Equitable Overall Survival In AML With Hypomethylating Agent & Venetoclax Despite Medically Underserved Area Or Driving Distance:

A Comparative Cohort Analysis Including Intensive Chemotherapy

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Bridging the AML Care Gap

- Hypomethylating agent and venetoclax (HMA/VEN) provides **improved outcomes** for older/unfit patients with AML
- Concerns persist about **equitable access** and outcomes for those in Medically Underserved Areas (MUAs)
- While previous research found comparable survival for MUA and non-MUA patients on HMA/VEN, the impact of **driving distance remained an unexplored factor**

Assessing Geographic Factors

- Our goal was to determine the impact of driving distance on overall survival (OS) in patients receiving either HMA/VEN or intensive chemotherapy (IC)
- To compare survival outcomes between MUA and non-MUA residents within both the HMA/VEN and IC treatment groups

Cohort & Endpoints

- A **retrospective analysis** was performed on 471 AML patients treated at Moffitt Cancer Center from 2017-2023
- Patients received either frontline HMA/VEN (n=244) or IC (n=227)
- MUA status was determined using patient residential addresses and HRSA data, with driving distance calculated in miles using Google Maps
- Demographics, disease characteristics, treatment outcomes, and distance were compared between cohorts

Implications & Future Directions

- **HMA/VEN treatment provides comparable OS** for older AML patients regardless of MUA status **(median OS 11.9 vs. 9.6 months; p=0.20)**
- The largely outpatient nature of this regimen, likely combined with effective academic-community oncology collaboration, may successfully overcome traditional barriers to care like driving distance
- Despite equitable survival outcomes, disparities in care access persist. **HMA/VEN MUA patients experienced a significantly longer time to treatment initiation (23.0 vs. 17.7 days)**
- Geographic factors remain crucial, and further study is warranted in diverse MUA populations to ensure these positive results are broadly applicable

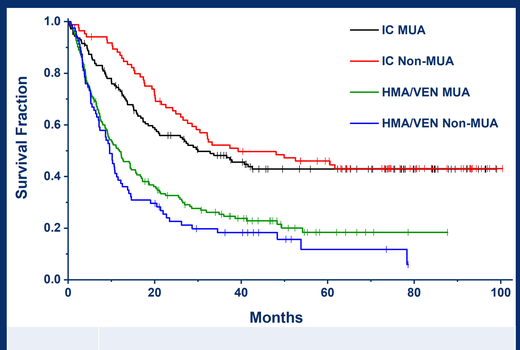
Baseline characteristics of the HMA/VEN cohort

	HMA/VEN Overall	MUA	Non-MUA	p-value
Total Patient *N(%)*	244 (100%)	163 (66.8%)	81 (33.2%)	
Gender				0.65
Male	144 (59%)	98 (60.1%)	46 (56.8%)	
Female	100 (41%)	65 (39.9%)	35 (43.2%)	
Median Age at Diagnosis *(range)*	75 (40 – 92)	75 (40 - 92)	74 (41 - 89)	0.33
Race *(white)*	217 (88.9)	146 (89.6)	71 (87.6)	0.82
Distance > 60 miles	133 (54.5)	99 (60.7)	34 (42)	0.008
ELN 2022 Risk				
Favorable	22 (9%)	15 (9.2%)	7 (8.6%)	1
Intermediate	37 (15.2%)	21 (12.9%)	16 (19.8%)	0.22
Adverse	181 (74.2%)	125 (76.7%)	56 (69.1%)	0.27
Unknown	4 (1.6%)	2 (1.2%)	2 (2.5%)	0.60
Selected Mutations				
NPM1	23 (9.4%)	15 (9.2%)	8 (9.9%)	1
FLT3-ITD	19 (7.8%)	10 (6.1%)	9 (11.1%)	0.27
FLT3-TKD	18 (7.4%)	7 (4.3%)	1 (1.2%)	0.28
IDH1	14 (5.7%)	11 (6.7%)	3 (3.7%)	0.39
IDH2	23 (9.4%)	13 (8%)	10 (12.3%)	0.39
TP53	58 (23.8%)	40 (24.5%)	18 (22.2%)	0.81
Mean Time from Diagnosis to Treatment	19.9 ± 13.6	**23.0 ± 15.5**	**17.7 ± 13.7**	**0.01**
Allogeneic HCT	30 (20.8%)	20 (12.3%)	10 (12.3%)	0.99

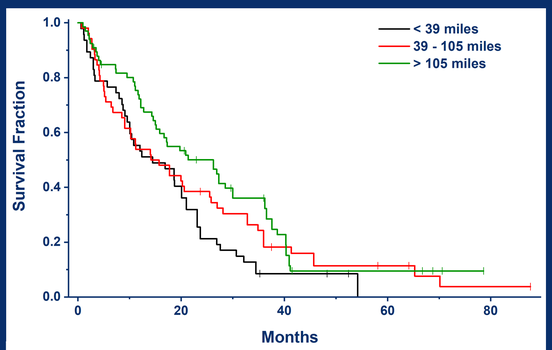
Baseline characteristics of the IC cohort

	IC Overall	MUA	Non-MUA	p-value
Total Patients *N(%)*	227 (100%)	142 (62.6%)	85 (37.4%)	
Gender				0.20
Male	117 (51.5%)	69 (48.6%)	48 (56.5%)	
Female	110 (48.5%)	73 (51.4%)	37 (43.5%)	
Median Age at Diagnosis *(range)*	58 (20-77)	59 (20-77)	57 (24-75)	0.48
Race *(white)*	182 (80.2%)	116 (81.7%)	66 (77.6%)	0.57
Distance > 60 miles	128 (56.4%)	85 (60%)	43 (50.6%)	0.22
ELN 2022 Risk				
Favorable	54 (23.8%)	37 (26.1%)	17 (20.0%)	0.38
Intermediate	66 (29.1%)	40 (28.2%)	26 (30.6%)	0.70
Adverse	102 (44.9%)	61 (43.0%)	41 (48.2%)	0.41
Unknown	5 (2.2%)	4 (2.8%)	1 (1.2%)	0.40
Selected Mutations				
NPM1	48 (21.1%)	35 (24.6%)	13 (15.3%)	0.13
FLT3-ITD	24 (10.6%)	16 (11.3%)	8 (9.4%)	0.83
FLT3-TKD	8 (3.5%)	5 (3.5%)	3 (3.5%)	1
IDH1	7 (3.1%)	4 (2.8%)	3 (3.5%)	1
IDH2	37 (16.3%)	22 (15.5%)	15 (17.6%)	0.81
TP53	15 (6.6%)	9 (6.3%)	6 (7.1%)	1
Mean Time from Diagnosis to Treatment	6.7 ± 8.1	4.97 ± 6.74	9.51 ± 7.66	0.13
Allogeneic HCT	108 (47.6%)	**56 (39.4%)**	**52 (61.2%)**	**0.002**

Comparable Overall Survival Independent of MUA Status or Driving Distance



	Median OS *(95% CI)*		
	MUA	Non-MUA	p-value
IC	30.0 (20.0 – 42.6)	39.3 (28.6 – 61.7)	0.36
HMA/VEN	11.9 (9.1 – 15.6)	9.6 (6.4 – 11.5)	0.20



	Median OS *(95% CI)*			
	< 39 miles	39 – 105 miles	> 105 miles	p-value
HMA/VEN	14.5 (10.0 – 20.1)	15.7 (9.1 – 25.5)	26.3 (15.2 – 30)	0.05

References

- Zahra, Fatima Tuz, et al. "Disparities in AML Survival in the Targeted Therapy Era: Real World Evidence of Enhanced Equity of Outcomes for Patients in Medically Underserved Areas." Blood 144 (2024): 5190.
- DiNardo, Courtney D., et al. "Azacitidine and venetoclax in previously untreated acute myeloid leukemia." New England journal of medicine 383.7 (2020): 617-629.