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Supplementary table 1: Inclusion and exclusion criteria for the IDA and CENS studies

The Individualized blood pressure treatment: a multidisciplinary approach to uncontrolled hypertension in order to reduce morbidity and mortality (IDA) study	
Inclusion criteria: A stable medication regimen for at least 4 weeks of ≥ 2 antihypertensive agents. No planned changes in antihypertensive drugs. Age > 18 years.	**Exclusion criteria** Inadequate Norwegian language skills. Positive pregnancy test. Known alcohol or drug abuse. Known serious disorders which may limit the ability to evaluate the efficacy or safety of the protocol, i.e. cerebrovascular, cardiovascular, renal or psychiatric diseases. eGFR <30 mL/min/1.73m^2 (2009 creatinine CKD-EPI formula). ACR >300 mg/mmol. Any reason why, in the opinion of the investigator, the patient should not participate.
The cardiovascular remodelling in living kidney donors with reduced glomerular filtration rate (CENS) study.	
Inclusion criteria Age > 18 years. **Donor group:** Accepted as living kidney donor at Oslo University Hospital, Rikshospitalet. **Control group:** Individuals evaluated for donation, but not found eligible due to non-medical causes. Family members related to donors or recipients and blood donors evaluated and fulfilling the Norwegian transplantation protocol for living kidney donors.	**Exclusion criteria** Previous CVD or malignant disease (except carcinoma in situ). **Blood pressure:** (1)Office blood pressure ≥ 140/90 mmHg or 24 hour BP ≥ 130/80 mmHg. (2) Age > 60: 24 hour blood pressure < 130/80 mmHg) with one antihypertensive drug. **BMI:** (1) Age <30: BMI≥ 30 kg/m^2. (2) Age >30 years: Men ≥31 kg/m^2. Women≥32 kg/m^2. **mGFR:** (1) Age <50 years: <90 ml/min/1.73 m^2. (2) Age 50-60 years: <(130 minus age) ml/min/1.73m^2. (3) ≥ 70 years: <70 mL/min/1.73m^2. **(Proteinuria) Albuminuria:** (1) ACR >30 mg/mmol. (2) Age <60 years with ACR > 3 mg/mmol. **Blood glucose:** (1) Diabetes. (2) Age < 60 with impaired oral glucose tolerance test. **Pathological spirometry.** **Pathological stress test ECG at age > 40.** **Pathological chest X-ray.** **Positive serological tests for HIV, TB, HBV, HCV, syphilis and toxoplasmosis.**
Cardiovascular disease (CVD), body mass index (BMI), measured glomerular filtration rate (mGFR), urine albumin-to-creatinine ratio (ACR), electrocardiogram (ECG), human immunodeficiency virus (HIV), tuberculosis (TB), hepatitis B (HBV), hepatitis C (HBC).	

Biomarker name	Under LOD n(%)	Under LOQ n(%)	In range n(%)	Intra CV%	Inter CV%
Supplementary table 2. The analytical performance of initial biomarker analysis (n=222)					
IL-1RA	0	0	222 (100)	1.9-5.2	19.5
IL-18	0	0	222 (100)	0.8-6.5	6.4
TNF	1 (0.5)	4 (2)	217 (98)	1.7-4.3	2.3
MCP-1	0	1 (0.5)	221 (99.5)	2.5-6.1	3.3
OPN	2 (1.0)	0	220 (99	1.0-3.6	4.1
RANTES	1 (0.5)	0	221 (99.5)	1.0-6.0	3.2
vWF-A2	0	0	222 (100)	1.3-4.4	3.5
NGAL	1 (0.5)	0	221 (99.5)	1.2-5.6	5.6
Uromodulin	0	1 (0.5)	221 (99.5)	0.8-4.6	3.7
GM-CSF	206 (93)	5 (2)	11 (5.0)	3.6-10.0	8.2
IFN-γ	150 (67.5)	62 (28)	10 (4.5)	1.0-3.9	2.0
IL-1β	161 (72.5)	55 (25)	6 (2.5)	1.0-4.8	5.0
IL-6	55 (25)	53 (24)	114 (51)	1.5-4.2	4.7
TIM-1	176 (79)	9 (4)	37 (17)	8.7-22.5	19.2

Numbers of individuals with results under LOD or LOQ (%), and individuals with biomarker analysis within the specified analytical range(%).

Limit of detection (LOD), limit of quantitation (LOQ), intra assay plate coefficient of variability (intra CV%), inter assay plate coefficients of variability (inter CV%), interleukin 1 receptor antagonist (IL-1RA), interleukin-18 (IL-18), tumour necrosis factor (TNF), monocyte chemoattractant crotein-1 (MCP-1), osteopontin (OPN), regulated upon activation normal T-cell expressed and secreted (RANTES), von Willebrand factor A2 (vWF-A2), neutrophil gelatinase-associated lipocalin (NGAL), uromodulin (Tamm-Horsfall protein). granulocyte-macrophage colony-stimulating factor (GM-CSF), interferon gamma (IFN-γ), interleukin 1 beta (IL-1β), interleukin 6 (IL-6), T cell immunoglobulin mucin domain-1 (TIM-1).

Supplementary table 3. The analytical performance (n=215) after exclusion of subjects with systemic immunosuppressive treatment (n=7), and biomarkers with a large proportion of individuals below the quantitation threshold.					
Biomarker name	Under LOD n(%)	Under LOQ n(%)	In range n(%)	Intra CV%	Inter CV%
IL-1RA	0	0	215 (100)	1.9-5.2	19.5
IL-18	0	0	215 (100)	0.8-6.5	6.4
TNF	1 (0.5)	2 (1)	212 (98.5)	1.7-4.3	2.3
MCP-1	0	1 (0.5)	214 (99.5)	2.5-6.1	3.3
OPN	2 (1)	0	213 (99)	1.0-3.6	4.1
RANTES	1 (0.5)	0	214 (99.5)	1.0-6.0	3.2
vWF-A2	0	0	215 (100)	1.3-4.4	3.5
NGAL	1 (0.5)	0	214 (99.5)	1.2-5.6	5.6
Uromodulin	0	1 (0.5)	214 (99.5)	0.8-4.6	3.7
Numbers of individuals with results under LOD or LOQ (%), and individuals with biomarker analysis within the specified analytical range(%). Limit of detection (LOD), limit of quantitation (LOQ), intra assay plate coefficients of variability (intra CV%), inter assay plate coefficients of variability (inter CV%), interleukin 1 receptor antagonist (IL-1RA), interleukin-18 (IL-18), tumour necrosis factor (TNF), monocyte chemoattractant protein-1 (MCP-1),osteopontin (OPN), regulated upon activation normal T-cell expressed and secreted (RANTES), von Willebrand factor A2 (vWF-A2), neutrophil gelatinase-associated lipocalin (NGAL), uromodulin (Tamm-Horsfall protein).					

Supplementary table 4. The monotonic tendency in biomarker medians in relation to hypertension groups (176)					
Biomarkers	Controlled hypertension (Median (IQR) (n=55)	Uncontrolled hypertension without kidney HMOD (Median (IQR) (n=59)	Uncontrolled hypertension with kidney HMOD (Median (IQR) (n=62)	T_b	P value
IL-1 RA (ng/ml)	0.39 (0.29-0.56)	0.37 (0.26-0.57)	0.51 (0.36-0.74)	0.15	0.009
IL-18 (ng/ml)	0.12 (0.09-0.15)	0.11 (0.08-0.14)	0.15 (0.11-0.19)	0.16	0.008
TNF (pg/ml)	4.18 (3.60-4.79)	4.30 (3.23-5.50)	5.86 (4.71-7.84)	0.32	<0.001
MCP-1 (ng/ml)	0.11 (0.09-0.13)	0.12 (0.10-0.16)	0.13 (0.11-0.17)	0.19	0.001
OPN (ng/ml)	33.6 (22.4-38.2)	38.0 (27.6-50.7)	41.5 (31.4-54.7)	0.21	<0.001
RANTES (ng/ml)	9.31 (5.42-19.56)	8.80 (4.17-21.45)	7.08 (3.43-17.57)	-0.07	0.22
vWF-A2 (ng/ml)	0.78 (0.55-0.99)	0.68 (0.47-0.97)	0.95 (0.71-1.29)	0.15	0.009
NGAL (ng/ml)	101 (90-136)	106 (87-128)	138 (109-195)	0.26	<0.001
Uromodulin (ng/ml)	400 (272-538)	467 (342-529)	248 (178-396)	-0.23	<0.001
Kendall´s rank correlation (Kendall´s tau) for a monotonic tendency in biomarker medians across study groups. Nonparametric correlation coefficient (T_b). Hypertension-mediated organ damage (HMOD), interleukin 1 receptor antagonist (IL-1RA), interleukin-18 (IL-18), tumour necrosis factor (TNF), monocyte chemoattractant protein-1 (MCP-1), regulated upon activation normal T-cell expressed and secreted (RANTES), osteopontin (OPN), von Willebrand factor A2 (vWF-A2), neutrophil gelatinase-associated lipocalin (NGAL), uromodulin (Tamm- Horsfall protein).					

Supplementary table 5. Antihypertensive drugs in the hypertension groups.	Controlled hypertension n(%) (n=55)		Uncontrolled hypertension without kidney HMOD n(%) (n=59)		Uncontrolled hypertension with kidney HMOD n(%) (n=62)	
ACEi/ARB, self-reported, n(%)	55	(100)	56	(95)	60	(97)
Calcium channel blockers, self-reported, n(%)	43	(78)	36	(61)[a]	55	(89)
Diuretics (thiazides and loop), self-reported, n(%)	31	(56)	37	(63)	35	(57)
Aldosterone antagonist, self-reported, n(%)	2	(4)	3	(5)	6	(10)
Beta blockers (selective or non-selective), self-reported, n(%)	15	(27)	23	(39)	35	(57)[a]
Selective alpha adreneoreceptor antagonist, self-reported, n(%)	2	(4)	1	(2)	7	(11)
Alpha- and beta blockers, self-reported, n(%)	0	(0)	3	(5)	3	(5)
Centrally acting sympathomimetics, self-reported, n(%)	2	(4)	2	(3)	8	(13)

Data are numbers (%).
[a] Significant differences between the group with controlled hypertension compared to uncontrolled hypertension with and without presence of kidney HMOD.
[b] Significant differences between the group with uncontrolled hypertension without kidney damage compared to uncontrolled hypertension with presence of kidney HMOD.
Hypertension-mediated organ damage (HMOD), angiotensin-converting enzyme inhibitors (ACEi), angiotensin II receptor blocker (ARB).