Tyrosine kinase inhibitors improve long-term outcome of allogeneic hematopoietic stem cell transplantation for adult patients with Philadelphia chromosome positive acute lymphoblastic leukemia

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Table S1- Patient characteristics

Characteristics		TKIs before transplantation		p-value
		No	Yes	
Age at allo-SCT (years), median (range)		40 (20-58)	43 (18-70)	0.005
WBC at diagnosis (no.X10^9/L), median (range)		21 (0.7-363)	21 (0.3-640)	0.2
Interval from diagnosis to allo-SCT (days), median (range)		152 (80-432)	160 (67-503)	0.24
Interval from diagnosis to CR1 (days), median (range)		43 (21-188)	43 (15-251)	0.51
Interval from CR1 to allo-SCT (days), median (range)		101 (23-188)	100 (15-393)	0.70
Transplant year, median (range)		2002 (00-10)	2007 (00-10)	<0.0001
Patient gender, no. (%)				
	Male	49 (59)	211 (54)	
	Female	34 (41)	179 (46)	0.41
Donor gender, no. (%)				
	Male	54 (65)	252 (65)	
	Female	29 (35)	138 (35)	0.94
Female donor/ male R, no. (%)				
	No	62 (75)	324 (83)	
	Yes	21 (25)	66 (17)	0.07
Extramedullary disease, no. (%)				
	No	62 (81)	310 (85)	
	Yes	15 (20)	54 (15)	0.31
Type of donor, no. (%)				
	MSD	45 (54)	179 (46)	
	MUD	38 (46)	211 (54)	0.17
Stem cell source, no. (%)				
	Bone marrow	28 (34)	81 (21)	
	Peripheral blood	55 (66)	309 (79)	0.01
Conditioning regimen, no. (%)				
	MAC	77 (93)	298 (76)	
	RIC	6 (7)	92 (24)	0,001
MRD positive at allo-SCT, no. (%)				
	no	40 (73)	215 (63)	
	yes	15 (27)	125 (37)	0.17
ATG, no. (%)				
	no	56 (70)	254 (66)	
	yes	24 (30)	131 (34)	0.49

TKIs: tyrosine kinase inhibitors; WBC: white blood cells; CR1: first complete remission; allo-SCT: hematopoietic stem cell transplantation; HLA: human leucocyte antigen; MSD: matched sibling donor; MUD: matched unrelated donor MAC: myeloablative conditioning; RIC: reduced intensity conditioning; MRD: minimal residual disease; ATG: antithymocyte globulin

Table S2. Univariate analysis of TKIs post allo-SCT, aGVH and cGVHD on LFS, OS, RI and NRM at 5 years (Cox model with time dependent variable)

	LFS		OS		RI		NRM	
variable	HR 95%CI	P-value	HR 95%CI	P-value	HR 95%CI	P-value	HR 95%CI	P-value
TKIs post-transplant in prophylaxis*	0.49 0.31-0.79	0.003	0.42 0.24-0.72	0.002	0.53 0.29-0.96	0.04	0.44 0.21-0.96	0.04
Acute GVHD≥II*	1.09 0.84-1.40	0.52	1.47 1.12-1.92	0.01	0.52 0.35-0.76	0.001	2.63 1.80-3.86	0.0000
Chronic GVHD*	1.15 0.86-1.54	0.36	1.19 0.88-1.60	0.25	0.52 0.34-0.78	0.002	3.80 2.31-6.26	0.0000

LFS: leukemia free survival; OS: overall survival; RI: relapse incidence; NRM: non relapse mortality; TKIs: tyrosine kinase inhibitors

*time dependant variable

Table S3. Univariate analysis of TKIs post allo-SCT on aGVH and cGVHD (Cox model with time dependant variable)

	p	HR	95% CI
Acute GVHD ≥II*	0.03	0.21	0.05-0.86
Chronic GVHD*	0.007	0.6	0.41-0.87

*time dependant variable

Table S4. Multivariate analysis for aGVHD and cGVHD

variable	aGVHD		cGVHD	
	HR 95%CI	P-value	HR 95%CI	P-value
TKIs before transplant	1.52 0.92-2.52	0.10	1.46 0.94-2.27	0.09
Age at transplant (years)	1.00 0.98-1.01	0.83	1.01 0.99-1.02	0.29
WBC at diagnosis	1.00 0.999-1.002	0.61	0.997 0.995-1.000	0.02
Interval from diagnosis to transplant (d)	0.99 0.997-1.001	0.39	1.000 0.997-1.002	0.66
Female R vs male R	1.01 0.70-1.44	0.97	0.96 0.69-1.34	0.81
Female D to male R	0.84 0.51-1.39	0.49	1.31 0.89-1.93	0.17
MUD vs MSD	1.21 0.81-1.82	0.35	1.17 0.83-1.64	0.37
RIC vs MAC	0.83 0.52-1.32	0.42	0.77 0.51-1.17	0.23
ATG	0.85 0.56-1.28	0.44	0.57 0.40-0.82	0.002
TKIs post-transplant (all reasons) *	0.21 0.05-0.85	0.03	0.73 0.49-1.09	0.12
aGVHD ≥ II*	__		1.97 1.47-2.65	0.00001

HR: hazard ratio; TKIs: tyrosine kinase inhibitors; WBC: white blood cells; R: recipient; D: donor ; MUD: matched unrelated donor; MSD: matched sibling donor; RIC: reduced intensity conditioning; MAC: myeloablative conditioning; ATG: antithymocyte globulin, TKIs: tyrosine kinase inhibitors, aGVHD: acute graft-versus-host disease

*Time dependant variable