Efficacy and feasibility of pharmacoscopy-guided treatment for acute myeloid leukemia patients who have exhausted all registered therapeutic options

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Waiting time for results, days
  Median (IQR)   5.0 (4.0-6.0)

No. of recommended compounds per patient
  Median (IQR)   5.5 (4.3-8.8)

Therapy choice per patient (No. of patients and share of intention to treat
population)
  Recommendation received   17 (56.7%)
  Recommendation not received   13 (43.3%)
    AML specific therapy based on in-house guidelines   9 (30.0%)
    Best supportive care   4 (13.3%)

Duration from recommendation to administration of therapy (days)
  Median (IQR)   11.0 (6.0-24.0)

Duration of therapy administration (days, all patients)
  Median (IQR)   65.5 (26.5-183.8)

Duration of therapy administration (days, recommended therapy)   69.0 (21.0-171.0)
  Median (IQR)

Duration of therapy administration (days, other AML specific therapy)   47.0 (40.0-214.0)
  Median (IQR)

Table S1: Overview of *ex vivo* drug screen and treatment choice
IQR: Interquartile range, No.: Numbers

Patient subgroup		Pharmacoscopy based treatment regimen	Treatment regimen based on in-house guidelines	Treatment regimen with above median i-PCY score	Treatment regimen with below median i-PCY score
Age at start of the study (Years)	**Median**	67	72	70.5	67.5
	IQR	65-73	67-73	66.25-74.5	65.75-73
	p value	0.0975		0.7673	
Gender	**Number and share of female patients**	8 (47.06%)	4 (30.77%)	5 (35.71%)	9 (43.75%)
	Number and share of male patients	9 (52.94%)	9 (69.23%)	9 (64.29%)	9 (56.25%)
	p value	0.5986		0.9405	
ELN Risk Group	**Favourable (number and share)**	1 (5.88%)	3 (23.08%)	2 (14.29%)	2 (12.5%)
	p value	0.4060		1.0000	
	Intermediate (number and share)	6 (35.29%)	4 (30.77%)	5 (35.71%)	5 (31.25%)
	p value	1.0000		1.0000	
	Adverse (number and share)	10 (58.82%)	6 (46.15%)	7 (50%)	9 (56.25%)
	p value	0.7489		1.0000	
No. of previous treatent lines	**Median**	3	2	3	2
	IQR	1-4	1-2	1-3.75	1-2.25
	p value	0.0528		0.2828	
Sample Type	**Bone marrow (number and share)**	6 (35.29%%)	8 (61.54%)	6 (42.86%)	8 (50.00%)
	Peripheral sample (number and share)	11 (64.71%)	5 (38.46%)	8 (57.14%)	8 (50.00%)
	p value	0.2685		0.7300	

Table S2: Subgroup demographics

Subgroup	No. of screening instances with a known response in the bone marrow (n=25)	Response			
		CR	PR	SD	R
Treatment based on Pharmacoscopy	17	6 (35.3%)	2 (11.8%)	2 (11.8%)	7 (41.2%)
Treatment based on in-house guidelines	8	2 (25.0%)	0 (0.0%)	1 (12.5%)	5 (62.5%)
i-PCY score of regimen > median	11	5 (45.5%)	1 (9.1%)	2 (18.2%)	3 (27.3%)
i-PCY score of regimen < median	14	3 (21.4%)	1 (7.1%)	1 (7.1%)	9 (64.3%)

Table S3: Overall response by subgroups
CR: Complete remission, PR: Partial remission, SD: Stable disease, R: Refractory, No.: Number