Appendix A: Treatment Regimens.

a. Intensive Induction:

Regimen	
CIA	FLAG+MYLO
IA+ZARNESTRA	CLIA
IA+Nivolumab	3(I)+7+AG-120
IA	CLIA+Sorafenib
BID FA	IA+Sorafenib
IA+IL11	IA+PRAV
IDA+HDAC	Plerixafor+3+7
CLIA2	IA-IL11
CLIA+Mylo+Dexrazoxane	IA-BEVA
FLAG+Ida	CLIA+Mylo+Dexra+Mido+Enasid
IA+BAY43-9006	BID FA+Sorafenib
FAI	FA+Sorafenib
IA+SAHA	CIA+Sorafenib
AC220+3+7	3(I)+7+AG-221
BID FA+Mylo	CPX-351
MYLO+BID FA+CSA	CIA+Dac
CLIA1	BID FA+Venetoclax
FLAG	
IDA+HDAC(DI)	
CLIA1+Sorafenib	
FAI+Sorafenib	
CLIA2+Sorafenib	
CLIA2+Midostaurin	

b. HMA+ Ven

Regimen
Venetoclax+ Decitabine (10d)
Venetoclax+ Decitabine (5d)
Venetoclax+ Azacitidine
Venetoclax+ Decitabine+Midostaurin
Venetoclax+Decitabine+Sorafenib

c. HMA

Regimen
Decitabine 10 day
Azacitidine
Decitabine+Sorafenib
Azacitidine+Sorafenib

Appendix B

Cox Multivariate analysis for MRD negativity

MRD negative status	Subgroup	Odds Ratio	95% Hazard Ratio Confidence Limits	p-value	FDR adjusted p-value
Treatment Group	**HMA vs. IC**	0.11	0.02-0.76	0.018	0.036
	HMA+VEN vs. IC	0.60	0.16-3.16	0.283	0.283
ELN risk group	**Intermediate vs. favorable**	0.35	0.04-1.63	0.283	-
	Adverse vs. favorable	0.51	0.18-1.52	1.000	-
Age at diagnosis		0.98	0.94-1.03	0.367	-
Secondary AML		1.53	0.19-11.67	0.701	-
Performance Status	**ECOG ≥2 vs. ECOG < 2**	1.69	0.46-5.58	0.460	-
FLT3-ITD	**Positive vs. Negative**	0.62	0.25-1.53	0.297	-

Treatment outcomes *FLT3-ITD*$^+$ patients

Treatment Group	HMA+Ven (N=4)	HMA (N=28)	Intensive Induction (N=100)
FLT3$^+$/FLT3i	2	24	30
FLT3$^+$/no FLT3i	2	4	70
Response			
CR composite (CR+CRi)	4 (100%)	10 (36%)	89 (89%)
Complete Response (CR)	4 (100%)	6 (21%)	84 (84%)
Complete Response with incomplete count recovery (CRi)	-	4 (14%)	5 (5%)
Median Survival, years			
FLT3$^+$/FLT3i	NR	0.4 (0.3-0.5)	4.7 (4.9 mo-9.0 years)
FLT3$^+$/no FLT3i	0.86	0.12 (0-0.6)	1.4 (0-2.8)