

# Outcome of infants with acute lymphoblastic leukemia treated with the Chinese Children's Cancer Group Acute Lymphoblastic Leukemia 2015 study protocol

## Authors

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Supplementary Table S1 Characteristics of infants ALL.

Characteristic	All	<i>KMT2A-g</i>	<i>KMT2A-r</i>	P value
Age	No. (%)	No. (%)	No. (%)	0.99
<3 months	3 (2.2)	1(1.6)	2(2.8)	
>=3 months	131(97.8)	62(98.4)	69(97.2)	
				0.01
< 6 months	25(18.7)	6(9.5)	19(26.8)	
>= 6 months	109(81.3)	57(90.5)	52(73.2)	
				<0.001
< 9months	79(59.0)	25(39.7)	54(76.1)	
>=9months	55(41.0)	38(60.3)	17(23.9)	
Final risk group				0.01
IR	126(94.7)	63(100)	64(90.1)	
HR	7(5.3)	0(0)	7(9.9)	
Sex				0.73
Male	65(48.5)	32(50.8)	33(46.5)	
Female	69(51.5)	31(49.2)	38(53.5)	
CNS status				0.64
CNS1	112(83.6)	55(87.3)	57(80.3)	
CNS2	5(3.7)	1(1.6)	4(5.6)	
CNS3	2(1.5)	1(1.6)	1(1.4)	
Traumatic	15(11.2)	6(9.5)	9(12.7)	
WCC				0.04
>=100	56(41.8)	20(31.7)	36(50.7)	
<100	78(58.2)	43(68.3)	35(49.3)	
				0.03
>=300	15(11.2)	3(4.8)	12(16.9)	
<300	119(88.8)	60(95.2)	59(83.1)	
Day5 blast (Dexamethasone response, x10 <sup>9</sup> /L)				0.33
Good response (blast <1)	63(73.3)	33(68.7)	30(78.9)	
Poor response (blast >=1)	23(26.7)	15(31.3)	8(21.1)	
Day19MRD				0.58
Day19MRD <0.01%	67(57.3)	33(60.0)	34(54.8)	
Day19MRD >=0.01%	50(42.7)	22(40.0)	28(45.2)	
Day46MRD				0.37
Day46MRD <0.01%	88(87.1)	49(90.7)	39(83.0)	
Day46MRD >=0.01%	13(12.9)	5(9.3)	8(17.0)	

Supplementary Table S2 Treatment outcome according to selected clinical and biological characteristics in infants with *KMT2A*-g ALL

	N(%)	5-year Overall Survival (95%CI)	P-value	5-year Event-free survival (95%CI)	P-value
Age			0.6		0.5
<3 months	1(1.6)	100		100	
>=3 months	62(98.4)	74.2(64.0-85.9)		69.3(58.7-81.8)	
			0.7		0.5
< 6 months	6(9.5)	83.3(58.3-100)		83.3(58.3-100)	
>= 6 months	57(90.5)	73.6(63.0-86.0)		68.3(57.2-81.6)	
			0.4		0.3
< 9months	25(39.7)	79.8(65.4-97.3)		76.0(61.0-94.7)	
>=9 months	38(60.3)	71.1(58.0-87.0)		65.8(52.3-82.7)	
Sex			0.2		0.2
Male	32(50.8)	68.8(54.4-86.8)		62.3(47.6-81.7)	
Female	31(49.2)	80.6(67.9-95.8)		77.4(64.0-93.6)	
CNS status			0.2		0.1
CNS1	55(87.3)	74.5(63.8-87.0)		69.1(57.9-82.4)	
CNS2	1(1.6)	100		100	
CNS3	1(1.6)	0		0	
Traumatic	6(9.5)	83.3(58.3-100)		83.3(58.3-100)	
WCC			0.01		0.01
>=100	20(31.7)	55.0(37.0-81.8)		50.0(32.3-77.5)	
<100	43(68.3)	83.7(73.4-95.5)		79.0(67.7-92.2)	
			0.8		0.99
>=300	3(4.8)	66.7(30.0-100)		66.7(30.0-100)	
<300	60(95.2)	75.0(64.8-86.8)		69.9(59.2-82.6)	
Day5 blast (Dex response)			0.07		0.009
Good response (blast <1)	33(68.7)	81.7(69.5-96.1)		78.8(66.0-94.0)	
Poor response (blast >=1)	15(31.3)	60.0(39.7-90.7)		46.7(27.2-80.2)	
Day19MRD			0.3		0.4
Day19MRD<0.01	33(60.0)	84.8(73.5-98.0)		78.8(66.0-94.0)	
Day19MRD>=0.01	22(40.0)	72.7(56.3-93.9)		68.2(51.3-90.7)	
Day46MRD			0.9		0.9
Day46MRD<0.01	49(90.7)	81.6(71.5-93.2)		75.5(64.3-88.5)	
Day46MRD>=0.01	5(9.3)	80.0(51.6-100)		80.0(51.6-100)	

**Supplementary Table S3: Comparison of Infant ALL studies**

	CCCG 2015	Interfant 99	Interfant 06	Japan MLL-10	COG AALL0631
<b>No. of patients</b> (total ALL)	134 (7640, =1.7%)	482	651	90	210
<b>Age</b>					Germline median 281 Day, Rearranged median 169 Day.
<3 months	2.2% (3)	23%	21.1%	24%	
3-<6 months	16.4% (22)	25%	29%	41%	
6-<9 months	40.3% (54)	25%	26.9%	34% (>6 month)	
9-<12 months	42% (55)	26%	23%		
<b>WCC x(10<sup>9</sup>/L)</b>					Germline 38 Rearranged 160
<100	58.2%	44%	47%	49%	
100-300	30.6%	29%	23.7%	31%	
>300	11.2%	27%	29%	30%	
<b>CNS disease</b>	1.5%	9%	12.7%	11%	10%
Yes	88%	76%	65.6%	88% (CNS1 or2)	83.8% (CNS2 35.2%)
No	(4.5%CNS2)	15%	21.7%		
unknown	10.4% Traumatic			1%	
<b>KMT2A status</b>					
Unknown		86 (18%)	8 (1.2%)		
Germline	63 (47%)	82 (17%)	167 (25.7%)	15 (17%)	64 (30.4%)
Rearranged	71 (53%)	314 (65%)	476 (73.1%)	75 (83%)	146 (69.5%)
<i>AFF1</i>	45%	53%	43.9%	52%	
<i>MLLT3</i>	21%	11%	10.9%	8%	

<i>MLLT1</i>	14%	20%	21.7%	20%	
<i>MLLT10</i>	4.2%				
others	15.5%	16%	23.5%	20%	
<b>Induction remission</b> (germline vs rearranged)	89.6% (98.4% -g, 81.6% -r)	93.7% (97% SR, 88% HR)	92.9% (93% NHR, 87.2% HR)	91% (100% -g, 89.3% -r)	(89% for germline)
Deaths in induction	7.5%	3.8%	3.7%	0	(0 for germline)
Resistant disease	0.7%	2.5%	3.4%	5.5%	
Death in CR	4.4%	5.2%	7.1%	2.2%	(0 for germline)
<b>Overall survival</b> (germline vs rearranged)	67.1% (75.4% vs 54.3%)	55%	58.2% (87.2% vs 48%)	85% ( 82%)	(93.6% germline)
<b>Event-free Survival</b> (germline vs rearranged)	65.4% (69.8% vs 38%)	47% (74.5% vs 36.4%)	46.1% (73.9% vs 36.4%)	70.9% (93.3% vs 66.2%)	(87.3% germline)

CCCG: Chinese Children's Cancer Group, COG: Children's Oncology Group, CR: complete remission

Supplementary Figure S1: Clinical outcome of 134 enrolled patients under CCCG ALL 2015 Study

