

Supplementary table 1. CD19TPALL study inclusion criteria

Pre-emptive Arm	Age ≤ 18 years	
	CD19+ precursor B cell ALL	
	Undergoing allogeneic SCT from EBV seropositive and closely HLA matched (8/8 HLA A, B, C and DR at medium resolution typing); or a single antigenic/allelic (7/8) mismatch) donor at a participating centre	
	Karnofsky score of >60% if ≥10 years old or Lansky score of greater than 60 if < 10 years old	
	Life expectancy of at least 12 weeks	
	In 1st remission (at least one must apply)	t(9;22) and MRD positive after HR3 block of EsPhALL (BCR-ABL/ABL ratio > 0.01%) or pre-HSCT
		Infant ALL age < 6 months at diagnosis with MLL gene rearrangement and either presenting wcc >300 x 10 ⁹ /L or poor steroid early response (i.e. circulating blast count >1x10 ⁹ /L following 7 day steroid pre-phase of Interfant 06)
		Resistant disease (> 30% blasts at end of induction treatment day 28-33) in subsequent morphological CR
		High level bone marrow MRD (> 1 in 1000) at week 12 ALL-BFM 2000/AIEOP BFM ALL 2009/EORTC 58951 protocols, week 12-15 of FRALLE A or at week 14 of UKALL2011
	After relapse (at least must apply)	Very early (< 18 months from diagnosis) bone marrow or extramedullary relapse in second CR
		Early (within 6 months of finishing therapy) isolated bone marrow relapse with bone marrow MRD > 1 in 100 at day 35 of re-induction in second CR
		Early (within 6 months of finishing therapy) bone marrow or combined relapse with high level bone marrow MRD (> 1 in 1000) at the end of consolidation therapy (week 12-13 UKALL R3/INTREALL and COOPRALL protocols, prior to protocol M in BFM relapse protocol (ALL-REZ BFM 2002) and after Protocol II-IDA in AIEOP LLA Rec 2003)
		Any relapse of infant or Philadelphia-positive ALL in morphological complete remission.
		Any patient being transplanted in ≥ 3rd CR

Prophylactic Arm	Age ≤ 18 years	
	CD19+ precursor B cell ALL	
	Isolated (or combined site) bone marrow relapse post allogeneic SCT achieving morphological remission after re-induction	
	Is a candidate for second allogeneic SCT at a participating centre	
	Has an EBV seropositive and closely HLA matched (8/8 HLA A, B, C and DR at medium resolution typing); or a single antigenic/allelic (7/8 mismatch) donor	
	Karnofsky score of >60% if ≥10 years old or Lansky score of greater than 60 if < 10 years old	
	Life expectancy of at least 12 weeks	
	In 1st remission (at least one of these criteria must apply)	t(9;22) and MRD positive after HR3 block of EsPhALL (BCR-ABL/ABL ratio > 0.01%) or pre-HSCT
		Infant ALL age < 6 months at diagnosis with MLL gene rearrangement and either presenting wcc >300 x 10 ⁹ /L or poor steroid early response (i.e. circulating blast count >1x10 ⁹ /L following 7 day steroid pre-phase of Interfant 06)
		Resistant disease (> 30% blasts at end of induction treatment day 28-33) in subsequent morphological CR
		High level bone marrow MRD (> 1 in 1000) at week 12 ALL-BFM 2000/AIEOP BFM ALL 2009/EORTC 58951 protocols, week 12-15 of FRALLE A or at week 14 of UKALL2011
	After relapse (at least one of these criteria must apply)	Very early (< 18 months from diagnosis) bone marrow or extramedullary relapse in second CR
		Early (within 6 months of finishing therapy) isolated bone marrow relapse with bone marrow MRD > 1 in 100 at day 35 of re-induction in second CR
		Early (within 6 months of finishing therapy) bone marrow or combined relapse with high level bone marrow MRD (> 1 in 1000) at the end of consolidation therapy (week 12-13 UKALL R3/INTREALL and COOPRALL protocols, prior to protocol M in BFM relapse protocol (ALL-REZ BFM 2002) and after Protocol II-IDA in AIEOP LLA Rec 2003)
Any relapse of infant or Philadelphia-positive ALL in morphological complete remission.		
Any patient being transplanted in ≥ 3rd CR		