Supplementary Table I. Details of patients stratified according to cumulative exposure to FO measured over their first year of dialysis. Patients were classified as overhydrated or non-overhydrated after dividing the cumulative exposure for the days of exposure. Such calculation takes back the cumulative estimate to the original scale (single measurement). Weight, BP and BMI data represent the average value of the measurements of these variables made on the day of the BCM study (for the estimate of Fluid Overload)

	Overhydrated* (male: relOH>=15%, female: relOH>=13%)	Non-overhydrated* (male: relOH<15%, female: relOH<13%)	p-value	All subjects
Patients (N)	6754	16091		22845
Follow-up (days)	369 ± 285	391 ± 294	<0.001	385 ± 291
female/male (N,%)	2754 / 4000 (40.8% / 59.2%)	6445 / 9646 (40.1% / 59.9%)	0.31	9199 / 13646 (40.3% / 59.7%)
Age (years)	60.2 ± 15.3	60.5 ± 15.5	0.21	60.4 ± 15.4
Height [cm]	165.4 ± 10.2	164.9 ± 9.9	0.002	165.1 ± 10.0
Weight pre-dialysis (kg)	70.3 ± 16.8	74.2 ± 16.6	<0.001	73.0 ± 16.7
Preweight – postweight (kg)	1.9 ± 1.2	1.6 ± 1.7	<0.001	1.7 ± 1.6
BMI pre-dialysis (kg/m2)	25.8 ± 13.1	27.5 ± 14.5	<0.001	27.0 ± 14.1
BP pre-dialysis (mmHg)	146 ± 26 / 76 ± 15	140 ± 24 / 74 ± 14	<0.001	142 ± 25 / 75 ± 15
Treatment time (min)	234 ± 33	234 ± 34	0.30	234 ± 34
UF rate [ml/h]	593 ± 260	510 ± 248	0.02	535 ± 254
Number of BCM meas. within the first dialysis year	10.0 ± 5.5	9.8 ± 4.6	0.15	9.9 ± 4.9
Patients on anti-hypertensive drugs (%)	55.5%	54.3%	<0.001	54.6%
Patients with Catheter (N, %)	3546 (52.5%)	7332 (45.6%)	<0.001	10878 (47.6%)
Patients smoking (N, %)	1474 (21.8%)	3489 (21.7%)	0.81	4963 (21.7%)
Ethnicity: White (N, %)	5615 (83.1%)	14003 (87.0%)	<0.001	19618 (85.9%)
Comorbidities				
Diabetes	36.8 %	21.6 %	<0.001	26.1 %
Coronary artery disease	490 (7.3%)	985 (6.1%)	0.002	1475 (6.5%)
Congestive heart failure	1396 (20.7%)	2526 (15.7%)	<0.001	3922 (17.2%)
Cerebrovascular disease (stroke)	712 (10.5%)	1690 (10.5%)	0.93	2402 (10.5%)

Peripheral vascular disease	1075 (15.9%)	1916 (11.9%)	<0.001	2991 (13.1%)
Dementia	56 (0.8%)	95 (0.6%)	0.04	151 (0.7%)
Chronic broncho-pulmonary disease	544 (8.1%)	1088 (6.8%)	<0.001	1632 (7.1%)
Paraplegia	29 (0.4%)	40 (0.2%)	0.02	69 (0.3%)
Liver disease	611 (9.0%)	1299 (8.1%)	0.02	1910 (8.4%)
Connective tissue disorder	113 (1.7%)	175 (1.1%)	<0.001	288 (1.3%)
Biochemical measurements				
Hb (g/dl)	9.8 ± 1.8	10.1 ± 1.7	<0.001	10.0 ± 1.7
Albumin (g/dl)	3.6 ± 0.6	3.8 ± 0.5	<0.001	3.7 ± 0.5
Na (mMol/L)	137.9 ± 4.1	137.8 ± 4.5	0.477	137.8 ± 4.4
Phosphate (mg/dl)	4.6 ± 1.6	4.8 ± 1.9	<0.001	4.7 ± 1.8
LDL Cholesterol (mg/dl)	99.3 ± 46.2	103.0 ± 157.9	0.008	101.9 ± 135.2
HDL Cholesterol (mg/dl)	43.3 ± 16.6	41.4 ± 15.7	<0.001	42.0 ± 16.0
CRP (mg/L)	18.4 ± 34.7	15.8 ± 31.0	<0.001	16.6 ± 32.1
ktv	1.38 ± 1.10	1.40 ± 2.81	0.668	1.39 ± 2.43
PCRn (g/kg/day)	1.0 ± 0.3	1.0 ± 1.0	0.010	1.0 ± 0.9
FO pre-dialysis (L)	4.5 ± 3.1	1.7 ± 2.1	<0.001	2.5 ± 2.8

Abbreviations: PCRn = normalized protein catabolic rate, Hb = hemoglobin, Na = sodium, CRP = C reactive protein, FO = fluid overload.

Supplementary table II: missing values , number and %.

Phosphate:	921 (1.0%)
CRP:	29286 (31.9%)
HDL:	22275 (24.2%)
LDL:	22925 (25.0%)
Na:	23097 (25.1%)
ktv:	2084 (2.3%)
Albumin:	2754 (3.0%)
Hb:	1516 (1.7%)
PCRn:	12093 (13.2%)
total_cholesterol:	16012 (17.4%)
triglycerides:	18337 (20.0%)
Phosphate:	921 (1.0%)
CRP:	29286 (31.9%)
HDL:	22275 (24.2%)
LDL:	22925 (25.0%)
Na:	23097 (25.1%)
ktv:	2084 (2.3%)
Albumin:	2754 (3.0%)
Hb:	1516 (1.7%)

PCRn:	12093 (13.2%)
total_cholesterol:	16012 (17.4%)
triglycerides:	18337 (20.0%)
tx_time_pat:	16 (0.0%)