

Acute lymphoblastic leukemia in adolescents and young adults in Finland

Anu Usvasalo,¹ Riikka Rätty,² Sakari Knuutila,³ Kim Vettenranta,¹ Arja Harila-Saari,⁴ Esa Jantunen,⁶ Marjut Kauppila,⁸ Pirjo Koistinen,⁵ Katriina Parto,¹⁰ Pekka Riikonen,⁷ Toivo T. Salmi,⁹ Raija Silvennoinen,¹¹ Erkki Elonen,² and Ulla M. Saarinen-Pihkala¹

¹Hospital for Children and Adolescents, Helsinki University Central Hospital, Helsinki; ²Department of Hematology, Helsinki University Central Hospital, Helsinki; ³Department of Pathology, Haartman Institute and HUSLAB, University of Helsinki and Helsinki University Central Hospital, Helsinki; Departments of ⁴Pediatrics and ⁵Internal Medicine, Oulu University Hospital, Oulu; Departments of ⁶Medicine and ⁷Pediatrics, Kuopio University Hospital, Kuopio; Departments of ⁸Medicine and ⁹Pediatrics, Turku University Central Hospital, Turku; Departments of ¹⁰Pediatrics and ¹¹Internal Medicine, Tampere University Hospital, Tampere, Finland

Citation: Usvasalo A, Rätty R, Knuutila S, Vettenranta K, Harila-Saari A, Jantunen E, Kauppila M, Koistinen P, Parto K, Riikonen P, Salmi TT, Silvennoinen R, Elonen E and Saarinen-Pihkala UM. Acute lymphoblastic leukemia in adolescents and young adults in Finland. *Haematologica* 2008; 93:1161-1168. doi: 10.3324/haematol.12466

Supplementary Table S1. Patients excluded from the study.

Age	Reason for exclusion	Immunophenotype	Cytogenetics
23.0	Mental retardation	precursor-B	ND
23.9	Down's syndrome	precursor-B	Hyperdiploid
25.8	Down's syndrome	precursor-B	Normal (trisomy 21)
21.4	Down's syndrome	precursor-B	Normal (trisomy 21)
17.2	Jehovah's witness	precursor-B	Other (Complicated changes)
15.2	ICH, died within 2 days of admission	precursor-B	t(4;11)(q21;q23)
20.4	ICH, died within 2 days of admission	precursor-B	ND
18.9	Died within 2 days of admission	ND	ND

ICH: Intracerebral hemorrhage.

Supplementary Table S2. The adult ALL treatment protocols.

	ALL90		ALL94		ALL2000	
	Single dose	Days	Single dose	Days	Single dose	Days
Block 1						
D Daunorubicin	60	1, 3, 5				
Vincristine (max. 2 mg)	1.2	1, 8			1.4	4, 11
Vincristine (cont. infusion)	0.4	15-18				
Dexamethasone (mg/dose)	40	1-4, 9-12, 17-20				
Dexamethasone (mg/m ²)					20	1-4, 11-14
L-Asparaginase (IU/m ²)	6000	17-26				
Cytarabine			2000	1-4	2000	1-4
Etoposide			100	1-4	100	1-4
Mitoxantrone			12	2-5	12	2-5
Cyclophosphamide					600	1-3
Doxorubicin					50	4
Methotrexate IT			12.5	23	12.5	8, 23
Cytarabine IT	75	25, 26	75	22	75	22
Block 2						
Vincristine (max. 2 mg)	1.2	1, 8	1.2	1, 8	1.4	4, 11
Vincristine (cont. infusion)	0.4	16-19	0.4	15-18		
Cytarabine	120	2-6				
Teniposide	65	2-6				
Dexamethasone (mg/dose)	40	7-10, 16-19	40	1-4, 9-12, 17-20		
Dexamethasone (mg/m ²)					20	1-4, 11-14
Methotrexate	3000	15				
D Daunorubicin			60	1, 3, 5		
L-Asparaginase (IU/m ²)			6000	17-26		
Cyclophosphamide					600	1-3
Doxorubicin					50	4
Methotrexate IT	12.5	5, 22			12.5	23
Cytarabine IT	75	4, 21	75	25, 26	75	22
Block 3						
Mitoxantrone	12	2-5				
Etoposide	100	1-4				
Cytarabine	1000	1-4, 2 doses/day	120	1-5		
Teniposide			65	1-5		
Dexamethasone (mg/dose)		40	6-9, 15-18			
Dexamethasone (mg/m ²)					20	1-4, 11-14
Methotrexate			3000	14		
Vincristine (max. 2 mg)					1.4	1, 8
Vincristine (cont. infusion)			0.4	15-18	0.4	15-18
D Daunorubicin					60	1, 3, 5
L-asparaginase					6000	8, 11, 15, 18, 22
Cytarabine IT	75	22	75	3	75	22
Methotrexate IT	12.5	23	12.5	4		
Block 4						
Methotrexate	3000	2, 12, 22	3000	1, 11, 21	3000	1, 15
Dexamethasone (mg/dose)	40	3-6, 13-16, 23-26	40	2-5, 12-15, 22-25		
Dexamethasone (mg/m ²)					20	2-5, 16-19
Vincristine (max. 2 mg)	1.2	4, 14, 24	1.2	3, 13, 23	1.4	3, 17
Mercaptopurine PO	60	5-10, 15-20, 25-30	60	4-9, 14-20, 24-29	60	4-13, 18-25
Cyclophosphamide	200	25-29	200	24-28		
Cytarabine IT	75	1, 11, 21	75	1, 11, 21		
Methotrexate IT	12.5	2, 12, 22	12.5	2, 12, 22	12.5	1, 15
Block 5						
Cyclophosphamide	750	1	750	1	1000	29
Vincristine (max. 2 mg)	1.2	1, 8, 15, 22	1.2	1, 8, 15, 22	1.2	1, 8, 15
Doxorubicin	35	1, 8, 15, 22	35	1, 8, 15, 22	30	1, 8, 15
Prednisone	80-60-40	1-7, 8-15, 16-22	80-60-40	1-7, 8-15, 16-22		
Methotrexate	3000	29	3000	29		
Dexamethasone					10	1-14
Thioguanine PO					60	29-42
Cytarabine SC					75	29-32, 36-39
Cytarabine IT	75	1, 27	75	1, 27	75	1
Methotrexate IT	12.5	2, 28	12.5	2, 28	12.5	2
Block 6						
Cyclophosphamide	800	1, 15	800	1, 15		
Carmustine	80	1, 15	80	1, 15		
Methotrexate	3000	29			1000	1
Cytarabine					6000	2, 3
Cytarabine IT	75		75	1, 27		
Methotrexate IT	12.5		12.5	2, 28		
Maintenance						
Mercaptopurine	75 mg/day		75 mg/day		60 mg/day	
Methotrexate	30 mg/week		30 mg/week		20 mg/m ² /week	
Cyclophosphamide	300 mg/week		300 mg/week			
Vindesine	4 mg/m ² /6 weeks		4 mg/m ² /6 weeks			
Prednisone	480 mg/m ² /6 weeks		480 mg/m ² /6 weeks		300 mg/m ² /4 weeks	
Vincristine					2 mg/4 weeks	

IT: *intra thecal*; PO: *per oral*; SC: *sub cutaneous*: Normal vs. *Italic*: Dose depends on the randomization group.