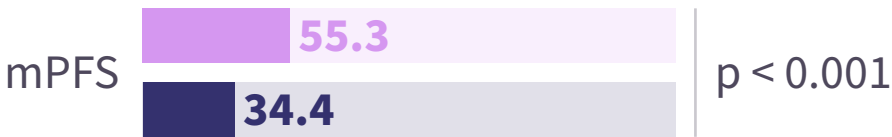
1 induction + maintenance
2 inductions + maintenance



Those receiving a second induction regimen had significantly inferior outcomes. However, when maintenance was used, results were comparable regardless of the number of induction regimens.

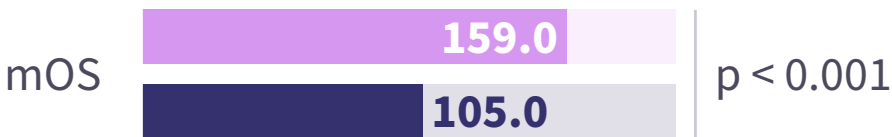
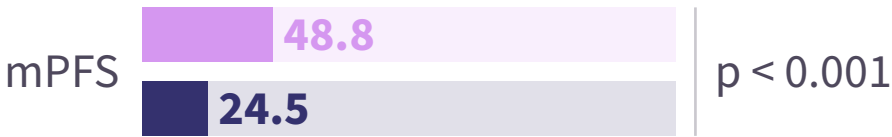
Consolidation

Consolidation No consolidation

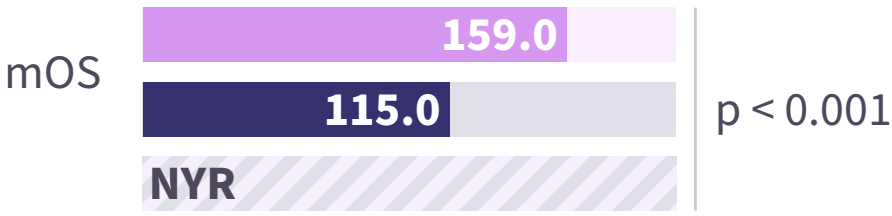


Maintenance

Maintenance No maintenance (any)



Lenalidomide Bortezomib Both



This real-world retrospective cohort study shows the integration of bortezomib and lenalidomide into the transplant sequence produces a median OS of >10 years in most ASCT patients. The results also highlight the contribution of post-ASCT maintenance, particularly lenalidomide given until progression.

Abbreviations: ASCT, autologous stem cell transplantation; CMRG, Canadian Myeloma Research Group; IMiD, immunomodulator; mOS, median overall survival; mPFS, median progression-free survival; NYR, not yet reached; OS, overall survival; PFS, progression-free survival; PI, proteasome inhibitor.

Côté J, LeBlanc R, Mian H, et al. *Blood Cancer J.* 2023;13(1). doi: 10.1038/s41408-023-00905-8