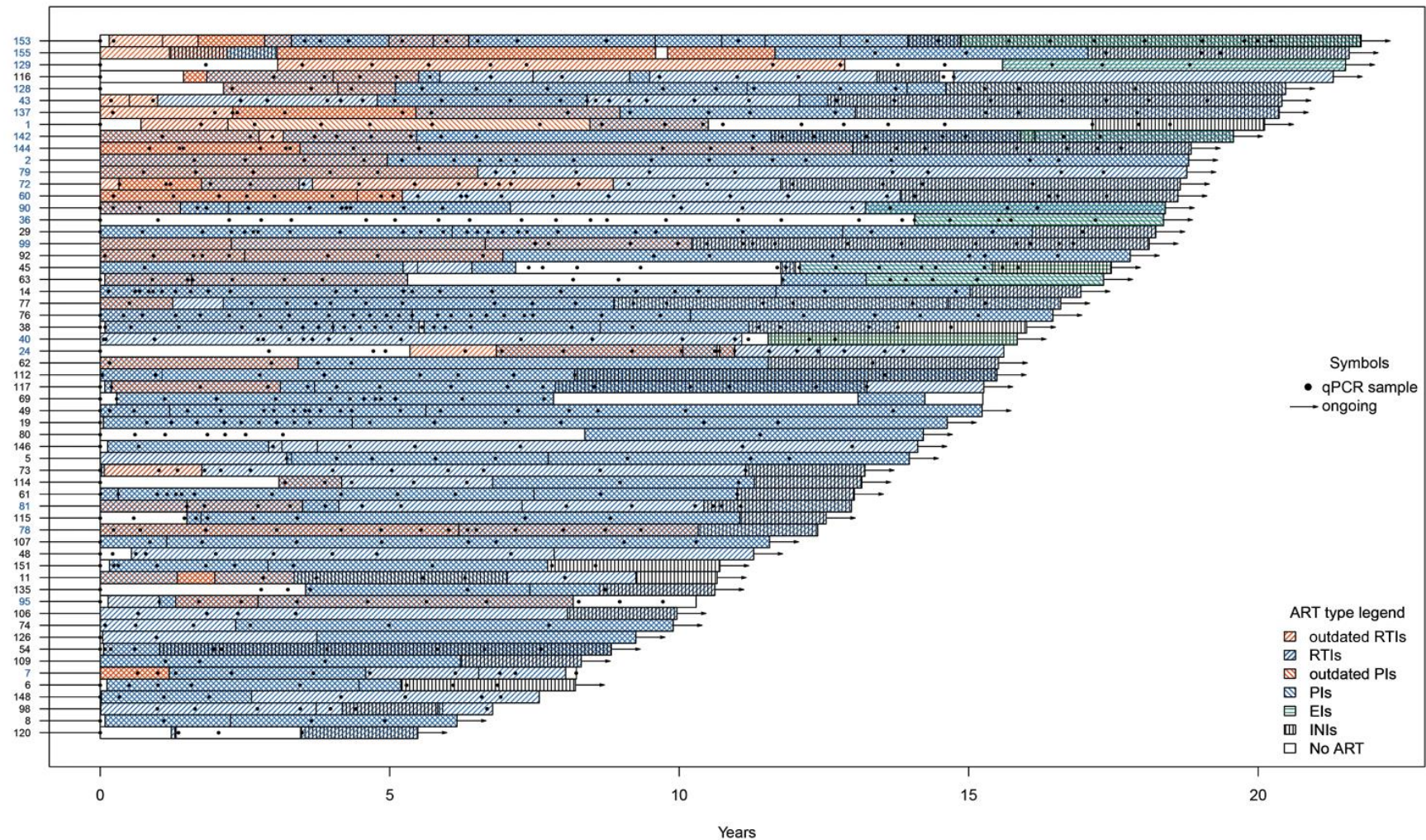


Swimlane Plot of Individual Treatment Periods (N=59)



Supplemental Digital Content 1. Figure. Clinical monitoring and antiretroviral treatment periods in 59 Japanese PLHIV. Individuals are represented by numeric codes on the Y-axis using blue colour for transfused and black for non-transfused patients. Observation time (years) since the first record is shown on the X-axis. Antiretrovirals are shown as follows: nucleoside and non-nucleoside reverse-transcriptase inhibitors (RTIs)-blue right diagonal lines, protease inhibitors (PIs)-blue left diagonal lines, entry inhibitors (EIs)-green horizontal lines and integrase inhibitors (INIs)-black vertical lines. Drugs no longer in clinical use are marked as outdated: stavudine (d4T), didanosine (ddI) and zidovudine (AZT) as outdated RTIs-orange right diagonal lines, and nelfinavir (NFV), indinavir (IDV) and fosamprenavir (FPV) as outdated PIs-orange left diagonal lines. Sample timepoints are shown with a black dot on the therapy bars and black arrows mark ongoing therapy at the end of the study.

Supplemental Digital Content 2. Table A. Overview of antiretroviral therapy and total HIV DNA dynamics in 22 transfused Japanese PLHIV with a hematological disorder

Patient	Group	Antiretroviral treatment			Total HIV DNA dynamics		
		Length, years	TI	Overview ^a	On treatment ^b	Upon/after ART initiation ^c	During treatment interruption ^d
36	T	4.3		ART(+++)	S/F	S	
78	T	12.4		ART(+++)	US	D	
79	T	18.8		ART(+++)	US	D	
43	T	20.4		ART(+++)	US	S	
72	T	18.7		ART(+++)	US	I->D	
2	T	18.8		ART(+++)	US	NA	
99	T	18.1		ART(+++)	US	NA	
144	T	18.8		ART(+++)	US	NA	
24	T	10.2	TI	ART(+)	S	S	TI S
1	T	12.8	TI	ART(+)	S	S	TI US
129	T	15.7	TI	ART(+)	S	I->D	TI S
142	T	19.6		ART(+)	S/F	NA	
90	T	18.4		ART(+)	S/F	D	
40	T	15.4	TI	ART(+)	S/F	S	TI US
60	T	18.6		ART(+)	S/F	S	
81	T	13		ART(+)	S/F	NA	
7	T	8		ART(+)	US	D	
137	T	20.4		ART(+)	US	S	
153	T	21.6		ART(+)	US	S	
95	T	8	TI	ART(+)	US	I->D	TI US
128	T	18.3		ART(+)	US	I->D	
155	T	21.4		ART(+)	US	NA	

^a Antiretroviral therapy classified as fully suppressive ART (+++) in case of initial HIV RNA suppression achieved in <1 year, no or occasional viral blips of <5 total and no treatment interruptions; and as generally suppressive ART (+) in case of initial HIV RNA suppression achieved in >1 year and/or periods with detectable VL under treatment and/or treatment interruptions and adherence issues;

^b Total HIV DNA dynamics during ART classified as: S, stable levels with minimal fluctuations (of < 200 copies/million PBMC); S/F, generally stable levels with some fluctuations (increases and decreases within 200 – 500 copies/million PBMC); US, unstable levels with major fluctuations (increases and decreases of > 500 copies/million PBMC);

^c Total HIV DNA dynamics upon and immediately after ART initiation classified as: S, stable levels before-after or immediately following ART initiation; D, initial decrease (decay) of total HIV DNA levels; I->D, initial increase, followed by decrease (decay) of total HIV DNA levels;

^d Total HIV DNA dynamics during treatment interruptions classified as: TI S, stable total HIV DNA levels; TI US, unstable, fluctuating total HIV DNA levels.

ART, antiretroviral therapy; NA, data not available; T, transfused; TI, treatment interruption.

Supplemental Digital Content 2. Table B. Overview of antiretroviral therapy and total HIV DNA dynamics in 37 Japanese PLHIV

Patient	Group	Antiretroviral treatment		Total HIV DNA dynamics			
		Length, years	TI	Overview ^a	On treatment ^b	Upon/after ART initiation ^c	During treatment interruption ^d
48	NT	10.7		ART(+++)	S	D	
49	NT	15.2		ART(+++)	S	D	
61	NT	13		ART(+++)	S	D	
62	NT	15.5		ART(+++)	S	D	
6	NT	8.1		ART(+++)	S	S	
8	NT	6.1		ART(+++)	S	S	
80	NT	5.9		ART(+++)	S	S	
114	NT	10.1		ART(+++)	S	S	
126	NT	9.2		ART(+++)	S	S	
146	NT	14		ART(+++)	S	S	
11	NT	10.7		ART(+++)	S	NA	
98	NT	6.8		ART(+++)	S	NA	
76	NT	16.5		ART(+++)	S/F	D	
77	NT	16.6		ART(+++)	S/F	D	
112	NT	15.5		ART(+++)	S/F	D	
135	NT	7.1		ART(+++)	S/F	D	
151	NT	10.5		ART(+++)	S/F	S	
19	NT	14.6		ART(+++)	S/F	I->D	
115	NT	11		ART(+++)	S/F	I->D	
109	NT	8.3		ART(+++)	S/F	NA	
74	NT	9.9		ART(+++)	US	D	
107	NT	11.6		ART(+++)	US	D	
117	NT	15.2		ART(+++)	US	D	
148	NT	7.6		ART(+++)	US	S	
14	NT	16.9		ART(+++)	US	I->D	
5	NT	14		ART(+++)	US	NA	
120	NT	2.1	TI	ART(+)	S	S	TI S
38	NT	15.8	TI	ART(+)	S/F	D	TI S
29	NT	18.2	TI	ART(+)	S/F	D	
92	NT	17.8		ART(+)	S/F	D	
63	NT	10.8		ART(+)	S/F	S	TI US
69	NT	8.7		ART(+)	S/F	S	TI NA
116	NT	19.6	TI	ART(+)	US	D	TI US
54	NT	8.8	TI	ART(+)	US	D	
73	NT	13.2		ART(+)	US	D	
45	NT	12.8		ART(+)	US	NA	TI US
106	NT	10		ART(+)	NA	D	

^aAntiretroviral therapy classified as fully suppressive ART (+++) in case of initial HIV RNA suppression achieved in <1 year, no or occasional viral blips of <5 total and no treatment interruptions; and as generally suppressive ART (+) in case of initial HIV RNA suppression achieved in >1 year and/or periods with detectable VL under treatment and/or treatment interruptions and adherence issues;

^bTotal HIV DNA dynamics during ART classified as: S, stable levels with minimal fluctuations (of < 200 copies/million PBMC); S/F, generally stable levels with some fluctuations (increases and decreases within 200 – 500 copies/million PBMC); US, unstable levels with major fluctuations (increases and decreases of > 500 copies/million PBMC);

^cTotal HIV DNA dynamics upon and immediately after ART initiation classified as: S, stable levels before-after or immediately following ART initiation; D, initial decrease (decay) of total HIV DNA levels; I->D, initial increase, followed by decrease (decay) of total HIV DNA levels;

^d Total HIV DNA dynamics during treatment interruptions classified as: TI S, stable total HIV DNA levels; TI US, unstable, fluctuating total HIV DNA levels.

ART, antiretroviral therapy; NA, data not available; T, transfused; TI, treatment interruption.

Supplemental Digital Content 3. Table. On-treatment characteristics of 59 Japanese patients including 22 HIV-infected via blood transfusion

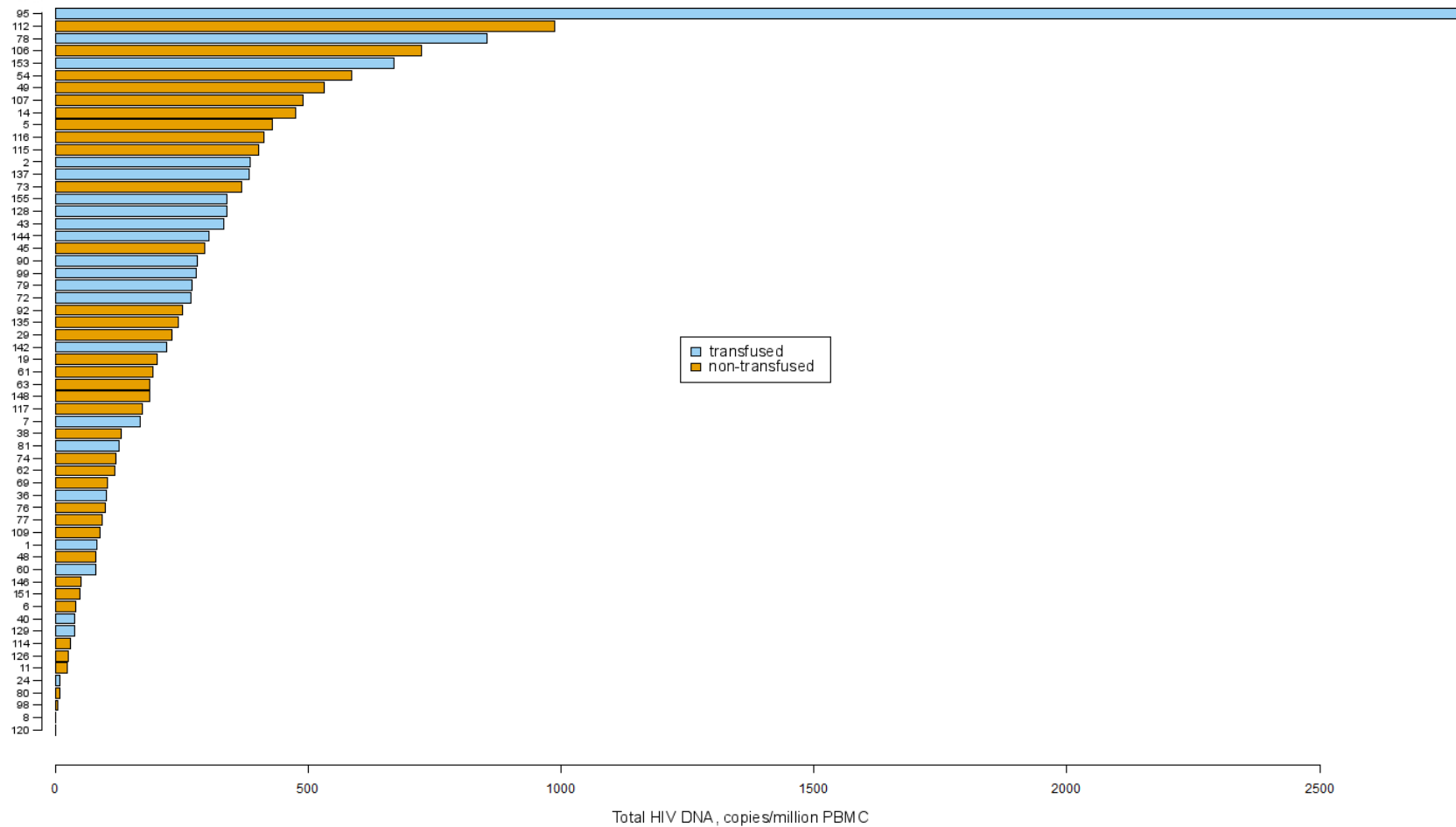
Patient	Gender	Group	Periods, years		Latest regimen	CD4 counts, cells/mm ³		Total HIV DNA, copies/million cells
			Clinical monitoring	On ART		% in the cluster ^a <200/200-500/>500	CD4 nadir	On treatment means
1	M	T	17	12.8	EVG/FTC/TDF/COB	0 / 12 / 88	256	81
2	M	T	17.2	18.8	3TC/AZT, LPV/r	0 / 85 / 15	276	385
5	M		13.9	14	TDF/FTC, LPV/r	19 / 81 / 0	22	429
6	M		6.6	8.1	EVG/FTC/TDF/COB	0 / 37 / 63	274	39
7	M	T	8.5	8	3TC, TDF, EFV	0 / 36 / 64	317	167
8	M		4.6	6.1	ABC/3TC, DRV/r	0 / 92 / 8	284	<1
11	M		7.2	10.7	EVG/FTC/TDF/COB	0 / 44 / 56	359	23
14	M		15.1	16.9	ABC/3TC, DTG	0 / 37 / 63	228	474
19	M		13.1	14.6	3TC, LPV/r	0 / 59 / 41	236	202
24 [†]	M	T	10.6	10.2	3TC, EFV	1 / 36 / 63	193	9
29	M		16.8	18.2	TDF/FTC, DTG	0 / 2 / 98	445	229
36	F	T	17	4.3	DRV/r, MVC	0 / 28 / 72	340	101
38	M		14.7	15.8	EVG/FTC/TDF/COB	19 / 77 / 4	10	129
40	M	T	13	15.4	RAL, MVC	4 / 93 / 3	188	38
43	M	T	19.1	20.4	3TC, TDF, RAL	5 / 29 / 66	113	332
45	M		15.9	12.8	DTG, MVC	0 / 6 / 94	296	294
48	M		9.9	10.7	ABC/3TC, RPV	0 / 31 / 69	211	80
49	M		13.7	15.2	3TC/AZT, SQV/r	0 / 30 / 70	222	531
54	M		7.4	8.8	3TC, DRV/r, RAL	2 / 13 / 85	109	586
60	M	T	17.3	18.6	ABC/3TC, RAL	0 / 15 / 85	237	80
61	M		11.5	13	TDF/FTC, DTG	0 / 83 / 17	206	193
62	F		13.7	15.5	TDF/FTC, RAL	0 / 33 / 67	323	117
63	M		15	10.8	DRV/r, MVC	3 / 33 / 65	102	187
69	M		14	8.7	TDF/FTC, DRV/r	19 / 3 / 78	34	102
72	M	T	17.8	18.7	ETR, RAL	8 / 85 / 7	67	269
73	M		11.8	13.2	ABC/3TC, DTG	17 / 82 / 1	138	369
74	M		8.5	9.9	ABC/3TC, LPV/r	15 / 82 / 3	172	120
76	F		15	16.5	TDF/FTC, SQV/r	9 / 55 / 36	118	98
77	M		14.7	16.6	ABC/3TC, DTG	0 / 53 / 47	266	92
78 [†]	M	T	12.2	12.4	ABC/3TC, RAL	0 / 7 / 93	432	852
79	M	T	17	18.8	3TC, TDF, EFV	11 / 63 / 26	20	269

Patient	Gender	Group	Periods, years		Latest regimen	CD4 counts, cells/mm ³		Total HIV DNA, copies/million cells
			Clinical monitoring	On ART		% in the cluster ^a <200/200-500/>500	CD4 nadir	On treatment means
80	F		12	5.9	3TC/AZT, LPV/r	0 / 31 / 69	301	8
81†	M	T	13.1	13	TDF/FTC, RAL	0 / 35 / 65	260	126
90	M	T	17	18.4	3TC, DRV/r, MVC	12 / 88 / 0	57	281
92	F		16.4	17.8	ABC/3TC, LPV/r	0 / 24 / 76	279	251
95†	M	T	9.3	8	3TC/AZT, NFV, SQV	0 / 12 / 88	299	2796
98†	M		7.3	6.8	TDF/FTC, ETR	0 / 3 / 97	350	4
99	M	T	17	18.1	TDF, RAL	0 / 6 / 94	360	278
106	M		8.7	10	TDF/FTC, DTG	2 / 31 / 67	191	724
107	M		10.2	11.6	ABC/3TC, LPV/r	2 / 33 / 65	191	490
109	M		7	8.3	ABC/3TC, DTG	21 / 79 / 0	2	88
112	M		14	15.5	3TC, SQV/r, RAL	13 / 87 / 0	5	987
114	M		9.6	10.1	ABC/3TC, DTG	0 / 28 / 72	219	30
115	M		11.1	11	TDF/FTC, DTG	0 / 69 / 31	203	402
116	M		17.3	19.6	3TC, ETR	5 / 78 / 17	130	412
117	M		13.7	15.2	ABC/3TC, RPV	0 / 4 / 96	461	171
120	M		3.9	2.1	ABC/3TC, DTG	0 / 12 / 88	403	<1
126	M		6	9.2	ABC/3TC, DRV/r	3 / 27 / 71	189	26
128	M	T	17	18.3	SQV/r, RAL	2 / 60 / 38	182	338
129	M	T	17.2	15.7	TDF/FTC, MVC	16 / 59 / 25	58	38
135	M		10.9	7.1	ABC/3TC, DTG	0 / 23 / 77	294	242
137	M	T	17.1	20.4	TDF/FTC, RAL	1 / 24 / 75	168	383
142	M	T	17.3	19.6	DRV/r, MVC, RAL	7 / 47 / 46	65	219
144	M	T	17.8	18.8	3TC, TDF, RAL	1 / 53 / 47	192	302
146	M		12.7	14	ABC/3TC, EFV	0 / 0 / 100	600	49
148†	M		7.4	7.6	3TC/AZT, EFV	100 / 0 / 0	20	186
151	M		11.3	10.5	EVG/FTC/TDF/COB	2 / 56 / 42	192	49
153	M	T	17.1	21.6	DRV/r, DTG, MVC	73 / 26 / 1	60	670
155	M	T	17.1	15	ABC/3TC, RAL	5 / 89 / 6	159	339

^a Total number of CD4 measurements (expressed in %) in the respective cluster: below 200, 200-500 and above 500 cells/mm³.

3TC, lamivudine; ABC, abacavir; ART, antiretroviral therapy; AZT, zidovudine; COB, cobicistat; DRV, darunavir; DTG, dolutegravir; EFV, efavirenz; ETR, etravirine; EVG, elvitegravir; F, female; FTC, emtricitabine; LPV, lopinavir; M, male; MVC, maraviroc; NA, not available; NFV, nelfinavir; RAL, raltegravir; RPV, rilpivirine; SQV, saquinavir; T, transfused; TDF, tenofovir; /r, ritonavir boosted; †, deceased.

Barplot of On-treatment Means of Total HIV DNA in copies/million PBMC



Supplemental Digital Content 4. Figure. Mean total HIV DNA levels in the antiretroviral treatment period. 59 Japanese PLHIV are shown grouped according to routes of HIV-1 transmission: blood transfusion for haematological diseases (transfused) and sexual contact or intravenous drug use (non-transfused). Transfused patients were treated for haemophilia A (or von Willebrand disease – patient 36) and were co-infected with HCV.