Detection of *ABL1* kinase domain mutations in therapy-naïve *BCR-ABL1*-positive acute lymphoblastic leukemia

Constance Baer, Manja Meggendorfer, Claudia Haferlach, Wolfgang Kern and Torsten Haferlach
MLL Munich Leukemia Laboratory, Munich, Germany
Corresponding author:
CONSTANCE BAER - constance.baer@mll.com
doi:10.3324/haematol.2021.279807

Detection of *ABL1* kinase domain mutations in therapy naïve *BCR-ABL1* positive acute lymphoblastic leukemia

Constance Baer, Manja Meggendorfer, Claudia Haferlach, Wolfgang Kern, Torsten Haferlach

Supplementary Table 1

gender	age at ID	date ID	mutation at ID	GMALL[1]	alloSCT	2nd gen TKI[2]	Pona[3]	therapy data incomplete[4]	molecular follow-up[5]	outcome[6]
F	75	Apr-07							no indication for SQ	remission
F	66	Jan-08						x		deceased (< 6 m.)
F	58	Jan-08						x		deceased (< 6 m.)
F	48	Apr-08		x						deceased (< 6 m.)
F	63	Jul-08		x	x					NA
F	71	Aug-08								remission
F	67	Oct-08	c.827A>G, D276G, 3%		x			x		NA
M	44	Nov-08						x		NA
M	40	Jan-09			x	x		x	acquired mutation	relapse
F	46	Jan-09						x		deceased (< 6 m.)
M	18	Mar-09						x		NA
M	66	Apr-09						x		relapse, deceased (< 6m)
M	39	May-09		x	x				no indication for SQ	NA
F	74	Jul-09						x	no indication for SQ	remission
M	84	Dec-09						x		NA
M	47	Apr-10						x		NA
F	51	Apr-10		x	x				no indication for SQ	remission
M	61	May-10		x	x				no indication for SQ	remission
M	72	Jun-10	c.756G>T, Q252H, 46% c.756G>C, Q252H, 8%	x		x			mutation present at relapse	remission, relapse
F	20	Jul-10		x						deceased (< 6 m.)
M	63	Aug-10		x						deceased (< 6 m.)

F	62	Nov-10						x		relapse
F	71	Dec-10		x						remission
M	67	Dec-10		x		x			acquired mutation	remission, relapse
M	62	Mar-11		x						remission
F	21	Apr-11		x	x				no indication for SQ	remission
F	34	Apr-11			x					remission
M	56	Jun-11		x						deceased (< 6 m.)
F	61	Jul-11			x				no indication for SQ	NA
M	27	Aug-11						x		NA
F	53	Sep-11		x						deceased (< 6 m.)
M	44	Nov-11			x	x		x	no indication for SQ	remission, relapse
M	47	Dec-11		x	x			x		NA
M	39	Mar-12		x	x			x		NA
M	69	Apr-12		x						relapse, deceased (< 6m)
M	47	May-12						x		NA
M	66	May-12		x		x				relapse
F	73	Jul-12						x		NA
F	80	Aug-12						x		NA
F	68	Sep-12		x						remission
M	47	Oct-12		x				x		deceased (< 6 m.)
F	75	Nov-12						x	no indication for SQ	remission
M	55	Jan-13		x					no acquired mutation	relapse
M	76	Feb-13		x					acquired mutation	relapse
M	33	Feb-13		x						deceased (< 6 m.)
M	69	Mar-13						x		NA
M	18	Mar-13			x			x		relapse
F	59	Mar-13						x	acquired mutation	relapse
F	65	Mar-13		x						remission
F	81	May-13						x		NA
F	74	Jun-13						x		NA
F	44	Aug-13						x		NA
M	32	Aug-13						x		NA
F	38	Sep-13				x		x	acquired mutation	relapse

M	70	Sep-13		x					no acquired mutation	remission, relapse
M	70	Nov-13		x				x		NA
M	60	Nov-13		x						NA
F	61	Feb-14						x		NA
M	77	Feb-14				x	x		acquired mutation	remission, relapse
M	40	Feb-14		x					acquired mutation	relapse
M	61	Feb-14						x		NA
F	84	Mar-14						x		NA
M	71	May-14		x		x	x		acquired mutation	remission, relapse
F	52	Jun-14	c.944C>T T315I, 14%	x	x		x			remission
M	49	Jun-14			x	x	x	x	no indication for SQ	relapse
F	70	Aug-14		x		x		x	no acquired mutation	remission, relapse
M	68	Aug-14				x		x		NA
M	62	Sep-14				x	x		acquired mutation	relapse
M	50	Oct-14		x	x				no indication for SQ	remission
F	76	Nov-14		x					no indication for SQ	NA
M	64	Apr-15		x			x		acquired mutation	remission, relapse
F	42	Apr-15		x						deceased (< 6 m.)
M	48	May-15		x						NA
M	28	May-15					x		acquired mutation	relapse
F	66	Jul-15			x			x	no indication for SQ	NA
M	74	Jul-15						x		deceased (< 6 m.)
M	49	Jul-15			x			x	acquired mutation	relapse
M	52	Jul-15		x	x	x		x	no acquired mutation	remission, relapse
F	82	Aug-15		x		x			acquired mutation	relapse
M	79	Oct-15	c.730A>G M244V, 2%					x		NA
M	47	Nov-15			x		x		acquired mutation	relapse
M	48	Jan-16		x	x	x			no indication for SQ	remission
M	76	Feb-16	c.763G>A E255K, 1%					x		NA
F	42	Feb-16						x		NA
F	60	Mar-16						x		NA

F	41	Mar-16						x		NA
M	68	Mar-16						x		NA
M	64	Sep-16			x	x			no indication for SQ	remission
M	46	Oct-16		x	x				no indication for SQ	remission
M	62	Oct-16						x		NA
F	45	Nov-16								NA

Abbreviations: F: female, M: male; ID: initial diagnosis; allo SCT: allogeneic stem cell transplantation, SQ: sequencing of the *ABL1* kinase domain, NA: not available

1) Patient treated as part of the GMALL study or according to the study protocol at the respective time.
2) Patient received dasatinib or nilotinib at any point during treatment as single agent or part of a combination therapy.
3) Patient received ponatinib at any point during treatment.
4) The information on the therapy of this patient could be potentially incomplete.
5) For those patients, samples for mutation testing over a follow-up period of at least 6 months, were available. This excludes patients who deceased early (within the first six months) or for whom no material for *BCR-ABL1* expression and mutation testing was available. We defined the indication for mutation testing as a *BCR-ABL1/ABL1* ratio of least ~1% (0.962%).
6) Outcome is broadly classified as (a) remission, (b) relapse and (c) deceased within the first 6 moths (m.). The latter patients were excluded from the longitudinal mutation testing.