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Supplementary Table 1. Baseline patient characteristics

	Total (n = 543)	Haemoglobin concentration, g/dl				
		< 9.0 (n = 49)	9.0 to < 10.0 (n = 85)	10.0 to < 11.0 (n = 172)	11.0 to < 12.0 (n = 146)	≥ 12.0 (n = 91)
Age, years	71.0 (13.3)	75.5 (11.9)	69.1 (14.6)	69.5 (13.3)	72.0 (12.6)	71.7 (13.5)
Male	58.4	38.8	62.4	57.6	62.3	60.4
BMI, kg/m^2	20.6 [18.2–23.0]	18.8 [17.5–21.4]	20.8 [19.1–23.2]	20.7 [18.6–23.3]	20.9 [18.6–23.6]	20.3 [17.5–22.4]
Diabetes as primary cause of ESRD	42.2	44.9	45.9	40.1	43.2	39.6
Haemodialysis vintage, years	5 [2–10]	5 [2–11]	5 [3–10]	5 [2–11]	4 [1–7]	5 [2–9]
Vascular access: AVF	89.3	79.6	87.1	90.7	91.1	91.2
Dialysate temperature, ℃	36 [36–36]	36 [36–36]	36 [36–36]	36 [36–36]	36 [36–36]	36 [36–36]
IDWG, kg	2.8 (1.5)	1.8 (1.1)	2.8 (1.9)	3.0 (1.5)	3.0 (1.5)	2.6 (1.3)
Ultrafiltration rate, ml/h	727.6 (280.0)	551.4 (247.1)	735.3 (310.9)	759.4 (281.8)	757.1 (260.1)	707.8 (262.3)
Treatment modality: HDF	15.3	12.2	11.8	20.9	15.8	8.8
History of IHD	24.1	32.7	28.2	23.8	18.5	25.3
Use of antihypertensive drugs	59.7	53.1	60.0	67.4	58.2	50.6
Use of antihypotensive drugs	10.7	6.1	7.1	9.3	10.3	19.8
Use of iron agents	52.7	38.8	54.1	55.8	54.8	49.5
ESA dose, IU/week	5000 [2250–10000]	12000 [6000–20000]	7500 [4000–10000]	4750 [2250–10000]	4000 [2000–8000]	3000 [1000–6000]
TSAT, %	22 [14.6–31.6]	20 [11.6–29.5]	17.2 [12.7–31.5]	21.0 [13.2–28]	24.7 [17.3–32.1]	27.9 [19.8–38.6]
Ferritin, ng/mL	58.3	97.8	59	47.7	51.5	62

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	[31–109]	[50.5–243]	[35.9–117]	[27.2–94.1]	[29.8–105]	[44.4–93.4]
Serum albumin, g/dL	3.6	3.0	3.5	3.6	3.7	3.7
	[3.3–3.8]	[2.4–3.4]	[3.2–3.8]	[3.3–3.8]	[3.4–3.9]	[3.4–3.9]
CRP, mg/dL	0.23	0.73	0.35	0.27	0.18	0.21
	[0.09–0.73]	[0.13–3.43]	[0.12–0.86]	[0.10–0.61]	[0.08–0.40]	[0.07–0.77]

Note: Values are presented as percentages for categorical variables and as the mean (standard deviation) or median (interquartile range) for continuous variables.

Abbreviations: BMI, body mass index; ESRD, end-stage renal disease; AVF, arteriovenous fistula; IDWG, interdialytic weight gain; ESA, erythropoietin-stimulating agents; HDF, haemodiafiltration; IHD, ischaemic heart disease; TSAT, transferrin saturation; CRP, C-reactive protein

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Supplementary Table 2. ORs for IDH_{nadir} by the assumed haemoglobin concentration categories in sensitivity analysis 2

	Haemoglobin concentration, g/dl				
	< 9.0	9.0 to < 10.0	10.0 to < 11.0	11.0 to < 12.0	≥ 12
Unadjusted OR	2.10	0.97	1	1.29	**2.78**
	(0.97–4.57)	(0.52–1.83)	(Reference)	(0.80–2.07)	**(1.57–4.93)**
Adjusted OR	1.35	0.95	1	1.28	**2.52**
	(0.59–3.09)	(0.51–1.78)	(Reference)	(0.79–2.06)	**(1.41–4.52)**

Note: Bold values indicate statistical significance A haemoglobin concentration of 10.0 to < 11.0 g/dl was set as the reference. ORs are estimated using a mixed effects logistic regression model for the association between the assumed haemoglobin concentration and IDH_{nadir} adjusted for age, sex, BMI, diabetes as the primary cause of ESRD, haemodialysis vintage, vascular access, dialysate temperature, IDWG, ultrafiltration rate, treatment modality, IHD, use of antihypertensive drugs, use of antihypotensive drugs, use of iron agents, ESA dose, TSAT, ferritin, serum albumin, and CRP.
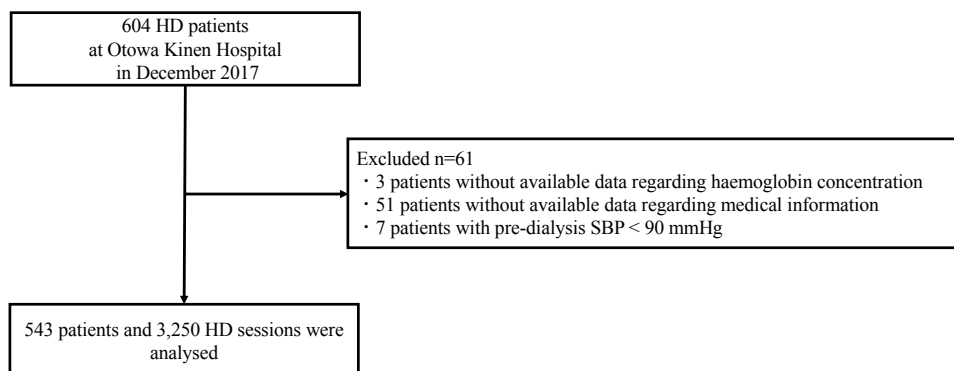
The assumed haemoglobin concentration was calculated using the following formula:

Assumed haemoglobin concentration = baseline haemoglobin concentration + 0.4 (baseline IDWG − each session's IDWG).

IDH_{nadir} is defined as any nadir < 100 mmHg if the pre-dialysis SBP is ≥ 160 mmHg or any nadir < 90 mmHg if the pre-dialysis SBP is < 160 mmHg.

Abbreviations: OR, odds ratio; IDH, intradialytic hypotension; BMI, body mass index; ESRD, end-stage renal disease; IDWG, interdialytic weight gain; ESA, erythropoietin-stimulating agents; IHD, ischaemic heart disease; TSAT, transferrin saturation; CRP, C-reactive protein

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Supplementary Figure 1. Flow chart of study participants

Abbreviations: HD, haemodialysis; SBP, systolic blood pressure

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Supplementary Figure 2. OR for IDH_{nadir} by the assumed haemoglobin concentration

in sensitivity analysis 2.
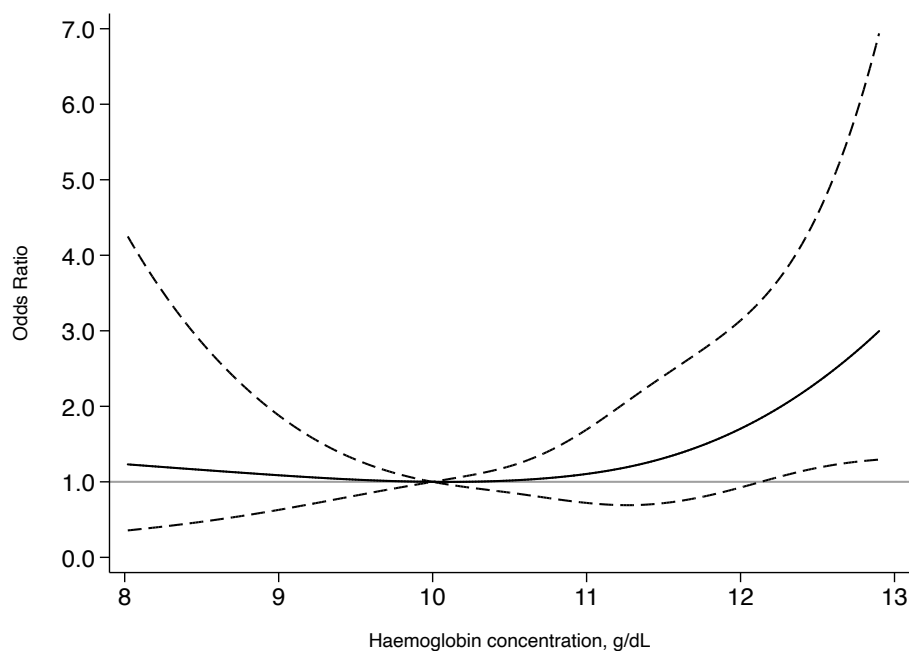
Note: Restricted cubic spline plots of the ORs for IDH_{nadir} according to the assumed

haemoglobin concentration. The horizontal grey line corresponds to a normal reference

OR of 1.0. Haemoglobin concentration = 10.0 g/dl was used as reference in this study.

ORs were estimated using a mixed effects logistic regression model for the association

between the assumed haemoglobin concentration and IDH_{nadir} adjusted for age, sex,

BMI, diabetes as the primary cause of ESRD, haemodialysis vintage, vascular access,

dialysate temperature, IDWG, ultrafiltration rate, treatment modality, IHD, use of

antihypertensive drugs, use of antihypotensive drugs, use of iron agents, ESA dose,

TSAT, ferritin, serum albumin, and CRP.

The assumed haemoglobin concentration was calculated using the following formula:

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Assumed haemoglobin concentration = baseline haemoglobin concentration + 0.4

(baseline IDWG − each session's IDWG).

IDH_{nadir} is defined as any nadir < 100 mmHg if the pre-dialysis SBP is ≥ 160 mmHg or any nadir < 90 mmHg if the pre-dialysis SBP is < 160 mmHg.

Abbreviations: OR, odds ratio; IDH, intradialytic hypotension; BMI, body mass index; ESRD, end-stage renal disease; IDWG, interdialytic weight gain; ESA, erythropoietin-stimulating agents; IHD, ischaemic heart disease; TSAT, transferrin saturation; CRP, C-reactive protein

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