

**S1 Table. Patient characteristics of patients with indoxyl sulfate levels exceeding the 95% upper prediction limit compared to the rest of the cohort (consolidated cohort)**

| Variable                                          | Total cohort | N=  | Consolidated Cohort | N=  | Subgroup IS > 95% UPL | N= | P-value     |
|---------------------------------------------------|--------------|-----|---------------------|-----|-----------------------|----|-------------|
| Age (years)                                       | 12.1 ± 3.3   | 604 | 12.2 ± 3.3          | 559 | 11.2 ± 3.3            | 45 | <b>0.05</b> |
| Male sex                                          | 399 (66%)    | 604 | 367 (66%)           | 559 | 32 (71%)              | 45 | 0.46        |
| Diagnosis                                         |              | 604 |                     | 559 |                       | 45 | 0.53        |
| CAKUT                                             | 420 (70%)    |     | 390 (70%)           |     | 30 (67%)              |    |             |
| Glomerulopathy                                    | 49 (8%)      |     | 46 (8%)             |     | 3 (7%)                |    |             |
| Post-AKI                                          | 27 (5%)      |     | 23 (4%)             |     | 4 (9%)                |    |             |
| Tubulointerstitial                                | 82 (14%)     |     | 77 (14%)            |     | 5 (11%)               |    |             |
| Others                                            | 26 (4%)      |     | 23 (4%)             |     | 3 (7%)                |    |             |
| Country                                           |              | 604 |                     | 559 |                       | 45 | 0.07        |
| GER, CH, AT                                       | 118 (20%)    |     | 112 (20%)           |     | 6 (13%)               |    |             |
| FR, IT, PT                                        | 97 (16%)     |     | 88 (16%)            |     | 9 (20%)               |    |             |
| PL, LT, CZ, SRB                                   | 53 (9%)      |     | 52 (9%)             |     | 1 (2%)                |    |             |
| UK                                                | 35 (6%)      |     | 35 (6%)             |     | 0 (0%)                |    |             |
| Turkey                                            | 301 (50%)    |     | 272 (49%)           |     | 29 (64%)              |    |             |
| BMI SDS                                           | 0.08 ± 1.30  | 604 | 0.08 ± 1.30         | 559 | 0.05 ± 1.29           | 45 | 0.87        |
| Systolic blood pressure SDS                       | 0.81 ± 1.37  | 604 | 0.82 ± 1.37         | 559 | 0.66 ± 1.45           | 45 | 0.46        |
| eGFR (ml/min)                                     | 26.6 ± 11.2  | 604 | 26.6 ± 11.2         | 559 | 26.6 ± 10.9           | 45 | 0.97        |
| uPCR (mg/mg)                                      | 1.3 (2.6)    | 579 | 1.4 (2.7)           | 537 | 1.0 (1.4)             | 44 | 0.22        |
| Serum Albumin (g/l)                               | 39.0 ± 6.30  | 604 | 38.9 ± 6.36         | 559 | 38.6 ± 5.67           | 45 | 0.70        |
| Serum phosphorus (mmol/l)                         | 1.55 ± 0.38  | 604 | 1.55 ± 0.37         | 559 | 1.65 ± 0.44           | 45 | 0.07        |
| Hemoglobin (g/l)                                  | 11.6 ± 1.65  | 594 | 11.7 ± 1.64         | 550 | 11.1 ± 1.70           | 44 | <b>0.03</b> |
| Non-Ca phosphate binders (y)                      | 25 (4%)      | 604 | 24 (4%)             | 559 | 1 (2%)                | 45 | 0.50        |
| Ca phosphate binders (y)                          | 271 (45%)    | 604 | 252 (45%)           | 559 | 19 (42%)              | 45 | 0.71        |
| Iron supplementation (y)                          | 267 (44%)    | 604 | 246 (44%)           | 559 | 21 (47%)              | 45 | 0.73        |
| Antibiotic treatment at baseline (y)              | 128 (21%)    | 604 | 120 (22%)           | 559 | 8 (18%)               | 45 | 0.56        |
| Antibiotic treatment <6 weeks before baseline (y) | 130 (21%)    | 604 | 121 (21%)           | 559 | 9 (20%)               | 45 | 0.80        |

Data shown as mean ± standard deviation, median (interquartile range) or n (%) as appropriate. P-value indicates group difference between consolidated cohort and those patients with IS levels exceeding the 95% UPL.

IS= indoxyl sulfate; UPL= upper prediction limit; CAKUT= congenital anomalies of the kidney and urinary tract; Post-AKI= chronic kidney disease after acute kidney injury; BMI= body mass index; eGFR= estimated glomerular filtration rate; uPCR= Urinary protein creatinine ratio; SDS= standard deviation score; Non-Ca phosphate binders= non calcium containing phosphate binders; Ca phosphate binders= calcium containing phosphate binders. Countries: GER= Germany; CH= Switzerland; AT= Austria; FR= France; IT= Italy; PT= Portugal; PL= Poland; LT= Lithuania; CZ= Czech Republic; SRB= Serbia; UK= United Kingdom.