

Supplementary Table 1

| Sample label | Group | Kidneys collected | Age (years) | Gender | Cause of death | eGFR at donation | Diabetes (Yes or No) | Hypertension (Yes or No) | BMI (Kg/m ²) | Reason(s) kidney was declined for transplantation |
|---------------|---------|-------------------|-------------|--------|--------------------------|------------------|----------------------|--------------------------|--------------------------|---|
| EA1 | Control | 1 | 48 | M | Intracranial haemorrhage | 88 | No | No | 28.38 | Damage to the renal vein |
| EA2R & EA2L | AKI | 2 | 42 | F | Intracranial haemorrhage | 40 | No | No | 23.03 | Petechiae on both kidneys |
| EA3R & EA3L | AKI | 2 | 74 | M | Myocardial infarction | 69 | No | Yes | 24.97 | Multiple cysts on both kidneys |
| EA4R & EA4L | Control | 2 | 67 | F | Intracranial haemorrhage | 90 | No | No | 20.57 | Multiple cysts on both kidneys |
| EA5R | AKI | 1 | 50 | F | Intracranial haemorrhage | 48 | No | Yes | 31.11 | Petechiae |
| EA6R | Control | 1 | 70 | M | Intracranial haemorrhage | 90 | No | Yes | 26.73 | Poor perfusion |
| EA7L | AKI | 1 | 64 | M | Hypoxic brain damage | 45 | No | Yes | 29.39 | 1 cm cyst on kidney |
| EA8L | Control | 1 | 72 | M | Intracranial haemorrhage | 80 | No | Yes | 25.06 | Damage to renal vein |
| EA11R & EA11L | Control | 2 | 73 | M | Hypoxic brain damage | 81 | No | No | 23.46 | Multiple small cysts on both kidneys |
| EA12R & EA12L | AKI | 2 | 67 | F | Intracranial haemorrhage | 67 | No | No | 23.59 | Small kidney size |
| EA13R | AKI | 1 | 50 | M | Hypoxic brain damage | 25 | No | No | 27.36 | Ischaemic bowel |
| EA14 | Control | 1 | 51 | M | Intracranial haemorrhage | 90 | No | No | 24.69 | Poor perfusion |
| EA15 | AKI | 1 | 63 | M | Intracranial haemorrhage | 46 | No | Yes | 28.88 | Atheroma of aortic patch and capsular tear |
| EA16R & EA16L | AKI | 2 | 81 | F | Intracranial haemorrhage | 54 | No | Yes | 31.53 | Single small cyst in both kidneys |
| EA18R & EA18L | Control | 2 | 71 | F | Intracranial haemorrhage | 88 | No | Yes | 24.3 | Two small cysts in left kidney and damage to right ureter |