

**Supplementary Table 1.** Cytogenetics and molecular abnormalities of AML patients

Parameters	AML patients (N=67)
Cytogenetics (n/%)	
11q23	1 (1.5)
inv(16) or t(16;16)	1 (1.5)
inv(3) or t(3;3)	1 (1.5)
t(9;22)	1 (1.5)
-7 or 7q-	2 (3.0)
+8	4 (6.0)
CK	4 (6.0)
t(8;21)	4 (6.0)
Others (not included in better or poor risk)	18 (26.9)
NK	31 (46.3)
Monosomal karyotype (n/%)	6 (9.0)
FLT3-ITD (n/%)	14 (20.9)
Isolated biallelic CEBPA mutation (n/%)	5 (7.5)
NPM1 (n/%)	19 (28.4)

Data were presented as count (percentage). AML, acute myeloid leukemia; CK, complex karyotype; NK, normal karyotype; FLT3-ITD, internal tandem duplications in the FMS-like tyrosine kinase 3; CEBPA, CCAAT/enhancer-binding protein  $\alpha$ ; NPM1, nucleophosmin.

**Supplementary Table 2.** Subgroups analysis of CR by CLAG treatment

Parameters (N=47)	CR (n=31)	Not CR (n=16)	P value
Age $\geq 60$ years			0.211
Yes (n/%)	8 (53)	7 (47)	
No (n/%)	23 (72)	9 (28)	
Gender			0.917
Male (n/%)	15 (65)	8 (35)	
Female (n/%)	16 (67)	8 (33)	
Disease status			0.172
Relapsed (n/%)	20 (74)	7 (26)	
Refractory (n/%)	11 (55)	9 (45)	
De novo or secondary			0.062
De novo (n/%)	28 (72)	11 (28)	
Secondary (n/%)	3 (38)	5 (62)	
Risk stratification			<b>0.045</b>
Good (n/%)	6 (86)	1 (14)	
Standard (n/%)	21 (72)	8 (28)	
Poor (n/%)	3 (30)	7 (70)	
Unknown (n/%)	1 (100)	0 (0)	
ECOG performance			0.838
0 (n/%)	9 (60)	6 (40)	
1 (n/%)	20 (69)	9 (31)	
2 (n/%)	2 (67)	1 (33)	
BM blast $\geq 43.6\%$			<b>0.010</b>
Yes (n/%)	11 (48)	12 (52)	
No (n/%)	20 (83)	4 (17)	
CR at first induction			<b>0.018</b>
Yes (n/%)	19 (83)	4 (17)	
No (n/%)	12 (50)	12 (50)	

Previous allo-HSCT		0.291
Yes (n/%)	8 (80)	2 (20)
No (n/%)	23 (62)	14 (38)

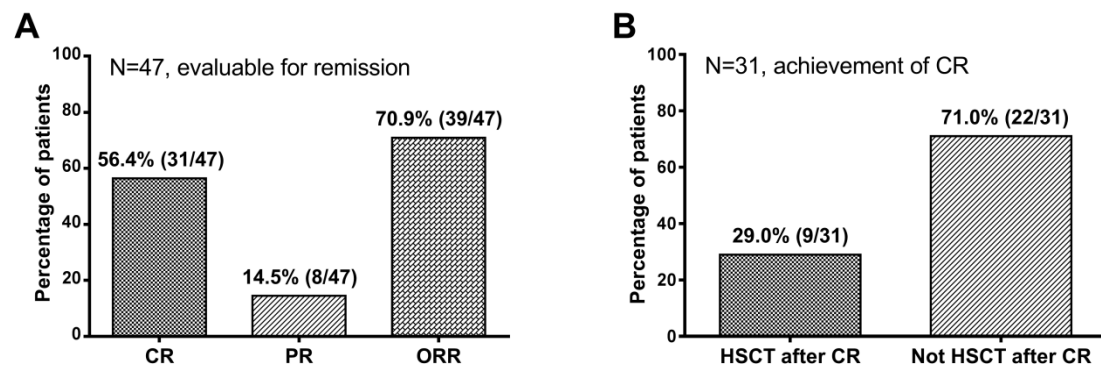
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Data were presented as count (percentage). Comparison was determined by Chi-square test. BM blast was cut off by its median value in first salvage patients.  $P<0.05$  was considered significant. ECOG, Eastern Cooperative Oncology Group; BM, bone marrow; CR, complete remission; allo-HSCT, allogeneic hematopoietic stem-cell transplantation.

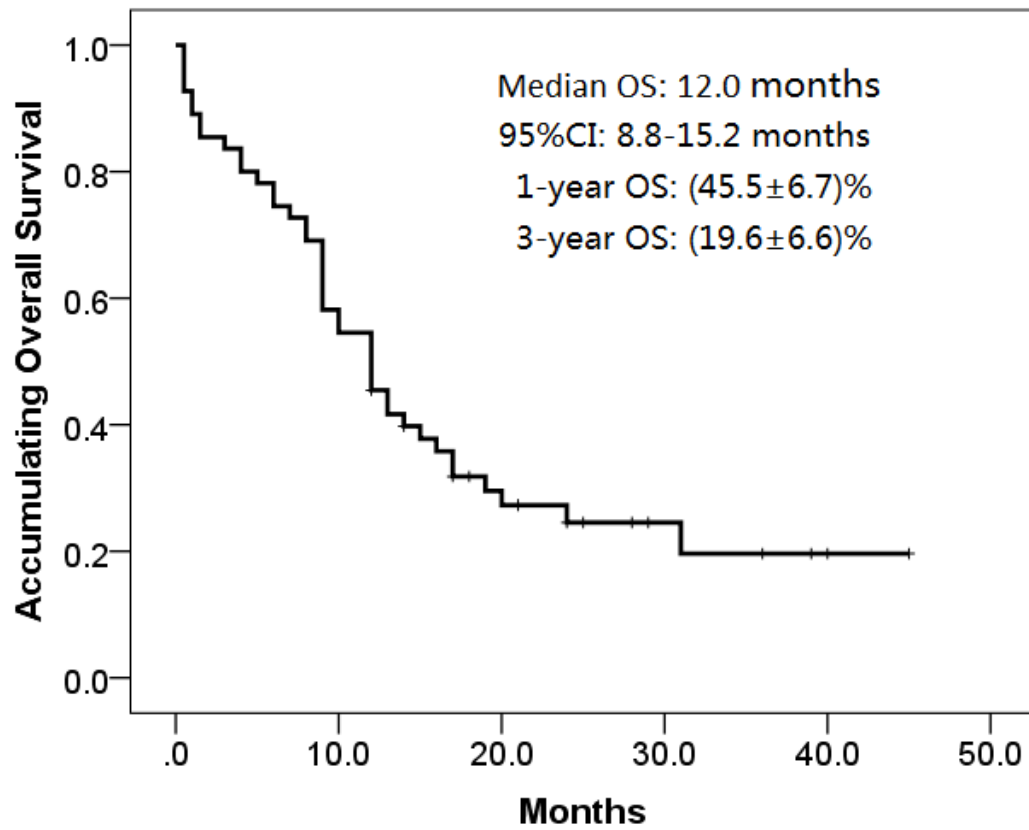
**Supplementary Table 3.** Adverse effects

Parameters	AML patients (N=55)
Hematologic	
Thrombocytopenia	34 (62)
Febrile neutropenia	31 (56)
Leukopenia	27 (49)
Neutropenia	15 (27)
Anemia	8 (14)
Non-Hematologic	
Alopecia	36 (65)
Infection	23 (42)
Nausea/vomiting	10 (18)
Hypokalemia	9 (16)
Sepsis	7 (13)
Diarrhea	6 (11)
Pneumonia	7 (13)
Pyrexia	4 (7)
Asthenia	3 (5)
Hyperglycemia	4 (7)

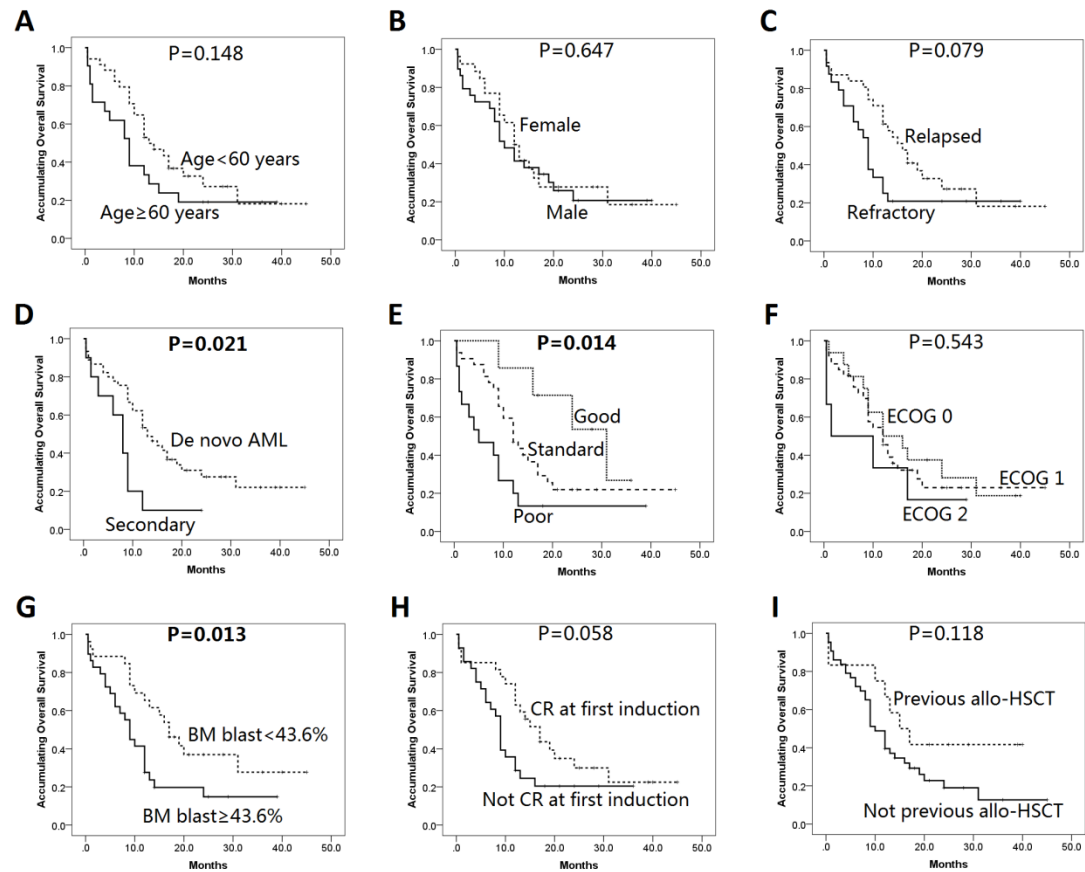
Data were presented as count (percentage).



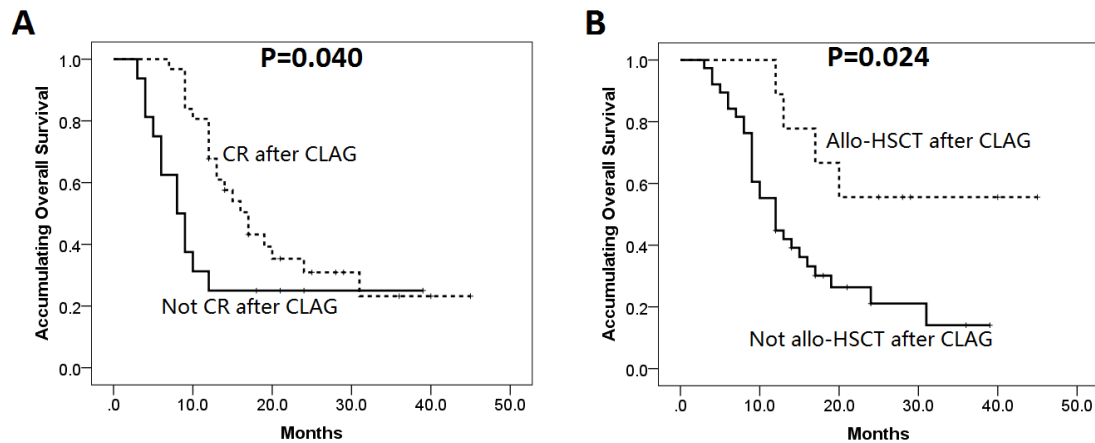
**Supplementary Figure 1.** In patients with first salvage therapy, percentages of patients achieved CR, PR and OR R were 56.4%, 14.5% and 70.9% respectively (A). In addition, 29.0% of the CR patients received HSCT (B).



**Supplementary Figure 2.** In patients with first salvage therapy, OS was 12.0 (95% CI: 8.8-15.2) months, and the 1-year OS and 3-year OS were (45.5 ± 6.6)% and (19.6±6.6)% respectively. K-M curves were used to exhibit OS.



**Supplementary Figure 3.** Secondary AML (D), poorer risk stratification (E) and BM blast  $\geq 43.6\%$  (G) were correlated with worse OS in patients with first salvage therapy, moreover, relapsed AML (C) and CR at first induction (H) were numerically associated with better OS, but no significant difference was observed. No correlation was of OS with other baseline characteristics including age (A), gender (B), ECOG (F) and previous allo-HSCT (I) was found. K-M curves were used to exhibit OS, and comparison between groups was determined by log-rank test.  $P < 0.05$  was considered significant.



**Supplementary Figure 4.** In patients with first salvage therapy, CR after CLAG (A) and allo-HSCT after CLAG (B) were both correlated with longer OS. K-M curves were used to exhibit OS, and comparison between groups was determined by log-rank test.  $P<0.05$  was considered significant.