

Conditioning regimens in MPD patients

Strong graft-versus-MF effect has been suggested by several reports showing excellent responses to donor lymphocyte infusions and to immunosuppression reduction for treating posttransplant relapse.

Despite the strong graft-versus-tumor effect, the choice and the intensity of conditioning regimen seem to have important role with notable increased graft failure and/or relapse rates when using nonmyeloablative or reduced intensity regimens.

Conditioning regimens:

- There is consensus that nonmyeloablative regimens should be avoided in MF patients.
- There are no randomized studies comparing reduced intensity to MAC, but myeloablative regimens are generally preferred for young and fit patients.
- Furthermore, transplant-related toxicities were high with conditioning regimens incorporated high-dose cyclophosphamide, total body irradiation (TBI), and/or fixed dose busulfan (Bu)-based regimens.

Conditioning regimens:

- prospective phase 2 studies conducted by the EBMT and included 103 patients with MF (median age of 55 years) who all received reduced intensity conditioning (RIC) with Bu and fludarabine (Flu), the 5-year OS rate was 67% with NRM of 16% at 1 year, and cumulative incidence of relapse of 22% at 3 years.
- Age was found to be a strong predictor for survival in this study, with a 5-year OS of 48% for patients at age > 55 years compared to 82% in the younger age group.

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Allogeneic stem cell transplantation after reduced-intensity conditioning in patients with myelofibrosis: a prospective, multicenter study of the Chronic Leukemia Working Party of the European Group for Blood and Marrow Transplantation

 Clinical Trials & Observations

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In the largest EBMT registry study, which included 2224 patients with MF (35% received MAC), there was a trend for increased relapse with RIC but no OS differences.

However, with regards to the composite endpoint of GVHD-free/relapse-free survival (GRFS), the 5-year GRFS was inferior in the reduced intensity group (26.1% vs. 32.4% for MAC; $P = .001$).

Age, donor type, and performance status were predictive for outcomes in both groups. The authors concluded that MAC should remain a preferred choice for younger and fit MF patients.

Myeloablative and Reduced-Intensity Conditioned Allogeneic Hematopoietic Stem Cell Transplantation in Myelofibrosis: A Retrospective Study by the Chronic Malignancies Working Party of the European Society for Blood and Marrow Transplantation



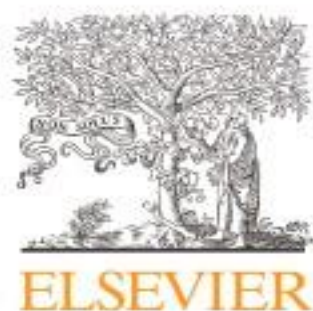
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long-term outcomes from a phase 2 study showing improved MF outcomes using a pharmacokinetic-monitored MAC conditioning (BuFlu) compared to RIC.

At a median follow-up of 5.1 years, the 3-year OS, relapse, and NRM rates were 74%, 32.3%, and 9.7%, respectively, in the MAC group compared to 60%, 53.3%, and 20%, respectively, in the RIC group.

The DIPSS-plus score was found to be the only independent prognostic factor for event-free survival, and both high-risk DIPSS-plus and older age were predictors for inferior OS.



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Optimizing the Conditioning Regimen for Hematopoietic Cell Transplant in Myelofibrosis: Long-Term Results of a Prospective Phase II Clinical Trial



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