Online Supplement:

Included in the Supplement are

- Supplemental methods text
- Supplemental results text
- Supplemental Table 1-5
- Supplemental Figure 1

Methods

There were 10 imputed data sets generated from a model with 68 variables using random forest imputation with 500 trees for missing continuous and unordered categorical data, and polytomous logistic regression for missing ordered categorical data. These methods restricted the imputed data to take plausible values found within the original data. Standard combining rules were used to provide p-values and 95% confidence intervals (95%CI) for the estimates of the HR and OR in a way that accounted for the increased uncertainty due to missing data. The fraction of missing information (fmi), reported for each variable in Supplemental tables 1 and 3, represented the impact the missing data have on the estimation of HR and OR. Univariate models and a full multivariate model containing all variables of interest were fit. The CPH and logistic regression models were fit on each of the 10 imputed data sets and standard multiple imputation combining rules were used to compute estimates of the hazard ratio (HR) for OS from CPH models and odds ratio (OR) for response from logistic regression models.

Results

The anti-CD33 antibody drug conjugate gemtuzumab ozogamicin (GO) was most commonly administered concurrently with HMA (12% of patients). The histone deacetylase inhibitor valproic acid (VPA) was administered either alone or in combination with all-trans retinoic acid (ATRA) in 1.3% and 4.5% of patients, respectively. Hydroxyurea and chemotherapy was added to HMA in 2.3% and 1.2% of patients, respectively. Tyrosine kinase inhibitor (TKI) such as sorafenib, hedgehog inhibitors and isocitrate dehydrogenase (IDH) inhibitors were combined with HMA in 3.5% of patients. Finally, 15 patients received growth factor support in the addition to HMA either erythropoiesis-stimulating agents (ESAs, 1.3%) or granulocyte colonystimulating factor (G-CSF, 1.5%). During the observation period, 98.5% of patients stopped HMA therapy, mostly due to progressive disease or lack of response while only 6.3% of patients stopped therapy because of HMA-related toxicities.

Supplemental Table 1: Univariate Logistic Regression Models for Response (CR or CRi).

Variable p-value OR (95% CI) fml Patient Demographics and HMA therapy Sex (Fernale vs. Malle) 0.7405 1.0741 (0.703.1.6412) 0.0326 Age at diagnosis (years) 0.6616 1.0036 (0.9874, 1.0201) 0.0367 Age (> 55 vs. ≤ 55) 0.6019 1.229 (0.7202, 1.7568) 0.1324 HMA treatment schedule: Decitabine 10-days (Yes vs. No) 0.043 1.9716 (1.0218, 3.8042) 0.0203 Ellincal parameters prior to initiation of HMA WHO type at diagnosis (4 categories) AML with MDS-related features 0.0927 2.0851 (0.8849, 4.9132) 0.0562 AML with MDS-related features 0.457 1.2065 (0.7352, 1.98) 0.0103 Therapy-related AML vs. 3.041, with MDS-related features 0.457 1.2065 (0.7352, 1.98) 0.0103 Therapy-related AML vs. 3.0669 0.8263 (0.2264, 1.7328) 0.0239 Therapy-related AML (Yes vs. No) 0.1839 0.5247 (0.2025, 1.3597) 0.0268 Allcogencies CSC T prior to initiation of HMA (Relapsed AML vs. Refractory AML) 0.0586 1.5175 (0.9848, 2.3382) 0.0215 Allcogencies CSC T prior to initiation of HMA (Yes vs. No)		Predictive Factor		
Sex (Female vs. Male)	Variable	p-value	OR (95% CI)	fmi
Sex (Female vs. Male)	Patient Demographics and HMA therapy			
Age at diagnosis (years) 0.6616 1.0036 (0.9874, 1.0201) 0.0301 Age (> 55 v. ≤ 55) 0.3691 1.2605 (0.76, 2.0907) 0.0312 HMA Therapy (Decitabine vs. Azacitidine) 0.6039 1.1249 (0.7202, 1.7569) 0.1324 HMA treatment schedule: Decitabine 10-days (Yes vs. No) 0.043 1.9716 (1.0218, 3.8042) 0.0203 Zilnical parameters prior to initiation of HMA WHO type at diagnosis (4 categories) 3.000 3.997 (1.0844, 4.9132) 0.0562 AML with MDS-related features 0.0927 2.0851 (0.8849, 4.9132) 0.0562 AML with MDS-related features 0.457 1.2065 (0.7352, 1.98) 0.0103 Therapy-related AML vs. 3.669 0.6263 (0.2264, 1.7328) 0.0239 Therapy-related AML vs. 3.669 0.6263 (0.2264, 1.7328) 0.0239 Therapy-related AML (Yes vs. No) 0.1839 0.5247 (0.2025, 1.3597) 0.0268 Therapy-related Adiagnosis (Yes vs. No) 0.6866 0.8716 (0.4461, 1.7018) 0.0911 Therapy-related AML vs. Refractory AML) 0.5862 0.8716 (0.4461, 1.7018) 0.0911 Allogencis SCT prior to inititation of HMA (Yes vs. No)		0.7405	1.0741 (0.703, 1.6412)	0.0326
Age (> 55 vs. ≤ 55 0.3691 1.2605 (0.76, 2.0907) 0.0312				
HMA Treatment schedule: Decitabine 10-days (Yes vs. No) Clinical parameters prior to Initiation of HMA WHO type at diagnosis (4 categories) AML with MDS-related features AML visual and				
HMA treatment schedule: Decitabine 10-days (Yes vs. No) Clinical parameters prior to initiation of HMA WHO type at diagnosis (4 categories)				
WHO type at diagnosis (4 categories) AML with recurrent genetic abnormalities vs. AML with mbS-related features 0.0927 2.0851 (0.8849, 4.9132) 0.0562 AML not otherwise specified vs. AML with MbS-related features 0.457 1.2065 (0.7352, 1.98) 0.0103 Therapy-related AML vs. AML with MbS-related features 0.3669 0.6263 (0.2264, 1.7328) 0.0239 Therapy-related AML vs. AML with MbS-related features 0.3669 0.6263 (0.2264, 1.7328) 0.0239 Therapy-related AML (Yes vs. No) 0.1839 0.5247 (0.2025, 1.3597) 0.0268 Treatment related at diagnosis (Yes vs. No) 0.6866 0.8716 (0.4464, 1.7018) 0.0971 Therapy prior to HMA (Relapsed AML vs. Refractory AML) 0.0586 1.5175 (0.9848, 2.3382) 0.0215 Allogeneic SCT prior to initiation of HMA (Yes vs. No) 0.0639 1.6035 (0.973, 2.6428) 0.0582 Duration of CR1 (o.5 vs. ≤ 6 months) 0.0063 1.8111 (1.1831, 2.7724) 0.0156 ECOG status at diagnosis (2 or 3 vs. 0 or 1) 0.8263 0.9199 (0.4197, 2.0164) 0.6842 Number of prior lines of therapy before initiation of HMA (Xi (3 categories) 2.2 Prior Lines vs. 1 Prior Line 0.0563 0.583 (0.335, 1.0147) 0.0802 2.2 Prior Lines vs. 1 Prior Line 0.0563 0.583 (0.335, 1.0147) 0.0802 2.2 Prior Lines vs. 1 Prior Line 0.5049 0.8226 (0.4628, 1.4621) 0.0576 2.2 Prior Lines vs. 1 Prior Line 0.5049 0.8226 (0.4628, 1.4621) 0.0576 2.2 Prior Lines vs. 1 Prior Line 0.5049 0.8226 (0.4628, 1.4621) 0.0576 2.2 Prior Line 0.05049 0.05045 0.05045 0.05045 0.0	HMA treatment schedule: Decitabine 10-days (Yes vs. No)			
AML with MDS-related features Therapy-related AML vs AML with MDS-related features O.3669 0.6263 (0.2264, 1.7328) 0.0239 Therapy-related AML (Yes vs. No) 1.839 0.5247 (0.2025, 1.5597) 0.0268 Treatment related at diagnosis (Yes vs. No) 0.686 0.8716 (0.4464, 1.7018) 0.0971 Therapy prior to HMA (Relapsed AML vs. Refractory AML) Allogeneis SCT prior to initiation of HMA (Yes vs. No) 0.0639 1.6035 (0.973, 2.6428) 0.0582 Duration of CR1 (months) 0.102 1.0101 (0.998, 1.0224) 0.0432 Duration of CR1 (5 s vs. ≤ 6 months) ECOG status at diagnosis (2 or 3 vs. 0 or 1) 0.0820 1.8211 (1.1831, 2.7724) 0.0156 ECOG status at diagnosis (2 or 3 vs. 0 or 1) 0.0820 1.8213 (0.4792, 2.0164) 0.0489 Number of prior lines of therapy before initiation of HMA 0.2114 0.8583 (0.6751, 1.091) 0.0489 Number of prior Lines vs. 1 Prior Line 0.0563 0.583 (0.335, 1.0147) 0.0802 2 Prior Lines vs. 1 Prior Line 0.0563 0.583 (0.335, 1.0147) 0.0802 3 or More Prior Lines vs. 1 Prior Line 0.05049 0.8226 (0.4628, 1.4621) 0.0876 Laboratory parameters at initiation of HMA WBC (x 10^9 cells per liter) (> 10 vs. ≤ 10) 0.2599 0.682 (0.3483, 1.3355) 0.346 Peripheral blast (%) 0.0212 0.9898 (0.9917, 1.0091) 0.3179 Peripheral blast (≤ 5% vs. > 5%) 0.0042 0.0459 0.0459 1.2346 (0.7028, 2.1685) 0.0457 0.7807 0.9988 (0.9917, 1.0081) 0.3173 Bone marrow blast (> 20% vs. ≤ 20%) 0.1668 0.7267 (0.462, 1.1431) 0.0320 Cytogenetic risk group (3 categories) Intermediate/Normal vs. Poor 1.0244 (1.4500, 3.233) 0.4646 Chromosome 7 abnormality (Yes vs. No) 0.5021 0.8803 (0.3647, 3.4351) 0.4466 Chromosome 5 abnormality (Yes vs. No) 0.04712 0.0803 (0.3647, 3.4351) 0.4467 Chromosome 5 abnormality (Clinical parameters prior to initiation of HMA			
AML with MDS-related features AML not otherwise specified vs. AML with MDS-related features AML with MDS-related AML vs. Refractory AML) A0.6836 0.8686 0.8716 (0.4628, 1.4621) 0.0981 A0.0983 (0.4919, 0.04197, 0.0166 A0.5836 (0.6751, 1.091) 0.0486 A0.5836 (0.6751, 1.091) 0.0802 A0.5836 (0.6751, 1.091) 0.0				
AML not otherwise specified vs. AML with MDS-related features Therapy-related AML vs. AML with MDS-related features O.3669 Treatment related at diagnosis (Yes vs. No) Treatment related at diagnosis (Yes vs. No) Therapy prior to HMA (Relapsed AML vs. Refractory AML) Allogeneic SCT prior to initiation of HMA (Yes vs. No) Duration of CR1 (months) Duration of CR1 (months) Duration of CR1 (months) Duration of CR1 (morths) Duration of CR1 (s vs. ≤ 6 months) ECOG status at diagnosis (2 or 3 vs. 0 or 1) Allogeneic SCT prior lines of therapy before initiation of HMA Number of prior lines of therapy before initiation of HMA Number of prior lines of therapy before initiation of HMA Number of prior lines of therapy before initiation of HMA Number of prior lines of therapy before initiation of HMA Number of Prior Lines vs. 1 Prior Line 2 Prior Lines vs. 1 Prior Line 3 or More Prior Lines vs. 1 Prior Line Boratory parameters at initiation of HMA WBC (x 10^9 cells per liter) (> 10 vs. ≤ 10) Peripheral blast (5% vs. > 5%) Peripheral blast (5% vs. > 5%) Douglainty (> 20% vs. ≤ 20%) Peripheral blast (5% vs. > 5%) Douglainty (> 20% vs. ≤ 20%) Complex cytogenetic risk group (3 categories) Intermediate/Normal vs. Poor Complex cytogenetics (Yes vs. No) Dougla (30 vs. Poor Complex cytogenetics (Yes vs. No) Dougla (30 vs. Poor Complex cytogenetics (Yes vs. No) Dougla (30 vs. Poor Complex cytogenetics (Yes vs. No) All (1840 vs.	AML with recurrent genetic abnormalities vs.			
AML with MDS-related features	AML with MDS-related features	0.0927	2.0851 (0.8849, 4.9132)	0.0562
Therapy-related AML vs. AML with MDS-related features 0.3669 0.6263 (0.2264, 1.7328) 0.0239 Therapy-related AML (Yes vs. No) 0.1839 0.5247 (0.2025, 1.3597) 0.0268 Treatment related at diagnosis (Yes vs. No) 0.6866 0.8716 (0.4464, 1.7018) 0.0971 Therapy prior to HMA (Relapsed AML vs. Refractory AML) 0.0586 1.5175 (0.9848, 2.3382) 0.0215 Allogeneic SCT prior to initiation of HMA (Yes vs. No) 0.0639 1.6035 (0.973, 2.6428) 0.0582 Duration of CR1 (months) 0.102 1.0101 (0.998, 1.0224) 0.0432 Duration of CR1 (renths) 0.0639 1.8011 (1.1831, 2.7724) 0.0156 ECOG status at diagnosis (2 or 3 vs. 0 or 1) 0.8263 0.9199 (0.4197, 2.0164) 0.6842 Number of prior lines of therapy before initiation of HMA (0.2114 0.8583 (0.6751, 1.091) 0.0489 Number of prior lines of therapy before initiation of HMA (3 categories) 2 Prior Lines vs. 1 Prior Line (0.564) 0.5049 0.8226 (0.4628, 1.4621) 0.0576 Laboratory parameters at initiation of HMA (0.2014 0.8583 (0.335, 1.0147) 0.0802 (0.2014 0.9689) MBC (x 10^49 cells per liter) (0.0563 0.2599 0.682 (0.3483, 1.3355) 0.346 Peripheral blast (%) 0.0040 0.0040 0.0042 0.0074 (1.2500, 3.2239) 0.2179 Peripheral blast (≤ 5% vs. > 5%) 0.0042 0.0042 0.0074 (1.2500, 3.2239) 0.2179 Peripheral blast (≤ 5% vs. > 5%) 0.0042 0.0042 0.0074 (1.2500, 3.2239) 0.2179 Peripheral blast (≤ 5% vs. > 5w) 0.0042 0.0074 (1.2500, 3.2239) 0.2179 Bone marrow cellularity (> 20% vs. ≤ 20%) 0.4592 1.2345 (0.7028, 2.1685) 0.3131 Bone marrow blast (> 20% vs. ≤ 20%) 0.4592 1.2345 (0.7028, 2.1685) 0.3131 Bone marrow blast (> 20% vs. ≤ 20%) 0.0042 0.7467 (0.9983 (0.9987) 1.0088) 0.4199 Bone marrow blast (> 20% vs. ≤ 20%) 0.0042 0.7663 (0.3654, 1.5877) 0.0368 0.7667 (0.462, 1.1431) 0.0232 0.0042 0	AML not otherwise specified vs.			
AML with MDS-related features	AML with MDS-related features	0.457	1.2065 (0.7352, 1.98)	0.0103
Therapy-related AML (Yes vs. No) Treatment related at diagnosis (Yes vs. No) Treatment related at diagnosis (Yes vs. No) Therapy prior to HMA (Relapsed AML vs. Refractory AML) Allogeneic SCT prior to initiation of HMA (Yes vs. No) Duration of CR1 (months) Duration of CR1 (> 6 vs. ≤ 6 months) ECOG status at diagnosis (2 or 3 vs. 0 or 1) Number of prior lines of therapy before initiation of HMA Number of prior lines of therapy before initiation of HMA Number of prior lines of therapy before initiation of HMA Number of prior lines vs. 1 Prior Line 3 or More Prior Lines vs. 1 Prior Line 3 or More Prior Lines vs. 1 Prior Line 4 Number of prior lines of therapy before initiation of HMA Number of prior lines vs. 1 Prior Line 3 or More Prior Lines vs. 1 Prior Line 4 Number of prior lines vs. 1 Prior Line 5 No.5049 Duration of CR1 (× 6 vs. ≤ 6 months) 2 Prior Lines vs. 1 Prior Line 3 or More Prior Lines vs. 1 Prior Line 4 O.50563 Laboratory parameters at initiation of HMA WBC (x 10^9 cells per liter) WBC (x 10^9 cells per liter) (> 10 vs. ≤ 10) Peripheral blast (*5) Peripheral blast (*5) Peripheral blast (*5) No.0212 Dought (× 10, 10, 10, 10, 10, 10, 10, 10, 10, 10,	Therapy-related AML vs.			
Treatment related at diagnosis (Yes vs. No) Therapy prior to HMA (Relapsed AML vs. Refractory AML) Therapy prior to HMA (Relapsed AML vs. Refractory AML) Allogeneic SCT prior to inititation of HMA (Yes vs. No) Duration of CR1 (months) Duration of CR1 (months) Duration of CR1 (nonths) Duration of CR1 (s 6 vs. ≤ months) CCOG status at diagnosis (2 or 3 vs. 0 or 1) Number of prior lines of therapy before initiation of HMA Number of prior lines of therapy before initiation of HMA Number of prior lines of therapy before initiation of HMA Number of prior lines of therapy before initiation of HMA Number of prior lines vs. 1 Prior Line 3 or More Prior Lines vs. 1 Prior Line 3 or More Prior Lines vs. 1 Prior Line NBC (x 10^9 cells per liter) WBC (x 10^9 cells per liter) (> 10 vs. ≤ 10) Peripheral blast (5 % vs. > 5%) Done marrow cellularity (%) Done marrow cellularity (> 20% vs. ≤ 20%) Done marrow blast (%) Done marr	AML with MDS-related features	0.3669	0.6263 (0.2264, 1.7328)	0.0239
Therapy prior to HMA (Relapsed AML vs. Refractory AML) Allogeneic SCT prior to initiation of HMA (Yes vs. No) Duration of CR1 (months) Duration of CR1 (> 6 vs. ≤ 6 months) ECOG status at diagnosis (2 or 3 vs. 0 or 1) Number of prior lines of therapy before initiation of HMA Number of prior lines of therapy before initiation of HMA Number of prior lines vs. 1 Prior Line 3 or More Prior Lines vs. 1 Prior Line 3 or More Prior Lines vs. 1 Prior Line 4 O.5049 BEC (x 10^9 cells per liter) WBC (x 10^9 cells per liter) Peripheral blast (≤ 5% vs. > 5%) Bone marrow cellularity (> 20% vs. ≤ 20%) Bone marrow blast (%) Bone marrow blast (%) Bone marrow blast (%) Bone marrow blast (%) Cytogenetic risk group (3 categories) Intermediate/Normal vs. Poor Good vs. Poor Complex cytogenetics (Yes vs. No) Chromosome 7 abnormality (Yes vs. No) Pel platelet Count (x 10^9 cells per liter) O.5080 O.5080 O.5081 O.5083 O.583 (0.335, 1.0147) O.0802 O.5633 O.583 (0.335, 1.0147) O.0802 O.5649 O.5649 O.5649 O.5650 O.5649 O.5640 O.5	Therapy-related AML (Yes vs. No)	0.1839	0.5247 (0.2025, 1.3597)	0.0268
Allogeneic SCT prior to initiation of HMA (Yes vs. No) Duration of CR1 (months) 0.102 Duration of CR1 (months) 0.102 Duration of CR1 (> 6 vs. ≤ 6 months) 0.0063 ECOG status at diagnosis (2 or 3 vs. 0 or 1) 0.8263 0.9199 (0.4197, 2.0164) 0.0482 Number of prior lines of therapy before initiation of HMA Number of prior lines of therapy before initiation of HMA (3 categories) 2 Prior Lines vs. 1 Prior Line 3 or More Prior Lines vs. 1 Prior Line 3 or More Prior Lines vs. 1 Prior Line 4 O.5049 0.8226 (0.4628, 1.4621) 0.0576 Laboratory parameters at initiation of HMA WBC (x 10^99 cells per liter) WBC (x 10^99 cells per liter) (> 10 vs. ≤ 10) Peripheral blast (5 vs. > 5%) 0.0212 0.9879 (0.9977, 1.0091) 0.3179 Porheral blast (≤ 5% vs. > 5%) 0.0042 0.7457 0.9983 (0.9991, 1.0068) 0.3131 Bone marrow cellularity (> 20% vs. ≤ 20%) 0.7457 0.9983 (0.9879, 1.0088) 0.7457 0.9983 (0.9879, 1.0088) 0.7457 0.9983 (0.9879, 1.0088) 0.7419 Done marrow blast (> 20% vs. ≤ 20%) 0.1668 0.7267 (0.462, 1.1431) 0.0232 Cytogenetic risk group (3 categories) Intermediate/Normal vs. Poor 0.2841 0.4712 0.7823 (0.383, 1.6409) 0.5085 Chromosome 7 abnormality (Yes vs. No) 0.5087 0.607 0.8503 (0.4554, 1.5877) 0.3088 Chromosome 7 abnormality (Yes vs. No) 0.4712 0.7633 (0.3647, 3.4351) 0.4446 Mutational Status prior to initiation of HMA TP53 mutation (Yes vs. No) 0.607 0.6013, 2.3398 0.5053 NPM1 mutation (Yes vs. No) 0.5001 1.1624 (0.6671, 2.0257) 0.5651	Treatment related at diagnosis (Yes vs. No)	0.6866	0.8716 (0.4464, 1.7018)	0.0971
Duration of CR1 (months) 0.102 1.0101 (0.998, 1.0224) 0.0432 Duration of CR1 (> 6 vs. ≤ 6 months) 0.0063 1.8111 (1.1831, 2.7724) 0.0156 ECOG status at diagnosis (2 or 3 vs. 0 or 1) 0.8263 0.9199 (0.4197, 2.0164) 0.6842 Number of prior lines of therapy before initiation of HMA 0.2114 0.8583 (0.6751, 1.091) 0.0489 Number of prior lines of therapy before initiation of HMA 0.2114 0.8583 (0.335, 1.0147) 0.0802 3 or More Prior Lines vs. 1 Prior Line 0.5049 0.8226 (0.4628, 1.4621) 0.0576 Laboratory parameters at initiation of HMA 0.2822 0.9892 (0.9697, 1.0091) 0.3179 WBC (x 10^9 cells per liter) 0 0.2829 0.682 (0.3483, 1.3355) 0.346 Peripheral blast (%) 0.0212 0.9879 (0.9778, 0.9981) 0.3279 Peripheral blast (%) 0.0042 2.0074 (1.2500, 3.2239) 0.2179 Bone marrow cellularity (%) 0.7807 0.9989 (0.9911, 1.0068) 0.3173 Bone marrow blast (%) 0.7457 0.9983 (0.9879, 1.0081) 0.3279 Portipheral blast (%) 0.7607 0.9889 (0.9911, 1.0068)	Therapy prior to HMA (Relapsed AML vs. Refractory AML)	0.0586	1.5175 (0.9848, 2.3382)	0.0215
Duration of CR1 (months) 0.102 1.0101 (0.998, 1.0224) 0.0432 Duration of CR1 (> 6 vs. ≤ 6 months) 0.0063 1.8111 (1.1831, 2.7724) 0.0156 ECOG status at diagnosis (2 or 3 vs. 0 or 1) 0.8263 0.9199 (0.4197, 2.0164) 0.6842 Number of prior lines of therapy before initiation of HMA 0.2114 0.8583 (0.6751, 1.091) 0.0489 Number of prior lines of therapy before initiation of HMA 0.2114 0.8583 (0.335, 1.0147) 0.0802 3 or More Prior Lines vs. 1 Prior Line 0.5049 0.8226 (0.4628, 1.4621) 0.0576 Laboratory parameters at initiation of HMA 0.2822 0.9892 (0.9697, 1.0091) 0.3179 WBC (x 10^9 cells per liter) 0 0.2829 0.682 (0.3483, 1.3355) 0.346 Peripheral blast (%) 0.0212 0.9879 (0.9778, 0.9981) 0.3279 Peripheral blast (%) 0.0042 2.0074 (1.2500, 3.2239) 0.2179 Bone marrow cellularity (%) 0.7807 0.9989 (0.9911, 1.0068) 0.3173 Bone marrow blast (%) 0.7457 0.9983 (0.9879, 1.0081) 0.3279 Portipheral blast (%) 0.7607 0.9889 (0.9911, 1.0068)	Allogeneic SCT prior to initiation of HMA (Yes vs. No)	0.0639	1.6035 (0.973, 2.6428)	0.0582
ECOG status at diagnosis (2 or 3 vs. 0 or 1) Number of prior lines of therapy before initiation of HMA Number of prior lines of therapy before initiation of HMA Number of prior lines of therapy before initiation of HMA (3 categories) 2 Prior Lines vs. 1 Prior Line 3 or More Prior Lines vs. 1 Prior Line (x 10^9 cells per liter) WBC (x 10^9 cells per liter) Peripheral blast (%) Peripheral blast (5 % vs. > 5%) Bone marrow cellularity (> 20% vs. ≤ 20%) Bone marrow blast (> 20% vs. ≤ 20%) Cydgenetic risk group (3 categories) Intermediate/Normal vs. Poor Good vs. Poor Complex cytogenetics (Yes vs. No) Chromosome 7 abnormality (Yes vs. No) Public Albard (Yes vs. No) Chromal Status prior to initiation of HMA Number of prior lines of therapy before initiation of HMA 0.2114 0.8583 (0.6751, 1.091) 0.0489 0.5833 (0.335, 1.0147) 0.0802 0.5833 (0.335, 1.0147) 0.0802 0.5833 (0.335, 1.0147) 0.0802 0.8226 (0.4628, 1.4621) 0.0576 0.8222 0.9892 (0.9697, 1.0091) 0.3179 WBC (x 10^9 cells per liter) (> 10 vs. ≤ 10) 0.2599 0.6822 (0.3483, 1.3355) 0.3463 0.3463 0.3229 0.2599 0.6822 (0.3483, 1.3355) 0.3463 0.3279 0.3221 0.3299 0.3299 0.3221 0.3299 0.3299 0.3221 0.3299 0.3291 0.3291 0.3279 0.3291 0.329	Duration of CR1 (months)	0.102	1.0101 (0.998, 1.0224)	0.0432
Number of prior lines of therapy before initiation of HMA Number of prior lines of therapy before initiation of HMA (3 categories) 2 Prior Lines vs. 1 Prior Line 3 or More Prior Lines vs. 1 Prior Line 4 0.5049 3 or More Prior Lines vs. 1 Prior Line 5 0.5049 2 Prior Lines vs. 1 Prior Line 9 0.5049 0 .8226 (0.4628, 1.4621) 0 .0576 Laboratory parameters at initiation of HMA WBC (x 10^9 cells per liter) WBC (x 10^9 cells per liter) WBC (x 10^9 cells per liter) VBC (x 10^9 cells per liter) WBC (x 10^9 cells per liter) Peripheral blast (%) Peripheral blast (≤ 5% vs. > 5%) Bone marrow cellularity (%) Bone marrow cellularity (> 20% vs. ≤ 20%) Bone marrow blast (%) Doubt 1 2 2 0.9879 (0.9778, 0.9981) Doubt 2 2.0074 (1.2500, 3.2239) Doubt 3 2.0373 Bone marrow blast (%) Doubt 2 2.0074 (1.2500, 3.2239) Doubt 3 2.0373 Bone marrow blast (%) Doubt 2 2.0074 (1.2500, 3.2239) Doubt 3 2.0373 Bone marrow blast (%) Doubt 3 2 2.0374 Doubt 4 2.0374 Doubt 4 2.0374 Doubt 5 2.0387 Doubt 5	Duration of CR1 (> 6 vs. \leq 6 months)	0.0063	1.8111 (1.1831, 2.7724)	0.0156
Number of prior lines of therapy before initiation of HMA (3 categories) 2 Prior Lines vs. 1 Prior Line 3 or More Prior Lines vs. 1 Prior Line 0.5049 0.8226 (0.4628, 1.4621) 0.0576 Laboratory parameters at initiation of HMA WBC (x 10^9 cells per liter) 0.2822 0.9892 (0.9697, 1.0091) 0.3179 WBC (x 10^9 cells per liter) (> 10 vs. ≤ 10) 0.2599 0.682 (0.3483, 1.3355) 0.346 Peripheral blast (%) 0.0212 0.9879 (0.9778, 0.9981) 0.3279 Peripheral blast (≤ 5% vs. > 5%) 0.0042 0.7807 0.9989 (0.9911, 1.0068) 0.3173 Bone marrow cellularity (> 20% vs. ≤ 20%) 0.4592 0.7467 0.9983 (0.9879, 1.0088) 0.4199 Bone marrow blast (> 20% vs. ≤ 20%) 0.1668 0.7267 (0.462, 1.1431) 0.0232 Cytogenetic risk group (3 categories) Intermediate/Normal vs. Poor 0.6356 1.1823 (0.5823, 2.4007) 0.4646 Good vs. Poor 0.6356 1.1823 (0.5823, 2.4007) 0.4646 Good vs. Poor 0.6356 1.1823 (0.5823, 2.4007) 0.4646 Good vs. Poor 0.284 1.4782 (0.7158, 3.0528) 0.4267 Complex cytogenetics (Yes vs. No) 0.5212 0.7928 (0.383, 1.6409) 0.5085 Chromosome 7 abnormality (Yes vs. No) 0.607 0.8503 (0.4554, 1.5877) 0.3088 Chromosome 5 abnormality (Yes vs. No) 0.4712 0.7633 (0.3613, 1.6126) 0.4318 Platelet Count (x 10^9 cells per liter) 0.0879 1.0024 (0.9996, 1.0051) 0.2528 Platelet Count (x 10^9 cells per liter) 0.0879 1.0024 (0.9996, 1.0051) 0.2528 Platelet Count (x 10^9 cells per liter) 0.0879 1.1193 (0.3647, 3.4351) 0.4464 Mutational Status prior to initiation of HMA TP53 mutation (Yes vs. No) 0.6132 1.1862 (0.6013, 2.3398) 0.5053 NPM1 mutation (Yes vs. No) 0.5901 1.1624 (0.6671, 2.0257) 0.3686	ECOG status at diagnosis (2 or 3 vs. 0 or 1)	0.8263	0.9199 (0.4197, 2.0164)	0.6842
(3 categories) 2 Prior Lines vs. 1 Prior Line 0.0563 0.583 (0.335, 1.0147) 0.0802 3 or More Prior Lines vs. 1 Prior Line 0.5049 0.8226 (0.4628, 1.4621) 0.0576 Laboratory parameters at initiation of HMA WBC (x 10^9 cells per liter) 0.2822 0.9892 (0.9697, 1.0091) 0.3179 WBC (x 10^9 cells per liter) (> 10 vs. ≤ 10) 0.2599 0.682 (0.3483, 1.3355) 0.346 Peripheral blast (%) 0.0212 0.9879 (0.9778, 0.9981) 0.3279 Peripheral blast (≤ 5% vs. > 5%) 0.0042 2.0074 (1.2500, 3.2239) 0.2179 Bone marrow cellularity (%) 0.7807 0.9989 (0.9911, 1.0068) 0.3173 Bone marrow blast (%) 0.7457 0.9983 (0.9879, 1.0088) 0.4199 Bone marrow blast (%) 0.7457 0.9983 (0.9879, 1.0088) 0.4199 Bone marrow blast (>20% vs. ≤ 20%) 0.1668 0.7267 (0.462, 1.1431) 0.0232 Cytogenetic risk group (3 categories) 0.6356 1.1823 (0.5823, 2.4007) 0.4646 Good vs. Poor 0.6356 1.1823 (0.5823, 2.4007) 0.4646 Good vs. Poor 0.6356 1.093 (0.3647, 3.4351) 0.4362 Chromosom	Number of prior lines of therapy before initiation of HMA	0.2114	0.8583 (0.6751, 1.091)	0.0489
2 Prior Lines vs. 1 Prior Line 3 or More Prior Lines vs. 1 Prior Line 4 0.5049 5 0.8226 (0.4628, 1.4621) 6 0.0576 Laboratory parameters at initiation of HMA WBC (x 10^9 cells per liter) WBC (x 10^9 cells per liter) WBC (x 10°9 cells per liter) W	Number of prior lines of therapy before initiation of HMA			
3 or More Prior Lines vs. 1 Prior Line 0.5049 0.8226 (0.4628, 1.4621) 0.0576 Laboratory parameters at initiation of HMA WBC (x 10^9 cells per liter) 0.2822 0.9892 (0.9697, 1.0091) 0.3179 WBC (x 10^9 cells per liter) (> 10 vs. ≤ 10) 0.2599 0.682 (0.3483, 1.3355) 0.3466 Peripheral blast (%) 0.0212 0.9879 (0.9778, 0.9981) 0.3279 Peripheral blast (≤ 5% vs. > 5%) 0.0042 2.0074 (1.2500, 3.2239) 0.2179 Bone marrow cellularity (%) 0.7807 0.9989 (0.9911, 1.0068) 0.3173 Bone marrow blast (%) 0.7457 0.9983 (0.9879, 1.0088) 0.4199 Bone marrow blast (> 20% vs. ≤ 20%) 0.1668 0.7267 (0.462, 1.1431) 0.0232 Cytogenetic risk group (3 categories) 0.6356 1.1823 (0.5823, 2.4007) 0.4646 Good vs. Poor 0.6356 1.1823 (0.5823, 2.4007) 0.4666 Complex cytogenetics (Yes vs. No) 0.5212 0.7928 (0.383, 1.6409) 0.5085 Chromosome 7 abnormality (Yes vs. No) 0.607 0.8503 (0.4554, 1.5877) 0.3088 Chromosome 5 abnormality (Yes vs. No) 0.4712 0.7633 (0.3613, 1.6126) 0.4318	(3 categories)			
Laboratory parameters at initiation of HMA WBC (x 10^9 cells per liter) 0.2822 0.9892 (0.9697, 1.0091) 0.3179 WBC (x 10^9 cells per liter) (> 10 vs. ≤ 10) 0.2599 0.682 (0.3483, 1.3355) 0.346 Peripheral blast (%) 0.0212 0.9879 (0.9778, 0.9981) 0.3279 Peripheral blast (≤ 5% vs. > 5%) 0.0042 2.0074 (1.2500, 3.2239) 0.2179 Bone marrow cellularity (%) 0.7807 0.9989 (0.9911, 1.0068) 0.3173 Bone marrow blast (%) 0.7457 0.9983 (0.9879, 1.0088) 0.4199 Bone marrow blast (> 20% vs. ≤ 20%) 0.1668 0.7267 (0.462, 1.1431) 0.0232 Cytogenetic risk group (3 categories) 1.1823 (0.5823, 2.4007) 0.4646 Good vs. Poor 0.6356 1.1823 (0.5823, 2.4007) 0.4646 Complex cytogenetics (Yes vs. No) 0.5212 0.7928 (0.383, 1.6409) 0.5085 Chromosome 7 abnormality (Yes vs. No) 0.607 0.8503 (0.4554, 1.5877) 0.3088 Chromosome 5 abnormality (Yes vs. No) 0.4712 0.7633 (0.3613, 1.6126) 0.4318 Platelet Count (x 10^9 cells per liter) 0.0879 1.0024 (0.9996, 1.0051) 0.2528 Platelet Count	2 Prior Lines vs. 1 Prior Line	0.0563	0.583 (0.335, 1.0147)	0.0802
WBC (x 10^9 cells per liter) 0.2822 0.9892 (0.9697, 1.0091) 0.3179 WBC (x 10^9 cells per liter) (> 10 vs. ≤ 10) 0.2599 0.682 (0.3483, 1.3355) 0.346 Peripheral blast (%) 0.0212 0.9879 (0.9778, 0.9981) 0.3279 Peripheral blast (≤ 5% vs. > 5%) 0.0042 2.0074 (1.2500, 3.2239) 0.2179 Bone marrow cellularity (%) 0.7807 0.9989 (0.9911, 1.0068) 0.3173 Bone marrow blast (y) 0.4592 1.2345 (0.7028, 2.1685) 0.3131 Bone marrow blast (> 20% vs. ≤ 20%) 0.1668 0.7267 (0.462, 1.1431) 0.0232 Cytogenetic risk group (3 categories) 0.1668 0.7267 (0.462, 1.1431) 0.0232 Cytogenetic risk group (3 categories) 0.6356 1.1823 (0.5823, 2.4007) 0.4646 Good vs. Poor 0.6356 1.1823 (0.5823, 2.4007) 0.4646 Complex cytogenetics (Yes vs. No) 0.5212 0.7928 (0.383, 1.6409) 0.5085 Chromosome 7 abnormality (Yes vs. No) 0.607 0.8503 (0.4554, 1.5877) 0.3088 Chromosome 5 abnormality (Yes vs. No) 0.4712 0.7633 (0.3613, 1.6126) 0.4318 Platelet Count (x 10^9 cells per liter) (≤ 30 vs. > 30) 0.1184	3 or More Prior Lines vs. 1 Prior Line	0.5049	0.8226 (0.4628, 1.4621)	0.0576
WBC (x 10^9 cells per liter) (> 10 vs. ≤ 10)				
Peripheral blast (%) 0.0212 0.9879 (0.9778, 0.9981) 0.3279 Peripheral blast (≤ 5% vs. > 5%) 0.0042 2.0074 (1.2500, 3.2239) 0.2179 Bone marrow cellularity (%) 0.7807 0.9989 (0.9911, 1.0068) 0.3173 Bone marrow cellularity (> 20% vs. ≤ 20%) 0.4592 1.2345 (0.7028, 2.1685) 0.3131 Bone marrow blast (%) 0.7457 0.9983 (0.9879, 1.0088) 0.4199 Bone marrow blast (> 20% vs. ≤ 20%) 0.1668 0.7267 (0.462, 1.1431) 0.0232 Cytogenetic risk group (3 categories) 0.6356 1.1823 (0.5823, 2.4007) 0.4646 Good vs. Poor 0.6356 1.1823 (0.5823, 2.4007) 0.4646 Complex cytogenetics (Yes vs. No) 0.5212 0.7928 (0.383, 1.6409) 0.5085 Chromosome 7 abnormality (Yes vs. No) 0.607 0.8503 (0.4554, 1.5877) 0.3088 Chromosome 5 abnormality (Yes vs. No) 0.4712 0.7633 (0.3613, 1.6126) 0.4318 Platelet Count (x 10^9 cells per liter) 0.0879 1.0024 (0.9996, 1.0051) 0.2528 Platelet Count (x 10^9 cells per liter) (≤ 30 vs. > 30) 0.1184 0.623 (0.3424, 1.1337) 0.4446 Mutational Status prior to initiation of HMA <	WBC (x 10 [^] 9 cells per liter)	0.2822	0.9892 (0.9697, 1.0091)	0.3179
Peripheral blast (≤ 5% vs. > 5%) 0.0042 2.0074 (1.2500, 3.2239) 0.2179 Bone marrow cellularity (%) 0.7807 0.9989 (0.9911, 1.0068) 0.3173 Bone marrow cellularity (> 20% vs. ≤ 20%) 0.4592 1.2345 (0.7028, 2.1685) 0.3131 Bone marrow blast (%) 0.7457 0.9983 (0.9879, 1.0088) 0.4199 Bone marrow blast (> 20% vs. ≤ 20%) 0.1668 0.7267 (0.462, 1.1431) 0.0232 Cytogenetic risk group (3 categories) 0.6356 1.1823 (0.5823, 2.4007) 0.4646 Good vs. Poor 0.284 1.4782 (0.7158, 3.0528) 0.4267 Complex cytogenetics (Yes vs. No) 0.5212 0.7928 (0.383, 1.6409) 0.5085 Chromosome 7 abnormality (Yes vs. No) 0.607 0.8503 (0.4554, 1.5877) 0.3088 Chromosome 5 abnormality (Yes vs. No) 0.4712 0.7633 (0.3613, 1.6126) 0.4318 Platelet Count (x 10^9 cells per liter) 0.0879 1.0024 (0.9996, 1.0051) 0.2528 Platelet Count (x 10^9 cells per liter) (≤ 30 vs. > 30) 0.1184 0.623 (0.3424, 1.1337) 0.4446 Mutational Status prior to initiation of HMA TP53 mutation (Yes vs. No) 0.8405 1.1193 (0.3647, 3.4351) 0.4467	WBC (x 10 ⁹ cells per liter) (> 10 vs. \leq 10)	0.2599	0.682 (0.3483, 1.3355)	0.346
Bone marrow cellularity (%) 0.7807 0.9989 (0.9911, 1.0068) 0.3173 Bone marrow cellularity (> 20% vs. ≤ 20%) 0.4592 1.2345 (0.7028, 2.1685) 0.3131 Bone marrow blast (%) 0.7457 0.9983 (0.9879, 1.0088) 0.4199 Bone marrow blast (> 20% vs. ≤ 20%) 0.1668 0.7267 (0.462, 1.1431) 0.0232 Cytogenetic risk group (3 categories) Intermediate/Normal vs. Poor 0.6356 1.1823 (0.5823, 2.4007) 0.4646 Good vs. Poor 0.284 1.4782 (0.7158, 3.0528) 0.4267 Complex cytogenetics (Yes vs. No) 0.5212 0.7928 (0.383, 1.6409) 0.5085 Chromosome 7 abnormality (Yes vs. No) 0.607 0.8503 (0.4554, 1.5877) 0.3088 Chromosome 5 abnormality (Yes vs. No) 0.4712 0.7633 (0.3613, 1.6126) 0.4318 Platelet Count (x 10^9 cells per liter) 0.0879 1.0024 (0.9996, 1.0051) 0.2528 Platelet Count (x 10^9 cells per liter) (≤ 30 vs. > 30) 0.1184 0.623 (0.3424, 1.1337) 0.4446 Mutational Status prior to initiation of HMA TP53 mutation (Yes vs. No) 0.6132 1.1862 (0.6013, 2.3398) 0.5053 NPM1 mutation (Yes vs. No) 0.5901 1.1624 (0.6671, 2.0257) 0.3651	Peripheral blast (%)	0.0212	0.9879 (0.9778, 0.9981)	0.3279
Bone marrow cellularity (> 20% vs. ≤ 20%) 0.4592 1.2345 (0.7028, 2.1685) 0.3131 Bone marrow blast (%) 0.7457 0.9983 (0.9879, 1.0088) 0.4199 Bone marrow blast (> 20% vs. ≤ 20%) 0.1668 0.7267 (0.462, 1.1431) 0.0232 Cytogenetic risk group (3 categories) 0.6356 1.1823 (0.5823, 2.4007) 0.4646 Good vs. Poor 0.284 1.4782 (0.7158, 3.0528) 0.4267 Complex cytogenetics (Yes vs. No) 0.5212 0.7928 (0.383, 1.6409) 0.5085 Chromosome 7 abnormality (Yes vs. No) 0.607 0.8503 (0.4554, 1.5877) 0.3088 Chromosome 5 abnormality (Yes vs. No) 0.4712 0.7633 (0.3613, 1.6126) 0.4318 Platelet Count (x 10^9 cells per liter) 0.0879 1.0024 (0.9996, 1.0051) 0.2528 Platelet Count (x 10^9 cells per liter) (≤ 30 vs. > 30) 0.1184 0.623 (0.3424, 1.1337) 0.4446 Mutational Status prior to initiation of HMA TP53 mutation (Yes vs. No) 0.8405 1.1193 (0.3647, 3.4351) 0.4467 FLT3 mutation (Yes vs. No) 0.6132 1.1862 (0.6013, 2.3398) 0.5053 NPM1 mutation (Yes vs. No) 0.5901 1.1624 (0.6671, 2.0257) 0.3651 <td>Peripheral blast (≤ 5% vs. > 5%)</td> <td>0.0042</td> <td>2.0074 (1.2500, 3.2239)</td> <td>0.2179</td>	Peripheral blast (≤ 5% vs. > 5%)	0.0042	2.0074 (1.2500, 3.2239)	0.2179
Bone marrow blast (%) 0.7457 0.9983 (0.9879, 1.0088) 0.4199 Bone marrow blast (> 20% vs. ≤ 20%) 0.1668 0.7267 (0.462, 1.1431) 0.0232 Cytogenetic risk group (3 categories) Intermediate/Normal vs. Poor 0.6356 1.1823 (0.5823, 2.4007) 0.4646 Good vs. Poor 0.284 1.4782 (0.7158, 3.0528) 0.4267 Complex cytogenetics (Yes vs. No) 0.5212 0.7928 (0.383, 1.6409) 0.5085 Chromosome 7 abnormality (Yes vs. No) 0.607 0.8503 (0.4554, 1.5877) 0.3088 Chromosome 5 abnormality (Yes vs. No) 0.4712 0.7633 (0.3613, 1.6126) 0.4318 Platelet Count (x 10^9 cells per liter) 0.0879 1.0024 (0.9996, 1.0051) 0.2528 Platelet Count (x 10^9 cells per liter) (≤ 30 vs. > 30) 0.1184 0.623 (0.3424, 1.1337) 0.4446 Mutational Status prior to initiation of HMA TP53 mutation (Yes vs. No) 0.8405 1.1193 (0.3647, 3.4351) 0.4467 FLT3 mutation (Yes vs. No) 0.6132 1.1862 (0.6013, 2.3398) 0.5053 NPM1 mutation (Yes vs. No) 0.5901 1.1624 (0.6671, 2.0257) 0.3651	Bone marrow cellularity (%)	0.7807	0.9989 (0.9911, 1.0068)	0.3173
Bone marrow blast (> 20% vs. ≤ 20%) 0.1668 0.7267 (0.462, 1.1431) 0.0232 Cytogenetic risk group (3 categories) Intermediate/Normal vs. Poor 0.6356 1.1823 (0.5823, 2.4007) 0.4646 Good vs. Poor 0.284 1.4782 (0.7158, 3.0528) 0.4267 Complex cytogenetics (Yes vs. No) 0.5212 0.7928 (0.383, 1.6409) 0.5085 Chromosome 7 abnormality (Yes vs. No) 0.607 0.8503 (0.4554, 1.5877) 0.3088 Chromosome 5 abnormality (Yes vs. No) 0.4712 0.7633 (0.3613, 1.6126) 0.4318 Platelet Count (x 10^9 cells per liter) 0.0879 1.0024 (0.9996, 1.0051) 0.2528 Platelet Count (x 10^9 cells per liter) (≤ 30 vs. > 30) 0.1184 0.623 (0.3424, 1.1337) 0.4446 Mutational Status prior to initiation of HMA TP53 mutation (Yes vs. No) 0.8405 1.1193 (0.3647, 3.4351) 0.4467 FLT3 mutation (Yes vs. No) 0.6132 1.1862 (0.6013, 2.3398) 0.5053 NPM1 mutation (Yes vs. No) 0.5901 1.1624 (0.6671, 2.0257) 0.3651	Bone marrow cellularity (> 20% vs. ≤ 20%)	0.4592	1.2345 (0.7028, 2.1685)	0.3131
Cytogenetic risk group (3 categories) 0.6356 1.1823 (0.5823, 2.4007) 0.4646 Good vs. Poor 0.284 1.4782 (0.7158, 3.0528) 0.4267 Complex cytogenetics (Yes vs. No) 0.5212 0.7928 (0.383, 1.6409) 0.5085 Chromosome 7 abnormality (Yes vs. No) 0.607 0.8503 (0.4554, 1.5877) 0.3088 Chromosome 5 abnormality (Yes vs. No) 0.4712 0.7633 (0.3613, 1.6126) 0.4318 Platelet Count (x 10^9 cells per liter) 0.0879 1.0024 (0.9996, 1.0051) 0.2528 Platelet Count (x 10^9 cells per liter) (≤ 30 vs. > 30) 0.1184 0.623 (0.3424, 1.1337) 0.4446 Mutational Status prior to initiation of HMA TP53 mutation (Yes vs. No) 0.8405 1.1193 (0.3647, 3.4351) 0.4467 FLT3 mutation (Yes vs. No) 0.6132 1.1862 (0.6013, 2.3398) 0.5053 NPM1 mutation (Yes vs. No) 0.5901 1.1624 (0.6671, 2.0257) 0.3651	Bone marrow blast (%)	0.7457	0.9983 (0.9879, 1.0088)	0.4199
Intermediate/Normal vs. Poor 0.6356 1.1823 (0.5823, 2.4007) 0.4646 Good vs. Poor 0.284 1.4782 (0.7158, 3.0528) 0.4267 Complex cytogenetics (Yes vs. No) 0.5212 0.7928 (0.383, 1.6409) 0.5085 Chromosome 7 abnormality (Yes vs. No) 0.607 0.8503 (0.4554, 1.5877) 0.3088 Chromosome 5 abnormality (Yes vs. No) 0.4712 0.7633 (0.3613, 1.6126) 0.4318 Platelet Count (x 10^9 cells per liter) 0.0879 1.0024 (0.9996, 1.0051) 0.2528 Platelet Count (x 10^9 cells per liter) (≤ 30 vs. > 30) 0.1184 0.623 (0.3424, 1.1337) 0.4446 Mutational Status prior to initiation of HMA TP53 mutation (Yes vs. No) 0.8405 1.1193 (0.3647, 3.4351) 0.4467 FLT3 mutation (Yes vs. No) 0.6132 1.1862 (0.6013, 2.3398) 0.5053 NPM1 mutation (Yes vs. No) 0.5901 1.1624 (0.6671, 2.0257) 0.3651	Bone marrow blast (> 20% vs. ≤ 20%)	0.1668	0.7267 (0.462, 1.1431)	0.0232
Good vs. Poor0.2841.4782 (0.7158, 3.0528)0.4267Complex cytogenetics (Yes vs. No)0.52120.7928 (0.383, 1.6409)0.5085Chromosome 7 abnormality (Yes vs. No)0.6070.8503 (0.4554, 1.5877)0.3088Chromosome 5 abnormality (Yes vs. No)0.47120.7633 (0.3613, 1.6126)0.4318Platelet Count (x 10^9 cells per liter)0.08791.0024 (0.9996, 1.0051)0.2528Platelet Count (x 10^9 cells per liter) (≤ 30 vs. > 30)0.11840.623 (0.3424, 1.1337)0.4446Mutational Status prior to initiation of HMATP53 mutation (Yes vs. No)0.84051.1193 (0.3647, 3.4351)0.4467FLT3 mutation (Yes vs. No)0.61321.1862 (0.6013, 2.3398)0.5053NPM1 mutation (Yes vs. No)0.59011.1624 (0.6671, 2.0257)0.3651	Cytogenetic risk group (3 categories)			
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Intermediate/Normal vs. Poor	0.6356	1.1823 (0.5823, 2.4007)	0.4646
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		0.284	1.4782 (0.7158, 3.0528)	0.4267
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Complex cytogenetics (Yes vs. No)	0.5212	0.7928 (0.383, 1.6409)	0.5085
$\begin{array}{llllllllllllllllllllllllllllllllllll$	Chromosome 7 abnormality (Yes vs. No)	0.607	0.8503 (0.4554, 1.5877)	0.3088
Platelet Count (x 10^9 cells per liter) (≤ 30 vs. > 30) 0.1184 0.623 (0.3424, 1.1337) 0.4446 Mutational Status prior to initiation of HMA TP53 mutation (Yes vs. No) 0.8405 1.1193 (0.3647, 3.4351) 0.4467 FLT3 mutation (Yes vs. No) 0.6132 1.1862 (0.6013, 2.3398) 0.5053 NPM1 mutation (Yes vs. No) 0.5901 1.1624 (0.6671, 2.0257) 0.3651	Chromosome 5 abnormality (Yes vs. No)	0.4712	0.7633 (0.3613, 1.6126)	0.4318
Mutational Status prior to initiation of HMA TP53 mutation (Yes vs. No) 0.8405 1.1193 (0.3647, 3.4351) 0.4467 FLT3 mutation (Yes vs. No) 0.6132 1.1862 (0.6013, 2.3398) 0.5053 NPM1 mutation (Yes vs. No) 0.5901 1.1624 (0.6671, 2.0257) 0.3651		0.0879	1.0024 (0.9996, 1.0051)	0.2528
TP53 mutation (Yes vs. No) 0.8405 1.1193 (0.3647, 3.4351) 0.4467 FLT3 mutation (Yes vs. No) 0.6132 1.1862 (0.6013, 2.3398) 0.5053 NPM1 mutation (Yes vs. No) 0.5901 1.1624 (0.6671, 2.0257) 0.3651	Platelet Count (x 10 ⁴ 9 cells per liter) (\leq 30 vs. $>$ 30)	0.1184	0.623 (0.3424, 1.1337)	0.4446
FLT3 mutation (Yes vs. No) 0.6132 1.1862 (0.6013, 2.3398) 0.5053 NPM1 mutation (Yes vs. No) 0.5901 1.1624 (0.6671, 2.0257) 0.3651			•	
NPM1 mutation (Yes vs. No) 0.5901 1.1624 (0.6671, 2.0257) 0.3651		0.8405		0.4467
NPM1 mutation (Yes vs. No) 0.5901 1.1624 (0.6671, 2.0257) 0.3651		0.6132	1.1862 (0.6013, 2.3398)	0.5053
CEBPa mutation (Yes vs. No) 0.7501 1.2279 (0.3333, 4.5234) 0.5474		0.5901		0.3651
	CEBPa mutation (Yes vs. No)	0.7501	1.2279 (0.3333, 4.5234)	0.5474

Supplemental Table 2: Multivariate Regression Model for Response (CR or CRi).

	Predictive Factor		
Variable	p-value	OR (95% CI)	fmi
Patient Demographics and HMA therapy			
Sex (Female vs. Male)	0.6575	1.1099 (0.6995, 1.7609)	0.0517
Age (> 55 vs. ≤ 55)	0.3826	1.3165 (0.7095, 2.443)	0.0659
HMA Therapy (Decitabine vs. Azacitidine)	0.5856	1.2001 (0.6179, 2.3311)	0.3372
HMA treatment schedule: Decitabine 10-days (Yes vs. No)	0.0374	2.3667 (1.0516, 5.3265)	0.0587
Clinical parameters prior to initiation of HMA			
Therapy-related AML (Yes vs. No)	0.1524	0.4309 (0.1359, 1.3663)	0.0468
Treatment related at diagnosis (Yes vs. No)	0.5864	1.263 (0.5433, 2.9358)	0.1265
Therapy prior to HMA (Relapsed AML vs. Refractory AML)	0.8322	1.0674 (0.583, 1.9544)	0.0617
Allogeneic SCT prior to initiation of HMA (Yes vs. No)	0.1424	1.6396 (0.8456, 3.1788)	0.1797
Duration of CR1 (> 6 vs. \leq 6 months)	0.3301	1.3519 (0.7362, 2.4825)	0.0684
ECOG status at diagnosis (2 or 3 vs. 0 or 1)	0.746	0.8561 (0.3165, 2.3155)	0.7232
Number of prior lines of therapy before initiation of HMA (3			
categories)			
2 Prior Lines vs. 1 Prior Line	0.0467	0.5175 (0.2704, 0.9905)	0.1343
3 or More Prior Lines vs. 1 Prior Line	0.3383	0.7005 (0.3374, 1.4545)	0.1404
Laboratory parameters at initiation of HMA			
WBC (x 10 ⁹ cells per liter) (> 10 vs. \leq 10)	0.6346	0.8386 (0.4015, 1.7517)	0.3718
Peripheral blast ($\leq 5\%$ vs. $> 5\%$)	0.0278	1.8694 (1.0724, 3.2589)	0.2947
Bone marrow cellularity (> 20% vs. ≤ 20%)	0.3911	1.2991 (0.7105, 2.3756)	0.3073
Bone marrow blast (> 20% vs. ≤ 20%)	0.5056	0.8375 (0.4965, 1.4127)	0.0598
Cytogenetic risk group (3 categories)			
Intermediate/Normal vs. Poor	0.7702	0.8849 (0.3816, 2.052)	0.48
Good vs. Poor	0.3602	1.4945 (0.6208, 3.5975)	0.4884
Complex cytogenetics (Yes vs. No)	0.5964	0.7974 (0.336, 1.8927)	0.5578
Chromosome 7 abnormality (Yes vs. No)	0.8231	0.9173 (0.4234, 1.9874)	0.4394
Chromosome 5 abnormality (Yes vs. No)	0.5754	0.7635 (0.2873, 2.0289)	0.5845
Platelet Count (x 10 ⁹ cells per liter) (\leq 30 vs. $>$ 30)	0.4332	0.7648 (0.3849, 1.5197)	0.5093
Mutational Status prior to initiation of HMA			
TP53 mutation (Yes vs. No)	0.8015	1.1625 (0.3503, 3.858)	0.4455
FLT3 mutation (Yes vs. No)	0.4515	1.326 (0.6235, 2.8199)	0.5364
NPM1 mutation (Yes vs. No)	0.7409	1.1083 (0.5959, 2.0613)	0.408
CEBPa mutation (Yes vs. No)	0.7647	1.2138 (0.3303, 4.461)	0.4873

Supplemental Table 3: Univariate Cox Proportional Hazards Models for overall survival.

Variable Patient Demographics and HMA therapy		Predictive Factor		
Patient Demographics and HMA therapy Sex (Male vs. Femilael) 0.1195 0.8727 (0.7352, 1.0359) 0.0363 Age at diagnosis (years) 0.285 0.2893 (0.9922, 1.0057) 0.0393 Age (> 55 vs. ≤ 55) 0.285 0.8993 (0.7402, 1.0925) 0.0324 MA Therapy (Decitabine vs. Azacitidine) 0.029 0.21467 (1.0204, 1.4509) 0.1134 A treatment schedule: Decitabine 10-days (Yes vs. No) 0.8101 1.0385 (0.7631, 1.4133) 0.0505 Clinical parameters prior to initiation of HMA	Variable	p-value	HR (95% CI)	fmi
Sex (Male vs. Female)	Patient Demographics and HMA therapy	•	,	
Age at diagnosis (years) Age (> 55 vs ≤ 55) HMA Therapy (Decitabine vs. Azacitidine) A treatment schedule: Decitabine 10-days (Yes vs. No) Clinical parameters prior to initiation of HMA WHO type at diagnosis (4 categories) AML with MDS-related features AML vith MDS-related		0 1195	0.8727 (0.7352, 1.0359)	0.0363
Age (> 55 vs. ≤ 55 0.032				
HMA Therapy (Decitabine vs. Azacitidine) 0.029 1.2167 (1.0204, 1.4509) 0.1134 A treatment schedule: Decitabine 10-days (Yes vs. No) 0.8101 1.0385 (0.7631, 1.4130) 0.0505 Clinical parameters prior to initiation of HMA WHO type at diagnosis (4 categories) Variation of the Month of Month o				
A treatment schedule. Decitabine 10-days (Yes vs. No) Clinical parameters prior to initiation of HMA WHO type at diagnosis (4 categories) AML with recurrent genetic abnormalities vs. AML with MDS-related features				
WHO type at diagnosis (4 categories)				
WHO type at diagnosis (4 categories)		0.0101	1.0000 (0.7001, 1.7100)	0.0000
AML with MDS-related features AML w				
AML with MDS-related features AML not otherwise specified vs. AML with MDS-related features AMD				
AML not otherwise specified vs. AML with MDS-related features AML volumes with Malloger for the MMA with MDS-related features AML volumes with Malloger for to initiation of HMA with Malloger for prior lines of therapy before initiation of HMA no. 0.011 AML volu		0.4774	0.8656 (0.5814, 1.2889)	0.0075
AML with MDS-related features Therapy-related AML vs. AML with MDS-related features 0.1677 1.2674 (0.9051, 1.7749) 0.0242 Therapy-related AML (Yes vs. No) 0.1439 1.2589 (0.9244, 1.7143) 0.0249 Treatment related at diagnosis (Yes vs. No) 0.994 0.9999 (0.7638, 1.3065) 0.1852 Therapy prior to HMM (Relapsed AML vs. Refractory AML) Allogenic SCT prior to initiation of HMA (Yes vs. No) 0.9349 0.9908 (0.7937, 1.2369) 0.0771 Duration of CR1 (months) 0.011 0.7368 (0.5824, 0.9322) 0.1036 ECOG status at diagnosis (2 or 3 vs. 0 or 1) 0.3972 0.11286 (0.8447, 1.5078) 0.6437 Number of prior lines of therapy before initiation of HMA Number of prior lines of therapy before initiation of HMA (3 categories) 2 Prior Lines vs. 1 Prior Line 3 or More Prior Lines vs. 1 Prior Line 0.0299 1.2496 (1.0219, 1.528) 0.0571 Laboratory parameters at initiation of HMM WBC (x 10^9 cells liter) WBC (x 10^9 cells per liter) (> 10 vs. ≤ 10) 0.0919 1.2227 (0.9673, 1.5456) 0.2891 Peripheral blast (%) Peripheral blast (%) Peripheral blast (%) Peripheral blast (> 5% vs. ≤ 5%) 0.0002 0.0002 0.00103 0.0024 0.00304 0.00305 0.00			,	
Therapy-related AML vs. AML with MDS-related features		0.8075	1.025 (0.8403, 1.2503)	0.0676
AML with MDS-related features			(, ,	
Therapy-related AML (Yes vs. No) Treatment related at diagnosis (Yes vs. No) Treatment related at diagnosis (Yes vs. No) Allogenic SCT prior to IMMA (Relapsed AML vs. Refractory AML) Allogenic SCT prior to initiation of HMA (Yes vs. No) Allogenic SCT prior to initiation of HMA (Yes vs. No) O.9349 O.9908 (0.7937, 1.2369) O.0771 Duration of CR1 (nonths) O.011 O.7368 (0.5824, 0.9322) O.1036 Duration of CR1 (> 12 vs. ≤ 12 months) CCOG status at diagnosis (2 or 3 vs. 0 or 1) O.3972 Number of prior lines of therapy before initiation of HMA Number of prior lines of therapy before initiation of HMA Number of prior lines of therapy before initiation of HMA O.733 Or More Prior Lines vs. 1 Prior Line O.0299 2 Prior Lines vs. 1 Prior Line O.0299 1.2496 (1.0219, 1.528) O.0571 O.710 Laboratory parameters at initiation of HMA WBC (x 10^9 cells liter) WBC (x 10^9 cells liter) WBC (x 10^9 cells per liter) (> 10 vs. ≤ 10) O.0919 VBC (x 10^9 cells per liter) O.0020 Peripheral blast (%) O.0002 Peripheral blast (%) O.0003 O.0003 O.0003 O.0003 O.0003 O.0003 O.0004 O.0005 O.0005 O.0005 O.0006 O.000		0.1677	1.2674 (0.9051, 1.7749)	0.0242
Treatment related at diagnosis (Yes vs. No) Therapy prior to HMA (Relapsed AML vs. Refractory AML) Allogenic SCT prior to initiation of HMA (Yes vs. No) Duration of CR1 (months) Duration of CR1 (> 12 vs. ≤ 12 months) ECOG status at diagnosis (2 or 3 vs. 0 or 1) Number of prior lines of therapy before initiation of HMA (3 categories) 2 Prior Lines vs. 1 Prior Line 3 or More Prior Lines vs. 1 Prior Line 3 or More Prior Lines vs. 1 Prior Line 4 O.0571 BWBC (x 10^99 cells liter) WBC (x 10^99 cells per liter) (> 10 vs. ≤ 10) Peripheral blast (%) Peripheral blast (%) Bone marrow cellularity (%) Bone marrow blast (> 20% vs. ≤ 20%) Cytogenetic risk group (3 categories) Lines (Yes vs. No) Cytogenetic risk group (3 categories) Cytogeneti				
Therapy prior to HMA (Relapsed AML vs. Refractory AML) Allogenic SCT prior to initiation of HMA (Yes vs. No) 0.9349 0.9908 (0.7937, 1.2369) 0.0771 Duration of CR1 (months) 0.011 0.7368 (0.5824, 0.9322) 0.1036 Duration of CR1 (> 12 vs. ≤ 12 months) 0.011 0.7368 (0.5824, 0.9322) 0.1036 ECOG status at diagnosis (2 or 3 vs. 0 or 1) 0.3972 1.1286 (0.8447, 1.5078) 0.6437 Number of prior lines of therapy before initiation of HMA Number of prior lines of therapy before initiation of HMA (3 categories) 2 Prior Lines vs. 1 Prior Line 3 or More Prior Lines vs. 1 Prior Line 0.0299 1.2496 (1.0219, 1.528) 0.0571 2 by 1.1084 (0.8664, 1.418) 0.171 Laboratory parameters at initiation of HMA WBC (x 10^9 cells liter) WBC (x 10^9 cells liter) WBC (x 10^9 cells per liter) (> 10 vs. ≤ 10) 0.0002 0.0002 0.0002 0.0003 0.0003 0.0003 0.0004 0.0004 0.00095 (0.0063, 1.5456) 0.2891 Peripheral blast (> 5% vs. ≤ 5%) 0.0003 0.0003 0.0004 0.0004 0.0005 0.00095 (0.0861, 1.264) 0.0598 Bone marrow cellularity (> 20% vs. ≤ 20%) 0.0612 0.0646 0.0995 (0.9954, 1.0036) 0.589 Bone marrow blast (> 20% vs. ≤ 20%) 0.0031 0.0031 0.0030 0.0031 0.0031 0.0030 0.0031 0.0031 0.0031 0.0030 0.0031 0.0030 0.0031 0.003		0.994		
Allogenic SCT prior to initiation of HMA (Yes vs. No) Duration of CR1 (months) O.011 O.7368 (0.5824, 0.9322) O.1036 ECOG status at diagnosis (2 or 3 vs. 0 or 1) Number of prior lines of therapy before initiation of HMA Number of prior lines of therapy before initiation of HMA Number of prior lines of therapy before initiation of HMA O.733 Number of prior lines of therapy before initiation of HMA O.733 O.299 1.2496 (1.0219, 1.528) O.0571 3 or More Prior Lines vs. 1 Prior Line O.0299 1.2496 (1.0219, 1.528) O.0571 3 or More Prior Lines vs. 1 Prior Line O.1561 O.1561 O.066 (1.0982, 1.0109) WBC (x 10^9 cells liter) WBC (x 10^9 cells liter) O.0002 Peripheral blast (%) Peripheral blast (>5% vs. ≤ 5%) O.0003 O.0003 O.0004 O.0005 (1.0026, 1.0026, 1.0036) O.0005 O.0005 (1.0026, 1.0036) O.0006 O.0006 (0.9982, 1.0109) O.3279 WBC (x 10^9 cells liter) O.0001 O.0010 O.001				
Duration of CR1 (months) 0.011 0.7368 (0.5824, 0.9322) 0.1036 Duration of CR1 (> 12 vs. ≤ 12 months) 0.011 0.7368 (0.5824, 0.9322) 0.1036 ECOG status at diagnosis (2 or 3 vs. 0 or 1) 0.3972 1.1286 (0.8447, 1.5078) 0.6437 Number of prior lines of therapy before initiation of HMA (3 categories) 0.0733 1.0942 (0.9915, 1.2075) 0.2302 Purpor Lines of therapy before initiation of HMA (3 categories) 0.0299 1.2496 (1.0219, 1.528) 0.0571 3 or More Prior Lines vs. 1 Prior Line 0.4117 1.1084 (0.8664, 1.418) 0.171 Laboratory parameters at initiation of HMA 0.052 0.1561 1.0046 (0.9982, 1.0109) 0.3279 WBC (x 10°9 cells per liter) (> 10 vs. ≤ 10) 0.0919 1.2227 (0.9673, 1.5456) 0.2891 Peripheral blast (%) 0.0002 1.0055 (1.0026, 1.0085) 0.1259 Peripheral blast (%) 0.0003 1.4866 (1.2082, 1.8291) 0.3343 Bone marrow cellularity (%) 0.8084 0.9995 (0.9954, 1.0036) 0.589 Bone marrow blast (> 20% vs. ≤ 20%) 0.6121 0.9276 (0.6861, 1.2543) 0.6406 Bone marrow blast (> 20% v		0.9349		
Duration of CR1 (> 12 vs. ≤ 12 months) 0.011 0.7368 (0.5824, 0.9322) 0.1036 ECOG status at diagnosis (2 or 3 vs. 0 or 1) 0.3972 1.1286 (0.8447, 1.5078) 0.6437 Number of prior lines of therapy before initiation of HMA (3 categories) 0.0733 1.0942 (0.9915, 1.2075) 0.2302 2 Prior Lines vs. 1 Prior Line (3 categories) 0.0299 1.2496 (1.0219, 1.528) 0.0571 3 or More Prior Lines vs. 1 Prior Line (4.117) 0.4117 1.1084 (0.8664, 1.418) 0.171 Laboratory parameters at initiation of HMA 0.0299 1.2496 (1.0219, 1.528) 0.0571 WBC (x 10^9 cells liter) 0.1561 1.0046 (0.9982, 1.0109) 0.3279 WBC (x 10^9 cells per liter) (> 10 vs. ≤ 10) 0.0919 1.2227 (0.9673, 1.5456) 0.2891 Peripheral blast (%) 0.0003 1.4866 (1.2082, 1.8291) 0.3343 Bone marrow cellularity (%) 0.8084 0.9995 (0.9954, 1.0036) 0.589 Bone marrow blast (%) 0.0836 1.0039 (0.9995, 1.0084) 0.5013 Bone marrow blast (> 20% vs. ≤ 20%) 0.0131 1.3278 (1.1004, 1.6021) 0.0192 Cytogenetic risk group (3 categories) 0.0		0.011	0.7368 (0.5824, 0.9322)	
ECOG status at diagnosis (2 or 3 vs. 0 or 1) Number of prior lines of therapy before initiation of HMA Number of prior lines of therapy before initiation of HMA Number of prior lines of therapy before initiation of HMA (3 categories) 2 Prior Lines vs. 1 Prior Line 3 or More Prior Lines vs. 1 Prior Line WBC (x 10^9 cells liter) WBC (x 10^9 cells per liter) (> 10 vs. ≤ 10) Peripheral blast (%) Peripheral blast (%) Peripheral blast (> 5% vs. ≤ 5%) Bone marrow cellularity (> 20% vs. ≤ 20%) Sone marrow blast (> 20% vs. ≤ 20%) Cytogenetic risk group (3 categories) Intermediate/Normal vs. Poor Good vs. Poor Complex cytogenetics (Yes vs. No) Chromosome 7 abnormality (Yes vs. No) Platelet Count (x 10^9 cells per liter) (≤ 30 vs. > 30) Mutational Status Prior to HMA TP53 mutation (Yes vs. No) D. 0.9371 D. 0.0939 1.2496 (1.0219, 1.528) D. 0.0571 1.0046 (0.9982, 1.0109) D. 0.3279 D. 0.417 1.0046 (0.9982, 1.0109) D. 0.3279 D. 0.2277 (0.9673, 1.5456) D. 0.2891 D. 0.0002 D. 0.0055 (1.0026, 1.0085) D. 0.2599 D. 0.2510 D. 0.0003 D.		0.011	0.7368 (0.5824, 0.9322)	
Number of prior lines of therapy before initiation of HMA (3 categories) 2 Prior Lines vs. 1 Prior Line		0.3972		0.6437
2 Prior Lines vs. 1 Prior Line 0.0299 1.2496 (1.0219, 1.528) 0.0571 3 or More Prior Lines vs. 1 Prior Line 0.4117 1.1084 (0.8664, 1.418) 0.171 Laboratory parameters at initiation of HMA WBC (x 10^9 cells liter) 0.1561 1.0046 (0.9982, 1.0109) 0.3279 WBC (x 10^9 cells per liter) (> 10 vs. ≤ 10) 0.0919 1.2227 (0.9673, 1.5456) 0.2891 Peripheral blast (%) 0.0002 1.0055 (1.0026, 1.0085) 0.1259 Peripheral blast (> 5% vs. ≤ 5%) 0.0003 1.4866 (1.2082, 1.8291) 0.3343 Bone marrow cellularity (%) 0.8084 0.9995 (0.9954, 1.0036) 0.589 Bone marrow blast (%) 0.0836 1.0039 (0.9995, 1.0084) 0.5013 Bone marrow blast (%) 0.0836 1.0039 (0.9995, 1.0084) 0.5013 Bone marrow blast (> 20% vs. ≤ 20%) 0.0031 1.3278 (1.1004, 1.6021) 0.0192 Cytogenetic risk group (3 categories) 0.0031 0.0032 0.0037, 0.9995, 1.0084) 0.5013 Good vs. Poor 0.046 0.7969 (0.6377, 0.9959) 0.2512 Good vs. Poor 0.0734 0.784 (0.6004, 1.0238) 0.3162 Chromosome 7 abnormality (Yes vs. No) 0.1		0.0733		0.2302
2 Prior Lines vs. 1 Prior Line 0.0299 1.2496 (1.0219, 1.528) 0.0571 3 or More Prior Lines vs. 1 Prior Line 0.4117 1.1084 (0.8664, 1.418) 0.171 Laboratory parameters at initiation of HMA WBC (x 10^9 cells liter) 0.1561 1.0046 (0.9982, 1.0109) 0.3279 WBC (x 10^9 cells per liter) (> 10 vs. ≤ 10) 0.0919 1.2227 (0.9673, 1.5456) 0.2891 Peripheral blast (%) 0.0002 1.0055 (1.0026, 1.0085) 0.1259 Peripheral blast (> 5% vs. ≤ 5%) 0.0003 1.4866 (1.2082, 1.8291) 0.3343 Bone marrow cellularity (%) 0.8084 0.9995 (0.9954, 1.0036) 0.589 Bone marrow blast (%) 0.0836 1.0039 (0.9995, 1.0084) 0.5013 Bone marrow blast (%) 0.0836 1.0039 (0.9995, 1.0084) 0.5013 Bone marrow blast (> 20% vs. ≤ 20%) 0.0031 1.3278 (1.1004, 1.6021) 0.0192 Cytogenetic risk group (3 categories) 0.0031 0.784 (0.6004, 1.0238) 0.3162 Cytogenetics (Yes vs. No) 0.1874 1.2034 (0.91, 1.5914) 0.5274 Chromosome 7 abnormality (Yes vs. No) 0.6245 1.0742 (0.8002, 1.4422) 0.5383 Chromosome 5 abnormality (Number of prior lines of therapy before initiation of HMA		,	
3 or More Prior Lines vs. 1 Prior Line 0.4117 1.1084 (0.8664, 1.418) 0.171 Laboratory parameters at initiation of HMA WBC (x 10^9 cells liter) 0.1561 1.0046 (0.9982, 1.0109) 0.3279 WBC (x 10^9 cells per liter) (> 10 vs. ≤ 10) 0.0919 1.2227 (0.9673, 1.5456) 0.2891 Peripheral blast (%) 0.0002 1.0055 (1.0026, 1.0085) 0.1259 Peripheral blast (> 5% vs. ≤ 5%) 0.0003 1.4866 (1.2082, 1.8291) 0.3343 Bone marrow cellularity (%) 0.8084 0.9995 (0.9954, 1.0036) 0.589 Bone marrow blast (%) 0.0836 1.0039 (0.9995, 1.0084) 0.5013 Bone marrow blast (%) 0.0836 1.0039 (0.9995, 1.0084) 0.5013 Bone marrow blast (>0 20% vs. ≤ 20%) 0.0031 1.3278 (1.1004, 1.6021) 0.0192 Cytogenetic risk group (3 categories) 0.0031 0.784 (0.6004, 1.0238) 0.3162 Intermediate/Normal vs. Poor 0.046 0.7969 (0.6377, 0.9959) 0.2512 Good vs. Poor 0.0744 0.784 (0.6004, 1.0238) 0.3162 Chromosome 7 abnormality (Yes vs. No) 0.1874 1.2034 (0.91, 1.5914) 0.5274				
Laboratory parameters at initiation of HMA WBC (x 10^9 cells liter) 0.1561 1.0046 (0.9982, 1.0109) 0.3279 WBC (x 10^9 cells per liter) (> 10 vs. ≤ 10) 0.0919 1.2227 (0.9673, 1.5456) 0.2891 Peripheral blast (%) 0.0002 1.0055 (1.0026, 1.0085) 0.1259 Peripheral blast (> 5% vs. ≤ 5%) 0.0003 1.4866 (1.2082, 1.8291) 0.3343 Bone marrow cellularity (%) 0.8084 0.9995 (0.9954, 1.0036) 0.589 Bone marrow blast (%) 0.0836 1.0039 (0.9995, 1.0084) 0.5013 Bone marrow blast (%) 0.0836 1.0039 (0.9995, 1.0084) 0.5013 Bone marrow blast (>0 0.0031 1.3278 (1.1004, 1.6021) 0.0192 Cytogenetic risk group (3 categories)	2 Prior Lines vs. 1 Prior Line	0.0299	1.2496 (1.0219, 1.528)	0.0571
WBC (x 10^9 cells liter) 0.1561 1.0046 (0.9982, 1.0109) 0.3279 WBC (x 10^9 cells per liter) (> 10 vs. ≤ 10) 0.0919 1.2227 (0.9673, 1.5456) 0.2891 Peripheral blast (%) 0.0002 1.0055 (1.0026, 1.0085) 0.1259 Peripheral blast (> 5% vs. ≤ 5%) 0.0003 1.4866 (1.2082, 1.8291) 0.3343 Bone marrow cellularity (%) 0.8084 0.9995 (0.9954, 1.0036) 0.589 Bone marrow blast (> 20% vs. ≤ 20%) 0.6121 0.9276 (0.6861, 1.2543) 0.6406 Bone marrow blast (> 20% vs. ≤ 20%) 0.0836 1.0039 (0.9995, 1.0084) 0.5013 Bone marrow blast (> 20% vs. ≤ 20%) 0.0031 1.3278 (1.1004, 1.6021) 0.0192 Cytogenetic risk group (3 categories) 0.0031 0.7969 (0.6377, 0.9959) 0.2512 Good vs. Poor 0.046 0.7969 (0.6377, 0.9959) 0.2512 Complex cytogenetics (Yes vs. No) 0.1874 1.2034 (0.91, 1.5914) 0.5274 Chromosome 7 abnormality (Yes vs. No) 0.1874 1.2034 (0.91, 1.5914) 0.5274 Chromosome 5 abnormality (Yes vs. No) 0.1077 1.2232 (0.9563, 1.5646) 0.2876 Platelet Count (x 10^9 cells per liter) 0.0188 <th< td=""><td>3 or More Prior Lines vs. 1 Prior Line</td><td>0.4117</td><td>1.1084 (0.8664, 1.418)</td><td>0.171</td></th<>	3 or More Prior Lines vs. 1 Prior Line	0.4117	1.1084 (0.8664, 1.418)	0.171
WBC (x 10^9 cells per liter) (> 10 vs. ≤ 10) 0.0919 1.2227 (0.9673, 1.5456) 0.2891 Peripheral blast (%) 0.0002 1.0055 (1.0026, 1.0085) 0.1259 Peripheral blast (> 5% vs. ≤ 5%) 0.0003 1.4866 (1.2082, 1.8291) 0.3343 Bone marrow cellularity (%) 0.8084 0.9995 (0.9954, 1.0036) 0.589 Bone marrow blast (%) 0.06121 0.9276 (0.6861, 1.2543) 0.6406 Bone marrow blast (%) 0.0031 1.3278 (1.1004, 1.6021) 0.5013 Bone marrow blast (> 20% vs. ≤ 20%) 0.0031 1.3278 (1.1004, 1.6021) 0.0192 Cytogenetic risk group (3 categories)				
Peripheral blast (%) 0.0002 1.0055 (1.0026, 1.0085) 0.1259 Peripheral blast (> 5% vs. ≤ 5%) 0.0003 1.4866 (1.2082, 1.8291) 0.3343 Bone marrow cellularity (%) 0.8084 0.9995 (0.9954, 1.0036) 0.589 Bone marrow cellularity (> 20% vs. ≤ 20%) 0.6121 0.9276 (0.6861, 1.2543) 0.6406 Bone marrow blast (%) 0.0836 1.0039 (0.9995, 1.0084) 0.5013 Bone marrow blast (> 20% vs. ≤ 20%) 0.0031 1.3278 (1.1004, 1.6021) 0.0192 Cytogenetic risk group (3 categories) 0.046 0.7969 (0.6377, 0.9959) 0.2512 Good vs. Poor 0.046 0.7969 (0.6377, 0.9959) 0.2512 Complex cytogenetics (Yes vs. No) 0.1874 1.2034 (0.904, 1.0238) 0.3162 Chromosome 7 abnormality (Yes vs. No) 0.6245 1.0742 (0.8002, 1.4422) 0.5383 Chromosome 5 abnormality (Yes vs. No) 0.1077 1.2232 (0.9563, 1.5646) 0.2876 Platelet Count (x 10^9 cells per liter) 0.0188 0.9982 (0.9968, 0.9997) 0.3002 Platelet Count (x 10^9 cells per liter) (≤ 30 vs. > 30) 0.9042 1.0317 (0.6094, 1.7467) 0.59				
Peripheral blast (> 5% vs. ≤ 5%) 0.0003 1.4866 (1.2082, 1.8291) 0.3343 Bone marrow cellularity (%) 0.8084 0.9995 (0.9954, 1.0036) 0.589 Bone marrow cellularity (> 20% vs. ≤ 20%) 0.6121 0.9276 (0.6861, 1.2543) 0.6406 Bone marrow blast (%) 0.0836 1.0039 (0.9995, 1.0084) 0.5013 Bone marrow blast (> 20% vs. ≤ 20%) 0.0031 1.3278 (1.1004, 1.6021) 0.0192 Cytogenetic risk group (3 categories) 0.046 0.7969 (0.6377, 0.9959) 0.2512 Good vs. Poor 0.046 0.7969 (0.6377, 0.9959) 0.2512 Complex cytogenetics (Yes vs. No) 0.1874 1.2034 (0.91, 1.5914) 0.5274 Chromosome 7 abnormality (Yes vs. No) 0.6245 1.0742 (0.8002, 1.4422) 0.5383 Chromosome 5 abnormality (Yes vs. No) 0.1077 1.2232 (0.9563, 1.5646) 0.2876 Platelet Count (x 10^9 cells per liter) 0.0188 0.9982 (0.9968, 0.9997) 0.3002 Platelet Count (x 10^9 cells per liter) (≤ 30 vs. > 30) 0.0082 1.3121 (1.0742, 1.6027) 0.2831 Mutational Status Prior to HMA TP53 mutation (Yes vs. No) 0.9371 0.9889 (0.7446, 1.3134) 0.5242 NPM1 m				
Bone marrow cellularity (%) 0.8084 0.9995 (0.9954, 1.0036) 0.589 Bone marrow cellularity (> 20% vs. ≤ 20%) 0.6121 0.9276 (0.6861, 1.2543) 0.6406 Bone marrow blast (%) 0.0836 1.0039 (0.9995, 1.0084) 0.5013 Bone marrow blast (> 20% vs. ≤ 20%) 0.0031 1.3278 (1.1004, 1.6021) 0.0192 Cytogenetic risk group (3 categories) 0.046 0.7969 (0.6377, 0.9959) 0.2512 Good vs. Poor 0.0734 0.784 (0.6004, 1.0238) 0.3162 Complex cytogenetics (Yes vs. No) 0.1874 1.2034 (0.91, 1.5914) 0.5274 Chromosome 7 abnormality (Yes vs. No) 0.6245 1.0742 (0.8002, 1.4422) 0.5383 Chromosome 5 abnormality (Yes vs. No) 0.1077 1.2232 (0.9563, 1.5646) 0.2876 Platelet Count (x 10^9 cells per liter) 0.0188 0.9982 (0.9968, 0.9997) 0.3002 Platelet Count (x 10^9 cells per liter) (≤ 30 vs. > 30) 0.0082 1.3121 (1.0742, 1.6027) 0.2831 Mutational Status Prior to HMA 1.0317 (0.6094, 1.7467) 0.5901 FLT3 mutation (Yes vs. No) 0.9371 0.9889 (0.7446, 1.3134) 0.5242 NPM1 mutation (Yes vs. No) 0.993 (0.7783, 1.2669)				
Bone marrow cellularity (> 20% vs. ≤ 20%)				
Bone marrow blast (%) 0.0836 1.0039 (0.9995, 1.0084) 0.5013 Bone marrow blast (> 20% vs. ≤ 20%) 0.0031 1.3278 (1.1004, 1.6021) 0.0192 Cytogenetic risk group (3 categories) 0.046 0.7969 (0.6377, 0.9959) 0.2512 Good vs. Poor 0.0734 0.784 (0.6004, 1.0238) 0.3162 Complex cytogenetics (Yes vs. No) 0.1874 1.2034 (0.91, 1.5914) 0.5274 Chromosome 7 abnormality (Yes vs. No) 0.6245 1.0742 (0.8002, 1.4422) 0.5383 Chromosome 5 abnormality (Yes vs. No) 0.1077 1.2232 (0.9563, 1.5646) 0.2876 Platelet Count (x 10^9 cells per liter) 0.0188 0.9982 (0.9968, 0.9997) 0.3002 Platelet Count (x 10^9 cells per liter) (≤ 30 vs. > 30) 0.0082 1.3121 (1.0742, 1.6027) 0.2831 Mutational Status Prior to HMA TP53 mutation (Yes vs. No) 0.9042 1.0317 (0.6094, 1.7467) 0.5901 FLT3 mutation (Yes vs. No) 0.9371 0.9889 (0.7446, 1.3134) 0.5242 NPM1 mutation (Yes vs. No) 0.9537 0.993 (0.7783, 1.2669) 0.457				
Bone marrow blast (> 20% vs. ≤ 20%) 0.0031 1.3278 (1.1004, 1.6021) 0.0192 Cytogenetic risk group (3 categories) Intermediate/Normal vs. Poor 0.046 0.7969 (0.6377, 0.9959) 0.2512 Good vs. Poor 0.0734 0.784 (0.6004, 1.0238) 0.3162 Complex cytogenetics (Yes vs. No) 0.1874 1.2034 (0.91, 1.5914) 0.5274 Chromosome 7 abnormality (Yes vs. No) 0.6245 1.0742 (0.8002, 1.4422) 0.5383 Chromosome 5 abnormality (Yes vs. No) 0.1077 1.2232 (0.9563, 1.5646) 0.2876 Platelet Count (x 10^9 cells per liter) 0.0188 0.9982 (0.9968, 0.9997) 0.3002 Platelet Count (x 10^9 cells per liter) (≤ 30 vs. > 30) 0.0082 1.3121 (1.0742, 1.6027) 0.2831 Mutational Status Prior to HMA TP53 mutation (Yes vs. No) 0.9042 1.0317 (0.6094, 1.7467) 0.5901 FLT3 mutation (Yes vs. No) 0.9371 0.9889 (0.7446, 1.3134) 0.5242 NPM1 mutation (Yes vs. No) 0.9537 0.993 (0.7783, 1.2669) 0.457				
Cytogenetic risk group (3 categories) 0.046 0.7969 (0.6377, 0.9959) 0.2512 Good vs. Poor 0.0734 0.784 (0.6004, 1.0238) 0.3162 Complex cytogenetics (Yes vs. No) 0.1874 1.2034 (0.91, 1.5914) 0.5274 Chromosome 7 abnormality (Yes vs. No) 0.6245 1.0742 (0.8002, 1.4422) 0.5383 Chromosome 5 abnormality (Yes vs. No) 0.1077 1.2232 (0.9563, 1.5646) 0.2876 Platelet Count (x 10^9 cells per liter) 0.0188 0.9982 (0.9968, 0.9997) 0.3002 Platelet Count (x 10^9 cells per liter) (≤ 30 vs. > 30) 0.0082 1.3121 (1.0742, 1.6027) 0.2831 Mutational Status Prior to HMA TP53 mutation (Yes vs. No) 0.9042 1.0317 (0.6094, 1.7467) 0.5901 FLT3 mutation (Yes vs. No) 0.9371 0.9889 (0.7446, 1.3134) 0.5242 NPM1 mutation (Yes vs. No) 0.9537 0.993 (0.7783, 1.2669) 0.457				
Intermediate/Normal vs. Poor 0.046 0.7969 (0.6377, 0.9959) 0.2512 Good vs. Poor 0.0734 0.784 (0.6004, 1.0238) 0.3162 Complex cytogenetics (Yes vs. No) 0.1874 1.2034 (0.91, 1.5914) 0.5274 Chromosome 7 abnormality (Yes vs. No) 0.6245 1.0742 (0.8002, 1.4422) 0.5383 Chromosome 5 abnormality (Yes vs. No) 0.1077 1.2232 (0.9563, 1.5646) 0.2876 Platelet Count (x 10^9 cells per liter) 0.0188 0.9982 (0.9968, 0.9997) 0.3002 Platelet Count (x 10^9 cells per liter) (≤ 30 vs. > 30) 0.0082 1.3121 (1.0742, 1.6027) 0.2831 Mutational Status Prior to HMA TP53 mutation (Yes vs. No) 0.9042 1.0317 (0.6094, 1.7467) 0.5901 FLT3 mutation (Yes vs. No) 0.9371 0.9889 (0.7446, 1.3134) 0.5242 NPM1 mutation (Yes vs. No) 0.9537 0.993 (0.7783, 1.2669) 0.457		0.0031	1.3278 (1.1004, 1.6021)	0.0192
Good vs. Poor0.07340.784 (0.6004, 1.0238)0.3162Complex cytogenetics (Yes vs. No)0.18741.2034 (0.91, 1.5914)0.5274Chromosome 7 abnormality (Yes vs. No)0.62451.0742 (0.8002, 1.4422)0.5383Chromosome 5 abnormality (Yes vs. No)0.10771.2232 (0.9563, 1.5646)0.2876Platelet Count (x 10^9 cells per liter)0.01880.9982 (0.9968, 0.9997)0.3002Platelet Count (x 10^9 cells per liter) (≤ 30 vs. > 30)0.00821.3121 (1.0742, 1.6027)0.2831Mutational Status Prior to HMATP53 mutation (Yes vs. No)0.90421.0317 (0.6094, 1.7467)0.5901FLT3 mutation (Yes vs. No)0.93710.9889 (0.7446, 1.3134)0.5242NPM1 mutation (Yes vs. No)0.95370.993 (0.7783, 1.2669)0.457				
Complex cytogenetics (Yes vs. No) 0.1874 1.2034 (0.91, 1.5914) 0.5274 Chromosome 7 abnormality (Yes vs. No) 0.6245 1.0742 (0.8002, 1.4422) 0.5383 Chromosome 5 abnormality (Yes vs. No) 0.1077 1.2232 (0.9563, 1.5646) 0.2876 Platelet Count (x 10^9 cells per liter) 0.0188 0.9982 (0.9968, 0.9997) 0.3002 Platelet Count (x 10^9 cells per liter) (≤ 30 vs. > 30) 0.0082 1.3121 (1.0742, 1.6027) 0.2831 Mutational Status Prior to HMA TP53 mutation (Yes vs. No) 0.9042 1.0317 (0.6094, 1.7467) 0.5901 FLT3 mutation (Yes vs. No) 0.9371 0.9889 (0.7446, 1.3134) 0.5242 NPM1 mutation (Yes vs. No) 0.9537 0.993 (0.7783, 1.2669) 0.457				
Chromosome 7 abnormality (Yes vs. No) 0.6245 1.0742 (0.8002 , 1.4422) 0.5383 Chromosome 5 abnormality (Yes vs. No) 0.1077 1.2232 (0.9563 , 1.5646) 0.2876 Platelet Count (x 10^9 cells per liter) 0.0188 0.9982 (0.9968 , 0.9997) 0.3002 Platelet Count (x 10^9 cells per liter) (≤ 30 vs. > 30) 0.0082 1.3121 (1.0742 , 1.6027) 0.2831 Mutational Status Prior to HMA TP53 mutation (Yes vs. No) 0.9042 1.0317 (0.6094 , 1.7467) 0.5901 FLT3 mutation (Yes vs. No) 0.9371 0.9889 (0.7446 , 1.3134) 0.5242 NPM1 mutation (Yes vs. No) 0.9537 0.993 (0.7783 , 1.2669) 0.457				
Chromosome 5 abnormality (Yes vs. No) 0.1077 1.2232 (0.9563, 1.5646) 0.2876 Platelet Count (x 10^9 cells per liter) 0.0188 0.9982 (0.9968, 0.9997) 0.3002 Platelet Count (x 10^9 cells per liter) (≤ 30 vs. > 30) 0.0082 1.3121 (1.0742, 1.6027) 0.2831 Mutational Status Prior to HMA TP53 mutation (Yes vs. No) 0.9042 1.0317 (0.6094, 1.7467) 0.5901 FLT3 mutation (Yes vs. No) 0.9371 0.9889 (0.7446, 1.3134) 0.5242 NPM1 mutation (Yes vs. No) 0.9537 0.993 (0.7783, 1.2669) 0.457				
Platelet Count (x 10^9 cells per liter) 0.0188 0.9982 (0.9968, 0.9997) 0.3002 Platelet Count (x 10^9 cells per liter) (≤ 30 vs. > 30) 0.0082 1.3121 (1.0742, 1.6027) 0.2831 Mutational Status Prior to HMA TP53 mutation (Yes vs. No) 0.9042 1.0317 (0.6094, 1.7467) 0.5901 FLT3 mutation (Yes vs. No) 0.9371 0.9889 (0.7446, 1.3134) 0.5242 NPM1 mutation (Yes vs. No) 0.9537 0.993 (0.7783, 1.2669) 0.457				
Platelet Count (x 10^9 cells per liter) (≤ 30 vs. > 30) 0.0082 1.3121 (1.0742, 1.6027) 0.2831 Mutational Status Prior to HMA TP53 mutation (Yes vs. No) 0.9042 1.0317 (0.6094, 1.7467) 0.5901 FLT3 mutation (Yes vs. No) 0.9371 0.9889 (0.7446, 1.3134) 0.5242 NPM1 mutation (Yes vs. No) 0.9537 0.993 (0.7783, 1.2669) 0.457				
Mutational Status Prior to HMA TP53 mutation (Yes vs. No) 0.9042 1.0317 (0.6094, 1.7467) 0.5901 FLT3 mutation (Yes vs. No) 0.9371 0.9889 (0.7446, 1.3134) 0.5242 NPM1 mutation (Yes vs. No) 0.9537 0.993 (0.7783, 1.2669) 0.457			,	
TP53 mutation (Yes vs. No) 0.9042 1.0317 (0.6094, 1.7467) 0.5901 FLT3 mutation (Yes vs. No) 0.9371 0.9889 (0.7446, 1.3134) 0.5242 NPM1 mutation (Yes vs. No) 0.9537 0.993 (0.7783, 1.2669) 0.457		0.0082	1.3121 (1.0742, 1.6027)	0.2831
FLT3 mutation (Yes vs. No) 0.9371 0.9889 (0.7446, 1.3134) 0.5242 NPM1 mutation (Yes vs. No) 0.9537 0.993 (0.7783, 1.2669) 0.457		0.9042	1.0317 (0.6094, 1.7467)	0.5901
NPM1 mutation (Yes vs. No) 0.9537 0.993 (0.7783, 1.2669) 0.457				
5 (5.5	CEBPa mutation (Yes vs. No)	0.7651	0.921 (0.5283, 1.6056)	0.5472

Supplemental Table 4: Multivariate Proportional Hazards Model for overall survival.

	Predictive Factor		
Variable	p-value	HR (95% CI)	fmi
Patient Demographics and HMA therapy			
Sex (Female vs. Male)	0.1761	0.881 (0.7331, 1.0586)	0.1002
Age (> 55 vs. \leq 55)	0.4811	0.9179 (0.7231, 1.1652)	0.1336
HMA Therapy (Decitabine vs. Azacitidine)	0.0885	1.222 (0.97, 1.5394)	0.2121
HMA treatment schedule: Decitabine 10-days (Yes vs. No)	0.464	0.8783 (0.6206, 1.2432)	0.0682
Clinical parameters prior to initiation of HMA			
Therapy-related AML (Yes vs. No)	0.3286	1.2026 (0.8303, 1.7418)	0.1018
Treatment related at diagnosis (Yes vs. No)	0.8667	0.974 (0.7159, 1.3253)	0.153
Therapy prior to HMA (Relapsed AML vs. Refractory AML)	0.0924	1.193 (0.9713, 1.4654)	0.1088
Allogeneic HSCT prior to initiation of HMA (Yes vs. No)	0.735	0.9548 (0.7302, 1.2487)	0.1528
Duration of CR1 (> 12 vs. ≤ 12 months)	0.0747	0.7689 (0.5758, 1.0268)	0.2028
ECOG status at diagnosis (2 or 3 vs. 0 or 1)	0.1407	1.2727 (0.9181, 1.7641)	0.6357
Number of prior lines of therapy before initiation of HMA (3			
categories)			
2 Prior Lines vs. 1 Prior Line	0.1168	1.2206 (0.951, 1.5667)	0.2415
3 or More Prior Lines vs. 1 Prior Line	0.8015	1.0438 (0.7439, 1.4645)	0.3702
Laboratory parameters at initiation of HMA			
WBC (x 10^9 cells per liter) (> $10 \text{ vs.} \le 10$)	0.5153	1.0905 (0.8372, 1.4206)	0.3757
Peripheral blast (> 5% vs. ≤ 5%)	0.0151	1.29 (1.0509, 1.5834)	0.2004
Bone marrow cellularity (> 20% vs. ≤ 20%)	0.6424	0.9253 (0.6565, 1.3041)	0.6898
Bone marrow blast (> 20% vs. ≤ 20%)	0.0408	1.2441 (1.0092, 1.5337)	0.0705
Cytogenetic risk group (3 categories)			
Intermediate/Normal vs. Poor	0.5334	0.9212 (0.7102, 1.1949)	0.2919
Good vs. Poor	0.1618	0.8172 (0.6151, 1.0856)	0.2924
Complex cytogenetics (Yes vs. No)	0.5089	1.1151 (0.7988, 1.5568)	0.5937
Chromosome 7 abnormality (Yes vs. No)	0.9455	1.0113 (0.7259, 1.4088)	0.5704
Chromosome 5 abnormality (Yes vs. No)	0.3158	1.1651 (0.8605, 1.5775)	0.4508
Platelet Count (x 10 ⁹ cells per liter) (\leq 30 vs. $>$ 30)	0.0774	1.2052 (0.9795, 1.4829)	0.2427
Mutational Status prior to initiation of HMA			
TP53 mutation (Yes vs. No)	0.9742	1.009 (0.5732, 1.7762)	0.6143
FLT3 mutation (Yes vs. No)	0.7585	0.9541 (0.7004, 1.2996)	0.5614
NPM1 mutation (Yes vs. No)	0.986	1.0021 (0.7882, 1.274)	0.3914
CEBPa mutation (Yes vs. No)	0.7369	0.905 (0.496, 1.6515)	0.5822

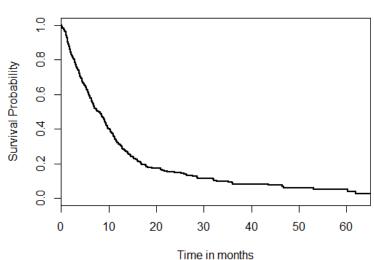
Supplemental Table 5: Response rates and OS based on HMA administration schedules

Characteristic	Number of responders	% of Responders	Median OS (95% CI)
HMA Administration	•	·	
Schedule (n= 587) Azacitidine (n=336):			
7-0 (n=257)	34	13.3	6.7 (5.8 - 8.7)
5-2-2 (n=18)	4	25.0	11.1 (5.7 – Inf)
5-0 (n=60)	11	19.0	8.4 (5.7 – 10.6)
10-0 (n=1)	0	0.0	NA (NA)
Decitabine (n=251):			
7-0 (n=3)	0	0.0	12.7 (NA)
5-2-2 (n=2)	1	50.0	18.0 (NA)
5-0 (n=181)	28	16.1	6.0(4.8 - 7.7)
10-0 (n=50)	14	28.0	8.0 (6.4 – 16.3)
Others (n=15)	1	6.7	2.4(0.7-7.3)

Supplemental Figure 1: Probability of overall survival (OS) of RR-AML patients treated with HMAs

- (A) From onset of HMA treatment in the global cohort censored at time of alloSCT
- (B) From onset of HMA treatment according to AML IWG response criteria (for CR/CRi/PD) and MDS IWG response criteria (SD/HI) censored at time of alloSCT
- **(C)** From onset of HMA treatment according to treatment schedule used (decitabine 10 days vs all others)
- (D) From onset of HMA treatment according to mutational status (TP53 non mutated vs. mutated)
- (E) From onset of HMA treatment according to mutational status (FLT3 non mutated vs. mutated)





(B)

