# Reduced-toxicity conditioning prior to allogeneic stem cell transplantation improves outcome in patients with myeloid malignancies

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Supplemental methods

Transplant characteristics

All patients received transplantation after a conditioning regimen including fludarabine 30 mg/kg/day on day-5 to day-1 (Fludara®, Bayer Sante, Puteaux, France); i.v. busulfan 130 mg/m²/day on day-5 to -2 or -3 or days -4 to -3, i.e., during 4, 3, or 2 days, respectively (Busilvex®, Pierre Fabre, Boulogne-Billancourt, France); and r-ATG (Thymoglobulin®, Genzyme, Lyon, France) 2.5 mg/kg/day on days -2 and -1. A conditioning regimen of using 2 days of busulfan (total dose 260 mg/$m^2$) was defined as reduced-intensity conditioning, whereas those containing 3 or 4 days of busulfan (390 and 520 mg/$m^2$, respectively) were defined as reduced-toxicity conditioning regimen[28].

The busulfan total dose was determined by protocol inclusion or, if not eligible for ongoing clinical trial, by the attending physician considering age and comorbidities. Initially, higher busulfan doses (i.e., 390 or 520 mg/$m^2$) were proposed only to patients under 55 years of age without comorbidities and with higher-risk diseases. These indications were progressively extended over time to older patients when it became evident that toxicity was not increased with higher doses.

Initially, the reason for being treated by reduced-intensity or reduced-toxicity conditioning regimen was a contraindication to standard myelablative conditioning (age older than 50 years, previous autologous stem cell transplantation, poor clinical performance, or a poor prognosis feature) allowing the inclusion in our, at the time, investigational reduced-intensity or reduced-toxicity conditioning therapy. Over time, considering the good results obtained, younger patients with better risk factors were included.

Only 25 patients (15%) received allogeneic stem cell transplantation after 65 years of age, and all of them received a conditioning regimen with busulfan 260 mg/$m^2$. This point, and the low number of patients over 65 years make it difficult to draw robust conclusions about their specific outcome.

Graft-versus-host disease (GVHD) prophylaxis and supportive care

GvHD prophylaxis was cyclosporine alone in cases of matched related donor or matched-unrelated allogeneic hematopoietic stem cell transplantation (3 mg/kg/day, started prior to transplant); mycophenolate mofetil was added in cases of mismatched unrelated donor (1 gx2/day, from day-1 to day 56, followed by progressive discontinuation after day 56).