Table S1. Patient characteristics stratified by the reasons for initiating HD using a temporary CVC

	Temporary CVC group (n=137)	Age — yr	Male sex — n (%)	Predialysis nephrology care less than 6 months / 6–12 months / 1–2 years / 2–5 years / more than 5 years — n (%)	Kideny disease due to ESRD DKD / CGN / HN / Other CKDs / PPGN / AKI — n (%)	Serum creatinine — mg/dL	eGFR — mL/min/1.73 m^2	Hemoglobin — g/dL	The time from the creation to the first cannulation of AVFs — days	The time from HD initiation to the creation of AVFs — days	The time from HD initiation to the first cannulation of AVFs — days
1)	Although the patients had been attending our outpatient clinic for CKD, their physician failed to predict the timing of their HD initiation. (n = 26)	63.7 ± 14.3	14 (53.8)	7 (26.9) / 1 (3.8) / 4 (15.4) / 7 (26.9) / 7 (26.9)	9 (34.6) / 3 (11.5) / 7 (26.9) / 7 (26.9) / 0 (0.0) / 0 (0.0)	7.44 (6.53–9.17)	5.15 (4.70–6.47)	8.3 ± 1.7	10 (8–13)	5 (1–7)	15 (10–19)
2)	Although the patients had been attending another outpatient clinic for CKD, they were already in ESRD at the time of our referral. (n = 22)	70.6 ± 16.7	17 (77.3)	22 (100) / 0 (0.0) / 0 (0.0) / 0 (0.0) / 0 (0.0)	11 (50.0) / 0 (0.0) / 9 (40.9) / 2 (9.1) / 0 (0.0) / 0 (0.0)	8.52 (7.07–9.39)	5.56 (4.62–6.31)	8.5 ± 1.6	8 (6–12)	9 (6–13)	20 (14–21)
3)	Renal function of the patients was acutely exacerbated by accidental factors, such as infection, CVD, or gastrointestinal disease. (n = 21)	70.2 ± 10.2	17 (81.0)	10 (47.6) / 3 (14.3) / 3 (14.3) / 2 (9.5) / 3 (14.3)	5 (23.8) / 4 (19.0) / 7 (33.3) / 3 (14.3) / 0 (0.0) / 2 (9.5)	7.60 (6.63–8.28)	6.40 (4.70–7.02)	9.3 ± 1.7	8 (7–11)	18 (14–29)	28 (21–36)
4)	Although the patients had been attending our outpatient clinic for CKD and were fully briefed on RRT, they could not make a decision to create permanent VA for their hesitation and refusal. (n = 17)	71.8 ± 12.2	11 (64.7)	6 (35.3) / 0 (0.0) / 4 (23.5) / 4 (23.5) / 3 (17.7)	8 (47.1) / 4 (23.5) / 3 (17.6) / 2 (11.8) / 0 (0.0) / 0 (0.0)	8.28 (7.47–9.98)	4.52 (4.10–6.24)	9.2 ± 1.5	8 (6–11)	8 (6–10)	16 (14–20)
5)	Although the patients had been diagnosed with or suspected of CKD, they had not seen a physician, their hospital visits were interrupted, and they were already in ESRD at the time of our visit. (n = 16)	56.8 ± 11.7	11 (68.8)	15 (93.8) / 1 (6.3) / 0 (0.0) / 0 (0.0) / 0 (0.0)	4 (25.0) / 7 (43.8) / 2 (12.5) / 3 (18.8) / 0 (0.0) / 0 (0.0)	12.02 (7.74–16.04)	4.07 (2.15–5.93)	7.3 ± 2.4	6 (6–10)	10 (8–16)	18 (14–24)
6)	HD was urgently initiated in the patients due to RPGN or AKI. (n = 15)	67.1 ± 16.7	7 (46.7)	15 (100.0) / 0 (0.0) / 0 (0.0) / 0 (0.0) / 0 (0.0)	0 (0.0) / 0 (0.0) / 0 (0.0) / 0 (0.0) / 12 (80.0) / 3 (20.0)	8.49 (7.04–15.56)	3.96 (3.26–6.29)	8.7 ± 1.7	6 (4–10)	17 (13–21)	25 (21–30)
7)	HD was initiated in the patients before creating permanent VA because their edema was significantly worse compared to the worsening of renal function. (n = 9)	68.0 ± 12.7	7 (77.8)	4 (44.4) / 1 (11.1) / 0 (0.0) / 3 (33.3) / 1 (11.1)	6 (66.7) / 0 (0.0) / 1 (11.1) / 1 (11.1) / 1 (11.1) / 0 (0.0)	6.28 (5.81–7.19)	7.36 (5.37–8.29)	9.3 ± 1.8	7 (6–11)	7 (5–12)	18 (13–19)
8)	Although an AVF was created, their AVF was obstructed or underdeveloped at the time of HD initiation. (n = 7)	70.4 ± 16.9	6 (85.7)	0 (0.0) / 0 (0.0) / 2 (28.6) / 4 (57.1) / 1 (14.3)	2 (28.6) / 0 (0.0) / 3 (42.9) / 2 (28.6) / 0 (0.0) / 0 (0.0)	7.85 (5.34–9.11)	6.39 (4.75–8.48)	9.5 ± 1.9	15 (7–35)	6 (-14–15)	21 (7–27)
9)	Although the patients were on immunosuppressive therapy for non-diabetic nephrotic syndrome, they unexpectedly developed ESRD. (n = 4)	76.8 ± 10.7	2 (50.0)	3 (75.0) / 1 (25.0) / 0 (0.0) / 0 (0.0) / 0 (0.0)	0 (0.0) / 4 (100.0) / 0 (0.0) / 0 (0.0) / 0 (0.0) / 0 (0.0)	3.38 (2.03–5.43)	13.68 (9.07–19.20)	10.3 ± 2.4	4 (2–7)	16 (15–22)	19 (18–28)

AKI, acute kidney injury; AVF, arteriovenous fistula; CKD, chronic kidney disease; CGN, chronic glomerulonephritis; CVC, central venous catheter; CVD, cardiovascular disease; DKD, diabetic kidney disease; eGFR, estimated glomerular filtration rate; ESRD, end-stage renal disease; HD, hemodialysis; HN, hypertensive nephrosclerosis; RPGN, rapidly progressive glomerulonephritis; RRT, renal replacement therapy; VA, vascular access.