

Table S1 More information related to allo-HCT including the doses of each conditioning regimen and GVHD prophylaxis

	Source	Conditioning regimen	GVHD prophylaxis
Case 1	PBSCT, HLA-identical sibling donor	FLU (180 mg/m ²), BU (12.8 mg/kg), MEL (80 mg/m ²)	TAC (day 5-), MMF (day 5-31), PT-CY (50 mg/kg/day, day3,4)
Case 2	First CBT, HLA 4/6 match	Ara-C (6000 mg/m ²), FLU (150 mg/m ²), BU (6.4 mg/kg), MEL (80 mg/m ²)	TAC (day (-1)-), MTX (5 mg/m ² /day, day 1, 3, 6)
	Second CBT, HLA 4/6 match	Ara-C (4000 mg/m ²), FLU (150 mg/m ²), MEL (100 mg/m ²), TBI 4Gy	TAC (day (-1)-), MTX (5 mg/m ² /day, day 1, 3, 6)
Case 3	CBT, HLA 4/6 match	Ara-C (4 g/m ²), FLU (150 mg/m ²), BU (12.8 mg/kg), MEL (80 mg/m ²)	TAC (day (-1)-), MTX (5 mg/m ² /day, day 1, 3, 6)

	Date of gilteritinib resumption of after transplantation	Dose of gilteritinib when restarted	GVHD treatment when gilteritinib was restarted	GVHD status after gilteritinib resumption	Adverse events
Case 1	Day 197	40 mg/body daily	PSL finished, TAC continued, topical steroid used for skin GVHD (grade I)	No exacerbation	Increased liver enzyme (ALT or AST) levels
Case 2	Day 42	40 mg/body daily	TAC continued, topical steroid used for skin GVHD (grade I)	No exacerbation	Increased liver enzyme (ALT or AST) levels
Case 3	Day 288	40 mg/body every 3 days	TAC finished, betamethasone 0.2 mg/body, d-chlorpheniramine maletate 2 mg/body, and topical steroid used for skin GVHD (grade I)	No exacerbation	-

Allo-HSCT, allogeneic hematopoietic cell transplantation; GVHD, graft-versus-host-disease; PBSCT, peripheral blood stem cell transplantation; CBT, cord blood transplantation; FLU, fludarabine; BU, busulfan; MEL, melphalan; Ara-C, cytosine arabinoside; TBI, total body irradiation; TAC, tacrolimus; MMF mycophenolate mofetil; PT-CY, post-transplant cyclophosphamide; MTX, methotrexate

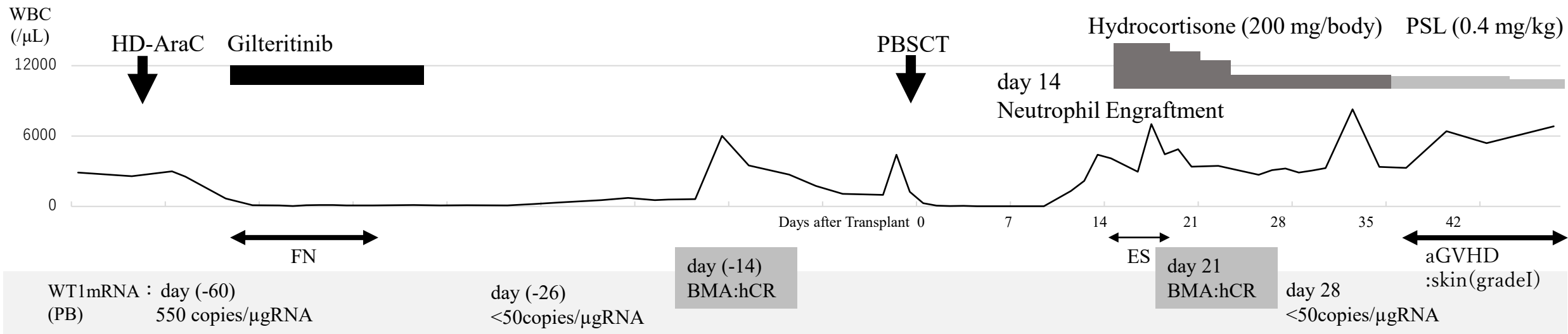


Figure S1 Clinical course of case 1 from admission to our hospital to discharge after transplantation. PBSCT, peripheral blood stem cell transplantation; HD-AraC, high dose cytosine-arabioside; FN, febrile neutropenia; ES, engraftment syndrome; PSL, prednisolone; PB, peripheral blood; BMA, bone marrow assessment; hCR, hematological complete remission; aGVHD, acute graft-versus-host-disease

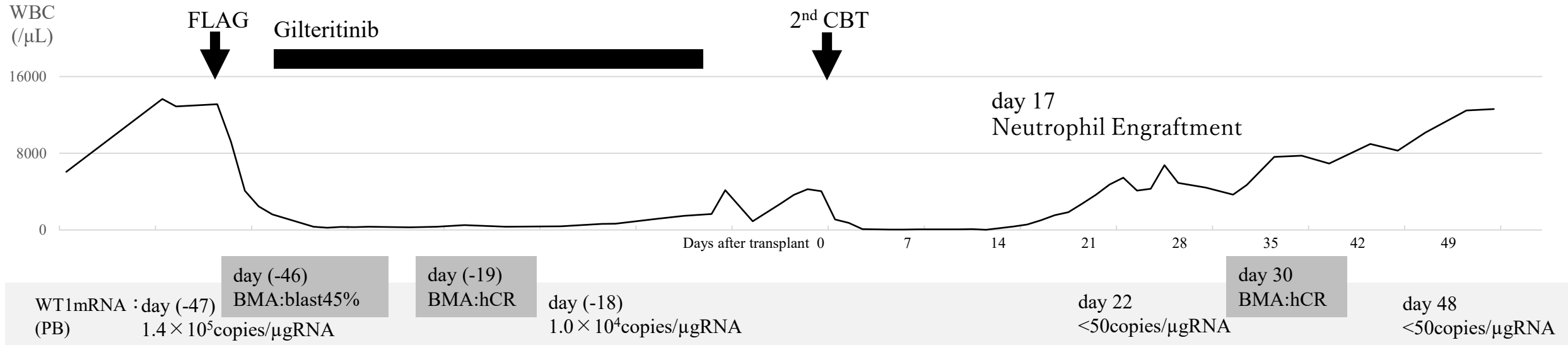


Figure S2 Clinical course of case 2 from hematological relapse to discharge after transplantation. CBT, cord blood transplantation

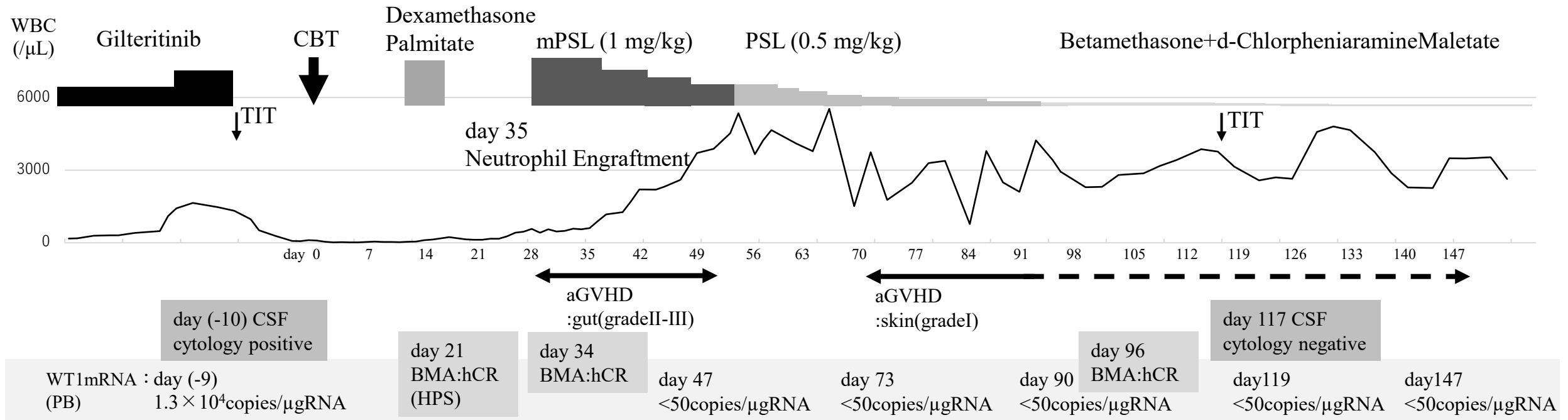


Figure S3 Clinical course of case 3 from admission to our hospital to discharge after transplantation. mPSL, methylprednisolone; HPS, hemophagocytic syndrome; TIT, triple intrathecal therapy; CSF, cerebrospinal fluid