Supplemental materials

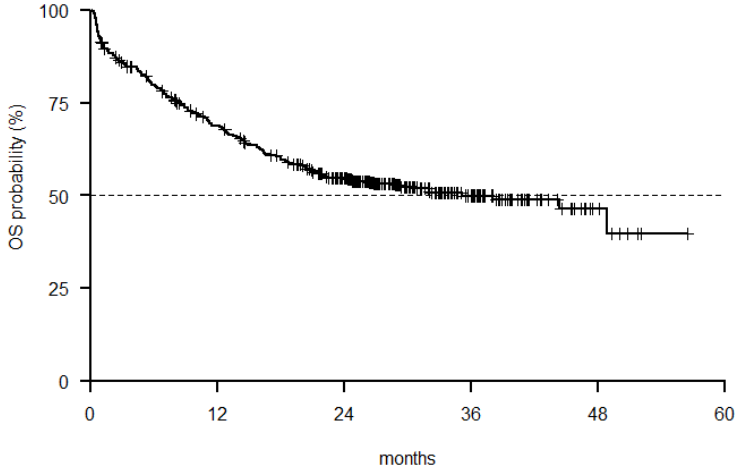
GIMEMA AML1310 inclusion/exclusion criteria
Inclusion criteria: age 18 to 60.9 years; non-promyelocytic AML; WHO performance status ≤ 3; adequate liver (serum bilirubin level ≤ 2 UNL; AST and ALT ≤ 3 UNL), renal (serum creatinine ≤ 2 UNL) and cardiac (LVEF ≥ 50% by echocardiogram) functions; absence of severe neurological or psychiatric comorbidities and congestive heart failure or active uncontrolled infections; signed informed consent.
Exclusion criteria: blast crisis of chronic myeloid leukemia; therapy-related or secondary AML supervening after other chronic myeloproliferative diseases or antecedent myelodysplastic syndromes of more than six months duration; contemporary presence of any other progressive malignant disease

Treatment schedule
Induction consisted of i.v. daunorubicin 50 mg/m^2 daily on days 1,3 and 5; i.v. etoposide 50 mg/m^2 daily on days 1 to 5; i.v. cytarabine 100 mg/m^2 as a daily continuous infusion, days 1 to 10. All patients in CR/CRi after a maximum of two induction cycles, received one consolidation course consisting of i.v. daunorubicin 50 mg/m^2 daily on days 4, 5 and 6 and i.v. cytarabine 500 mg/m^2 every 12 hours on days 1 to 6. In patients belonging to NCCN-FR and NCCN-IR categories, peripheral blood stem cell collection was attempted by initiating G-CSF on day 20 from the start of consolidation therapy, until completion of stem cell collection. BM was used as a source when failing to collect a sufficient number of PB stem cells. In the case of poor BM harvest, instead of AuSCT, patients were to receive a second consolidation course with high dose cytarabine (HDARAC).
Salvage therapy consisted of one/two courses of i.v fludarabine 30 mg/m^2 daily, on days 1-5; cytarabine 2000 mg/m^2 daily, on days 1-5; idarubicin 8 mg/m^2 daily, on days 1-3.

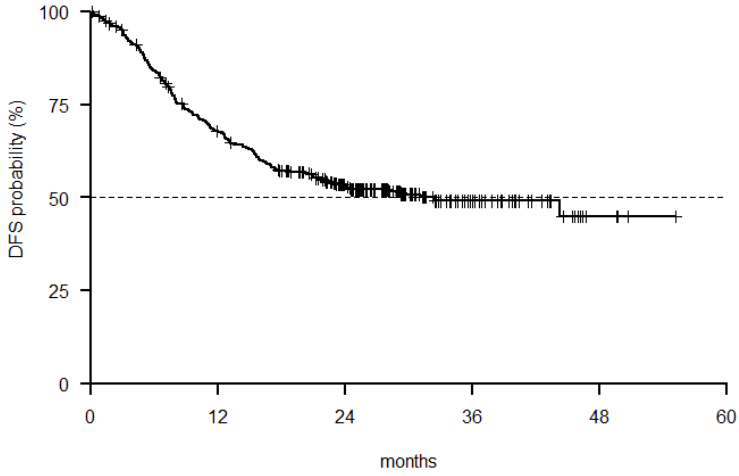
For patients allocated to ASCT, the procedure had to be performed whatever the source of stem cells (HLA-identical sibling, HLA-identical unrelated donor, cord blood, HLA-haploidentical sibling). Whatever the original NCCN risk category, patients with resistant disease after up to 2 cycles of induction therapy were allocated to the ASCT procedure once CR/CRi was achieved.

Supplemental Figure 1. Survival curves of the whole study population. With a median follow-up of 28.8 months, 2-year-OS (A) and DFS (B) were 56% (median duration 38 months) and 54% (median duration 32.4 months), respectively.

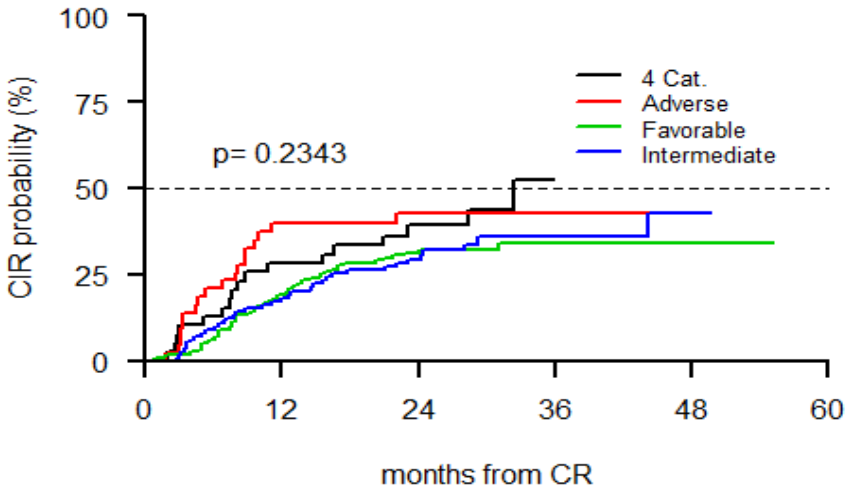
A



B

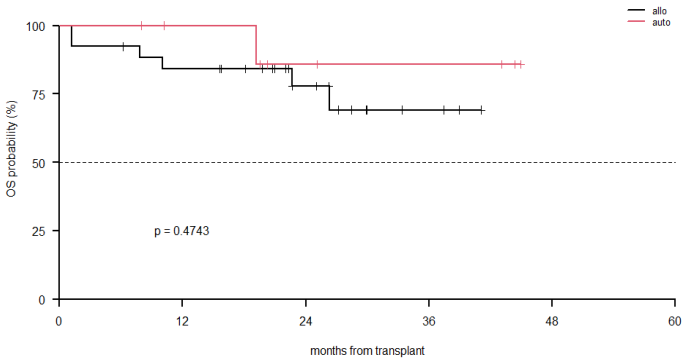


Supplemental Figure 2. CIR stratified by ELN2017 classes. Two-year CIR was 31.3%, 29.4%, 42.8%, and 39.2% for the ELN2017-FR, ELN2017-IR, ELN2017-AR and ELN2017-NC patients, respectively (p=0.2343). [Figure 2S]

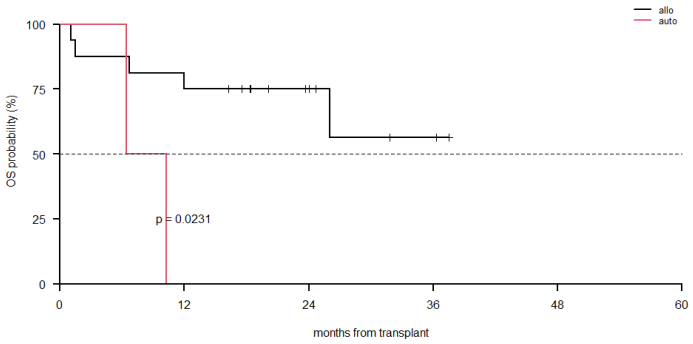


Supplemental Figure 3. OS "from-transplant" in 85 ELN2017 patients according to the MRD status. 2-years OS, was not different between AuSCT and ASCT in MRD negative (A) patients (85.7 vs. 77.8, p=0.234) whereas, among MRD positive ones (B), was significantly longer for those receiving ASCT (75% vs 0, p=0.0231).

A



B



Supplemental Figure 4. Stratified analysis of age impact in the overall series. Patients aged 18-49 years showed an OS of 64.2% as compared to those aged 50-61 years (p<0.001).