Comparisons of commonly used front-line regimens on survival outcomes in patients aged 70 years and older with acute myeloid leukemia

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Supplementary Table S1. Univariate and multivariate analyses and comparison of hypomethylating and intensive chemotherapy cohorts with the propensity score method

Clinical Parameter		Univariate Analysis				Multivariate Analysis			
		P Value	HR	95% CI		*P* Value	HR	95% CI	
				Lower	Upper			Lower	Upper
Sex	Male	Reference							
	Female	.73	1.04	0.85	1.26				
Race/ethnicity	White	Reference							
	Other	.89	0.98	0.70	1.37				
Prior hematologic disease	No	Reference				Reference			
	Yes	<.0001	1.51	1.25	1.83	<.0001	1.53	1.26	1.85
Clinical trial as frontline therapy	No	Reference							
	Yes	.10	1.25	0.96	1.63				
Frontline therapy	HMA	Reference				Reference			
	HI therapy	.002	1.32	1.11	1.58	0.011	1.29	1.06	1.56
CCI	0-2	Reference				Reference			
	≥ 3	.066	1.27	0.98	1.63	0.044	1.30	1.01	1.68
Bone marrow blast % at diagnosis (per 10% increase)		.08	1.04	0.99	1.09	0.048	1.05	1.00	1.10

Patients were stratified equally into 4 groups based on the propensity score, and the stratified Cox post hoc regression was conducted. Because there was some missing data for karyotype and ECOG performance status, only 522 patients were included in this analysis.

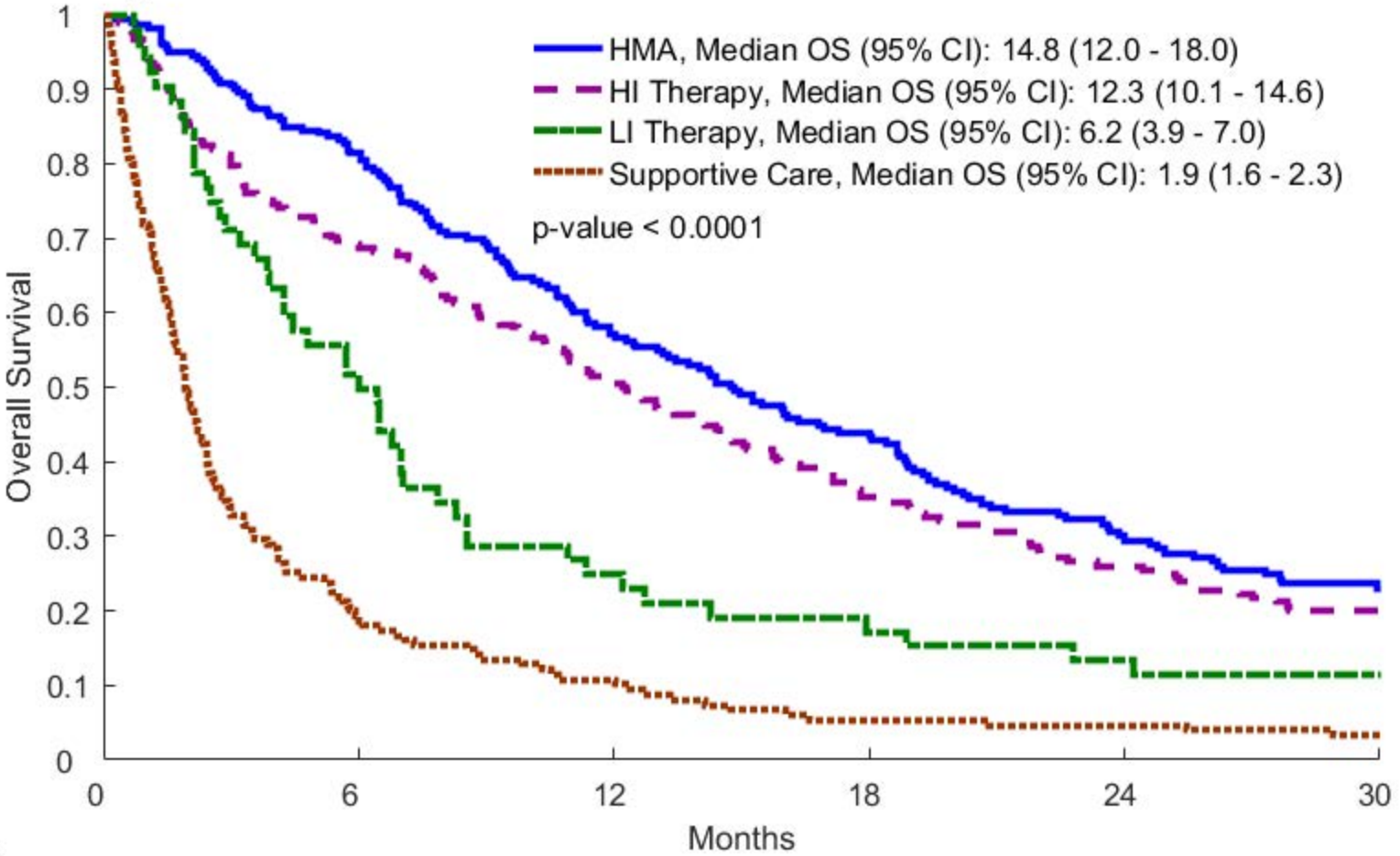
Abbreviations: CCI, Charlson comorbidity index; CI, confidence interval; HI, high intensity; HMA, hypomethylating agent; HR, hazard ratio; LI, low intensity

Supplementary Table S2. Demographics and clinicopathologic characteristics of patients treated after 2005.

Clinical Parameter	All Patients (n=658)	HMA (n=224)	HI Therapy (n=219)	LI Therapy (n=52)	Supportive Care (n=163)	p-value
Median Age (range)	75.5 (70 - 95.7)	76.3 (70.1 - 91.9)	73.5 (70 - 86.1)	77.8 (71.2 - 90.4)	78.4 (70 - 95.7)	<.0001
Sex						0.40
Male	432 (65.7%)	142 (63.4%)	153 (69.9%)	35 (67.3%)	102 (62.6%)	
Female	226 (34.3%)	82 (36.6%)	66 (30.1%)	17 (32.7%)	61 (37.4%)	
Race/Ethnicity						0.68
Others	49 (7.4%)	19 (8.5%)	15 (6.8%)	2 (3.8%)	13 (8%)	
White	609 (92.6%)	205 (91.5%)	204 (93.2%)	50 (96.2%)	150 (92%)	
Type of AML						0.001
De novo	342 (52%)	122 (54.5%)	132 (60.3%)	20 (38.5%)	68 (41.7%)	
Secondary	316 (48%)	102 (45.5%)	87 (39.7%)	32 (61.5%)	95 (58.3%)	
Prior Hematology disease	266 (40.4%)	80 (35.7%)	72 (32.9%)	30 (57.7%)	84 (51.5%)	
ECOG PS (n=646)						<.0001
0 or 1	521 (79.2%)	186 (83%)	185 (84.5%)	45 (86.5%)	105 (64.4%)	
2 - 4	125 (19%)	37 (16.5%)	26 (11.9%)	7 (13.5%)	55 (33.7%)	
Median WBC, $\times 10^9$/L	3.5 (0.2 - 230.7)	2.6 (0.2 - 147.8)	6.4 (0.5 - 230.7)	3.2 (0.8 - 215.3)	3.8 (0.6 - 215.7)	<.0001
Median platelet, $\times 10^9$/L	58 (1 - 996)	73.5 (1 - 743)	56 (6 - 996)	63 (2 - 274)	42 (4 - 333)	0.0001
Median hemoglobin, g/dL	9.4 (4.8 - 15.2)	9.5 (5.4 - 15.2)	9.4 (4.9 - 14)	9.6 (6.9 - 13.7)	9.4 (4.8 - 14.7)	0.1588
Median PB blasts, %	14 (1 - 99)	10 (1 - 93)	21 (1 - 98)	10 (1 - 99)	14 (1 - 96)	0.004
Median BM blasts, %	36 (2 - 98)	30 (4 - 94)	48.5 (2 - 98)	38 (15 - 88)	32 (20 - 94)	<.0001
Karyotype (n=592)						<.0001
Adverse	206 (31.3%)	77 (34.4%)	47 (21.5%)	18 (34.6%)	64 (39.3%)	
Diploid/Intermediate	373 (56.7%)	126 (56.3%)	148 (67.6%)	30 (57.7%)	69 (42.3%)	
Favorable	13 (2%)	3 (1.3%)	9 (4.1%)	0 (0%)	1 (0.6%)	
FLT3-ITD mutation (n=263 tested)	34 (12.9%)	10 (9.6%)	22 (20%)	0 (0%)	2 (5.1%)	0.023
NPM1 mutation (n = 257 tested)	35 (13.6%)	10 (9.7%)	20 (19%)	1 (9.1%)	4 (10.5%)	0.22

Abbreviations: AML, acute myeloid leukemia; BM, bone marrow; ECOG PS, Eastern Cooperative Oncology Group performance status; HI, high intensity; HMA, hypomethylating agent; LI, low intensity; PB, peripheral blood; WBC, white blood cell

Supplemental Figure S1



No. at Risk

HMA	224	179	120	84	54	39
HI Therapy	219	149	108	74	50	36
LI Therapy	52	26	13	9	7	6
Supportive Care	163	29	16	8	7	5

Supplementary Figure Legend

Figure S1. Overall survival among various frontline therapies for acute myeloid leukemia in patients ≥ 70 years old treated after 2005.

Abbreviations: AML, acute myeloid leukemia; CI, confidence interval; HI, high intensity; HMA, hypomethylating agent; LI, low intensity; OS, overall survival