

# *IDH2* mutation is associated with favorable outcome among older adults with newly diagnosed acute myeloid leukemia treated with hypomethylating agent-based therapy

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**Supplemental Tables.**

**Supplemental Table S1.** Beat AML treatment assignment.

<b>Treatment regimen</b>	<b>N (%)</b>
Total	1,023 (100)
HMA	59 (6)
HMA plus IDH inhibitor	84 (8)
HMA plus FLT3 inhibitor	23 (2)
HMA plus other	232 (23)
HMA plus venetoclax	244 (24)
HMA plus venetoclax plus IDH inhibitor	1 (0)
HMA plus venetoclax plus FLT3 inhibitor	20 (2)
HMA plus venetoclax plus other	10 (1)
Venetoclax	1 (0)
7+3	72 (7)
7+3 plus other	50 (5)
7+3 plus FLT3 inhibitor	18 (2)
7+3 plus IDH inhibitor	1 (0)
FLT3 inhibitor	3 (0)
IDH inhibitor	10 (1)
Other	15 (1)
Other + FLT3 inhibitor	1 (0)
Other + IDH inhibitor	1 (0)
Vyxeos	23 (2)
Vyxeos + IDH inhibitor	1 (0)
Supportive care	98 (10)
Unknown	55 (5)
Unknown + IDH inhibitor	1 (0)
Intensive	193 (19)
Non-intensive	712 (70)
Supportive care	98 (10)
Unknown	20 (2)

**Abbreviations:** HMA: hypomethylating agent, 7+3: to the physicians' discretion. Cytarabine x 7 days + anthracycline x 3 days (i.e., daunorubicin, idarubicin)

**Supplemental Table S2.** Univariate analysis for *IDH* mutated patients treated with intensive chemotherapy

	<b>n</b>	<b>HR</b>	<b>95% CI</b>	<b><i>p</i></b>
<b>Intensive chemotherapy (n=187)<sup>†</sup></b>				
<i>IDH</i> <sup>wt</sup>	137	1.00	-	-
<i>IDH</i> <sup>mut</sup>	50	1.09	0.64-1.83	0.758
<i>IDH1</i> <sup>mut</sup>	17	0.65	0.20-2.08	0.463
<i>IDH2</i> <sup>mut</sup>	32	1.23	0.70-2.12	0.479

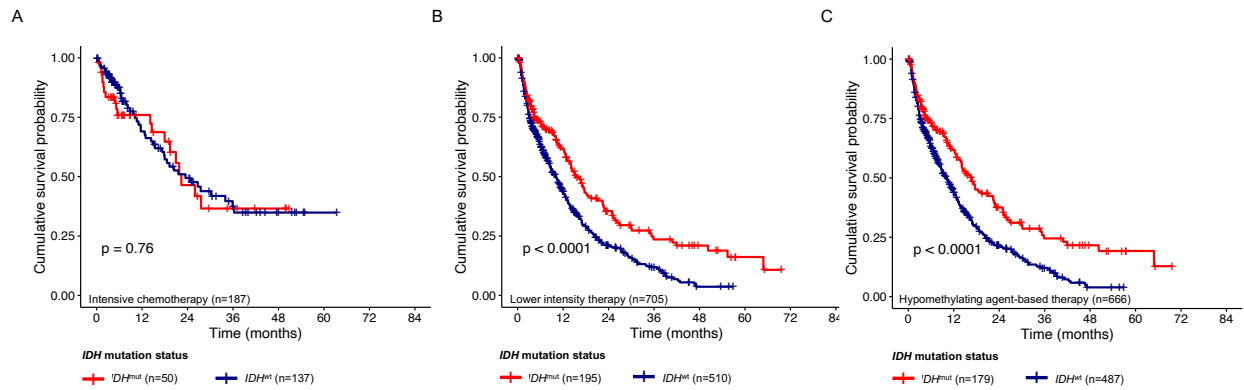
<sup>†</sup>Patients with an *IDH* mutation in the active domain of both *IDH1* and *IDH2* were excluded for *IDH1* and *IDH2* sub-analyses and only considered as having *IDH*<sup>mut</sup>.

**Supplemental Tables S3.** Univariate analysis for *IDH* mutated patients treated with lower-intensity therapy.

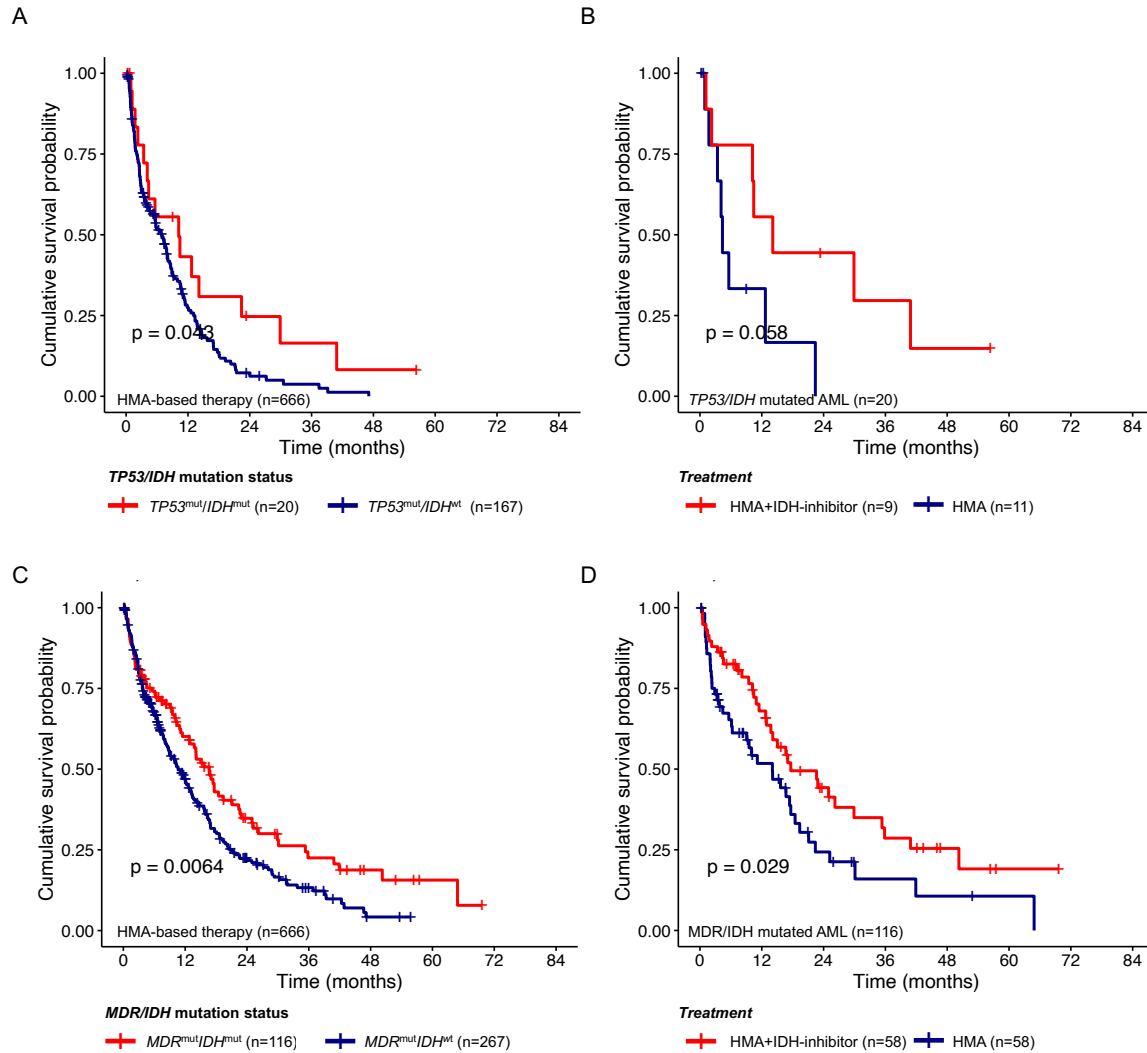
	<b>n</b>	<b>HR</b>	<b>95% CI</b>	<b><i>p</i></b>
<b>Lower intensity treatment (n=705)<sup>†</sup></b>				
<i>IDH</i> <sup>wt</sup>	510	-		
<i>IDH</i> <sup>mut</sup>	195	0.63	0.51-0.78	<0.001
<i>IDH1</i> <sup>mut</sup>	58	0.84	0.60-1.18	0.327
<i>IDH2</i> <sup>mut</sup>	133	0.56	0.44-0.72	<0.001

<sup>†</sup>Patients with an *IDH* mutation in the active domain of both *IDH1* and *IDH2* were excluded for *IDH1* and *IDH2* sub-analyses and only considered as having *IDH*<sup>mut</sup>.

## Supplemental Figures



**Supplemental Figure S1.** Kaplan-Meier survival analysis for overall survival in **A**, patients treated with intensive chemotherapy stratified by *IDH<sup>mut</sup>* and *IDH<sup>wt</sup>* and **B**, patients treated with any lower-intensity therapy regimen, and **C**, treated with hypomethylating agent-based therapy.



**Supplemental Figure S2.** Kaplan-Meier survival analysis for overall survival in **A**, *TP53* mutant patients with and without the *IDH* mutation, **B**, *TP53* mutant *IDH* mutant patients treated with HMA plus an *IDH*-inhibitor or without an *IDH*-inhibitor, **C**, myelodysplasia-related (*MDR*) gene mutant patients with and without the *IDH* mutation, **D**, *MDR* mutant patients with *IDH* co-mutation treated with HMA plus an *IDH*-inhibitor or without an *IDH*-inhibitor.